

Center for Land Use Education

THE LAND USE TRACKER

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Subdividing lots is sometimes easier than selling or building on them, resulting in numerous vacant "ghost" lots.

HONING AN OLD LAND USE TOOL: REGULATING RURAL LAND DIVISION AT THE TOWN LEVEL

By Eric Olson

INTRODUCTION

Recent sales of large, industrial forests in northern Wisconsin towns have raised concern over the rate that large, contiguous tracts of rural land are being subdivided into smaller parcels. Two examples can be used to illustrate this, though dozens no doubt exist. Plum Creek, which owns over one-half million acres of land in Wisconsin, is in the process of finalizing two development projects in

Langlade and Oneida counties that add 100 lots to the state's rural land market in their first phases alone. Wisconsin Public Service has been working to divest and develop shoreland property on the Peshtigo and Wisconsin Rivers, creating hundreds of additional lots. These are in addition to the hundreds of small lots divided off one or two at a time by rural landowners seeking to liquidate a small portion of their wealth in land.

The process of parcelization is hardly new. When rural zoning was introduced in the late 1920s to constrain rampant "farmland" sales on sand and gravel lands in the north, recreation was promoted as a suitable land use in far flung lake districts. Speculators then created thousands of shoreland and near-shore lots in the first half of the 20th Century. As a result, many "ghost plats" still invisibly dot the landscape, harboring undeveloped small parcels that await a landowner with a blueprint and a variance request.

The parcelization process in rural Wisconsin is adding thousands of new homes in previously undeveloped areas. The time lag between when a



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CALENDAR OF EVENTS**LOCAL LAND USE PLANNING AND ZONING WISLINE SERIES**

Wednesdays 10:30 a.m.- 11:50 a.m.

March 22, 2006 – Managing Impacts on Wetlands

April 26, 2006 – Endangered Resources and Community Planning

www.uwex.edu/lgc/program/pdf/landbro05-06.pdf

INTERNET TOOLS FOR NATURAL RESOURCES: LOCAL GOV'T WEB CAST

Tuesdays 10:30 a.m.- noon

March 28, 2006 – Internet Mapping Tools for Land and Biological Resources

April 25, 2006 – Internet Modeling Tools for Predicting Land Use Impacts on Runoff

<http://dnr.wi.gov/org/es/science/landuse/CompTools/local.htm>

CONSERVATION IN COMMON: ACTIONS AND STRATEGIES TO PROTECT YOUR RIVERS, PARKS AND TRAILS

March 31-April 1, 2006 – Camp Matawa (Northern Kettle Moraine State Forest)

April 28-29, 2006 – Holiday Acres Resort (4 mi. east of Rhinelander)

www.wisconsinrivers.org/conf06/conf06.htm

WISCONSIN CHAPTER OF THE AMERICAN PLANNING ASSOCIATION CONFERENCE

April 6-7, 2006 – Chula Vista Resort and Conference Center, Wisconsin Dells, WI

www.wisconsinplanners.org/events/events.htm

BAY-LAKE REGIONAL MINI-CONFERENCES

April 6, 2006 – Economic Impacts of Great Lakes Coastal Resources (UW-Marinette)

April 27, 2006 – Creative Solutions to Runoff Pollution (Lakeshore Technical College)

www.baylakerpc.org/ or call (920) 448-2820

CONFERENCE ON SUSTAINABLE TOURISM

April 19-20, 2006 – University of Minnesota-Twin Cities Campus

www.tourism.umn.edu

28TH ANNUAL WISCONSIN LAKES CONVENTION

April 20-22, 2006 – KI Convention Center, Green Bay, WI

www.uwsp.edu/cnr/uwexlakes/conventions/

EAST CENTRAL REGIONAL MINI-WORKSHOP – “INVASIVE SPECIES”

April 28, 2006 – Holiday Inn River Walk, Neenah, WI

www.eastcentralrpc.org/ or call (920) 751-4770

4TH INTERNATIONAL CONFERENCE ON ENVIRONMENTAL MANAGEMENT FOR SUSTAINABLE UNIVERSITIES

June 26-30, 2006 – University of Wisconsin-Stevens Point

www.uwsp.edu/cnr/GEM/EMSU/index.htm

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landowner or developer creates a new parcel and a buyer builds something on it ensures a steady supply of future homes. One could argue that landowners and developers are oversupplying the market for rural lots, in part because it is relatively easy to create new lots that are small enough (and thus affordable enough) to be purchased by nearly everyone. Today, one can buy a two acre wooded lot in rural northern Wisconsin for less than \$15,000.

While second-home seekers and retirees may relish in the availability of affordable getaways, there is scarce evidence that anyone is adequately considering the cumulative effect of these developments. The “external costs” of lot creation and rural development are paid by neither seller nor buyer, but rather the public in general. More homes in the forests means greater challenges for fire crews called on to save those homes when fires come through the woods. Development in shoreland areas is sure to increase runoff to lakes and rivers, degrading water quality, fisheries and wildlife habitat.

One thing that has changed in the last 100 years is our collective understanding of the damages and costs that this form of scattered rural development can bring. Today, more and more local communities are searching for adequate tools to manage the rate and pattern of lot creation. The recent surge in comprehensive planning in rural Wisconsin has contributed to both greater local understanding and concern. An increasing number of rural towns are finding that land division ordinances are both more appropriate and more

powerful for managing residential growth locally.

One potential application of the land division ordinance is to increase the minimum lot size allowable in new rural subdivisions, from perhaps two acres to ten acres, twenty acres, or more. While such a policy in a suburban area would rightly be criticized for exacerbating sprawl and potentially creating exclusive suburbs, this approach could effectively “internalize” the external costs of rural development and help tighten what is currently an artificially loose market. The net effect would be to temper and slow the rate of land division.

The balance of this article explains in more detail why a town might wish to consider this option, and provides some issues that a town should consider when seeking to develop a land division ordinance.

THE LIMITS OF ZONING

It could be argued that much of the emphasis on zoning in rural Wisconsin has been misplaced. Zoning ordinances were originally designed to reduce the intermingling of incompatible land uses. Most people would agree, for example, that communities should separate industrial facilities from residential districts. There is less agreement that a use like recreational homes is incompatible with Wisconsin’s rural lake and forest country. Indeed, most people would agree that these land uses are fully compatible, but that we should be concerned about the details of how landowners place those homes in the landscape.

For example, when developers are creating a new lakeshore subdivision,

“...rural towns are finding that land division ordinances are both more appropriate and more powerful for managing residential growth locally.”

“It could be argued that much of the emphasis on zoning in rural Wisconsin has been misplaced.”

they should situate lots such that a septic system can be safely separated from both a well and the lake. Roads over a certain length ought to be designed to allow fire fighting equipment easy access. Zoning ordinances, which deal with broad classes of land use, can also deal effectively with lot sizes, setbacks and other dimensional requirements, but they are not designed to deal with infrastructure issues including roads and drainage systems. This can limit their usefulness in shaping new development. Land division regulations, in contrast, have always

been used specifically to guide the land development process. Because Wisconsin has long emphasized zoning, local communities have paid less attention to land division ordinances and greater attention to zoning.

above and beyond state minimums. However, in many lake and forest rich towns, local residents and their elected town boards are coming to realize that even these updated standards may not be enough to protect threatened resources, particularly lakes. Viewed from a watershed perspective, local communities can see the 1000/300 foot delineation of “shorelands” as somewhat arbitrary, since development beyond this limit can still deliver substantial runoff to streams, rivers, and lakes.

This is creating new tensions in areas where town boards feel that county standards are too low. Towns may find it difficult to raise zoning-based development standards. While a town can go through a process to enact its own zoning, such town zoning ordinances are subject to approval (or veto) by the county board in counties with comprehensive zoning. The county may or may not go along with the town, depending in part on their intergovernmental relationship. Counties also have reason to seek uniformity in their regulations, both to make administration more straightforward and to avoid the appearance of favoring one community over another. County regulations, for example, might not differentiate between standards applicable in a developing area next to a city or village and a rural, isolated area where city utilities are unlikely to extend in the foreseeable future.

Seen in this light, land division ordinances that raise minimum lot sizes and otherwise impact the ease of creating new rural lots represent a powerful and appropriate tool for a town to deploy to better manage local growth and development, in part



New lots near farms can create tensions between new residents and farmers over smells, noise, and dust.

Another reason for the heavy emphasis on zoning is the sometimes strained relationship between towns and counties with respect to land use regulations. In the late 1960s, the state began mandating shoreland zoning to protect public waters from some of the harmful effects of overdevelopment. The state entrusted county boards, through their zoning committees and boards of adjustment, to enforce the statewide minimum standards on lot size and frontage. In doing so, the state reduced the role of town boards, eliminating their veto authority in shoreland rezoning (areas within 1,000 feet of a lake or 300 feet of a river). Many counties have since developed their own shoreland standards that go



because unlike county zoning, a town can enact land division regulations without county approval. As always, great power comes with great responsibility. The following section summarizes some of the issues and caveats that a town ought to consider before wielding this legal device.

BACKGROUND AND STATE ROLE IN LAND DIVISION CONTROL

The regulation of how landowners divide and sell their holdings actually predates zoning in Wisconsin. This is due in large part to the government's duty for enforcing private property rights. In order to resolve ownership disputes, the state needs a clear method of determining where one person's land ends and another's begins. Over time, the state has become more demanding of how surveys and records are maintained to hopefully eliminate instances where two people claim ownership of the exact same piece of land.

The state has also changed its role in reviewing proposals to divide and sell new parcels of land. Where once it took a laissez faire approach, the state now reviews subdivisions to ensure proper on-site waste disposal. Where once many long, narrow "piano key" lots could be built on a state highway, the state now regulates lot creation along highways. And where once landowners could surround an entire lake with nothing but private lots, the state now requires regularly spaced access points to ensure the public's right to their common waters. Starting in 1951, the state has also permitted local governments to develop their own land division regulations to address specific, local issues.

LOCAL GOVERNMENT ROLES IN LAND DIVISION CONTROLS

Most counties have regulations that closely reflect the state standards. However, these same standards contain loopholes that reduce their effectiveness in rural areas. For example, the state definition of subdivisions limits its oversight to "a division of a lot, parcel, or tract of land by the owner thereof or the owner's agent for the purpose of sale or of building development, where: (a) The act of division creates 5 or more parcels or building sites of 1½ acres each or less in area; or (b) Five or more parcels or building sites of 1½ acres each or less in area are created by successive divisions within a period of 5 years." (Wis. Stat. § 236.02(12)). This does not address lots larger than 1½ acres, a common occurrence in rural areas, and it also permits a landowner to survey and create multiple small lots so long they do so over a sufficiently long period of time.

Any local government (city, village, county, or town) can define a subdivision in a more restrictive manner than the state. A town could develop a subdivision regulation that is applicable to all new lots, regardless of size. Such a regulation may be more properly labeled a land division ordinance. State statutes further allow a local government to define different classes of subdivision. A town could, for example, classify new lots larger than 10 acres as "minor land divisions" and grant them a more expeditious review and approval



New development near large contiguous forests, like this one near Chequamegon National Forest, create more forest edge, changing the ecology of the area.



process. While local governments have wide latitude in developing the detailed requirements of a land division ordinance, they still need to relate the ordinance to the health, safety, and welfare of their population and they need to enforce the ordinance in a fair and non-discriminatory fashion. Beginning in 2010 the ordinance must also be consistent with a local comprehensive plan.

in place, a town board can assign the duty of applying the ordinance to a town plan commission. This is due, in part, to the fact that there is minimal room for personal judgment in applying a well written ordinance. An applicant will either meet the standards or not, and the town plan commission ought to be prepared to point out the flaws in a rejected land division proposal. A town that has assigned land division approval to the town plan commission can assign appeal and oversight authority to the town board. This is a variation from zoning, where a town is required to have both a plan commission and a local board of adjustment. The statutes actually do not specify the need to have a local appeal body for land division ordinances, but not having one is a sure way to invite challenges at the circuit court level.



Dense, urban-scale development near lakes increases impervious surface, runoff, and nutrient delivery to lakes.

While the ordinance cannot discriminate against land owners, it can reflect the fact that not all land is created equal. Rules near lakes and rivers, for example, can reflect the likely impacts of land division and development on riparian and aquatic resources. Rules applying to steeply sloped land can reflect the challenges of access, erosion, and soils unsuitable for septic systems.

The process of adopting and enforcing land division ordinances adds to their appeal for rural towns facing subdivision pressure. As mentioned earlier, the process does not involve review and approval by a county. Still, like most ordinances, the town must have village powers and needs to follow the same procedures for legally adopting any ordinance. Once

As suggested earlier, a town can categorize land division proposals based in part on the size and number of lots being created. Faced with a large, complex subdivision proposal, a town can choose to hire an engineer or landscape architect to assist in the review of the application. Their ordinance can assign the costs of such assistance to the applicant. Again, the town’s contractor and the plan commission are constrained to evaluating the proposal against the standards put forth in the ordinance, so the review process should be rather straightforward. A town can further facilitate the review process by creating a “users guide” to the ordinance and providing ordinance text to landowners seeking to divide their land. They can also require a less-formal “pre-application” meeting to discuss the landowner’s vision and point out potential conflicts between



the landowner's scheme and what the ordinance allows. This is best done early in the process to prevent landowners from investing time and money in a clearly incompatible proposal.

RELATING LAND DIVISION CONTROLS TO LOCAL COMPREHENSIVE PLANS

Local land division regulations can be a very effective bridge between a community's comprehensive plan and their desired future. This is especially true in places where the vast majority of land is still undeveloped. The land division ordinance can work to severely constrain new development and preserve existing conditions, if that is the community's will, or it can work to facilitate orderly development and change. Moreover, by highlighting the real challenges of developing land with numerous natural constraints (slopes, wetlands, etc.), the land division ordinance can be another tool for directing future development towards areas where the

land itself is more accommodating. In towns with minimal such constraints, the land division ordinance may still be useful if the town elects to significantly increase the minimum permitted lot size.

Managing the size, shape, and location of new parcels is but one way that a land division ordinance can help a town implement its plan. Land division ordinances can also regulate the layout of roads, specifying standards and expectations for design and construction. It can (and should) detail how the cost of roads, stormwater controls, and other development-related infrastructure will be assigned to the applicant and provide for financial guarantees to ensure that the town is not left holding the bag with respect to road construction costs or partially completed construction. It can include requirements for off-site improvements required due to the pressures created by the new

WHERE LAND DIVISION ORDINANCES OVERLAP

Wisconsin land use regulations allow many situations where local government jurisdiction overlaps. The general rule is that the most restrictive regulations apply. This rule is commonly applied in regulations impacting lot size.

For example, a town can legally enact and enforce a land division ordinance requiring larger lots within shoreland zones than allowed under county zoning because the larger lot sizes are seen as more restrictive on the landowner.

There may be other instances where the notion of "more restrictive" is difficult to discern.

A county ordinance could require that all new roads are at least sixty feet wide to permit emergency vehicles easy access. A town may require that all roads be no wider than forty feet to limit the creation of impervious surface. Which is more restrictive?

A county may specify a maximum new lot size of two acres accompanied by a limit on the number of splits allowed from one parcel in order to slow down rural sprawl. A town in the same county may require that all new lots be at least ten acres large to minimize the aesthetic impact of new housing development. Which is more restrictive?

In these cases and others, a prudent strategy would involve communication and compromise between town and county before the question of "who is more restrictive" even comes up. Focusing on community goals and interests may allow for creative solutions that help both town and county to use land division regulations to improve future development patterns.



development. In most cities, the local government requires park dedications or payments in-lieu-of as part of subdivision approval. Conservation subdivision standards, requiring permanent set-aside of open space, can also be included in a land division ordinance.

Land division ordinances are not well suited for dealing with land that is already divided. There are means for “undoing” poorly platted lands and eliminating non-conforming lots, but they are by no means easy. In reality, the zoning ordinance is and always has been the best tool for addressing land use issues on already platted lands. The Wisconsin Supreme Court has, for example, supported zoning laws that require owners of adjacent small lots, say 35 feet in width each, to combine them into lots double that size. The zoning ordinance will, for example, best handle cases of someone seeking permission to open a tavern in a residential area, or store abandoned vehicles on land near a school. In these cases, land division regulations are of little use.

CONCLUSION

One of the first rules of carpentry is “measure twice, cut once.” In Wisconsin, the landscape has been cut time and again with little measurement of whether the resulting pieces will fit into a desirable future. Landscape ecologists point out that the rampant parcelization of undeveloped northern lands inevitably leads to habitat fragmentation, and that large contiguous blocks of habitat are becoming increasingly scarce. Aldo Leopold offers another first rule, that of intelligent tinkering: keep all the parts. We watch large tracts of habitat disappear at our

own risk. Land division ordinances are not a silver bullet for managing development pressures in Wisconsin, but they are a powerful tool for local communities to use in implementing their comprehensive plans. They can guide and manage the rate and extent of land division, consistent with the community’s goal. ■

Rebecca Frisch, Darryl Landeau, Lynn Markham, and Rebecca Roberts provided helpful comments in preparing this article. Errors and omissions remain the responsibility of the author. Your comments and feedback are welcome at eolson@uwsp.edu.

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COMPREHENSIVE PLANNING IN WISCONSIN: ARE COMMUNITIES PLANNING TO PROTECT THEIR GROUNDWATER? PART III

By Bobbie Webster and Lynn Markham

This article is the third in a three-part series describing a project by CLUE staff and the U.S. Geological Survey that examines comprehensive planning efforts to protect and manage groundwater in Wisconsin. In the first article (see Spring 2005 Tracker), we summarized the purpose and background of the project and described our preliminary results. In the second article (see Winter 2005 Tracker) we discussed the final results of the comprehensive plan analysis, as well as observations and recommendations.

In this article, we will introduce five case studies highlighting rural Wisconsin communities that have implemented groundwater protection measures. With citizen planners, local government officials and staff as the target audience, the case studies were written in easy-to-read story format highlighting the key people, their rationale, and the social, financial and political challenges they overcame to achieve their groundwater goals. The case studies focus on the following topics and communities:

- Municipal well remediation and water conservation: City of Waupaca
- Groundwater education about water quality of private wells and associated policy development: Iowa County and towns therein

- Payments to farmers to grow low nitrogen input crops near municipal well: City of Waupaca
- Municipal well remediation and wellhead protection ordinance: City of Chippewa Falls and Chippewa County
- Groundwater study included in comprehensive plan and groundwater ordinance addressing future development: Town of Richfield, Washington County

All five case studies are available at: www.uwsp.edu/cnr/landcenter/groundwater/

The case study on page 10 highlights municipal well remediation and water conservation in the City of Waupaca.

A snapshot of the Community Groundwater Planning and Implementation website.



Drinking Water Pollution Leads to Water Conservation

ISSUE: DECLINING LEVELS OF WATER QUANTITY AND QUALITY

The city of Waupaca experienced water quality and quantity issues during the late 1980's and early 1990's. It has since implemented a variety of strategies to protect and conserve groundwater including well remediation and water conservation, which are discussed here, as well as cropping agreements (see separate case study).

APPROACH: WATER QUALITY

Groundwater in the City of Waupaca flows from the former site of a dry cleaning business to City well number four. In the mid 1980's, a chemical called tetrachloroethylene (PCE) leaked from an underground tank at the cleaners and was found in the drinking water pumped from the well. The Department of Natural Resources (DNR) and dry cleaner settled the case, leaving the DNR with responsibility for cleanup.

The city pumped contaminated water out of well number four and discharged it over a rock channel so the PCE could evaporate. The water then ran into the Waupaca River. This did not reduce the amount of PCE in the drinking water and it was costly to pump on a continuous basis, burning up motors in the process.

The city considered putting in a treatment facility to remove PCE, but it was too costly. The Waupaca

Public Works director wrote a letter to the secretary of DNR who finally arranged for an extraction well to be placed over the plume of PCE. Within two weeks, the level of PCE in the water coming from the extraction well dropped. The city continued pumping the extraction well for a couple of months.

The present level of PCE is 1-2 parts per billion (ppb) compared to the Maximum Contaminant Level of 10 ppb recommended to protect human health. The well now provides 10-15% of the city of Waupaca's water. In 1992, the city also adopted a wellhead protection ordinance. As with other Wisconsin communities, the ordinance was adopted after experiencing drinking water contamination (see Chippewa Falls case study for more on wellhead protection).

APPROACH: WATER QUANTITY

While well number four was off line, the city realized that if any other city well went off line they would not be able to meet the average daily demand for water. They decided to drill two new wells and implemented measures to reduce water consumption.

Industrial water use

The city first worked with the local foundry, which used approximately sixty percent of the city's water. The foundry reduced their water use by about thirty five percent by developing

“Conserving water is the right thing to do”

- John Edlebeck,
Waupaca Public Works



Waupaca County is a rural county in central Wisconsin. 100 percent of its drinking water is from groundwater. The dominant soil type its well drained to excessively drained sand, which allows contaminants to move quickly through the soil into groundwater (www.npwrc.usgs.gov)

Map copyright Wisconsin Online®



a method to recycle the foundry's cooling water. The capital costs for recycling the water were not recovered quickly, but the foundry wanted to be a good neighbor to the city and set an example for residential water users.

Residential water use

Residential watering restrictions were also implemented as a way to reduce water consumption. This was partly at the suggestion of farmers who were not enthusiastic about having city wells in their backyard. Furthermore, the city felt that residents should not take water for granted. Instead of relying solely on industry to conserve water, the city wanted to instill a sense of responsibility among residents to conserve water. Believing that conservation was "the right thing to do," the city continued conservation efforts even after the two new wells were in use.

The watering restrictions do not allow unattended watering between noon and 7 p.m. The city does a small amount of policing, but focuses instead on educational outreach. They have not issued any ordinance violations, which would impose a \$200 fine.

The city also tried to reduce water consumption by tracking high residential water users and offering the 25 highest users a free water use audit of their homes. The audits identified leaks and other areas where water could be conserved and homeowners were given free low flow showerheads, toilet tank bags and low flow aerators to help them reduce their water use. This program is ongoing.

REFLECTIONS ON WATER QUALITY AND QUANTITY STRATEGIES

Weaknesses

Time and money were not utilized

effectively in the beginning stages of well remediation when the first remediation method prescribed by DNR was ineffective.

Strengths

The PCE from the dry cleaners was reduced below the drinking water standard in a time and cost efficient manner once the extraction well was installed. Additionally, the water conservation measures were implemented community-wide and involved both industry and residential customers. Since 1994, the city has decreased overall water consumption by twenty five percent. Groundwater levels have also increased, though due to the dynamic nature of groundwater it is difficult to say that this occurred directly as a result of conservation efforts. All of these efforts took foresight by the Public Works Department and collaboration with adjacent towns and the county.

CONCLUSION

Waupaca will continue the groundwater protection efforts discussed above and add several other strategies including future land acquisition, replacing fuel tanks, reclaimed water recycling, and more. Now that well number four has been cleaned up the city is more cautious about locations of certain industries. Following implementation of water conservation activities, these activities are ongoing and require relatively little time to monitor.

The city of Waupaca has taken some important measures, many of them proactive, to protect its groundwater. These can serve as a model for all Wisconsin communities that do not want to take their groundwater for granted. ■

"...the foundry wanted to be a good neighbor to the city and set an example for residential water users."

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Submit Articles!

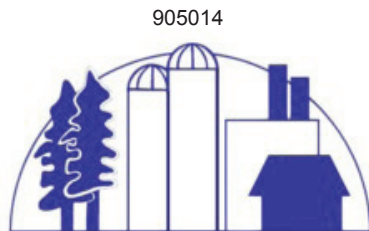
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It should be:

- 1,000 words or less,
- Informative,
- Of statewide concern,
- And address a land use issue.

The managing editor will review your submission and get back to you if any changes are necessary.

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TRAINING OPPORTUNITIES

MAPPING WISCONSIN COMMUNITIES: AN INTRODUCTION TO GIS AND COMMUNITY DEMOGRAPHIC ANALYSIS

March 28 or 29, 2006 – Milwaukee, WI
March 30 or 31, 2006 – Madison, WI
www.urban-research.info or call (877) 241-6576

UW-MADISON LICGF/SIAC GIS TRAINING COURSES

March 28-29, 2006 – Community Viz
April 3-4, 2006 – Introduction to ArcGIS I
April 5-7, 2006 – Introduction to ArcGIS II
April 11-12, 2006 – Introduction to ArcView 3.x
April 18-19, 2006 – Introduction to Making ArcIMS Mapservices
www.lic.wisc.edu/training or call (608) 263-0009

USING DATA FOR BETTER DECISION-MAKING

April 18, 2006 – Pyle Center, Madison, WI
www.dcs.wisc.edu/pda/cpm or call (608) 262-3830

For additional dates and information, visit the online calendar of events
www.uwsp.edu/cnr/landcenter/events.html

