

Floodplain and Shoreland Management

Notes

When the DNR Comes to Visit

Every year the Wisconsin DNR selects a small group of lucky Wisconsin communities to visit. We call this visit a CAV (Community Assistance Visit). A CAV is a comprehensive assessment of a community's administration of its floodplain zoning ordinance. While one purpose is to correct programmatic deficiencies, we also use it as an opportunity for training for local officials, sharing updates on state and federal programs, distributing brochures and other useful materials, and meeting with elected officials if requested.

What does it take to be one of those lucky communities? There are many right answers. The DNR may decide to visit a community because of:

- High percentage of population/structures in the mapped floodplain;
- Significant new development in a mapped floodplain;
- Large flood insurance policy base or flood insurance claims paid;
- Problems with floodplain ordinance administration/enforcement;
- Recent presidential disaster declaration;
- Application to or participation in FEMA's Community Rating System;
- Community staff requests a CAV

Well, we don't get many requests, but a CAV is much more than an "audit" of how development is occurring in a community. It's an opportunity for state and local staff to meet in person, exchange information, discuss current development practices and how things can be improved, and work through the complicated agency review and permit process involving local,

state and federal government responsibilities.

The CAV is a federally-mandated activity, funded by the Community Assistance Program as administered by the Federal Emergency Management Agency. As FEMA's authorized representative in Wisconsin, the DNR agrees to conduct a specific number of CAV's each year, while FEMA staff may assist on large or complex CAV's.

Even before visiting the community, a lot of background work is needed to prepare for the CAV. It starts with a review of the community file, searching for past correspondence related to development, ordinance issues, variances, enforcement cases, map change actions, past disasters, flood insurance, mitigation programs and training needs. The current effective Flood Insurance Study and associated maps are reviewed and possible map revision information is analyzed. Aerial photos are compared if available. State and federal databases are also reviewed.

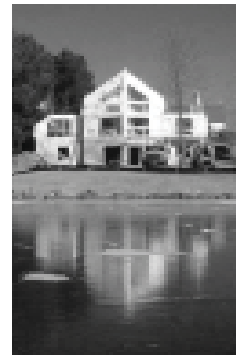
A letter is then sent to the community, requesting that all floodplain development permits, variance files, conditional use permits, map change actions and elevation and floodproofing certificates be collected and made available for review at the meeting. The community may also be asked to prepare to answer questions on a specific project or concern.

On the day of the visit, state and local staff drive the developed areas of the mapped floodplain, looking for new structures, major repairs and substantial improvements to floodplain structures.

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Single Source for Lake Delton Information

The flooding in Lake Delton produced some of the most vivid film footage of the June 2008 Floods. The images of houses collapsing and then floating down the Wisconsin River were shown on news programs throughout the US and reported in papers around the world.

As a result of the many requests for information on the catastrophe, DNR

Dam Safety has placed all applicable dam safety public files on its website for download <http://dnr.wi.gov/org/water/wm/dsfm/flood/lakedelton/>.

The files include correspondence, photos, plans, studies and inspection reports. The files also include information on the Mirror Lake Dam which is located upstream of Lake Delton.



- Breach at Lake Delton, June 12, 2008

Floodplain and Shoreland Management Notes

"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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NR 115 Update

The revision of the 40-year-old shoreland management rules (NR 115) is still moving through the approval process. It is hoped to have the proposed rules placed before the Natural Resources Board by the end of the year.

Toni Herkert, who has been instrumental in NR 115 revision process for the past 10 years, will be leaving the DNR as of the end of July. For the past 2 years, she has been the Policy Coordinator for the Bureau of Watershed Management. She has also acted as the facilitator for the Dam Safety Floodplain Management Team at its tri-annual meetings.

Toni's extensive experience with the legislative process, along with her outstanding organizational and facilitation skills will be sorely missed. While she has decided to step down from her full time position, everyone at the department is hopeful that she will return in a limited capacity to work on other policy challenges that the Water Division is facing.

Gregg Breese, Shoreland Program Manager will be replacing Toni. He can be contacted at 608-261-6430 gregory.breese@wisconsin.gov.

Dam Safety-Floodplain Management Team

The DNR's Dam Safety-Floodplain Management Team meets approximately three times a year to discuss current issues and methods of providing better service to the citizens of Wisconsin. For the past two meetings, the main topic of discussion has been the Team's role in responding to floods and associated dam incidents. The flooding in August 2007 and June 2008 tested the various Team members, with long hours and frequently hazardous working conditions. The Team met the needs of the citizens and local officials in the areas affected by the flooding as well as continuing to meet the needs of those elsewhere. Below is a photo of the Dam Safety-Floodplain Management Team at its July 2008 meeting.



Communities Responsible for Inspecting Flood Damaged Properties

The recent flood disaster in Wisconsin has prompted state and local officials to re-examine how we manage nonconforming uses and structures both before and after a flooding event.

All levels of floodplain regulations place limits on alterations, additions, repairs and rebuilding of structures that do not comply with current zoning ordinance provisions. Since the intent of nonconforming law is to eventually bring nonconforming structures into compliance, courts throughout the country, including Wisconsin, have tried to find a balance between the rights of property owners to maintain and repair a structure and the community's interest in ensuring that all structures meet the minimum floodplain management standards.

As water levels in flood-stricken areas recede, local officials will be inspecting flooded properties to determine the amount of damage and whether a building permit will be needed to make repairs. This applies to all structures in the floodplain, including those which were constructed before the community's floodplain zoning ordinance was adopted and are considered legal nonconforming structures. The owners of these structures, which were not properly elevated or were built in hazardous floodway areas, can only make limited repairs or modifications to the structure. If local officials determine that a nonconforming structure is "substantially damaged" (damages exceed 50% of the structures equalized assessed value), the structure must be declared uninhabitable and cannot be replaced, reconstructed or rebuilt unless it is compliant with floodplain standards.

All communities participating in the National Flood Insurance Program (NFIP) have adopted floodplain zoning ordinanc-

es with language regulating the permitting of repairs to flood-damaged structures. In order for residents of the community to remain eligible for subsidized flood insurance, disaster assistance and flood mitigation grants, the community has agreed to regulate all development activity in the floodplain. Development includes repairs or reconstruction of damaged structures.

If a building is substantially damaged, no repairs can be authorized until the community determines if the requirements of the floodplain zoning ordinance can be met. State administrative codes and local ordinances define substantial damage provisions: "If any nonconforming structure or any structure with a nonconforming use is destroyed or is so badly damaged that it cannot be practically restored, it cannot be replaced, reconstructed or rebuilt unless the provisions of the current floodplain zoning ordinance are met. For the purposes of this subsection, restoration is deemed impracticable where the total cost of such restoration would equal or exceed 50 percent of the present equalized assessed value of the structure."

"Destroyed or is so badly damaged" and "total cost" are the key provisions. Unlike repairs or modifications to undamaged structures, where a distinction is made between ordinary maintenance and structural work, all costs to restore a flood-damaged structure are counted against the 50 percent limit on such costs.

For properties in floodfringe areas, this usually means the structure will need to be elevated. Substantially damaged floodway properties cannot be repaired or rebuilt, but are eligible for state and federal mitigation programs to acquire or re-locate the damaged structure.

The cost of repairs must be calculated by assuming the building will be fully repaired to its pre-damaged condition, even if the owner elects to do less. The total cost of repair includes the fair market value of labor, structural and finish materials. Labor costs must be calculated even if the owner elects to do his own repairs.

If a structure did not reach the substantial damage threshold, a recent change in Chapter NR 116 provides more flexibility for property owners who wish to protect a structure at risk of flooding. Prior to 2004, all costs to elevate a floodplain structure counted against the 50 percent cumulative cap on improvements to nonconforming structures. NR 116.15(1)(c) now allows those costs to be excluded from the cap provided that the lowest floor of the structure is elevated to or above the flood protection elevation, which is two feet above the base flood elevation, as shown on the floodplain map. To minimize obstructions to flood flows and debris accumulation, it is best to elevate on piers or pilings. If a property owner wishes to elevate on a continuous wall foundation, FEMA requires specifically sized and placed openings to allow the entry and exit of floodwater into the enclosed area in order to equalize water pressure. Because communities have adopted floodplain zoning ordinances pursuant to the requirements of state administra-

tive codes, the Wisconsin Department of Natural Resources is the agency charged with follow-up on this matter to ensure compliance with both local floodplain ordinances and the NFIP.

Flooding is the most common natural disaster and Wisconsin has certainly received its share. Starting with the floods of 1978, the DNR has been working closely with at-risk communities to minimize rising flood damage costs, in part due to continued development and redevelopment in flood hazard areas. To better protect people and property and minimize disaster assistance costs for taxpayers, we are working to ensure that floodplain ordinances are properly enforced. Communities that do not enforce their regulations risk the loss of flood insurance, disaster assistance and flood mitigation grants for their residents and the community.

Wisconsin has been a leader in floodplain management for over 30 years. The cooperation of local communities and property owners in responding to the latest flood disaster will guarantee that the state continues to lead the way in flood damage reduction and community revitalization.

This article was previously printed in the Fall 2007 Floodplain and Shoreland Management Notes, Volume 6 Number 3.



- Flood damaged home, La Crosse, WI 2007

Besides structures, other activities that are noted would be storage of vehicles and materials; drilling, dredging or grading; road, bridge and other public infrastructure projects; and any other activity which may impede or channelize flood flows, increase flood heights, or otherwise change the characteristics of the floodplain.

Back at the office, the meeting generally begins with a discussion of what types of development activities must be permitted, the minimum standards for reviewing and issuing permits, construction inspection schedules, when an occupancy permit can be issued, and what steps are required when state and/or federal review are required for a project. This includes the applicability of federal Letters of Map Change (LOMA, LOMR) and other necessary permits, such as water quality certification, wetlands, shoreland, stormwater, etc.



This discussion lays the groundwork for reviewing the projects that were noted during the floodplain tour as well as past projects in the permit files. Any deficiencies related to permits issued, scheduled inspections, and requirements for LOMC's or other related programs can then be discussed and an action plan prepared to ensure that past deficiencies are resolved to the maximum extent practicable and that future development will meet all local, state and federal floodplain management standards.

After the meeting, a follow-up letter is sent to the community's CEO, outlining what was discussed with local officials and what steps need to be taken by the community, the state and the federal government to ensure that the community's floodplain management program meets all minimum standards and to recognize where the community is exceeding expectations and has instituted higher stan-

dards or practices to guard its citizens from the dangers of flooding.

This follow-up letter begins the federal enforcement process. If the community is unwilling or unable to remedy past violations or will not properly enforce its floodplain zoning ordinance, FEMA may place the community on probation. While flood insurance and other federal benefits are still available to a community on probation, every flood insurance policy holder in the community will be charged an additional \$75.00 fee per year at renewal.

If after one year the community has still not remedied past violations or begun to properly enforce its ordinance, FEMA may take action to suspend the community from the National Flood Insurance Program. Effective the date of suspension, flood insurance and most forms of federal disaster assistance are not available to any property owners in the community. This means that most

(95% or more) home mortgages, home equity lines of credit and refinancing applications cannot be approved. Until the community agrees to remedy past problems, these restrictions will remain in place.

The Wisconsin DNR will work with any community at risk of being placed on probation or suspension due to programmatic deficiencies. We are happy to report that to date no Wisconsin community has been suspended due to programmatic deficiencies and it is our goal to make sure it never happens. Much thanks to our local partners for helping us build one of the best floodplain management programs in the nation. If you have questions about the CAV process, please contact Gary Heinrichs at 608-266-3093, gary.heinrichs@wisconsin.gov or Miriam G. Anderson at 608-266-5228, miriam.anderson@wisconsin.gov.

Dams, Floodplains and Zoning

The June 2008 Floods illustrated the hazards presented by dams in or near developed areas. During the recent floods, three dams were breached and several others were overtopped. Fortunately, no deaths or injuries resulted from these dam events. However, the high water did cause damage to property.

Communities are required under Chapter NR 116.08, Wisconsin Administrative Code, to zone and regulate areas downstream of dams other than those having a structural height of 6 feet or less or having a storage capacity of 15 acre feet or less. Also, dams having a structural height of more than 6 feet but less than 25 feet with a storage capacity of less than 50 acre feet are exempt unless the DNR determines that the dam is likely to endanger life, health or property [Ch. NR 116.08 (2).] Communities may choose to regulate to a higher standard than that defined in Ch. NR 116, Wis. Admin. Code by regulating the areas downstream of those dams which have been exempted.

When a dam failure analysis is completed

by a dam owner, it should be incorporated into the local floodplain ordinance. These studies should be referenced in the section entitled *Official Maps based on other studies*. This is Section 1.5 (2) of the State Model Ordinance.

The DNR's Dam Safety Database is available to the public at <http://dnr.wi.gov/org/water/wm/dsfm/section/mapindex.htm>. To find information on a particular dam, click on *Dam Safety Database*. On the next screen, click on *Find Location*. The resulting map will show dams as yellow dots. Click on *Identify* and then on the dam. The results will appear to the left of the screen.

For further information on including studies related to dams into a local floodplain ordinance, contact either Gary Heinrichs at gary.heinrichs@wisconsin.gov or Miriam Anderson at miriam.anderson@wisconsin.gov. For further information on the Dam Safety Database, contact Bill Sturtevant at william.sturtevant@wisconsin.gov or your local regional DNR engineer.

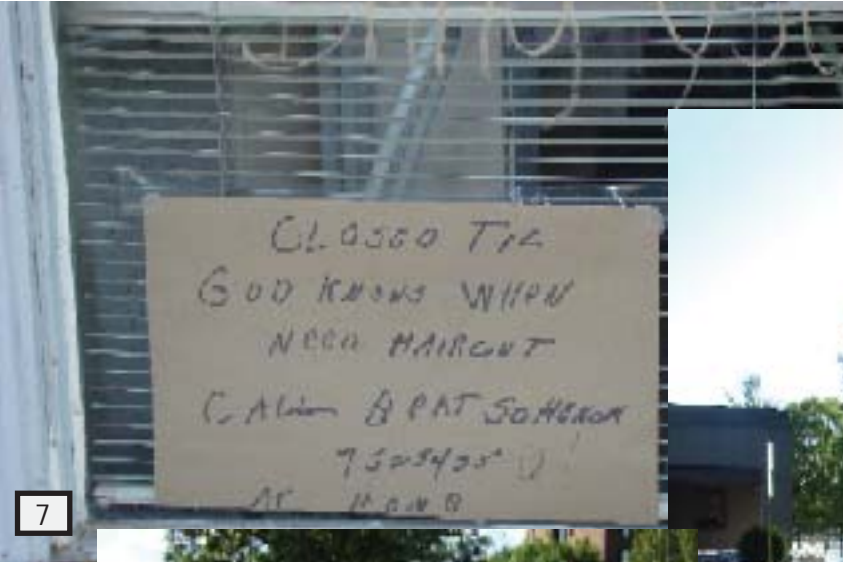


- Pardeeville Dam, Pardeeville, WI 2008

Flooding in Wisconsin June 2008

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1 Downtown, La Valle, WI 2 Lake Delton, WI 3 High Smith Press, Fort Atkinson, WI 4 Lowell Dam, Lowell, WI 5 Wyona Lake Dam, Wyocena, WI 6 Downtown, Beaver Dam, WI 7 Main Street, Janesville, WI 8 Main Street, Janesville, WI 9 Main Street, Janesville, WI 10 Indianford Dam, Edgerton, WI 11 Phantom Lake Dam, Mukwonago, WI 12 Downtown, Fond du Lac, WI

The DNR Dam Safety and Floodplain Management Section is developing a photos collection of dams and flood events. If you have photos you would like to contribute, please email them to Miriam Anderson (miriam.anderson@wisconsin.gov). Include the location, nearest community and date if known.

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

Eric Kuklewski - FEMA
eric.kuklewski@dhs.gov

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

County Remapping Projects Scheduled for Federal Fiscal Year 2009

The DNR will begin modernizing the Flood Insurance Rate Maps (FIRMs) for seven new counties this fall including Crawford, Dunn, Grant, Lincoln, Manitowoc, Polk and Vernon. All existing special flood hazard areas will be redelineated using the best available topographic data. In addition, up to 20 miles of new studies may be conducted in priority locations in Dunn and Lincoln Counties, where high resolution elevation data (LiDAR) exists. Informational meetings will be held in mid-August with community and county officials to discuss details of those projects. A Request for Bids (RFB) for engineering and mapping will go out this fall.

For further information and updates go to <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 for a county, all communities in the county participating in the National Flood Insurance Program (NFIP) have six (6) months to amend the local floodplain ordinance to include the new Flood Insurance Rate Maps 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 participate in the NFIP have one (1) year to join the NFIP and adopt the new maps.

LFDs have been issued for the following communities:

County	Effective Date
Burnett County	August 19, 2008
Rock County	August 19, 2008
Milwaukee County	September 26, 2008
Waukesha County	November 19, 2008
Dane County	January 2, 2009

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

DNR Staff Changes

Kate Barrett - Floodplain Management Program

Kate was recently hired as the Floodplain Program GIS Manager. She will be responsible for leading and coordinating the GIS work for DNR's role as a floodplain mapping partner in the Federal Emergency Management Agency's (FEMA) Map Modernization Initiative. She will

be working with the Map Modernization Project Manager and Lead Engineer to implement floodplain map modernization projects throughout the state. Contact Information: Wisconsin Department of Natural Resources, 101 S. Webster St., Madison, WI 53707, (608) 266-9238

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FEMA L273 Course for Local Officials

August 12-15, 2008 - Managing Floodplain Development Through the National Flood Insurance Program (FEMA L273), Pleasant Prairie, WI.

FEMA's L273 course is designed to provide an organized training opportunity for local officials responsible for administering their local floodplain ordinance. The course will focus on the NFIP and concepts of floodplain management, maps and studies, ordinance administration, and the relationship between floodplain management and flood insurance. Those attending should be local officials responsible for administering local floodplain management ordinances including but not limited to floodplain management administrators, building inspectors, code enforcement/zoning officers, planners, city/county managers, attorneys, engineers and public works officials.

No fee will be charged for attending the course. However, students will be responsible for all costs associated with food and lodging. The course is limited to 35 and priority will be given to local officials. Students are required to attend all 4 days of the course. To apply, please send an email with your name, title, community, mailing address, telephone number and email address to either Gary Heinrichs (gary.heinrichs@wisconsin.gov) or Miriam Anderson (miriam.anderson@wisconsin.gov).



2008 Conference

The 6th annual Wisconsin Association of Floodplain, Stormwater and Coastal Managers conference will be held November 12-13, 2008 at the Kalahari Hotel and Resort in Wisconsin Dells, Wisconsin. The focus of the conference will be sustainable flood, stormwater and coastal management solutions in Wisconsin. If you are interested in reserving exhibit space or being a conference sponsor, contact Cindi DeBruine, Exhibitor/Sponsor Chair at cdebruine@heyassoc.com. Questions regarding presenting a paper during a concurrent session should be sent to Tom Ganfield at tganfield@baxterwoodman.com. For any other questions regarding the conference, contact Conference Co-Chair David Fowler at DFowler@mmsd.com.

Change of Address or Mailing Format

If the name or address used to deliver the *Floodplain Shoreland Management Notes* is incorrect or if you would like to be added to the newsletter mailing list, please contact Gary Heinrichs at gary.heinrichs@wisconsin.gov. If you would prefer to receive the newsletter in pdf format via email, please contact Miriam G. Anderson at miriam.anderson@wisconsin.gov.

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