2012

Richland County Land and Water Resource Management Plan



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Executive Summary

In 1996, the concept was proposed that counties use a locally led process to develop plans that emphasize local resource concerns. This concept was promoted by the Wisconsin Land and Water Conservation Association during legislative deliberations in the spring and summer of 1997. County Land and Water Resource Management plans became part of landmark State legislation signed into law in October 1997, part of Wisconsin Act 27.

Richland County has looked at the process as an opportunity to work with county residents to develop a strategy and plan of action to protect the natural resources of Richland County. This is also an opportunity to strengthen landowner participation, improve program effectiveness and increase coordination with other cooperating partners involved with natural resource management.

Richland County developed its first plan in 1999. This plan was effective until 2001. The plan was updated in 2001 and again in 2007. The 2007 plan remains in effect until this plan is approved.

The vision of this plan is "To enhance and/or protect the natural and agricultural integrity of this county for the future, by utilizing sound environmental and economic strategies and practices." The mission of this plan is "To develop the ways and means to implement the vision of this plan."

Planning Process

The Citizen Advisory Committee met on March 4, 2012 and March 12, 2012. This diverse group came up with 42 resource concerns. The Technical Advisory Committee met March 16th, April 13th, May 3rd and June 6th of this same year. This committee was comprised of staff from Land Conservation, Natural Resources Conservation Service, Farm Service Agency, UW-Extension and the Department of Natural Resources.

The public hearing was held on October 8, 2012. The plan was sent to the Land and Water Conservation Board (LWCB). The plan will be reviewed by the LWCB at their December meeting. The approved plan will be submitted to the Richland County Land Conservation Committee on December 10, 2012 and will be taken to the Richland County Board January 2013 for their approval.

County History and Trends

The face of Richland County is changing. There are more non-resident landowners, fewer dairy farms, less hay being grown and more cash grain crops being grown. Data from the Wisconsin Agriculture Statistics show a decrease in hay and an increase in

corn and soybean acres over a 10-year period. The amount of livestock has also decreased in that same period as documented by the Wisconsin Agriculture Statistics. This increase in row crops has made it more challenging to keep soil loss at below "T".

The sizes of farms are also changing. Farms are getting split into smaller parcels and sold to non-farmers or are being consolidated into larger farming operations. This leads to more fragmentation and also a different clientele.

Natural Resource Assessments

Several reports and inventories document the current conditions of the resources of Richland County.

In July 2002, the DNR released the State of the Lower Wisconsin River Basin Report. This report can be found online at

<u>http://dnr.wi.gov/water/basin/lowerwis/index.htm</u>. The report describes each subwatershed, listing the concerns, Exceptional Resource Waters (ERW), Outstanding Resource Waters (ORW), Class I and Class II trout streams and recommendations for each watershed.

Two of the watersheds have been part of the Non-point Source Pollution program, Crossman Creek/Little Baraboo River and the Middle Kickapoo River.

Forestry is a big part of the Richland County landscape as approximately 50% of the land is in forestry use. Fragmentation of property and invasive species are both problems that the county faces.

Goals and Objectives

The goals of the 2012 plan are:

- \Rightarrow Reduce soil erosion
- \Rightarrow Enhance, maintain and protect the surface and groundwater quality
- \Rightarrow Prevent over application of nutrients
- \Rightarrow Reduce and prevent the occurrence of manure spills
- \Rightarrow Prevent and control the spread of invasive species
- \Rightarrow Improve the quality of forests
- \Rightarrow Develop a peer-to-peer network

Information and Education

Education is an important tool in implementing the Land and Water Resource Management Plan (LWRM). The Richland County LCC and LCD believe that it is the preferred method to prevent and solve natural resource problems. The Advisory Committee mentioned information and education time after time as being important. The county will use media, workshops, mailings, events and websites to disseminate information and educate the public about conservation and natural resources. The county is also looking at putting together a guide to be given to new landowners about living in a rural county. This guide would include information about what is available and where to go.

Performance Standards and Prohibitions

Below are the performance standards and prohibitions. A Water Quality Management Area (WQMA) is the area with 300 feet of a stream, 1000 feet of a lake or in areas susceptible to groundwater contamination.

- $\Rightarrow\,$ All cropped fields shall meet the tolerable (T) soil erosion rate established for that soil
- $\Rightarrow\,$ No tillage operations may be conducted within 5 feet of the top of the channel of surface waters
- \Rightarrow Croplands, pastures , and winter grazing areas shall average a phosphorus index of 6 or less over the accounting period and may not exceed a phosphorus index of 12 in any individual year within the accounting period
- ⇒ All new, substantially altered, or abandoned manure storage facilities shall be constructed, maintained or abandoned in accordance with accepted standards. Failing and leaking existing facilities posing an imminent threat to public health or fish and aquatic life or violated ground water standards shall be upgraded or replaced.
- $\Rightarrow\,$ There may be no significant discharge of process waste water to waters of the state
- \Rightarrow Manure management prohibitions
 - No overflow of animal waste storage facilities
 - No direct runoff from feedlots or stored manure into State waters
 - No unconfined piles of animal waste within the Water Quality Management Area
 - No unlimited livestock access to waters of the state where high concentrations of animals prevent the maintenance of adequate or self-sustaining vegetative cover

In many cases, a farmer must be offered cost sharing to install conservation practices to meet the standards and prohibitions before enforcement action can be taken.

Conservation Practices

The Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) is responsible for developing and maintaining the list of cost-share practices to implement NR 151. A listing and description of those practices can be found in ATCP 50.

The USDA-NRCS Technical Standards contain the specifications for the design, construction, implementation and maintenance of these practices. Copies of the

USDA-NRCS Technical Standards can be viewed on-line at http://efotg.sc.egov.usda.gov/treemenuFS.aspx .

Incentives

There are many types of incentives that will be used to implement this plan. They are tax credits, cost-sharing, rental payments and public recognition. Incentives can play a significant role in obtaining voluntary compliance.

Targeting and Priority Farm Strategy

Limited staffing resources and funding for conservation practices limit what of the actions in work plan Richland County will be able to perform. To be the most efficient, the LCC and LCD will target their actions and resources to critical areas in the County.

Targeting was discussed extensively during the Technical Committee meetings. The committee decided not to list specific landowners in the plan at this time, but to target based on the following:

- \Rightarrow 303(d) & TMDL watersheds (Little Bear & Little Willow creeks
- \Rightarrow Farmland Preservation (Working Land Initiative) participants who are found in non-compliance
- ⇒ Farms within Surface Water Quality Management Areas (near lakes and streams) that are known to be or found to be in significant noncompliance with the standards and prohibitions that impact surface water
- \Rightarrow Land, that through survey data, monitoring or visual inventory, show a need for water quality improvement or soil loss reduction
- \Rightarrow Other farms that are known to be or found to be in significant noncompliance with performance standards and prohibitions
- \Rightarrow Farms whose operators request a review or need one for program participation or a permit/license application
- \Rightarrow Other farms within Surface Water Quality Management Areas
- \Rightarrow Watersheds where other partners are assessing natural resource conditions or targeting their own efforts to improve water quality

Partnerships and Programs

Many agencies and organizations do and will continue to play a role in implementing this plan. They are Land Conservation Department, Land Conservation Committee, Natural Resources Conservation Service, UW-Extension, Department of Natural Resources, County Zoning Department, Farm Service Agency, Department of Agriculture, Trade and Consumer Protection, and conservation groups like Trout Unlimited, National Wild Turkey Federation and Southwest Badger Resource Conservation & Development.

There are many programs that will also help with implementation. A combination of federal, state and local programs will be used. They are:

- \Rightarrow Conservation Reserve Program (CRP)
- \Rightarrow Conservation Reserve Enhancement Program (CREP)
- ⇒ Environmental Quality Incentives Program (EQIP)
- \Rightarrow Farmland Preservation Program (FPP)
- \Rightarrow Land & Water Resource Management Cost-sharing (LWRM)
- \Rightarrow Managed Forest Law (MFL)
- \Rightarrow Targeted Resource Management Program (TRM)
- \Rightarrow USDA Cross Compliance
- \Rightarrow Wetland Reserve Program (WRP)
- \Rightarrow Wildlife Habitat Incentives Program (WHIP)
- \Rightarrow Wisconsin Forestry Landowner Grant Program (WFLGP)
- \Rightarrow Wisconsin Pollution Discharge Elimination System permit (WPDES)

Monitoring and Evaluation

The Richland County LCD can use several tools to evaluate and assess changes in the natural resources. The LWRM plan will be evaluated every year to see the progress made and what activities need to be changed.

The Transect Survey results will be used. A GIS layer will be developed to track sites that are inventoried and practices that are installed.

There are several monitoring stations located in Richland County. The DNR Surface Water Viewer (<u>http://dnrmaps.wi.gov/imf/imf.jsp?site=SurfaceWaterViewer</u>) which has maps of all of those locations as well as other pertinent information.

The DNR will continue baseline surveys of streams, monitor streams on the 303(D) list of impaired waters and develop Total Daily Maximum Loads (TMDL) studies on streams on the 303(d) list. Streams will also be monitored to determine if they should be placed on the impaired waters list, which is submitted to the Environmental Protection Agency on a biennial basis

<u>Work Plan</u>

The work plan can be found in Appendix B of the plan. The work plan is a joint effort with many different agencies including Land Conservation Department, Natural Resources Conservation Service, University of Wisconsin-Extension and Farm Service Agencies. The implementation of this plan cannot be done without the cooperation of all of these agencies.

Introduction

In 1996, the concept was proposed that counties use a locally led process to develop plans that emphasis local resource concerns. This concept was promoted by the Wisconsin Land and Water Conservation Association during legislative deliberations in the spring and summer of 1997. County Land and Water Resource Management plans became part of landmark State legislation signed into law in October 1997, part of Wisconsin Act 27.

Richland County has looked at the process as an opportunity to work with county residents to develop a strategy and plan of action to protect the natural resources of Richland County. This is also and opportunity to strengthen landowner participation, improve program effectiveness and increase coordination with other cooperating partners involved with natural resource management.

Richland County developed its first plan in 1999. This plan was effective until 2001. The plan was updated in 2001 and again in 2007. The 2007 plan remains in effect until this plan is approved.

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Planning Process

The Local Advisory Committee met on March 5, 2012 and March 12, 2012 (members are listed in Appendix C). This diverse group came up with 20 different resource concerns which were grouped into seven categories. The top six resource concerns were:

- \Rightarrow Need to educate rural landowners who rent out their land as to what good conservation is
- \Rightarrow Need to stop fence row to fence row cropping systems (continuous row crops) without proper conservation practices
- ⇒ Working with producers on applying appropriate amounts of on-farm and off-farm nutrients (not necessarily needing a nutrient management plan)
- \Rightarrow Set up a peer-to-peer network to guide and give advice to landowners and producers about conservation and conservation programs
- \Rightarrow There needs to be gully protection with dams and other practices to control erosion, prevent runoff, flood prevention and prevent the progression of gullies up the hill
- \Rightarrow Educate public about sources of high nitrates in wells and what producers are doing to control nitrates

The committee plans to meet again in September, before the public hearing, to go through the draft plan.

The Technical Committee met on April 9th. This committee was comprised of staff from Land Conservation, Natural Resources Conservation Service, Farm Service Agency, UW-Extension (both county and basin staff) and Department of Natural Resources (including both county and basin staff). The members are listed in Appendix C.

The goals of the 2012 plan are:

- \Rightarrow Reduce soil erosion
- \Rightarrow Enhance, maintain and protect the surface water and groundwater quality
- \Rightarrow Prevent over application of nutrients
- \Rightarrow Reduce and prevent occurrences of manure spills
- \Rightarrow Prevent and control the spread of invasive species
- \Rightarrow Improve the quality of forests
- \Rightarrow Develop a peer-to-peer network

Members of the Land Conservation Committee (LCC) were given reports on the plan at the regular Land Conservation meetings. The Draft plan was submitted to the Department of Agriculture, Trade and Consumer Protection (DATCP), Department of Natural Resources (DNR) and Farm Service Agency (FSA) for review in early August. Their comments were incorporated into the plan.

The Advisory Committee was sent a copy of the plan the last week of September to review the plan before it was taken to public hearing. As a requirement of the plan guidelines, a public hearing was held on October 8, 2012 at the Richland County Ag Service Center. The Richland County LCC will submit the plan to the Land and Water Conservation Board (LWCB). The LWCB will review the final plan at their December 10, 2012 meeting for their approval and will be taken to the County Board at their January 2013 meeting.

County History and Trends

Richland County is located in Southwest Wisconsin in the heart of the unglaciated part of Wisconsin known as the Driftless Area. The southern border of Richland County is the Wisconsin River. Crawford County borders Richland on the West with Vernon County bordering on the West and North and Sauk County bordering on the North and East. There are 16 townships, 5 incorporated villages and 1 city. The county is approximately 620 square miles or 377,170 acres. The City of Richland Center is the county seat.



The geology of the county is outcroppings of limestone near or at the top of the bluffs with substratum sandstone. The county consists of steep hillsides, fertile valleys and an abundance of springs. Because of the geology and the springs, Richland County has approximately 268 miles of trout streams with 111 miles of them being Class I trout streams.

The earliest inhabitants were probably the Mound Builders. They built many different types of mounds, many of them located near the Wisconsin River. There is a concentration of these mounds located on land now owned by the Ho-Chunk Nation. Later, the Sauk, Fox, Winnebago and Potawatomi Indians inhabited the county. Historical records show that Black Hawk crossed the county just before he made his last stand at Bad Ax.

The first white men who came to the county settled near the Wisconsin River in the area now known as Port Andrews in 1840. According to the 2010 Census Data, the population has grown to the current number of 18,021 residents. The county seat of Richland Center has 5,184 residents. The different ethnic groups that settled in certain areas of the county are still evident today in the names of the people. The Norwegians settled the Five Points area, the Germans near Bear Valley, Keyesville and

Cazenovia, the Czechs near Yuba, the Irish near Bear Valley and the Yankees in Richland Center.

The face of Richland County is changing. There are more non-resident landowners, fewer dairy farms, less hay being grown and more cash grain crops being grown. Data from the Wisconsin Agriculture Statistics show a decrease in hay and an increase in corn and soybean acres over a 15-year period.

Table 1. Changes in crop acres

	Acres			
Year	Hay	Corn	Soybeans	
1995	71,200	33,900	4,800	
2000	61,100	35,400	8,600	
2005	52,900	36,000	10,800	
2010	30300	48,500	11,800	

The amount of livestock has also decreased in that same period as documented by the Wisconsin Agriculture Statistics.

	Dairy	Milk	A11
Year	Herds	Cows	Cattle
1995	402	21,000	55,000
2000	289	17,300	48,000
2005	210	13,500	45,000
2010	160	14,800	47,000

During the Middle Kickapoo River Non-point Watershed project, there was a dramatic decrease in the number of livestock operation in the Richland County portion of the watershed. The inventory done in 1990 showed that there were 40 livestock operations. At the end of the project in 2004, there were less than 10 left. What does that mean for Richland County? The decrease in cattle, dairy and beef, leads to less hay being grown. The land is still being farmed. The producers are changing to corn and soybean productions. In a county with steep hills and valleys, it means a greater chance for soil erosion and runoff unless conservation practices are used.

Another change has been in the number of people farming full-time and the size of the farms. According to the 2002 USDA Census Data, there are 1,358 farms with 731 farms considered full-time and 627 considered part-time. The 2007 USDA Census Data shows there were 1,545 farms with 567 farms considered full-time farms and 978 considered part-time. The sizes of farms are changing. Farms are getting split into smaller parcels and sold to non-farmer and being farmed by larger farming operations.

Table 3. Farm size and type			
Farms by Size	2002	2007	
1-9 Acres	22	79	
10-49 Ac	243	344	
50-179 Ac	620	697	
180-499 Ac	392	334	
500-999 Ac	62	77	
1,000+ Ac	19	14	
Total Farms	1358	1235	
Full-time	731	567	
Part-time	627	978	
Source: 2002 &			
2007 USDA Census			
Data			

Most livestock operations, although growing in size, have not become very large operations. There are currently 1 hog farm and 1 dairy farm in Richland County who have a DNR WPDES permit for having over 1,000 Animal Units.

As shown in the next table, most of the farms in Richland County are family owned operation. A significant portion of the parcels are not owned by Richland County residents. According to the Richland County Real Property Lister, approximately onethird of the parcels are owned by out-of-area residents.

Table 4. Ownership

Who Owns Property			
Small Family Farms	93%		
Large Family Farms	4%		
Non-Family Farms	3%		

Source: 2007 USDA Census Data

Many out-of-area residents have bought their property for hunting and other recreational activities, not necessarily to be farmed. Most of them do not have a farming background. They lack understanding of farming practices and erosion control. This can lead to environmental problems such as excessive erosion when cropland is being rented for cash grain, erosion from construction sites and erosion from poorly sited driveways.

There is another problem developing with the change in ownership. As the farm acreage gets smaller and ownership changes to no-farmers, more people are raising horses. These horses are being placed a small pastures. There may be 2-3 horses on

1-2 acres of land. Stream banks and pastures are being denuded by the horses because these small pastures cannot produce enough grass to feed these animals.

Land use planning needs to be utilized as well as the county Land and Water Management plan to reduce some of the potential problems. Twelve of the townships in Richland County as well as Richland County itself have developed comprehensive land use plans. Other townships in the county are currently working on their plans. The comprehensive plans are one tool to deal with land use changes. The Land and Water Resource management plan will help with the environmental issues associated with the change in land use.

Natural Resource Assessment

There are many sources that provide information on the condition of the natural resources of Richland County. They are a tool to help agencies and staff target efforts to conserve and protect the natural resources.

Water Resources

Richland County consists of seven watersheds which all drain to the Wisconsin River. These watersheds are the Middle Kickapoo River, Mill Creek, Pine River, Crossman Creek/Little Baraboo, Knapp Creek, Willow Creek and Bear Creek.



In July 2002, the DNR released the State of the Lower Wisconsin River Basin Report. This report can be found online at:

<u>http://dnr.wi.gov/water/basin/lowerwis/index.htm</u>. The report describes each subwatershed, listing the concerns, Exceptional Resource Waters (ERW), Outstanding Resource Waters (ORW), Class I and Class II trout streams and recommendations for each watershed. The basin plan for the Bear Creek Watershed was updated in August 2011. The complete copy can be found at:

<u>http://dnr.wi.gov/water/basin/lowerwis/wtplans/lw14/LW14_WTPLAN.PDF</u>. A Total Maximum Daily Load report for the Little Willow Watershed was release on July 30, 2008. A complete copy of it can be found at:

http://dnr.wi.gov/org/water/wm/wqs/303d/approvedtmdls/littlewillowcreektmdl.pdf A project report by Jean Unmuth, DNR Water Resource Specialist was complete in 2012 for Ash Creek. A copy of this report is on file at the Richland County Land Conservation Department.

Waters designated as Exceptional Resource Waters and Outstanding Resource Waters are surface waters which provide outstanding recreational opportunities, support valuable fisheries, have unique hydrologic or geologic features, have unique environmental settings and are not significantly impacted by human activities. The difference between the two designated in ORW do not have any point sources discharging directly to the water.

Class I trout streams are high quality trout waters that have significant natural reproduction to sustain populations of wild trout at or near carry capacity. No stocking is required. Class II trout streams may have some natural reproduction, but not enough to utilize available food and space. Stocking is required to maintain a desirable sport fishery.

The Middle Kickapoo River watershed is located in central Vernon County, south central Monroe County and northwestern Richland County. The map is located in Appendix E. The concerns and issues for the watershed are non-point source pollution and proliferation of spring ponds. The Exceptional Resource Waters/Outstanding Resource Waters in the Richland County portion of the watershed are Bufton Hollow, Camp, Elk, and South Bear creeks. Class I trout streams are Bufton Hollow, Camp and Elk creeks. Goose and South Bear creeks are considered Class II trout streams. The 2002 Basin Plan recommendations for the Richland County portion of the Middle Kickapoo are:

- $\Rightarrow\,$ Fish and habitat surveys should be conducted of Bufton Hollow, Camp, Elk, Goose and South Bear creeks.
- \Rightarrow Camp and Elk creeks would benefit from the purchase of stream bank easements and the restoration of in-stream habitat.
- \Rightarrow Maintenance of WDNR owned land adjacent to Camp and Elk creeks must include tree and brush removal from stream banks to reduce beaver colonization

The Mill and Indian Creek Watershed in located in central Richland County. The map can be located in Appendix D. Most of the streams in the watershed flow into Mill Creek which flows into the Wisconsin River near Muscoda. Indian Creek flows directly into the Wisconsin River. The concerns and issues are:

- \Rightarrow Non-point source pollution
- \Rightarrow Stream channelization and diversion
- \Rightarrow Atrazine

The Exceptional Resource Waters/Outstanding Resource Waters are Babb Hollow, Coulter Hollow, East Branch Mill, Fox Hollow, Higgins, Hood Hollow, Kepler Branch, Mill, Miller, Pine Valley, Ryan Hollow and West Branch Mill creeks. Class I trout streams are Babb Hollow, Fox Hollow, and Kepler Branch and West Branch Mill creeks. Class II trout streams are Byrd's, Core Hollow, Coulter Hollow, Dieter Hollow, East Branch Mill, Gault Hollow, Higgins, Hood Hollow, Hoosier Hollow, Mill (north of State Highway 171), Miller Branch, Pine Valley and Ryan Hollow creeks. The 2002 Basin plan lists the following recommendations:

- $\Rightarrow\,$ Heavy willow brush that exists along Babb Hollow Creek should be removed
- \Rightarrow Stream monitoring should be conducted on Pine Valley, Mill and Miller Branch creeks and other named steams in the watershed
- \Rightarrow The East Branch Mill Creek should be monitored to determine the extent of stream bank erosion and loss of in-stream habitat as a result of nonpoint source pollution
- \Rightarrow In-stream habitat improvements should be conducted on Ryan Hollow and on Kepler Branch creeks to improve trout populations and the overall in-stream health of the system
- \Rightarrow The pond located on Byrd's Creek should be removed
- ⇒ Byrd's, Coulter Hollow, Dieter Hollow, East Branch Mill, Fox Hollow, Hoosier Hollow, Kepler Branch, Mill and Pine Valley creeks should be considered for non-point source pollution reduction projects such as Targeted Resource Management (TRM) grants
- \Rightarrow Indian, Mill and Ryan Hollow creeks should be surveyed to determine in rare aquatic elements previously found are still present

The Upper Pine River watershed lies mostly in north central Richland County with a small portion in northeastern Vernon County. The map is located in Appendix D. Melancthon Creek was delisted as a 303(d) water in 2008. Work was completed in that sub-watershed to reduce soil erosion, stabilize stream banks and restore trout habitat through a Targeted Resource Management grant. The concerns and issues listed in the 2002 Basin plan are:

- \Rightarrow Non-point source pollution
- \Rightarrow Stream channelization

The Exceptional Resource Waters/Outstanding Resource Waters are Fancy, Gault, Grinsell Branch, Hanzel, Marshall and Melancthon creeks as well as four unnamed tributaries to Fancy Creek and one unnamed tributary to Melancthon Creek. Class I trout streams are Fancy (upstream from Cribben Hill), 1.5 miles of Gault Hollow, Grinsell Branch and 1.5 miles of Melancthon creeks. Class II trout streams are Basswood, lower 4.6 miles of Fancy, 2.4 miles of Gault Hollow, Hanzel, Hawkins, Horse, Hynek Hollow, Indian, Johnston and Sowles creeks. Also West Branch of the Pine River and 17 miles of the Pine River. The recommendations in the 2002 Basin plan for the Richland County portion are:

- ⇒ Condition monitoring on Basswood, Gault Hollow, Hanzel, Marshall, South Branch Marshall, West Branch Marshall and Melancthon creeks ,and the Pine and West Branch Pine rivers should be conducted
- \Rightarrow A fisheries management plan for Hawkins, Horse, and Hynek Hollow creeks is needed to help improve the streams from a Class II to a Class I trout stream.
- ⇒ Non-point source pollution reduction through a program such as Targeted Resource Management program is needed for Hanzel and Grinsell Branch creeks to improve Melancthon Creek and for Basswood, Gault Hollow, Hawkins, Hynek Hollow, Melancthon and Soules creeks and the West Branch of the Pine River
- \Rightarrow Simpson Hollow Creek should be monitored to determine the success of stream bank best management practices
- \Rightarrow Fancy, Gault Hollow, Hawkins and Melancthon creeks and the Pine and West Branch of the Pine rivers should be surveyed to determine if rare aquatic elements previously found in the streams are still present

The Crossman Creek/Little Baraboo River Watershed in located in northwestern Sauk County, southern Juneau County, northeastern Richland County and northeastern Vernon County. The map is located in Appendix D. The concerns and issues as listed in the 2002 Basin plan are:

- \Rightarrow Non-point source pollution
- \Rightarrow Atrazine
- \Rightarrow Hydrologic modification
- $\Rightarrow\,$ High phosphorus levels in lakes leading to eutrophication and algae blooms

There are no Exceptional Resource Waters/Outstanding Resource Waters in the watershed. There are also no Class I trout streams in the Richland County portion of the watershed. Class II trout streams are Bauer Valley, Cazenovia Branch and McGlynn creeks. There is one lake, Lee Lake, located in the Richland County portion. It is a 46 acre impoundment of the Cazenovia Branch Creek and McGlynn Creek. The lake is heavily silted in and problems with nutrient loading can be seen by thick vegetative growth in shallow areas of the lake.

The recommendation for the Richland County portion of the watershed according to the 2002 Basin plan is:

 \Rightarrow Bauer Valley Creek and McGlynn Creek should be monitored

The Knapp Creek Watershed is located in western Richland County and eastern Crawford County. The map is located in Appendix D. The concerns and issues for Knapp Creek are:

- \Rightarrow Non-point source pollution
- \Rightarrow Stream channelization
- \Rightarrow Atrazine

The Exceptional Resource Waters/Outstanding Resource Waters located in Richland County is Hoover Hollow Creek. Class I trout streams are Hoover Hollow Creek, Jimtown Branch Creek and Knapp Creek (above Excelsior). Class II trout streams are Beebe Hollow, Chitwood Hollow, Gobin Hollow, O' Conner Branch and West Fork Knapp creeks. There are two oxbow lakes on the Wisconsin River. Garner Lake and Lower Lake contain fish like Northern Pike, panfish and large and small mouth bass. The 2002 Basin plan recommendations for the Richland County portion of the watershed are:

- $\Rightarrow\,$ Collect fish, habitat and water quality data for Gobin Hollow, O'Conner Branch and Hoover Hollow creeks
- \Rightarrow Hoover Hollow Creek should be considered for a non-point source pollution reduction project such as a Targeted Resource Management grant

The Willow Creek Watershed is located in the eastern portion of Richland County with a small portion of the watershed in western Sauk County. It includes the lower part of the Pine River from Brush Creek in Richland Center to the Wisconsin River. The map is located in Appendix D. The concerns and issues listed in the Basin Plan are:

- \Rightarrow Non-point source pollution
- \Rightarrow Atrazine

The Exceptional Resource Waters/Outstanding Resource Waters are Happy Hollow, Jaquish Hollow, Lost Hollow, Smith Hollow, Wheat Hollow and Willow Hollow creeks. Class I Trout Streams are Ash, Happy Hollow, Lost Hollow, Smith Hollow and Willow (above Ithaca) creeks. Class II trout streams are Brush, Jaquish Hollow, Little Willow and Wheat Hollow creeks.

The upper reaches of Ash Creek, located above State Highway 80, is used as a source for trout restocking. A temporary fish harchery is set up on the County's Ash Creek property so that trout can be checked for VHS. Brown trout are shocked, placed in the hatchery for 30 days and moved to other streams for restocking. Brook trout are

shocked in the fall, held in the on-site hatchery, eggs and milt are taken and then the trout are put back in the stream. The fertilized eggs are taken to the permanent hatchery in Madison, raised and then the little trout are restocked to other streams. According to the report completed by Jean Unmuth, in stream and bank habitat as well as efforts to control agricultural runoff should be done to enhance water quality. Efforts should be made immediately to reduce barnyard runoff and the stream be furthered monitored to determine if it should be put on impaired waters list.

Little Willow Creek is considered a 303(d) impaired water because of non-point pollution and a TMDL (Total Maximum Daily Load) was developed in 2008. The report states that Little Willow Creek is currently not supporting its designated use as a cold water (Class II) fish community. This is due to excessive sedimentation. The existing stream bank erosion is calculated at 11.8 tons per day. The target sediment load is 1.3 tons per day. The recommendation is that best management practices, such as stream bank protection and riparian buffers, must be implemented and maintained to control sediment loading.

The 2002 Basin Plan recommendations are:

- ⇒ The watershed should be considered as an EQIP project or some other non-point source pollution reduction project to control non-point source pollution. Specific targets for practices, such as through the Targeted Resource Management program including Happy Hollow, Jaquish Hollow, Little Willow, Lost Hollow, School Section Hollow and Wheat Hollow creeks
- \Rightarrow Ash Creek should continue to be monitored to evaluated the success of implementing the fishery management plan
- \Rightarrow Baseline or non-point source appraisal monitoring should be conducted on Jaquish Hollow, Little Willow and Wheat Hollow creeks
- \Rightarrow School Section Hollow Creek should be monitored to determine its potential as a trout stream
- \Rightarrow Smith Hollow Creek should be surveyed to determine cause of decline in fish population
- \Rightarrow The Pine River should be surveyed to determine if rare aquatic elements previously found in the stream are still present.

The Bear Creek Watershed lies in southeastern Richland County and southwestern Sauk County. The map is located in Appendix D. The watershed priorities and goals listed in the 2010 Watershed Plan are:

 \Rightarrow Priorities

- Identify, restore and preserve high quality fisheries in the watershed
- Protect riverine habitat especially in sloughs and backwaters of the Wisconsin River
- Protect ORW/ERW waters and trout waters

- Restore stream habitat, hydrology and morphology throughout the watershed to recover from damage incurred in the 2008 flooding events
- Conduct monitoring to sufficiently understand and abate water quality standards impairments in the watershed
- Set priorities for Little Bear Creek restoration work to eventually remove the water from the impaired waters list

 \Rightarrow Goals

- Protect high quality cold, warm and cool water streams and improve conditions in those not meeting designated uses
- Restore and protect sloughs, backwaters and tributary streams to the Wisconsin River
- Create/build upon cooperative partnerships and projects to improve the condition of Little Bear and Bear Creek
- Fund cooperative projects for stream restoration including buffers, hydrology and stream morphology

None of the streams in the Richland County portion are Exceptional Resource Waters/Outstanding Resource Waters. There are no Class I or Class II trout streams in the Richland County portion. Four Springs Creek and Pumpkin Hollow Creek both support a cold water forage fish community. It is thought that non-point source pollution is causing problems for trout to become established. There are two oxbow lakes, Cruson Slough and Long Lake, of the Wisconsin River located in part or all of Richland County. These lakes contain fish like Northern Pike, large mouth bass and panfish.

Non-point source pollution is a problem in every watershed in the county. Two of the watersheds were part of the Department of Natural Resources Non-point Source Watershed program. The Crossman Creek/Little Baraboo River began in 1985 and was completed in 1994 and the Middle Kickapoo River began in 1990 and was completed in 2004. The watershed plans are housed at the Richland County Land Conservation Department. Inventories were completed in both watersheds. Although the goals for both watersheds are different, the same types of pollution problems were found. They are soil erosion, sedimentation and phosphorus loading. The goals for the Crossman Creek/Little Baraboo River were:

- \Rightarrow Reduce phosphorus by 57% from 563 inventoried barnyards
- \Rightarrow Reduce soil loss by 41% on fields eroding over 4 T/Ac/Yr
- \Rightarrow Reduce stream bank erosion by 59% on all 14 streams
- $\Rightarrow\,$ Control manure application by 60% on all fields with slopes greater than 6% or prone to flooding

A final report was completed in January 1999. The accomplishments were:

- \Rightarrow Reduction of phosphorus runoff by 62% on 211 barnyards
- \Rightarrow Reduced soil loss by 53% from an average of 13.2 T/Ac/Yr down to 6.2 T/Ac/Yr

- \Rightarrow Reduced stream bank erosion by 55%
- \Rightarrow Controlled spreading on critical acres by 68%

The goals for the Middle Kickapoo River Watershed were:

- $\Rightarrow~60\%$ reduction in phosphorus from barnyards in high management subwatersheds
- $\Rightarrow~50\%$ reduction in phosphorus from barnyards in moderate management watersheds
- $\Rightarrow 50\%$ reduction in the total sediment reaching streams from the combination of upland field erosion, stream bank erosion and gully erosion.

The final report for the Middle Kickapoo has not been completed at this time. There was a reduction in phosphorus loading from barnyards in Richland County due to the fact that many of the livestock operations are no longer in business. There were 40 barnyards in the original inventory. As of 2006, there were less than 10 livestock operations

Portions of the Pine River Watershed were monitored in 2001-03 by a group called PRISTINE (Pine River Study and Information Network)

Richland County has received a Targeted Resource Management Grant for Melancthon Creek in 2007. The plan is to reduce sediment into Melancthon Creek and its tributaries and to improve in-stream habitat.

Soil Resources

Soil erosion continues to be an issue in Richland County. As the need for hay decreases, the cropland is planted to row crops such as corn and soybeans. Without proper conservation practices such as no-till, grassed waterways and contour buffers, there is a chance for more soil erosion.

Richland County has been conducting the Transect Survey every year since 1999. This survey is a tool to see how much and where soil loss is occurring. The results are shown in the tables below.

Table 5. County-wide average		
Year	Average	
1999	3.6	
2000	2.5	
2001	3	
2002	3.6	
2004	3.3	
2006	3.4	
2007	3.5	

Table 6. Two year compa	rison by wo	itershed	!	
0 1	2004	2007		
	Soil	<=		<=
Watershed	Loss	Т	Soil Loss	Т
Middle Kickapoo	3.1	79%	3.9	73%
Knapp	2.3	80%	Unknow	'n
Mill & Indian	4.4	71%	Unknow	'n
Willow	3.5	73%	4.1	71%
Upper Pine	2.6	85%	2.9	79%
Bear	4	77%	4.5	64%
Crossman/Lt.				
Baraboo	3.6	79%	3.4	80%

Soils types, with specific and unique characteristics, directly influence land uses. Richland County's soil survey was updated and made available in 2001. Fifty-five different soil types are found throughout Richland County. During the soil survey update nine newly describe soils were found in Richland County. The Richland County Land Conservation Department extensively uses the soils information. The updated soil survey information can be found on-line at:

<u>http://websoilsurvey.nrcs.usda.gov/app/</u> . A map showing the soil orders can be found in Appendix E of this plan.

Forest Resources

Forested land comprises about 180,000 acres or approximately 50% of the land area in Richland County. The acreage by forest type is as follows:

Pine/Spruce	1,800
Oak & Hickory	45,000
Central Hardwoods	45,000
Northern Hardwoods	84,200
Aspen	2,500
Other	1,500

The demands on county woodlands are increasing on many fronts. In the past, most of the woods were large tracts owned by farmers and used for grazing cattle, firewood and the occasional harvest for commercial use. In recent years, due to fragmentation, the woodlands have become smaller in size and the number of owners has increased dramatically. These new landowners are buying the woodlands for recreational use (hunting, camping, etc.), for aesthetic purposes, for wildlife habitat or for building a home or cabin. This forest fragmentation will continue to make it more difficult to manage the woodlands on a large scale and will cause a greater need for cooperation between adjoining landowners when it comes to forest management. The demand for wood products in Richland County will continue, due to the high quality of timber produced and the species mix that is present in the county.

Threats from forest insects will be increasing in the next several years. Two insects that could have a major impact on the woodlands in the county are Gypsy Moth and

Emerald Ash Borer. Gypsy Moths are not prevalent in the county, but they are in the counties to the east. In recent years, parts of eastern portion of the county have been sprayed in the spring as part of the WDNR Gypsy Moth Suppression program, with the hope of stopping the spread from Sauk County. While the Emerald Ash Borer has not been found in Richland County, many believe it is just a matter of time before it is detected, given that it has been found in both Crawford and Vernon counties. One area of concern is the movement of firewood from one place to another. Ash trees that are cut in one part of the state and then transported to cabins or woodlands in another part of the state are the fastest way to spread this insect. The state has firewood movement rules in place to reduce the risk of spread when the borer shows up in the state. There are plans in place to deal with infestations once the Ash Borer is detected.

The Managed Forest Law program is widely used and accepted within the county as a means to gain valuable long-term forestland management. Approximately 60,000 acres or 1/3 of the forest land in Richland County is currently enrolled in the program. The use of management plans on these acres has resulted in improved forest health and an overall improvement in the woodlands through the use of sound silviculture practices and the exclusion of grazing and pasturing in these areas.

The forest resource in Richland County have forest succession occurring. Many of the Oak/Hickory forests are being replaced by a Maple climax forest. This will result in a shift in wildlife species, due to the fact that maple trees do not provide very good food sources, compared to the acorns and seeds provided by oak and hickory trees. Exotics species, such as Garlic Mustard, Honeysuckle, Multiflora Rose, Autumn Olive and the over browsing by deer are all hindering the facets of the forest resources in Richland County. *(Information provided by Hans Rudolf, WDNR Forester-Richland County.)*

There are many sources available to evaluate the state of natural resources in Richland County.

This section details the goals and objectives of the Land and Water plan. These goals and objectives will guide the work of the Richland County Land Conservation Department (LCD) for at least five years. Development of definable and measurable action plans under each goal gives direction to the LCD, partnering agencies, conservation groups and local citizens as they work together to solve the local concerns and problems related to the natural resources of Richland County.

The Technical Committee developed the goals, objectives and action plans with the resource concerns brought forth by the Advisory Committee in mind. They also used information from the townships' comprehensive plans and the Lower Wisconsin Basin plan to develop the goals and objectives.

The Advisory Committee resource concerns were broken down into six areas: Water Quality, Soil Erosion, Nutrient & Manure Management, Invasive Species, Forestry and Landowner/Producer Networking. These cover the range of concerns that were brought forth.

Soil Erosion

Richland County has experience significant erosion through history as seen by the thin topsoil layer on ridges. The topography makes managing soil erosion difficult. The county average tolerable soil loss limit is 4 tons/acre/year.

Richland County has seen an increase in the amount of corn and soybeans grown and a decrease in the amount of hay. One of the reasons for the decrease in hay is fewer people are dairying. Another reason is land is being sold to non-farmers, many who are not aware or concerned with soil erosion with the production of row crops. There has been concerns that because of higher corn prices, soybean prices and rental rates too much of the County is being planted to corn and soybeans without consideration for soil erosion.

The following are a list of goals, objectives and action plans.

Goal: Reduce soil erosion

Objective: Educate landowners and producers about how to protect established conservation practices and implementing new conservation practices

- Develop a list of best management practices
- Discuss the need to have a lease and provide landowners information that should be part of a lease agreement

Objective: Reduce soil erosion from continuous row crops

- Assist producers in installing contour buffer strips and contour strip cropping
- Educate producers and landowners about importance of using notill, contour buffers and grassed waterways
- Implement performance standard of farming to "T"

Objective: Prevent and reduce gully erosion

- Educate producers and landowners on how to prevent and reduce gully erosion
- Provide technical assistance to landowners to install, repair and maintain practices for gully erosion
- Maintain County PL-566 structures to prevent erosion and flooding

Objective: Prevent and reduce stream bank erosion and enhance stream quality

- Promote rotational grazing plans along streams and educate producers on how not to overgraze stream banks
- Provide technical assistance and cost-sharing to install stream crossings, stream bank protection and other practices
- Work with partners to provide assistance to landowners
- Implement the performance standard of maintaining adequate vegetation on pastures stream banks

Water Quality

Richland County has an abundant source of high quality groundwater that needs to be protected. The groundwater can be polluted from several sources. These are sinkholes, wells, failing septic systems, leaking manure storage units, quarries and underground storage tanks. There have been some wells that have high levels of nitrates and atrazine detected.

Richland County also has many miles of Class I trout streams which need to be protected and improved to maintain this status. There are many other streams that can and should be improved by reducing the non-point pollution to the streams. As shown in the Natural Resource Assessment section of the plan, non-point pollution is a problem in all of the watersheds in Richland County. The following are a list of goals, objectives and action plans.

Goal: Enhance, maintain and protect the surface water and groundwater quality

Objective: Educate landowners and producers on how to protect surface water and groundwater

- Develop a list of best management practices to protect surface and groundwater
- Educate landowners on potential sources of contaminants in groundwater
- Educate landowners on link between low nitrates in surface water and the potential for high nitrate levels in drinking water wells

Objective: Reduce sources of pollution to surface water and groundwater

- Promote and cost-share rotational grazing plans along surface water
- Promote and enroll grass buffers along streams through programs such as CREP
- Provide technical assistance and cost-sharing to install stream crossings, stream bank protection and other practices
- Implement performance standards and prohibitions within 300 feet of the stream
- Enforce Manure Storage Ordinance and Livestock Siting License
- Maintain Ash Creek Community Forest to demonstrate stream bank practices and water quality
- Promote and cost-share proper well abandonment
- Promote septic system maintenance program

Nutrient and Manure Management

Proper nutrient management is important to protect the natural resources. Whether a person is fertilizing their garden or a farmer his/her field, nutrient management is a tool that needs to be used. Improper application of manure and purchased fertilizer can cause pollution to our groundwater and surface water.

This problem is both urban and rural. The over application of nutrients per acre is greater for lawns and gardens than for cropland. There are just more acres of cropland than lawns and gardens. Richland County wants to address both segments of the population.

Nitrate levels over 10.0 mg/L have been detected in wells in Richland County. An amount over 10.0mg/L violates state groundwater standards. At this level, it is recommended that infants and pregnant women not consume the water because the nitrate interferes with the ability of blood to carry oxygen. High nitrates may also be an indication that other contaminants are present in the drinking water. High nitrate

concentrations in the drinking water have also been linked to spontaneous abortions in livestock.

Manure is an important nutrient if it is handled correctly. When it is spread at the wrong time (i.e. before snow melt or before a runoff event), the manure runs into nearby streams. Proper manure management is needed

The following are a list of goals, objectives and action plans.

Goal: Prevent Over Application of Nutrients

Objective: Educate landowners and producers on nutrient and manure management

- Council with landowners about nutrient management
- Offer farmer training classes for nutrient management
- Hold field days that promote nutrient and manure management
- Promote soil sampling and testing
- Hold manure spill demonstration
- Work with producers when they receive a manure storage permit
- Provide information to producers on when and where they shouldn't spread

Objective: Assist producers with nutrient and manure management

- Provide cost-sharing for nutrient management plans
- Provide technical assistance to landowners and producers
- Assist producers in weighing and manure spreaders and spreader rates
- Implement the performance standard for nutrient management

Goal: Reduce and Prevent Occurrences of Manure Spills

Objective: Assist producers who have a spill

- Provide information to producers on who to contact in cas of a spill
- In the event of a spill, provide technical information on now to contain a spill
- In the event of a spill, facilitate discussion between producers and DNR

Invasive Species

Richland County, like many places in the state, has seen a number of invasive species overtaking the native species of plants and animals. Plants like Multi-flora Rose,

Autumn Olive, Garlic Mustard, Wild Parsnip and Purple Loosestrife can be seen all over the landscape. Some of them were brought here for ornamental reasons, like Purple Loosestrife. Some, like Autumn Olive and Multi-flora Rose, were promoted for their habitat benefits. These plants instead have taken over the landscape. Some efforts have been made to control these invasive species, either through biological, mechanical or chemical means.

A new invasive species in Richland County is Japanese Knotweed. This species spreads most effectively by rhizomes and is found along streams and in wetlands. Most of the largest populations are along Willow Creek and the Pine River. Richland County is currently working with Southwest Badger RC & D to control this invasive.

There also has been degradation of habitat due to invasive species. Effort has been made within the County to improve the habitat for native species. Conservation groups such as Trout Unlimited and National Wild Turkey Federations have been formed to assist in this effort. Some of these groups have worked with Land Conservation Department, Natural Resources Conservation Service and Department of Natural Resources on specific projects and tools to improve habitat. More work needs to be done to promote native species in Richland County.

The following are a list of goals, objectives and action plans.

Goal: Prevent and Control the Spread of Invasive Species

Objective: Educate on how to prevent and control the spread of invasive species

- Provide information to landowners about invasive species
- Provide information to the county highway department and townships on how to identify and prevent the spread of invasive species

Objective: Preventing and controlling the spread of invasive species

- Identify location of newly identified invasive species
- Apply for grants to control small invasive species sites
- Work with landowners and others to remove invasive species
- Encourage CRP participants to control invasive species on their fields with permission from Farm Service Agency

Forests

Forestry is a very important land use in Richland County. Approximately 50% of the County is forested. The forests in the County provide wood products such as lumber and firewood as well as being important for wildlife, food source and water infiltration. Threats to the forests are insects, disease, grazing and overharvesting of timber. If the forests are not properly managed, erosion can occur such as erosion of roads.

The following are a list of goals, objectives and action plans.

Goal: Improve the Quality of Forests

Objective: Educate landowners on proper forestry management

- Refer landowners to Woodland Advocates
- Hold forestry field days
- Refer landowners to DNR Foresters
- Use Ash Creek Community Forest as an education site

Objective: Reduce runoff and erosion from forests

- Encourage producers not to pasture their runs
- Provide technical assistance to landowner and loggers to reduce erosion from logging and access roads
- Provide information to landowners on what should be included in a contract with loggers
- Encourage landowners to plant trees where needed

Landowner/Producer Networking

Having enough information is important to a landowner or producer when making decisions concerning their operation. Talking to someone who has installed a practice and/or been involved in a conservation program can guide the landowner/producer to make a decision. In 2010, 8 individuals (there are 2 couples) were selected to be Woodland Advocates. They have been involved in different conservation programs, worked with different agencies and have installed different practices. These people were trained on programs and practices so that they could provide assistance to other landowners.

Richland County is interested in developing other peer-to-peer/advocacy groups to assist landowners and producers. The idea is to have one group for general conservation and one for manure storage.

Goal: Develop a Peer-to-Peer Network

Objective: Provide opportunity for landowners to talk with other landowners about programs and practices

- Find producers and landowners to provide guidance to others
- Provide training for those people selected to be part of the network
 - Promote the members of the peer-to-peer network

Tools and Strategies

Many tools and strategies are available to implement the Land and Water Resource Management Plan. The actions that will be used to implement the goals and objectives in this plan can be placed in one of six categories of tools and strategies. The categories include:

- \Rightarrow Information and Education
- \Rightarrow Performance Standards and Regulations
- \Rightarrow Conservation Practices
- \Rightarrow Incentives
- \Rightarrow Targeting
- \Rightarrow Partnerships and Programs

During the meetings with the Advisory Committee and Technical Committee, these tools and strategies were discussed as ways the Land Conservation Department and their partners could address resource issues and concerns. These same tools and strategies will be used by Richland County to implement the State Performance Standards and Prohibitions for agriculture runoff.

Information and Education

The Richland County Land Conservation Committee (LCC) and Department (LCD) believe that public information and education on natural resource concerns and conservation practices is the preferred method to prevent and solve natural resource problems. Voluntary compliance with standards and regulation is preferable to enforcement procedures. Efforts have been made and will continue to be made to inform all producers and the rest of the public about standards and prohibitions and what needs to be done to reach compliance.

Education was a recurring topic during the Advisory Committee and Technical Committee. Education must be user friendly and geared to the audience. The concern is how to reach the audience, especially those who do not live in Richland County. Hopefully new technology will make it easier.

Richland County will be involving the local media in our education efforts. The local radio station has a regular morning show which has been used in the past and will continue to be used as a means of disseminating information on programs and regulation. The local newspaper is another media source that can be used in this effort.

Besides radio and the newspaper, the producers and other local residents will be reached through workshops, meetings, mailings and one-on-one work. These are the easiest ways to reach the local people. For those in Farmland Preservation Program, the compliance monitoring and selfcompliance forms have been good sources of disseminating information on the performance standards and prohibitions. After receiving the self-compliance form, most landowners call or stop into the Land Conservation Department and ask the Land Conservation staff questions. The most common questions are concerning the nutrient management requirement.

Richland County will continue to provide educational material and displays at events like the Richland County Fair. This information reaches a wide audience including producers and other rural and urban residents.

Children are another important audience to reach. If they are taught earlier, as adults they will have a better understanding of what to do. The Richland County LCD and UW-Extension sponsor Conservation Field Days for area sixth graders. These kids spend a day on Ash Creek Community Forest learning about land use management, forestry, soils, wildlife, conservation practices, prairies and water quality. The Richland Center High School FFA has worked with the LCD on several projects concerning natural resources. The best way to teach children is through hands on activities.

The hardest segment of the population to reach is the absentee landowners. They live all over the United States and other countries. Local media efforts do not reach them unless they happen to be in the county. Richland County has been using the County website to reach these individuals. One of the best ways to reach the absentee landowners is through the realtors at the time of the property purchase. The Land Conservation Department, Farm Service Agency, Natural Resources Conservation Service and DNR Forestry Office are continually trying to inform realtors of the requirements of the programs. For most buyers, the realtors are the first people they talk to about the land and if the realtors have the correct information, there are fewer problems down the road.

The County has a Land Information website which includes a public map site. We are now tracking who is in compliance on this website and, although the general public does not have access to the compliance information, Land Conservation staff can access the site and inform potential landowners on the compliance status of their farm or a farm they are interested in purchasing.

The Technical Advisory Committee is looking to put together a list of Best Management Practices to give to landowners and producers. The hope is that the better informed the person is, the better the chance of controlling erosion and reducing runoff.

There is a Woodland Advocacy group in Richland County. This group of woodland owners assists other landowners and provides information on woodland practices and programs. Richland County hopes to develop other groups for manure storage and general conservation. Education is an important tool in improving the condition of the natural resources. It is mentioned under every resource category. The education components will need to be evaluated and improvements made where necessary.

Performance Standards and Regulations

Many farmers voluntarily install conservation practices on their farms. They see the value not only to their farming operations but also to the environment with improvement in water quality, wildlife habitat and reduction in soil erosion. The Richland County LCC and LCD would prefer landowners voluntarily comply with regulations rather than enforcement actions. Cost-share dollars will still find priority with landowners looking to voluntarily implement Best Management Practices on their land. Richland County will continue to offer voluntary cost-sharing as program funds and priorities become available.

NR 151- State Agriculture Performance Standards and Prohibitions

Wisconsin's rules to control polluted runoff from farms, as well as other sources, went into effect October 1, 2002. The State legislature passed the rules to help protect Wisconsin's lakes, streams and groundwater.

The DNR Administrative Rule NR 151 set performance standards and prohibitions for agriculture. It also set performance standards to control construction site erosion, manage runoff from streets and roads and manage fertilizer use on large turf areas.

DATCP Administrative Rule ATCP 50 identifies conservation practices that farmers must follow to meet performance standards and prohibitions in NR 151. ATCP 50 also sets out the requirements for nutrient management plans.

Below are the performance standards and prohibitions. A Surface Water Quality Management Area (SWQMA) is the area within 300 feet of a stream, 1000 feet of a lake or in areas susceptible to groundwater contamination.

- $\Rightarrow\,$ All cropped fields and pastures shall meet the tolerable (T) soil erosion rate established for that soil
- \Rightarrow No tillage operation may be conducted within 5 feet of the top of the channel of surface waters. The area can be expanded to 20 feet in order to address soil erosion and stream bank integrity.
- ⇒ Croplands, pastures, and winter grazing areas shall average a phosphorus index of 6 or less over the accounting period and my not exceed a phosphorus index of 12 in any individual year within the accounting period
- \Rightarrow All new, substantially altered, or abandoned manure storage facilities shall be constructed, maintained or abandoned in accordance with

accepted standards. Failing and leaking existing facilities posing an imminent threat to public health or fish and aquatic life or violate groundwater standards shall be upgraded or replaced

- $\Rightarrow\,$ There may be no significant discharge of process waste water to waters of the state
- ⇒ Runoff from agricultural buildings and fields shall be diverted away from feedlots, manure storage areas and barnyards located within water quality management areas
- \Rightarrow Agricultural operations applying nutrients to agricultural fields shall do so according to a nutrient management plan
- \Rightarrow Manure management prohibitions
 - No overflow of manure storage structures
 - No unconfined manure piles in a water quality management area
 - No direct runoff from feedlots or stored manure into state waters
 - No unlimited livestock access to waters of the state in locations where high concentrations of animals prevent the maintenance of adequate or self-sustaining vegetative cover

What does this mean to Richland County and the Land Conservation Department (LCD)? The Land Conservation Department will have the primary responsibility for the implementation of the agricultural performance standards and prohibitions. The major transition found in NR 151 is that it truly moves the majority of non-point source water quality work in Wisconsin from a mostly voluntary program to a program based largely on landowner participation through the option of regulation. NR 151 lays the foundation for minimal expectations in regards to land use and management practices within the agricultural landscape.

The agriculture performance standards and prohibitions found in NR 151 require 70% cost-sharing be offered to change an existing cropland practice or livestock facility to bring them into compliance with the new standards. The opportunity exists for an increase to 90% cost-sharing if economic hardship is proven.

The cost-sharing requirement applies to sites not found in compliance prior to October 1, 2002. For those in Farmland Preservation, cost-sharing is not required to comply with the performance standards and prohibitions. That does not mean that cost-sharing will not be offered. Farmers who are in compliance on or after that date do not have a right to cost-sharing if they later fall out of compliance. Farmers who establish new facilities may be eligible for cost-sharing, but cost-sharing is not required for compliance. Those farms covered under a Wisconsin Pollution Discharge Elimination System (WPDES) permit (1000 + animal units) are not eligible for state cost-sharing to meet performance standards and prohibitions required under their permit.

Inventorying and tracking are important components of this process. As stated earlier, this will be done as staff time allows. Farmland Preservation participants will be checked during status reviews. Other priorities will be those farms with a complaint and those where it is seen to have a potential problem, especially if within 300 feet of a stream. On-site farm visits will be completed. The on-site visit will include one-on-one discussion with the landowner about the performance standards and prohibitions and which ones the landowner complies with. Options to bring the farm in compliance will also be discussed. Richland County is using a compliance form developed by the Wisconsin Department of Agriculture, Trade and Consumer Protection. The number, frequency and location of the on-site farm visits will strongly hinge on the current and future level of staff funding and resources that will be available.

Richland County LCD has a GIS layer available to visually tract who is in compliance. This layer is part of the County's Land Records system. Not all of the data has been entered, but hopefully the existing data will be entered within the next 2 years.

The next step will be to notify landowners, by letter, what standards and prohibitions they are or are not in compliance with as of that date. The LCC and LCD would then make an offer of cost-sharing to bring the farm into compliance.

If information and education, incentives and programs and partnerships do not bring about compliance, the LCC and LCD will take enforcement action. The Richland County LCD will take the lead role in the implementation of NR 151. The LCD will be working in close cooperation with DNR and other agencies towards a practical implementation process that serves all involved.

Richland County does not have any ordinances in place, nor will it in the near future, to enforce the agricultural performance standards and prohibitions, aside from provisions in the manure storage and livestock siting licensing ordinances and on lands claiming tax credits under the Farmland Preservation Program. Richland County may work with DNR to develop a Memorandum of Understanding for the enforcement of the agricultural performance standards and prohibitions in certain cases.

Richland County Land Conservation Department's ability to implement the NR 151 performance standards and prohibitions is dependent on the LCD receiving adequate funds to cover both staff and cost-sharing resources. It is anticipated that the DNR and DATCP will be the major financial resources Richland County will look to for partnership in this process.

NR 216 - Stormwater Discharge Permits

<u>Agriculture is **not** exempt</u> from the requirement to submit a notice of intent (NOI) for one or more acres of land disturbance for the construction of structures such as barns, manure storage facilities or barnyard runoff control systems. Construction of an agricultural building or facility must follow an erosion and sediment control plan consistent with s. NR 216.46, Wis. Adm. Code, including meeting the performance standards of s. NR 151.11, Wis. Adm. Code. <u>Agriculture **is** exempt</u> from this requirement for activities such as planting, growing, cultivating and harvesting crops for human or livestock consumption and pasturing of livestock as well as for sod farms and tree nurseries. NR 216 establishes the criteria and procedure for issuance of storm water discharge permits to limit the discharge of pollutants carried by storm water runoff into waters of the state.

County Regulations

Manure Storage Ordinance

This ordinance is administered by the LCC and LCD. It regulates the construction or alterations of manure storage facilities that are 3,500 cubic feet or 30 days storage, whichever is smaller. Landowners are required to obtain a permit before construction. The permit requires the design and installation of the facility meets NRCS Technical Standards. It also requires that a nutrient management plan be developed and submitted before the permit is issued. The original ordinance was enacted in October 1, 1999. The nutrient management plan required was nitrogen based. New state standards require nutrient management with phosphorus being the limiting factor. The ordinance was revised in 2008 to meet the new requirement and to require a nutrient management plan as long as the manure storage structure exists. The LCC and LCD will use this regulation to reduce polluted runoff delivery to ground and surface water.

Livestock Siting Licensing Ordinance

This ordinance was enacted in 2009. This ordinance regulates new and expanding livestock operations with more than 500 animal units. Operators are required to obtain a license before building or expanding and must meet certain performance standards and prohibitions related to animal waste handling and storage, nutrient management and runoff management. For existing operation at or expanding to 1000 + animal units or new operations 500+ animal units, odor control is also a requirement. The ordinance is enforced by the LCC and LCD instead of Zoning, so it is effective county-wide. Currently, only 11 or 16 townships in the county are county zoned. The LCC and LCD uses this regulation to reduce polluted runoff and sediment delivery to ground and surface water and to obtain compliance with the performance standards and prohibitions for agricultural runoff in NR 151.

Conservation Practices

Conservation practices are constructed practices or land management techniques that will reduce or prevent soil erosion and polluted runoff or reduce the amount of runoff that reaches surface and ground waters.

The Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) is responsible for developing and maintaining the list of cost-share practices to implement NR 151. A listing and description of those practices can be found in ATCP 50. They are as follows:

Access Roads Animal Trails & Walkways Barnyard Runoff Systems Residue Management Riparian Buffers Riparian Land Out of Production Contour Farming Cover Crop & Green Manure Critical Area Stabilization Diversions Field Windbreaks Filter Strips Grade Stabilization Structures Heavy Use Protection Land Out of Production (Cropland) Livestock Fencing Livestock Watering Facilities Manure Storage Closure Manure Storage System Milkhouse Waste System Nutrient and Pesticide Management Roofs Roof Runoff Systems Sediment Basins Sinkhole Treatment Streambank & Shoreline Protection Strip Cropping Subsurface Drains Terrace Systems Underground Outlet Waste Transfer Systems Wastewater Treatment Strips Waterway Systems Well Decommissioning Wetland Restoration

The USDA-NRCS Technical Standards contain the specifications for the design, construction, implementation and maintenance of these practices. Copies of the USDA-NRCS Technical Standards can be viewed on-line at http://efotg.ncrs.usda.gov/treemenuFS.aspx.

The Richland County LCD will promote the installation and use of conservation practices. The LCD will also assist county landowners with the design, installation and maintenance of the conservation practices by providing technical assistance and expertise.

Incentives

There are many ways to try to convince landowners to install conservation practices on their property. Incentives can play a significant role in obtaining voluntary compliance with performance standards and prohibitions. Incentives are usually monetary, but can also be in the form of public recognition.

Monetary incentives can help defray the costs of installing conservation practices, some of which are very expensive. This type of incentive is often connected with participation in Federal, State and Local programs. In addition to helping improve and protect the natural resources, the monetary incentives contribute to the economic growth and health of Richland County. Local contractors install the practice, buying supplies locally. The LCD will use monetary incentives to further the goals and objectives of this plan and to gain compliance with the performance standards and prohibitions. Examples of monetary incentives are:

- \Rightarrow Tax Credit- Farmland Preservation Program
- ⇒ Cost Sharing- Land and Water Resource Management, Environmental Quality Incentives Program, Targeted Resource Management Grant, Wisconsin Forest Landowner Grant Program

 \Rightarrow Rental Payments- Conservation Reserve Program, Conservation Reserve Enhancement Program

Another form of incentives is public recognition. Richland County LCC and LCD have and will continue to use the following to promote conservation:

- ⇒ Conservation Awards- Conservation Farmer, Wildlife Habitat Improvement, Forestry Improvement
- \Rightarrow Website- Before and After Pictures
- \Rightarrow Displays- Before and After Pictures
- \Rightarrow The Richland County LCC and LCD will continue to search for new programs and grant funds to provide incentives for county landowners.

Targeting and Priority Farm Strategy

Limited staffing resources and funding for conservation practices limit what of the actions in work plan Richland County will be able to perform. To be the most efficient, the LCC and LCD will target their actions and resources to critical areas in the County.

All farms in the county will need to be reviewed to ensure compliance with the standards and prohibitions, regardless of whether they are in programs that require compliance. Office records and documents such as conservation plans, cost-share agreements and animal waste storage facility permits will be used as part of the review process. Digital aerial photography, farmer interviews and in-field investigations of all sites will also be used. Compliance or noncompliance of each farm with each performance standard and prohibition will be recorded on a standard form and will be tracked with a computer spreadsheet. Results of the compliance reviews will be reported to DATCP annually during regular progress reporting.

Farms will be chosen for review on compliance with one or more of the standards and prohibitions using the priority ranking of one through seven. The committee decided not to list specific landowners in the plan at this time.

- 1. 303(d) & TMDL watersheds (Little Bear & Little Willow creeks)
- 2. Farmland Preservation (Working Lands Initiative) Participants who are found in non-compliance.
- 3. Farms within Surface Water Quality Management Areas (near lakes and streams) that are known to be or found to be in significant noncompliance with the standards and prohibitions that impact surface water
- 4. Other farms that are known to be or found to be in significant noncompliance with performance standards and prohibitions
- 5. Farms whose operators request a review or need one for program participation or a permit/license application
- 6. Land, that through survey data, monitoring or visual inventory, show a need for water quality improvement or soil loss reduction

- 7. Other farms within Surface Water Quality Management Areas
- 8. Watersheds where other partners are assessing natural resource
- conditions or targeting their own efforts to improve water quality

New critical areas may be created as a result of new resource inventories or modeling efforts.

Partnerships and Programs

There are many agencies and organizations in Richland County working to protect the natural resources. Each has their own mission and programs, but they all work toward a common goal to preserve the environment for future generations. None of the agencies and organizations have large enough staffs to carry out the work loads. Everybody has and will continue to work together to successfully implement the goals and objectives in this plan.

The Land Conservation Department will be the main agency to implement the Land and Water Resource Management (LWRM) Plan. The department provides technical assistance to landowners, financial assistance through state programs and education opportunities in cooperation with other agencies. Other responsibilities include implementation of the performance standards and prohibitions, farm plan status reviews and enforcement of the Manure Storage and Livestock Siting Licensing Ordinance.

The University of Wisconsin-Extension County Agents provide technical assistance and educational opportunities for Richland County landowners. They coordinate many of the educational activities and will assist in many of the educational activities to implement this plan. The Lower Wisconsin Basin Educator will assist in some of those activities as well, especially the well testing program.

The USDA-Natural Resources Conservation Service provides technical and financial assistance to land owners involved in Federal programs. Some of the resource concerns they focus on are soil erosion, water quality and nutrient management. NRCS has and will continue to be involved with the educational programs for landowners.

The USDA-Farm Service Agency provides financial assistance to landowners and manages many of the farm bill programs. They have been and will continue to be involved with some of the educational programs.

The DNR Forestry personnel provide technical assistance to landowners on forestry health, timber stand quality and quantity, and water quality and soil erosion in forested areas. They also assist landowners with timber sales and sign-ups for forestry programs and cost-sharing.

The DNR Lower Wisconsin River Basin staff will assist the LCC and LCD in the implementation and enforcement of the performance standards and prohibitions.

The Department of Agriculture, Trade and Consumer Protection provides technical and financial assistance to landowners through the county. Conservation practices are installed with their assistance.

The Richland County Zoning Department is the county department that issues permits and enforces land use ordinances such as Shoreline Ordinance, Floodplain Ordinance, Non-metallic Ordinance, Zoning Ordinance, Subdivision Ordinance, etc. Richland County's Comprehensive Land Use Plan is also administered by this department.

They will be involved with most of the goals and objectives concerning land use issues.

The Scenic Hills Chapter of the National Wild Turkey Federation has assisted the DNR Forestry in applying for and receiving grants to purchase equipment to improve wildlife habitat.

Southwest Badger Resource Conservation and Development (RC&D) is always looking for potential projects to improve and protect natural resources. There may be opportunities to work with them. They also have staff that is available to assist landowners with prescribed grazing and invasive species control.

Richland County is also currently working with the River Alliance of Wisconsin along with Southwest Badger RC&D on a Japanese Knotweed control project along Willow Creek. They have provided technical assistance on this project.

Different Trout Unlimited Chapters have assisted the county with stream bank protection projects in the past. They have provided voluntary labor in building L.U.N.K.E.R.S. and sometimes have provided funds to assist landowners in paying for projects along streams with DNR fishing easements. They also will be assisting us on a Japanese Knotweed control project along Willow Creek.

There is potential for partnerships with the Richland Center Wastewater Treatment Plant and the Richland Center Renewable Energy Plant (a new private wastewater treatment plant for some of the dairy processors in Richland Center). Both of these plants have contacted the Richland County LCD about the possibility of nutrient trading and/or adaptive management.

Many of the partners have specific programs that offer cost-sharing or annual payments to improve and protect the natural resources. The programs will assist Richland County in implementing the Land and Water Resource Management plan including the performance standards and prohibitions. The programs are:

Conservation Reserve Program (CRP)

This federal, USDA program provides annual rental payments for taking environmentally sensitive cropland out of production for 10 to 15 years. This land is usually highly erodible. The land must be planted and maintained in vegetative cover consisting of certain mixtures of trees, shrubs, forbs and/or grass species. Costsharing incentives and technical assistance are provided for planting and maintenance.

Conservation Reserve Enhancement Program (CREP)

This joint federal, state and local program provides annual rental payments up to 15 years for taking cropland and marginal pasture adjacent to surface water out of production. A strip of land adjacent to the stream must be planted and maintained in vegetative cover consisting of certain mixture of trees, forbs and/or grass species. This land is highly sensitive and, by putting land into this program, there is less sediment and nutrient getting into the streams. Cost-sharing incentives and technical assistance are provided for planting and maintenance of the vegetative strips. Landowners also receive an upfront, lump sum payment for enrolling in the program, with the amount of payment dependant on whether they enroll the program for 15 years or permanently.

Environmental Quality Incentives Program (EQIP)

This federal, NRCS, program provide technical assistance and cost-sharing to farm operators to install conservation practices to reduce soil erosion and polluted runoff delivery to ground and surface waters. Farmers compete annually for the limited funds. The LCD and LCC are members of the USDA Local Work Group that prioritizes resource concerns for this program.

Farmland Preservation Program (FPP)

This state program provides tax relief to farmland owners for maintaining their land in an agricultural use. This program is part of the Working Lands Initiative (WLI). Those participants in zoned townships must be in compliance with the Agricultural Performance Standards to remain eligible. The landowners in unzoned townships with existing agreements must be in compliance with the standard in place at the time of their agreement. Agricultural Enterprise Area (AEA) may be developed in any area of the county (zoned or unzoned) and landowners may sign new agreements in those areas if they are in zoned or unzoned townships.

LWRM Plan Implementation Cost-sharing Program

This cost-sharing program is administered by the LCD and Wisconsin DATCP. DATCP annually provides funds for landowners to cost-share the installation of conservation practices that are needed to accomplish the goals and objectives of the County's LWRM plan. The cost-share funds can be used throughout the County but are often targeted to certain areas or resource concerns.

Managed Forest Law

This DNR program provides a reduction in property taxes to woodland owners if they enroll their woodland into it for 25 to 30 years and develop and follow a forestry management plan. Technical assistance to develop the plans is provided by private consulting foresters and reviewed by DNR foresters. Woodlands cover must cover at least 10 contiguous acres to be eligible. Any sites with erosion problems are noted in the plan.

Targeted Resource Management (TRM) Grants

These competitive grants from DNR can be used to cost-share conservation practices for controlling polluted runoff from urban and agricultural sources. Grant funds must

be utilized in one to two years and are limited to \$150,000. Richland County has applied for the grant and did receive one for Melancthon Creek. This grant will be applied for in the future as needed.

Wetland Reserve Program (WRP)

This federal, USDA program, provides cost-share payments for restoring wetlands that have been previously altered for cropping. Landowners may enroll land for differing periods in time from 10 years to permanently. Percent cost sharing for restoration costs depend on the length of period or enrollment. A lump sum is paid for permanent or 30 year enrollment.

Wildlife Habitat Incentive Program (WHIP)

This federal, USDA program, provides cost-sharing payment to landowners for developing or improving fish and wildlife habitat on almost all types of land including cropland, woodlands, pastures and streams. Practices used for development and improvement of habitat include native plant community establishments, fencing of livestock out of sensitive areas and in-stream structures for fish.

Wisconsin Forest Landowner Grant Program (WFLGP)

This DNR program provides cost-sharing on conservation practices to private landowners for protecting and enhancement of their forested land, prairies and waters. This program allows qualified landowners to be reimbursed up to 65% of the cost of eligible practices. Practices must be identified in the landowner's Forest Stewardship Plan (except if applying for plan development) to be eligible for cost-sharing. USDA Program Cross Compliance

Many USDA programs require that participants comply with a higher level of conservation standards to maintain eligibility for the program and to receive incentives from it. The LCD works cooperatively with NRCS to provide program participants technical assistance in installing and maintaining conservation practices to meet these higher standards.

Wisconsin Pollution Discharge Elimination System (WPDES) Permit

This program, administered by the DNR, requires new and expanding large livestock operations of over 1,000 animal units (equivalent to 714 mature dairy cows) to obtain a State permit to operate. In order to obtain a permit, the operation must meet certain performance standards and prohibitions to prevent pollutant discharges to waters of the state. Permits can also be required for smaller operations that discharge significant amount of pollutants. Permit requirements are prescribed in section NR 216 of the Wisconsin Administrative Code.

Conclusion

All of the tools and strategies listed in this section will assist the County and its residents in achieving the goals and objectives in this plan. Not every tool and strategy will be used for every goal and objective, the use of a combination of them should help landowners adopt many of the necessary conservation practices to achieve them.

Richland County LCD can use several tools to evaluate and assess changes. In April of each year, the LCD completes and submits progress reporting to the DNR and DATCP. The Transect Survey, done yearly, can track crop erosion trends. The LCD will continue to complete the transect survey yearly. The county will, within the next two years, be tracking compliance with the performance standards and prohibitions by computer and will have it available as a GIS layer. The ability to inventory and track using GIS will prove to be the most valuable management tool Richland County has to evaluate the overall status of resource needs in the county. Having this layer available along with the DNR surface water data viewer will enable agencies and partners to plan stream evaluation and monitoring activities. If there is a concentration of Best Management Practices (BMP) installed in a watershed, it might prove to be a good site to monitor for improvement.

Evaluation of things such as number of nutrient management plans completed or number of farm plans reviewed are all items that can be measured and used in evaluation of the effectiveness of the plant. But such counting does not provide an accurate indication of improvements in water quality. Just because someone has completed a nutrient management plan does not mean the plan is being applied correctly. The effect of conservation practices on the environment is not possible to see in the stream in a few short years (e.g. 5 years). Long term water quality monitoring must be done to show progress.

There are several monitoring stations located in Richland County. The DNR Surface Water Viewer (<u>http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=SurfaceWaterViewer</u>) which has maps of all of those locations as well as other pertinent information. A copy of this map is located in Appendix E.

The Department of Natural Resources will continue baseline surveys of streams in the county to assess general condition and identify problem streams or watersheds. This includes sampling water chemistry, surveying fish and habitat. In addition, the department will continue to monitor waters on the 303(d) list of impaired waters to determine if they are meeting state water quality standards and their designated uses as described by Wisconsin Administrative Code. Streams will also be monitored to determine if they should be placed on the impaired waters list, which is submitted to the Environmental Protection Agency on a biennial basis. For water bodies place on the impaired waters list, the department will develop Total Maximum Daily Load (TMDL) studies. Long term trend monitoring will continue on the Wisconsin River for analyzing trends and general water quality conditions. *(Information provided by Jean Unmuth, DNR Water Biologist)*

Richland County submits annual reports to DNR and DATCP showing what the LCD has done including what has been accomplished towards compliance with the State Agriculture Performance Standards and Prohibitions.

BMPs	Best Management Practices
CREP	Conservation Reserve Enhancement Program
CRP	Conservation Reserve Program
DATCP	Department of Agriculture, Trade and Consumer Protection
DC	District Conservationist
DNR	Department of Natural Resources
EQIP	Environmental Quality Incentives Programs
FSA	Farm Service Agency
GIS	Geographic Information System
I&E	Information and Education
LWCB	Land and Water Conservation Board
LCC	Land Conservation Committee
LCD	Land Conservation Department
LWRM	Land and Water Resource Management
MOU	Memorandum of Understanding
NPS	Nonpoint Source Pollution
NOD	Notice of Discharge
NPM	Nutrient & Pest Management
NRCS	Natural Resources Conservation Service
PL-566	Public Law-566
RC&D	Resource Conservation and Development
RCRE	Richland Center Renewable Energy
RCWWTP	Richland Center Wastewater Treatment Plant
SWRM	Soil and Water Resource Management Program
"T"	Tolerable Soil Loss
USDA	United States Department of Agriculture
USGS	United States Geological Society
UWEX	University of Wisconsin-Extension
WALCE	Wisconsin Association of Land Conservation Employees
WCA	Wisconsin Counties Association
WDAC	Wildlife Damage Abatement & Claims Program
WFLGP	Wisconsin Forest Landowner Grant Program
WHIP	Wildlife Habitat Incentives Program
WLWCA	Wisconsin Land and Water Conservation Association
WRP Wetlar	nds Reserve Program

Definitions

303(d) Waters:

A list submitted to the U.S. Environmental Protection Agency, which identifies waters that do not meet water quality standards for specific substances or the designated use. This list is required under the Clean Water Act and determined by the Wisconsin DNR

Basin Water Quality Management Plans:

A plan to document water quality conditions in a drainage basin and make recommendations to protect and improve basin water quality. Each Wisconsin basin must have a plan prepared for it, according to Section 208 of the Clean Water Act.

Best Management Practice (BMP):

The most effective, practical measures to control non-point sources of pollutants that run off from land surfaces.

Class I Trout Stream:

High Quality trout waters that have significant natural reproduction to sustain populations of wild trout at or near carry capacity.

Class II Trout Stream:

Streams that may have some natural reproduction, but not enough to utilize available food and space. Stocking is required to maintain a desirable sport fishery.

Erosion:

The wearing away of land or soil by wind or water.

Exceptional Resource Waters:

Surface waters which provide outstanding recreational opportunities, support valuable fisheries, have unique hydrologic or geologic features, have unique environmental settings and are not significantly impacted by human activities. These waters may have point sources discharging directly to the water.

Geographic Information System (GIS):

A computer system used to organize data geospatially by mapping and creating layers of information that are geographically in place. Allows users to visualize data for analysis and decision making.

Groundwater:

Underground water-bearing areas generally within the boundaries of a watershed, which fill internal passageways of porous geologic formations with water that flows in response to gravity and pressure. Often used as the source of water for communities and industries.

Non-point Source Pollution:

Pollution whose sources cannot be traced to a single point such as a municipal or industrial wastewater treatment plant discharge pipe. Non-point sources include eroding farmland and construction sites, urban streets, and barnyards. Pollutants from these sources reach water bodies in runoff, which can best be controlled by proper land management.

NR 151:

State Administrative code that establishes runoff pollution performance standards for non-agricultural facilities and transportation facilities and performance standards and prohibitions for agricultural facilities.

Nutrient Management Plan:

A guidance document that provides fertilizer and manure spreading recommendations for crop fields based upon soil test results and crop needs. Plans are sometimes referred to as NRCS 590 plans for the Natural Resources conservation Service standard that guides the plan preparations.

Outstanding Resource Waters:

Surface waters which provide outstanding recreational opportunities, support valuable fisheries, have unique hydrologic or geologic features, have unique environmental settings and are not significantly impacted by human activities. These waters do not have point sources discharging directly to the water.

Performance Standards:

The land management activities or threshold levels necessary to reduce or eliminate negative effects on land and water resources.

Point Source Pollution:

Sources of pollution that have direct discharges, usually from a pipe or outfall.

Pollution:

The presence of materials or energy whose nature, location or quantity produces undesired environmental effects.

Prohibitions:

Land management activities that are not allowed by local or state regulatory process.

Riparian:

Belonging, living or relating to the bank of a lake, river or stream.

Riprap:

Broken rock, cobbles or boulders placed on the bank of a stream to protect it against erosion.

Runoff:

Water from rain, snowmelt or irrigation that flows over the ground surface and returns to streams and lakes. Runoff can collect pollutants from air or land and carry them to receiving waters.

Sediment:

Soil particles suspended in and carried by water as a result of erosion.

Tolerable Soil Loss (T):

The tolerable soil loss rate in tons per acre per year, commonly referred to as "T", is the maximum average annual rate of soil erosion for each soil type that will permit a high level of crop productivity to be sustained economically and indefinitely (ATCP 50.01(16)).

Total Maximum Daily Loads (TMDL):

The maximum amount of a pollutant that can be discharged into a stream without causing a violation of water quality standards.

Variance:

Government permission for a delay or exception in the application of a given law, ordinance or regulation.

Water Quality Management Area (WMQA):

An area defined as being within 1000 feet of a lake or 300 feet of a stream, river or tributary.

Watershed:

The land area that drains into a lake or river.

Wetlands:

Areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support a variety of vegetative or aquatic life. Wetland vegetation requires saturated or seasonally saturated soil conditions for growth and reproduction.

Appendix B- Work Plan

The work plan was developed using the goals, objectives and action plans decided by the Technical Committee. All of the staff costs and cost sharing included all of the agencies involved.

The objectives and actions in bold are priority activities to complete. Costs are based on a per year basis and include agencies listed.

DATCP	Department of Agriculture, Trade and Consumer Protection
DNR	Department of Natural Resources
FSA	Farm Service Agency
LCC	Land Conservation Committee
LCD	Land Conservation Department
NRCS	Natural Resources Conservation Service
PL-566	Public Law-566
RC&D	Resource Conservation and Development
RCRE	Richland Center Renewable Energy
RCWWTP	Richland Center Wastewater Treatment Plant
TU	Trout Unlimited
UWEX	University of Wisconsin-Extension

There are several places in the work plan where monitoring for compliance with State Agriculture Performance Standards and Prohibitions are listed. Richland County will try to inventory/monitor 50 farms per year plus 20 farms in priority areas such as 303(d) waters, TMDL streams and within 300 feet of a stream. Those 70 farms are to have a full review including the farm plan review and inventoried for compliance with the performance standards and prohibitions. Some of those 70 farms will also be those in Farmland Preservation Program (FPP) in which we monitor once every five years for compliance (approximately 120 plans per year.) If there are enough staff available, it is hoped to do a complete inventory of 2 watershed in 5 years.

There is a section near the end of the work plan titled "Other Activites." These activities are important work Richland County will do, but they do not fall under any one particular goal. Many are ways to educate the public on a wide variety of resources. Others are activities that do help Richland County improve the environment and may help meet the standards and prohibitions.

Objective: Educate landowners about how to protect established conservation practices and implementing new conservation practices					
Action	Anticipated Outcomes	Responsible Agencies	Staff Time	Cost Sharing	Time Frame
Develop a list of best management	BMP list available for	LCD , NRCS, FSA, DNR	30 hrs	\$0.00	2013-2014
practices	distribution				
Discuss the need to have a lease and	Model lease given to	UWEX, LCD, NRCS, FSA,	100 hrs	\$0.00	2014-2017
provide landowners information that	landowners with conservation				
should be part of a lease agreement	emphasis				
Objective: Reduce soil erosion from continuous	row crops				
Action	Anticipated Outcomes	Responsible Agencies	Staff Time	Cost Sharing	Time Frame
Assist producers in installing contour	300 ac of contour strips,	LCD, NRCS	300 hrs	\$0.00	2013-2017
buffer strips and contour strip	400 ac of buffer strips				
cropping					
Educate producers and landowners	BMP list given out to absentee	LCD, NRCS, FSA, DNR,	200 hrs	\$0.00	2013-2017
about importance of using no-till,	and expiring CRP landowners,	UWEX			
contour buffers and grassed	Rented cropland have				
waterways	conservation practices				
Implement performance standard	All Farmland Preservation	LCD, NRCS	1500 hrs	\$0.00	2013-2017
of farming to "T"	and nutrient management				
	participants in compliance				
Objective: Prevent and reduce gully erosion					
Action	Anticipated Outcomes	Responsible Agencies	Staff Time	Cost Sharing	Time Frame
Educate producers and landowners	100 landowners given BMP list,	UWEX, LCD, NRCS, FSA,	300 hrs	\$0.00	2013-2017
on how to prevent and reduce	Hold 1 demo of BMP's	DNR			
gully erosion					
Provide technical assistance to	10 grade stabilization structures	LCD, NRCS, DNR	1000 hrs	\$60,000.00	2013-2017
landowners to install, repair and	installed, 15 landowners				
maintain practices for gully erosion	referred to peer network				
Maintain County PL-566 structures	Dams annually inspected, brush	LCD	250 hrs	\$25,000.00	2013-2017
to prevent erosion and flooding	removed, make repairs			County funds	

Objective: Prevent and reduce streambank erosion and enhance stream quality					
Action	Anticipated Outcomes	Responsible Agencies	Staff Time	Cost Sharing	Time Frame
Promote rotational grazing plans along	5 grazing plans written,	NRCS, UWEX, LCD	150 hrs	\$10,000.00	2013-2017
streams and educate producers on	3 demonstrations of rotational				
how not to overgraze stream banks	grazing, BMP list given to 10				
	producers, have most current				
	research available to producers				
Provide technical assistance and	10,000 ft of streambank	LCD, NRCS	750 hrs	\$200,000.00	2013-2017
cost sharing to install stream crossing,	protections, 5 stream crossings,	RCRE, RCWWTP		\$10,000.00	
stream bank protection and other	5 landowners referred to				
practices	peer network				
Work with partners to provide	5 contacts with grazing groups,	LCD, NRCS	50 hrs	\$0.00	2013-2017
assistance to landowners	5 contacts with Trout Unlimited				
Implement the performance standard	All Farmland Preservation	LCD	500 hrs	\$0.00	2013-2017
of maintaining adequate vegetation	participants meet, 5 complaints				
on pastured stream banks	handled				

Goal: Enhance, Maintain and Protect the Surface Water and Groundwater Quality

Objective: Educate rural landowners and producers on how to protect surface water and groundwater						
Action	Anticipated Outcomes	Responsible Agencies	Staff Time	Cost Sharing	Time Frame	
Develop a list of best management	Have list available,	UWEX, LCD, NRCS	30 hrs	\$0.00	2013-2014	
practices to protect surface and	distribute list					
groundwater						
Educate landowners on potential	1 demonstration on	UWEX, LCD, NRCS	200 hrs	\$0.00	2013-2017	
sources of contaminants in	groundwater, have handouts,					
groundwater	30 people test wells					
Educate landowners on the link	Handouts developed, hold 1	DNR	75 hrs	\$0.00	2013-2017	
between low nitrates in surface water	demonstration					
and the potential for high nitrate						
levels in drinking water wells						

Objective: Reduce sources of pollution to surface water and groundwater					
Action	Anticipated Outcomes	Responsible Agencies	Staff Time	Cost Sharing	Time Frame
Promote and cost-share rotational	4 grazing plans developed	NRCS, LCD	25 hrs	\$16,000.00	2013-2017
grazing plans along surface water		RCRE, RCWWTP			
Promote and enroll grass buffers along	20 acres enrolled in CREP	LCD, NRCS, FSA	100 hrs	\$7,000.00	2013-2017
streams through programs such as CREP		RCRE, RCWWTP			
Provide technical assistance and	10,000 ft of stream bank protect.	LCD, NRCS	750 hrs	\$200,000.00	2013-2017
cost-sharing to install stream	5 stream crossings	RCRE, RCWWTP		\$10,000.00	
crossings, stream bank protection	5 landowners referred to peer				
and other practices	network				
Implement performance standards and prohibitions	All Farmland Preservation	LCD	1000 hrs	\$20,000.00	2013-2017
within 300 feet of a stream	participants in compliance,				
	5 others in compliance				
Enforce Manure Storage Ordinance	5 storage permits issued	LCD	200 hrs	\$0.00	2013-2017
and Livestock Siting Ordinance	1 livestock siting permit issued				
Maintain Ash Creek Community Forest	Willows controlled, stream	LCD, DNR	250 hrs	\$10,000.00	2013-2017
to demonstrate stream bank practices	bank erosion controlled, 1				
and water quality	demonstration at site, county				
	and state funding used				
Promote and cost share proper	10 wells properly abandoned	LCD, NRCS, UWEX	100 hrs	\$9,000.00	2013-2017
well abandonment					
Promote septic system maintenance	15 failing septic systems	Zoning	225 hrs	\$50,000.00	2013-2017
program	replaced, maintenance				
	ordinance enforced				

Objective: Educate landowners and producers on nutrient and manure management					
Action	Anticipated Outcomes	Responsible Agencies	Staff Time	Cost Sharing	Time Frame
Council with landowners about	50 landowners consulted	LCD, NRCS, UWEX	150 hrs	\$0.00	2013-2017
nutrient management	on nutrient management				
Offer farmer training classes for	25 farms trained, 2500 acres of	LCD, NRCS, UWEX	150 hrs	\$0.00	2013-2017
nutrient management	nutrient management plans				
Hold field days that promote	1 demonstration on spreading	LCD, NRCS, UWEX	75 hrs	\$0.00	2013-2017
nutrient and manure management	rates, 1 demo on spreading sites				
Promote soil sampling and testing	20 new farmers soil test,	LCD, NRCS, UWEX	50 hrs	\$0.00	2013-2017
	1 demonstration on soil				
	sampling				
Hold a manure spill demonstration	1 manure spill demonstration,	LCD, , UWEX	100 hrs	\$0.00	2013-2017
	manure storage permit holders				
	invited, manure haulers				
	invited, CAFO's invited				
Work with producers when they	Inform producers when they	LCD	75 hrs	\$0.00	2013-2017
receive a manure storage permit	shouldn't be spreading, refer				
	producer to manure storage				
	peer network				
Provide information to producers on	Spreading alerts on radio,	LCD, NRCS, UWEX	25 hrs	\$0.00	2013-2017
when and where they shouldn't	producers are spreading at				
spread	appropriate times and rates				
Objective: Assist producers with nutrient and ma	nure management				
Action	Anticipated Outcomes	Responsible Agencies	Staff Time	Cost Sharing	Time Frame
Provide cost-sharing for nutrient	15,000 acres of new nutrient	LCD, NRCS	250 hrs	\$105,000.00	2013-2017
management plans	management plans	RCRE, RCWWTP			
Provide technical assistance to	30 producers receive assistance	LCD, NRCS	400 hrs	\$0.00	2013-2017
landowners and producers					
Assist producers in weighing manure	15 spreaders weighed	LCD	50 hrs	\$0.00	2013-2017
spreaders and spreading rates					
Implement the performance standard	All Farmland Preservation	LCD	1000 hrs	\$0.00	2013-2017
for nutrient management	participants in compliance				

Goal: Reduce and Prevent Occurrences of Manure Spills

Objective: Assist producers who have a spill					
Action	Anticipated Outcomes	Responsible Agencies	Staff Time	Cost Sharing	Time Frame
Provide information to producers on	Create a list of local and state	LCD, UWEX, DNR	30 hrs	\$0.00	2013-2017
who to contact in case of a spill	contacts and give to all				
	producers with storage				
In the event of a spill,	Manure spill contained,	LCD, DNR	75 hrs	\$0.00	2013-2017
provide technical information on how	technical assistance provided				
to contain a spill					
In the event of a spill, facilitate	Meet with producers and DNR	LCD	75 hrs	\$0.00	2013-2017
discussion between producers and	to resolve situation				
DNR					

Goal: Prevent and Control the Spread of Invasive Species

Objective: Educate on how to prevent and control the spread of invasive species					
Action	Anticipated Outcomes	Responsible Agencies	Staff Time	Cost Sharing	Time Frame
Provide information to landowners	Pass out information, meet	LCD, DNR, Southwest	100 hrs	\$0.00	2013-2017
about invasive species	with landowners	Badger			
Provide information to the county	County highway and township	DNR , LCD, UWEX	75 hrs	\$0.00	2013-2017
highway department and townships	personnel will not spread				
on how to identify and prevent the	invasives while mowing				
spread of invasive species					

Objective: Preventing and controlling the spread of invasive species						
Action	Anticipated Outcomes	Responsible Agencies	Staff Time	Cost Sharing	Time Frame	
Identify location of newly	New sites identified and	DNR, Southwest Badger,	150 hrs	\$0.00	2013-2017	
identified invasive species	mapped	LCD				
Apply for grants to control small	Grants received to eradicate	LCD, Southwest Badger	35 hrs	\$20,000.00	2013-2017	
invasive species sites	invasives					
Work with landowners and others	Invasives controlled or	LCD, DNR, Southwest	250 hrs	\$0.00	2013-2017	
to remove invasive species	eradicated by landowners	Badger				
Encourage CRP participants to	CRP fields have invasives	FSA, NRCS, LCD	75 hrs	\$0.00	2013-2017	
control invasives on their fields with	controlled					
permission from Farm Service Agency						

Goal: Improve the Quality of Forests

Objective: Educate landowners on proper forestry management					
Action	Anticipated Outcomes	Responsible Agencies	Staff Time	Cost Sharing	Time Frame
Refer landowners to Woodland	50 landowners referred	DNR, LCD, NRCS	50 hrs	\$0.00	2013-2017
Advocates					
Hold forestry field days	Field day held	DNR, UWEX	100 hrs	\$0.00	2013-2017
Refer landowners to DNR Foresters	30 landowners referred	LCD, NRCS, FSA	30 hrs	\$0.00	2013-2017
Use Ash Creek Community Forest as	2 education event held	DNR, UWEX, LCD	50 hrs	\$0.00	2013-2017
an education site					
Objective: Reduce runoff and erosion from fores	ts				
Action	Anticipated Outcomes	Responsible Agencies	Staff Time	Cost Sharing	Time Frame
Encourage producers to not pasture	10 producers stop pasturing	DNR, LCD, NRCS	50 hrs	\$40,000.00	2013-2017
their woods	woods				
Provide technical assistance to	10 Logging and access roads	DNR, LCD, NRCS	250 hrs	\$12,000.00	2013-2017
landowners and loggers to reduce	repaired				
erosion from logging and access roads					
Provide information to landowners	10 contracts with erosion	DNR	300 hrs	\$0.00	2013-2017
on what should be included in a	control measures				
contract with loggers					
Encourage landowners to plant trees	250000 DNR nursery trees and	DNR, LCD	600 hrs	\$175,000.00	2013-2017
where needed	19000 LCD trees planted				

Goal: Develop a Peer-to-Peer Network

Objective: Provide opportunity for landowners to talk with other landowners about programs and practices						
Action	Anticipated Outcomes	Responsible Agencies	Staff Time	Cost Sharing	Time Frame	
Find producers and landowners to	Have peer group for general	LCD, NRCS, UWEX, FSA	100 hrs	\$0.00	2013-2014	
provide guidance to others	conservation and manure					
	storage					
Provide training for those people	Peer groups trained	LCD, NRCS, UWEX, FSA	200 hrs	\$0.00	2014-2015	
selected to be part of the network						
Promote the members of the	20 landowners referred to peer	LCD, NRCS, UWEX, FSA,	200 hrs	\$0.00	2015-2017	
peer-to-peer network	network	DNR				

Plan Implementation Budget

Developing a funding plan for 5 to 10 years is difficult because of the unknown cost increases. Added to that, is the current economic situation at both the state and local level that adversely affects budgets. Richland County makes use of the state costshare money received from DATCP as well as money available through DNR programs as applicable. This cost-share money is and will continue to be used to assist landowners address the priorities in this plan. Richland County and the NRCS Field Office will continue to work together to develop a strategy to best utilize federal funds such as Environment Quality Incentives Program (EQIP) and Wildlife Habitat Incentives Program (WHIP) and the State cost-share funds to achieve the goals in this plan. Other sources of funds, such as those from Trout Unlimited, will be used as available to assist landowners in the implementation of practices. The numbers below reflect a potential increase in costs of installing practices making it necessary to increase the budget in 5 years.

Staff funding is harder project as levy limits, lower property values and lower state revenues affect the County budget. The staff costs projected below is based on the current 4 staff with a 3% increase annually in salary and fringe benefits.

	Cost-share	Staffing Cost
2013	\$200,000	\$227,509
2014	\$200,000	\$234,334
2015	\$200,000	\$241,364
2016	\$200,000	\$248,605
2017	\$200,000	\$256,064
2018	\$250,000	\$263,745
2019	\$250,000	\$271,658
2020	\$250,000	\$279,807
2021	\$250,000	\$288,202
2022	\$250,000	\$296,848

Appendix C- Committee Members and Reports

Advisory Committee

Jerry Gander		
Toney Garrelts		
Kevin Kepler		
Ty Martin		
Carl Oman		
Otis Scott		
Stuart Smith		
Joe Triggs		
Tim Willis		

National Wild Turkey Federation-Dayton Township Cash Grain Producer-Buena Vista Township Dairy Producer-Sylvan Township Badgerland Financial-Excavation Contractor- Richland Center Beef Producer-Rockbridge Township Rural Resident-Orion Township Woodland Owner, Beef Producer- Marshall Township Town of Willow Board, Agribusiness

The Advisory Committee met twice, January 25th and February 8th. Below is the brief minutes and resulting list of resource concerns.

Citizen Advisory Committee March 5, 2012

The Citizen Advisory Committee met on March 5, 2012 at 7:30 p.m. at the Ag Service Center. Those present were Joe Triggs, Otis Scott, Carl Oman, Kevin Kepler, Ty Martin, Stewart Smith, Tim Willis, Jerry Gander, Toney Garrelts and Cathy Cooper.

Cathy explained the purpose of the meeting and that the top resource concerns selected at the end of the process would become the goals of the plan. A question came up concerning budget constraints and would it affect what resource concerns could be addressed. Cathy explained the budget issues, but that this plan would give direction to the staff. She also explained that this also helps NRCS (Natural Resources Conservation Service) focus their efforts.

The group then went around the room and came up with these concerns:

- 1. Need to educated rural landowners who rent out their land as to what are good conservation practices are. This could be in the form of pamphlets, brochures
- 2. There needs to be gully protection with dams to control erosion, prevent runoff and flood prevention
- 3. Need to stop erosion in small draws (prevent progression of gullies up the hill)
- 4. Keep cattle out of sensitive areas such as streams, wet areas and erodible areas.
- 5. Need to have more stream crossings for cattle to prevent stream erosion
- 6. Need to stop fence row to fence row cropping systems (continuous row cropping) without proper conservation practices. Too much erosion

- 7. Set up peer-to-peer network to guide and give advice to landowners and producers about conservation and conservation programs
- 8. At the county level, preventing manure spills and assisting producers that have manure spills.
- 9. Producer education on who to contact with manure spills.
- 10. Preventing and repairing streambank erosion
- 11. Diverse CRP mixes with more wildlife benefits- entice recreational landowners to put land in CRP to bring in wildlife
- 12. Controlling wind erosion in SE part of county (Lone Rock area) with cost-share for vertical tillage and trees for windbreaks.
- 13. Obstructions in streams causing erosion on the banks. Cleaning up obstructions would also improve recreational opportunities
- 14. Assist farmers with Agricultural Enterprise Areas if there is an interest
- 15. Contact new landowners at time of land sale
- 16.Educate public about source of high nitrates and what producers are doing to control nitrates
- 17.Slow the sale of low areas to the state. Assist landowners and producers to continue farming and owning the land.
- 18. How to control frac sand mining in county. (None occurring at this time)
- 19. Hold land education days (like the forestry days) to show farmers and nonfarmers acceptable land practices.
- 20. Increase Amish outreach to teach them best management practices for cropland and pasture (contour farming, rotational grazing, etc)

The committee will meet on Monday, March 12 at 7:30 p.m. to make any additions to concerns, rank and classify the concerns.

Citizen Advisory Committee March 12, 2012

The Citizen Advisory Committee met on March 12, 2012 at 7:30 p.m. at the Ag Service Center. Those present were Joe Triggs, Otis Scott, Carl Oman, Kevin Kepler, Ty Martin, Tim Willis, Jerry Gander, Toney Garrelts and Cathy Cooper.

The resource concerns from the March 5th meeting were posted around the room. Cathy had a few more concerns for the committee to discuss. 4 concerns were added (21-24). Then the committee looked at the concerns and combined a few together.

Below is the final list of concerns:

- 1. Need to educate rural landowners who rent out their land as to what are good conservation practices. This could be in the form of pamphlets, brochures
- 2. There needs to be gully protection with dams and other practices to control erosion, prevent runoff, flood prevention and prevent the progression of gullies up the hill.

- 3. Need to stop erosion in small draws (prevent progression of gullies up the hill) *Added to #2*
- 4. Keep cattle out of sensitive areas such as streams, wet areas and erodible areas.
- 5. Need to have more stream crossings for cattle to prevent stream erosion *Reworded to say*: Prevent and repair stream bank erosion by installing stream crossings, controlling cattle access to stream and remove obstructions.
- 6. Need to stop fence row to fence row cropping systems (continuous row cropping) without proper conservation practices. Too much erosion
- 7. Set up peer-to-peer network to guide and give advice to landowners and producers about conservation and conservation programs
- 8. At the county level, preventing manure spills and assisting producers that have manure spills by providing education and advice on who to contract with manure spills, the appropriate times to spread and the appropriate distances from water.
- 9. Producer education on who to contact with manure spills. Added to #8
- 10. Preventing and repairing stream bank erosion Added to #5
- 11. Diverse CRP mixes with more wildlife benefits- entice recreational landowners to put land in CRP to bring in wildlife
- 12. Controlling wind erosion in SE part of county (Lone Rock area) with cost-share for vertical tillage and trees for windbreaks.
- 13.Obstructions in streams causing erosion on the banks. Cleaning up obstructions would also improve recreational opportunities Added to #5
- 14. Assist farmers with Agricultural Enterprise Areas if there is an interest
- 15. Contact new landowners at time of land sale
- 16. Educate public about source of high nitrates and what producers are doing to control nitrates
- 17.Slow the sale of low areas to the state. Assist landowners and producers to continue farming and owning the land.
- 18. How to control frac sand mining in county. (None occurring at this time. Give to Zoning)
- 19. Hold land education days (like the forestry days) to show farmers and nonfarmers acceptable land practices (including ATV, mountain bike and horse riding clubs)
- 20. Increase Amish outreach to teach them best management practices for cropland and pasture (contour farming, rotational grazing, etc)
- 21. Control erosion from driveways, roads and logging roads.
- 22. Controlling and preventing the spread of invasive species.
- 23. Working with producers on applying appropriate amounts of on-farm and offfarm nutrient. (Committee is concerned with requiring landowners with small acreages to completed nutrient management plans)
- 24. Preventing groundwater pollution by properly abandoning well and diverting surface water around sink holes.

The committee members were then handed little post-it notes to rank their top 5 concerns. These would be the priorities in the plan with the rest being address as time and money would allow. The top votes were #1, #6, #23, #7, #2, #16, and #22.

The main categories were discussed. Some of these would fall under several categories. They were Soil Erosion, Water Resources, Nutrient and Manure Management and Forestry.

This committee would like to be informed of the decisions of the technical committee and be able to comment on the decisions of the technical committee. Cathy will send information out.

The committee adjourned at 9:35 p.m.

Advisory Committee Resource Concerns

- 1. Need to educate rural landowners who rent out their land as to what are good conservation practices. This could be in the form of pamphlets, brochures
- 2. There needs to be gully protection with dams and other practices to control erosion especially in small draws, prevent runoff, flood prevention and prevent the progression of gullies up the hill.
- 3. Keep cattle out of sensitive areas such as streams, wet areas and erodible areas.
- 4. Prevent and repair stream bank erosion by installing stream crossings, controlling cattle access to stream and remove obstructions.
- 5. Need to stop fence row to fence row cropping systems (continuous row cropping) without proper conservation practices. Too much erosion
- 6. Set up peer-to-peer network to guide and give advice to landowners and producers about conservation and conservation programs
- 7. At the county level, preventing manure spills and assisting producers that have manure spills by providing education and advice on who to contract with manure spills, the appropriate times to spread and the appropriate distances from water.
- 8. Diverse CRP mixes with more wildlife benefits- entice recreational landowners to put land in CRP to bring in wildlife
- 9. Controlling wind erosion in SE part of county (Lone Rock area) with cost-share for vertical tillage and trees for windbreaks.
- 10. Assist farmers with Agricultural Enterprise Areas if there is an interest
- 11. Contact new landowners at time of land sale
- 12. Educate public about source of high nitrates and what producers are doing to control nitrates
- 13. Slow the sale of low areas to the state. Assist landowners and producers to continue farming and owning the land.
- 14. How to control frac sand mining in county. (None occurring at this time. Give to Zoning)
- 15. Hold land education days (like the forestry days) to show farmers and nonfarmers acceptable land practices (including ATV, mountain bike and horse riding clubs)

- 16.Increase Amish outreach to teach them best management practices for cropland and pasture (contour farming, rotational grazing, etc)
- 17. Control erosion from driveways, roads and logging roads.
- 18. Controlling and preventing the spread of invasive species.
- 19. Working with producers on applying appropriate amounts of on-farm and offfarm nutrient. (Committee is concerned with requiring landowners with small acreages to completed nutrient management plans)
- 20. Preventing groundwater pollution by properly abandoning well and diverting surface water around sink holes.

Technical Committee

Ken Anderson	LCD Conservation Technician	
Mike Bindl	Zoning Adminstrator	
JoAnn Cooley	FSA County Executive Director	
Cathy Cooper	LCD County Conservationist	
Mike Vollrath	DNR Specialist	
John Exo	Lower Wisconsin Basin Educator	
Adam Hady	UWEX Agriculture Agent	
Mike Finlay	DNR Forester	
Todd Kenefick	DNR Forest/Ranger	
Steve Kohlstedt	UWEX Resource Agent	
Kent Marshall	LCD Conservation Planner	
Carlton Peterson	NRCS District Conservationist	
Jean Unmuth	DNR Biologist	

The Technical Committee met four times: March 16th, April 13th, May 3rd and June 6th. The task of the committee was to take the resource concerns and develop goals, objectives and action plans.

State of Wisconsin



Richland County Municipalities



Richland County Watersheds

















