

Shawano County Lake Classification Study  
Project LPT 161-01 LPL 783-02  
FINAL REPORT

**Summary:**

Shawano County Planning and Development Department (PnD) staff in cooperation with UWEX educators and citizen advisors worked extensively on the sensitivity classification of Shawano County's waterways and subsequent educational events and products pertaining to the need for improved water protections. Using results from this water classification process, the existing shoreland ordinance was reviewed and revisions were proposed under a related grant project, LPL-783-02.

**LPL 161-01 water classification process activities included:**

1. establishment of a representative countywide citizen advisory group to identify and study water quality issues, review other county's classification efforts, and guide the classification process
2. review of criteria upon which to establish a classification matrix; evaluation of literature and other counties efforts in the area of water classification;
3. education of citizen advisors, lake organization members, other stakeholders and the general public (via newsletters, presentations, press releases, and the web) on classification process, goals, and matrix criteria; selection of criteria.
4. classification of county waterways using county GIS resources and related data available from government agencies and the University system; refinement of classifications; public education on water classification
5. survey of a random sample of shoreland property owners
6. review and selection of management strategies to address water quality concerns identified; development of general education products on shoreland best management practices, including a draft shoreland property owner's manual. Open houses on waterway classification and management strategies.
7. review of Wisconsin shoreland ordinances and preparation for the overhaul of local codes.

Project items 1-5 above were conducted primarily from March 2001 to March 2002 as coordinated by Shoreland Project Manager (LTE) Lynn White. Following her resignation in March '02, the project items 6 & 7 above were coordinated by UWSP intern Jared Szews until his return to college in September of '02, and then by Shawano County Planning and Development Department staff and UWEX staff as time allowed. By the Fall of '02, project focus had shifted almost entirely to satisfying the objectives of LPL-783-02, the ordinance evaluation grant.

**LPL-783-02 process activities included:**

1. Review of progressive, lake-classification-based zoning ordinances in Wisconsin.
2. Education of / input from local governments and the public about regulatory options for managing threats to water quality as identified in the waters classification process.

3. Development of a plain-language regulatory guide for waterfront property owners.
4. Website publication and staff presentations on the drafts of the revised Shoreland Zoning Ordinance, including public hearings.

Ultimately, the proposals to revise the shoreland ordinance failed to pass the Shawano County Board of Supervisors in the spring of 2004. Likely reasons for this will be discussed in the [analysis section](#) of this report.

Shawano County would like to acknowledge the assistance of the UWSP Center for Land Use Education. Staff members Mike Dresen and Lynn Markham contributed a great deal of their time as well as some of the Center’s educational products and services to this process.

This report has been prepared by Tim Funk, Shawano County Long-range planner who, starting in September of 2003, assisted with preparation and public presentation of the final drafts of the proposed Shawano County Shoreland Ordinance. Questions can be directed to me at [pndtimf@co.shawano.wi.us](mailto:pndtimf@co.shawano.wi.us) and I can try to answer them or will forward them as appropriate.

A great deal of the work products associated with this project were archived on the Planning and Development Department computer network. Included on the same CD as this report is much of the raw material generated, and some of those products will be highlighted within the brief report that follows using clickable hyperlinks (blue underlined). The remainder of the material may be perused at your discretion.

**Grant Application Project Deliverables :**

A broad overview of the entire water classification and ordinance revision process was given to the County Board prior to final vote. This may be useful in understanding the sequence in which the materials below were produced / revised.

[OrdinanceRev\SL Prez tjf 3-22.ppt](#)

**SECTION 1.** The following lettered categories correspond to deliverables described in the November 2000 grant agreement for LPT 161-01.

- A. *Matrix of Shawano County lakes and rivers, categorized by development potential, extent of development, extent of recreational activity, and susceptibility of receiving waters to ecological damage.*

Primary water classification methods: references  * data sources for all projects are as recommended in these references	<ul style="list-style-type: none"> <li>❑ Lake Classification Advisory Committee. WI DNR et al. 1999. "A Guide for County Lake Classification"</li> <li>❑ Shaw, Byron et. al. UWEX pub G3582. 2000. "Understanding Lake Data"</li> <li>❑ Young, Bob. WI DNR. 1998. "Lake Classification for Shoreland Development Impacts"</li> </ul>
Original proposed criteria and general matrix	<a href="#">Lakeclass\classification criteria\classification criteria - explained.doc</a>

Final selected criteria	<a href="#">Lakeclass\classification criteria\Classification Criteria signs.doc</a>
Criteria scoring methods for the classification of lakes	<a href="#">Lakeclass\classification\key to rankings for lake classification criteria.xls</a>
Lake development scores	<a href="#">Lakeclass\classification\LAKEs\final approved SCORES 11-8-01 - EXISTING DEVLPM -SORTED.xls</a>
Lake sensitivity scores	<a href="#">Lakeclass\classification\final approved scores- 11-8-01 - STRAT OPT2 - sensitivity to pollution.xls</a>
The criteria scoring methods for the classification of rivers/streams	<a href="#">Lakeclass\classification\key to rankings for STREAM classification criteria.xls</a>
River/stream development AND sensitivity scores; Classes	<a href="#">Lakeclass\classification\APPROVED weighted stream classification scores - 12-20-01.xls</a>
Applied matrix: classification Originally proposed lake matrix  Rationale for original stream classes (see above)	<a href="#">Lakeclass\classification\LAKEs\Shawano County Lake Classification Matrix.ppt</a>  <a href="#">Lakeclass\CAC\01CAC 11-28-01\Minutes 11 28 01-revised.doc</a> <a href="#">Lakeclass\CAC\CAC 1-9-02\Minutes 1-9-02 revised.doc</a>
Proposed reclass procedures	<a href="#">Lakeclass\classification criteria\Reclassification language - final 9-19-01.doc</a>
Final classifications – politically modified  Lakes  Rivers/streams	  <a href="#">Lakeclass\classification\Lake.class.list.final.5-03.doc</a>  <a href="#">Lakeclass\classification\final.streams.list.doc</a>
Water-classification related GIS data (ARCview / ARCmap)	<b>see GIS data CD</b> , on which are files noted below
1. Final waterclasses mapped	final_waterclasses.shp
2. All other draft & intermediate data products	<p>\gis\lakeclass\  * requests for specific work products other than final waterclass map should be directed to Shawano County Planning and Development Department. We will assist you in extracting it from this CD.  **mxd / apr files have network-specific paths and new source selection must be performed. All supporting shape files are included. All data is referenced to Shawano Co. coordinate system.</p>

*B. Information and education program, including early public information on the values of shoreland property protection, introduction to the process of visioning for county waters, and consensus facilitation with a wide variety of stakeholders. The latter may result in a series of policy statements and recommendations to decision making bodies.*

Lake Classification Citizen Advisory Committee (CAC) inaugural goals	<a href="#">Lakeclass\CAC\01CAC 6-26-01\GOALS OF LAKE CLASSIFICATION.doc</a>
CAC recorded activities	meeting minutes and other info, peruse: <a href="#">Lakeclass\CAC</a>
Summary of information and education activities; these were part of larger education plan	<a href="#">Lakeclass\PUBLIC PARTICIPATION.DOC</a> <a href="#">Lakeclass\Education\Education plan\Surface Water Classification Education Plan.doc</a>
Direct landowner survey 1. Survey text and narrative summary of results 2. Summary charts of survey results	<a href="#">Lakeclass\lake survey\NARRATIVE SUMMARY OF LAKE SURVEY.doc</a> <a href="#">Lakeclass\Water Classification\shoreland survey charts.xls</a>
Newsletter series – “On the Edge”	view documents in <a href="#">Lakeclass\newsletters</a>
Sample informational flyer	<a href="#">Lakeclass\Education\Handouts\What Is A Water Classification - revised 2-15-02.doc</a>
Sample educational posters	may be perused at: <a href="#">Lakeclass\Posters</a>
Adopt-a-lake outreach efforts	<a href="#">Lakeclass\Education\Adopt A Lake\sample.letter.pdf</a>
Media tour events ... sample	<a href="#">Lakeclass\Education\media tour\sample media tour invitation.pdf</a>
Web site (no longer operational. Sample files give the idea.)	<a href="#">Lakeclass\Website stuff\shld mgmt_rev.htm</a> <a href="#">Lakeclass\Website stuff\water_class.htm</a>

*C. A package of proposed resource protection strategies and programs*

Management strategies list and potential tools	<a href="#">Lakeclass\classification\Mgmt. Goals &amp; Strategies\Issues - Strategies 2-27-02 newer 3.doc</a>
Goals by water class	<a href="#">Lakeclass\classification\Mgmt. Goals &amp; Strategies\Management Class Goals and Objectives.doc</a>

<p>Native landscaping education</p> <p>1. The case for native plant shoreland restoration – presentation to local lake groups etc.</p>	<p><a href="#">Lakeclass\native landscaping\Shawano Native Plants 97.ppt</a></p> <p><a href="#">Lakeclass\native landscaping\Why Native Plants.doc</a></p>
<p>Shoreline buffers education</p>	<p><a href="#">Lakeclass\management strategies\Buffers + setbacks 3-13-02.ppt</a></p>
<p>Regulatory tools</p>	<p>see section 2 below</p>

*D. A package of next years work efforts based on the categories in the classification matrix*

Management strategies developed into ordinance development. See section 2.

*E. Shawano Co. Shoreland Protection Manual*

<p>Staff prepared a shoreland protection manual that assumed the proposed management strategies and regulations under consideration would be passed. When they were not, the draft was shelved.</p>	<p><a href="#">Lakeclass\Handbook\Draft of Handbook-3.pdf</a></p>
<p>Shawano County was asked to contribute to a new best-practices guide being developed by the Center for Land Use Education. Ultimately we decided this was the best use of our grant dollars toward the goal of a manual, and we purchased copies in bulk to hand out to all shoreland property owners.</p>	<p><a href="#">Lakeclass\Handbook\GWQ044.pdf</a></p>

*F. Displays / videos / teaching materials*

<p>UWEX and PnD staff produced created a few versions of a 6' tall 3-panel presentation kiosk that was used at numerous public informational meetings.</p>	<p>The latest version of the kiosk was lent to Dan Helf, WDNR, for educational purposes and has gone missing ☺. An <a href="#">earlier version</a>.</p>
<p>A video explaining mitigation requirements was intended, but we learned that an excellent video was produced under a Langlade Co. Lake Protection Grant. It was our intent to purchase some of those videos once our revised code was adopted. This has been suspended along with the code.</p>	
<p>(see also items B, C &amp; E)</p>	


**SECTION 2.** The following lettered categories correspond to deliverables described in the December 2001 grant agreement for LPL-783-02.

*A. Inventory of applicable existing ordinances; meetings with local jurisdictions; public informational meetings*

Staff reviewed a variety of literature available at the time, especially the material, references, and review of other-county standards in "Creating an Effective Shoreland Zoning Ordinance" WDNR WT-542-00. Ordinances of Langlade, Lincoln, Vilas, Oneida, Chippewa and Waupaca counties were studied in depth.	<a href="http://www.dnr.state.wi.us/org/water/wm/dsfm/shore/documents/Wt54200/WT54200.pdf">http://www.dnr.state.wi.us/org/water/wm/dsfm/shore/documents/Wt54200/WT54200.pdf</a>
Citizen advisory committee discussions of ordinance standards began in February of '02	Minutes may be perused in... <a href="#">Lakeclass\CAC</a>
Open houses in August of 2002: explaining ordinance standards being considered and their basis in lake classification	<a href="#">Lakeclass\Education\Open House\Open Houses-Jared\Shawano open house -2nd draft.ppt</a>

*B. Draft shoreland ordinance revision / hearings*

Again, from final overview presentation, to give time context...	<a href="#">OrdinanceRev\Ord.rev.timeline.ppt</a>
First draft	<a href="#">OrdinanceRev\draft 1 02-04-03.doc</a>
Two public fora on the first draft were held in Feb and March of '03. 7000+ landowners mailed. Presented with draft code, comparison of first draft to existing code, and select educational material <b>from August Open Houses.</b>	<a href="#">OrdinanceRev\CURRENT VS PROPOSED.doc</a>
Amended revision - summarized	<a href="#">OrdinanceRev\CURRENT VS PROPOSED VS AMENDED.doc</a> <a href="#">OrdinanceRev\C v P v A Add.doc</a> <a href="#">OrdinanceRev\Shr Ord Comparison.doc</a>

Public hearing presentation on amended revision, late January, 2004.	This is a flash presentation. Both the player and the presentation are in: <a href="#">OrdinanceRev\Flash</a> First launch the player, then browse to the location of the 'shorefinal.swf' file in the above directory on the CD. During play, use the  button to advance through the presentation.
Amended draft - resolution text	<a href="#">OrdinanceRev\Resln 3-04.doc</a>
Amended draft text	<a href="#">OrdinanceRev\Shrld Ord No3-04.doc</a>
Attachments	<a href="#">OrdinanceRev\final.streams.list.doc</a> <a href="#">OrdinanceRev\Lake.class.list.final.5-03.doc</a>
Jan '04 hearing comments and summary	<a href="#">OrdinanceRev\Oppose.pdf</a> <a href="#">OrdinanceRev\Support.pdf</a> <a href="#">OrdinanceRev\HrgCommMemo.pdf</a>
Press coverage of Jan '04 hearing	<a href="#">OrdinanceRev\Leader.Ordinance hearing jan 31.pdf</a>
Class 4 materials. As a political strategy, Class 4 (very heavily populated waterways) was proposed where none of the proposed changes would apply.	<a href="#">OrdinanceRev\ShrldSpecial.pdf</a> <a href="#">OrdinanceRev\ShawLeader Class4 article.pdf</a> <a href="#">OrdinanceRev\Resln 4-04.doc</a> <a href="#">OrdinanceRev\Shrld Ord No4-04.doc</a>
Opposition ad: reaction to class 4	<a href="#">OrdinanceRev\Sunday3-21 sawm.pdf</a> <a href="#">OrdinanceRev\moreAds.pdf</a>
Final vote presentation	This overview presentation was referenced on page <a href="#">2</a> .
Final vote press coverage	<a href="#">OrdinanceRev\SLvote.pdf</a>

### *C. Draft resource protection strategies*

Some of the water resource protection strategies noted in [Section 1, item C](#) were incorporated into the Shawano County [Land & Water Resource Management Plan](#) (chapters 4-7).

While there is no intent to resurrect any aspects of the revised shoreland ordinance without County Board authorization, the scientific assessment of waterway sensitivity and riparian-owner survey results will be reviewed during the natural resources element of the comprehensive planning process in the County. Individual communities will determine what planning actions they do or do not want to take with regard to sensitive waterways and will be educated about

those provisions of the proposed ordinance revision that provoked the most complaints during public hearings. The underlying reasons for these objections will be studied. Where feasible, socially acceptable, reasonably effective alternatives to the above-proposed strategies will be evaluated with focus groups and other means of landowner feedback.

*D. Shoreland protection manual*

See [item E](#) in Section 1.

*E. Distribution of draft Shoreland Ordinance revision*

As discussed above, the primary, repeatedly-employed methods of disseminating information about the proposed ordinance revisions were:

Activities	examples:
1) direct mailing to all shoreland property owners and civic leaders	<a href="#">OrdinanceRev\postcard.gif</a> <a href="#">Lakeclass\Shoreland Letter 5-28-2003.doc</a>
2) press releases & newsletters	<a href="#">Lakeclass\press releases</a> <a href="#">Lakeclass\newsletters</a>
3) open houses & public hearings, and	see <a href="#">item B</a> above
4) the County website	<a href="http://www.co.shawano.wi.us/subwebs/pnd/Shore.aspx">http://www.co.shawano.wi.us/subwebs/pnd/Shore.aspx</a>

*F. Final report (analysis of outcomes). Draft ordinance ([see item A](#)). Draft planning products ([see item C](#).)*

The above compiled lists of information links constitute the bulk of this report, and the majority of remaining work products for the grant project are included on the attached CD. The following is the staff analysis of the outcomes.

**Analysis.**

In what respects did we fail or succeed and why? In concluding this report, I will briefly discuss some of the possible reasons for the outcomes we observed and what options we have to improve lake protections based on the efforts to date.

In concluding the shoreland ordinance revisions, a frequently voiced complaint about Shawano County's waterway protection planning process was that the Citizen Advisory Committee (CAC), the body reviewing and selecting the

management strategies, was small and non-representative of the opinions of most county waterfront owners, although it should be said that members of the local building and development community, lake districts, etc. were included on the advisory board and otherwise invited to participate. Still, some members of the CAC dropped out because they felt their opinions were not being incorporated, especially during the ordinance review phase, and we (staff) agree that this may have been due in part to the fact that decisions of the CAC were being



made more by majority vote than by consensus.

One could argue as well that the result of the ordinance revision process was at least to some degree predetermined. Shawano County was not a pioneer in lake protection efforts, and the temptation was to draw from the completed works of other counties when assembling our protection package. As a result, the layperson may have felt that an unusually complex regulation package suddenly appeared and was therefore some sort of “plot” by the State or the University. Partly for this reason, building public trust in a “locally grown” planning product was difficult.

Conversely, a large number of opponents argued for dismissal or postponement of a local shoreland protection ordinance in light of the increased protections likely to be mandated by the state in its revision of NR115.

As the final hearing comments indicate, management strategies were opposed as too restrictive on development and especially punitive to nonconforming structures — this despite the intent of the mitigation provisions, which offered flexibility by allowing expansion of non-conformities if done along with a homeowner’s choice of shoreline restoration or other best practices. Also protested were the impervious surface limitations, which were seen as futile and unfair given that, for example, street stormwater was in many places discharged directly into Shawano lake.

Indeed, objections were strongest from the individuals and groups around Shawano Lake. While many were concerned about water quality, they seemed unconvinced that the development restrictions being proposed would have any impact. For many of them, the fault for waterway degradation resided instead with upstream agricultural producers, internal sediment loading, and other non-residential pollutant sources.

Shawano Area Waterways Management was a leader in denouncing the proposed regulations as draconian and a threat to property values. Local realtors and sportcraft dealers successfully joined in this vociferous but sometimes inaccurate campaign.

With such intense objections dominating the local media, it was difficult to redirect public attention to the vast mileage of undeveloped, high-quality waterways, especially streams, that would be afforded protections by the comparatively simpler measures of increased setbacks and lot sizes. It is possible that the good condition of western Shawano County’s waters may have been viewed by locals as a liability rather than an asset, as so much of the frontage of that region was designated as Class 1 (most restrictive).

Overall, in the mind of many individuals, the science-and-education-based water classification system and the non-regulatory lake protection strategies became “guilty by association” with the more onerous and arcane aspects of the proposed ordinance revision, and therefore the perceived personal costs of waterway protection overshadowed any public benefits.

Even though waterway stewardship was in this way eclipsed by the ordinance controversy, the entire project did succeed in building awareness of some of the key factors leading to degradation of waters, such as the impact of lawns, impervious surface, erosion, failing septic, in-lake vegetation/woody debris removal, and so on. While local decision makers and citizens had many complaints about the restrictions on residences, they generally had praise for the idea of protecting water quality, fish habitat, and tourism potential. Some even expressed a willingness to adopt progressive measures such as phosphorus-fertilizer bans or shielded shoreland lighting.

The public's "being of two minds" as such regarding shoreland protection measures gets to one of the biggest lessons we've learned about resource management, namely that one must do more to adapt to the public's beliefs and likely behavior regarding proposed management strategies: i.e. to study what objections they perceive—and what other barriers there are—to their taking protective actions or accepting regulations.

The riparian owner [survey](#) done as part of our process was useful in determining what people value, but unfortunately people may value something and still not sacrifice to protect it. In response, government typically pursues increased information and education about the issues, a tactic which, according to a well-established body social psychology research, often fails.<sup>1</sup> Rather, after management strategies were initially formulated, it may have helped to study them using local focus groups to determine what would enhance their probability of success among the people in this County. While this may have moderated some of the revisions made to the ordinance, it also may have alleviated some of the "blowback" on the agencies involved, future resource protection efforts, and the upcoming comprehensive planning project. And it may have precipitated more creativity and proactiveness with non-regulatory approaches.

This is not to say that "reality testing" cannot still be done to develop an approach that is a better mixture of carrots and sticks and, as mentioned in section 2 C, this will be encouraged during the comprehensive planning process.

In the interim, department staff continue to disseminate lake-protection grant-procured best practices information and resources to individual shoreland zoning

permit applicants. We are encouraging proposed plats adjacent to sensitive areas to consider conservation subdivision designs, and we support recent UWEX efforts to organize land trust activities in shorelands and forested areas. Our land conservation department incorporates lake classification information into its education of agricultural producers on the need for erosion control and manure management practices. And our parks division uses classification results in educating the public about the recreation potential of high-quality county waters.

Despite the adversity we faced, Shawano County is grateful for the opportunity to bring these issues to the public's attention with the assistance of Lake Protection Grant Funding from the Wisconsin Department of Natural Resources, and we look forward to cooperating with DNR on future partnerships.

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<sup>1</sup> See Doug McKenzie-Mohr [Fostering Sustainable Behavior](#) <http://www.cbsm.com/>

