

RiverCurrents

The Voice of the St. Joseph River Watershed

May 2010

A Quarterly Publication of the
Friends of the St. Joe River Association, Inc.

About us

The Friends of the St. Joe River Association, Inc. (FotSJR) was established in April of 1994, and operates as a 501(c)(3) not-for-profit organization.

Mission

To unite a diverse group of stakeholders throughout the watershed in a collaborative effort to protect, restore and foster stewardship of the St. Joseph River Watershed.

Become a Friend

Join a group of stewards restoring and protecting this natural resource. We offer a variety of tax-deductible membership levels for both Personal and Business contributors.

Meetings

Monthly meetings of the Board of Directors and Watershed Council are usually held on the fourth Thursday of the month at the Three Rivers (Michigan) Public Library at 1:00 p.m. EDT. These meetings are open to the public. For more information and to verify dates and times, visit www.fotsjr.org.

Restoring Our River: A Hydro-Logical Approach

The Connection between Thriving Wetlands and Healthy River Systems

Wetlands are important elements of a watershed because they serve as a link between land and water resources. Wetlands function as natural sponges that hold and slowly release surface water, rain, snowmelt, groundwater and flood waters. Trees, shrubs, root mats and other ground-level wetland vegetation slow the speed of waters, distributing them more slowly over the watershed. This combined water storage and braking action lowers flood heights and reduces erosion and sedimentation.

Wetlands within and downstream of urban and agricultural areas are particularly valuable. Wetlands in and near these areas counteract the higher rate and volume of surface-water runoff from pavement, buildings, and fields by capturing water, soil and nutrients. The holding capacity of wetlands helps control floods and prevents water logging of crops. Preserving and restoring wetlands, together with other water retention efforts, can often provide the level of flood control otherwise provided by expensive dredging operations and levees.

Understanding the Hydrological Connection

Wetlands are like the kidneys of the watershed, and the very health of the St. Joseph River Basin depends upon these unique ecosystems. Hydrology —the movement, distribution and quality of water— plays a vital role in the structure and health of a wetland's ecosystem. Vegetation and species composition are significantly affected when natural or man-made hydrologic alterations occur. Examples of wetland alterations could include drainage, filling, dam construction, water diversion, groundwater pumping and dredging. Even small changes in hydrology (such as changing the amount of surface water entering and leaving a wetland or changing the groundwater table a few inches either up or down) can have dramatic impacts on the way a wetland functions, including how much flood protection a wetland provides and how much sediment and pollutants it can remove. (Source: MDNRE)

Maintaining Hydrology

Maintaining natural hydrology within the watershed is the key to preserving wetlands' ecosystem functions/benefits of floodwater mitigation, water purification and providing habitat. The Friends of the St. Joe River (FotSJR) understand that acre for acre, wetlands have more water quality benefits and produce more wildlife and plants than any other habitat type. For ducks, geese and other migratory birds, wetlands are the most important part of the migratory cycle, providing food, resting places and seasonal habitats. Wetlands also play an essential role in sustaining a productive fishery, and many fish species in the St. Joseph River Watershed depend on them for successful reproduction.

There are a variety of opportunities available to help protect and improve wetland resources, including education, advocacy, easements, stewardship, restoration and research. The FotSJR, recognize the need to address the loss of wetlands within the St. Joseph River Watershed with a targeted restoration strategy. The FotSJR have begun a donation campaign to support the "Southeastern Lake Michigan Wetland Protection/Restoration Partnership". This is a collaborative effort to prioritize wetland areas in the St. Joseph River Watershed, and will direct limited resources to areas with the most potential impact for restoring hydrology and gaining back lost wetlands.

For more information on how to help restore the St. Joseph River Basin hydrology, visit <http://www.fotsjr.org/JoinUs!>

New Web Site!

The Friends of the St. Joe River has a new web site! The new site provides a wealth of information on the FotSJR organization and the St. Joseph River Watershed. You can also sign-up and renew memberships, make a donation or register online for a special event!

Visit www.fotsjr.org for more information

The Clean Water Act: A Look at Section 404 & Wetlands

The Federal Water Pollution Control Act Amendments of 1972 (33 USC 401 et seq.) is the enabling legislation for protection of waters of the United States by the U.S. Army Corps of Engineers (USACE) and the U.S. Environmental Protection Agency (USEPA). Section 404 of the Clean Water Act (CWA) established a permit program regarding discharges of dredged and fill material into waters of the United States.

Background & Purpose

The Clean Water Act defines waters of the United States to include tributaries to navigable waters, interstate wetlands, wetlands which could affect interstate or foreign commerce, and wetlands adjacent to other waters of the United States. Since being authorized in 1984, Michigan administers CWA Section 404 in most parts of the state. Indiana provides a certification so a federal permit can then be issued by USACE.

Wetlands on Agricultural Lands

Farmers who own or manage wetlands are directly affected by two important Federal programs — Section 404 of the CWA and the Swampbuster provision of the Food Security Act. The Swampbuster provision withholds certain Federal farm program benefits from farmers who convert or modify wetlands. The USEPA, USACE, U.S. Department of Agriculture (USDA), and U.S. Fish and Wildlife Service (USFWS) have established procedures to ensure consistency among the programs.

Identifying Wetlands

The USEPA and USACE use the 1987 *Corps of Engineers Wetlands Delineation Manual* to identify wetlands for the CWA Section 404 permit program. The 1987 manual organizes the environmental characteristics of a potential wetland into three categories: soils, vegetation and hydrology. The manual contains criteria for each category. Using this approach, an area that meets all three criteria is considered a wetland.

For more information on the Clean Water Act Section 404, visit www.epa.gov/wetlands/regs/sec404.



Photo Courtesy Southwest Michigan Land Conservancy

The Friends of the St. Joe River (FotSJR) has been awarded a \$115,000 Wetland Program Development Grant through the U.S. Environmental Protection Agency (USEPA). The goals of the EPA's Wetland Program include increasing the quantity and quality of wetlands in the United States by conserving and restoring wetland acreage. The program will also help state, tribal and local governments develop and implement effective, comprehensive programs for wetland protection and management. The long-term goal is to increase both voluntary and regulatory wetland protection.

The St. Joseph River Watershed (SJRW) – the third largest sub-watershed contributing to Lake Michigan – has lost 53 percent of its pre-settlement wetlands. This has resulted in degraded water quality, increased flooding and fragmented habitats. The Wetland Program Development Grant will help improve water quality and wildlife habitat by developing tools to target wetland protection and restoration efforts in the SJRW.

Project Scope

The project, supported by an additional \$40,200 in local matching funds, will foster the development and coordination of a bi-state wetland partnership between Michigan and Indiana state agencies and local tribes. The Michigan Department of Natural Resources & Environment (formerly MDEQ), Indiana Department of Environmental Management, the Pokagon Band of Potawatomi and the Nottawaseppi Huron Band of the Potawatomi are committed to participating in this bi-state wetland partnership. These groups will share ideas, data and approaches to support and build state, tribal and local wetland programs.

A Landscape Level Wetland Functional Assessment (LLWFA) will be completed for the entire St. Joseph River Watershed. The LLWFA encompasses an in-depth analysis of wetland trends and is intended to assist watershed planning groups with prioritizing wetland preservation and/or restoration activities. This analysis is much more than a basic report on wetland loss, but considers loss of wetland functions as well.

FotSJR Awarded U.S. EPA Wetland Program Development Grant

The LLWFA will evaluate every existing and historical wetland in Michigan and Indiana for several water quality and habitat related functions.

Sub-watershed groups can use the LLWFA to target wetland protection and restoration activities in watershed management plans. The information can also be used by land conservancies, conservation districts and tribes. Further, the LLWFA can be used to educate decision-makers and landowners about wetland functions, their value within a natural ecosystem, and their importance to the local economy and quality of life.

Additionally, this project will help establish a comprehensive process to identify, evaluate and prioritize wetland efforts. This information will be combined with other criteria to prioritize areas for protection and restoration so partners can use their resources more efficiently.

For more information on the U.S. EPA Wetland Program Development Grant visit <http://www.epa.gov/wetlands/grantguidelines/>

A Wetland Never Forgets It's a Wetland

When the European settlement began in the early 1600's, the United States had approximately 221 million acres of wetlands. There were 5.6 million acres of wetlands in Indiana and 11 million acres in Michigan. Unfortunately, little was understood about the important functions wetlands play in sustaining streams, rivers and lakes, and the lives they support.

Wetlands were regarded as swampy lands that bred diseases, restricted overland travel, impeded the production of food and generally were not useful for frontier survival. Settlers, commercial interests and governments agreed that wetlands presented obstacles to development, and that wetlands should be eliminated and the land reclaimed for other purposes. (Source: USGS)

As the population grew, land clearing and farming for profit began to affect larger tracts of land and many wetlands were converted to farmland. Today, there are fewer than 813,000 acres of wetlands remaining in

Indiana, a loss of over 85 percent. In Michigan, nearly 54 percent of the 11 million acres of pre-settlement wetlands are gone. (Source: USFWS)

A Wetland Never Forgets

Interestingly though, despite these staggering losses, a wetland never forgets that it was, in fact, at one time a wetland. Wetlands that have been filled and drained retain their characteristic soil and seedbank, allowing their natural functions to be reclaimed when their hydrology is restored. Wetland functions are better understood today and wetlands are making a comeback through restoration, enhancement and protection techniques.

For instance, many agricultural lands that boast an abundance of crops may have hydric soils typical of a wetland. Wetland plants are often found growing among weeds or crops in these areas. The key to wetland restoration is reestablishing the area's original hydrology and topography, and restoring natural processes including the original native plant cover.

Other wetlands are enhanced through management activities that affect wildlife habitat and vegetation. These activities compensate for natural processes that no longer exist. Examples include prescribed burns, invasive species control, planting upland buffer zones and providing nesting boxes for wildlife.

Wetlands can also be protected through a conservation easement. Conservation easements placed on wetlands ensure that development, drainage or filling of the wetland will never take place.

Regardless of the reclamation techniques used, working to restore and protect wetlands usually involves a complex relationship between regulatory and technical issues that often vary from state to state. Contact the Natural Resources Conservation Service, the Indiana Department of Environmental Management (IDEM) or the Michigan Department of Natural Resources and Environment when considering a wetland reclamation project.

3rd Annual SJR Watershed Council Meeting Puts Wetlands in the Spotlight

Often misconstrued as open breeding grounds for disease-carrying mosquitoes, historically wetlands have earned a less-than-appealing reputation. However, through better educational and outreach programs, there is growing public interest in improving and protecting our unique wetland heritage. On March 15, 2010 the Friends of the St. Joe River (FotSJR) bolstered their wetland educational and outreach efforts during their 3rd Annual St. Joseph River (SJR) Watershed Council Meeting. The theme of the meeting was "Restoring our River: A Hydro-Logical Approach" and focused on the important connection between thriving wetlands and healthy river systems.

Over 60 attendees heard guest speaker Rob Zbiciak, from the Michigan Department of Natural Resources and Environment, speak about the wetland issues in both Indiana and Michigan, in particular the critical loss of wetlands in both states.

The FotSJR and the SJR Watershed Council recognize the need to address the loss of wetlands within the St. Joseph River Watershed. The watershed faces a number of challenges including excess sediment and nutrient runoff. Most water quality impairments could be improved with the restoration and protection of wetlands.

FotSJR Welcomes New Board Members & Officers

Prior to the 3rd Annual SJR Watershed Council Meeting, the FotSJR Board held their monthly board meeting. Of significant importance was the election of Jim Coury, Ron Niezgodski, Melanie Stoughton and Bruce Barton to the FotSJR Board roster. The terms for these elected board members will last until 2013. Weeks before the election, FotSJR board member, Geoff Cripe, conducted a survey comprised of several board candidates. This survey was used to assess and balance the diversity and skills of the board.

Additionally, the following Officers were elected to serve through 2012: Matt Meersman (President); Rudy Kappe (Vice President); Dona Hunter (Secretary); and Danielle Meersman (Treasurer). For more information on the FotSJR Board of Directors, visit <http://www.fotsjr.org/BoardOfDirectors>.

Creature Feature

Blanchard's Cricket Frog (*Acris crepitans blanchardi*)

The Blanchard's cricket frog is a small (1" length), warty-skinned member of the tree frog family found in open, muddy or marshy edges of permanent ponds, lakes, bogs, floodplain ponds, and slow-moving streams and rivers. They are usually brown or grayish with darker banding on their legs and often have a dark triangular mark between the eyes. Cricket frogs usually emerge from hibernation in late March to early April and breed from mid-May to mid-July. During the breeding season, males give a distinctive, metallic clicking call, similar to the sound made when two pebbles are tapped together.

Numbers of this species have declined drastically in recent years due to habitat loss from development and vegetational succession, pesticides or other chemical contaminants, and competition with other frog species.



Photo Courtesy Bill Peterman © 2007

Conservation Status: Special Concern (SC) in Michigan*

* MDNRE only noted this species as occurring in the southern lower peninsula



Photo Courtesy Lori G. Photography

FlowFacts

The way a river responds to rainfall and snowmelt is an important indicator of watershed health. A stream rising slowly after a storm generally has a healthier watershed than one rising quickly. The USGS continuously monitors streamflow (or discharge) in the St. Joseph River Basin at 12 separate gauging stations. Real-time streamflow data from each gauging station is available through the USGS web site below.

FlowFacts from the USGS gauging station at Three Rivers, Michigan. Period of Record June 1953 to present:

- Drainage Area: 1,350 square miles (29% of SJRW)
- 2009 Peak Flow: 6,470 cfs (March 12)
- Maximum Flow on Record: 8,260 cfs (April 27, 1950)

FlowFactoid

8,260 cfs would fill Notre Dame Stadium in about 41 minutes!

Visit <http://waterwatch.usgs.gov> to find a gauging station nearest you and watch the **flow** of the Joe!

Celebrate!

May 2010 is American Wetlands Month!

During the month of May, the Friends of the St. Joe River (FotSJR) and its partners will celebrate the 20th anniversary of American Wetlands Month. It is a great opportunity to learn about the important role wetlands play in the St. Joseph River Watershed and the significant benefits they provide — improved water quality, increased water storage and supply, reduced flooding and flashy flows, and critical habitat for plants, fish and wildlife.

The FotSJR encourages all our members to consider doing the following to help celebrate the month and the wetlands within the watershed:

- **Learn** about wetlands to better understand what a wetland is, where wetlands can be found and the importance of wetlands.
- **Explore** a wetland near you.
- **Protect and restore** wetlands by participating in a wetland monitoring, restoration or cleanup project.
- **Support** the FotSJR *Wetland Prioritization Project* through a tax-deductible donation. Visit www.fotsjr.org to contribute online.

Visit www.epa.gov/wetlands/awm for more information on American Wetlands Month.

Do you know of a potential wetland restoration project in the St. Joseph River Watershed? Let us know about it! Send your restoration story to fotsjr.outreach@gmail.com.



P.O. Box 1794
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www.fotsjr.org

Support the Friends

The Friends of the St. Joe River are working with individuals and partner organizations to implement important restoration and protection projects throughout the watershed.

Pledge your support for our efforts by making a tax-deductible donation. Your support and generosity will help us improve and protect the quality of the water and other natural resources we depend on. Visit www.fotsjr.org for more information.