



# FLOODPLAIN & SHORELAND

# MANAGEMENT *Notes*

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The goals of the Wisconsin Floodplain Management Program are: to protect life, health and property; to minimize costs for flood control projects; to reduce tax dollars spent for rescue, relief and repair of flood damage; to shorten business interruptions caused by flooding; to prevent future flood blight areas; to discourage victimization of unwary land and home buyers; and to prevent increased flood levels caused by unwise floodplain development.

## INSIDE THIS ISSUE:

|                                 |   |
|---------------------------------|---|
| Shoreland update                | 2 |
| Flood Mitigation Assistance     | 3 |
| Mitigation prevents road damage | 4 |
| New DNR Staff                   | 5 |
| WAFSCM Conference               | 6 |

## President Makes Flood Disaster Declaration for WI

Beginning on Monday, July 11, and extending through Tuesday, July 12, 2016, multiple rounds of severe thunderstorms impacted much of east-central to northeast Minnesota and northwest Wisconsin. During a 24-hour period the area received eight to 12 inches of precipitation with the worst of the heavy rain and resulting flash flooding occurring in the evening hours. As an example, according to the National Weather Service, the area one mile west-south-west of the Town of Saxon recorded 9.80 inches of rain in a 24-hour period ending on July 12, 2016. In the area extending from Danbury in Burnett County to Hurley in Iron County, the majority of the total precipitation fell within just eight hours. In addition, a bow echo type storm moved across northern Iron County and caused tremendous amounts of damage at Saxon Harbor. The harbor was devastated by the flooding and debris carried by the many creeks, rivers, and streams that converge in the immediate area.

Tragically, this event resulted in the loss of four lives and caused numerous injuries and medical emergency calls to local first responders. Immediately following the storm many volunteer organizations and private sector partners provided assistance to residents impacted by the rainstorm and flooding.



Saxon Harbor, Iron County Before July, 2016

This event has impacted over 350 homes and left behind tens of millions of dollars in public sector damage. Both the initial storm and a secondary severe thunderstorm event on July 21, 2016, caused tens of thousands of power outages across the northern part of the state and generated large amounts of debris. The stress on citizens and local emergency response efforts was further intensified by high heat index levels that occurred statewide from July 20-22.

On August 9, 2016, President Barack Obama issued a Major Presidential Disaster Declaration, resulting in Federal Emergency Management Agency (FEMA) Public Assistance (PA) to eligible applicants in eight counties and one tribe and Hazard Mitigation Grant Program (HMGP) funding throughout the state for severe storms that occurred on July 11 and 12, 2016. Declared counties: Ashland, Bayfield, Burnett, Douglas, Florence, Iron, Sawyer, and Washburn and Declared tribe: The Bad River Band of Lake Superior Chippewa.

If you have questions relating to PA and HMGP funding, please contact Roxanne Gray, Mitigation Section Supervisor, Wisconsin Emergency Management at 608-242-3211 or by e-mail at [Roxanne.Gray@wisconsin.gov](mailto:Roxanne.Gray@wisconsin.gov). If you have questions about floodplain management, please contact Michelle Staff, Floodplain Policy Coordinator, at (608) 266-3093 or by e-mail at [Michelle.Staff@Wisconsin.gov](mailto:Michelle.Staff@Wisconsin.gov)



Saxon Harbor, Iron County After July, 2016

## Shoreland Draft Ordinance Review Update



As of August 16, the team has received 50 complete county ordinances for review for compliance with code and statutory revisions. Four counties have also submitted partial amendments for topic specific draft language. Currently, the team has completed 44 out of 50 ordinance submittals.

Upon completion of the ordinance review, a letter regarding is sent to the county with the required changes (if any) and recommendations to provide clarity and substance to the ordinance.

The shoreland team appreciates your patience with this process. The reviews have been incredibly time consuming since ordinances range anywhere from 30 pages to 200 plus pages when incorporated with other ordinances. Contact Kay Lutze, Shoreland Policy Coordinator at (920) 662-5159 or by e-mail [Kay.Lutze@Wisconsin.gov](mailto:Kay.Lutze@Wisconsin.gov)



Vehicle in road washout between LaFarge and Ontario - Valley, WI  
Imagery from Erica Steinmetz found via Facebook.



Michelle Staff, WI NFIP Coordinator presents Thomas Harrigan , Village of Elm Grove Planning and Zoning Administrator and Assistant Village Manager Village of Elm Grove an FEMA CRS plaque for participating in the program as a Class 5 community.

### Questions about Flood Insurance??

**FEMA has an service center for flood insurance policies holders.**



# Wisconsin's 2016 Flood Mitigation Assistance and Pre-Disaster Mitigation Grant Selections

For FEMA's 2016 Flood Mitigation Assistance (FMA) program, Wisconsin Emergency Management submitted one subapplication in the amount of \$235,000 for the acquisition and demolition of one Severe Repetitive Loss property in Pepin County.

The goal of FEMA's FMA program is to reduce or eliminate claims under the National Flood Insurance Program (NFIP) (to be eligible for the program, a property must have a current NFIP flood insurance policy). The most highly prioritized method for achieving this goal is mitigation of Severe Repetitive Loss (SRL) and Repetitive Loss (RL) properties. There are currently 17 Severe Repetitive Loss and 23 Repetitive Loss properties in Wisconsin as defined by FEMA. The program is strictly voluntary, so property owners are alerted to the opportunity, but there is no requirement for them to participate.



2004 Jefferson County

2008 Jefferson County

2016 Jefferson County

The Pepin County project was submitted under FMA in 2015, but was not selected for further review. We are happy to report that the project was selected for further review this year and should be funded in early 2017!

FEMA's Pre-Disaster Mitigation (PDM) program can be used to fund all-hazards mitigation planning grants or project grants that address flooding or other natural hazards. For FEMA's 2016 PDM program, Wisconsin Emergency Management submitted eleven planning subapplications totaling just over \$500,000, and two project subapplications totaling \$749,000. The planning subapplications were for the following counties: Eau Claire, Grant, Green Lake, Florence, Iowa, Jefferson, Monroe, Ozaukee, Pierce, St. Croix, and Vernon. Vernon County's subapplication included significant funding for GIS parcel mapping, the first time this activity has been included in a PDM planning subapplication in our state. All eleven subapplications were selected for further review and should be funded in late 2016 or early 2017!

The project subapplications were for a second community tornado safe room in the City of River Falls in Pierce County and for the acquisition and demolition of a floodplain property in Ozaukee County. Both projects were also selected for further review and should be funded in early 2017!

The new River Falls safe room will be in Glen Park which is a popular summer outdoor destination along the Kinnickinnic River. The park houses ball fields and a public pool and is host to many walkers, bikers, boaters, and fishermen. The safe room will also protect nearby neighborhood residents.

The Ozaukee County acquisition and demolition project is in the Special Flood Hazard Area. Once the structure is removed, the land will be deed-restricted to open space use in perpetuity, allowing for additional flood storage. Both the property owner and the river will come out ahead in the end. For more information on FMA projects, please contact Katie Sommers, State Hazard Mitigation Officer, Wisconsin Emergency Management at (608) 242-3222 or by e-mail at [Katie.Sommers@wisconsin.gov](mailto:Katie.Sommers@wisconsin.gov)



Tornado Safe Room

Severe Repetitive Loss properties are defined as properties for which "[a]t least two separate NFIP claim payments have been made with the cumulative amount of such claims exceeding the market value of the insured structure."

Repetitive Loss properties are defined as properties that "[h]ave incurred flood-related damage on two occasions, in which the cost of the repair, on the average, equaled or exceeded 25% of the market value of the structure at the time of each such flood event."

# Mitigation Prevents Road Damage in the Town of Clover

Article Submitted by Wisconsin Emergency Management

Town of Clover, WI – Located near Lake Superior in Northern Wisconsin, the Town of Clover is a small Bayfield County community made up of 223 residents. The Town experiences periods of seasonal flooding each year, particularly on Nicoletti Road, a town roadway located on an unnamed perennial tributary to Lake Superior, locally referred to as “Horseshoe Creek.”

Grant Program (HMGP) to install a large culvert in Horseshoe Creek at Nicoletti Road. Under the HMGP, 75% of project costs are covered by Federal funds, with the State of Wisconsin and the municipality each contributing 12.5%. The grant was awarded in 2014, and the project was completed in October 2015.

During the July 11-12, 2016, storms, three to four inches of rain fell on the Town of Clover in a 24-hour period (approximately a 5- or 10-year storm). Many roads and culverts in the area washed out, including part of Nicoletti Road to the east of the culvert mitigation project. At this point of the road, 11 streams from the hills to the south drain into a ditch on the south side of the roadway. During the storms, this ditch filled beyond its capacity and overtopped Nicoletti Road, resulting in a quarter mile of roadbed erosion and subsequent closure of the road.



Location map of the Nicoletti Road culvert in the Town of Clover, Wisconsin.

Clay soil near Lake Superior limits infiltration, resulting in large volumes of stormwater runoff during heavy rain events. This runoff, as well as snow melt in the spring, regularly flooded the wetlands and waterways near Nicoletti Road, rendering it and other area roads impassable during any rain event of 2 inches or greater (approximately a 1-year storm). The section of the roadway near the Horseshoe Creek culvert was particularly prone to washing out, requiring repeated annual repairs. Because the culvert was not large enough to allow the flow from a 1-year storm to pass through, the wetland area upstream would overflow and inundate nearby Bark Bay Road as well. Flooded roads routinely presented public safety threats by endangering drivers and creating obstacles to EMS and fire response in the area. Washouts also carried gravel and sediment from the roadways to the wetlands, estuary, and lake within the Bark Bay Slough Natural Area.

Information sources:  
 NOAA's National Weather Service, <https://nws.noaa.gov> / [www.weather.gov](http://www.weather.gov)  
 U.S. Census Bureau, <http://factfinder.census.gov>



However, the road damage stopped short of the culvert mitigation project; the upsized culvert was able to handle the runoff from this event, and Nicoletti Road at Horseshoe Creek “held beautifully,” according to Beverly Steele, Town of Clover Chairperson. Although the Horseshoe Creek culvert was a success, Steele stated the washout on the other part of Nicoletti Road indicates that “further mitigation is needed.”



The upgraded Nicoletti Road culvert, shortly after installation (August 2015).

Repeated road closures, costly repairs, public safety issues, and concern over the amount of road material entering nearby waterways prompted the Town to explore mitigation opportunities for the Nicoletti Road culvert. The original culvert was undersized relative to the amount of stormwater discharge known to pass through the area during seasonal flood events. Therefore, the Town decided to replace the existing culvert with an upgraded culvert crossing large enough to accommodate a 100-year (1-percent-annual-chance) flood event. Once the Town of Clover had developed a mitigation strategy, the next step was to secure funding. In 2013, the Town of Clover applied for funding under FEMA's Hazard Mitigation



The Nicoletti Road Gnome faithfully watches over the upgraded culvert.

# Meet the New DNR Dam Safety and Floodplain Staff



Jennifer Jefferson — I grew up in northern Iowa and graduated from Iowa State University in 2007 with a degree in civil engineering. I worked as a construction project manager in Minneapolis, MN and then as a water resources engineer in Milwaukee, WI before deciding to go back to graduate school. In 2011, I returned to Iowa State University for my MS (in Civil Engineering) and recently finished my PhD in hydrology at Colorado School of Mines in Golden, CO. As much as I love learning and teaching I am looking forward to being an engineer again!

I moved from Colorado to Eagle River with my husband, Jesse, and our yellow lab, Stella. My husband born and raised in Eagle River and we are excited to live closer to one of our families. We spend a lot of time outdoors and enjoy hiking, trail running, biking and gardening. I also like to do craft projects and quilt.

I am excited to join the Rhinelander office!

Andrea Knutson — I graduated from the university of Wisconsin Platteville with a degree in environmental engineering in 2015. I recently moved back to Wisconsin from Michigan where I was working as a remediation engineer for TRC. While in school I held three internships; with the Illinois DOT and Cotter Consulting as a civil engineering intern and with Oshkosh Corporation as an environmental engineering intern. I also completed a research grant for the University of Wisconsin systems solid waste research program.

While in college I was on the Cross Country, Track and field, and road cycling teams. I am an avid runner and cyclist (road and mountain). I am also currently training to run the Chicago Marathon. My fiancé Marc and I enjoy spending time mountain biking on the kettle moraine trails.

I am extremely excited to begin work with the Wisconsin DNR as a water management engineer. I am enthusiastic about the numerous opportunities I will receive and the great team I am going to become a part of.



Bart Chapman joined the Department in March of 2012 as a Permit Drafter and Plan Review Engineer in the Wastewater Program. After 2 ½ years of drafting WPDES permits, Bart transferred to the Northern Region and took a position as a Water Management Engineer in the Waterways Program. After gaining valuable cross-program experience, Bart returned to the Madison office to lead the Wastewater Program as the Section Chief. Bart is returning to the field in the Waterways Program as the new Water Management Engineer in the Western Central District with a LaCrosse office location.

Bart is a native of Rockford, IL and has a Bachelor of Science Degree in Environmental Resources Engineering from Humboldt State University and a Master of Science Degree in Civil Engineering from Oregon State University. When not working, Bart enjoys bird watching, hiking, fishing, cooking and playing music. He spends the majority of his free time on, in, under, near, around or adjacent to water.

To find contact information for your DNR Water Management Engineer (WME) [CLICK HERE](#)

As we integrate the new WME's into the program, County assignments are likely to change. Check off.

# Wisconsin Association of Floodplain Coastal and Stormwater Managers



## SAVE THE DATE!!!!

### We are pleased to announce the 14<sup>th</sup> Annual WAFSCM Conference - 2016

**November 9th - 11th, 2016**

**Radisson La Crosse**

**200 Harborview Plaza La Crosse, WI**

Details on registration, sponsorships, speakers and award submittals, scholarships, and conference content will be coming soon to the WAFSCM website. [www.wafscm.org](http://www.wafscm.org)

We plan to fill 3 tracks for the breakout sessions – one each for stormwater, floodplains, and coastal projects/issues. **Plan your abstract submittals - a request will be sent soon!**

**Schedule:**

**Wednesday 11/9:** Workshops and Networking

**Thursday 11/10:** Main Conference Day (plenary and breakout sessions)

**Friday 11/11:** Morning Field Tour

**We will have the CFM review and exam again this year.** Contact one of the Conference Co-Chairs:

Laura Rozumalski at [lrozumalski@freshwatereng.com](mailto:lrozumalski@freshwatereng.com) or

Minal Hahm at [minal@msquaredengineering.com](mailto:minal@msquaredengineering.com)

for more information.



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“Floodplain and Shoreland Management Notes” is published by the WDNR, Bureau of Watershed Management. Its purpose is to inform local zoning officials and others concerned about state and federal floodplain management, flood insurance, shoreland and wetland management, and dam safety issues. Comments or contributions are welcome.

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