



A newsletter for people concerned with water management issues.

Index

Click on story title for link to it

Message from the Chair	2
Symposium: Monday, April 20, 2009—From Sandbags to Sanity	3
The St. Louis River Freshwater Estuary	4-5
Stormwater Benefits of Wisconsin's Freshwater Estuaries	6
2008 Conference Update	7
CFM Exam offered at the NHWC Conference	8
WAFSCM Annual Conference, October 7-9, 2009.....	8
Roxanne Gray wins chapter service award	9



*Embankment washed into Lake Delton
on June 9, 2008.*



Rebuilding of STH A embankment.

Message from the Editor

The WAFSCM newsletter is published twice a year to update members on chapter activities and to provide information on publications, seminars, etc. that may be beneficial to our water community. If you have articles, announcements, or other information that you would like us to include in future newsletters, please forward it to me at cindi.debruine@rasmithnational.com.

We want to thank Rhonda Janos of R.A. Smith National for the updated look of the newsletter and thank R.A. Smith National for donating the preparation of the newsletter.

Cindi DeBruine
Newsletter Editor



Message from the Chair

One of the many benefits of being the WAFSCM Chair is receiving financial assistance to attend the Association of State Floodplain Managers (ASFPM) Annual Conference. As a result, in 2008 I was able to represent WAFSCM at the ASFPM Annual Conference, held in Reno-Sparks, Nevada, from May 18 to 23. This trip was my first to Nevada and was held in a casino hotel, which at times I found to be rather annoying, not being a fan of big time gambling (my idea of gambling is playing Sheepshead for a nickel a point). However, the conference facilities were more than adequate, my room was very comfortable, and ASFPM conference was excellent.

As a result, I certainly recommend attending the ASFPM Annual Conference in the future if you have any involvement or interest in floodplain management. The 2008 Conference had presentation tracks addressing coasts and shorelines; public policy, education and outreach; National Flood Insurance Program (NFIP) issues; flood loss mitigation; levees aspects and issues; No Adverse Impact (NAI); and floodplain mapping technologies. The Plenary Session, entitled “Managing Floods in the Future,” provided an overview on how the nation’s population, demographics, and climate are changing rapidly, which will likely result in major impacts on flood damages and the environment.

Early in the conference, I also took and passed (Hurray!) the Certified Floodplain Manager (CFM) Exam. The ASFPM CFM Program was established to provide professional certification for floodplain managers, and as stated on the ASFPM website (www.floods.org) “recognizes continuing education and professional development that enhance the knowledge and performance of local, state, federal, and private-sector floodplain managers.” To prepare for the CFM exam, I also attended training workshops entitled “Floodplain Management 101” and “CFM Exam Preparation”, which were both well worth the time. If you do plan on taking the CFM exam in the future, I recommend that you come well prepared, since this is not a trivial (three hour) exam. The key exam reference guide is FEMA 480, entitled “*NFIP Floodplain Management Requirements, A Study Guide and Desk Reference for Local Officials*,” which now sits in a three inch binder on my bookshelf.

The ASFPM 33rd Annual Conference is being held in Orlando, Florida, June 7 to 12, 2009. If you can not make that conference (or even if you can), also please consider attending the 2009 WAFSCM Conference, being held October 7 to 9, 2009, at Barker’s Island Inn and Resort Conference Center, located at the Duluth / Superior Harbor, Superior, Wisconsin. As an added incentive, this will be a joint conference with the Minnesota Association of Floodplain Managers (MnAFPM). So, please join us, we certainly do not care to be outnumbered by Viking fans. And, if you are really motivated, study up and plan on taking the CFM exam. It will be well worth your while.

Respectfully Submitted

Thomas R. Sear, PE, CFM



Symposium

From Sandbags to Sanity: Lessons of the Floods of 2008

Monday, April 20, 2009—Monona Terrace/Hall of Ideas, Madison

Legislators, state agencies, local government, emergency government officials, floodplain managers, developers, homeowners and others will want to attend this free daylong symposium that will explore answers to these and other questions:

1. What are the policy lessons to be learned?
2. Are these the same lessons that were proposed in the aftermath of the 1993 Midwest floods?
3. What factors led to the location of property in risky locations?
4. How can such risk be mitigated?
5. What are the public health risks associated with flooding?
6. What were the broad implications of the 2008 flooding for Wisconsin's agriculture and the economy?
7. What role does the nonprofit sector play in responding to such disasters?
8. What do we need to know to better plan?

Join two national experts, Gerry Galloway, of the University of Maryland, and Ray Burby, of the University of North Carolina at Chapel Hill, and more than a dozen Wisconsin researchers and government officials to discuss these issues. Hear from representatives of Gov. Jim Doyle's Wisconsin Recovery Task Force and the leaders of the Wisconsin Legislative Council's Special Committee on Emergency Management and Continuity of Government, Sen. Robert Jauch and Rep. Joan Ballweg.

The symposium, which will be 8:15 a.m. to 5:30 p.m., is free and open to the public, but registration is required and limited to 150. **To register, call Bridget Pirsch at 608-265-2658 or email her names and affiliations at pirsch@lafollette.wisc.edu. The deadline is Wednesday, April 15.**

If you can't attend, watch it on www.wiseeye.org

The symposium is sponsored by the UW-Madison's La Follette School of Public Affairs, the Water Resources Institute and the Center for World Affairs and the Global Economy, with additional support from the Ira and Ineva Reilly Baldwin Wisconsin Idea Endowment.

For more information on the conference, contact Terry Shelton, 608-262-3038 or shelton@lafollette.wisc.edu. Information and agenda are available on La Follette's website at <http://www.lafollette.wisc.edu/publicservice/floods/index.html>

Monona Terrace/Hall of Ideas, Madison

Monday, April 20, 2009

8:15 a.m. to 5:30 p.m.

Free and open to the public

RSVP by April 15 to Bridget Pirsch

608-265-2658

pirsch@lafollette.wisc.edu



The St. Louis River Freshwater Estuary: A Unique Coastal Resource

People tend to think of areas like Chesapeake Bay when they hear the word *estuary*. They imagine large river mouths as they empty freshwater into the ocean and wetlands where fresh and saline waters mix. But if you have ever fished, hunted, paddled, or hiked along Wisconsin's Lake Superior coast, or have driven through Ashland or Superior, chances are you have seen a freshwater estuary.

Sometimes called sloughs, Lake Superior's freshwater estuaries occur where a drowned river mouth empties into the Great Lake. While saltwater estuaries are affected by lunar tides, freshwater estuaries are affected by wind tides and the lake's soup bowl-like sloshing called the seiche. Differences between the river and lake water – such as pH, water temperature, and conductivity – create a unique habitat when they come together in shallow wetlands. The dynamic mixing and water level changes within a freshwater estuary create habitat shared by species that use both the river and lake.

Lake Superior's freshwater estuaries are both the nursery and kitchen for diverse populations of aquatic plants, fish, wildlife, and waterfowl that rely on them for shelter, food, and spawning. Estuaries also benefit people. These shallow coastal wetlands slow runoff and act as filters to reduce erosion and



St. Louis River flowing into Lake Superior

sedimentation. They provide places for hunting, fishing, recreation, and tourism activities. Lake Superior's freshwater estuaries and coastal wetlands are an important part of what defines the quality of life in the Lake Superior Basin.

More than 20 freshwater estuaries grace Wisconsin's Lake Superior shore. One of these freshwater estuaries occurs on the largest United States tributary to Lake Superior, the St. Louis River. The St. Louis River flows 179 miles through a watershed encompassing 3,634 square miles within Wisconsin and Minnesota. As it approaches the City of Superior, the river slows and spreads into a 12,000-acre freshwater estuary characterized

by numerous bays and islands. State, county and municipal undeveloped tracts are interspersed with parks, public access points, homes, businesses, industry, and a major international port system. The St. Louis River discharges more than 17,000 gallons per second into Lake Superior.

The combination of ecosystems within the St. Louis River freshwater estuary is unique in Lake Superior, the Great Lakes region, and the world. The estuary is home to a diverse array of native birds and is an important breeding area and a critical stopover location for migratory birds – more than 230 species have been documented. The estuary provides prime

Continued on page 5

WAFSCM

[Back to index](#)



Continued from page 5

breeding habitat for wildlife and fish, threatened and endangered species and game species. Its large warm-water fish community of roughly 54 species, includes an estimated 50,000-90,000 spawning walleye. The baymouth bar complex of communities, also known as the barrier spits of Minnesota and Wisconsin, is the world's largest freshwater sandbar.

The St. Louis River freshwater estuary provides one of the best examples of seiche interaction. While the back and forth movement of water is continuous, the size of the seiche varies depending upon the weather and winds, usually fluctuating from 3 to 25 cm during an event. The seiche can reverse the flow of the river up to 11 miles to the Oliver Bridge.

An important aspect of the St. Louis River freshwater estuary is that it is an active working port. The Duluth Seaway Port Authority manages the Duluth and Superior ports. With iron ore and coal docks, grain elevators and specialized cargo facilities lining the industrial waterfronts, the ports serve shippers and receivers throughout the U.S. Midwest, the Great Plains, and Canada. The port's navigation season usually begins in late March and continues until mid-January serving 1,100 vessels. Duluth-Superior is the largest port on the Great Lakes and these working ports are ranked number one in the Great Lakes for



Photo from: <http://freshwaterestuary.uwex.edu/projects/nerr.html>

total cargo volume of 45 million net tons annually.

The St. Louis River freshwater estuary provides 96 miles of shoreline in the City of Superior alone. More than 10,000 acres on the Wisconsin side of the St. Louis River are in public ownership including the City, Douglas County, Wisconsin DNR and the University of Wisconsin-Superior. Numerous places along the Superior waterfront and many of the tributaries that enter the St. Louis River and the Superior Bay have public access.

The St. Louis River freshwater estuary was nominated by Governor Doyle as a National Estuarine Research Reserve (NERR) site in May 2008. The NERR program is a non-regulatory federal and state partnership administered by the U.S. National Oceanic and Atmospheric Administration (NOAA). The program provides federal funding and technical support to advance estuary research, education and stewardship.

The only other Great Lakes NERR site is located hundreds of miles to

the southeast on Lake Erie at Ohio's Old Woman Creek. The St. Louis River freshwater estuary is an excellent setting for research and education activities on the upper Great Lakes. A Lake Superior NERR designation will be significant for Wisconsin, the region, and the nation.

Numerous Wisconsin and Minnesota-based academic institutions, government agencies, and advisory and action committees have played a critical role in telling the St. Louis River story. The proposed NERR designation would take their research from the St. Louis to the larger Great Lakes basin and the world.

For more information about freshwater estuaries, the St. Louis River or Wisconsin's NERR project contact: Becky Sapper, UW-Extension's Lake Superior Freshwater Estuary Outreach Coordinator, at 715/685-2652 or becky.sapper@ces.uwex.edu.

Article source: **Becky Sapper**
Lake Superior Freshwater Estuary Outreach Coordinator
University of Wisconsin-Extension Northern Great Lakes Visitor Center
29270 County G
Ashland, Wisconsin 54806
715.685.2652
715.685.0036 fax



Stormwater Benefits of Wisconsin's Freshwater Estuaries **From the Coastal Management Committee**

Wisconsin borders two of the greatest lakes in the world, Lake Superior and Lake Michigan, which are buffered from stormwater runoff by millions of acres of freshwater estuaries. Freshwater estuaries have many critical functions including ground water recharge, sediment and pollutant filtration, velocity reduction, and storm water retention, all of which effectively reduce damaging flooding and erosion impacts of storm water to our communities and agricultural assets, while buffering the Great Lakes from the impacts that untreated storm water have had on them including increased turbidity, storm surge, contamination, and erosion.

These functional values have even been quantified. The University of Wisconsin Extension Service (UWEX) recently released "An Assessment of Wisconsin's Great Lakes Freshwater Estuary Applied Research, Management and Outreach Needs" (April 2008) which identified through several workgroup events, that the values of these estuaries are critical. The report quantifies the economic value of these estuaries, demonstrating their needs and functions not only for their unique biodiversity, but also for their function in storm water management. The UWEX reports on the webpage for "Wisconsin's Freshwater Estuary Initiative" (<http://freshwaterestuary.uwex.edu>) that

"Freshwater wetlands have been found to have an approximate value of \$594 per acre for flood control and \$630 per acre for protecting water quality (based upon 2005 dollar values)." As communities work hard to protect their valuable assets from damages by floods and erosion through state-of-the-art stormwater management systems, we may often fail to look at the naturally functioning and degraded systems that can do this job with and for us efficiently and economically. You can view the UWEX assessment report at <http://freshwaterestuary.uwex.edu/projects/assessment.html>.

One of the key findings is that storm water management and land use perspectives must receive greater understanding and protection through more outreach efforts and implementation of better management practices. Natural storm water management cannot be effective if the systems are degraded, therefore pretreatment begin upstream with our systems and continues downstream with more natural systems.

Many projects statewide have been targeting improvement of stormwater systems through native wetland and estuary restoration and enhancement, and integration of more naturally behaving systems with existing wetlands and estuaries. Wisconsin Department of Natural

Resources initiatives established through the Wisconsin Great Lakes Restoration and Protection Strategy are helping to promote and fund stormwater projects that will maximize effectiveness of municipal stormwater systems while protecting the Great Lakes and the wetlands that buffer them. Soon these initiatives may become more prevalent and enforced. As stormwater, floodplain and coastal managers, our innovation and integration of these considerations now will aid in proactive compliance with these principals early.

Charlene Johnson, MS, PWS
WAFSCM Secretary
johnsoncharlene@ci.superior.wi.us





2008 Conference Update

This past year, the Wisconsin Association for Floodplain, Stormwater and Coastal Management annual conference “*Change in Floods and Floodplains, How will we respond?*” was held at the Kalahari Resort in Wisconsin Dells. I think that all who attended would have to agree that it was a huge success. The conference had over 100 participants, dynamic speakers, workshops and an excellent tour of the Lake Delton area that was impacted by the June, 2008 flood event. The evaluation sheets all indicated that the event was a hit with everyone.

Overall the conference was an excellent venue to learn more about stormwater, coastal and floodwater issues at both the state and the national level. We had an excellent mix of state, local and federal officials as well as consultants as both attendees and presenters. Many participants at the conference took the opportunity to network within the relaxed atmosphere of the conference.

The high note for me and many others were the presentations by Roxanne Gray WI Emergency Management, Gary Heinrichs WDNR, and Bill Sturtevant WDNR Dam Safety Engineer covering different aspects of the devastating floods that hit Wisconsin in 2008. Gary and Roxanne were our keynote speakers and spoke on a state-



Breach in embankment as seen from the Wisconsin River June, 2008

wide level about the flooding issues that the state had in the past year. Bill Sturtevant gave a more detailed look at one area in a talk on the Lake Delton Area and the floods it experienced in June of 2008. He also spoke at length on the recovery efforts that followed the floods. He followed up his presentation with a tour of the Lake Delton area on Friday. All three presentations were praised for providing a good look at local and state flood events that were pertinent to the conference attendees. The Lake Delton story was highly praised by all who participated in both the presentation and tour as an example of the need for better flood management education at the local level.

In addition to the plenary presentations, we had a No Adverse Impact (NAI) workshop produced by the National Association of State Flood Plain Managers. The workshop was

conducted by Dave Carlton from Adolfson Associates, Inc located in Seattle, Washington. The workshop was attended by 40 people, and received high marks on the evaluation forms. We also had 6 people take the CFM exam, of which 4 took the national exam and 2 took the Illinois exam.

We hope to continue the organization’s success in 2009 so please mark your calendars for the WAFSCM conference on October 7th, 8th, and 9th, 2009 at the Barker’s Island Inn Resort and Convention Center in Superior, Wisconsin. A call for papers will be forthcoming followed by a brochure and registration materials. You can also find information at our Web site <http://wi.floods.org/>.

Thanks
Dave Fowler
Conference Co-Chairman



CFM Exam offered

CFM Exam at the NHWC CONFERENCE – Vail Colorado – May 21, 2009 Certified Floodplain Manager (CFM) Training and Examination

The ASFPM CFM Exam will be offered during the National Hydrologic Warning Council conference in Vail Colorado at the Marriott Resort May 18 – 2, 2009. A 4-hour floodplain management workshop will be offered on Tuesday, May 19 at 8:00 am. This will be followed by the CFM exam on the afternoon of Thursday, May 21 starting at 2:00 pm. The exam covers seven categories of questions [floodplain mapping, flood insurance, NFIP floodplain regulations and administrative procedures, flood hazard mitigation, natural and beneficial functions of floodplains, and FEMA elevation Certificates]. The ASFPM CFM application and study guide can be found on their website at www.floods.org.

For conference information see the NHWC web site at www.hydrologicwarning.org. The fee for taking the exam is not included in the NHWC Conference Registration. A separate fee for the exam is charged by the ASFPM. See the ASFPM web site at www.floods.org.

The floodplain management refresher training workshop is being offered by Berry A. Williams and Associates at no cost. Send an email to Berry at berrywms@mindspring.com if you plan to take the workshop. This will ensure an adequate number of handouts are available.

Most meals during the conference are included in the registration fee. Save even more and register early at www.hydrologicwarning.org.



[Back to index](#)

2009 WAFSCM Annual Conference—October 7-9, 2009

I am very enthusiastic about the 2009 Wisconsin Association for Floodplain Stormwater and Coastal Management Annual conference. We are having a joint conference with the Minnesota Chapter of Floodplain Managers. We have selected the Barker's Island Inn on the shores of Lake Superior in the Town of Superior as the location for this year's conference. We are already moving ahead with plans and should be signing a contract with Barker's Island Inn soon. We have not yet selected a theme for the conference and would welcome suggestions from our membership. Please send those suggestions to Dave Fowler conference co-chair at his email address DFowler@mmsd.com ASAP. We are looking forward to a memorable event and we hope to surpass the 100 participants that we had last year.

As always the conference is an excellent venue to learn more about stormwater, coastal and floodwater issues at both the state and the national level. This year our membership will have an opportunity to explore how flood management and stormwater management is handled in another state. We will also have great opportunities for speakers and workshops. With the time of year we think we should have a variety of outstanding tours and the fall colors could be at their height. With the large number of issues surrounding the aftermath of the floods, the presentations should be timely and informative.

We usually have an excellent mix of state, local and federal officials as well as consultants as both attendees and presenters. Many participants at the conference take the opportunity to network within the relaxed atmosphere of the conference.

We are planning at least three breakout sessions that will provide an excellent forum to learn about projects and issues that are ongoing here in the state. We are looking for a variety of topics covering coastal, stormwater, and flood management issues.

So please mark you calendars for the Joint MnASFP and WAFSCM on October 7th, 8th, and 9th, 2009 at the Barker's Island Inn Resort and Convention Center in Superior, Wisconsin.

Dave Fowler
Conference Co-Chairman
DFowler@mmsd.com

WAFSCM

[Back to index](#)



Roxanne Gray Wins Chapter Service Award

This past November 13th in Wisconsin Dells, the Association proudly recognized Roxanne Gray of Wisconsin Emergency Management with a Chapter Service Award. In presenting a plaque to her, WAFSCM sought to thank Roxanne in a small way for her many years of advancing the Association's causes through vital and dedicated service.

The Board remains anxious to continue and expand upon such recognition. As 2009 unfolds, please consider submitting a nomination for one or more award categories.

The **Chapter Service Award** is intended to recognize individuals who, through significant accomplishments and/or long-term efforts, have clearly influenced the work of the Association to improve floodplain, stormwater, or coastal management in Wisconsin.

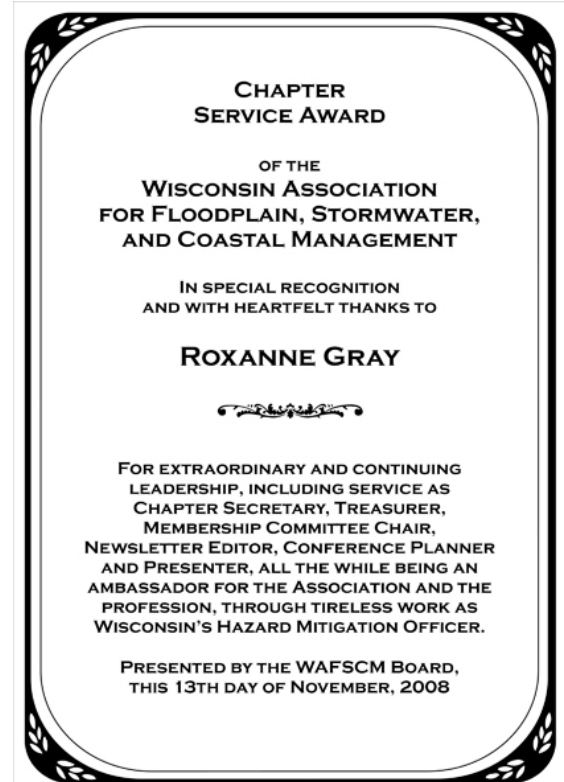
The **Local Award for Excellence** is intended to recognize an individual, organization, program, governmental unit, or the like, which has contributed outstanding or essential work toward implementing sound floodplain, stormwater, or coastal management.

A **Lifetime Achievement Award** will be entertained for distinguished and extensive service, normally over the course

of a career, toward advancing the cause and/or ideals of best practical floodplain, stormwater, or coastal management. This award may be given annually as warranted.

Some good suggestions on awards were received at the Annual Meeting, which will be considered by the Board for 2009. **Excellence in Project Design or Implementation** may be a means to provide recognition focusing on particular project efforts more so than individuals. Thereby, teams, firms, agency divisions, etc., may find another niche to be recognized.

Please start thinking about deserving recipients now! The Association will again work to make award nominations a fairly easy and straightforward process. Basic information on the nominee with respect to merit, and the relationship or perspective of the nominator are generally all that's needed. If appropriate, the Awards Committee may contact persons submitting nominations for additional information.



Look for final details in an upcoming newsletter. And in the meantime, please feel free to direct any questions or suggestions to:

Gary Korb, WAFSCM
Awards Chair
UW-Extension/SEWRPC
Phone: 262-547-6721
gkorb@sewrpc.org

Thank you in advance for consideration on behalf of deserving individuals, groups, and efforts.