

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 Niles, Michigan.**  
Period of Record October 1930 to present:

- Average Summer Flow: 2,741 cfs (June, July, August)
- 2009 Peak Flow: 17,500 cfs (Mar ch 11)
- Maximum Flow on Record: 20,200 cfs (April 5, 1950)

#### FlowFactoid

20,200 cfs would fill Notre Dame Stadium in about 17 minutes!

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

## Our Readers Ask

### Q. What is Nonpoint Source Pollution?

Nonpoint Source Pollution (NPS) is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters, and even our underground sources of drinking water. These pollutants include:

- Excess fertilizers, herbicides and insecticides from agricultural and residential lands
- Oil, grease and toxic chemicals from urban runoff and energy production
- Sediment from improperly managed construction sites, crop and forest lands
- Eroding streambanks
- Salt from irrigation practices and acid drainage from abandoned mines
- Bacteria and nutrients from livestock, pet wastes and faulty septic systems

States report nonpoint source pollution is the leading remaining cause of water quality problems, and these pollutants have harmful effects on drinking water supplies, recreation, fisheries and wildlife. Nonpoint source pollution results from a wide variety of human activities on the land. Visit <http://www.epa.gov/owow/nps/whatudo.html> for more information on preventing nonpoint source pollution.

Do you have a question to ask the Friends? Email it to [fotsjr.outreach@gmail.com](mailto:fotsjr.outreach@gmail.com).



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### 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 natural resources. 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](http://www.fotsjr.org).

## FotSJR Celebrates 15 Year Anniversary

When FotSJR founder Al Smith retired, he had visions of relaxing, playing golf and doing a little fishing along the St. Joseph River. His retirement plans changed when he saw the condition of his favorite river. It appeared sick and weary. Garbage filled the riverbanks, and people dumped everything from overstuffed furniture to old appliances into it. Having spent much of his youth in and around the river, Smith thought someone should do something about it. "We only get out of this world what we put into it," said Smith. "We had better take care of what we have."

Prior to the founding of the FotSJR, many communities had formed their own local groups to clean their stretch of the river. Smith recognized the need to bring all of these small groups together under one organization to work towards the same goal — a healthy river system. In 1994, Al, along with his wife Margaret, formed the Friends of the St. Joe River Association, Inc. as a 501(c)(3) nonprofit organization. The organization gained presence within the watershed community by recognizing the need to address broad-scale issues, including nonpoint source pollution (NPS), in a collaborative, strategic manner.

### The Watershed Management Plan

In 2002, the FotSJR was awarded an EPA Clean Water Act Section 319 grant. This grant would help to develop a Watershed Management Plan (WMP) for the entire St. Joseph River Watershed. The WMP would unite stakeholders in both Michigan and Indiana in a concerted effort to address water quality issues and natural resource protection across jurisdictional boundaries. Completed in 2005, the WMP continues to provide the community with a plan that both facilitates and guides the implementation of measures to improve and protect water quality within the river system.

The plan meets the EPA's latest requirements, allowing local governments and other organizations to apply for additional Section 319 funding to implement projects that are consistent with the goals of the plan. Since its inception, the WMP has supported the allocation of almost \$3 million for watershed education, planning and implementation projects.

### The Watershed Council

In 2006, the FotSJR joined stakeholders in conducting a series of workshops entitled "Finding a Voice for the St. Joseph River Watershed." Workshop participants agreed the FotSJR should serve as the umbrella organization to coordinate implementation of the WMP. In order to establish the additional capacity required to implement the WMP, the FotSJR began building an advisory Watershed Council with representatives from each of the 15 Michigan and Indiana counties in the watershed, state agencies, and other key organizations. These individuals advise the FotSJR Board of Directors at monthly meetings and participate in the Annual Watershed Council Meeting.

"We had better take care of what we have."

When asked if his original vision for the FotSJR organization had been realized, Al Smith said he could not even begin to tell how very proud he is of the organization as a whole. "Every organization should be as fortunate to have passionate volunteers who work hard to implement our mission and the Watershed Management Plan," said Smith. "Everyone is concerned about our river water, and it shows in our continuing and growing membership."

To view the completed Watershed Management Plan, visit <http://www.stjoeriver.net/>.

## Save the Date!

**Event:** 3rd Annual St. Joseph River Watershed Council Meeting  
**Date:** March 15 2010  
**Time:** 5:30 p.m. EDT  
**Location:** Sturges-Young Auditorium  
Sturgis, Michigan

Visit [www.fotsjr.org](http://www.fotsjr.org) for more information

## Defining CAFOs

Concentrated Animal Feeding Operations (CAFOs) are facilities where large numbers of poultry, swine, cattle or other animals are raised within a smaller area than traditional pasture operations. Proper management of manure and wastewater at CAFOs is especially important because of the large number of animals present in one location.

### Regulations in Indiana

In Indiana, a Confined Feeding Operation (CFO) is defined as any operation engaged in the confined feeding of at least 300 cattle, or 600 swine or sheep, or 30,000 fowl. When a CFO meets the definition of a CAFO as per EPA regulations, the farm must seek a National Pollutant Discharge Elimination System (NPDES) permit. Indiana has both General and Individual NPDES permits for CAFOs. In addition, smaller operations which have violated water pollution rules or laws are required to obtain permits. The Indiana Department of Environmental Management administers the permit programs for all CFOs in Indiana. Permits are required to be obtained prior to any construction activities for new, expanded or existing confined feeding operations.

### Regulations in Michigan

The Michigan Department of Environmental Quality (MDEQ) regulates CAFOs through surface water discharge permits which include waste collection, storage, and land application standards. Michigan has both General and Individual NPDES permits for CAFOs. All Large CAFOs (700 dairy cattle, 1,000 beef cattle, 2,500 Swine, etc.) are required to apply for discharge permits or demonstrate they have "no potential to discharge". Smaller operations can be required to obtain permits if they have a discharge.



Photo Courtesy NRCS

The Kalamazoo, Black and St. Joseph River Watersheds will receive targeted funding to support water conservation and water quality improvements on agricultural working lands. The funding comes from the United States Department of Agriculture through a 2008 Farm Bill program called the Agricultural Water Enhancement Program (AWEP).

These three southeast Lake Michigan watersheds encompass 21 counties in southern Michigan and northern Indiana, draining 6,992 square miles of primarily rural farmland. Two million dollars of AWEP funding was already awarded to the area in 2009. A portion of the \$27 million will be allocated each year for up to 5 years to help local agricultural producers offset the cost of adopting practices that protect water quality and quantity.

Farmers apply for AWEP through their local Natural Resources

Conservation Service (NRCS) office. The application process is similar to other Farm Bill programs and requires the development of a conservation plan. NRCS staff work with agricultural producers to develop personalized conservation plans considering their needs and the resource concerns of their operation. The money for improved practices is awarded based on the number and priority of resource concerns addressed in the conservation plan.

### AWEP Funds Target Priority Areas

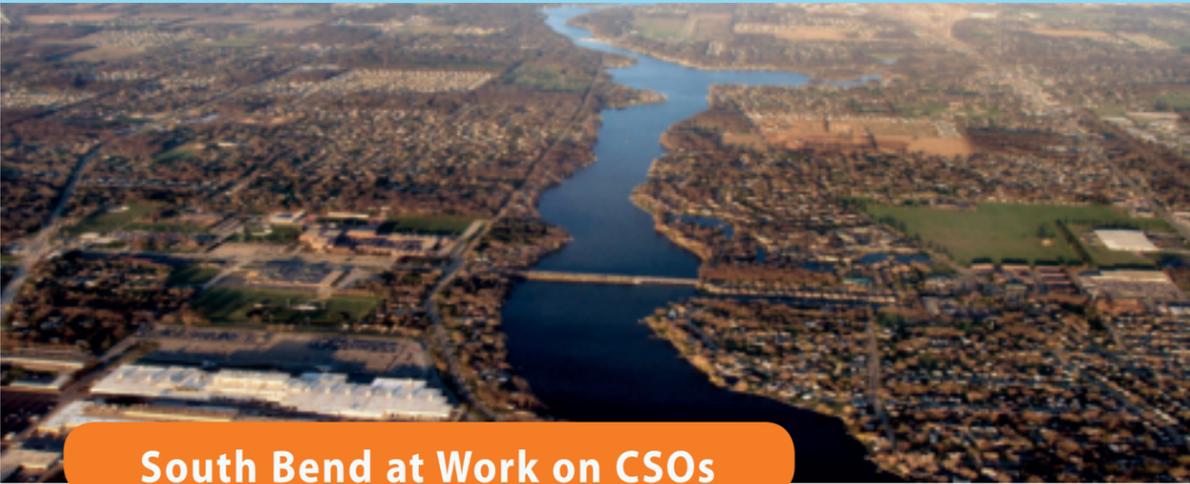
Unlike other USDA Farm Bill programs, AWEP cost-share funding will be targeted to high priority areas identified in Watershed Management Plans (WMPs). Information from several WMPs in the program area will be used to rank projects for funding. Friends of the St. Joe River President Matt Meersman is leading the committee responsible for integrating WMPs into the AWEP ranking process.

## USDA Funds Better Farms

Agricultural Water Enhancement Program provides up to \$27 million to improve agricultural practices.

The AWEP funding was realized through the work of a partnership led by Tracy Bronson and Jim Coury of the Calhoun County Conservation District, and Jim Marshall of the Potawatomi RC&D. The partnership included the Friends of the St. Joe River, the Kalamazoo River Watershed Council, the Michigan Association of Conservation Districts, and many others in Indiana and Michigan. AWEP was established by the 2008 Farm Bill and funding comes from the Environmental Quality Incentives Program (EQIP). The NRCS administers the program for the USDA. The NRCS implements AWEP by entering into EQIP contracts directly with agricultural producers.

For more information about the AWEP visit [www.nrcs.usda.gov/programs/awep/](http://www.nrcs.usda.gov/programs/awep/) or contact your local Conservation District located within the nearest USDA Service Center.



## South Bend at Work on CSOs

In 1994, the EPA mandated that approximately 750 American municipalities drastically reduce the frequency and severity of their combined sewer overflow (CSO) events. CSOs are overflows from older sewer systems designed to carry both domestic and stormwater loads. There are 13 communities in the St. Joseph River Watershed affected by the mandate. The City of South Bend took on the CSO challenge with an innovative approach called CSOnet.

CSO events allow untreated sewage to be released into lakes and rivers. South Bend has a sewer service area covering 13,100 acres. This large area can have considerable rainfall

variation during storm events. By closely monitoring flow differences with CSOnet, South Bend is using sewer pipes with less volume to store runoff from areas receiving more rainfall.

The first phase of the project began in 2005 with the installation of 110 independently communicating microprocessors, which provide real-time flow data from different locations. Started in 2009, the second phase requires control and redirection of flow at several critical points to maximize collection system storage. Essentially, CSOnet ensures all the pipes

are full before any sewage is released into the river. It is expected that this process will reduce discharges into the river by up to 25 percent.

The City's long-term plan for the remaining CSO events is expected to cost up to \$400 million. An added benefit of CSOnet could be less "flashy flows" from the South Bend area after a storm event. By collecting and slowly releasing runoff produced during a storm, the sewer system can perform one of the functions of a wetland. For more information on CSOnet visit: [www.macog.com](http://www.macog.com)

**"Each year in the U.S., CSO events result in the release of 850 billion gallons of untreated wastewater into rivers, streams and lakes."**

## Creature Feature

### Great Blue Heron (Ardea herodias)

Prehistoric in appearance, the Great Blue Heron is the largest North American heron with an impressive wingspan ranging between 5 and 6 1/2 feet. Generally a solitary feeder, a heron's diet consists of small fish, shrimp, crabs, aquatic insects, rodents, other small mammals, amphibians, reptiles and small birds. Herons locate their food by sight and usually swallow it whole, or

use their long, sharp bill to spear their prey. Monogamous colony breeders, the Great Blue Heron builds a bulky stick nest in trees close to waterways. The female lays 3-6 eggs, with one brood raised per year. Most blue herons in our watershed migrate as far south as the Gulf Coast states where food is readily available.

**Conservation Status:** Least Concern (LC)



## FotSJR Welcomes New Outreach Coordinator

Leah Cooper has joined the Friends of the St. Joseph River (FotSJR) as Outreach Coordinator. Leah is a professional marketing communications consultant with over 12 years of creative and technical writing experience. In this role, Leah will manage the creation and distribution of the FotSJR newsletter, public relations, web site and membership database.

Most recently, Leah spearheaded the marketing communication program for a leading Midwestern ecological consulting firm. She is well versed in the serious issues facing the St. Joseph River Watershed and abroad.

To learn more, contact Leah at [fotsjr.outreach@gmail.org](mailto:fotsjr.outreach@gmail.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 financial support will help us improve and protect the natural resources we depend on.**

Visit [www.fotsjr.org](http://www.fotsjr.org) for more information.