

A newsletter for people concerned with water management issues



LETTER FROM THE CHAIR

Dave Fowler, CFM

I am very excited about the growth of the State Association entering into its second year. We have added many volunteers to assist the core group that started the organization two years ago. With the added help, we are making excellent progress on the Second Annual Conference which will held November 13th & 14th, 2003 at the Kalahara Resort and Conference Center in Wisconsin Dells. Mark your calendars and plan to attend so we can make this conference even better than the first.

In the upcoming months you may receive a call from one of our committee chairs to volunteer time to help with activities. I hope you will consider this request. An organization such as the one we are building here in Wisconsin relies on the voluntary contributions of its members for a large part of the work to be done. In the next few months we are hoping to have three active technical committees covering the issues of stormwater management, coastal management, and floodplain management.

In May of this year I attended the National Convention in St. Louis. There were over 900 participants at the conference. If you have not attended one of the national conferences in the past I highly recommend it, it is a great experience. The last time the national conference was in Wisconsin was at Milwaukee in 1998. I have been active at both a state and national level ever since. In June 2005 the conference will be in Wisconsin once again, this time in Madison. Our association will be the host of the event, and we are hoping for a strong turnout.

At this time I would like to touch briefly on some concerns that were raised at the national convention. On a national scale the proposed FEMA budget for this fiscal year brings both optimism and concern. There is optimism due to the additional \$150 million for flood mapping, but concern that the budget for mitigation programs specifically the post-disaster mitigation programs will be cut. For more information visit the ASFPM website www.floods.org.

Recent developments in our state include the following. The state is studying implementation of changes to the floodplain administrative code to provide more flexibility in dealing with nonconforming structures, streamline state responsibilities for new development, and tighten standards for the effects of new development on flood elevations. Scanned floodplain maps have been added to the WDNR website and can be accessed at www.dnr.state.wi.us/org/water/wm/dsfm/section/mapindex.htm. At this time the WAFSCM list of members has grown to 120 members and the list continues to grow as more membership forms are sent in. *If this organization is one that you feel is worthy of support, we welcome your membership and help. If you are interested please contact David Fowler by phone at (414) 277-6368 or E-mail dfowler@mmsd.com.*

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MARK YOUR CALENDERS NOW!

WAFSCM's 2nd Annual Conference will be held November 13th & 14th at the Kalahari Resort and Conference Center in Wisconsin Dells.

Our first conference received great reviews from over 100 attendees. This conference is shaping up to be even better! There are many changes that have occurred since last year and they will affect how programs are administered by State and local agencies.

While the program is still being fine-tuned you will hear:

- Updates from a panel of representatives of FEMA, EPA and the Department of Commerce on changes that have occurred or are in progress.
- Scott Hassett, the new Secretary of the Department of Natural Resources, will open the conference on Thursday morning
- On Friday, Assistant Attorney General Tom Dosch has agreed to provide a special session on enforcement strategies.

*Watch for the conference brochure in **August** for complete details*

MIDWEST FLOODS REVISITED

It is hard to believe that it has been ten years since the Midwest Floods. It has taken years for many families, businesses and communities to recover from the '93 floods. This disaster was unlike any the state had ever experienced in its history and the impacts of the floods can still be felt today.

Above normal rain and snowfall amounts in the late 1992 and into the spring of 1993 resulted in over saturated soils. In early June a weather system that weather forecasters refer to as a "Bermuda High" pattern produced heavy precipitation amounts in the Midwest. The

combination of already saturated soils along with heavy rainfall resulted in total precipitation amounts 150-200 percent above normal, causing widespread flooding throughout the Upper Mississippi River Basin.

This event would become known as the Great Midwest Flood. Nine states, including Wisconsin, would be declared a federal disaster declaration. Overall damages exceeded \$20 billion.

In Wisconsin, two major storms with heavy precipitation in early June caused rivers and streams to overflow their banks. Flooding was reported along the Black, Buffalo, Chippewa, Eau Claire, Fox, Kickapoo, Trempealeau, Wolf, Wisconsin and Mississippi Rivers and tributaries.

In Black River Falls, the levee along the Black River failed causing flood damage to more than 90 homes and the municipal sewer and water systems. The high waters caused several dams and levees to fail, forcing the evacuation of hundreds of families. Literally hundreds of roads were closed when swollen rivers and runoff flooded them. Emergency personnel worked around the clock for more than a week monitoring dams and levees and taking emergency protective actions.

On June 29 the Governor requested federal disaster assistance for 30 counties and three days later, President Clinton declared a major disaster for 17 of the counties. However, the flooding problems in Wisconsin just began. Addition storms in late June and July caused serious damage in the basins of the Pecatonica and Yahara Rivers. On July 17-18, a flash flood occurred at the Baraboo River and Devils Lake. Over 12 inches of rain fell in a three-hour time period and exceeded the 100-year precipitation event by 3.6 inches. The flash flood washed away cars, roads, bridges and buildings, and resulted in the death of a

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twelve-year old when the car he was riding in was overturned and he was carried downstream. The Baraboo River rose ten feet in five hours, 6.75 feet above flood stage. Three of the City of Baraboo's wells were disabled, numerous highways closed and more than 2,300 campers evacuated. Devils Lake State Park incurred significant damages and was closed for the first time in its history.

Working together, the Wisconsin National Guard, Wisconsin Conservation Corps and the Department of Corrections provided over 1,110 personnel for along with 125 vehicles and heavy equipment in assisting on 62 projects in 14 counties.

By August, normal weather conditions helped floodwaters to recede. In the end, 47 counties would receive a federal disaster declaration with disaster losses totaling over \$747 million for private and government losses. At least 4,700 homes were damaged and 2,500 people evacuated from their homes. In addition, the state suffered its worst agricultural disaster ever with over \$800 million in agriculture. Private business losses exceeded \$31 million, most of it related to business shutdowns and damages to goods and supplies.

As a result of the federal declaration, almost \$300 million in disaster relief was provided through the various state and federal programs. More than 4,500 individuals received disaster assistance through the FEMA programs making it the largest Individual Assistance Program in the state up to that point in time. More than 600 state and local governments and non-profits received disaster assistance through the Public Assistance Program.

As a result of the levee failure in the City of Black River Falls, the City received funds to reconstruct the levee to current standards for adequate protection in future events. Funds in

the amount of \$2,014,625 were provided through the Section 406 mitigation funding through the Public Assistance Program to reconstruct the levee south of Highway 54 in the residential area referred to as the Grove. Additional funds from the Economic Development Administration and the State Department of Commerce provided for the construction of the levee north of Highway 54 protecting the downtown business area.

The Great Midwest Flood was a turning point for mitigation and in particular the Hazard Mitigation Grant Program. On December 3, 1993, the President signed the Hazard Mitigation and Relocation Assistance Act. This significantly increased funding in the HMGP. As a result of the Act, the amount of mitigation funds available for the declaration went from \$2 million to over \$14 million. The Division received over 90 pre-applications for HMGP funding totaling \$30 million. Mitigation funds were awarded to five communities to acquire 156 flood-damaged properties and relocate persons out of harms way. Since 1993, another 13 communities impacted by the 1993 Midwest Flood (within the 47 declared counties) have utilized mitigation funds through subsequent federal disaster declarations to implement buyout programs. Through the efforts of these communities, another 167 properties have been acquired, structures demolished and the property left for open space uses never to receive federal disaster assistance again.

MULTI-HAZARD FLOOD MAP MODERNIZATION CONTRACTOR SOUGHT

On April 10th FEMA advertised for firms interested in providing service to “..develop, plan, manage, implement, and monitor an initiative known as Multi-Hazard Flood Map Modernization ..” to submit their qualifications. The announcement states that FEMA expects to award one contract that could include all the

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duties currently being handled by the Mapping Coordinating Contractors, Hazard Mitigation Technical Assistance Program contracts, Regional IDIQ contracts and the Map Service Center.

The announcement, and an attached Statement of Objectives, identified four major objectives FEMA intends to accomplish through this contract:

1. *Establish and maintain a premier geospatial data collection and delivery system that provides easy access to reliable flood risk data and other information and hazard data supporting risk management applications and operations.*
2. *Achieve effective program management by developing and providing a continually improving program management structure that motivates partners to share responsibilities and aligns partner missions to reduce the nation's vulnerability to flood and other hazards. The program objective is to produce digitized, final maps approved by local governments within 36 months from receipt of study requirements. (emphasis added)*
3. *Build and maintain mutually beneficial partnerships to achieve a shared outcome through the communication of flood risk and other hazard information.*
4. *Expand and better inform the user community by fostering public and stakeholder understanding of where to obtain flood and other hazard information and how to use and analyze it in order to make sound decisions to reduce their vulnerability to natural, accidental or man made hazards.*

The announcement also states:

"FEMA WILL SERVE AS THE Federal lead with responsibility to maintain and disseminate a seamless nationwide flood theme in

partnership with State, local and regional government agencies. It is expected that FEMA will no longer be responsible for developing and distributing framework data needed to produce flood maps. Rather, FEMA will become a collaborative partner with State, local and other federal agencies."

FEMA hosted a pre-submittal conference for interested firms on Good Friday afternoon, April 18th where questions regarding the announcement were fielded. Submittals were due on May 12th and the final selection is anticipated in July.

FLOODPLAIN MODEL ORDINANCE CHANGES

After a years worth of dialogue and meetings, the Department of Natural Resources and the Federal Emergency Management Agency (FEMA) have come to agreement on proposed changes to Wisconsin's Model Floodplain Ordinance. While some of the model ordinance revisions are reminders to communities concerning process issues, there are a number of mapping, development standards and definition changes that will need to be adopted by all communities in order to remain in good standing in the NFIP.

While dates have not been set yet, the department is planning to schedule seven workshops to discuss changes to the Wisconsin model floodplain ordinance and to give updates on FEMA's map modernization program and how it will impact communities with floodplain mapping concerns. The workshops, which will start in July and conclude in September, will be held in or near Eau Claire, Green Bay, LaCrosse, Madison, Milwaukee, Rhinelander and Spooner. The workshops will be held starting in July and concluding by the end of September.

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The complete, revised model floodplain ordinance will soon be available on the department's website - <http://www.dnr.state.wi.us/org/water/wm/dsfm/flood> - along with an annotated version with explanatory notes. For local communities without Internet access, hard copies will be available at the meeting or by requesting a copy from Gary Heinrichs, department floodplain planner, (608) 266-3093, or Gary.Heinrichs@dnr.state.wi.us.

NR 216 Public Hearings (DNR Storm Water Discharge Permit Code)

Chapter NR 216 is being revised to comply with the federal Phase II storm water regulations. This chapter establishes criteria defining those storm water discharges needing WPDES storm water discharge permits, as required by s. 283.33, Stats. The goal of this chapter is to eliminate to the maximum extent practicable the discharge of pollutants carried by storm water runoff into waters of the state from certain industrial facilities, construction sites and municipal storm water runoff.

Changes to NR 216 include lowering the construction permit threshold to one acre of land disturbance from 5 acres and establishing associated permit requirements, defining which municipalities must apply for storm water permits and identifying other municipal discharges that may require permit coverage, establishing new application and permit criteria for municipal storm water discharge permits, and revising the applicability criteria and an exemption for certain industrial facilities to require permit coverage where previously exempted.

These revisions will significantly increase the number of municipal separate storm sewer systems and construction sites that must have permit coverage and will also require many industrial facilities to certify that they do not

discharge contaminated storm water. The storm water permit fee system is also revised to provide appropriate funding to administer the program.

Public hearings on the proposed revision of NR 216 will be held on:

July 21, 2003, 1:00 P.M. Room M30A, Chippewa Valley Tech. College, 620 W. Clairemont Ave., Eau Claire

July 22, 2003, 1:00 P.M. Room D101, North Central Vocational Tech, 1000 W. Campus Drive, Wausau

July 24, 2003, 1:00 P.M. Room 027, GEF #2, 101 South Webster Street, Madison

July 29, 2003, 1:00 P.M. C-Auditorium, Milwaukee Area Tech. College, 1015 N. Sixth St., Milwaukee

July 31, 2003, 1:00 P.M. Room 203, Green Bay City Hall, 100 N. Jefferson St., Green Bay

A copy of proposed NR 216 and supporting information can be obtained online at http://www.dnr.state.wi.us/org/water/wm/nps/rules/nr216/nr216_revisions.htm. Written comments on the proposed rule may be submitted to Carol Holden – WT/2, Wisconsin DNR, P.O. Box 7921, Madison, WI 53707-7921 no later than August 8, 2003.

REPORT ON GREAT LAKES RESTORATION PROJECTS

In 2001, U.S. Congress appropriated \$30 million to acquire and restore critical habitat, implement storm water controls and clean contaminated sites along the five Great Lakes. The State of Wisconsin received \$5.686 million dollars from that appropriation through the Wisconsin Coastal Management Program (WCMP).

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Going beyond the 25% minimum match requirement by the federal commitment, the State of Wisconsin leveraged \$6.962 million of state and local funds for a total value of \$12.648 million in restoration projects in the State. Examples of the projects funded with the Great Lakes Restoration Grant range from stormwater and sewage management projects, to wet detention basin and stream bank projects, to acquisitions of critical coastal land.

In an effort initiated by the State of Wisconsin, and supported by the Great Lakes Commission and the Coastal States Organization, the eight Great Lakes states produced a booklet for Congress, *Great Lakes Restoration Project*, outlining current projects and future needs for restoration in the region. Furthermore, the State of Wisconsin is pursuing the renewal of the Great Lakes restoration project to obtain additional funding to continue the protection of critical sites and resources along Wisconsin's coast.

Copies of the booklet, *Great Lakes Restoration Project*, are available from the Wisconsin Coastal Management Program, on line at <http://wisconsin.coastal.gov> or by contacting Jim Langdon at james.langdon@doa.state.wi.us.

LAND AND WATER MANAGEMENT WORKSHOPS PLANNED

Several organizations concerned about protecting the natural resources in the Lake Superior basin have scheduled three workshops, September 10-12, for basin residents, local governments, land use planners, and agencies to learn how to protect and restore land and water resources. Sponsors include the University of Wisconsin-Extension, the Northwest Regional Planning Commission, the Wisconsin Coastal Management Program, and the Lake Superior Binational Forum. For more information or to

receive the Agenda for the Workshops please contact Lisa Radke, Lake Superior Binational Forum at lradke@northland.edu.

COASTAL NONPOINT SOURCE POLLUTION PROGRAM

The Wisconsin Coastal Nonpoint Pollution Control Program (Section 6217(a) of the Coastal Zone Act Reauthorization Amendments of 1990) has received final approval by the federal Office of Ocean and Coastal Resource Management (OCRM) and the Environmental Protection Agency (EPA). Full approval means Wisconsin avoids any possible financial sanctions to its annual federal coastal management grant from OCRM and s. 319 Nonpoint funds from EPA. Full approval will also result in an increase in the state's share of s. 6217 funding. Coastal and DNR staff has been working on final approval since 1995 when the Wisconsin Nonpoint Program was first submitted.

http://www.ocrm.nos.noaa.gov/pdf/6217wi_fnl.pdf

2003 BEACH SWEEP

The Second annual Wisconsin Beach Sweep, September 2003. This beach cleanup is part of the International Coastal Cleanup (ICC), a worldwide event coordinated each year in September by the Ocean Conservancy. The ICC has been collecting data from the debris collected on beaches and waterways since 1986. For more information contact Kea DonLevy, at (414) 443-1494, or Mike Friis, Wisconsin Coastal Management at (608) 267-7982, Michael.Friis@doa.state.wi.us.

<http://coastalcleanup.org/index.cfm>

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NOMINATIONS WANTED FOR NAI CASE STUDIES

News & Views, June 2003

Association of State Floodplain Managers

The ASFPM will be featuring the “no adverse impact” activities of 12 communities in a collection of case studies aimed at providing floodplain managers with descriptions of tools and activities that can reduce flood losses and community liability through the use of NAI approaches. Your community could be recognized as one of the leaders in the industry by being showcased in *NAI Case Studies*. By sharing your community’s experience, you will be providing both “successes” and “lessons learned” for the benefit of communities that are considering but have not yet implemented, NAI actions. Any community wanting to be included should submit a short nomination form by July 31, 2003, to the Association of State Floodplain Managers. Nomination forms and additional information can be obtained from Mark Riebau, Project Manager, ASFPM Executive Office, 608-274-0123, mark@floods.org.

To learn more about the concept of “no adverse impact” (NAI) and how it is being applied across the country check the ASPM’s website at <http://www.floods.org>.

MMSD WINS AWARD

The Milwaukee Metropolitan Sewerage District (MMSD) accepted the James C. Witt Award at the 27th annual conference of the Association of State Floodplain Managers. The award represents the hard work of MMSD staff and the Lincoln Creek Stakeholder Committee. The stakeholder committee was comprised of local and state politicians, as well as citizen groups.

The Lincoln Creek Project was undertaken by MMSD for two reasons: to protect over 3,000

structures that were at risk in a one percent probability flood event and to restore habitat and improve water quality that had been severely degraded by the previous urbanization of the watershed and channelization of the creek for the past 50 years.

The project involved 19 construction contracts from March 1999 to October 2000 to construct the \$111 million project.

The project is comprised of the following components:

- 8.35 miles of channel enhancements and restoration
- 2 flood storage facilities of 139 and 90 acre-feet (total 75 million gallons)
- 5 new vehicular bridges
- 5 new pedestrian bridges
- 2 new bridge reconstruction/ extensions
- 3 sanitary sewer siphons
- 10 watermain relocation (8” to 54”)
- 2 new railroad crossings
- Removal of 7 bridges
- Removal of 2 miles of concrete lined channel
- Removal of 4 drop structures
- 5 floodplain widening areas
- 1 wetland educational area
- 4 channel liner installations

The project involved some interesting design and engineering features as well as original or innovate applications of new or existing engineering techniques.

Bio-Veneer/Hardened Channel Lining One of the chosen solutions was the application of a “Bio-Veneer/Hardened Channel Lining” concept that would provide the armoring and structural integrity to withstand high velocities and shear stresses, but at the same time offer a natural appearance and enhanced habitat. The bio-veneer/hardened channel concept was adapted specifically for the Lincoln Creek project and is the first such application in Wisconsin.

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Habitat Enhancements - A series of pools and riffles were designed into the channel section to provide deep cover for native fish species.

Use of Oblique Aerial Photography - Throughout the course of construction, oblique aerial photographs were taken of the project corridor as a means of documenting progress for stakeholders.

Incorporation of Multipurpose Major Flood Storage - Havenwoods, one of two flood storage facilities, provides flood storage and a constructed wetland in the base of the facility that will improve riparian habitat, water quality, along with providing environmental educational benefits.

Threatened Species Mitigation - Three areas along the project corridor were found to be a habitat to the Butler's Garter Snake, a state threatened species. A Conservation Plan was developed and used to guide work in segregating the snakes from the work zone and to remove and protect them as appropriate. Snake habitat was enhanced through construction of snake hibernaculum (den sites) in 3 separate areas. This was a relatively new concept in the reptile community.

Social/Economic/Sustainability Considerations included:

Safety improvements - The removal of over two miles of concrete channel, the use of floodwater storage, and a channel design which significantly reduced velocities in many portions of the creek added to Lincoln Creek's safety. The channel design also created open space, providing an increase in security and visibility throughout the corridor area.

Public Health - MMSD removed million dollars of contaminated soil from various areas of the creek channel. In addition, unique channel liners were installed in four locations along the creek in areas where landfills were adjacent to the creek, greatly reducing the threat of

leachate infiltrating into the channel in the future.

Re-Establishing Neighborhoods - Prior to reconstruction of Lincoln Creek, the surrounding communities were separated by a creek corridor that was overgrown with trees and shrubs, had concrete-lined sections and limited means of access. Pedestrian bridge replacements, funded through a Community Block Grant facilitated through Milwaukee County, were installed at various locations along the corridor to maintain and promote interaction between neighborhoods. The "natural" bio-veneer surface and flatter slopes also provide the opportunity for access and contact with the natural features of the creek.

Preservation of Historical Features - In the mid-1930's, the Works Progress Administration (WPA) constructed bridges and masonry retaining walls during creek improvements from the confluence of Lincoln Creek and the Milwaukee River to North 49th Street. The four bridges and walls that remained were considered historically significant structures. Extensions were designed to match the façade of the historic structures at two of the bridges while still adding conveyance and preserving large portions of the retaining walls. Due to structural deficiency and the prohibitive cost of rehabilitation alternatives, the two remaining bridges were demolished.

A Sustainable Solution - The Lincoln Creek project provides a sustainable solution through its use of bioengineering techniques, a commitment to maintain and preserve a more natural watercourse system, use of onsite materials, and the overall long-term achievement of an enhanced social and economical environment for the area. The restoration of the floodplain without the acquisition, relocation and building of new structures provides the greatest benefit and exhibits many of the tributes linked to sustainability.

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Balancing Varying Interests to Achieve Acceptable Solutions – The Lincoln Creek Steering Committee was formed to organize the stakeholders in the Lincoln Creek watershed community and as such is comprised of the City of Milwaukee, Milwaukee County, WDNR, Sierra Club, elected officials and other government agency representatives. The meetings produced many differing *opinions* and objectives regarding the best way to solve the problem while enhancing the environment. Input was also solicited from the public during numerous public information meetings to achieve consensus on the project.

Control of Water and Erosion Control Operations - Each reach required localized solutions on how to best handle the flows and erosion control. Lincoln Creek set a precedent in the development of acceptable means of stream bypass methods by allowing construction within a live waterway. Valuable insight was gained by both the engineering, WDNR, and contractor communities in handling bypass operations.

HELP! We need your help in updating our mailing list.

If you have received this newsletter and are not interested in receiving future mailings, please let us know so we can remove you from our mailing list.

If you are not the correct contact person, please forward to the individual and provide us with the correct contact information.

If you are interested in receiving future newsletters and other information electronically, provide your e-mail address.

Please forward the above information and your e-mail address to Gary Heinrichs, WT/2, Wisconsin Department of Natural Resources, P.O. Box 7921, Madison, WI 53707-7921 or e-mail at Gary.Heinrichs@dnr.state.wi.us.