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*Wetlands are those areas where water is at, near or above the land surface long enough to be capable of supporting aquatic or hydrophytic vegetation and which have soils indicative of wet conditions.*

(NR 115.03(13))

WWW.UWSP.EDU/CNR-AP/CLUE

# Land Use Tracker

A quarterly publication of the Center for Land Use Education

## CAPITALIZING ON WETLANDS AS COMMUNITY ASSETS

In the realm of Wisconsin planning, few issues generate more passion or public participation than initiatives related to the health of our aquatic resources. Hundreds of organizations receive state grants to develop and implement lake, river and watershed plans each year, engaging thousands of Wisconsin citizens in the process. Planning professionals, lake specialists and Extension educators help to facilitate these efforts, and a cadre of university scientists contribute technical assistance. The result is that most communities have a shared understanding of the condition of, and challenges facing local lakes, rivers and streams.

Despite our state's love affair with all things water, wetlands rarely receive prominent attention in watershed planning efforts. Most plans describe the extent and types of wetlands present, and acknowledge the important functions they provide. Many plans also include a general goal to protect and restore wetlands to improve watershed health. But very few plans establish priorities to implement specific wetland conservation projects. Given that wetlands can be restored to reduce flooding, improve water quality, and enhance local tourism and recreation, the absence of meaningful wetland planning is a missed opportunity.

When asked about this wetland planning gap, many planning professionals cite a lack of tools and technical expertise as barriers to address wetlands in a meaningful way. Fortunately, we've seen major advances in wetland planning approaches in recent years and a substantial increase in the tools and support available. In this edition of the *Land Use Tracker*, we collaborated with the Wisconsin Wetlands Association to report on these advances. Our goal is to help communities understand and act on opportunities to protect and restore wetlands, thereby improving overall watershed health.

Photo by Gary Shackelford



## STEPS FOR IDENTIFYING WETLANDS

While most Wisconsin residents recognize areas with cattails, open water, and ducks as wetlands, many do not know that Wisconsin has at least 12 wetland community types (see quiz on page 11). These communities include areas that are dry most of the year, have trees, and may have no *visible* connection to lakes, rivers and streams. Diversity in physical appearance makes some wetlands difficult to identify.

Though many communities rely on trained staff or consultants to confirm the presence of wetlands and wetland boundaries, all land use decision makers should cultivate a basic understanding of the tools and information used to identify wetlands. This knowledge can be used to set policies to more effectively identify and protect wetlands, and to ask the right questions when considering wetland development proposals. Three basic steps for identifying wetlands are outlined below:

### Step 1: Review Maps

Some wetlands can be found on maps. DNR's Wetland Indicator Maps show wetlands included on the Wisconsin Wetland Inventory and areas that may be wetlands based on the presence of hydric soils. Alternately, many

counties provide web-mapping services through their planning, zoning or land conservation department websites.

### Step 2: Look for Physical Clues

The best way to identify wetlands is to walk the site and look for physical clues. Vegetation, soils, and evidence of water, as shown in the photos below, can help to identify wetlands. DNR's Wetland Clues Checklist provides a more comprehensive list of indicators and may be useful to bring along during a site visit.

### Step 3: Consult a Professional

Because wetlands can be difficult to identify, accurate identification of wetlands requires an assessment by a trained biologist or consultant. DNR's wetland web pages contain a list of professional wetland consultants in Wisconsin. Beginning this spring, DNR will also be offering a fee-based wetland identification service to help landowners and developers identify and confirm the presence of wetlands on their property prior to applying for permits.

For more information on each of these steps, please visit DNR's wetland web pages at: <http://dnr.wi.gov/topic/wetlands>.

Water-loving plants, shrubs and trees provide one of the first indicators of wetlands.



Shallow roots, water stains, flattened vegetation, and low wet spots are also common.



Wetland soils may be dark or show colors due to prolonged saturation and oxidation.



## NEW TOOLS FOR CONSIDERING WETLANDS IN WATERSHED PLANNING

The Wisconsin Wetland Inventory (WWI) and the National Wetland Inventory (NWI) rely on skilled interpretation of aerial photography and satellite images to identify and map wetlands. Until recently, these maps provided the best available information for wetland planning and protection.

While generally useful as a guide for regulatory decision-making, the maps have a number of shortcomings. They tend to under-represent certain wetland types (i.e. small, forested, or seasonally ponded wetlands), they do not show areas where wetlands have been drained or developed, and they are out of date in many counties. As a result, very little can be inferred from the maps regarding wetland conditions, functions, or the benefits of protecting or restoring a particular wetland. These limitations have hindered the ability of planners to consider wetlands in watershed planning.

### Enhanced Wetland Mapping Tools

Recognizing the need to better characterize the many functions and services of wetlands, the U.S. Fish and Wildlife Service has developed techniques to add landscape level metrics to its NWI data. The enhanced data, referred to as NWIPlus, is being used across the nation to complete watershed-scale assessments of wetland function. Communities are using the results to prioritize wetlands protection and restoration.

In Wisconsin, wetland mapping experts have been collaborating with local natural resource professionals to combine existing wetland maps with local data to more accurately depict existing and potentially restorable wetlands. The data is evaluated to rank how each area is or could be performing various functions, such as flood abatement, water quality improvement, shoreline stabilization, and fish and wildlife habitat.

### Public Participation in Wetland Mapping

As a planning exercise, wetland functional assessments offer several meaningful



*Wetland mapping exercises provide powerful information to help local leaders understand how wetlands affect the local landscape. They can also be used to establish wetland restoration priorities.*

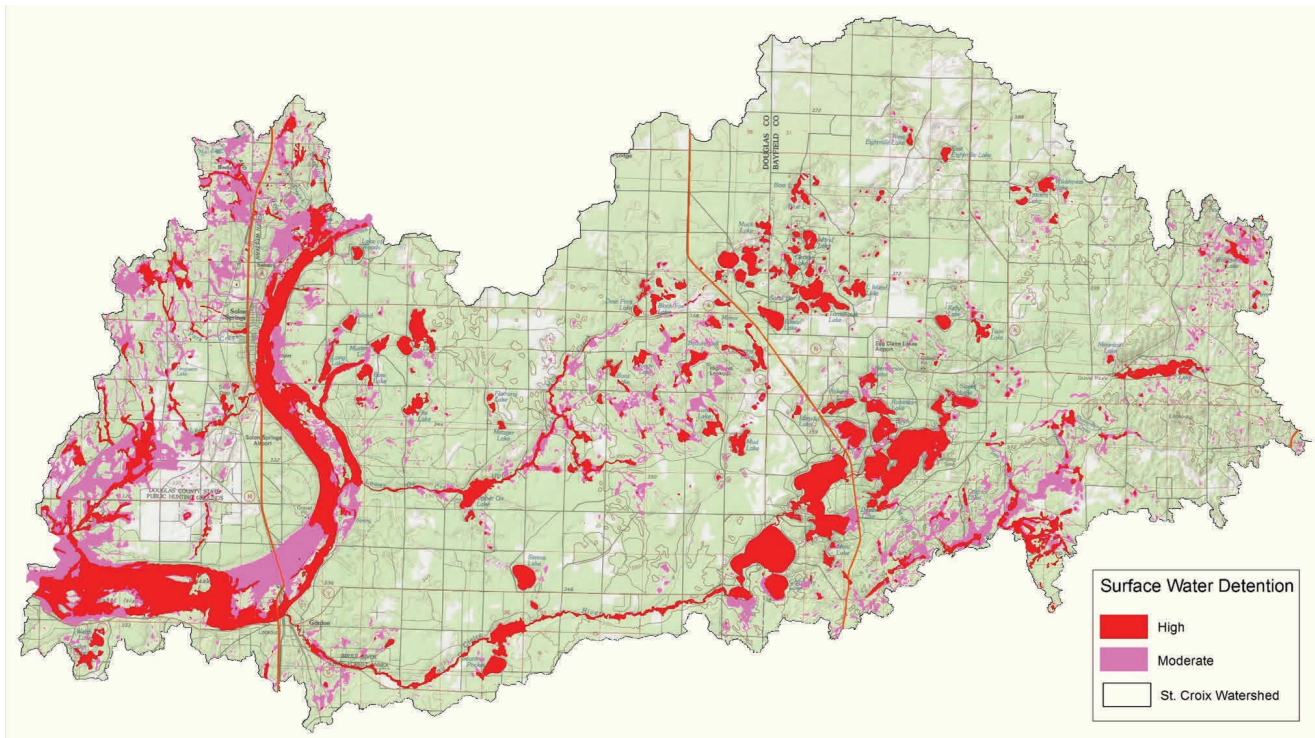
opportunities for stakeholder involvement. The first is to reach consensus on the goals of a project and what the community wants to know about local wetlands. Ideally, these deliberations are tied to other watershed goals. So, for example, if a community's top priority is to clean up impaired waters, an analysis of where wetlands can be restored to reduce levels of phosphorus and sediment entering local lakes may be most useful. Another community may be more interested in evaluating the potential of wetlands to reduce flooding or support game species.

To support decision-making, the most useful functional assessment outputs are field-verified maps showing wetlands of significance for selected functions (see example on page 4). These maps can be used to illustrate the loss of functions associated with past land use changes or highlight potential areas where wetlands can be restored to achieve various watershed management goals.

Wetland mapping exercises provide powerful information to help local leaders understand how wetlands affect the local landscape. For instance, maps might show a relationship between



## A Functional Assessment Map Showing Surface Water Detention and Flood Storage in the St. Croix Headwaters Watershed (Courtesy St. Mary's University Geospatial Services Program)



flooding in one place and loss of wetlands in another. Comparing the presence or absence of wetlands near lakes can help explain why some lakes receive a sediment plume after storm events while others do not. Information can also be used to establish wetland restoration priorities.

Functional assessment tools are now widely accepted by state and federal agencies that provide funding for watershed planning efforts. For example, the Michigan Department of Environmental Quality (MDEQ) developed its own landscape-level wetland functional assessment tool and encourages watershed groups to incorporate wetlands into their planning projects. According to the U.S. Environmental Protection Agency, MDEQ now routinely prepares enhanced wetland mapping data for all watershed planning projects funded under its Clean Water Act Section 319 nonpoint source abatement program.

### Wisconsin Examples

Though less far along than the state of Michigan, there are several Wisconsin-based

watershed-scale wetland assessment projects underway at various stages of completion:

- *Duck-Pensaukee Watershed Approach Pilot* (Brown County) – A project by The Nature Conservancy and Environmental Law Institute to identify wetland preservation and restoration sites based on current and potential wetland functions.
- *Lake Superior Watershed Framework for Evaluation of Wetland Services* (Douglas County) – A project by the Lake Superior National Estuarine Research Reserve to help local officials identify and prioritize potential wetland mitigation projects.
- *St. Croix River Headwater Wetlands Study* (Bayfield/Douglas Counties) – A project by the U.S. Army Corps of Engineers to describe existing wetland conditions, functions, and historic changes in the Saint Croix Headwaters Watershed.
- *Wetland Mapping Project* (Shawano County) – A project by the Stockbridge-Munsee Community to evaluate existing and potential wetlands in the watersheds contributing to the reservation.

## Next Steps

Despite recent innovations in wetland planning, techniques to evaluate wetlands at a watershed scale are still relatively new. Much work is needed to refine these techniques and normalize their use in watershed planning efforts. We can already see evidence that watershed-scale wetland planning can transform people's understanding of the role of wetlands in

watershed health and elevate their interest in wetland conservation. If you would like to see your community's interest and understanding of wetlands improve, we encourage you to initiate a dialogue about local wetlands planning. For more information, please contact Wisconsin Wetland Association's Policy Director, Erin O'Brien at [Erin.O'Brien@wisconsinwetlands.org](mailto:Erin.O'Brien@wisconsinwetlands.org) or 608-250-9971.

## WETLAND PLANNING RESOURCES

### Watershed Planning Handbook

EPA Region 5 (IL, IN, MI, MN, OH, WI) recently released a new handbook: *Incorporating Wetlands into Watershed Planning* (February 2013). The document is a supplement to EPA's *Handbook for Developing Watershed Plans to Restore and Protect Our Waters* (March 2008). It includes information on when and how to include wetlands in watershed plans.

Four case studies from Michigan, Ohio, Utah and Virginia illustrate new approaches for identifying former and existing wetlands in a watershed context and how to prioritize protection and restoration to help address watershed problems such as altered hydrology, impaired water quality, and fragmentation of wildlife habitat. Contact information for primary investigators is included to help planners obtain more information on methods. Both documents are available at: <http://water.epa.gov/type/wetlands/outreach/fact26.cfm>.

### Potentially Restorable Wetland Data

The Wisconsin Department of Natural Resources (DNR) recently released a map layer depicting *Potentially Restorable Wetlands* (PRW). These are areas of drained hydric soils that no longer support wetlands but remain undeveloped. PRW map layers aid in the search for restoration opportunities by providing the best estimate of where wetlands occurred in the past, where they

have been lost, and how much of an original wetland remains.

DNR's PRW data has been integrated into all Wisconsin-based assessment projects to help identify and prioritize wetland restoration opportunities. The data can be used for small-scale planning efforts as well. For example, PRW data can be combined with flood data to identify restoration opportunities in flood prone areas. It can also be combined with existing land cover data to identify opportunities to restore wetlands adjacent to existing environmental corridors.

The PRW data layer is available for most watersheds in the state. To request PRW data for your area, contact Tom Bernthal at (608) 266-3033 or Chris Smith at (608) 261-6446. PRW maps are also available for close-up online viewing in the Wetlands, Plants & Habitat folder of DNR's Surface Water Data Viewer: <http://dnr.wi.gov/maps>.

### Wetland Mapping Services

Wetland mapping experts from the *Geospatial Services Program* at Saint Mary's University of Minnesota have served as advisors or project managers on most of the Wisconsin-based landscape-level functional assessment projects to date. They have also worked closely with federal, state, and local partners to develop and refine approaches to watershed-based wetland mapping and functional assessments. For more information on their specialized services visit: [www.geospatialservices.org](http://www.geospatialservices.org).

## USING LOCAL WETLAND POLICIES TO ADVANCE PLANNING GOALS

Most Wisconsin communities have used planning to establish goals to protect or improve water quality, reduce flooding, maintain fish and wildlife habitat, and enhance recreational areas. Yet few communities are recognizing how wetlands can be used to advance these goals. To understand the extent to which local communities are protecting wetlands through regulation, the Wisconsin Wetlands Association (WWA) evaluated the Purpose and Intent Statements of zoning ordinances from 45 Wisconsin Counties. Here's what they found:

- Out of 45 county ordinances, nineteen include language from DNR's model shoreland zoning ordinance recognizing wetland preservation as a means to protect spawning grounds, fish, and aquatic life.
- Nine include wetland preservation as a distinct goal or objective (Dodge, Door, Dunn, Eau Claire, Kenosha, Outagamie, Racine, Walworth, and Waukesha).
- Two acknowledge how preserving wetlands can support public safety and welfare, soil conservation, and lake and river health (Dodge and Vilas).

When asked why more communities aren't using wetland policies to advance planning or watershed management goals, WWA's Policy Specialist, Kyle Magyera, says the greatest barrier may be that people simply don't regard wetlands as community assets. He notes that we need to do more to show how protecting and restoring wetlands can help communities reduce the costs of stormwater management, flood control, lake and river clean-up, and other community goals.

He also points out that state and federal laws often create a false sense of security and complacency on wetland issues. "Many local leaders assume that wetlands are adequately protected by state and federal laws or that local governments don't have the authority to enact local wetland protection policies. Neither is accurate."



*"people simply don't regard wetlands as community assets... we need to do more to show how wetlands can help communities reduce the costs of stormwater management, flood control, lake and river clean-up, and other community goals"*

Magyera says that as long as they don't dip below state minimum shoreland-wetland zoning requirements (NR 115), local units of government have clear authority to enact a broad array of local wetland protection policies. And there are good reasons to do so.

To begin with, federal and state wetland permitting decisions are made on a case-by-case basis, making it difficult for regulators to consider locally adopted plans. In addition, while state and federal wetland regulations discourage outright destruction (e.g. filling) of wetlands, they offer little protection for other activities occurring in, adjacent to, or upstream from wetlands that could degrade wetland quality or function. Local governments are well positioned to consider and respond to wetland concerns at a watershed scale by enacting policies to preserve the quality and function of local wetlands.

The good news is that many Wisconsin communities have enacted wetland-friendly policies. In its review of county zoning ordinances, WWA found that more than half of



Wisconsin's county ordinances include one or more provisions that go above and beyond state minimum shoreland-wetland zoning requirements. WWA evaluated the findings to identify common trends, gaps and barriers to local wetlands conservation. Their results are compiled in a new publication called *Land Use and Wetlands: Zoning Opportunities to Improve Wetland Protection*.

The guidebook includes recommendations to help Wisconsin counties, cities, villages and towns improve the efficiency and effectiveness of existing wetland land use policies; address common challenges of administering those policies (i.e. inaccurate maps); and promote consistency and collaboration among local, state and federal agencies involved in regulating wetlands.

For each recommendation in the guidebook, WWA provides cited examples from Wisconsin counties that have already enacted the policy in some form. After careful review, the Wisconsin County Code Administrators – a statewide professional organization – recently endorsed the guidebook as a policy development resource for its members.

### Getting Started

WWA recommends a few steps communities can take to enact wetland policies in support of watershed management goals. The first is to evaluate what's already in existing policies. They note the most simple and effective step is to list wetland protection as a distinct goal in zoning ordinances and other land use policies. They also recommend inserting language to recognize how protecting wetlands can help advance other priorities. Three additional recommendations from the guidebook are presented below.

For more information on local wetlands and land use policy options, contact Kyle Magyera at [kyle.magyera@wisconsinwetlands.org](mailto:kyle.magyera@wisconsinwetlands.org) or 608-250-9971. The guidebook and a summary report for each county are available at: [www.wisconsinwetlands.org/localgovs.htm](http://www.wisconsinwetlands.org/localgovs.htm).

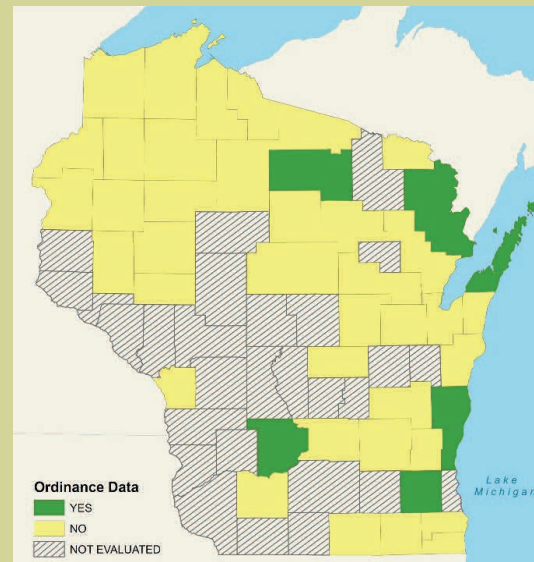
### Recommendation

*Protect all wetlands in the shoreland zone based on field conditions.*

State standards require local governments to protect wetlands located in the shoreland zone if they appear on Wisconsin Wetland Inventory maps. Because the minimum mapping unit is 2 or 5 acres, depending on the county, many wetlands do not appear on these maps.

Regulating wetlands based on field conditions, rather than maps, enables local governments to:

- Use a local land use review process to discourage development in high-functioning wetland types underrepresented by the WWI (i.e. forested and ephemeral).
- Correct the perception that “if it’s not on the map it’s not a wetland.”
- Correct the perception that smaller wetlands are not protected under any law.



### County Examples

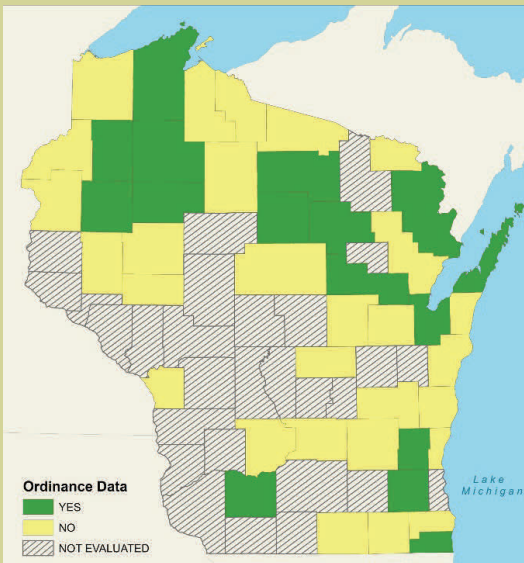
- *Marinette County* created a Conservancy District and conditional use permit process to protect shoreland wetlands that are two acres or smaller (i.e. unmapped wetlands).
- *Oneida* and *Sauk County* use shoreland-wetland zoning districts to protect areas that meet the state definition of wetlands.
- *Waukesha County* allows use of the “best available information” (i.e. field inspections) to identify the edge of wetlands in the C-1 Conservancy District.

### Recommendation

*Adopt “avoid and minimize” standards for wetland impacts.*

Even though federal and state laws protect wetlands, local governments may adopt and implement similar or more protective wetland policies. Local governments can establish wetland permitting programs that reflect the needs and priorities of the local community. Doing so allows local governments to:

- Strengthen local control over development in sensitive areas.
- Require compensation (mitigation) for local wetland impacts.
- Improve collaboration and address gaps in federal and state regulations.



### County Examples

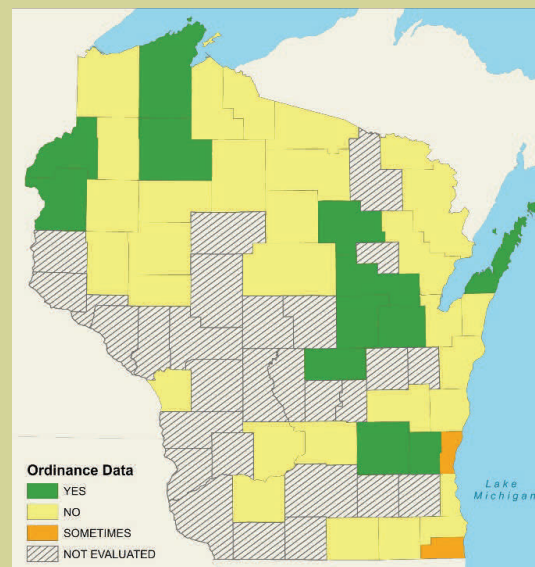
- *Barron County* requires a grading permit for land disturbing activities greater than 500 sq ft in any wetland. Permits may only be issued if there are no adverse impacts.
- *Brown County* requires a permit for land disturbing activities greater than 500 sq ft within 100 feet of any shoreland wetland.
- *Rusk County* requires that each shoreland lot contain enough contiguous buildable area to accommodate all buildings, structures, septic systems, and required setbacks. Wetlands are excluded when determining the buildable area.

### Recommendation

*Adopt structural wetland setbacks and require vegetated wetland buffers.*

Siting buildings and other infrastructure away from wetlands helps to protect property from flood damage and maintains important natural functions of wetlands such as flood abatement, water quality improvement, and erosion control.

Maintaining vegetated buffers adjacent to wetlands can enhance the filtration capacity of wetlands, improve water quality, maintain surface and sub-surface hydrology, provide food, shelter and breeding areas for wildlife, and prevent invasion by noxious plant species (i.e. reed canary grass).



### County Examples

- *Dodge, Outagamie, and Waukesha County* require a 75 foot structural setback from wetlands.
- *Waushara County* requires a 50 foot structural setback.
- *Burnett and Sawyer County* require a 40 foot structural setback.
- *Door County* requires a 35 foot structural setback.
- *Bayfield, Langlade, Polk, and Waupaca County* require a 25 foot structural setback.



## DNR LAKE GRANTS OFFER WETLAND PROJECT FUNDING OPPORTUNITIES

The Wisconsin Department of Natural Resources (DNR) Lakes Program provides several grant funding sources that can be used for wetland planning, protection and restoration. To be eligible for a DNR Lake Grant, wetland projects must be designed and completed with the intent of improving lake quality or management. Eligibility requirements, application deadlines, and wetland project ideas for each grant are described below. Additional information and grant application forms can be found at: <http://dnr.wi.gov/lakes/grants>.

### Lake Protection Grants

Up to \$100,000 (75% of project costs) may be awarded for wetland restoration projects that provide water quality improvement and fish and wildlife habitat benefits to a certain lake. Applicants must *clearly* demonstrate anticipated benefits and document how the project will restore hydrology, establish native wetland plantings, and preserve adjacent upland buffers.

Projects to protect or restore wetland areas identified as priorities in a local land use plan may be eligible for a Wetland Incentive Grant which can fund up to \$10,000 of project costs with no required match. The purchase of fee title acquisition or conservation easements on wetlands that protect lakes or contribute to their ecological health may qualify for up to \$200,000 under a Land Acquisition Grant.

*Lake protection grant applications must be submitted by May 1 of each year.*

### Large-Scale Lake Planning Grants

Up to \$25,000 (67% of project costs) may be awarded for projects that improve the local understanding of how wetlands benefit lakes and watersheds. Successful projects will integrate a wetland component as part of a comprehensive lake and watershed assessment. Examples of wetland planning projects include: 1) wetland assessments to improve wetland mapping or to classify and map wetlands by the services they provide; 2) wetland valuation studies to measure

the economic and social value of protecting and restoring certain wetlands; and 3) wetland modeling to analyze how specific wetland services benefit lakes and their communities.

*Large-scale lake planning grant applications must be submitted by February 1 or August 1 of each year.*

### Small-Scale Lake Planning Grants

Up to \$3,000 (67% of project costs) may be awarded for wetland education and outreach projects if they are *strongly* tied to lake protection, restoration, or management. Grant applications will be significantly aided by having a lake association co-sponsor, participate in, and/or write a letter of support for the project. Grants can be used to launch formal lake and wetland planning and management projects. They can also be used to facilitate community-wide dialogue on challenges and opportunities to improve local lake and wetland education, restoration, and protection efforts.

*Small-scale lake planning grant applications must be submitted by February 1 or August 1 of each year.*

### Eligibility Requirements

Eligible applicants for all DNR lake grants include counties, towns, cities, villages, tribes, qualified lake associations, public inland lake districts, nonprofit conservation organizations, and town sanitary districts.

Applications for wetland projects must clearly demonstrate how the project will benefit lake quality or management. To improve the chance that your project will rank favorably against other proposals, you are encouraged to:

1. Carefully review the ranking criteria for the grant you will be applying for, and
2. Contact your local DNR Lake Coordinator to discuss and receive feedback on your project idea: [http://dnr.wi.gov/lakes/contacts/contacts.aspx?role=LAKE\\_GR\\_APP](http://dnr.wi.gov/lakes/contacts/contacts.aspx?role=LAKE_GR_APP).

## FIELD-BASED WORKSHOPS HELP LOCAL OFFICIALS ADMINISTER WETLAND LAND USE POLICIES

When it comes to understanding wetlands, there is no substitute for time in the field. Wisconsin Wetlands Association has developed a *Basic Wetland Identification and Assessment* workshop to help local land use decision-makers recognize wetlands on the landscape and address them appropriately during local permitting processes. Participants learn how to recognize common wetland plants and indicators of wetland hydrology, and how to evaluate wetland condition and function. They also receive primers on state and federal wetland regulatory requirements. All aspects of the training are designed to help local land use officials determine if a wetland is present and whether the proposed project conforms to local land use policies and priorities.

To date, workshops have been held in Northern and East-Central Wisconsin with several more scheduled for later this year. All have been planned in collaboration with local partners and tailored to meet the educational needs of their invited participants. The first workshops targeted regional county zoning and planning staff and their professional colleagues. In response to partner requests, WWA subsequently adapted the curriculum to meet the wetland training needs of local elected officials and watershed leaders. Across the board, the workshops have received high marks from participants.

WWA selects *Basic Wetland Identification and Assessment* workshop locations based on local demand and the availability of funding. They will also consider requests to deliver workshops at statewide gatherings of local government and watershed leaders. For more information contact Wisconsin Wetland Association's Policy Specialist, Kyle Magyera at (608) 250-9971 or [kyle.magyera@wisconsinwetlands.org](mailto:kyle.magyera@wisconsinwetlands.org).



*Workshop participants learn how to recognize common wetland plants and indicators of wetland hydrology. They also learn how to evaluate wetland conditions and functions.*

### INTERACTIVE WETLANDS EXERCISE AVAILABLE FOR PLAN COMMISSION AND ZONING BOARD WORKSHOPS

The Center for Land Use Education (CLUE) has partnered with the Wisconsin Wetlands Association to develop an interactive wetlands exercise. The exercise requires local decision-makers to evaluate a development proposal involving wetlands. The exercise and related educational materials can be integrated into CLUE's plan commission and zoning board workshops.

If you would like to learn more about CLUE workshops, or if you would like to host a workshop in your community, please contact Rebecca Roberts at [rroberts@uwsp.edu](mailto:rroberts@uwsp.edu) or 715-346-4322. A list of current workshop opportunities is posted on our website at: [www.uwsp.edu/cnr-ap/clue](http://www.uwsp.edu/cnr-ap/clue).

Wetland Quiz Answers (from page 11): 1 — D. Lowland Hardwood Swamp, 2 — I. Shrub Carr, 3 — F. Coniferous Swamp, 4 — K. Low Prairie, 5 — H. Alder Thicket, 6 — G. Marsh, 7 — A. Open Bog, 8 — L. Ephemeral Pond, 9 — E. Floodplain Forest, 10 — J. Sedge Meadow, 11 — B. Coniferous Bog, 12 — C. Fen.



## TEST YOUR KNOWLEDGE OF WETLANDS!

Match Wisconsin's 12 wetland community types with the photos below:

**A. Open Bogs** have saturated, acid peat soils that are low in nutrients and support low shrubs, wildflowers, grasses and a few trees on mats of sphagnum moss.

**B. Coniferous Bogs** are similar to open bogs except that they are dominated by mature black spruce and/or tamarack trees.

**C. Fens** are low-growing plant communities where mineral-rich groundwater seeps from the ground.

**D. Lowland Hardwood Swamps** are dominated by deciduous hardwood trees and may be covered with standing water.

**E. Floodplain Forests** are dry much of the year, but occasionally inundated by overbank flooding.

**F. Coniferous Swamps** are forested wetlands dominated by lowland conifers such as northern white cedar or tamarack.

**G. Marshes** are dominated by herbaceous aquatic plants such as cattails and water lilies in water that is seasonal to permanent.

**H. Alder Thickets** are dominated by speckled alder, a pioneer species that grows on exposed peat or alluvial floodplain soils.

**I. Shrub Carrs** are swamps dominated by deciduous shrubs, willows and dogwoods on saturated to seasonally flooded soils.

**J. Sedge Meadows** are open communities with dense grasses, wildflowers and sedges growing on saturated soils.

**K. Low Prairies** are open communities dominated by grasses that have standing water only during floods or snowmelt.

**L. Ephemeral Ponds** are shallow, often poorly-drained basins that contain standing water in spring.

Answers found on page 10



From *Overview of Wetland Community Types*: [www.wisconsinwetlands.org/Gems/WetlandTypes.pdf](http://www.wisconsinwetlands.org/Gems/WetlandTypes.pdf)



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### Submit an Article!

If you would like to submit an article,  
please contact the managing editor,  
Rebecca Roberts. Your article should  
be 1,000 words or less, of statewide  
concern, and address a land use or  
community planning issue.

## CALENDAR OF EVENTS

### Community Development Society Conference

July 21-24, 2013 – Charleston, SC

[www.comm-dev.org](http://www.comm-dev.org)

### Chief Executives Workshop

August 21-23, 2013 – Wausau, WI

[www.lwm-info.org](http://www.lwm-info.org)

### International City/County Management Association Conference

September 22-25, 2013 – Boston, MA

<http://icma.org/en/icma/events/conference>

### Small Town Downtown Forums

September 5, 2013 – Darien (Walworth County), WI

September 10, 2013 – Black Creek (Outagamie County), WI

September 19, 2013 – Barneveld (Iowa County), WI

<http://wirural.org>

### Growing Sustainable Communities Conference

September 24-25, 2013 – Dubuque, IA

[www.gscdubuque.com](http://www.gscdubuque.com)

### Wisconsin Counties Association Annual Conference

September 22-24, 2013 – Madison, WI

[www.wicounties.org](http://www.wicounties.org)

### League of Wisconsin Municipalities Annual Conference

October 16-18, 2013 – Green Bay, WI

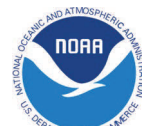
[www.lwm-info.org](http://www.lwm-info.org)

### Wisconsin Towns Association Convention

October 27-29, 2013 – Madison, WI

[www.wisctowns.com](http://www.wisctowns.com)

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Center for Land Use Education  
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