



## Rapid Watershed Assessment Pecatonica River Watershed

Rapid watershed assessments provide initial estimates of where conservation investments would best address the concerns of landowners, conservation districts, and other community organizations and stakeholders. These assessments help landowners and local leaders set priorities and determine the best actions to achieve their goals.

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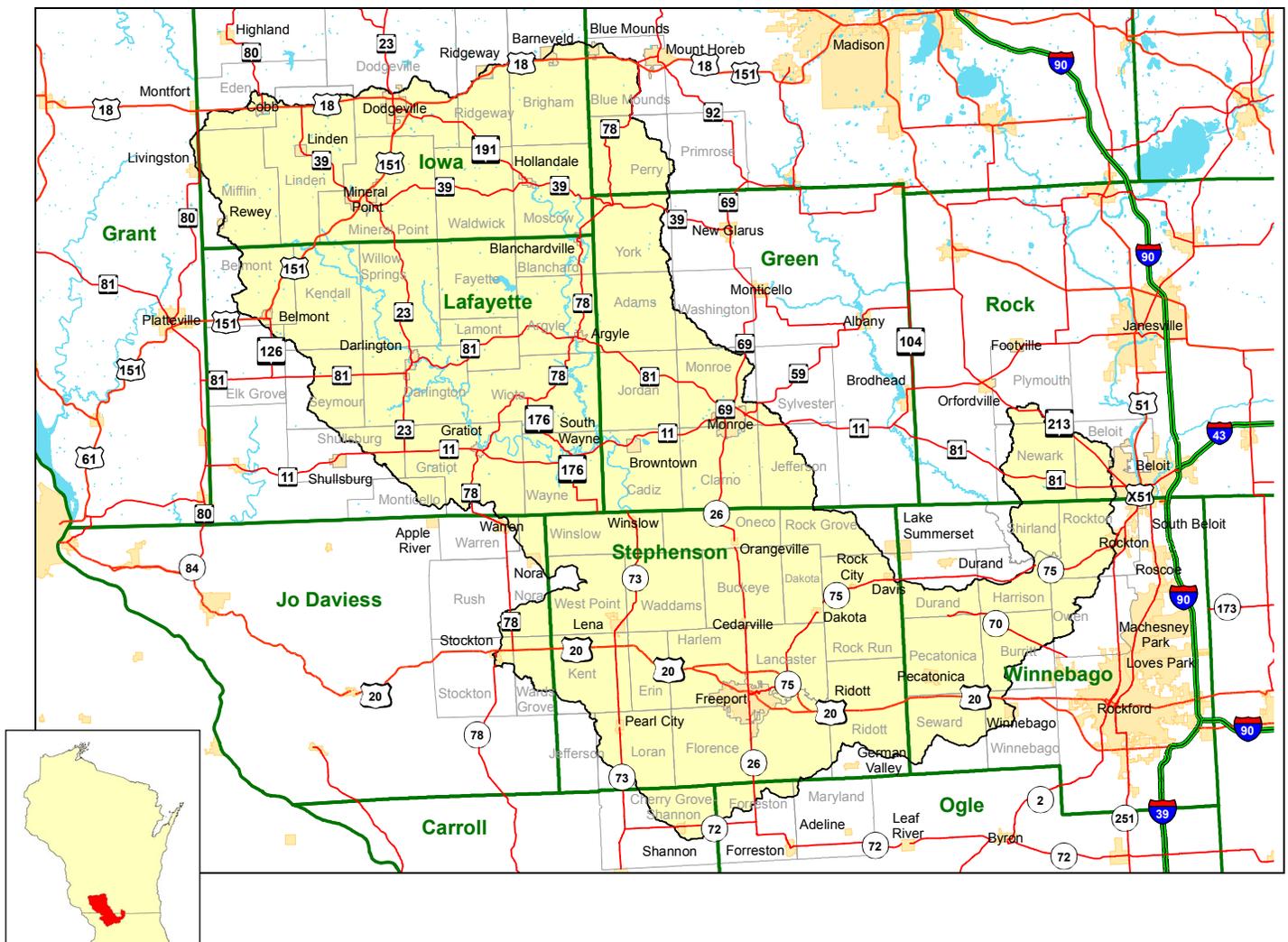
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## INTRODUCTION <sup>1</sup>.

The Pecatonica River watershed encompasses over 1.2 million acres southwest Wisconsin and northwest Illinois. The Pecatonica River, beginning in southwestern Iowa County, WI, flows southeast and enters the Rock River at Rockton, IL. Significant tributaries include the East Branch of the Pecatonica River, Yellowstone Creek, the Sugar River (itself an 8-digit hydrologic unit code watershed) and Raccoon Creek. The rolling, mainly agricultural landscape has many small streams and very few natural lakes, typical of the Driftless Area. Yellowstone Lake, a PL-566 impoundment on Yellowstone Creek, is the largest lake in the watershed at 455 acres.

The vast majority of the land in the watershed, 87.1%, is devoted to agriculture. Forest accounts for 9.8% of the area while wetlands, urban areas and open water comprise the balance of the watershed. Farms consist of dairy, cash grain, hog, and beef operations. Major crops include corn, soybeans and alfalfa.

The population of the watershed is 54% rural and there are many small cities and villages found throughout the area. The largest population centers are the cities of Freeport, IL, with 25,612 residents and Monroe, WI, with a population of 10,563. Dodgeville, WI (pop. 4,880), and Rockton, IL (pop. 5,348), are the only other cities with more than 4,000 residents. Agriculture, food processing and manufacturing are large components of the regional economy.

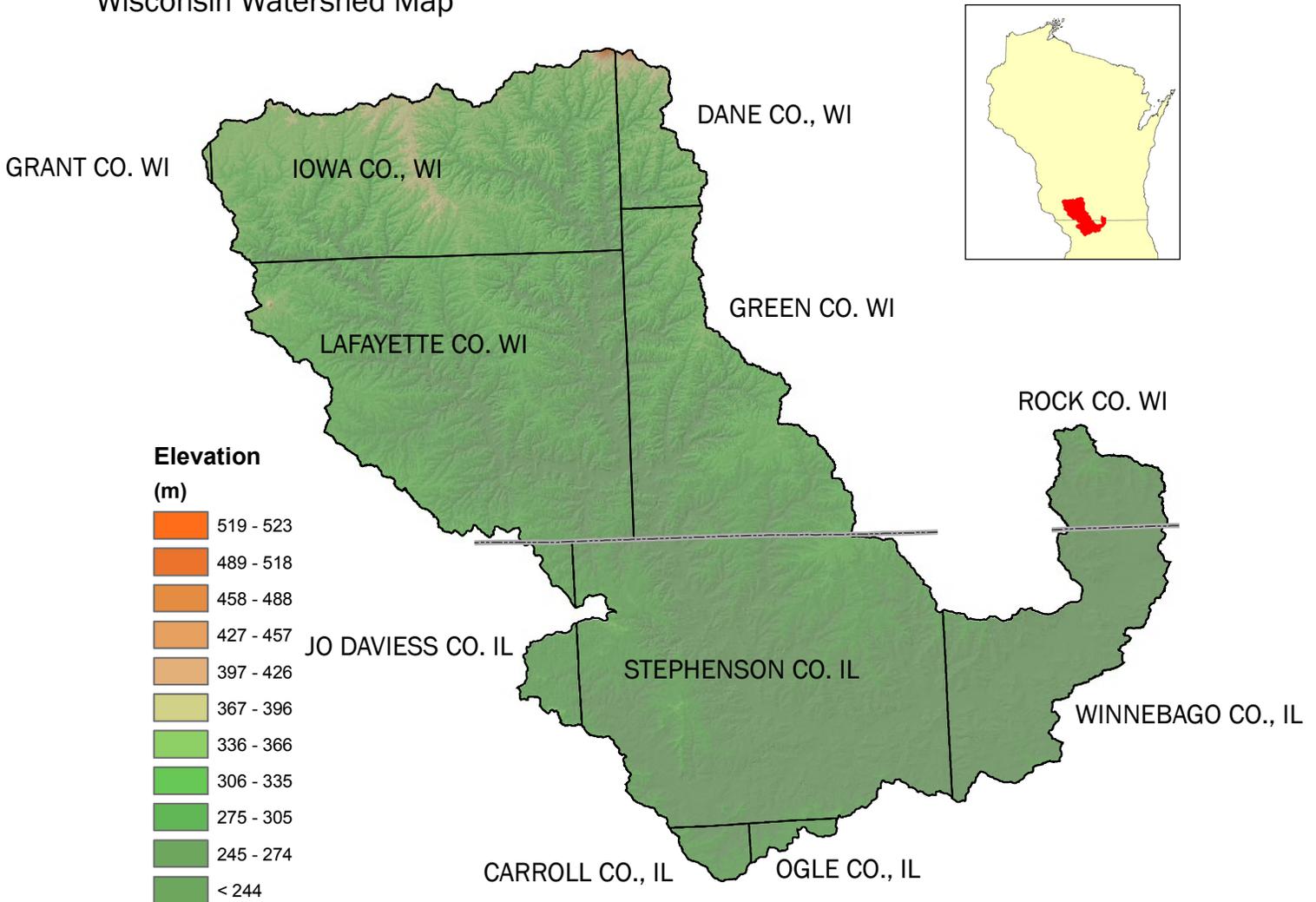


Acreage in the Pecatonica River Watershed

County	County Acres	Acres in HUC	% of HUC from County	% of County in HUC
Lafayette	405,691.2	292,366.4	24.3%	72.1%
Rock	464,369.0	28,708.9	2.4%	6.2%
Green	373,816.6	155,405.1	12.9%	41.6%
Iowa	491,228.9	223,416.9	18.6%	45.5%
Grant	755,312.9	689.2	0.1%	0.1%
Dane	791,851.7	31,990.5	2.7%	4.0%
Carroll	298,548.9	10,949.5	0.9%	3.7%
Ogle	488,005.2	6,676.9	0.6%	1.4%
Winnebago	332,188.2	106,387.4	8.8%	32.0%
Stephenson	361,126.4	327,951.0	27.2%	90.8%
Jo Daviess	395,749.2	19,840.5	1.6%	5.0%



Wisconsin Watershed Map

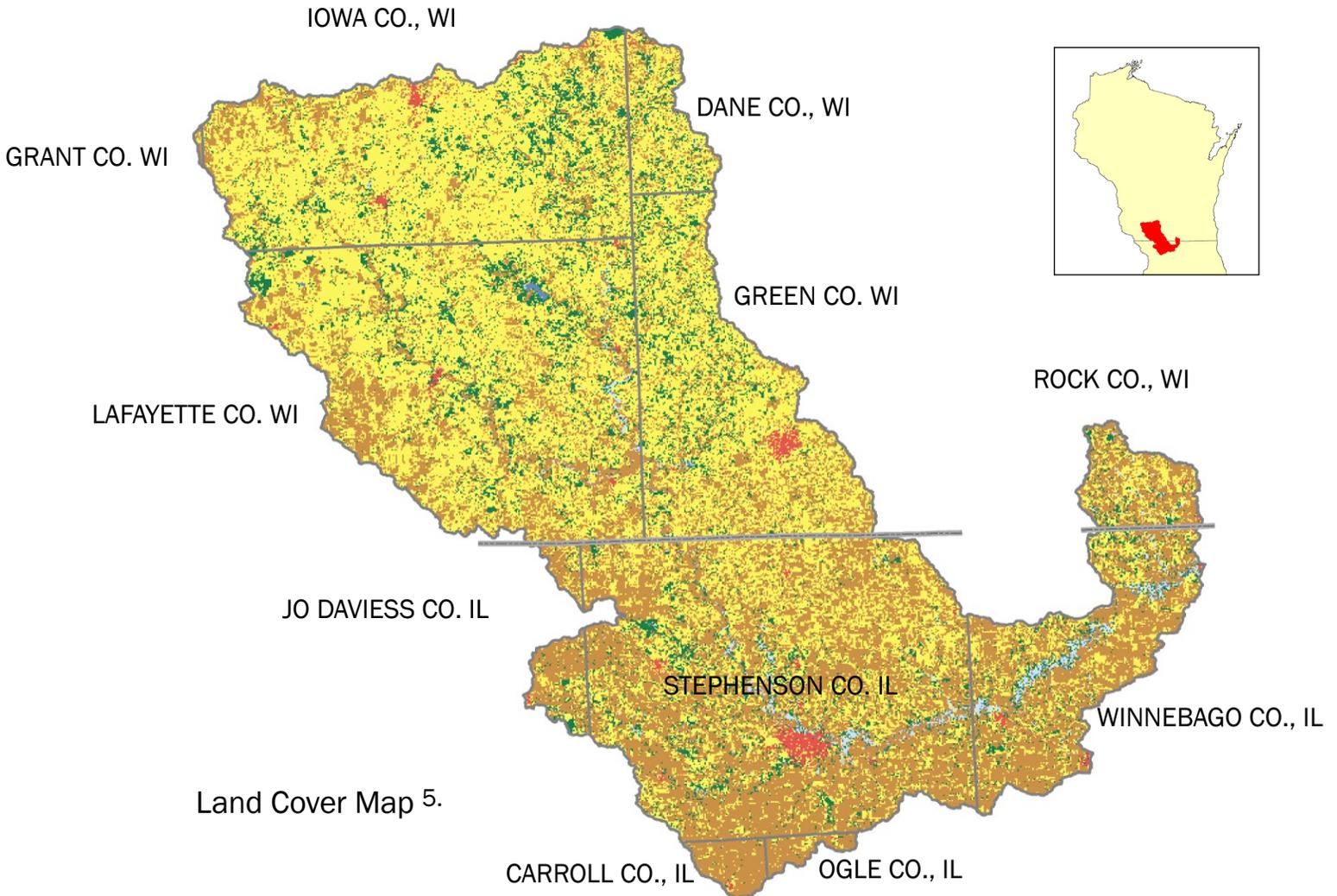


Elevation Map<sup>3</sup>.



**108B.IL1 CENTRAL CORN BELT DEEP LOESS AND DRIFT PLAINS, WESTERN PART**

Nearly level and gently sloping ground moraine. The soils are dark colored, poorly drained to moderately well drained and formed in loess. The area is extensively subsurface drained and use for corn and soybean production. More diverse agriculture and the few remaining woodlands are in the more rolling areas associated with small to medium streams. The main resource concerns are cropland erosion, stormwater management, maintaining drainage, and wetland preservation and restoration.



Land Cover Map 5.

	Pasture Hay	597,888	49.7		Low Intensity Residential	5,541	0.5
	Deciduous Forest	114,142	9.5		High Intensity Residential	3,461	0.3
	Row Crops	450,340	37.4		Evergreen Forest	1,525	0.1
	Open Water	3,102	0.3		Mixed Forest	1,825	0.2
	Woody Wetlands	10,308	0.9		Transitional	0	0
	Small Grains	298	0		Urban / Recreational Grasses	5,627	0.5
	Emergent Herbaceous Wetlands	1,693	0.1		Quarries / Strip Mines, Gravel Pits	313	0
	Commercial/Industrial / Transport	4,691	0.4		Bare Rock / Sand / Clay	17.8	0
	Grasslands / Herbaceous	3,145..	0.3				
					Total Acres	1,203,916	100

ASSESSMENT OF WATERS <sup>6</sup>

Section 303(d) of the Clean Water Act states that water bodies that are not meeting their designated uses (fishing, swimming), due to pollutants, must be placed on this list. The 303(d) impaired Waters List is updated every two years. Wisconsin is required to develop TMDLs, Total Maximum Daily Loads, for water bodies on this list. Exceptional Resource Waters (ERW) provide valuable fisheries, hydrologically or geologically unique features, outstanding recreational opportunities, unique environmental settings, and which are not significantly impacted by human activities may be classified as exceptional resource waters. Outstanding Resource waters (ORW) and ERW differ in that ORW do not have an associated point source discharge, where ERWs do.



For more information on waters designated as Exceptional or Outstanding Resources waters, visit:

<http://dnr.wi.gov/org/water/wm/wqs/orwerw/>

For information on specific subwatersheds, 303(d) or Exceptional/Outstanding Resource Waters (ERW/ORW):

<http://dnr.wi.gov/org/water/wm/wqs/303d/faqs.html> and <http://dnr.wi.gov/org/gmu/gpsp/gpbasin/>



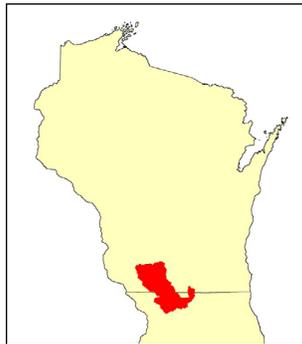
303(d) Waters	Mercury	Oxygen Depletion	Habitat Alteration	PCBs	Sediment	Metals (other than Mercury)	Total Toxicity	Unknown	Nutrients	Turbidity	Pathogens	Ammonia
Brewery Creek						X	X					
Cedar Creek						X			X			
Coolidge Creek					X			X	X			
Dougherty Creek		X	X						X			
Honey Creek (Ab. Hawthorne Creek)			X		X							
Honey Creek (State Line to Hawthorne Creek)			X		X							
Le-Aqua-Na									X	X		
Livingston Branch		X					X		X			X
Lost Creek									X			
Pecatonica River				X					X	X		
Spring Branch									X			X
Winneshiek Creek					X			X	X	X		
Yellow Creek											X	

## SOILS <sup>7</sup>.

The majority of this watershed is characterized by an unglaciated ridge and valley landscape. The predominant bedrock type is the indurated Galena dolostone. Soils on the stable hill summits formed dominantly in loess, overlying clayey pedisegment and residuum from the Galena dolostone. Moderately deep to deep loess overlies the bedrock-controlled landscapes. Common surface texture is silt loam. These soils are generally well drained, have moderate to slow permeability, and moderate to very high available water capacity. Erosion is a major concern.

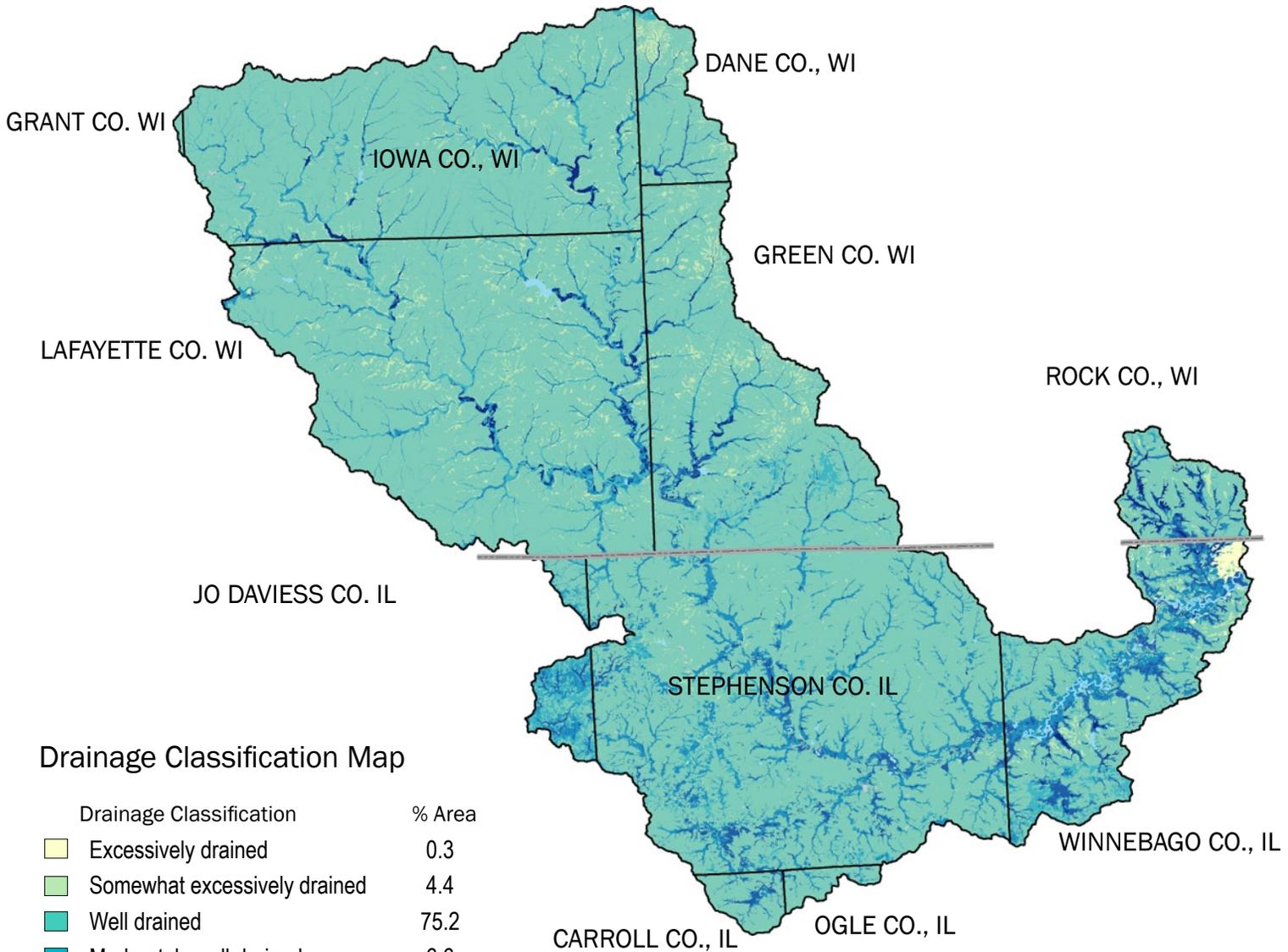
The valley parts of the landscape generally contain stream terraces and floodplains. The soils formed dominantly in silty alluvium. Drainage classes range from well to very poorly drained, permeability from moderate to slow, and available water capacity from moderate to very high. Erosion, flooding, and sedimentation are major concerns in these valleys.

In the eastern lobe of this watershed the landscapes were covered by glacial ice during two separate episodes. The most prevalent till deposited is a yellowish brown calcareous sandy loam till of Wisconsin age. Less common is a reddish brown clay loam till. Valleys in this eastern part of the watershed contain terraces and floodplains formed in sandy loam and sandy outwash and alluvium.



### DRAINAGE CLASSIFICATION

Drainage class (natural) refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized—excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the “Soil Survey Manual.”



Drainage Classification Map

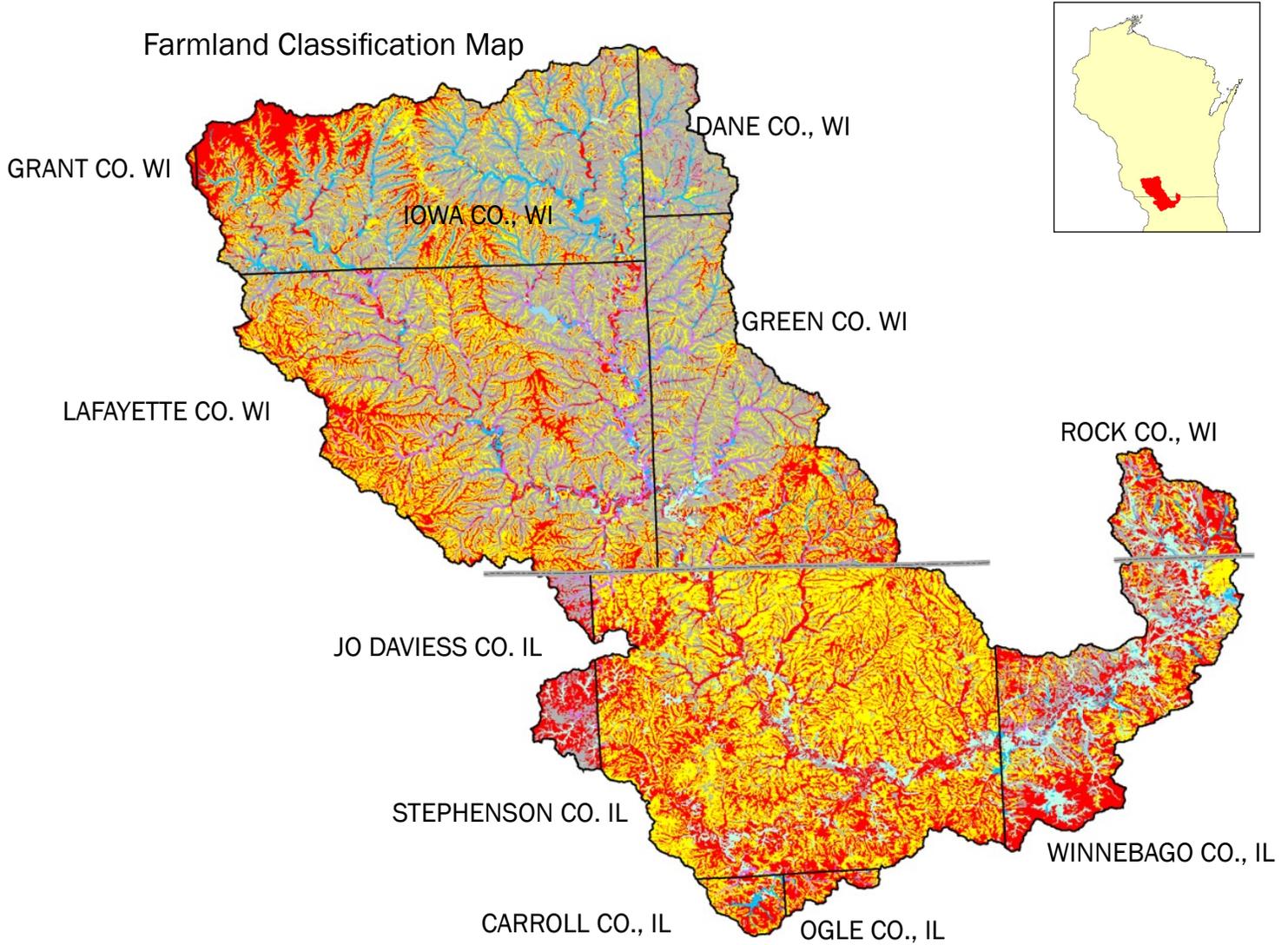


Visit the online Web Soil Survey at <http://websoilsurvey.nrcs.usda.gov> for official and current USDA soil information as viewable maps and tables.
   
 Visit the Soil Data Mart at <http://soildatamart.usda.gov> to download SSURGO certified soil tabular and spatial data.

### FARMLAND CLASSIFICATION

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. Farmland classification identifies the location and extent of the most suitable land for producing food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the Federal Register, Vol. 43, No 21, January 31, 1978.

Farmland Classification Map



Note:  
 The work to resolve inconsistencies brought on by the county based soil survey approach by implementing the Major Land Resource Area soil survey approach is currently underway. By typifying soil series and mapunit concepts across similar geographic areas instead of by political boundaries, the inconsistencies between counties that exist now will be resolved. Updated soil survey information will be continually made available and can be obtained through the Web Soil Survey at <http://websoilsurvey.nrcs.usda.gov> for official and current USDA soil information as viewable maps and tables. Visit the Soil Data Mart at <http://soildatamart.usda.gov> to download SSURGO certified soil tabular and spatial data.

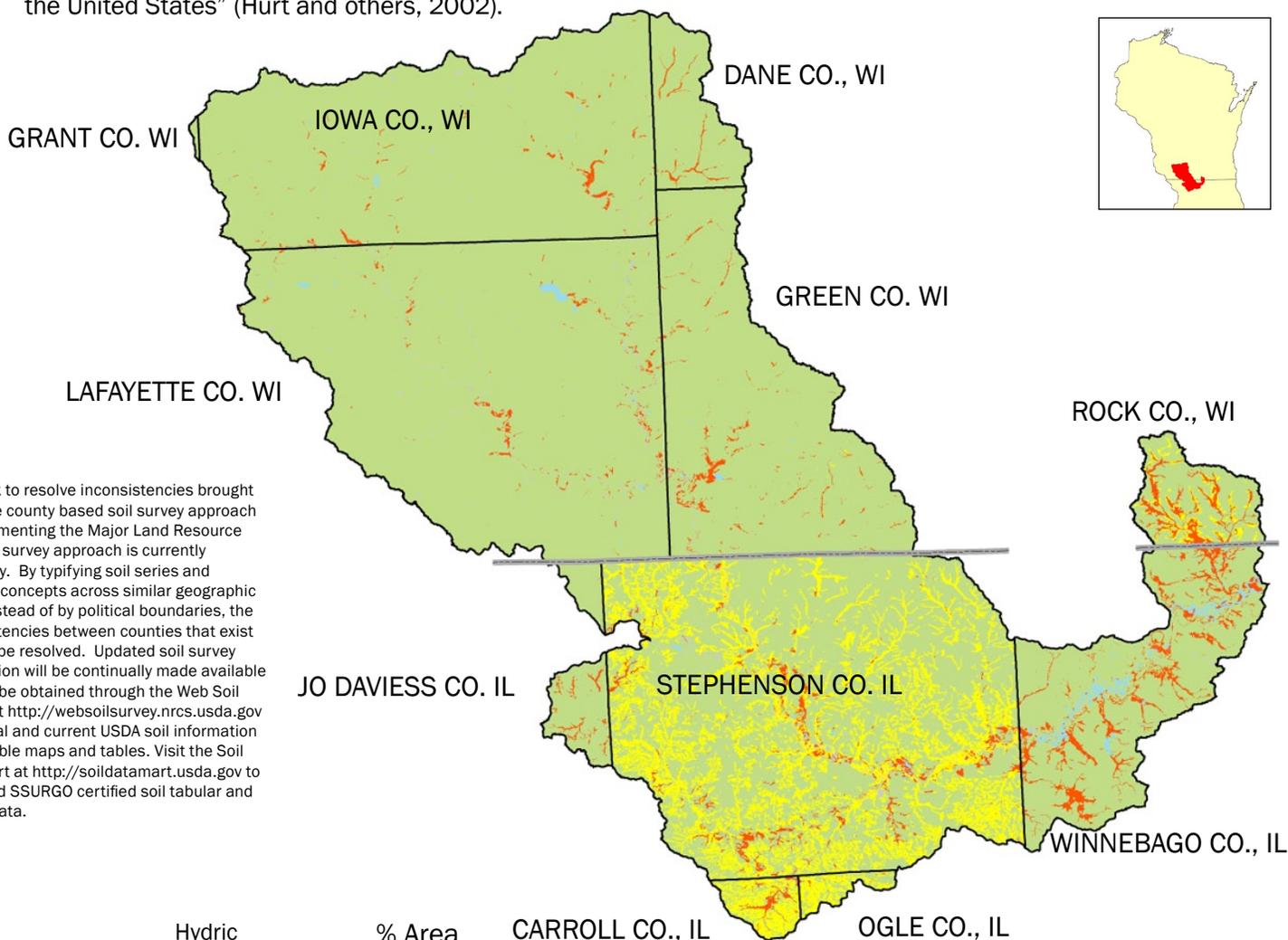
	Acres	Percent
 All areas are prime farmland	417,051	34.6
 Farmland of statewide importance	389,530	32.3
 Prime farmland if drained	45,367	3.8
 Not Prime farmland	310,089	25.7
 Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season	22,767	1.9
 Prime farmland if protected from flooding or not frequently flooded during the growing season	18,799	1.6

## HYDRIC SOILS

This rating provides an indication of the proportion of the map unit that meets criteria for hydric soils. Map units that are dominantly made up of hydric soils may have small areas, or inclusions of non-hydric soils in the higher positions on the landform, and map units dominantly made up of non-hydric soils may have inclusions of hydric soils in the lower positions on the landform.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register 1994). These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make on site determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and others, 2002).



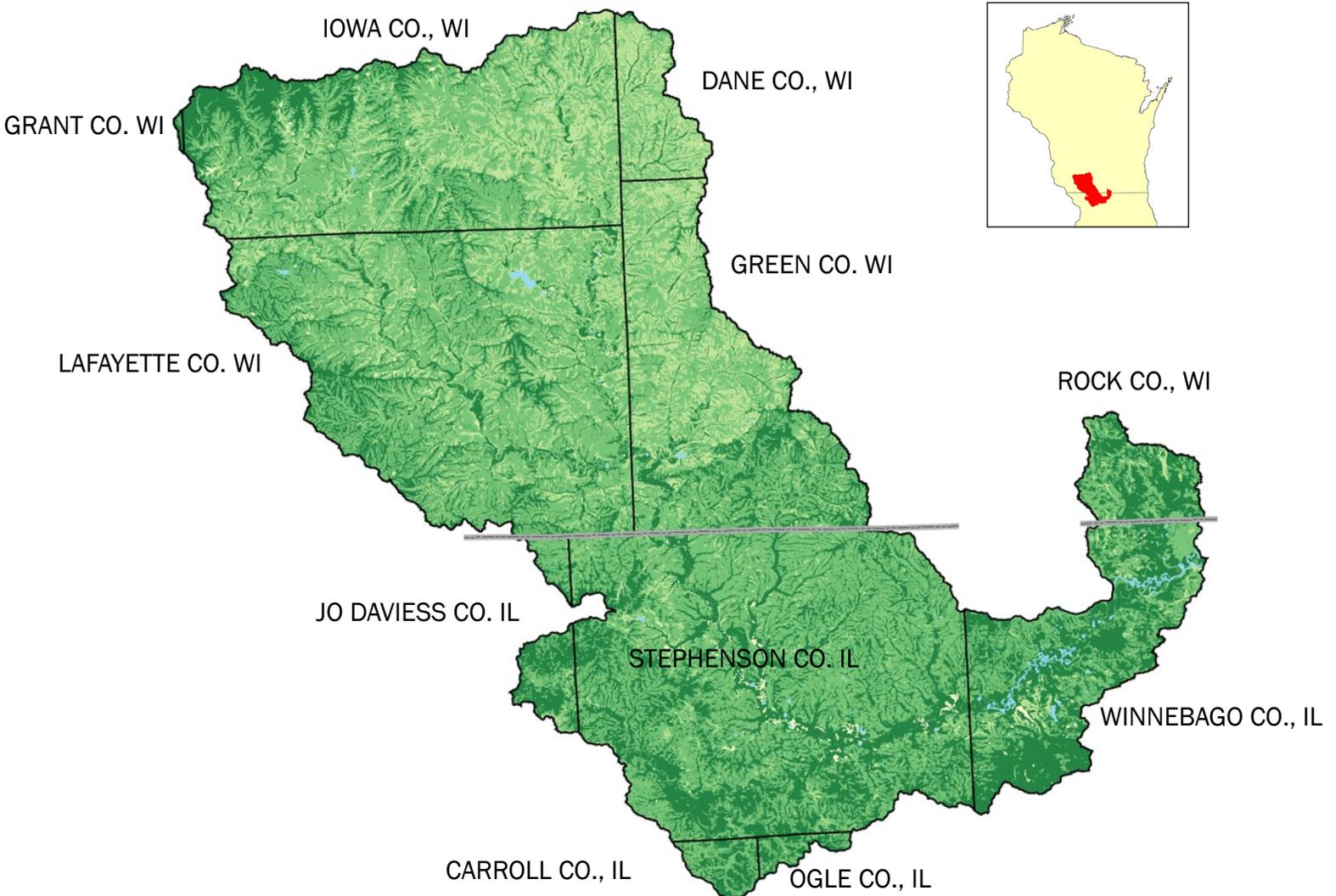
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Hydric Classification	% Area
Not hydric	88.5
Partially hydric	7.0
All hydric	4.0
UNKNOWN	0.4

Hydric Soils Map

### LAND CAPABILITY CLASSIFICATION

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive land forming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for rangeland, for forestland, or for engineering purposes.



Land Capability Classification Map

Land Capability Classification	% Area
Well Suited	38.9
Moderately well suited	50.2
Poorly suited	10.1
Unsuited includes	0.7
Water	

## RESOURCE CONCERNS

The major resource concerns from production lands in the watershed include sheet, rill, and ephemeral gully erosion, excessive nutrients and organics in surface water, and inadequate wildlife cover and shelter. Some best management practices (BMPs) well-suited to address these concerns include mulch-till and no-till planting, nutrient management, grassed waterways, cover crops and conservation cover. Aquatic and terrestrial invasive species are also a concern.

## PRS AND OTHER DATA <sup>8</sup>.

The following table is a product of the NRCS Performance Results System (PRS) and reflects progress made over the past several years on several key areas of conservation. The PRS provides support for reporting the development and delivery of conservation programs, analyzing and reporting progress, and management applications by NRCS and conservation partners. The public can generate additional reports by visiting the following link: <http://ias.sc.egov.usda.gov/prsreport2006/>

### PRS PERFORMANCE MEASURES

PRS Performance Measures	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	TOTAL
Total Conservation Systems Planned (acres)	659	12,575	10,066	20,283	13,475	N/A	19,996	23,974	22,626	123,654
Total Conservation Systems Applied (acres)	68	11,203	9,732	20,283	13,186	N/A	19,299	22,511	15,635	111,917
<b>Conservation Practices</b>										
Total Waste Management (313) (numbers)	0	4	3	0	1	1	0	1	1	11
Riparian Forest Buffers (391) (acres)	34	736	473	442	256	180	50	7	34	2,212
Erosion Control Total Soil Saved (tons/year)	44	58,067	39,725	27,850	53,447	N/A	N/A	N/A	N/A	179,133
Total Nutrient Management (590) (Acres)	0	1,567	2,577	689	3,054	1,690	3,632	4,575	2,113	19,897
Pest Management Systems Applied (595A) (Acres)	0	0	11	225	110	0	0	357	157	860
Prescribed Grazing 528a (acres)	0	0	41	165	479	707	359	403	293	2,447
Tree & Shrub Establishment (612) (acres)	43	275	657	388	459	391	161	53	150	2,577
Residue Management (329A-C) (acres)	0	3,970	5,110	638	1,916	2,877	8,015	13,069	798	36,393
Total Wildlife Habitat (644 - 645) (acres)	172	1,081	1,979	14,110	4,704	608	335	315	4,883	28,187
Total Wetlands Created, Restored, or Enhanced (acres)	0	307	34	174	105	125	73	0	10	828
<b>Acres enrolled in Farmbill Programs</b>										
Conservation Reserve Program	68	5,468	4,684	13,215	7,490	N/A	2,722	1,924	6,198	41,769
Wetlands Reserve Program	0	674	0	0	0	N/A	0	0	0	674
Environmental Quality Incentives Program	0	674	1,709	1	1,106	N/A	5,944	7,182	3,284	19,900
Wildlife Habitat Incentive Program	0	674	1,524	0	38	N/A	134	95	56	2,521
Farmland Protection Program	0	0	0	0	0	N/A	0	0	0	0

9. CENSUS AND SOCIAL DATA (RELEVANT)

There are 1295 farms in the watershed, covering a total of 327,043 acres. Average farm size in the watershed is 253 acres compared to a statewide average of 201 acres in Wisconsin. Please refer to the tables below for more detailed information or visit the web site of the Wisconsin and Illinois Office of the National Agricultural Statistics Service at: [http://www.nass.usda.gov/Statistics\\_by\\_State](http://www.nass.usda.gov/Statistics_by_State)

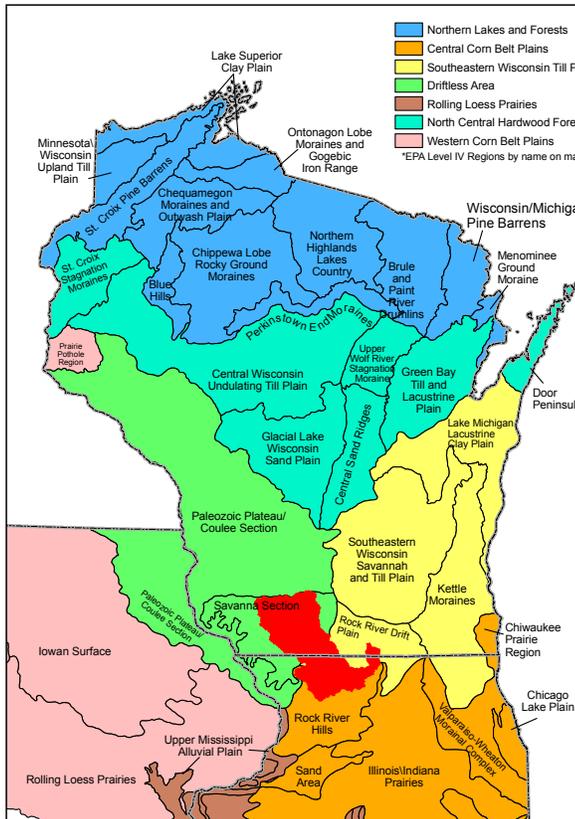
2002 Ag Census Data	Grant	Lafayette	Dane	Green	Iowa	Rock	Carroll	Jo Davness	Stephenson	Ogle	Winnebago	Total
Farms (number)	1	293	77	192	313	36	6	16	293	6	61	1,295
Land in farms (acres)	347	83,215	13,692	39,606	68,149	8,194	2,250	4,357	88,257	2,064	16,912	327,043
Total cropland (acres)	215	64,169	11,031	31,954	40,232	7,193	1,959	3,008	79,661	1,836	15,449	256,708
Irrigated land (acres)	0	50	140	609	1,228	388	111	0	0	4	86	2,616
Principal operator by primary occupation - Farming (number)	1	192	43	122	162	21	4	10	206	4	39	802
Farms by size - 1 to 10 acres	0	13	8	12	8	4	0	0	25	1	6	77
Farms by size - 11 to 49 acres	0	58	23	47	64	12	1	3	60	1	18	289
Farms by size - 50 to 179 acres	0	84	25	57	114	10	1	6	74	2	16	390
Farms by size - 180 to 499 acres	1	99	15	60	96	6	2	4	84	1	11	379
Farms by size - 500 to 999 acres	0	25	4	12	23	2	1	1	31	1	5	105
Farms by size - 1,000 acres or more	0	14	2	4	8	2	1	1	18	1	5	55
Livestock and poultry - Cattle and calves inventory (farms)	1	188	27	102	155	13	2	8	137	2	18	653
Livestock and poultry - Cattle and calves inventory - Beef cows (farms)	0	72	8	25	63	5	1	6	59	1	10	250
Livestock and poultry - Cattle and calves inventory - Milk cows (farms)	0	86	12	54	64	4	0	2	45	0	4	270
Livestock and poultry - Hogs and pigs inventory (farms)	0	18	2	9	10	2	0	1	19	0	4	66
Livestock and poultry - Sheep and lambs inventory (farms)	0	8	3	8	9	2	0	1	16	0	4	49
Livestock and poultry - Layers 20 weeks old and older inventory (farms)	0	10	3	13	9	2	0	0	8	0	3	49
Livestock and poultry - Broilers and other meat-type chickens sold (farms)	0	1	1	3	1	0	0	0	0	0	1	8
Selected crops harvested - Corn for grain (acres)	69	23,347	4,207	9,406	9,630	3,082	1,112	1,135	38,947	982	7,547	99,465
Selected crops harvested - Corn for silage or greenchop (acres)	10	3,092	674	1,923	2,204	222	32	74	1,870	15	160	10,277
Selected crops harvested - Wheat for grain, all (acres)	0	102	180	448	92	126	4	6	575	13	293	1,840
Selected crops harvested - Wheat for grain, all - Winter wheat for grain (acres)	0	51	0	435	0	126	4	6	575	13	293	1,506
Selected crops harvested - Wheat for grain, all - Spring wheat for grain (acres)	0	50	0	12	0	0	0	0	0	0	0	63
Selected crops harvested - Oats for grain (acres)	7	1,142	132	726	696	42	13	50	854	9	103	3,775
Selected crops harvested - Barley for grain (acres)	0	172	6	71	112	1	0	1	55	0	0	418
Selected crops harvested - Soybeans for beans (acres)	28	13,339	2,316	5,634	4,669	2,260	497	618	24,149	632	5,436	59,579
Selected crops harvested - Forage - land used for all hay and all haylage, grass silage, and greenchop (see text) (acres)	59	14,515	2,079	9,568	11,008	695	112	599	7,942	63	1,022	47,663
Selected crops harvested - Vegetables harvested for sale (see text) (acres)	0	2	67	77	210	178	0	0	3	17	29	583
Selected crops harvested - Land in orchards (acres)	0	12	5	6	14	4	0	2	13	0	8	62

POPULATION ETHNICITY<sup>10.</sup>

Total Population = 61,030  
 Urban population = 33,458  
 Rural Population = 27,572  
 White alone = 55,398  
 Hispanic or Latino = 1,017  
 Two or more races = 938  
 Black or African American alone = 3,811  
 Some other race alone = 480  
 American Indian and Alaska Native alone = 180  
 Asian Alone = 223  
 Native Hawaiian and Other Pacific Islander alone = 0

URBAN POPULATION<sup>11.</sup>

	1990	2000	2005	Median Household Income*
Winnebago, IL	1,840	2,958	3,065	\$59,891
Rockton, IL	2,928	5,296	5,348	\$57,292
Barneveld,WI	660	1,088	1,148	\$55,350
Pecatonica, WI	1,760	1,997	2,161	\$47,361
Rock City, IL	286	313	318	\$46,250
Blue Mounds, WI	446	708	757	\$45,568
Davis, IL	541	662	647	\$45,385
Cedarville, IL	751	719	705	\$44,609
Dakota, IL	549	499	489	\$43,942
Pearl City, IL	670	780	784	\$43,929
Mineral Point, WI	2,428	2,617	2,495	\$43,182
Winslow. IL	317	345	337	\$42,679
Shannon, IL	887	854	799	\$42,500
Gratiot, IL	207	252	247	\$41,944
Ridott, IL	156	159	153	\$41,875
Dodgeville, WI	3,882	4,220	4,840	\$41,615
Ridgeway, WI	577	689	656	\$41,548
Blanchardville, WI	802	806	774	\$40,313
Lena, IL	2,605	2,887	2,854	\$39,947
Orangeville, IL	451	751	767	\$39,875
Warren, IL	1,550	1,496	1,421	\$37,083
Monroe, WI	10,241	10,843	10,563	\$36,922
Browntown, WI	256	252	260	\$36,500
Argyle, WI	798	823	784	\$36,103
Hollandale, WI	256	283	266	\$35,938
Stockton, IL	1,871	1,926	1,820	\$35,921
Linden, IL	429	615	576	\$35,833
Livingston, IL	576	597	581	\$35,417
Freeport, IL	25,840	26,443	25,612	\$35,399
Belmont, WI	823	871	894	\$34,853
Darlington, WI	2,235	2,418	2,341	\$34,539
Cobb, WI	440	442	424	\$34,531
South Wayne, WI	478	484	473	\$30,909
Nora, IL	162	118	117	\$28,125
Rewey, WI	220	311	293	\$24,643



## ECOLOGICAL LANDSCAPES<sup>12</sup>

### SAVANNA SECTION

Topography in the Savanna Section of the Driftless Area is different than the rest of the level III ecoregion because of its characteristic broad, relatively level ridge tops and narrow steep sided valley bottoms. Elsewhere in the dissected Driftless Area, the landform mosaic comprises relatively broad, flat valley bottoms with steep sharper crested ridges or a pattern of nearly equal amounts of flatter areas in the valley bottoms and interfluves. The soils are well drained silty loess over residuum, dolostone, limestone, or sandstone. Land use patterns in the Driftless Area also follow spatial differences in slope; hence, this Savanna Section ecoregion is predominantly agriculture on the uplands and some mixed woodland/agriculture in lowland areas. The potential natural vegetation of the region is a mosaic of oak forests and savannas, large prairie grassland areas, and some sugar maple/basswood/oak forests. The region is also known for past lead and zinc mining.

### ROCK RIVER HILLS

The Rock River Hills is mostly composed of agriculturally dominated, rolling hills and undulating plains; however, more rugged, partly forested ridges, ravines, and bluffs

occur in the southeast and northwest. Physiography is strongly influenced by the underlying limestone, dolomite, and sandstone; it is not significantly masked by the region's thin mantle of glacial till. Caves occur in limestone and dolomite. Most soils were derived from loess, but other soils in major valleys typically developed from glacial outwash or alluvium, and still others were derived from till or residuum (Natural Resources Conservation Service, various dates).

In the early 19th century, dry, shortgrass prairies were found on undulating to rolling uplands, and transitioned into mesic prairies dominated by big bluestem and Indian grass. Dry or mesic upland forests grew on ridge slopes and on fire-protected uplands, Canada yew–yellow birch forests grew on cool bluffs and in ravines, and floodplain forests occurred on bottomlands. Native flora is influenced by bedrock, with several species confined to areas underlain by sandstone.

Today, more than half is used as cropland; livestock farming is also important, and forest remnants are largely confined to steep slopes and riparian areas. Main crops include corn, soybeans, and wheat. Field tiles are normally used for drainage. Cropland is more common but is much less extensive than in the Illinois/Indiana Prairies.

### ROCK RIVER DRIFT PLAIN

The Rock River Drift Plain (53a) ecoregion has a greater stream density and fewer lakes than in ecoregions to the north and east. Glaciation of this region is older, late Pliocene-early Pleistocene, than in surrounding ecoregions. The drift mantle is thin and deeply weathered, with leached soils developed from a silt-loam cap of loess over glacial drift. Steeper topography and broad outwash plains with loamy and sandy soils also characterize this region.

## WATERSHED ASSESSMENT

To assess a watershed's agricultural nonpoint pollution potential, a model was used to generate a watershed assessment score relative to other 8-digit watersheds in Wisconsin. Factors used in the model include acres of cropland, acres of highly erodible land (HEL), and the number of animal units in the watershed. Scores ranged from 0.0 (lowest conservation need) to 24.2 (highest conservation need). The scores may be useful in determining funding allocations on a watershed basis for agricultural nonpoint pollution control initiatives. The model does not attempt to measure pollution levels and does not reflect pollution potential from point sources of pollution or other nonpoint pollution sources beyond the above criteria.

The watershed assessment score for the Pecatonica River Watershed is 14.3

## WATERSHED PROJECTS, STUDIES, MONITORING, ETC.

The Lower East Branch of the Pecatonica River was a Wisconsin Department of Natural Resources (WDNR) Priority Watershed project that began in 1989 and is now completed. The project provided cost-sharing and technical assistance to landowners for the implementation of BMPs was carried out through county land/soil and water conservation departments and other partners. Other past projects include the Yellowstone Lake Environmental Quality Incentives Program (EQIP) Priority Area through the USDA- Natural Resources Conservation Service. It also provided cost-sharing and technical assistance for BMP implementation. The Honey Creek watershed has been targeted with funds by the Green County Department of Land Conservation to increase adoption of nutrient management plans. In Illinois, watershed planning efforts are beginning in the Yellow Creek watershed.

The entire Wisconsin portion of the watershed is within the eligible area of the Conservation Reserve Enhancement Program (CREP). CREP is a local, state, and federal partnership effort that builds upon the USDA Conservation Reserve Program (CRP). Practices such as filter strips, riparian buffers, and grassed waterways are available to landowners who agree to a fifteen year contract that involves installation, practice, and annual payments with the option of a perpetual easement. The Illinois portion of the watershed is not eligible for CREP but the similar continuous Conservation Reserve Program (CRP) is available.

The Discovery Farms Program also has an active BMP and water quality monitoring program in the watershed, on a farm in Dunn County.

The WDNR conducts water quality monitoring in the watershed each year. The WDNR Surface Water Data Viewer (SWDV) is an online interactive mapping tool with multiple water-related datasets. (<http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=SurfaceWaterViewer>)

## PARTNER GROUPS

### Partner Groups

- Cooperative Extension
  - University of Illinois Extension <http://web.extension.uiuc.edu/state/>
  - University of Wisconsin Cooperative Extension <http://www.uwex.edu/ces/> and <http://basineducation.uwex.edu>
- Departments of Agriculture
  - Illinois <http://www.agr.state.il.us/>
  - WI Dept. of Agriculture, Trade, and Consumer Protection <http://www.datcp.state.wi.us>
- Discovery Farms <http://www.uwdiscoveryfarms.org/>
- Driftless Area Initiative <http://www.driftlessareainitiative.org/index.html>
- Departments of Natural Resources
  - IL <http://dnr.state.il.us/>
  - IL Environmental Protection Agency <http://www.epa.state.il.us/>
  - WI <http://dnr.wi.gov/>
- Illinois Watershed Association <http://www.watershed.uiuc.edu/IllinoisWA/Why.htm>
- Land Conservation Committees/Soil and Water Conservation Districts
  - Association of Illinois Soil and Water Conservation Districts <http://www.aiswcd.org/>
  - Wisconsin Land and Water Conservation Association (County Land Conservation Committee organization) [www.wlwca.org](http://www.wlwca.org)
  - WI Land and Water Conservation Directory <http://datcp.state.wi.us/arm/agriculture/land-water/conservation/pdf/ar-pub-119-2007.pdf>
- Regional Planning Commissions
  - Capital Area Regional Planning Commission <http://www.capitalarearpc.org/index.htm>
  - Southwestern Wisconsin Regional Planning Commission <http://www.swwrpc.org/>
- Resource Conservation and Development Councils
  - Blackhawk Hills Resource Conservation and Development Council [www.blackhawkhills.com](http://www.blackhawkhills.com)
  - Southwest Badger Resource Conservation and Development Council <http://www.swbadger.com/>
  - Town and Country Resource Conservation and Development Council <http://www.townandcountryrcd.org/index.asp>
- River Alliance of Wisconsin <http://www.wisconsinrivers.org/>
- Trout Unlimited <http://www.wisconsintrout.org/chapters.htm>
  - IL (nearest): Gary Borger Chapter <http://www.garyborgertu.org/index.php>
  - WI: Blackhawk Chapter
  - WI: Harry and Laura Nohr Chapter [www.NohrTU.org](http://www.NohrTU.org)
  - WI: Southern Wisconsin Chapter [www.swtu.org](http://www.swtu.org)
- US Army Corps of Engineers <http://www.usace.army.mil/>
- USDA Farm Service Agency
  - IL <http://www.fsa.usda.gov/FSA/stateoffapp?mystate=il&area=home&subject=landing&topic=landing>
  - WI <http://www.fsa.usda.gov/wi/news/default.asp>
- US Fish and Wildlife Service <http://www.fws.gov/midwest>
- USDA-Natural Resources Conservation Service
  - IL <http://www.il.nrcs.usda.gov/>
  - WI <http://www.wi.nrcs.usda.gov>

## FOOTNOTES/BIBLIOGRAPHY

### Sources:

1. WDNR <http://www.dnr.state.wi.us/org/gmu/>

"All data is provided "as is." There are no warranties, express or implied, including the warranty of fitness for a particular purpose, accompanying this document. Use for general planning purposes only.

2. Common Resource Area (CRA) Map delineations are defined as geographical areas where resource concerns, problems, or treatment needs are similar. It is considered a subdivision of an existing Major Land Resource Area (MLRA) map delineation or polygon. Landscape conditions, soil, climate, human considerations, and other natural resource information are used to determine the geographic boundaries of a Common Resource Area. Online linkage: <http://soils.usda.gov/survey/geography/cra.html>.

3. The relief map was created using the National Elevation Dataset (NED) 1 arc second, approximately 30 meters, digital elevation model (DEM) raster product assembled by the U.S. Geological Survey (USGS). A hillshade grid was derived from the 30m DEM and draped over the DEM to symbolize the map and create a 3-D effect. The data was downloaded from the NRCS Geospatial Data Gateway <http://datagateway.nrcs.usda.gov/>. For more information about NED visit <http://ned.usgs.gov/>.

4. Average Annual Precipitation data was originated by Chris Daly of Oregon State University and George Taylor of the Oregon Climate Service at Oregon State University and published by the Water and Climate Center of the Natural Resources Conservation Service in 1998. Annual precipitation data was derived from the climatological period of 1961-1990. Parameter-elevation Regressions on Independent Slopes Model (PRISM) derived raster data is the underlying data set from which the polygons and vectors were created. For more information about PRISM visit [http://www.ocs.orst.edu/prism/prism\\_new.html](http://www.ocs.orst.edu/prism/prism_new.html). Precipitation data was downloaded from the NRCS Geospatial Data Gateway <http://datagateway.nrcs.usda.gov/>.

5 The Land Use/Land Cover data was generated from the National Land Cover Dataset (NLCD) compiled from Landsat satellite TM imagery (circa 1992) with a spatial resolution of 30 meters and supplemented by various ancillary data (where available). The data was assembled by the USGS and published in June of 1999. The analysis and interpretation of the satellite imagery was conducted using very large, sometimes multi-state image mosaics. For more information about NLCD visit <http://edcwww.cr.usgs.gov/programs/lccp/nationallandcover.html>. The data was downloaded from the NRCS Geospatial Data Gateway <http://datagateway.nrcs.usda.gov/>.

6. 303(d) listed streams were derived from the Water Quality Standards Section of the Wisconsin Department of Natural Resources (WDNR) website: [http://dnr.wi.gov/org/water/wm/wqs/303d/Lists303d/Approved\\_2004\\_303\(d\)\\_list.pdf](http://dnr.wi.gov/org/water/wm/wqs/303d/Lists303d/Approved_2004_303(d)_list.pdf). For more information about the individual sub-watersheds visit <http://dnr.wi.gov/org/gmu/gpsp/gpbasin/index.htm>. For a list and explanation of Outstanding and Exceptional Resource Waters visit: <http://dnr.wi.gov/org/water/wm/wqs/orwerw/>.

7. Soil Survey Geographic Database (SSURGO) tabular and spatial data were downloaded for the following surveys:

- Dane Co. WI (WI025) Published 20060123
- Iowa Co. WI (WI049) Published 20060123
- Grant Co., WI (WI043) Published 20060301
- Green Co. WI (WI045) Published 20061116
- Rock Co. WI (WI105) Published 20060120
- Lafayette Co., WI (WI056) Published 20061213
- Jo Daviess Co. IL (IL085) Published 20061229
- Stephenson Co., IL (IL177) Published 20060929
- Winnebago Co., IL (IL201) Published 20070103

Carroll Co.IL (IL015) Published 20060929  
Ogle Co. IL (IL141) Published 20070103

Metadata and SSURGO data for the aforementioned surveys were downloaded from the NRCS Soil Data Mart at <http://soildatamart.nrcs.usda.gov>. Component and layer tables from the tabular data were linked to the spatial data to derive the soil classifications found in this section. Visit the online Web Soil Survey at <http://websoilsurvey.nrcs.usda.gov> for official and current USDA soil information as viewable maps and tables.

8. Performance Results System (PRS) data was extracted from the PRS homepage by year, conservation systems and practices and Hydrologic Unit Code (HUC) level. HUC level reporting was not available where N/A is listed. For more information on these and other performance reports visit <http://ias.sc.egov.usda.gov/prshome/>.

9. Ag Census data were downloaded from the National Agricultural Statistics Service (NASS) Website and the data were adjusted by percent of HUC in the county. For more information on individual census queries visit the NASS website at <http://www.nass.usda.gov/>.

10. Population ethnicity data were extracted from the Census 2000 Summary File 3 compiled by the U.S. Census Bureau. The data were adjusted by Block Group percentage in the HUC. Population items were selected from the SF30001 table. For more information on census data and definitions visit <http://www.census.gov/Press-Release/www/2002/sumfile3.html>.

11. Urban population and median household income data were derived from the American FactFinder assembled by the U.S. Census Bureau. American FactFinder is a quick source for population, housing, income and geographic data. For other census items and trends visit [http://factfinder.census.gov/home/saff/main.html?\\_lan](http://factfinder.census.gov/home/saff/main.html?_lan)

12. Level III and IV Ecoregions Regions of Wisconsin map and descriptions were derived from electronic coverages available from Wisconsin DNR, Bureau of Integrated Science Services Branch in cooperation with the U.S Environmental Protection Agency.

For more information visit [ftp://ftp.epa.gov/wed/ecoregions/wi/wi\\_eco\\_pg.pdf](ftp://ftp.epa.gov/wed/ecoregions/wi/wi_eco_pg.pdf)  
[http://www.epa.gov/wed/pages/ecoregions/moia\\_eco.htm](http://www.epa.gov/wed/pages/ecoregions/moia_eco.htm)  
[http://www.epa.gov/wed/pages/ecoregions/il\\_eco.htm](http://www.epa.gov/wed/pages/ecoregions/il_eco.htm)

