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# Floodplain-Shoreland Management Notes

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May 2002

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## **Flood Insurance Rate Maps Must Be Referenced In All Local Ordinances**

All Wisconsin communities participating in the National Flood Insurance Program are reminded that the Flood Insurance Rate Maps (FIRM's) that were produced for their community must be properly adopted and referenced in the "official map" section of the community's floodplain zoning ordinance.

While newer studies may have amended some sections, the FIRM is still the "official" floodplain map for the community and is the legally adopted map for ordinance administration purposes.

Section NR 116.06, Wis. Admin. Code, states that "Municipalities shall develop floodplain zoning maps, reflecting the best available data, which show the areas to be regulated. The minimum limits for regulatory purposes shall be all those areas covered by water during the regional flood."

Part 60.3 of 44 CFR (Code of Federal Regulations), states that "The Administrator will provide the data upon which floodplain management regulations shall be based. If the Administrator has not provided sufficient data to furnish a basis for these regulations, the community shall obtain, review and reasonably utilize data available from other federal, state or other sources pending receipt of data from the Administrator. However, when special flood hazard area designations and water surface elevations have been furnished by the Administrator, they shall apply."

Based upon these regulations, Wisconsin communities participating in the NFIP are expected to utilize the FIRM data in administering their floodplain zoning ordinance. Of course, if more detailed information becomes available, the maps can be revised to reflect the new data. Ss. 65.5, 65.6 and 65.7 of the federal code offer detailed technical information on the review and approval process for new floodplain information.

While the department supports and encourages the development and use of the best information on flood hazard areas, please remember that any study that revises the floodplain limits, flood velocities or water surface profiles on an official FIRM must be approved not only by the department, but also by the Federal Emergency Management Agency.

If you have questions on this issue, please contact the department water management engineer for your community.

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## News From FEMA

Floodplain management officials from the six-state Region V area gathered in Chicago last February to swap stories and discuss new FEMA initiatives.

The big news, of course is the new mapping initiative, which is covered in detail on page three. In other mapping news, a new on-line version of the Flood Insurance Rate Map (FIRM) - called a "firm-ette" - has just been introduced. It is basically a scanned version of the FIRM that is usable for all floodplain management applications, is considered "official" by FEMA, can be displayed at the same scale as the paper version and includes the map title block, north arrow and scale bar. This product offers a zoom-in/out feature and can be printed, e-mailed and saved. FEMA also announced that it won't be producing base maps anymore, it will only produce floodplain maps to be overlaid.

The most important change on the flood insurance front is that existing policy holders will be "grandfathered" if the regional flood elevation at their site changes. In the past, premium rates increased if the RFE was raised due to a new study or other changing conditions. The new policy ensures that property owners will not be penalized if this happens.

### **Pre-Disaster Mitigation Program**

Another issue of interest to local officials is the new Disaster Mitigation Act of 2000. FEMA issued an interim final rule on February 26, 2002, but the program won't be fully implemented until November

1, 2002. This Act authorizes the Pre-Disaster Mitigation (PDM) Program that provides funding to states and communities for cost-effective hazard mitigation activities that complement a comprehensive mitigation program that reduces injuries, loss of life and destruction of property.

Unlike the Hazard Mitigation Grant Program (HMGP), which is only available after a presidentially-declared disaster, the PDM will provide annual grant dollars for a variety of mitigation activities, including acquisition and relocation, floodproofing and other retrofitting projects, minor structural hazard control or protection projects, and localized flood control projects such as ring levees and floodwalls that are designed to protect critical facilities.

This is a 75/25 percent match program and the local share can be made up of any non-federal source, including in-kind donations. The 2002 appropriation is \$25 million nationally, with each state receiving one percent of the funds (\$250,000) plus an additional share based on the state's percentage of the national population.

A key component of this program is the boost from 15 to 20% of total disaster aid that will be earmarked for mitigation projects if the state has an "enhanced" mitigation plan that meets all the current requirements and can be shown to be integrated with other local planning efforts.

Eligible activities under the PDM include management costs, information dissemination, preparing plans (up to 7% of state HMGP funds), technical assistance and mitigation projects.

### **LOMR-F Changes**

FEMA is no longer collecting or maintaining lowest floor data for LOMR-F applications. Instead, FEMA is now asking communities to certify that the proposed structure is "*reasonably safe from flooding.*" All prescriptive measures for proper floodproofing (eg, compaction, soils, etc.) have been eliminated and it is now the responsibility of the local code administrator to ensure that the proper standards have been met. If you have questions about this new procedure, you can review FEMA Technical Bulletin 10-01, which provides the best explanation of this new policy.

For basement construction in an area removed from the floodplain by fill, this bulletin addresses such issues as ground elevation, the use of proper

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compacted fill, recommended maximum depth below RFE for basement floors, use of effective sump pump and drainage systems, including backflow preventers, and adherence to model building codes for foundation walls and drainage.

The bulletin also includes suggestions on proper administrative procedures to follow when making determinations on whether a proposed development is reasonably safe from flooding. These suggestions, some of which would require changes to the state building code, include:

- Require building sites to be identified on final subdivision plats and evaluate those sites based on the standards in the bulletin.
- Require grading plans - with building sites identified - as a condition of issuing fill permits.
- Require buffer zones around fill pads and establish construction standards to protect buildings from flood damages.
- Require a "no basement" clause for all subdivision plats in filled areas.
- Adopt a "Secondary Flood Hazard Area" in areas outside of, but near the floodplain, where building officials would be required to evaluate foundation plans for possible flood risks.



### Zoning Case Law Summary On-Line

Valuable information on legal issues related to floodplain, shoreland, wetland and general zoning matters is now available on-line in the department's *Zoning Case Law Summary*.

This publication will be periodically updated to include new decisions in zoning cases handed down by the Wisconsin Supreme Court and the Wisconsin Court of Appeals. However, it may be several months before the summary of a new decision is added.

To assist you in determining the timeliness of the various sections in this Zoning Case Law publication, each page has the date of the last update in the bottom left corner. Please keep in

mind that any decision that is summarized in this publication may have been overruled or modified by subsequent court decisions that have not yet been added to this publication.

The first edition, current as of January 1, 2001, is now available on the department's floodplain management website, under *Floodplain Resources*. You can also sign up to receive e-mail notices of updates to the summary, the first of which should be available this July. You can access the floodplain management website at: [www.dnr.state.wi.us/org/water/wm/dsfm](http://www.dnr.state.wi.us/org/water/wm/dsfm)



### Floodplain Map Modernization in Wisconsin

Since the inception of the National Flood Insurance Program (NFIP), floodplain map development has been funded by federal appropriations and flood insurance premiums. After Congress stopped providing general fund revenue in the late 1980's for floodplain mapping, funding levels declined and are currently \$51 million per year. As a result, the development of floodplain maps and the updating of older maps was greatly reduced.

Floodplain maps are used by lenders, realtors, communities, design professionals, builders, and regulators for a variety of purposes. Accurate floodplain delineations are vital when making planning decisions regarding structural development, solid waste disposal, hazardous material storage, and transportation.

Floodplain delineations on the majority of existing Flood Insurance Rate Maps (FIRMs) were

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approximated using 10-foot contour interval topographic maps. The dissatisfaction with these approximate methods is evident by the number of letters of map amendment issued to remove properties from the mapped floodplain and from the mandatory flood insurance purchase requirement. Also, unmapped floodprone lands continue to be developed by unsuspecting owners.

FEMA is aware of the increasing age of the floodplain maps and has received numerous complaints about this issue from user groups and citizens through members of Congress.

To address this problem, the president is proposing to spend \$351 million for floodplain mapping; \$51 million will come from existing fees and \$300 million from new discretionary funding. The administration has shown a long-term commitment to floodplain mapping by projecting budget authority for flood mapping on the order of \$360 million to \$380 million yearly in succeeding years. The President's budget appears to have broad support of Congress.

In planning the flood map upgrades, FEMA will address the Government Performance Results Act (GPRA) performance measures suggested by the Office of Management and Budget (OMB) for the proposed funding for Flood Map Modernization:

- Reducing the average age of the maps to 6 years (current average age is 13.6 years)
- Producing digital mapping products with up-to-date flood hazard data for the 15% highest priority areas
- Developing flood maps for half of the unmapped, floodprone communities
- Encouraging state/local cost share on flood mapping projects

FEMA has asked states to develop state plans for implementing the floodplain map modernization initiative in their respective states. The Dam Safety, Floodplain & Shoreland Section is in the process of developing a state plan for Wisconsin. Wisconsin is requesting to be designated a "mapping state" in order to implement floodplain mapping activities for FEMA in Wisconsin. The Wisconsin floodplain management program recently upgraded its mapping capabilities.

FEMA is seeking a 20% state match which could include base map data, digital terrain data, in-kind

services and additional state funding. The department has proposed a budget item called the Wisconsin Waters Initiative that would contribute to the match by providing state funding for floodplain mapping. FEMA has indicated that the funding for floodplain mapping in Wisconsin will increase from \$300,000 to \$5,000,000 in FY 03.



### **Floodplain Mapping for Comprehensive Planning**

Many communities in Wisconsin are developing comprehensive plans as a response to the Smart Growth legislation. Floodplain maps are one of the mandatory elements of these plans. Unfortunately, Wisconsin does not have a statewide GIS layer of floodplain maps. There are some data available:

1. Floodplain maps published by FEMA have been digitized. FEMA publishes new floodplain maps for one or two Wisconsin counties per year. In recent years, some of these new maps have been published in a digital format.
2. FEMA has digitized a portion of the floodplain maps in counties that have had a disaster declaration in the past 5 years. 16 Wisconsin counties have what FEMA calls Q3 floodplain maps. Those counties are Bayfield, Brown, Chippewa, Fond Du Lac, Jefferson, La Crosse, Manitowoc, Marathon, Marinette, Milwaukee, Outagamie, Ozaukee, Racine, Washburn, Waukesha, and Winnebago. These maps show the 100 year floodplain boundary, but don't include floodways, cross sections, or any base mapping.
3. The department has just completed registering FEMA's scanned Flood Insurance Rate Maps (FIRMs). These scanned images have been registered to the USGS DRGs (scanned 7 1/2 minutes quadrangle maps) in WTM (83)91. By making the white in these images transparent, these maps can now be overlaid onto other GIS data layers.

For more information or to obtain copies of these products, please contact Alan Lulloff ([lulloa@dnr.state.wi.us](mailto:lulloa@dnr.state.wi.us))

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## Greenway Design Grants Available

The Eastman Kodak American Greenways Awards, a partnership involving Kodak, the Conservation Fund, and the National Geographic Society, provides small grants to stimulate the planning and design of greenways in communities throughout America. The American Greenways program is designed to develop new action-oriented greenway projects; assist grassroots greenway organizations; leverage additional money for conservation and greenway development; and recognize and encourage greenway proponents and organizations. Last year's winners included the Maryland Department of Natural Resources, for its efforts to promote smart growth and neighborhood conservation; and Delaware Greenways, a statewide non-profit organization, for its efforts in preserving and enhancing Delaware's natural, scenic, historic, cultural and recreational resources.

In general, grants can be used for all appropriate expenses needed to complete a greenway project, including planning, technical assistance, legal, and other costs. Grants may not be used for academic research, general institutional support, lobbying, or political activities. Public agencies are eligible, but community organizations will receive preference. The maximum grant award is \$2,500, although most grants will range from \$500 to \$1,000.

For more information about the program, visit <http://www.conservationfund.org/?article=2106> or call the Grant Coordinator at 703/525-6300. Applications are due June 1, 2002 and must include a one-page budget and two letters of reference. An online application is available at [www.conservationfund.org/forms/kodakaward.html](http://www.conservationfund.org/forms/kodakaward.html).

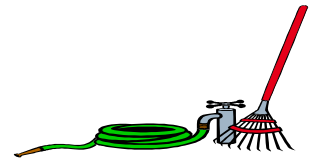
## New Report Highlights City-County Collaborations on Disaster Mitigation

The Joint Center for Sustainable Communities, an advisory committee for the National Association of Counties (NACo), has released a new publication titled *City-County Collaborations on Disaster Mitigation: Borderless Solutions to a Borderless Problem*. The publication details efforts undertaken to mitigate the effects of disaster.

The report contains eight studies detailing city-county partnerships to mitigate the effects of natural disaster, including inter-governmental collaborations to protect communities from fire,

flooding, hurricanes, and tornadoes. Readers will learn about public-private partnerships with local business groups, and community interest groups in order to better prepare for a natural disaster. The report's lessons can also help local governments prepare their homeland security efforts.

For more information on the Joint Center or to order a free copy of this publication, contact Martin L. Harris, NACo Joint Center Joint Center director, at 202/661-8805 or [mharris@naco.org](mailto:mharris@naco.org).



## Minnesota Restricts Use of Phosphorus Fertilizer

A new law in Minnesota limits phosphorus applications to lawns in an effort to protect water quality and prevent those "pea soup" algae blooms.

The new law, which goes into effect in 2004, bans phosphorus fertilizers in the seven-county metro area surrounding Minneapolis-St. Paul. Lawn fertilizer in the rest of the state shall not contain more than 3% phosphorus.

This law does not apply to flower or garden fertilizers. The new law exempts any agriculture use. Golf courses and professional lawn services are also exempted, but licensed professionals are required to test the soil before using phosphorus. Exemptions also apply when a soil test indicates a need for phosphorus or when installing a newly seeded lawn and sod.

Phosphorus is naturally abundant in most soils in Wisconsin and Minnesota. Excess fertilizer, or fertilizer that cannot be utilized by turf, can be washed into lakes and rivers by storm water runoff. Once in the water, the phosphorus can stimulate the growth of algae, turning the water into pea soup. In over 80% of the lakes in Wisconsin, phosphorus is the limiting nutrient in algae production, meaning for a algae bloom to occur, there needs to be phosphorus in the water.

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## To Annex? To Incorporate?

### Our Advice Is Really Great

Has your community annexed any land since May 7, 1982? Or incorporated since April 30, 1994? If the land annexed or incorporated contains any shorelands or shoreland-wetlands, you should review your zoning ordinance to make certain it is in compliance with the statutory requirements in s. 59.692 (7). **[Note: NR 115 and 117 haven't yet been amended to include provisions dealing with annexed or incorporated shoreland areas.]**

#### ***Shoreland Zoning***

Section 59.692 (7)(a), provides that applicable county shoreland zoning provisions continue in effect if the area was annexed after May 7, 1982. The city or village must either enforce the county shoreland zoning provisions that were in effect when the area was annexed or adopt its own shoreland zoning ordinance for the annexed area that meets the minimum standards in NR 115 and the county ordinance. The community also has the option of asking the county to continue to enforce its zoning ordinance in the annexed area.

Although the statute specifically requires that the county shoreland zoning provisions that are to continue in effect are those that existed prior to the annexation, the statutes also outline a process for the city or village to request the county to amend the county shoreland zoning ordinance as it applies to the annexed area. An amended county shoreland zoning ordinance can be enforced for the annexed area by either the city or the county if the requirements in s. 59.692 (7), Wis. Stats., dealing with ordinance amendments are complied with.

Section 59.692(7)(ad). Wis. Stats., provides the same requirements for cities and villages that incorporate after April 30, 1994.

#### ***Shoreland-Wetland Zoning***

The county shoreland zoning ordinance that applies to an annexed area will include regulations on the use of wetlands if there are mapped wetlands located within the annexed shoreland area

However, for wetlands of 5 acres or larger, s. 59.692 (7)(e), Wis. Stats., provides that the annexing city or village only has to adopt shoreland-wetland zoning as required by either s. 61.351 or 62.231. In other words, cities and villages only have to comply with the requirements

in NR 117, not the more restrictive regulations in the county code.

If a county has zoned smaller wetlands as part of its shoreland zoning ordinance, the annexing city or village is required by section 59.692 (7)(a) to continue to enforce the county's wetland regulations or to adopt shoreland-wetland regulations of their own that are at least as restrictive as the county's regulations that were in effect at the time of annexation.

Although the statute specifically requires that the county shoreland zoning provisions that are to continue in effect are those that existed prior to the annexation, section 59.692 (7) also outlines a process for the city or village to request the county to amend the county shoreland zoning ordinance as it applies to the annexed area. An amended county shoreland zoning ordinance can be enforced for the annexed area by either the city or the county if the requirements in s. 59.692 (7) are complied with.

The same provisions are required by section 59.692(7)(ad), Wis. Stats., for cities or villages which incorporate after April 30, 1994.

### **Wisconsin DNR Launches Interactive Map for the Dam Safety Program**

The Bureau of Watershed Management's Dam Safety Program made its new interactive map available to the public in December, 2001. The map is accessible through the main page of the Dam Safety web page at [www.dnr.state.wi.us/org/water/wm/dsfm/dams/index.htm](http://www.dnr.state.wi.us/org/water/wm/dsfm/dams/index.htm)

The basic version displays a map of county boundaries and a toolbar to zoom in and out, identify a dam, and pan around the image. After zooming in, the user will see the locations of dams throughout the state and will have the option to identify a dam. With the identify button selected, the user can click on the dam in question and then view basic information about that dam. As the user zooms in further, other data layers appear, such as topographic maps, hydrographic features and roads. When zoomed in to the 0-30 mile scalebar, the user can choose digital orthophotos as a backdrop instead of topographic maps. At this time

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digital orthophotos are available for much of state, but not all of it.

An advanced version of the Dam's map is also accessible through the main page of the Dam Safety web page. This version offers all of the same functions as the basic map with the additional ability to do some sophisticated types of analysis. Advanced users should be familiar with ArcView software from ESRI.

### ***Floodplain Management Program***

In the near future the floodplain management program will have its own internet map as well. There will be a basic and an advanced map that will offer the same functionality as the Dam Safety maps. Instead of displaying dam locations, they will display floodplain maps and engineering studies locations, such as bridges, case by case, and flood insurance studies. The user will be able to see the location of these data overlaid on top of topographic maps and digital orthophotos (where available), and they will also be able to link to Flood Insurance Studies .pdf files. Engineering Input Models will also be linked to the map and will be available for the public to purchase. A price for these models is yet to be determined.



### **MMSD Unveils Flood Mitigation Program**

The Milwaukee Metropolitan Sewerage District, recognizing the need to preserve open space for flood control, recently announced a new land conservation program and the purchase of parcels in the cities of Milwaukee and Oak Creek.

These first planned acquisitions include a 20-acre parcel in Milwaukee in the Little Menomonee River watershed and five parcels in Oak Creek in the watersheds of the Root River and Oak Creek.

The District is working with local community groups, municipalities and others to purchase easements or acquire outright properties critical to controlling future flooding problems in the Menomonee River, Root River and Oak Creek watersheds. MMSD approved a contract with the Conservation Fund, a national non-profit conservation organization, to administer the program.

The initial efforts focused on analyzing undeveloped land in the three watersheds and identifying 41 sites, totaling 7,065 acres, that contained the necessary soil conditions to provide future flood-reduction benefits. National studies have shown that every dollar spent on preserving land can save up to eight dollars on avoided structural flood-control projects down the road.

The analysis shows that preserving this acreage will help reduce future flooding problems for property owners affected by the 1997 and 1998 floods in these watersheds. This plan will also protect the District's \$300 million investment in flood management projects, provide benefits to the wastewater conveyance system and improve water quality in area rivers and Lake Michigan.

MMSD's new program provides a powerful tool for managing flooding risks in the Milwaukee area. By coordinating projects with the federal Hazard Mitigation Grant Program and the state Municipal Flood Control Grant Program, the efforts of all three agencies and their partners can be enhanced.

"We can't all live upstream," said Milwaukee Mayor John Norquist. "This program is designed to prevent problems before they occur, which is usually the cheapest and most effective way to work."



## MMSD Honors Stormwater Efforts

The Milwaukee Metropolitan Sewerage District has awarded the City of Mequon and the Villages of Fox Point and Elm Grove its 2002 Stormwater Management Recognition Awards for the communities' efforts to effectively manage stormwater and reduce flooding risks.

The District's awards program identifies communities that integrate stormwater management, and environmental protection and enhancement, using the following criteria:

- Has the community prepared and adopted a stormwater management plan and ordinance;
- Has the community implemented innovative measures to reduce the quantity of stormwater runoff for new and redevelopment projects;
- Has the community integrated stormwater management, and environmental protection and enhancement?

The City of Mequon was chosen because it is aggressively acquiring undeveloped land that will be used to manage stormwater runoff and as a nature preserve.

The Village of Fox Point was honored for writing and approving a stormwater master plan to solve local drainage and stormwater issues, including measures to improve water quality and manage flood risks along Indian Creek.

The Village of Elm Grove was chosen for its comprehensive approach in implementing MMSD's new stormwater rule, which helps ensure that flooding does not increase due to future development or redevelopment, and for acquiring land for preservation.

## New State Floodplain Management Association Formed

It's official! The *Wisconsin Association for Floodplain, Stormwater and Coastal Management* is up and running. The association will weigh in on all matters related to water quantity issues, including management, mitigation, legislation, policy development and engineering.

The association's mission statement is *Dedicated to promoting sound floodplain, stormwater, and coastal management in the interests of the citizens of Wisconsin.*

The association will hold its inaugural conference on November 6, 2002, at the Country Inn in Waukesha. This will be a great opportunity to meet other water management professionals and learn more about floodplain and coastal mapping, floodplain and stormwater management, and mitigation projects happening around the state. Representatives from the WDNR, FEMA, RPC's, metropolitan sewerage districts, universities and private organizations will be in attendance and speaking on subjects of interest to you.

Wisconsin joins 29 other states in sponsoring an association and together with the national *Association of State Floodplain Managers*, the goal will be to improve water management programs at the local, state and federal levels.

For more information on the association or the fall conference, please contact David Fowler at 414-277-6368, or [dfowler@mmsd.com](mailto:dfowler@mmsd.com).





## **New Municipal Flood Control Grant Program Announces Initial Awards**

The Wisconsin Department of Natural Resources recently announced the awarding of \$3.9 million in grants to 13 cities, villages, towns, and metropolitan sewerage districts to mitigate flood damages to Wisconsin homes, businesses and public facilities.

The Municipal Flood Control Grant Program provides 70% cost-sharing grants to acquire flood-prone land and structures, floodproof structures, restore water bodies, purchase land and easements for flood storage, construct flood control facilities, and map flood hazard areas.

Several of the projects will be funded jointly by the state and the federal Hazard Mitigation Grant Program, thereby leveraging the dollars available through each program to provide greater benefits to flood-stricken communities throughout Wisconsin.

These initial awards, for the grant period March 1, 2002 through June 30, 2003, will primarily fund acquisition of land to provide additional flood storage capacity and the acquisition of flood-damaged structures.

Grant applications were sent to approximately 1,900 cities, villages, towns, and metropolitan sewerage districts. 73 applications were submitted, requesting over \$22 million in flood control grants. However, only 15 projects met the high priority ranking for available funding.

If additional funding is available in the 2003 - 2005 biennium, the department will be working with local communities to fund more flood mitigation projects. With the proposed federal Pre-Disaster Mitigation Grant Program and the existing Flood Mitigation Assistance Program, Wisconsin communities will have the opportunity to work with three separate, annually-funded grant programs which are dedicated exclusively to helping local officials, businesses and citizens plan for and mitigate the effects of flooding.

If you have questions about the program, you can visit the floodplain management web site or contact Gary Heinrichs, Floodplain Planning Program Manager, at (608) 266-3093, or [heinrg@dnr.state.wi.us](mailto:heinrg@dnr.state.wi.us).

The following applicants have accepted grants:

Town of Bristol	North Lake George	Acquire land for flood storage
City of Brookfield	Holly Lane	Acquire structures for flood storage
City of Brookfield	Underwood Creek	Acquire structures for flood storage
City of Chippewa Falls	Allen Park	Acquire structures for flood storage
City of Darlington	Firehouse	Acquire structures for flood storage
Village of Elm Grove	Underwood Creek	Acquire structures for flood storage
Village of Fox Point	Dean Road	Acquire structures for flood storage
Town of Lisbon	Willow Springs Creek	Acquire land for flood storage
Town of Menasha	Palisades Drainage	Acquire land for flood storage
City of Mequon	Trinity Creek	Acquire land for flood storage
Milw Metro Sewerage Dist	Hart Park Phase II	Acquire structures for flood storage
Milw Metro Sewerage Dist	Root River Flood Mgt.	Acquire structures for flood storage
City of Oshkosh	Murdock Avenue	Acquire land for flood storage
City of Shell Lake	Flood Relief	Construct flood relief channel
Village of Slinger	Tennies Hills	Acquire land for flood storage



### ***New Resources Available on the Web!***

The Department has been adding to its list of resources available electronically. Everything listed here is available on the DNR web site. If you have questions or suggestions on other items you would like to see added to this site, please contact Carmen Wagner at [wagnec@dnr.state.wi.us](mailto:wagnec@dnr.state.wi.us). Here are some resources you may find helpful:

#### ***Dam Safety Resources***

Directions: [www.dnr.state.wi.us](http://www.dnr.state.wi.us), Select "Dam Safety" under "Go to some top topics". Our new interactive map allows public access to the Wisconsin Dams database. (See the Article ? for more information about this new tool.)

#### ***Shoreland Management Resources***

Directions: [www.dnr.state.wi.us](http://www.dnr.state.wi.us), Select "Shoreland Management" under "Go to some top topics", and then select "Resources" from the menu on the left.

Recently added resources include:

- Shoreland Zoning Resources, including the *Wisconsin Case Law Summary* (Be sure to sign up for electronic notices of updates to the Summary)
- General Shoreland Management Resources
- Shoreland Restoration Resources
- Rain Garden Resources, including the new publication *Rain Gardens: A household way to improve water quality in your community*

- Research on Shoreland Management
- Research on Shoreland Buffers
- Research on Shoreland Habitat
- Research on the Economics of Shorelands

#### ***Floodplain Management Resources***

Directions: [www.dnr.state.wi.us](http://www.dnr.state.wi.us), Select "Floodplain Management" under "Go to some top topics", and then select "Resources" from the menu on the left. We will be posting Floodplain and Shoreland Management Notes on this webpage, as well as other floodplain zoning resources, including the *Zoning Board Handbook for Zoning Boards of Adjustment/Appeals*. There may be some duplication with Shoreland Management Resources.



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# DNR SHORELAND BUFFER PROJECTS

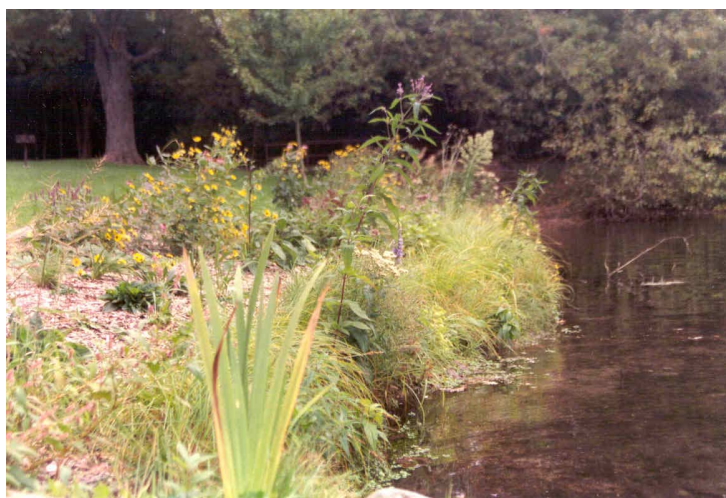
Several of the projects are relying heavily on local volunteers and “Friends” groups, while others used local contractors and nurseries for supplies and labor. For more information about these projects, or if you are interested in completing a shoreland buffer demonstration project, please contact Carmen Wagner, Bureau of Watershed Management, WT/2, 608-266-0061.



As part of a cooperative effort with the DNR’s Lands Division, the Bureau of Watershed Management’s Shoreland Management Team secured EPA funding to restore shoreland buffers on ten state-owned properties. The buffer restorations are part of a continuing effort to manage state lands in compliance with local regulations.

The shoreland buffer projects will be highlighted as demonstration sites. Interpretative signs will help the public understand how to restore shoreland buffers and why they are important

For each a project, a local consultant or an LTE was hired to complete a buffer restoration plan. The plans were either implemented last fall or will begin this summer. Projects range from several thousand square feet to over an acre.



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"Floodplain-Shoreland Management Notes" is published by the Wisconsin Department of Natural Resources' Bureau of Watershed Management. Our purpose is to inform local zoning officials and others concerned about state and federal floodplain management and flood insurance issues, shoreland and wetland management, and dam safety issues. Comments or contributions are welcome. Contact Gary Heinrichs, Editor, at the above address, or call (608) 266-3093.

Contacts: Gary Heinrichs, 266-3093, or Bob Watson, 266-8037 (floodplain); Toni Herkert, 266-0161, or Carmen Wagner, 266-0061 (shoreland & wetland); Meg Galloway, 266-7014 or Bill Sturtevant, 266-8033 (dam safety)

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# **Floodplain- Shoreland Management Notes**

**Address Correction Requested**

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