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It amazes me that the year is coming to a close ... each year seems to go faster and faster. I guess that is the sign of having much to do, and Friends of the Fox is definitely in that category!

I am proud of the work we have done over the past year. While pushing our three key projects forward – the Heritage Parkway, the Appleton Portages, and the Rapide Croche Transfer Station – we were also able to support a few other community projects and to work on important organizational aspects. We reviewed mission, vision, and by-laws and produced an action plan to work from. We added new committee members and two wonderful new board members. This has strengthened our organization and put us in a good position to move forward.

In order for us to do that most effectively, we need your help. Our Heritage Parkway project needs many more volunteers. We need two more dedicated board members, and we must expand our environmental ad-

vocacy of the river. Invasive species are very important to fight and we are tackling that issue at Rapide Croche, but we need to take the fight to other boat launches as well and we need to work on water quality issues in general – starting with phosphorous and its impact on algae blooms.

So, I am putting out a request and a plea Where does your passion lie? What area of our mission most moves you? I ask and challenge you to gift us with just **3 hours of time in 2009** ... help us make the big difference this year ... help us to be an even better advocate for your Fox River.

If you would like to volunteer to serve in this capacity please contact us at 920-707-2065 or email us at kevcan@ameritech.net.

Thank you!
Candice Mortara
President, Friends of the Fox

Special Points of Interest

A BIG THANK YOU to everyone who attended the Listening Session. We received valuable information while creating several new partnerships.

- Annual meeting—Wine and Cheese tasting held April 17th. Please Mark your Calendars and plan on attending!.....Page 6
- Welcome to New Board Member..... Page 5
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3 Hours of Time In 2009

Environmental Advocacy

PHOSPHORUS AND ALGAE AND ITS EFFECTS ON OUR WATERWAYS

Many of our Wisconsin lakes and rivers have the problem of excessive algae growth and too many rooted plants. We can't turn this problem around quickly, but there are several things you and I can do to lessen the problem, and we can definitely work to keep it from getting worse.

The excessive plant growth in our lakes and rivers can be attributed to sediment and phosphorus. Both act as a fertilizer, which is needed to some extent on our lawns and on our farms, but a big problem when deposited into our rivers and lakes. In a study done by the State of Wisconsin DNR it was noted that phosphorus promotes excessive aquatic plant growth. It was found that in more than 80% of Wisconsin's lakes, phosphorus is the key nutrient affecting the amount of algae and weed growth.

Phosphorus is naturally found in low levels in lakes. Even when nitrogen and other plant nutrients are available in large amounts, it is the naturally low levels of phosphorus that puts a brake on plant growth. When phosphorus is added to water the brake is essentially taken off.

Phosphorus has a special affinity for soil and will grab hold and hitchhike with it, traveling into the water system by way of sediment runoff. Eurasian milfoil is one plant that seems to thrive in phosphorus-rich sediments. It is considered invasive due to its prolific spreading and it not having a native predator in the area. When there are large numbers of this plant and it moves through its natural life cycle and dies, bacteria feed on them which uses a lot of oxygen in the water resulting in potential fish kills.

Dissolved phosphorus is responsible for algae blooms as well. There are many types of algae. **True algae (e.g., green algae)** are very important to the food chain. They are known as "primary producers", a name given to living organisms that can convert sunlight and



inorganic chemicals into usable energy for other living organisms.

Blue-green algae, on the other hand, are generally not eaten by other aquatic organisms and can release toxins. These toxins are not produced all of the time. There is no easy way to tell when blue-green algae are producing toxins and when they are not. When they are producing toxins, they can cause ill health effects when touched, inhaled, or consumed. It is best to stay out of the water during a bloom. **Blue-green algae is considered invasive and undesirable.**

The correlation is quite impressive between phosphorus and algae growth. One pound of phosphorus added to a lake can result in 500 pounds of algae growth.

To take control of our water quality we need to take a watershed approach and look for all the sources of sediment and phosphorus from all the activities on the land looking for ways to control them. We need to know the sources of phosphorus in our water. **Major sources include human and animal wastes, soil erosion, detergents, septic systems and runoff from farmland, lawns and stream banks.**

There is a lot to be done to help curtail this problem. Our first focus is the most personal and involves steps everyone can take.

Following is a list of ways each individual can help control the amount of phosphorus going into our waterways.

- **Leave lawn clippings on lawn every time you mow** for a natural fertilizer to lessen the need for a fertilizer application.
- **Test soil annually** to determine if there is a need for fertilizer. (Taking a soil test of your yard is quite easy. All county Extension offices have the bags and will be able to give you instructions for typically \$14/sample.)
- **Add grass seed to fill out sparse** areas because a thick healthy lawn has less runoff than a sparse lawn.
- **Look for phosphorous free fertilizer** at your store or ask your lawn care company.
- **Prevent yard debris (e.g., leaves, grass clippings, etc.) from washing into storm drains.**
- **Maintain native vegetation along shorelines as buffer areas.**
- **Fix leaking septic systems.**
- **Use only phosphorus-free detergents in dishwashing and washing machines.**

Friends of the Fox Reference Guide

Clip this, put in a handy place and please consider taking these steps to help minimize algae bloom and excessive plant growth.

Much of the information printed in this article was found at the following websites. To find out more about the overall effects of phosphorus in our

Wisconsin water bodies please go to:
www.rockrivercoalition.org/publications/phosphorus_script.pdf
www.dnr.state.wi.us/org/water/fhp/lakes/under/phosphor.htm

LITTLE CHUTE WINDMILL, INC. DECIDES TO BUILD DOWNTOWN, ORDER WINDMILL

Little Chute Windmill, Inc., a non-profit organization dedicated to celebrating Dutch heritage by building an authentic Dutch windmill and visitor center, has decided to build the Windmill Project at their original location in downtown Little Chute. At a special meeting, the Little Chute Windmill, Inc. board of directors discussed concerns over delays in the Windmill Project and increased costs associated with building on Island Park on the Fox River.



Authentic Dutch Windmill

voted in the meeting that due to the possible delay of securing funding for the Mill Street lift bridge and increased costs associated with building on Island Park, the historic windmill would be built on their downtown property in Little Chute. While fundraising is not yet

complete, the board of directors felt comfortable with its progress and decided to order the windmill from their builder in the Netherlands as soon as possible. Construction will begin in the spring. A timetable for construction will be set forth in the coming weeks, as well as a date when the windmill will be officially ordered. *Little Chute Windmill, Inc. is a non-profit organization dedicated to raising \$2.5 million to build an authentic 100-foot tall Dutch windmill in Little Chute to celebrate the Dutch heritage of northeast Wisconsin. To date, approximately \$2.1 million towards the goal has been raised.*

The board of directors unanimously

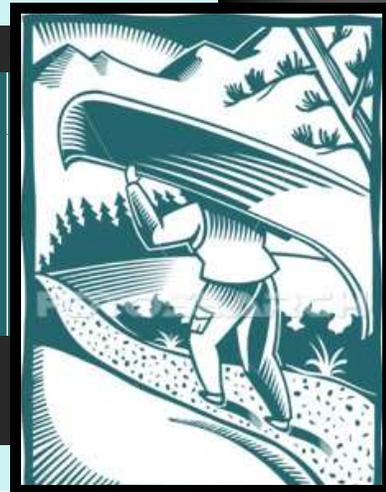
FOX LOCKS CANOE AND KAYAK PORTAGES

Over the last two years the prospects of a portage system for canoes and kayaks through the locks has evolved from concept to design and soon implementation. We received financial help from Neenah Paper and RiverHeath to allow us to commence with the first project of the Fox-Wisconsin Heritage Parkway.

The latest update to our project is that we have received technical aid for surveying from Short Elliott + Hendrickson and final approval by the Fox River Navigational System Authority.

Friends of the Fox is now seeking help to construct the portages at each of the Appleton lock locations. Friends of the Fox will extend the portages throughout the system as additional locks are restored. If you think you can be of help with this project please contact us.

A special thank you to Short Elliott + Hendrickson, the Fox River Navigational System Authority, RiverHeath and Neenah Paper for their generous donations.



APPLETONS RIVERHEATH PROJECT BREAKS GROUND

RiverHeath broke ground in October after the Department of Natural Resources and the Army Corps of Engineers granted several key approvals. Demolition on the existing structures started in late October and should be com-

plete by the end of the year.

Within a few weeks, the RiverCam will go live, giving visitors to www.RiverHeath.com streaming video from the project site. Visitors will be able to watch live pictures of both the RiverHeath

construction and the bridge redevelopment.

For more information about the project, visit www.RiverHeath.com or the sales office at Trolley Square.

Community Projects Continued

TWO NEW DE PERE HERITAGE PARKWAY PROJECTS

There are two new Heritage Parkway project ideas on the drawing board in De Pere.

The De Pere Historic Preservation Commission and the De Pere Parks Department have ideas that will help create the northern gateway to the Heritage Parkway. These cornerstone projects not only tell the history of Wisconsin as a Maritime State but also create new recreational opportunities for residents and visitors alike.

The De Pere lock tender house has been un-occupied since the 1980's when the Army Corps of Engineers transferred operation of the De Pere lock to the Wisconsin Management Commission. Since that time, the entire locks system and properties have been turned over to the State of Wisconsin and the Fox River Navigational System Authority. The Authority began a project of restoring the

locks in 2004.

The Lockkeeper's House, a contributing structure of the De Pere Lock and Dam Historic District was listed on the Wisconsin and National Registers of Historic Places (Reference Number 93001331; certified 12/07/1993). The two story colonial revival house, built in 1912 at a cost of \$3,052.00, helps tell the story of Wisconsin as a Maritime state."

With the support of the Fox River Navigational System Authority, the De Pere Historic Preservation Commission is seeking a Preserve America Grant. The purpose of this \$30,000 matching grant is to have a consultant determine the condition and rehabilitation cost for the house and through a feasibility study to determine the best future use for the structure.

The other proposed project will re-

use the piers of the old Claude Allouez Bridge as supports for a fishing pier to extend 600 feet from the east side of the Fox River and an island walkway. The walkway past the De Pere Lock Tender House and fishing pier will be connected via a scissors bridge over the lock canal to the Voyageur Park Path.

According to an article in the Green Bay Press Gazette, De Pere Council members voted to support "a once-in-a-lifetime opportunity" for the city to preserve history, promote wildlife education and bring in tourism dollars. This estimated \$1.5 million dollar project will not be paid out of tax dollars and "several private donors already have pledged about \$635,000," according to Mayor Mike Walsh. The project will be completed in three to five years.

Navigation

2008 Fox Locks General Navigation Season Operations

Opened All Week Long May 10th-Oct. 5th	City	Lockages	Crafts	Passengers	
	Menasha	1220	1580	6677	
	Little Kaukauna	732	1291	4501	
	De Pere	1348	2202	9048	Higher Usage due to a Tour boat periodically using the Locks.
Total usage down 15% from previous years. This drop may be due to a number of factors including cooler weekends in the early season, high water in June and July, dredging activity, bridge construction and gas prices.					
Opened Fridays-Sundays May 23rd-June 15th	City	Recreational Crafts	Barges		
	Appleton (4 Locks)	14 (Total through both)	6 (Total through both)		Locks shut down early due to High water and dangerous conditions.
	Cedar Locks (4 Locks)	14 (Total through both)	6 (Total through both)		Locks shut down early due to High water and dangerous conditions.
While scheduled to operate through July 6th, the locks were shut down early due to high water and dangerous conditions near the Appleton dams. The Authority also operated the Appleton Olde Oneida and Lawe Street bridges in cooperation with the City.					

THE EARLY HISTORY OF DAMS, CANALS AND LOCKS

The building of dams to store water for drinking and irrigation dates as far back in our history as 510 B.C. and are currently used today. The locks design evolved from these dams creating improved passage along our rivers.

Sluice Gate--Moving heavy loads by floating and pulling them through enlarged irrigation ditches led to gates large enough to allow boat passage. These were built by Egyptians and Persians as early as 510 B.C.

Flash Gate--Single door systems are limited to small changes in water level. When a boat approaches from upstream, the gate is opened and the increased current carries the boat thru in a flash. The gate is then closed to maintain water depth in upper canal.

2 Paired Gates or Pound Lock System--This system was used by the Chinese in the 10th century A.D. By never opening both gates of a pair at the same time upstream passage on steeper grades became possible.

Mitered Gate--The San Marco lock in Milan first used this improvement and was built in 1500. Leonardo da Vinci was employed by the Duke of Milan during this period and is credited with playing a part in the design. With this system each lock has two hinged doors with mitered ends meeting in the middle forming a V pointed up stream. The doors separate different water levels while water pressure holds the two doors tight into each other improving the seal. Smaller valve openings let water in and out to equalize the water level on the other side of door. Large doors are not moveable unless water level is equal on both sides.

Boats pass thru the first set of doors that are closed behind them. They are then raised or lowered in the lock as the water is equalized before the second set of doors can be opened to let them out at the next height in the canal system.

This mitered gate design is used throughout the Fox River system.

Friends of the Fox Leadership

A WARM WELCOME TO OUR NEWEST BOARD MEMBER

It is our pleasure to announce the addition of Pete Hensler to the Friends of the Fox Board of Directors. Pete brings with him a background in banking, local politics and community service. Some of Pete's interests include rowing, golf, biking, community involvement and travel. Pete is currently involved with the Heritage Parkway plan.

We welcome Pete and are looking forward to working with him!

Remembering a Friend

Because of serious health concerns one of our long term board members Niles Sweet has not been able to join us at meetings and events for some time now. We miss his enthusiasm, sense of humor and warm smiles and wish him well in his absence.

Niles has been a steadfast supporter and board member of the Friends of the Fox and the Fox Wisconsin Heritage Parkway for many years. Through years where the cards seemed stacked against the Fox River Waterway he staffed welcome tables at public meetings, attended countless board meetings and talked about the Heritage Parkway to anyone who would listen. He proved to be not only a friend to the river but a close friend to many of us.

Niles is built of the stuff the Friends of the Fox is now known for—commitment, perseverance, and always ready to get involved.

Thank you Niles for everything!

2008 FRIENDS OF THE FOX BOARD OF DIRECTORS

	Candice Mortara <i>President</i>	Appleton	
William Bush <i>Vice President</i>	Neenah	Dave Peck <i>Secretary</i>	Appleton
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Steve Lockhart <i>Treasurer</i>	Menasha	Ellen Balthazor <i>Executive Board Member</i>	Fond du Lac
	Peter Hensler	Appleton	
	Edward J. Kleckner	Menasha	
	Jackson Medley	Oshkosh	
	Jack Nelson	Oshkosh	
	Dan Reinhold	Oshkosh	
	Sue Schramper	Door County	
	Robert Stark	Appleton	
	Nile Sweet	Oshkosh	
	Karin Whealon	Fond du Lac	

2008 HONARARY ADVISORS

John Forster	Rotonda West
Richard Abb	Appleton

Newsletter Editor and Design
Shari Manney

Our Mission and Purpose

The Friends of the Fox is a not-for-profit advocacy group established to preserve and develop the environmental, cultural, historical, economic and quality-of-life assets offered by the Fox River.



Friends of the Fox Asks You To Save This Date

April 17th, 2009

Annual Meeting

Wine and Cheese Tasting Event

**We Need Your Votes for Board
Members!!**

**Please Mark Your Calendars for this
Special Evening!!**