

Floodplain and Shoreland Management

Notes

Floodplain Management: What's Your Zone?

Probably the most frequent question in floodplain management is "What flood zone am I in?" Sometimes answering this question is simple. On other occasions, it becomes a long complicated process. It is important to determine a property's flood zone for any type of proposed development so that the correct regulations can be applied. If the wrong flood zone and regulations are used, it could result in a violation and higher flood insurance premiums for the owner. Development for floodplain management purposes is defined as *"any artificial change to improved or unimproved real estate, including, but not limited to, the construction of buildings, structures or accessory structures; the construction of additions or alterations to buildings, structures or accessory structures; the repair of any damaged structure or the improvement or renovation of any structure, regardless of percentage of damage or improvement; the placement of buildings or structures; subdivision layout and site preparation; mining, dredging, filling, grading, paving, excavation or drilling operations; the storage, deposition or extraction of materials or equipment; and the installation, repair or removal of public or private sewage disposal systems or water supply facilities."*

The first step in determining a flood zone is understanding what the various zones are and what they mean. In Wisconsin, a property might be located in an unshaded X zone, a shaded X zone, a C zone, a B zone, an A zone, an A1-30 zone, an AE zone, an AO zone, an AH zone, a flood storage district, the floodfringe or the floodway. A community may have some or all of these flood zones within the corporate boundaries and depicted on its

Flood Insurance Rate Maps (FIRM).

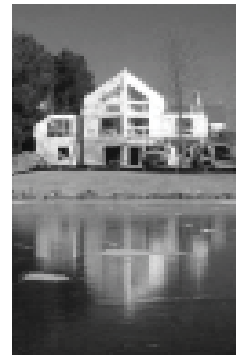
The X or B zones are those areas which are not regulated under either the NFIP or NR 116. However, local ordinances may regulate development in these areas. A shaded X zone or B zone is the area of 0.2% annual chance flood. A flood risk has been determined for these areas, but it has been determined to be less than the 1% (100 year) zone and flood insurance is not required. A shaded X zone is delineated on the digital FIRMs as an overlay of black dots. On older FIRMs it is labeled as either an X or B zone and shown as a shaded area lighter in color than the A zones. An unshaded X zone or a C zone is an area determined to be outside of the 0.2% annual chance flood zone and flood insurance is not required. It does not have any shading or overlay. Older FIRMs may not label this area.

All A zones are areas affected by the 1% annual chance flood and are regulated by the NFIP and NR 116. They are collectively known as the Special Flood Hazard Area (SFHA) and flood insurance is required for any structure with a federally backed or federally insured loan. The SFHA is divided into the floodway and the floodfringe. The floodway is the channel of a river or stream and those portions of the floodplain adjoining the channel that are required to carry the 1% flood. The floodfringe is that portion of the SFHA which is outside of the floodway.

An A zone is a SFHA where base flood elevations have not been determined and a detailed hydraulic and hydrologic analysis has not been conducted. In NR 116, A zones are called general flood zones. An AE zone or an A1-30 zone is an area where base flood elevations (BFE) have



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been determined and a detailed hydraulic and hydrologic analysis has been conducted. Also, it contains both the floodfringe and the floodway if the floodway has been determined. The A1-30 zone designation has been replaced by the AE zone on FIRMs since the 1990's. Under NR 116, A zones with BFEs determined are called either floodway or floodfringe areas.

On the digital FIRMs, the SFHA is delineated as an overlay of colored dots. In AE and A1-30 zones, the floodway is an area with an overlay of colored dots and hatching (diagonal lines). In communities with older maps, the SFHA is delineated as a shaded area. The floodway may be shown as either an area with hatching or as a white area within the SFHA on a separate map.

Some communities may have an area designated as AO or AH. These are areas within the SFHA which are affected by either ponding or sheet flow and flood insurance is required for any structure with a federally backed or insured loan. In AH zones, BFEs have been determined. In AO zones, only average flood depths have been determined. Both are shown on the digital FIRM as an overlay of colored dots and are considered part of the floodfringe.

A flood storage district is an area of the SFHA where the storage of floodwaters has been taken into account in reducing the 1% flood. A flood storage district is an overlay on the FIRM created by the DNR under the requirements of NR 116 and depicted on a separate map. Flood storage areas do not extend beyond the boundaries of the SHFA as shown on the FIRM.

The next step in a flood zone determination is locating the property on the FIRM. This can be fairly simple on the digital FIRMs which have an aerial photo as the base map. While each community should have at least one paper copy of the FIRM available, many with GIS capabilities

have created a floodplain layer within their mapping database. With GIS, the floodplain layer can be laid over the community parcel layer and it can be quickly determined whether the property is in or out of the SFHA.

The zone determination process can be more complicated on paper FIRMs, particularly if the FIRMs are older and do not show newer streets or annexations. In this case, the use of parcel maps, aerial photos and a ruler can simplify the flood zone determination process. Once the flood zone has been determined the local zoning official can apply the proper standards.

Local officials are not required to do flood zone determinations and most do not because they do not have a licensed engineer or surveyor on staff. Instead, the community requires that an applicant provide either a certified site plan showing the boundary of the SFHA or an elevation certificate stating the lowest adjacent grade. Both documents must be completed and sealed by a licensed engineer or surveyor.

FEMA has developed a series of on-line tutorials for the NFIP including tutorials on Flood Insurance Rate Maps, Flood Insurance Studies and Letters of Map Change. To view the tutorials go to www.fema.gov and type in "tutorial" under *Search*.



Flood Damage Estimation Procedures

By participating in the National Flood Insurance Program (NFIP), your community makes federally-backed disaster assistance, flood insurance and mortgages available to all residences and businesses in your community. In return, your community adopted and is required to administer a floodplain ordinance. Your ordinance has a 'non-conforming use' provision which requires that in the event of damage to structures located in the Special Flood Hazard Area (SFHA) or 100-year floodplain, you must inspect the damaged structures to determine if the amount of the damage equals or exceeds 50% of its equalized assessed value. The Federal Emergency Management Agency (FEMA) refers to this as a 'substantial damage determination'. You are required to make this determination for each building in the floodplain that was recently damaged from flooding in your community.

Since it is also a requirement of your floodplain ordinance to make this determination under State law, the DNR is the agency charged with follow-up on this matter to ensure compliance with both your floodplain ordinance and NFIP requirements, on behalf of FEMA.

Specifically, you will need to compile and submit the following information to comply with this requirement:

1. A comprehensive list of all buildings, located in the SFHA, that sustained damage during the flooding, regardless of whether a permit was required for repairs.
2. The property address, owner's name, and percent damage calculated for each property listed. If the total damages for a structure equals or exceeds the 50% threshold, then the structure is consid-

ered substantially damaged under your ordinance and must be brought into compliance with current floodplain zoning standards.

3. A description of the methodology used to make the damage calculations. Regardless of the methodology used, you must compare the total damages against the 'Equalized Assessed Value' for the building as the basis for determining whether substantial damage has occurred. Total damages must include the market value of all donated labor and materials
4. A copy of a letter to each property owner notifying them of the determination of substantial damage and an explanation of the requirements of your floodplain ordinance for making the structure compliant with those standards. These standards are usually in the 'non-conforming use' section of your ordinance.

Prompt completion of these determinations will facilitate a timely review of the application for Hazard Mitigation Grant Program (HMGP) funds, should these funds be made available and your community applies for this assistance. Wisconsin Emergency Management will be informed of your community's progress with this task to ensure integration of these two programs.

Once you have notified the property owners of the requirement to bring their structure into compliance with your community's floodplain zoning ordinance, you will need to keep the DNR (see listing below) informed of the progress each property owner is making to achieve compliance. Progress towards 100% compliance will be one of the factors considered in the review of HGMP Awards.

Wisconsin DNR Substantial Damage Contacts

Gary G. Heinrichs	gary.heinrichs@wisconsin.gov	608-266-3093
Miriam G. Anderson	miriam.anderson@wisconsin.gov	608-266-5228

Preferred Risk Policy Offers Savings On Flood Insurance

Before the federal Map Modernization program began in 2003, more than 70 percent of the nation's flood maps were at least 10 years old. These maps were developed using older technology and no longer accurately reflect current flood hazards.

New elevation and engineering information, combined with better floodplain boundary delineation techniques, mean the new maps are more accurate. It also means that some properties have been mapped into the floodplain while others were added due to non-compliant levees or other flood control measures.

The flood risks depicted on the new maps are real and many property owners now find themselves in high-risk areas where they are required by lenders to purchase flood insurance.

While map changes more accurately reflect a community's flood risk, FEMA recognizes the financial hardship that SFHA designation may place on individuals in newly identified high flood risk zones; consequently, FEMA is extending eligibility for low-cost PRP's starting January 1, 2011.

What does the extension mean?

If a building in a moderate-to-low-risk flood zone (Zone B or X) has been mapped into a high-risk flood zone (A, AE, AO, AH) and was secured with a federally regulated or insured loan, lenders may require that flood insurance be purchased.

Owners of buildings newly mapped into an SFHA due to a map revision effective on or after October 1, 2008, and before January 1, 2011, are eligible to receive a reduced premium for up to two policy years beginning January 1, 2011 through December 31, 2012.

Owners of buildings that will be mapped into an SFHA because of a map revision on or after January 1, 2011, are eligible to receive up to two policy years of reduced premiums after a map revision.

A PRP premium for a residential building and contents ranges from as low as \$129 – for \$20,000 in building and \$8,000 in contents coverage – to as high as \$405, for the maximum \$250,000 building and \$100,000 contents coverage. A residential tenant can get coverage for as low as \$49 for \$8,000 in contents coverage.

In order to receive reduced premiums, the property must meet PRP eligibility requirements related to claims and disaster aid. There are additional rating options offered through the NFIP, which may result in additional savings (e.g. grandfathering, elevation rating, and higher deductibles).

Previous and current flood zone documentation will be required to validate PRP extension eligibility. For example, you may use a copy of the previous flood map and current flood map showing where the building is located.

What are the benefits?

The PRP eligibility extension provides temporary financial relief. The reduced cost provides additional time to save and prepare for paying the premium based on standard rates after two years. If your community has received updated maps since October 1, 2008:

- Contact your insurance agent to see if you qualify.
- Visit FloodSmart.gov or www.FloodSmart.gov/PRPExtension for more information.
- Call the NFIP Help Center at: 1-800-427-4661 with questions.

Dam Safety Seminars – November, 2010

Save the Dates

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The Dam Safety Staff will be holding five seminars on dam safety for the owners of large dams between November 10 - 18, 2010 at various locations throughout the state. It has been over 5 years since the DNR last held any training for dam owners and With the implementation of the new dam inspection rules, the DNR wants to refresh dam owners knowledge about safe operation and maintenance.

The purpose of the seminars will be to provide dam owners, dam operators, potential dam owners and others within the dam community with the latest information on state dam regulations, inspection procedures and Emergency Action Plans. The seminars will also be an opportunity to provide dam owners and operators with information on hiring consulting engineers and other issues related to dam safety.

All owners and operators of dams are urged to attend as well as anyone considering purchasing a dam. The seminars will be held in Beaver Dam (Dodge County), Bangor (La Crosse County), Rice Lake (Barron County), Merrill (Lincoln County) and Shawano (Shawano County) and will be from 8:30 am to 3:30 pm. Lunch will be provided with registration. Early registration is recommended due to limited seating. Walk-in registrations will not be accepted.

A fee of \$10.00 will be charged to cover the cost of facilities and lunch. Checks should be made out to the Association of State Dam Safety Officials (ASDSO) and must be mailed in with the registration form.

The DNR Dam Safety Program is conducting the seminars with support from the ASDSO Owner Education Program and the Federal Emergency Management Agency Dam Safety Program. For further information on the seminars, locations or registration, please contact: Linda Hyatt via e-mail at Linda.hyatt@wisconsin.gov or at 920-787-4686 x3010.

The dates and locations for Dam Safety Seminars for large dam owners are:

November 10, 2010

Beaver Dam
Old Hickory Country Club
W7596 State Road 33
Beaver Dam, WI

November 11, 2010

LaCrosse
Town of Bangor Town Hall
N4400 State Road 162
Bangor, WI 54614

November 16, 2010

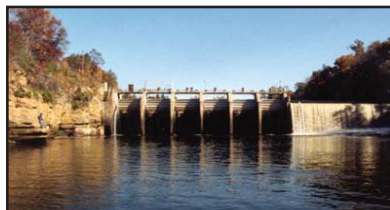
Rice Lake
Turtleback Country Club
107 W Coleman St,
Rice Lake, WI

November 17, 2010

Merrill
Merrill Golf Club
1604 O Day St
Merrill, WI

November 18, 2010

Shawano
Shawano Lake Country Club
W5714 N Lake Dr
Shawano, WI



DNR Website for Mapping Status

The Department of Natural Resources has developed a website to provide communities and others with information regarding the Flood Map Modernization Program in Wisconsin. The website contains information on project status, the public open house schedule, the comment and appeal process, post preliminary map process and other mapping related issues.

Links to FEMA's website are included. The FEMA sites are for information on Letters of Map Change and the Map Service Center.

For further information regarding the Flood Map Modernization Program contact:

Amanda Schwoegler - Process Issues
amanda.schwoegler@wisconsin.gov

Bob Watson - Technical Issues
robert.watson@wisconsin.gov

Ken Hinterlong - FEMA
ken.hinterlong@dhs.gov

The website is located at: <http://dnr.wi.gov/org/water/wm/dsfm/flood/mapping.htm>.

Current Letters of Final Determination

Letters of Final Determination (LFD) have been issued for several counties. Once an LFD has been issued, all communities in the county participating in the NFIP have six (6) months to amend the local floodplain ordinance to include the new FIRMs and Flood Insurance Study. Communities which do not adopt by the effective date of the maps will be immediately suspended from the NFIP. Communities which do not currently participate in the NFIP have one (1) year to join the NFIP and adopt the new maps.

All ordinance amendments must be reviewed and approved by the DNR and FEMA. For further information on ordinance amendments and adoption go to <http://dnr.wi.gov/org/water/wm/dsfm/flood/communities.htm> and download the appropriate DNR Model Floodplain Ordinance and Checklist and the Ordinance Approval Procedures. You may also consider contacting your local DNR Regional Engineer.

LFDs have been issued for the following counties and all the incorporated communities within the county:

County	Effective Date
Oconto County	October 6, 2010
Crawford County	December 17, 2010

For further information and updates on mapping issues go to <http://dnr.wi.gov/org/water/wm/dsfm/flood/mapping.htm>.

Updating Your Floodplain Ordinance

Interested in updating your local floodplain ordinance? Download the latest Model Floodplain Ordinance at <http://dnr.wi.gov/org/water/wm/dsfm/flood/communities.htm> or contact Gary G. Heinrichs (gary.heinrichs@wisconsin.gov) or Miriam G. Anderson (miriam.anderson@wisconsin.gov) for further information.

Scheduled Flood Risk Open Houses

A Flood Risk Open House is scheduled for Douglas County on October 6, 2010. The purpose of Flood Risk Open Houses is to present the preliminary Flood Insurance Rate Maps to local officials and the public for review and comment. The open houses also provide an opportunity for FEMA and the DNR to provide local officials with information on ordinance adoption and floodplain management.

At the afternoon meeting for local officials, information will be presented on how the maps were made and the procedure for filing appeals or comments as well as information on the next steps in the mapping process. Staff from the DNR will be available to answer questions regarding the maps and the NFIP.

At the evening meeting, the preliminary FIRMs will be available for the public to review. Staff from the DNR will be available to answer questions regarding the maps and the NFIP.

October 6, 2010 Douglas County

Solon Springs Community Center
11523 S. Business 53
Solon Springs, WI
2:30 PM Local Officials Meeting
6:00 PM Open House for Public

Flood Risk Open Houses were held on September 1, 2010 for Bayfield County, September 8, 2010 for Forest County and September 21, 2010 for La Crosse County. The purpose of Flood Risk Open Houses was to present the preliminary Flood Insurance Rate Maps (FIRMs) to local officials and the public for review and comment. The open houses also provided an opportunity for FEMA and the DNR to provide local officials with information on ordinance adoption and floodplain management.

Copies of the preliminary FIRMs have been made available to the county as well as all incorporated cities and villages in Bayfield, Forest and La Crosse Counties. FEMA will open a 90 day Comment and Appeal period soon. Any comments or appeals to the preliminary FIRMs should be compiled by the local community and then forwarded to FEMA for review.

For more information on how to file a comment or appeal go to DNR's Floodplain Mapping website: <http://dnr.wi.gov/org/water/wm/dsfm/flood/mapping.htm>.



Open House La Crosse County

Great Lakes Restoration Initiative Symposium

The Wisconsin Lake Michigan Stakeholders will hold a *Great Lakes Restoration Initiative Symposium: Lessons Learned and Future Funding Opportunities* on October 13, 2010 at Lakeshore Technical College in Cleveland, Wisconsin. The symposium is designed to assist stakeholders in improving proposals for grant opportunities under the 2011 Great Lakes Restoration Initiative. Topics to be covered will include: Great Lakes restoration; Initiative Action Plan and important elements for future proposals; lessons learned from debriefing sessions; grant writing tips; and federal Great Lakes Restoration Initiative grant opportunities.

Registration can be completed by telephone at 608-266-9238 or via email at kate.baret@wisconsin.gov. The registration fee for the symposium is \$8.00 and covers the cost of facilities and lunch. Checks or cash will be accepted at check-in on the day of the symposium. The deadline for registration is October 8, 2010. For directions to Lake Shore Technical College go to <http://gotoltc.edu/index.php>.

Stream Restoration Symposium

The Partnership for River Restoration and Science in the Upper Midwest (PRRSUM) is pleased to announce the *Second Annual Upper Midwest Stream Restoration Symposium*, February 27 – March 2, 2011 in Oconomowoc, Wisconsin.

The symposium is aimed at practitioners interested in gaining an interdisciplinary perspective on stream restoration. The format will be a single track (no concurrent sessions) covering a broad range of science, research, economics, engineering design, project monitoring, education and policy. The two and a half day conference will include structured time for oral presentations and posters as well as time for discussion and networking. The final half day is optional and will focus on a TBD subtopic in stream restoration.

The inaugural (2010) symposium successfully brought together leading national and regional stream restoration practitioners for presentations and discussions on important regional stream and river restoration issues. The 2011 UMSRS will be held in eastern Wisconsin at the Olympia Resort in Oconomowoc, Wisconsin. This location (between Madison and Milwaukee) is easily accessible and will allow participation from across the Midwest.

Please visit <http://www.prrsum.org/content/umsrs-symposium-2011> for full details on this year's symposium as well as highlights from last year. We hope you will consider submitting an abstract and joining us in February 2011.



2010 Conference

The 8th annual Wisconsin Association of Floodplain, Stormwater and Coastal Managers conference will be held November 3 - 4, 2010 at the Wilderness Resort in Wisconsin Dells, Wisconsin. The theme of the conference will be "*Healthy Watersheds, Healthy Communities*". Information on registration, accommodations and workshops can be found on the WAFSCM website www.wi.floods.org. Please note registration is on-line only with a deadline of October 29, 2010. Registration is \$90 for members, \$100 for non-members and special rates for municipal/county employees and students with appropriate identification.

WISCONSIN ASSOCIATION FOR FLOODPLAIN, STORMWATER AND COASTAL MANAGEMENT (WAFSCM)

Membership Application/Renewal Form For January 2011 – December 2011

Membership Fee: \$20.00

Name: _____

Title: _____

Organization: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Phone: _____ Ext.: _____ Fax: _____

E-mail: _____

Would you like to receive occasional announcements, newsletters and/or notices via E-mail: Yes ___ No___

Other Affiliations: _____

Primary Interest: ___ Floodplain ___ Stormwater ___ Coastal

Specific Interest: _____

Please send a check for the annual Membership Fee of \$20.00 made payable to WAFSCM in care of:

Carrie Bristol-Groll, PE, CFM
WAFSCM
c/o Stormwater Solutions Engineering, LLC
100 East Sumner Street
Hartford, WI 53027

If you have questions, contact Carrie Bristol-Groll at either (262) 673-9697 or cbg@stormwater-solutions-engineering.com.

"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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Shoreland Contacts:

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<http://dnr.wi.gov/org/water/wm/dsfm/shore/county.htm>

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