

Waushara County
Land and Water Resource Management Plan

December 2021

Created according to Wisconsin State Statutes 92.10 and under the jurisdiction of the Waushara County Land/Water & Education Committee

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Plan Summary

In 1997 the Land and Water Resource Management Plan concept became law as Chapter 92.10 of the Wisconsin Statutes was amended. This created a County Land and Water Resource Management Planning Program that is intended to:

- rely on a locally driven process for plan development and implementation;
- maximize flexibility in how program funds are used;
- foster comprehensive efforts without excessive planning;
- support innovation and cost effectiveness toward achieving objectives;
- foster the “seamless” integration of programs and funding sources; and
- establish a credible means to measure the extent to which planned objectives are achieved.

This plan provides structured means that will integrate and leverage available programs, funds, and other resources to:

- guide the process for resource management planning and decision making;
- evaluate land and water resource conditions;
- identify land and water related resource problems and priorities;
- develop a multi-year work plan to address land and water resource problems;
- strengthen partnerships with landowners, other agencies, municipalities, and organizations;
- develop effective information and education strategies that will strengthen and maintain community support for the Land and Water Resource Management Plan goals and objectives; and track progress toward the achievement of the plan’s goals and objectives.

The driving force behind the development of the Waushara County Land and Water Resource Management Plan is the opportunity to establish a true locally driven process. Individual citizens, units of government, local, state, and federal agency representatives working together to develop a framework which:

- 1) positively integrates natural resource management programs
- 2) establishes an effective information and education strategy
- 3) secures funding sources that provide the necessary flexibility to allocate staff and financial resources where they will do the most toward accomplishing resource management objectives

Waushara County initiated public participation in 2021 by sending surveys to Town Board Chairs. The countywide survey was used to receive input on citizen’s environmental concerns. Common areas of concern appeared consisting of:

Groundwater quality and quantity	Surface & storm water runoff
Agricultural and urban runoff	Disposing & handling of manure and septic waste
Invasive species	Wind erosion
Information & education	Wildlife damage

An Advisory Committee was established to use the comments and recommendations from the survey results to develop the LWRM plan. Committee members used information from DNR, Non-Point Source Watershed Rankings, Outstanding Resource Waters (ORW) and Exceptional Resource Waters (ERW) to evaluate the conditions of Waushara County. The CAC held a meeting on February 10th, 2021. The revised Land and Water Resource Management Plan was discussed and approved by the

Waushara County Land, Water & Education Committee at the public hearing held October 6, 2021 at the Waushara County Courthouse. The plan will be taken to the County Board on December 21, 2021 for approval. This plan, because of its locally led direction, has to be reviewed and updated as new information collected is used to fine tune priorities of implementation.

Basin Assessment

Waushara County is primarily a rural setting that is feeling the development pressure from nearby large cities such as Oshkosh, Stevens Point and Wisconsin Rapids, all within an hour drive of the County. This pressure has seen the LCD evolve as a total resource concern agency, not just focusing on agriculture related concerns as was the past. Misuse of the land and water resources within the Fox, Wolf & Wisconsin River Basins is widespread and the main source of nonpoint pollution. The direct loading of sediments and nutrients into surface & ground water, results in increased turbidity and fluctuations in dissolved-oxygen in the water column.

Basin Goals and Objectives

In the past ten years broad public involvement in natural resource management issues has generated an overall goal that calls for the restoration of water bodies throughout Waushara County from future impacts of nonpoint source pollution. The success of reaching that goal is dependent on achieving reductions in nonpoint source pollution. This long-term objective is totally dependent upon pollutant load reductions through improved land use and land management throughout the Fox, Wolf, & Wisconsin River Basins.

Activities

The plan details how Waushara County LCD will implement the NR 151 Agricultural Performance Standards and Prohibitions. To address NR 151, the plan details the priority farms identification process and ranking system to bring all non-compliant farms into compliance. To accomplish the Plan goals, the primary objective is to work with landowners one-on-one to achieve compliance with the Agricultural Performance Standards and implement other erosion control and land management practices to reduce pollutant loading. Work plans are completed annually and reviewed annually to track and evaluate progress.

Waushara County endorses an approach that focuses on integration of the Land Conservation Department programs and services with individual citizens, groups, organizations, other agencies, and units of government working throughout the three River Basins. This is not a new concept, more so it has been the County's approach for several years. This Land & Water Resource Management Plan is a revised and dynamic guide that builds upon past accomplishments in order to help carry out future work. It serves to identify and reduce nonpoint source pollution abatement in Waushara County during the next 10 years.

Waushara County's continued Commitment is to:

- Provide technical and financial assistance for the implementation of cost-effective Best Management Practices (BMPs) at priority sites in order to achieve the greatest pollutant load reduction possible;
- Provide technical and financial assistance for the implementation of cost-effective BMPs that help to support or improve the economic vitality of rural and urban communities;
- Pursue any and all applicable financial resources that will support this Plan;
- Strengthen the working relationships with DNR Basin Teams and staff, other agencies, groups, and units of government in an on going effort to achieve the mutual goal of natural resource improvement and protection throughout the entire Fox-Wolf –WI River Basins.

Waushara County's Land & Water Resource Management Plan

- Is developed around concerns and recommendations from involved citizens, organizations, governmental units, and agencies throughout the county and the Fox, Wolf & WI River Basin.
- Identifies priorities, needs, and goals for achieving the Plan objectives.
- Identifies true integration of local, state, and federal programs as the key to improving and sustaining effective service delivery to the public.
- Increases efficient use of funding for the implementation of Best Management Practices (BMPs) at priority locations throughout the county.
- Provides a mechanism to ensure that the Plan objectives contribute toward achievement of basin-wide natural resource management goals and objectives.

Conclusion

In developing this Land & Water Resource Management Plan, it is important to review past goals and objectives identified through similar efforts based on extensive public participation. It is equally important to recognize that most of the resource issues and concerns that have been identified in the past are still with us. The magnitude and scope of those issues and concerns may have changed, but the hard fact is they still exist. As our population increases, so do the demands and pressures on our resources. Our challenge is to make the right decisions and take the necessary actions to maintain that critical balance between societal growth and our natural resources – the very resources that we claim to value so highly.

The extent to which this Land and Water Resource Management Plan is successful, depends entirely upon continued community support, landowner participation, maintaining sufficient numbers of competent staff working to meet the objectives, securing necessary funding to accomplish plan objectives, and establishing true integration of county, state, and federal programs. With these essential elements in place, these natural resource management objectives can be accomplished.

Waushara County Ecosregions

Legend

-  County Boundaries
-  Civil Towns
-  Civil Towns
-  Cities and Villages
-  Village
-  City
-  City
- Ecological Landscapes**
-  Central Lake Michigan Coastal
-  Central Sand Hills
-  Central Sand Plains
-  Forest Transition
-  North Central Farms
-  Northwest Sands
-  Northeast Highland
-  Northern Lake Michigan Coastal
-  Northwest Lowlands
-  Northwest Sands
-  Southeast Glacial Plains
-  Southern Lake Michigan Coastal
-  Southwest Corridor
-  Superior Coastal Plain
-  Western Corridor and Ridge
-  Western Plains



Scale: 1:336,552
DO NOT USE FOR NAVIGATION

Ecoregion Descriptions

Southeast Glacial Plains Ecoregion

General Description

The Southeast Glacial Plains Ecological Landscape is made up of glacial till plains and moraines. Most of this Ecological Landscape is composed of glacial materials deposited during the Wisconsin Ice Age. Soils are lime-rich tills overlain in most areas by a silt-loam loess cap.

Agricultural and residential interests throughout the landscape have significantly altered the historical vegetation. Most of the rare natural communities that remain are associated with large moraines or in areas where the Niagara Escarpment occurs close to the surface.



Vegetation

Agricultural and urban land use practices have drastically changed the land cover of the Southeast Glacial Plains since Euro-American settlement. The current vegetation is primarily agricultural cropland. Remaining forests occupy only about 10% of the land area and consist of maple-basswood, lowland hardwoods, and oak.

Hydrologic Features

The Southeast Glacial Plains has the highest aquatic productivity for plants, insects, invertebrates, and fish, of any Ecological Landscape in the state. Significant river systems include the Mukwonago, Wolf, Sheboygan, Milwaukee, Rock, Sugar, and Fox. Most riparian zones have been degraded through forest clearing, urban development, and intensive agricultural practices. In addition to Horicon Marsh, this Ecological Landscape contains important fens, tamarack swamp, wet prairies, and wet-mesic prairies that contain rare plants and animals. However, most wetlands have experienced widespread ditching, grazing, and infestation by invasive plants. Watershed pollution in the Ecological Landscape is about average according to rankings by Wisconsin DNR, but groundwater pollution is worse than average compared to the rest of the state.

Management Opportunities

This Ecological Landscape has many opportunities for the restoration and preservation of natural communities.

- Throughout the Ecological Landscape, there are opportunities for linking scattered woodlots and for controlling invasive exotic species.
- Scattered tamarack swamps support unusual assemblages of species and many are in need of restoration, management and protection.
- There are many opportunities for restoration and management of wetlands, and larger lakes that support fisheries.
- Many rivers are in need of restoration and protection.
- Water quality in many watersheds within the Ecological Landscape needs improvement.
- Non-indigenous invasive species are a particular problem in this Ecological Landscape due to the high level of development and disturbance, and, for aquatic species, the connection of many river systems to Lake Michigan.

- Riparian zones throughout the Ecological Landscape present an opportunity for restoration.
- There is potential for increasing public land ownership to accommodate recreation needs and ecological functions.

Central Sand Hills Ecoregion

General Description

The Central Sand Hills Ecological Landscape is located in central Wisconsin at the eastern edge of what was once Glacial Lake Wisconsin. The landforms in this Ecological Landscape are a series of glacial moraines that were later partially covered by glacial outwash. The area is characterized by a mixture of farmland, woodlots, wetlands, small kettle lakes, and cold water streams, all on sandy soils. The mosaic of glacial moraine and pitted outwash throughout this Ecological Landscape has given rise to extensive wetlands in the outwash areas, and the headwaters of coldwater streams that originate in glacial moraines. Although the soils are predominantly dry and sandy, the counties of the Central Sand Hills Region are primarily agricultural. Agriculture is successful here with use of irrigation mostly in the production of potatoes, sweet corn, peas, and snap beans but there is a considerable amount of marginal and idle agricultural land. There are no state parks, recreation areas, state forests, or federal lands in the Ecological Landscape, though there are 24 fishery and wildlife areas.



Vegetation

Current vegetation is composed of more than one-third agricultural crops, and almost 20% grasslands with smaller amounts of open wetland, open water, shrubs, barren, and urban areas. The major forested type is oak-hickory, with smaller amounts of white-red-jack pine, maple-basswood, lowland hardwoods, aspen-birch, and spruce-fir.

Hydrologic Features

There are numerous small kettle lakes and ponds associated with the glacial outwash. There are many softwater lakes with a firm bottom that are being developed for recreational uses. Although the lakes and rivers of the Ecological Landscape are fairly clean, it has the poorest groundwater rating of all the ecological landscapes according to Wisconsin DNR.

Management Opportunities

This Ecological Landscape has many opportunities for the restoration and preservation of natural communities.

- It is the best place in the state to manage for the coastal plain marsh community type and associated rare species.
- There are opportunities for using prescribed fire to restore oak savanna that provides important Karner Blue butterfly habitat.
- It is the best place in the state to maintain and restore the Central Sands Pine-Oak forest community type.
- There are opportunities to preserve and manage for extensive emergent marsh, southern sedge meadows, and calcareous fens (White River, Germania and Comstock marshes, and the Fox River corridor, for example) as well as wet-mesic prairie (Puchyan Marsh) and relict tamarack swamps.

- There are many unique aquatic features in this Ecological Landscape such as the preservation and management of cold water streams, many of which are important to aquatic invertebrates and cold water fishes.
- Important places in this Ecological Landscape to consider for management are the Lower Baraboo River, Gumz Marsh, the Leopold Reserve, Pine Island Wildlife Area, and the White, Puchyan, and Fox River systems.

Central Sand Plains Ecoregion

General Description

The Central Sand Plains Ecological Landscape, located in central Wisconsin, occurs on a flat, sandy lake plain, and supports agriculture, forestry, recreation, and wildlife management. The Ecological Landscape formed in and around what was once Glacial Lake Wisconsin, which contained glacial meltwater extending over 1.1 million acres at its highest stage. Soils are primarily sandy lake deposits, some with silt-loam loess caps. Sandstone buttes carved by rapid drainage of the glacial lake, or by wave action when they existed as islands in the lake, are distinctive features of this landscape.



Vegetation

Today, nearly half of the Ecological Landscape is nonforested, in agriculture and grassland. Most of the historic wetlands were drained early in the 1900s and are now used for vegetable cropping. The forested portion is mostly oak-dominated forest, followed by aspen and pines. A minor portion is maple-basswood forest and lowland hardwoods.

Hydrologic Features

The lakes and rivers of the Ecological Landscape are relatively unpolluted. Groundwater rankings by the Wisconsin DNR indicate that this Ecological Landscape is quite polluted as compared with other areas of Wisconsin. Only the Central Sand Hills has a more severe groundwater pollution ranking.

Management Opportunities

This Ecological Landscape has many opportunities for the restoration and preservation of natural communities.

- Protection of sandstone buttes and cliffs of geological importance.
- Large-scale barrens, savanna, and prairie restoration, and management of associated grassland and shrubland birds (such as that at Buena Vista, Meadow Valley, and Necedah).
- Potential habitat exists for Karner blue butterfly management and many other rare barrens-associated species.
- Public lands are extensive enough to support management for animals that are wide-ranging or have large home range requirements, such as wolves, black bear, elk, and bobcat.
- Management to maintain and enhance whooping and sandhill crane habitat, and to restore habitat for migratory waterfowl.
- Management for rare herptiles including the Massasuga Rattlesnake and Blanding's Turtle.
- Restoration of pine forests, including natural red pine areas.

- Creation of large habitat patches including forests, barrens, and wetlands for species with specific area and community needs.
- Restoration of wetlands such as bogs, large peat lands, sedge meadows, and spruce-tamarack swamps.
- Remaining small streams with headwaters in non-agricultural areas are rare and present an opportunity for protection.

COUNTY SETTING, NATURAL RESOURCES & TRENDS

GENERAL CHARACTERISTICS

Waushara County, located in south central Wisconsin has a total land area of 638 square miles or 408,122 acres. Out of the total acreage, approximately 128,000 acres is forested, 193,000 acres is cropland and 6,105 acres is surface water (more than 40 acres in size). The county lies within the Upper Fox, Wolf, and Wisconsin River Basins.

Waushara County consists of eighteen townships, two cities and 6 villages. Wautoma, located in the south central part of the county, serves as the County Seat. In the 1990's, Waushara's population increased at an average annual rate of 1.56 percent, compared to 1.11 percent for the region and 0.87 percent for the state. According to a 2000 UW-Extension survey, Waushara County had a population of 21,113, an 8.91 percent increase since the last survey in 1995. According to the US Census Bureau from 2010 to 2019 the population decreased from 24,509 to 24,443, a rate of -.3%. Population growth in Waushara County has been heavily influenced by net migration rates. Proximity to the Fox cities has made Waushara County an ideal location for people to relocate to.

NATURAL RESOURCES

Geology

The most recent glaciation of Wisconsin encompassed this area and left a variety of glacial features. Waushara County has a diverse landscape ranging from broad, flat outwash plains and lake basins to rough, broken glacial moraines and areas of pitted outwash. The western edge of the county is a flat outwash plain. A narrow moraine is on the eastern boundary of the plain and extends through the villages of Coloma, Hancock, and Plainfield. To the east of the villages of Wild Rose, Wautoma, and Richford, the area gradually flattens into a rolling plain. The eastern one-third of the county is a gently rolling lake plain.

Wetlands

About 35% of the land area of the county consists of hydric or wetland soils. A wetland is generally defined as having a predominance of hydric soils and is inundated or saturated by surface or ground water at a frequency and duration sufficient to support hydrophytic vegetation. They are somewhat poorly drained, poorly drained and very poorly drained areas of both mineral and organic soils. Several soil units throughout Waushara County are classified as hydric soils while other soil units contain inclusions of hydric soils. These inclusions are generally too small to include in the mapping process but are valuable to wildlife, recreation, floodwater retention, flow stabilization of streams and rivers, groundwater recharge and surface/groundwater purification.

Typical hydric soils have groundwater at or near the surface and many are obvious wetlands with water above the surface throughout most of the growing season. Topography plays a critical role

in formation and type of wetland, however, hydric soils and wetlands can be found in any landscape position. Hydric soils are found in lowlands, low-lying drainage ways, seasonally flooded basins, old meanders and old lake basins. Springs, side hill seeps and areas of groundwater discharge may create wetlands in odd or unsuspected landscape positions. Wetland plant communities in Waushara County are commonly found in four general plant communities or complexes:

1) Meadow-Marsh-Open Water, 2) River Valley, 3) Lake Basin, 4) Bogs.

Three major inventories exist for the identification of wetlands and wetlands drained and converted to agricultural uses: 1) The DNR Bureau of Water Regulation and Zoning, Wisconsin Wetlands Inventory, 2) The United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS) Wetland Inventory, 3) The USDA-NRCS Waushara County Soil Survey. Other aids to identification of wetlands include the USGS topographic quadrangles and USDA Farm Service Agency aerial slide history.

The general soil map for Waushara County (see Appendix J) shows identifiable soil associations. A soil association is a landscape that has a distinctive proportional pattern of soils. The Houghton-Adrian association makes up approximately 20 percent of the county and both soils are hydric. This association was often artificially drained and older farmers are choosing not to maintain drainage systems. This has coincided with increasing public awareness of the value of wetlands and the availability of government programs to restore wetlands. Several large USDA-NRCS Wetlands Reserve Program (WRP) projects have been completed in this soil association.

There is an opportunity to restore many more acres of wetlands in Waushara County. Programs offered by US-FWS, NRCS and LCD offer financial and technical assistance to restore, enhance and protect wetlands. Interest has been from traditional farmers and from non-traditional landowners. Waushara County has seen an increase in landowners interested in recreational uses, which includes wetland wildlife habitat restoration.

Private organizations such as Ducks Unlimited and the Wisconsin Waterfowl Association have assisted in restoration efforts. Partnership opportunities may provide additional financial incentive to landowners to restore wetlands. These partnership efforts may also provide technical assistance. The biggest challenge to Waushara County LCD employees may well be keeping up with the wetland restoration workload.

Wildlife

Waushara County has a very diverse landscape that includes large wetland/marsh complexes, rolling hills, open and wooded sandy plains and farmland; all of which are intermixed with lakes, streams, and rivers. This extremely diverse landscape, which is located on the southern fringe of the tension zone of Wisconsin, provides habitat for a wide variety of wildlife associated with the southern and northern reaches of the state.

The wildlife populations most commonly found in the county include: waterfowl, deer, turkey, upland game species (including cottontail rabbits, fox and gray squirrels, woodcock, ruffed grouse, and bobwhite quail), fur-bearing animals (red and gray fox, coyote, beaver muskrat, otter, mink, raccoon, skunk, opossum), swans, sandhill cranes, herons and egrets, raptors (red-tailed, red-

shouldered, Cooper's and Sharp-shinned hawks, eagles, osprey, kestrels), owls (great-horned, barred, screech), several species of songbirds, wetland birds, reptiles, and amphibians. Several hundred kinds of birds can be found at times in the county, ranging from the small ruby-throated hummingbird to the large white pelican. Black bears (although not in significant numbers), normally associated with the northern part of the state, and are also found in the county.

The lakes, wetlands, rivers and streams of Waushara County have provided excellent waterfowl and wetland wildlife habitat for centuries. With the relatively recent drainage of those wetland areas much of that original wetland habitat has been lost or seriously degraded. With this loss of habitat many species of wildlife associated with wetland communities have been impacted. Several stream corridor areas were purchased by the Department of Natural Resources or the U.S. Fish and Wildlife Service. These areas are managed and maintained as State Wildlife and Fishery Areas. These properties provide areas for all types of hunting, trapping, and wildlife watching opportunities. In addition, several recent federal and state programs have been restoring wetlands on private lands within the county, and are providing additional wetland habitat for local, transient, and migratory wildlife.

The diverse landscape, a mixture of upland oak/pine forest, grassland, wetlands, and agriculture provide ideal habitat for white-tailed deer and wild turkeys. Both are extremely abundant and are passionately pursued by hunters within the county. Waushara County, despite its relatively small size, ranks in the top 15% of annual deer harvest by county. Along with this high deer density, Waushara County has one of the highest amounts of agricultural deer damage within the state. The majority of Waushara County is in private ownership, greater than 95%, and the majority of deer hunting opportunities occur on private land. Therefore, private landowners have the largest impact on deer harvest and the deer population in the county. The increased value of hunting land and privatization of hunting opportunity has made it more difficult for hunters to gain access to private land for deer hunting. In addition, the recent trend in Waushara County has been towards Quality Deer Management (QDM), in which deer are "passed up" by hunters allowing antlered deer to become older and grow larger antlers. Wild turkeys have been restored to the county and are expanding and providing significant hunting opportunity throughout the county. Once again, the majority of hunting opportunity for turkeys occurs on private land.

The county also has many special resource concerns that require protection and recognition in planning and implementing land and water resource management. Many natural communities exist in the county and are found on public and private lands. These communities include: northern and southern sedge meadow, tamarack fen, open bog, dry prairies, pine and oak barrens, and cold water springs, seeps, streams, and several others. Several rare or endangered species have been known to occur in Waushara County, both terrestrial and aquatic, and have been mentioned elsewhere within the county plan. Due to Waushara County's location in the state of Wisconsin, almost any common species of wildlife found in Wisconsin can be seen at times within the County.

Waushara County is also known for its excellent hunting opportunities. As a result, some land that was once farmed is now being purchased and left idle for hunting purposes. Due to Waushara County's location, wildlife, and water resources for recreation, we will continue to see an influx of new residents both full time and seasonal. We anticipate that a large part of our future workload will be providing technical assistance for many of these "new" residents.

Forestry

According to Marsha Frost-Vahradian, DNR Forester, Waushara County has about 128,000 acres of forestland. The wooded acres of upland consist primarily of Oak, Pine and Central Hardwoods. In the lowland woods you will find Tamarack, Black Spruce and Bottomland Hardwoods. Christmas trees make up about 12,000 acres in the county. The County is made up of several species such as: oak/hickory 38%, pine 23%, basswood/maple 14%, elm/ash/red maple 14%, aspen/birch 8%, and spruce/fir 3%. Converting these areas to an oak-pine mixture would increase the quality of stands. Improving these areas would also improve wildlife habitat while increasing the value of the timber.

Forest management in Waushara County is difficult. Insects and diseases will continually take their toll; however, the largest resource concern for the forests of the county is the fragmentation of remaining woodlots. Current plans and ordinances do not properly protect woodlots when it comes to development. Subdivisions and housing developments, large or small, are put in without concern for the resource. The sandy soils may produce lower quality timber.

The future of forestry in Waushara County is at a turning point. Landowners and groups of landowners (such as the woodland owners group) in general are making strides in managing their forests. Careful land use planning in the future could help us balance development pressure and the forestry resources of the county.

Land Use Trends

Waushara County in the past has remained greatly undeveloped because land was relatively available and affordable near large urban areas such as the Fox Cities and Madison. As these larger urban areas expand, people desire to seek areas of peace and tranquility away from the urban communities. People from the larger urban areas have begun to recognize Waushara County for its rural character, lakeshore properties, natural resource opportunities, and available affordable land for building. Lakeshore and wooded acreage are in high demand. The recent influx of settlers from more populated areas has caused the values of lakeshore and mature wooded property to increase.

Increased development within the county has caused large parcels of land to become fragmented. Fragmentation of the land has a negative affect on many species of wildlife and can impact the scenic beauty of the county. The new development is often scattered on large parcels of land taking unnecessarily large amounts of acreage out of productive agricultural and forestry use with a resultant impact on natural resources such as lakes, streams, and woodlands.

Waushara County was the one of the fastest growing counties in the state with a population increase of 23.5% from 1990-2000 according to 2004 UW-Extension Statistics. But more recently from 2010 to 2019 the population decreased by .3%. Our location puts Waushara County residents in close proximity to Oshkosh, Stevens Point and Madison, which are less than an hour drive from the respective corners of the county. The county has 97 lakes comprising a total of 4,445 acres; however Lake Poygan is not included.

Agricultural Trends

Like many counties in central Wisconsin, Waushara County is going through many changes in farming operations and land ownership. Part of the change is a reflection of crop and livestock prices and some is due to retiring farmers and the demand of recreation land from urban centers like Oshkosh & the Fox Cities, and Stevens Point. Waushara County is diverse in soil type from sandy loam soils to the west, to heavy clay soils in the east. We have an abundance of lakes, rivers, and streams and there are many artesian wells in the county that produce clean, pure water for resale and home use.

The farming community is changing. The average value of agricultural land has increased from an average value of \$3,116 per acre in 2008 to \$4,231 per acre in 2017 an increase of 26% according to 2017 Wisconsin Agricultural Statistics. This increased price of agricultural land is a direct reflection of increased demand for land for other uses. Recreational uses including hunting and land being purchased by retirees for home building are major factors affecting land values. The number of farms has slowly decreased from 717 in 2002 to 633 in 2017. In addition to the decrease in the number of farms, the size of farms has also decreased from 269 acres per farm in 2002 to 214 acres per farm in 2017. Of the total number of farmers in the county, 429 list farming as the principal occupation and 635 list other sources of income (retirement pensions or off farm jobs) as primary income sources. According to 2017 Agricultural Statistics the average farm income in Waushara County in 2017 was \$39,013 compared to \$39,185 in 2004. According to the 2017 census, there are 44 dairy farms in the county compared to 65 dairy farms in 2009. (Williams-2009). With less dairy farms operating in the county you would think that alfalfa would decrease, yet alfalfa acres increase by approximately 2,500 acres from 2015-2020.(Cropscape) According to Cropscape, the county has also see in increase in agricultural acres by over 9,000 acres from 2015-2020.

The number of livestock operations is changing according to the farm Census. Farms engaged in dairy reported an incline in the number milk cows from 5,100 in dairy cows in 2008 and 7530 in 2017. The last 10 years hog and pig producers have a taken a dip in the number of hog and pigs sold. In 2007 36 hog farms were in operation, the number of hogs and pigs sold in 2007 was 1,793. According to the Ag Census in 2017 there were 23 hog and pig farms and 1,165 hog and pigs were sold.

Additionally, the beef industry in Waushara County has seen a slight increase in cattle numbers. The number of beef cattle farms has increased slightly from 81 in 2002 to 103 in 2007 and back down to 92 in 2017. As a result of these beef operations, beef cattle numbers has also increased from 781 in 2002 to 1196 in 2007 and slightly decreased by 2017 to 1165 beef cattle.

Plan Development Process

In 1998, legislation finally opened the door for each county to develop a plan on a “locally led” idea to preserve and enhance the water quality resources of their county. This new tool would become known as the Land and Water Resource Management Plan (LWRM). The Waushara County Land Conservation Department (LCD), under the guidance of the Land & Water Education Committee (LWE), decided to take on the task of developing a LWRM Plan. Citizens, other agency plans, neighboring counties and cooperating agencies helped to complete this plan or provided key data. In accordance with state statute ATCP 50.23 (4) (a) a public hearing will be held on 08/4/2021 for approval of the LWRM plan (see Class II notice-appendix E)

Citizen Participation

Waushara County initiated public participation back in 2003 when the first plan update occurred. In 2004 and again in 2021 surveys (Appendix B) were sent to Town Board Chairs, common areas of concern appeared consisting of:

- Groundwater quality and quantity
- Surface water runoff from construction sites
- Agricultural and Urban runoff
- Disposing & handling of manure and septic waste
- Invasive species
- Wind erosion
- Information & education
- Wildlife damage

An Advisory Committee was established to use the comments and recommendations from the survey results to develop the LWRM plan. Committee members used information from DNR, Non-Point Source Watershed Rankings, Outstanding Resource Waters (ORW) and Exceptional Resource Waters (ERW) to evaluate the conditions of Waushara County. The CAC held a meeting on February 10, 2021, to develop goals. In addition, a survey was distributed to CAC members asking for a listing of concerns (Appendix B).

Related Resource Management Plans

In developing this LWRM Plan, issues, concerns, needs, goals and objectives from many existing natural resource management plan documents were reviewed. All of those documents are listed in the reference section of this plan. There are a number of key documents with specific data, observations and objectives that served a larger role as they relate to this plan. Related plans used were:

- Waushara County Soil Erosion Control Plan (1987)
- Wind Erosion Control Pilot Program (1988)
- Winnebago Comprehensive Management Plan (1989)
- Central Wisconsin Windshed Partnership (1995 & 2004)
- Wolf River Basin Water Quality Management Plan (1996)
- Fox River Basin Plan (2001)
- Wisconsin River Basin Plan (2002)
- Pine River/Willow Creek/Poygan South Priority Watershed Plan (1997)

Waushara County Non-Metallic Mining Code CH 58

Waushara County Waste Storage Ordinance CH 22

Waushara County Farmland Preservation Plan (2014)

Wisconsin River TMDL (2019)

Upper Fox and Wolf TMDL (2020)

Healthy Land, Healthy Water, A Strategic Watershed Plan for Winnebago Waterways (2021)

Summary Report for Total Phosphorus, Aquatic macroinvertebrate, Fish, and Habitat Monitoring in Willow Creek Watershed, Waushara County (2015)

It is important to recognize that these plans were put together using agency, public, and private input. Many concerns, ideas, and recommendations are voiced or are stated in them.

Outstanding, Exceptional, & Impaired Resource Waters

Outstanding Resource Waters (ORW) include waters with unique characteristics and largely unaffected by cultural activities. They do not presently receive wastewater discharges, nor will point source discharge be allowed to these waters in the future, unless discharge is so controlled it is of the same or better quality than the receiving water. This classification includes national and state wild and scenic rivers and the highest quality Class I trout streams.

Exceptional Resources Waters (ERW) have excellent quality and valued fisheries, but already receive wastewater discharges or may receive future discharges necessary to correct environmental or public health problems. This classification includes all Class I trout streams which are not outstanding resource waters or other water bodies with significant resource values and high water quality.

Waushara County has several waters classified as outstanding or exceptional:

Willow Creek	ORW	Gilbert Lake	ORW
Mecan River	ORW	Lucerne Lake	ORW
Lunch Creek	ERW	Norwegian Lake	ORW
White River	ERW	Pine Lake	ORW
Cedar Spring Creek	ERW	Bird Creek	ERW
Humphrey Creek	ERW	Bowers Creek	ERW
Kaminski Creek	ERW	Carter Creek	ERW
Little Silver Creek	ERW	Chaffee Creek	ORW
Pine River	ERW	Porters Creek	ERW
Pine River	ERW	Davis Creek	ERW
Little Pine Creek	ORW	Jones Creek	ERW
Magdanz Creek	ERW	Mud Creek	ERW
North Branch Wedde Creek	ERW	Popple Creek	ERW
Big-Roche-A-Cri Creek	ERW/ORW	Schmudlack Creek	ERW
Soules Creek	ERW	South Branch Wedde Creek	ERW
West Branch White River	ORW	Sucker Creek	ERW
Davis Creek	ERW		

Impaired Water Resources

Section 303(d) of the Clean Water Act requires the State to prepare a list of impaired water bodies that will remain so even after the application of technology-based standards typically applied to point sources of pollution. The State is to identify the pollutants causing the problem, identify the sources of that pollution and develop a Total Maximum Daily Load (TMDL) of that pollution that a water body can receive and still meet water quality standards. The State is then required to set priorities for implementing strategies to meet the TMDL. Currently, Waushara County has one body of water on the 303d list of impaired waters, Lake Poygan, and 5 creeks/rivers; Willow Creek, Carpenter Creek (TMDL), Bird Creek, Pumpkinseed Creek, and Chaffee creek

Aquatic & Invasive Species

Waushara County has many aquatic resources and with that a responsibility to protect those resources from threats of all origins. In the last few decades, aquatic invasive species (AIS) have been becoming a growing threat to our lakes and streams. AIS have the potential to disrupt the natural ecosystem and have serious consequences to water quality, biology, and recreational use of lakes and streams. Every effort should be made to protect these by proactive, rather than reactive, strategies. Since 2004, the Wisconsin Department of Natural Resources (WDNR) has instituted grant programs to help fund research, preventative measures, control methods, and information and educational campaigns.

Several Waushara County lakes already have some AIS which can be controlled by appropriate removal methods. Combining control methods with proactive preventative measures such as information and educational campaigns, (for example, the Clean Boats Clean Waters volunteer watercraft inspection program) the spread of these AIS can be slowed or even eliminated. Certain AIS such as Eurasian water milfoil, curly-leaf pondweed, and purple loosestrife can be controlled via manual, mechanical, chemical, or biological means. Any effort to help fund these should be pursued. All lakes in Waushara County with public access have documented priority AIS, including Eurasian water milfoil, curly-leaf pondweed, rusty crayfish, and zebra mussels. Any funding to help control existing AIS, prevent infestation of additional AIS, and prevent the spread to other water bodies should be a priority.

Other surface water bodies may be at risk due to their proximity to infected waters or high recreational use, and those should be prepared to address this issue. As one preventative measure, the WDNR has posted all boat landings in Waushara County. However, other WDNR programs such as the Clean Boats Clean Waters Program should also be pursued by citizens.

Waushara County currently participates in the quad-county AIS program run through Golden Sands Resource Conservation & Development Council, Inc. (RC&D), based in Stevens Point. Waushara County shares the services of Golden Sands RC&D staff with Portage, Wood, and Marathon Counties. This program is funded through an AIS grant from the Wisconsin Department of Natural Resources, and provides free educational workshops, newsletter articles, AIS lake surveys, technical assistance, and AIS control assistance for Waushara County residents. Many lakes have taken advantage of these opportunities, many Citizen Lake Monitoring Network (CLMN) and Clean Boats, Clean Waters (CBCW) workshops since 2007.

CLMN workshops are about 3 hours long, and consist of educational presentations to the audience about the biology of AIS, how they got here, and what can be done about them. Participants are trained to identify these species and feel comfortable monitoring for them. This gives them a chance to be

proactive. Finding an AIS early is essential to minimize cost and effort, and increase likelihood of eradication. Well-established populations of AIS are very expensive to manage, and control may be the best result to hope for.

CBCW workshops train participants on the WDNR’s volunteer watercraft inspection program. They learn how to run an effective volunteer program, how to communicate the Clean Boats, Clean Waters message to boaters, and how to report a violation if someone fails to obey the laws regarding transport of aquatic vegetation or proper cleaning of a boat and equipment between lakes.

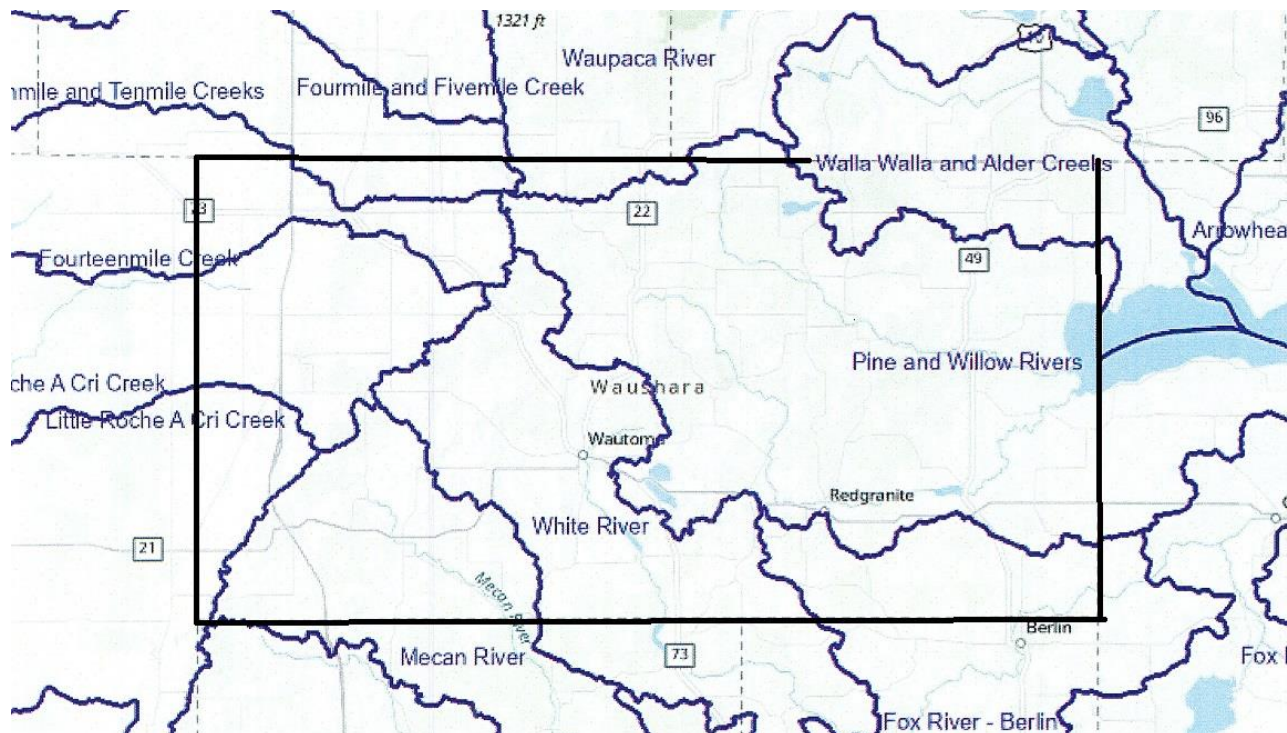
Watershed Conditions

Non-point source pollution is difficult to determine by using a county boundary as a cutoff. Cooperating agencies for a long time have used watershed boundaries as a means to measure the effects of non-point source pollution and also as a way to measure success in controlling it. The main point to remember is that county boundaries were not set up according to watershed boundaries. As plans to control non-point source pollution are made, it is important that we remember to work with neighboring counties comparing data and developing plans that are compatible between counties.

Watershed Rankings

The Watersheds and their Rankings are listed below:

Watershed Name	Watershed Number	NPS Watershed Ranking
Pine and Willow Rivers	WR02	High
Waupaca River	WR05	High
Walla Walla and Alder Creeks	WR03	High
Fourteen Mile Creek	CW07	High
Big Roche-a-Cri Creek	CW06	High
Little Roche-a-Cri Creek	CW01	High
Mecan River	UF09	High
White River	UF08	High
Fox River - Berlin	UF06	High
Seven and Tenmile Creeks	CW09	High
Montello River	UF13	High



DNR Watershed Map, WI DNR Data Curator, updated March 30, 2020. Watersheds delineated by WI DNR initially for priority watershed program.

TMDL's

The Fox-Wolf and Wisconsin River watersheds located Waushara County are subject to US EPA approved Total Maximum Daily Load (TMDL) reports for Total Phosphorus and Sediment. These TMDLs were approved in 2019 and 2020.

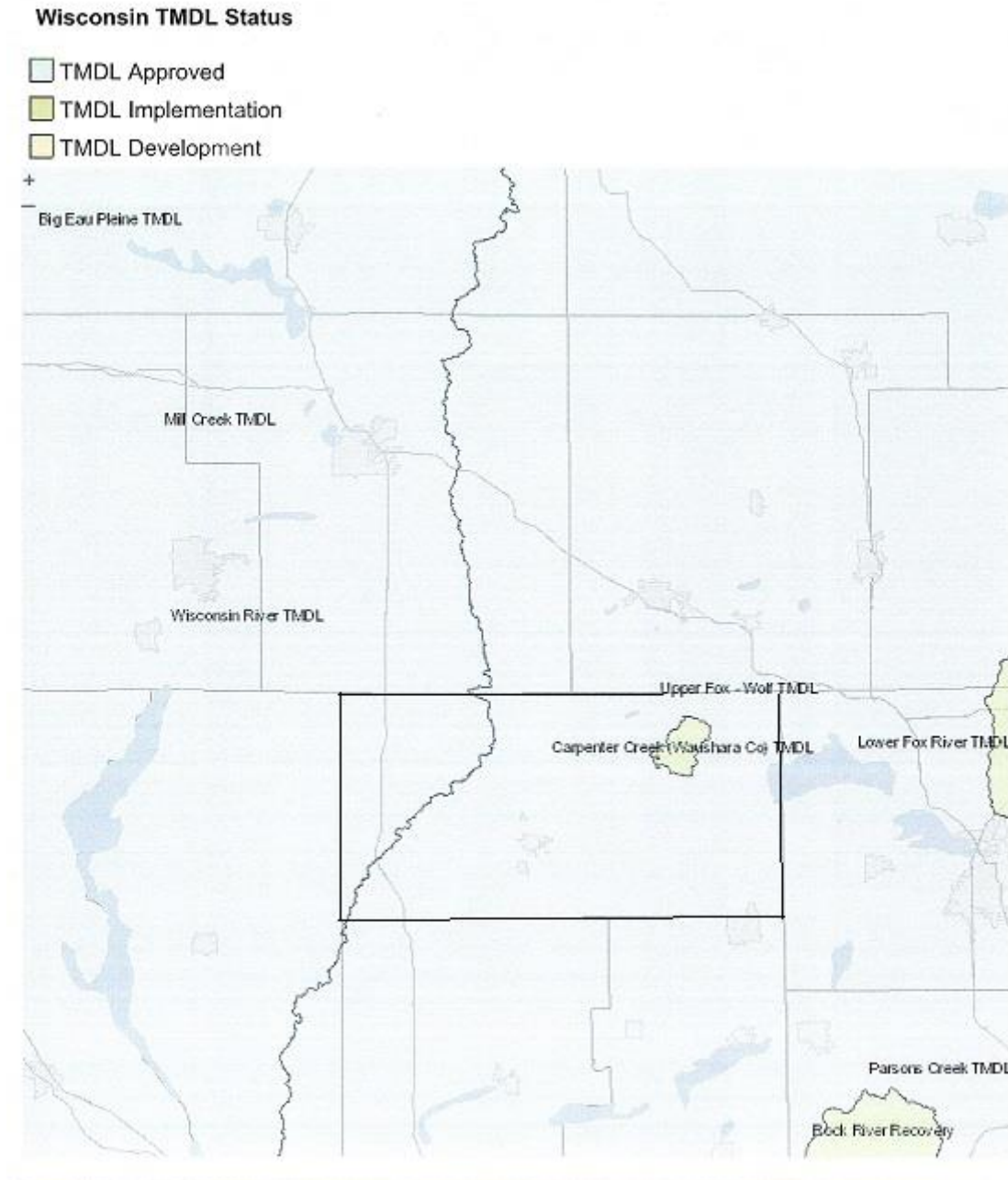
After approval, federal and state regulations require implementation of TMDLs to meet water quality standards - where there are implementation mechanisms in place and supported by law.

For point sources, TMDLs have wasteload allocations that are incorporated into Wisconsin Pollutant Discharge Elimination System (WPDES) permits. For Nonpoint sources, TMDL implementation is an adaptive process, requiring the collaboration of many stakeholders, prioritization and targeting of available county and state programmatic, regulatory, financial and technical resources.

The Wisconsin and Fox-Wolf River TMDLs ranks Washara County's HUC 12 watersheds by phosphorus and/or sediment loading rates and have corresponding reduction goals for agriculture and other non-point sources - see attached map below and appendix L. The Wisconsin DNR recommends development of HUC 12 watershed based plans that reflect EPA's nine key elements to meet TMDL reduction goals, over time.

Waushara County has one approved nine-key element watershed-based plan for the 14 mile creek watershed - Fourteenmile Creek Watershed Nonpoint Source Watershed Plan [PDF]. This plan was approved in 2020. In 2019, Waushara County also began collaborating with Winnebago, Fond Du Lac, Calumet and Outagamie counties to develop another nine key element plan for Lake Poygan, Winnecone, Butte de Morts and Winnebago watersheds - see appendix K for map of watershed area. This plan is expected to be complete in 2022-23.

TMDL MAP



General Conclusion

The Land Conservation Department focuses on reducing phosphorus and sediment into our county's surface and ground water. The phosphorus and sediment loading is a result of land use practices in agriculture and building development. The Upper Fox-Wolf Basin TMDL Report identifies Subbasin 23 highest in total Suspended Solids (sediment) with a modeled delivery of 5.58 tons/acre/year. Subbasin 21 has the highest modeled Total Phosphorus delivery of 6.25 lbs/acre/year. To the immediate west, the Wisconsin River Basin plan has identified wind erosion to be one of the greatest contributors to surface water pollution. The Citizen's Advisory Committee has placed a great emphasis on controlling wind and soil erosion as well as ground water protection in these Ecoregions.

OBJECTIVES, GOALS AND ACTIONS

Sediments and nutrients contained in run-off from the rural/agricultural landscapes are the most significant forms of non-point source pollution impacting the water resources of Waushara County and the entire Upper Fox, Wolf, and Wisconsin River Basins. These pollutants degrade water quality and impair recreational and biological uses. The principal rural non-point sources of pollution in Waushara County (Pine/Willow Rivers Priority Watershed Plan, Upper Fox Basin Plan, Wisconsin River Basin Plan, and The Wolf River Basin Plan) include:

- Sediment delivery from cropland and construction sites
- Sediment eroded from shorelines, stream bank and drainage ditches
- Run-off from barnyards, livestock feeding areas, and pasturing areas
- Run-off from land that was spread with manure

Soil Loss, Sediment Delivery and “T”

The relationship between these three factors is sometimes misunderstood, and both “T” Value and Soil Loss have been greatly misused over the years. Below are the definitions of each of these three values followed by an explanation of how these values were considered in this plan.

“T” Value- “T”, or Tolerable Soil Loss, is an estimate of the amount of soil that can be lost from a cropped field on a continual basis and still retain an adequate level of soil productivity. This value is strictly based on soil type.

Soil Loss- This is the estimated amount of soil that is moving from one place to another on the landscape. It is calculated using the Revised Universal Soil Loss Equation 2 and it provides a value that can be compared to “T”.

Sediment Delivery- This is the estimated amount of soil that is actually being delivered to surface water, therefore, it is most relevant in terms of water quality. Sediment delivery will be referred to numerous times throughout this plan.

Cropland Sediment Loading

Intensive agricultural practices have caused considerable amounts of eroded soil to reach the rivers, lakes, streams and wetlands of Waushara County. Cropland erosion (sheet, rill and gully) is the primary source of sediments that are carried downstream. In 1999 a 100% cropland sediment delivery inventory was completed in the Pine River/Willow Creek Priority Watershed. These numbers are the only inventory of sediment delivery performed in Waushara County.

It was estimated that 30,190 tons/year of sediment were deposited in the surface waters of the Pine River/Willow Creek Watershed. The Pine River/Willow Creek Priority Watershed cropland sediment delivery data will be used as a benchmark for the other watersheds in Waushara County. The sediment delivery in watersheds within the county has not been inventoried, but will fall above or below the Pine River/Willow Creek sediment data.

Waushara County will use the Fox-Wolf Watershed TMDL Report to complete nutrient evaluations that can help prioritize limited staff resources to promote soil conservation in higher loading sub-basins. EVAAL is a program that can be used to identify specific fields/areas within HUC 12 watersheds. In the future Waushara County will look into a grant application for using EVAAL.

Sediment Delivery Streambank/Lakeshore Erosion

Incomplete data makes determining stream bank erosion status very difficult. An inventory was performed in the Pine River/Willow Creek watershed in 1996, again those numbers extrapolated show 2,648 tons of sediment/year is deposited within the lakes and streams of Waushara County. This number, when applied to the entire county, represents approximately 8% of the total sediment loading and is probably low considering the amount of surface waters in the county. Stream bank/lakeshore erosion is considered a significant threat to the surface waters of Waushara County. Since the 1996 inventory, significant progress has been made in educating private landowners by installing a number of shoreline & shoreland best management practices.

Sediment Delivery, Construction Site Run-Off

Estimating amounts of run-off from construction site erosion is nearly impossible. However, erosion rates of 75 tons/acre/year can happen (WDNR, 1994). Waushara County has steadily been developed, causing a consistent need for construction site erosion control. Taking the amount of development into effect, this run-off problem is being addressed. Waushara County is in its 6th year enforcing construction site erosion control portion of the Uniform Dwelling Code (UDC). Currently, the LCD and Zoning staff perform “joint onsite evaluations”. These evaluations target sites that have the highest potential for construction site erosion run off and tailors the erosion control plan to the site and proposed construction project. The Wisconsin Construction Site Handbook is used as the standard for bmp installation. The LCD & zoning office has applied this onsite inspection program throughout Waushara County in an effort to control soil erosion to surface waters of Waushara County.

In addition, under subchapter III of NR 216, Wis. Adm. Code, a notice of intent shall be filed with the DNR by any landowner who disturbs one or more acres of land. This disturbance can create a point source discharge of storm water from the construction site to waters of the state and is therefore regulated by DNR. Agriculture is exempt from this requirement for activities such as planting, growing, cultivating and harvesting of crops for human or livestock consumption and pasturing or yarding of livestock as well as sod farms and tree nurseries. Agriculture is not exempt from the requirement to submit a notice of intent for one or more acres of land disturbance for the construction of structures such as barns, manure storage facilities or barnyard runoff control systems. (See s. NR 216.42(2), Wis. Adm. Code.) Furthermore, construction of an agricultural building or facility must follow an erosion and sediment control plan consistent with s. NR 216.46, Wis. Adm. Code and including meeting the performance standards of s. NR 151.11, Wis. Adm. Code.

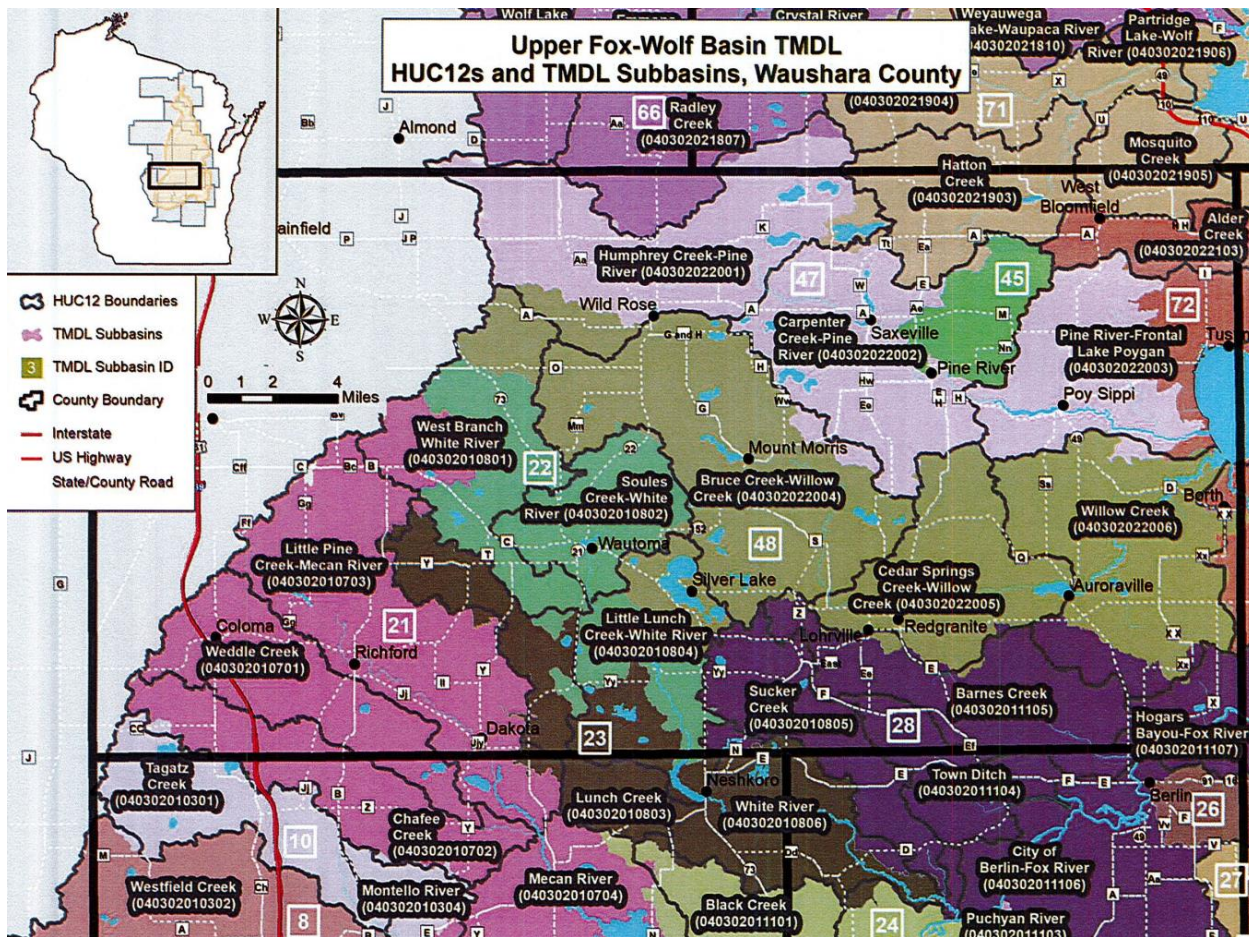
An agricultural building or facility is not required to meet the post-construction performance standards of NR 151.12, Wis. Admin. Code.

Cropland Soil Loss/T-by-2000

As explained in the beginning of the chapter, soil loss and sediment are two different areas that are sometimes confused with each other. Using NRCS 590 Nutrient Management Planning Waushara County has attempted to lower all cropland to below “T” (tolerable soil loss/acre). To measure overall county soil loss, in 1999 & 2000 the Land Conservation Department assisted the Natural Resources Conservation Service and conducted the T-by-2000 Transect Survey. Results from this survey were inconclusive. Unfortunately, due to staff limitations, the survey was discontinued. The new data from the Upper Fox-Wolf Basin TMDL (2020) provides a more recent cropland soil loss survey for approximately 75% of the county, by using TSS (Total Suspended Solids) data. The highest delivering TMDL sub-basins in County is sub-basin 23, at 5.58 tons/acre/year, which is mostly in the Lunch Creek HUC 12 Watershed. The lowest delivering is sub-basin 72, which included Alder Creek and part of Pine River-Frontal Lake Poygan, is 1.76 tons/acre/yr. The

average for the County within these 8 subbasins is 3.135 tons/acre/year. Below, is a summarized TSS table by TMDL Sub-basin, and a HUC 12 Map of the TMDL Sub-basins.

TMDL Sub-Basins	TSS tons/acre/year
TMDL Sub-basin 21	3.95
TMDL Sub-basin 22	3.57
TMDL Sub-basin 23	5.58
TMDL Sub-basin 28	5.23
TMDL Sub-basin 45	1.68
TMDL Sub-basin 47	1.76
TMDL Sub-basin 48	1.86
TMDL Sub-basin 72	1.45
Average Total Suspended Solids	3.135



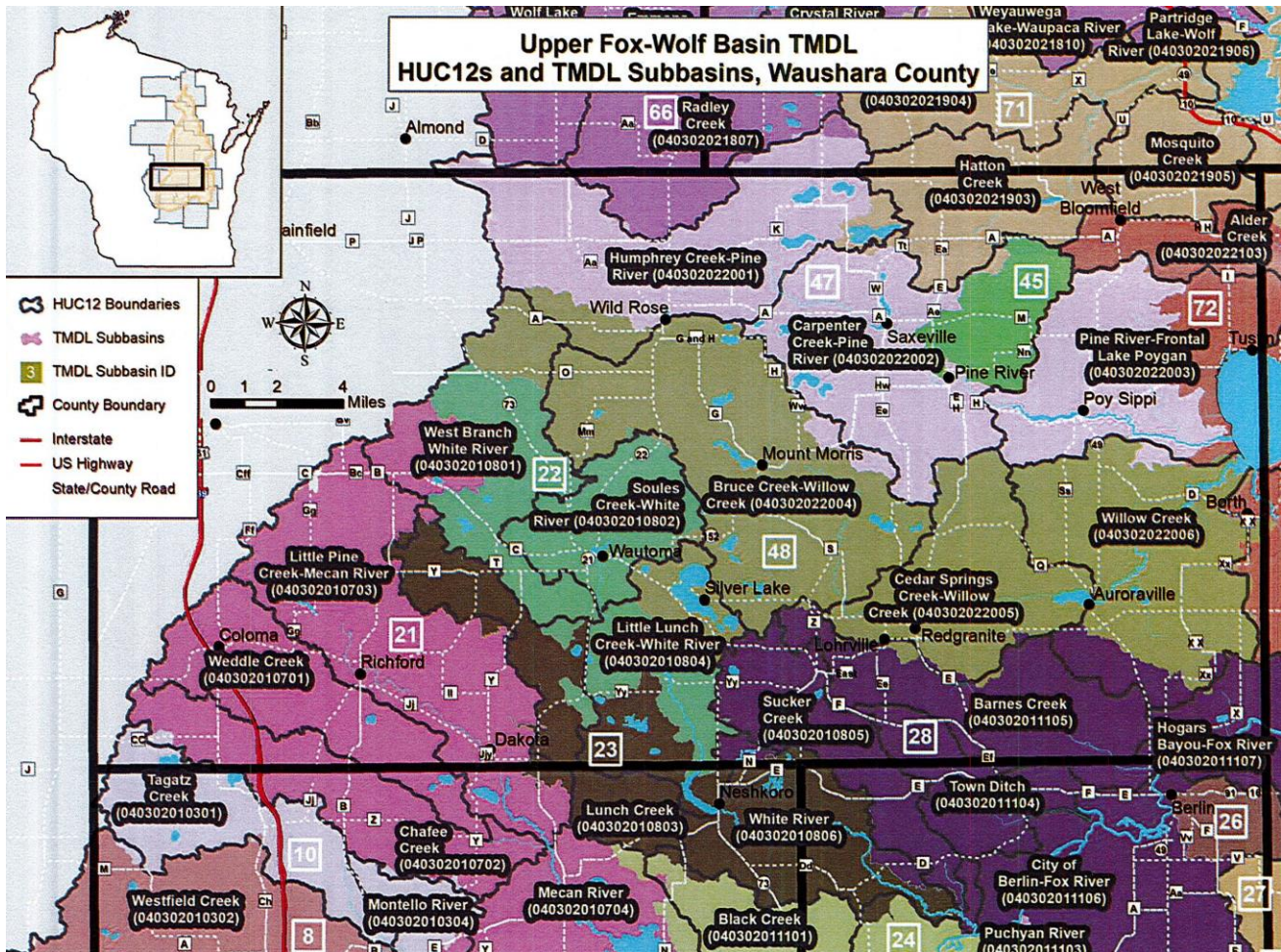
Phosphorus Loading

Nutrient loading can adversely affect water quality by promoting excessive plant growth (macrophytes and algae) primarily in rivers and lakes. Phosphorus is the most significant nutrient that promotes macrophyte and algae growth during the growing season (May-Oct.). Excessive macrophyte growth followed by the decay of algae causes severe oxygen fluctuation in the streams and lakes. Plants produce oxygen as they photosynthesize in the daylight, but at night this oxygen is used for plant respiration. Large swings in the daily level of dissolved oxygen can stress fish and other aquatic life. Also, excessive plant growth in the streams can restrict water flow and increase sedimentation rates.

Phosphorus Loading from Cropland Sediment

The EPA Approved TMDL for Total Phosphorus and Total Suspended Solids in the Upper Fox Wolf Basins, prepared by the Cadmus Group LLC, models Total Phosphorus loss in TMDL Sub-basins for approximately 75% of Waushara County. The SNAP Plus derived values of total Phosphorus loss represent edge of field erosion and are shown in the table below along with a map of HUC 12's and TMDL Sub-basins for the County.

TMDL Sub-Basins	TP Baseline lbs/acre/year
TMDL Sub-basin 21	6.25
TMDL Sub-basin 22	6.00
TMDL Sub-basin 23	5.58
TMDL Sub-basin 28	5.23
TMDL Sub-basin 45	1.58
TMDL Sub-basin 47	2.29
TMDL Sub-basin 48	2.74
TMDL Sub-basin 72	1.77
Average Total Phosphorus	3.93



Phosphorus Loading from Animal Run-Off/Manure Spreading

In 1998 the Pine River/Willow Creek Priority Watershed completed a 100% barnyard/feedlot inventory. From 2009 to 2017 dairy farms in the county have been reduced by 21 farms. A concerted effort has been made to increase the number of nutrient management acres *on farms that utilize manure*. In 2019 Waushara County had over 43,000 acres covered by plans throughout the county or about 45% of the counties cropland. Farms that are located within SWQMA's and farms utilize manure are targeted for nutrient management planning. How many additional acres that will be applied over the next 10 years is entirely budget dependant.

Phosphorus Delivery Streambank/Lakeshore Erosion

Again, the only inventory data currently available is from the Pine River/Willow Creek Priority Watershed. Those numbers extrapolated show 2,648 tons of sediment/year is deposited within the lakes and streams of Waushara County. This number, when applied to the entire county, represents approximately 8% of the total phosphorus loading and is probably low considering the amount of surface waters and development around our lakes in the county. Phosphorus loading is considered a major threat to the surface waters of Waushara County, and manicured lawns down to the waters edge is contributing to the overall phosphorus loading to surface waters.

Plan Implementation Strategy

Agriculture and non-agricultural resource concerns will continue to be addressed with this plan. Where agricultural issues are a concern, the Performance Standards will be used to address them. All non-agricultural concerns will be addressed using location (see priority areas section later in this chapter) and threat to resource (determined by LCD Staff) based on the following criteria: records review, ranking sheets (Appendix D), onsite evaluations, severity of erosion and cost effectiveness of planned practice.

NR151 Performance Standards

Waushara County will make every attempt to implement NR 151 Performance Standards as staff and cost sharing allow. Waushara County has always addressed conservation as voluntary and will continue to do so in the future. In addition, the records review process as outlined in Appendix G, “*Waushara County NR 151 Implementation Strategy*”, will be used to further identify the process by which the performance standards will be implemented. The Citizen’s Advisory Committee’s recommendations are to implement the Performance Standards using the criteria.

The following table (5-1) details the performance standards and the conservation practices used to make farms compliant with the Performance Standards.

Table 5-1 Performance Standards

Performance standard (Type of standard covered)	Effective Date	Conservation Initiatives
Control soil erosion to meet tolerable soil loss (T) calculated by current conservation. (Cropland)	October 1, 2002	Install contour farming, cover and green manure crop, crop rotation, diversions, field windbreaks, and residue management. Related runoff controls: critical area stabilization, grade stabilization structures, sinkhole treatment, water and sediment control basins, waterway systems.
Construct, maintain and close manure storage facilities to prevent manure overflows and leaks. (Livestock operations and facilities)	October 1, 2002	Meet NRCS standards for construction, maintenance, and closure using technical standards: 313 (waste storage facility), 360 (closure of waste impoundments), 634 (manure transfer standard) and county codes.
Divert clean water from feedlots. (Livestock operations and facilities within Water Quality Management Areas)	October 1, 2002	Install diversions, roof runoff systems, subsurface drains, and underground outlets.
<p>Manure Management Prohibitions</p> <p>a. No overflow from manure storage facilities.</p> <p>b. No unconfined manure stacks within the Water Quality Management Area.</p> <p>c. No direct runoff from feedlots and manure storage facilities.</p> <p>d. No unlimited access of livestock to shore land that prevents maintenance of adequate sod cover. (Livestock operations and facilities)</p>	October 1, 2002	<p>a. Design and construct facilities to technical standards, maintain facilities including adequate freeboard, repair or replace facilities, as needed.</p> <p>b. Relocate manure piles, construct manure storage facilities.</p> <p>c. Install barnyard runoff control systems, including diversions, milking center waste control systems, roof runoff systems, sediment basins, subsurface drains, underground outlets, water and sediment control basins, wastewater treatment strips, and well decommissioning. For manure storage facility runoff, see (a.) above.</p> <p>d. Install access roads and cattle crossings, animal trails and walkways, critical area stabilization, livestock fencing, livestock watering facilities, prescribed grazing, riparian buffers, stream bank and shoreline protection.</p>
Control nutrient runoff into waters of the state. (Cropland)	Effective in 2003 for new operations, 2005 for land near impaired or exceptional waters, and 2008 for other existing farms.	Develop and follow an annual nutrient management plan for applying fertilizer or manure. Base plans on soil tests conducted by DATCP certified laboratories. Become qualified to prepare plan or use qualified planners. Apply nutrients according to UWEX recommendations for crops. Install additional conservation or management practices to reduce nutrient loading.

Identification of Priority Farms

Our goal is to identify 10% of the priority farms annually. Currently “in house” monitoring is in place to track compliance with the performance standards. Farms that would be considered a “priority farm” are those that are found to be non-compliant with the state prohibitions and performance standards (see table 5-1). What farms would be considered “priority” will be determined by the records review, onsite evaluations and complaints. The most recent modeling by the DNR shows that the Phosphorus delivery is greatest in the Little Pine Creek - Mecan River and the Lunch creek watersheds. (Appendix L) The ranking sheet is updated to reflect the most current information on P delivery/Erosion data that we have. Criteria for ranking priority farms will be based on the departments’ official ranking sheet (Appendix D), and geographical location in water quality management areas (WQMA’s). Additionally, in all other areas of the county priority farms will also be addressed by citizen complaints and inter-agency cooperation. These priority farms will also use the criteria based on geographical location in WQMA’s.

Identification will initially take place using existing records and inter-agency consultation. For continuity, the LCD will use the ranking sheet found in Appendix D for all farm reviews. A database has been created to track status and monitoring of all priority farms.

Voluntary Compliance

As stated in the beginning, Waushara County has always addressed conservation concerns on a voluntary or “complaint driven” process and will continue to do so. Every avenue will be explored to bring a non-compliant landowner into compliance in a voluntary way. As a first step in voluntary compliance, Waushara County will utilize an Information and Education strategy to insure all landowners are aware of the Performance Standards and how to become compliant. All farms will be ranked utilizing the ranking sheet (Appendix D) and will be notified via letter informing them of their status and options at that point. Where applicable, cost sharing from different county, state and federal programs will be made available to bring the landowner into compliance with the standards.

Current Compliance

Compliance with the Performance Standards will be determined using existing records and the records review process. This process is outlined in the document titled “Waushara County NR 151 Implementation Strategy” (Appendix F). Those farms, after this review, that are found to be non-compliant will be notified as outlined above. Onsite visits will be performed throughout the implementation of the LWRM Plan as staff hours permit and will be prioritized in the following order:

1. Review at the request of a landowner
2. Landowners who, through records review, are found non-compliant
3. Complaints received

Evaluations

Compliance will be determined by LCD staff and documented. Any landowners found to be out of compliance will be contacted and given the following information in writing:

- A statement explaining the compliance issues. (Notice of noncompliance)
- The corrective measures needed to achieve compliance.
- A timeline for achieving compliance. (Schedule of Compliance)
- The status of eligibility for cost-share assistance.

- The funding sources available and technical assistance to be received.
- An explanation of technical standards and maintenance requirements.
- A signature page attached to findings report indicating whether the landowner agrees or disagrees with the report
- A copy of performance standards and prohibitions and any applicable technical standards.
- A notice of process and procedure for appeals stating: Any person aggrieved by a decision of the Land Conservation Department may file a written appeal of the decision with the Waushara County LWE Committee within 30 days of the Departments decision. A hearing upon the appeal shall be commenced within 60 days of the date of the appeal.

Upon completion of suggested practice(s), a letter of compliance, appendix H, (letter B) found also in “Waushara County NR 151 Implementation Strategy” (Appendix G) will be sent to the landowner indicating the site has been brought into compliance and the county database will be updated.

Enforcement

The Waushara County Manure Waste Storage Code and the Shoreland Management Code will be used to implement some of the state performance standards and prohibitions. A landowner that is out of compliance with state performance standards and prohibitions and refuses technical and financial assistance from the Waushara County Land Conservation Department will be notified by mail that they are subject to enforcement actions, appendix I, (letter C). They will receive a multi-agency communication from the Land Conservation Department and Department of Natural Resources. A copy of the enforcement letter will be sent to the Department of Agriculture, Trade and Consumer Protection.

Landowners who are in violation of the agricultural soil erosion control standards will be referred to the Department of Natural Resources – Northeast Region in Oshkosh/Green Bay.

The Waushara County Manure Waste Storage Code requires that the Natural Resources Conservation Services technical standard be followed when an operation is new or expanding. Code language has set the minimum standards for manure storage facility construction and waste application to cropland as described previously. The four Animal Waste Prohibitions are also incorporated into the ordinance. In 2020, 151.07, NRCS 590 Nutrient Management Requirement was added. Landowners who are in violation of the Waushara County Waste Management Code will be referred to the Waushara County Corporation Counsel. The LWE may decide to pursue enforcement on their own, should the DNR not act on or follow up on violations. Local ordinances will be located on the Waushara County web site (www.co.waushara.wi.us).

In addition, an annual meeting regarding the enforcement process will occur involving all agencies concerned. This will insure communication is maintained and follow up monitoring is being completed.

Currently, Waushara County’s zoning codes do have provisions in them to control what type of building and vegetation manipulation activities can occur within the set-back of shoreland areas. Annually, text revisions are reviewed and implemented to ensure clearly written codes. Staff, in many cases, conduct joint on site reviews of riparian properties and variance requests. NR 115 also address’s vegetation requirements and other construction projects. All Farmland Preservation Program participants must meet soil and water standards to be in compliance.

Implementation Budget

The funds received by the Land Conservation Department as a result of this plan will be used to supplement staff costs and provide cost sharing for those landowners and/or operators needing to be compliant with the Ag Perf Stds or that have other eligible projects. It is expected that due to limited staff and funds and the requirement for cost sharing, compliance with the Ag Perf Stds will be minimal. We anticipate using other available grants to assist with our efforts. The amount of cost share dollars required will hinge on several unknowns. First is the amount of staff time available for design and implementation of the required practices. Second is the type and cost of the practices themselves. Based on past years and the type of hard and soft practices installed, we estimate that \$35,000 to \$50,000 of cost share funds would be necessary annually. This equates to approximately \$500,000 of landowner assistance funds for the 10 year implementation period (2011 to 2020).

Currently we have four employees in our LCD office. We have 3 full time technical positions, and one 3/4 time support staff. Current departmental employee salaries and benefits are approximately \$360,322 annually and are expected to increase two to three percent each year. Total staff costs for the 10 year implementation period (2021 to 2030) are estimated to be \$4,200,300 Total costs for staff and cost sharing the needed BMPs is estimated at \$4,737,800. Realistically these costs can only be managed with increased outside revenues from grants and other revenue generating sales or activities. Please see the Plan Implementation Budget Table below.

Plan Implementation Budget Table

Cost Center	Costs					Totals
	2021	2022	2023	2024	2025	
4 LCD Staff	\$360,322	\$369,330.05	\$378,563.30	\$388,027.38	\$397,728.07	\$1,893,971
BMP's	\$75,000	\$75,000	\$75,000	\$80,000	\$80,000	\$385,000
Totals	\$435,322	\$444,330	\$453,563	\$468,027	\$477,728	\$2,278,971
Cost Center	Costs					Totals
	2026	2027	2028	2029	2030	
5 LCD Staff	\$407,671	\$417,863.05	\$428,309.63	\$439,017.37	\$449,992.80	\$2,142,854
BMP's	\$80,000	\$85,000	\$85,000	\$85,000	\$90,000	\$425,000
Totals	\$487,671	\$502,863	\$513,310	\$524,017	\$539,993	\$2,567,854

Financial assistance is available to landowners and local units of government with priority sites to help offset the costs of installing BMPs. Reimbursement is distributed to landowners by the Land and Water Conservation Department after practices have been completed and inspected; or in the case of conservation tillage, residue is checked by staff after planting. To qualify for financial assistance, landowners must meet the ranking requirements as defined by the ranking sheet and/or the program and agency from which they are receiving funds.

Currently Waushara County uses multiple funding sources to install BMPs. We will continue to use every available funding source to get conservation practices and the Ag-Performance Standards Implemented in our County. With these funds we've been able to leverage additional grant dollars to install large or expensive projects. On average, the taxpayers of Waushara County are getting over \$4 of conservation practices installed for every \$1 invested from the levy. Other funding sources targeted for use include:

Land and Water Resource Management / SEG Grant

Targeted Runoff Management Grants

Environmental Quality Incentives Program

Conservation Reserve Enhancement Program

Conservation Organizations / Private Organizations Grants

Lake Planning & Lake Protection Grants

US Fish and Wildlife Service Grants

Wisconsin Waterfowl Association

WDNR Invasive Species Grants

Water Quality Incentives Program

To receive financial assistance, eligible landowners must enter into a cost-share agreement with the Land Conservation Department or providing agency. Cost-share agreements are binding documents, which secure funds for an individual practice. Most structural practices have the agreement attached to the deed of the property. Non-structural practices such as Residue Management and Nutrient Management are not recorded with the deed.

Practices included on cost share agreements must be installed within the schedule agreed to on the agreement and must be maintained for a minimum of ten years. The only exception is for conservation tillage, which has no term specified.

Local, state, or federal permits may be needed prior to the installation of some practices. Areas in which a permit is generally required include mapped or inventoried wetlands and the shoreland areas of lakes and streams. The cost share recipient is responsible for acquiring the needed permits prior to the installation of practices. The Land Conservation Department is responsible for enforcing compliance of cost share agreements. The LCD will insure that practices installed through the program are maintained in accordance with their operation and maintenance plan for the appropriate length of time.

Cost Containment Procedures

Cost containment procedures are identified in this plan to control the costs of installing BMPs. The cost containment procedure used by Waushara County is described below. The Bidder Information procedure, average cost and flat rate lists can be obtained from the Waushara County Land Conservation Department.

Competitive bids will be required for all structural BMPs with estimated total costs, as determined by the project technician, exceeding \$5,000. The process requires a minimum of three bids from qualified contractors in itemized bid format. In cases where only one bid is received, the Land Conservation Department will determine if the bid constitutes an appropriate cost for the project. If no bids are received or if the lone bid is not deemed appropriate, the project may be placed back out for bid or the County may limit cost sharing based on average costs. The Land and Water Conservation Department and landowners reserve the right to refuse any bids that are not deemed appropriate for the practice.

Payments for “in kind” contributions will be based on the County’s guidelines. Landowners who receive financial assistance who wish to install a BMP using their own labor, material, and equipment must submit a quote plus one quote from a qualified contractor for the practice installation.

Financial assistance payments will be based on actual installation costs. If actual installation costs exceed the amount of financial assistance determined by cost estimates, then the amount paid the grantee may be increased with the approval of the County Land/Water & Education Committee. Appropriate documentation regarding the need for changes will be submitted to the Land Conservation Department.

Plan of Action

The plan of action for this document is to identify, implement and install the proper practices and procedures to achieve the goals required to meet our previously identified objectives. This will be

accomplished using existing staff, volunteers, conservation groups, lake associations, and all applicable programs, rules, laws, ordinances and available financial resources.

Program Integration

Based on the citizen advisory meetings, surveys, and the related plans used in our resource assessments the LWRM plan identified these main goals:

- Assist farmers with implementing the animal waste prohibition and state performance standards
- Protect and enhance in lake, in-stream, riparian, wetland and upland habitat
- Protect surface waters from construction site erosion control & non-metallic mining
- Protect and enhance surface and ground water quality and quantity
- Continue to develop and enhance our soil & water information & education strategy
- Encourage and support farmers to join and participate in a farmer led watershed group
- Strive to meet objectives of the Winnebago Watershed 9 Key element plans
- Strive to obtain 9 key element plans throughout the county by 2031

The annual work plan will includes activities that will help to meet the goals and provides a balanced approach to implement Waushara County's strategy to protect our natural resources. The work plan will be developed and submitted annually to DATCP with our staffing grant. The LWE Committee will look over the work plan and may adjust the work plan to take advantage of the new/additional funding opportunities. Unless stated, the Land Conservation & Zoning Department will take lead role in all actions.

Information and Education Strategy

Waushara County will continue its current information and education strategy. Conservation Field days, newsletters and school visits will be the main target for the Land Conservation Department to spread the word of conservation. Table 5-1 will be used as a part of our agricultural performance standards information and education strategy. See appendix C for a detailed I & E work plan.

Waushara County Manure Waste Storage Code

In October 2002, the Waushara County Land Conservation Department adopted a Manure Storage Ordinance. The purpose of this ordinance (codified and now titled Waushara County Manure Waste Storage Code) is to regulate the location, design, construction, installation, alteration, closure, and use of manure storage facilities in order to prevent water pollution and thereby protect the health of Waushara County residents and transients, and to implement the Performance Standards. The most recent update to the Waushara County waste storage code was in 2020, when Nutrient Management requirement, NR 151.07 was added. This code will be updated in the future and will include all the updated standards and specifications that address the Performance Standards where applicable (Table 5-1). As staff time allows, the Land Conservation Department will update the manure waste storage code for Waushara County. The revision will include all the updated standards and specifications and also address the Performance Standards where applicable. The current code is on file in the Land Conservation & Zoning Department office and on the Waushara County Website (www.co.waushara.wi.us)

Program Integration

Currently, numerous other programs at the county, state and federal level are available to complement the Land and Water Resource Management Plan. Land Conservation Department staff will encourage landowners to utilize these other programs wherever applicable to help meet the goals of the plan.

Aquatic Invasive Species Grant Program

The WDNR administers the Aquatic Invasive Species grant program. In response to the increasing threat to our priceless lakes and rivers, Wisconsin has increased its support of local efforts to prevent the spread of introduced aquatic invasive by creating the Aquatic Invasive Species Prevention and Control Grants. Eligible waters to receive AIS prevention and control grants include: inland lakes, great lakes, rivers and wetlands. It is recommended that an AIS Prevention and control grant be pursued in the Pine/Willow, Mecan and White River Watersheds to perform AIS evaluation. These river grants may enable Waushara County to hire LTE Staff to perform and analyze the potential for AIS presence.

Conservation Reserve Program (CRP)

The Conservation Reserve Program was developed to assist landowners in voluntarily converting highly erodible and environmentally sensitive cropland from the production of annual crops to less intensive uses such as permanent grass, legumes, forbs, wildlife cover or trees. CRP participants can enroll in a 10 to 15 year lease payment. Sign-ups are ongoing and cover priority practices such as filter strips, riparian buffers, shelter belts, field windbreaks, grassed waterways and shallow water areas for wildlife. Sign-up applications are available at the Farm Service Agency. For information, go to: <http://www.fsa.usda.gov>

Central Wisconsin Windshed Partners (CWWP)

The Central Wisconsin Windshed Partners (CWWP) is a cooperative venture of the Wisconsin Potato and Vegetable Growers Association; the vegetable processing industry; the Land Conservation Committees of Adams, Juneau, Portage, Waushara, Wood, and working with Marathon, Marquette, and Waupaca Counties; the Wisconsin Department of Agriculture, Trade, and Consumer Protection; the Golden Sands Resource Conservation and Development Area; the Natural Resources Conservation Service; the University of Wisconsin; and the University of Wisconsin Cooperative Extension Service.

Based out of the Ag Research Station in Hancock, the CWWP seeks to assist people with wind erosion and snow control, landscaping, prairie grass seeding, and livestock protection through three primary activities: 1) Offering a full-service windbreak establishment and maintenance program. The maintenance program includes mowing, hand weeding, and replacing dead plants for the first three years of the plants establishment. 2) Providing education and information to people through their experiences in these areas. Cost-sharing is available to those who participate in this program and meet qualifications.

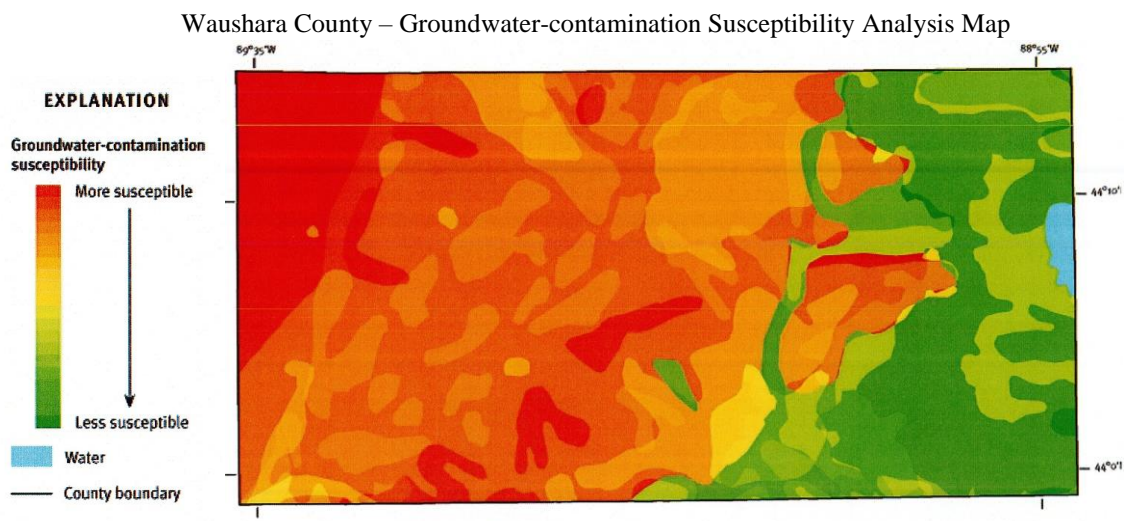
Ground Water - CSGCC

Several County Land and Water Conservation Departments, Public Health Departments and County Board Supervisors from Adams, Juneau, Marquette, Portage, Waushara, and Wood Counties as well as Representatives from UW Madison Extension have recently joined together to form the Central Sands Groundwater County Collaborative (CSGCC). This collaboration was formed to meet the present and

future needs for safe, high quality, reliable and sustainable drinking water due to our region being uniquely susceptible to nitrate contamination in our ground water because of our sandy soils.

CSGCC representatives have been working toward establishing a plan of action to assure safe drinking water for residents of and visitors to our communities. Goals and strategies of the collaborative include the following:

1. Understand current groundwater conditions by developing a sampling strategy to collect baseline water quality information across the Counties in the Central Sands Region. This information will be used to identify areas with elevated nitrate levels. In areas considered "hot spots", further analysis will be conducted to evaluate likely sources of nitrate contamination.
2. Gain a uniform understanding of methods to prevent nitrogen contamination in groundwater based on information from previous studies conducted in the central sands and similar settings.
3. Understand where areas most vulnerable to groundwater contamination exist to guide the development and use of ordinances, practices, and other preventative responses for land use.



4. Develop a unified regional outreach strategy to provide partisan-free education about groundwater conservation and water quality safety to the general public.
5. Create a model structure for regional collaboration on groundwater management that can be applied statewide.

While the CSGCC is in its very early developmental stages, County Officials and partnering organizations hope to collaborate through collective research, data management, education, and community outreach to address the current and emerging human and environmental health challenges of groundwater management in this region. To accomplish these ends, CSGCC has reached out to our local Representatives, Senators and Legislators for financial support as participating counties alone are unable to completely fund this project. When funding is made available, it is envisioned that additional

organizations will be invited to participate and outreach to the public will be sought for insight and comment.

MDV - Multi-Discharge Variance

The multi-discharger variance (MDV) for phosphorus extends the timeline for complying with low-level phosphorus limits. In exchange, point sources commit to step-wise reductions of phosphorus within their effluent as well as helping to address nonpoint sources of phosphorus from farm fields, cities or natural areas to implement projects designed to improve water quality. The MDV is similar to an individual variance. However, multiple point sources can be covered under the MDV, whereas an individual variance only applies to a single facility. This provides for administrative streamlining and maximizes the potential benefits watershed projects may have through the variance program.

The WDNR used STEPL to model the Phosphorus losses in the Upper Fox and Wolf River Watershed, the highest ranking watershed is the Little Pine – Mecan River Watershed, .28 lbs/P/year. Waushara County receives minimum funds from the MDV Program, it is our intent and goal to spend these monies in the Little Pine Creek - Mecan River Watershed. (Appendix L)

Environmental Quality Incentive Program (EQIP)

EQIP uses a local workgroup of Federal, State and County employees to distribute federal funds to help cost share conservation practices. It is a voluntary program designed to meet local resource concerns. For a list of eligible practices and cost share rates for Waushara County go to <http://www.wi.nrcs.usda.gov> .

Gypsy Moth Suppression Program

The Gypsy Moth Program is a DATCP Program established to reduce Gypsy Moth populations. Fifty-two of Wisconsin's 72 counties are under quarantine for gypsy moth, including Waushara County. Pockets of gypsy moth infestation flare up periodically within these counties. These outbreaks may range from a single woodlot to thousands of acres. Local communities or individual property owners may choose to spray to suppress these outbreaks, but DATCP generally does not treat in these areas.

DATCP does treat in the counties just west of the quarantined counties and on the western edge of some of the quarantined counties as part of the Slow the Spread program, a cooperative effort with the USDA Forest Service and 10 states.

Household and Agricultural Hazardous Waste Clean Sweep

The Clean Sweep is a grant-funded program through the Wisconsin Department of Agriculture. Wisconsin Clean Sweep is a grant program that provides reimbursement to communities that collect and dispose of household hazardous wastes, agricultural pesticides, and prescription drugs. Grants may be awarded to counties, towns, villages, cities, tribes, sanitary and sewerage districts, or regional planning commissions. Grants can support collection and disposal of these products. Prescription drug grants can also be used to buy drop boxes. The Waushara County currently partners with Waupaca County to provide this service through their solid wastes management program.

Surface Water Grant Program

The surface water grant program provides cost-sharing grants for surface water protection and restoration. Funding is available for education, ecological assessments, planning, implementation, and aquatic invasive species prevention and control. With many different projects eligible for grant funding, you can support surface water management at any stage: from organization capacity development to project implementation.

Nine Key Element Plans

Watershed plans consistent with EPA's nine key elements provide a framework for improving water quality in a holistic manner within a geographic watershed. The nine elements help assess the contributing causes and sources of nonpoint source pollution, involve key stakeholders and prioritize restoration and protection strategies to address water quality problems.

Development of watershed-based plans funded with Section 319 funds must be consistent with EPA's nine elements. The elements can be used in watersheds with impaired waters or used to protect watersheds not yet impaired.

The first three elements characterize and set goals to address pollution sources. The remaining six elements determine specific resources and criteria to implement and evaluate the plan.

Summary of the nine minimum elements:

1. Identify the causes and sources
2. Estimate pollutant loading into the watershed and the expected load reductions
3. Describe management measures that will achieve load reductions and targeted critical areas
4. Estimate the amounts of technical and financial assistance and the relevant authorities needed to implement the plan
5. Develop an information/education component
6. Develop a project schedule
7. Develop the interim, measurable milestones
8. Identify indicators to measure progress and make adjustments
9. Develop a monitoring component

Waushara County currently has only one DNR and EPA nine-key element plan which is in the Northwest portion of the county. It is the Fourteen Mile Creek Watershed non-point source watershed plan (NKE122) with the following plan goals:

- Goal #1: Improve surface water quality and reduce nutrients to meet Wisconsin River TMDL goals.
- Goal #2: Improve groundwater quality by reducing nitrogen sources and other pollutants.
- Goal #3: Improve lake and stream bank stability by restoring banks and reducing bank degradation.
- Goal #4: Increase public involvement in improving water quality in the watershed.

Waushara County Land Conservation Department assisted The Fox Wolf Watershed Alliance with nine key element planning for the Upper Fox and Wolf River Watersheds that contribute to Lake Winnebago system. There are 7 watershed that are fully or predominately in Waushara County and smaller portions of 3 watershed that are either predominately in Waupaca or Winnebago Counties (Appendix J). Drafts for these watershed plans are completed, yet they do not have DNR or EPA Approval.

Managed Forest Law (MFL)

The Managed Forest Law (MFL) program is a landowner incentive program that encourages sustainable forestry on private woodland. In exchange for following sound forest management, the landowner pays reduced property taxes. It was enacted in 1985 and replaced the Woodland Tax Law and the Forest Crop Law.

MFL is the only forest tax law that is open to enrollment. Land enrolled in the MFL program must be managed according to a plan agreed to by the landowner.

Non-Metallic Mining Reclamation

In April 2001, Waushara County passed the Non-Metallic Mining Reclamation Ordinance. The goal of the ordinance is to assure lands opened to mining are reclaimed to near pre-mining conditions or to a use that is environmentally friendly and safe. Waushara County currently has 15 active mines that have approved reclamation plans on them. Any new or reactivated mining operation greater than an acre in size will fall under the reclamation standards in the ordinance.

Partners for Fish and Wildlife

The goal of the Partners for Fish and Wildlife is the restoration of wetland, grasslands, and threatened and/or endangered species habitats. Landowners may be eligible if they have land that can be restored to wetland conditions, land that is degraded or former grasslands that can be restored, and land that can be restored to provide habitat for threatened and endangered species. There is up to 100% cost-sharing available. To contact the US-FWS local office, phone (920) 866-1717.

Conservation Stewardship Program

NRCS's Conservation Stewardship Program (CSP) helps you build on your existing conservation efforts while strengthening your operation. Whether you are looking to improve grazing conditions, increase crop yields, or develop wildlife habitat, we can custom design a CSP plan to help you meet those goals. NRCS can help you schedule timely planting of cover crops, develop a grazing plan that will improve your forage base, implement no-till to reduce erosion or manage forested areas in a way that benefits wildlife habitat. If you are already taking steps to improve the condition of the land, chances are CSP can help you find new ways to meet your goals.

Wetland Reserve Program (WRP)

The Wetland Reserve Program is a voluntary program established to help landowners restore and protect wetlands on their property. To be eligible, land must have been drained for farming or pasture and possess the capability to be restored to natural wetland conditions. NRCS teams up with Ducks Unlimited and Wisconsin Waterfowl Association on various projects. The participation level of each agency depends on the needs and characteristics of each project. For information, go to: <http://www.wi.nrcs.usda.gov>

Wildlife Damage Abatement and Claims Program

The Wildlife Damage Abatement and Claims Program provides abatement and claims assistance to landowners receiving wildlife damage. The damage must be caused by deer, bear, geese, or turkeys to commercial seedlings, orchard trees, agricultural crops, nursery stock, apiaries, or livestock. Landowners are eligible for abatement practices such as fencing, shooting permits, cannons, etc.

Wisconsin Farmland Preservation Program (FPP)

The goals of the Farmland Preservation Program are to preserve farmland through local planning and zoning, promote soil and water conservation, and provide tax relief to participating farmers. Farmers qualify if their land is zoned Exclusive or are in a designated agricultural enterprise area or AEA. To be eligible the landowner must own 35 acres or more, produce gross farm profit of \$6,000.00 from the previous year or \$18,000.00 over the past three years, follow a conservation plan that complies with the Waushara County Soil and Water Conservation Standards for the Farmland Preservation Program, and be a resident of the State of Wisconsin. All Farmland Preservation Program participants must meet the Waushara County Soil and Water Conservation Standards. Currently there is no exclusive agricultural zoning in Waushara County and no designated AEA's, in turn there is no participation in FPP in Waushara County. I&E will continue to be provided to farmers/landowners on the benefits of the program and how to establish the lands eligible for the tax credits.

Wisconsin Forest Landowner Grant Program (WFLGP)

This program is designed to assist private landowners protecting and enhancing their forested lands, prairies and waters. This program allows qualified landowners to be reimbursed up to 50% of the cost of eligible practices. To apply, applicants must be interested in being good stewards of their natural resources and own at least 10 acres of contiguous acres of non-industrial private forest, but not more than 500 acres. Landowners must have a Forest Stewardship Plan for their land or need to be applying to have one prepared in order to qualify.

Waushara County Well Testing Program

The Waushara County Land/Water & Education Committee sees benefits to facilitate a county water testing program for the following reasons: 1) better determine the state of private drinking water wells within the county and: 2) develop a current data base that would assist the county with providing funding to areas of the county where water quality would benefit most from BMP's aimed at improving water quality.

The Land Conservation Department will facilitate the collection, preservation and transportation of water samples in conjunction with the Towns and the UWSP Water & Environmental Analysis Lab (WEAL). Towns will be asked to support the project. There is no cost to the town other than directing questions and comments to LC&Z and possibly providing a collection point for well tests from the area the morning the tests are collected.

Waushara County Land Conservation Department Cost Sharing Policy

Financial assistance will be provided to landowners and local units of government that have priority sites to help offset the cost of installing BMP's. The Land Conservation Department distributes funding to landowners after the BMP is installed, inspected and verified by Land Conservation Department staff. In order to qualify for financial assistance, landowners must meet the eligibility criteria defined by the program for which they are receiving funds.

In order to receive cost sharing funds, landowners must enter into a cost-share agreement with the Land Conservation Department and Waushara County. Cost-share agreements are binding documents that secure funds for an individual practice. Recording requirements for cost share agreements will reflect individual program requirements.

All practices installed must be maintained for a minimum of ten years from the date of final installation. An operation and maintenance agreement will be signed at project completion, detailing

the landowner's maintenance schedule and duties. This ten year agreement is not required for certain practices, such as conservation tillage and nutrient management which have no specific term specified. Certain practices dealing with wetlands and shorelines may require other local, state or federal permits. The landowner/cost-share recipient is responsible for acquiring the needed permits prior to the installation of practices. These permits are required whether the activity is part of the county program or not.

The Land Conservation Department is responsible for enforcing compliance of cost share agreements, and will insure that practices installed through the program are maintained in accordance with the operation and maintenance plan for the appropriate length of time.

Water Quality Incentives Program (WQIP)

The WQIP is a \$25,000 per year program set-up on a three year trial period basis beginning in 2012, the program has allowed us get more conservation practices installed, and the program is continuing to be a County funded program in 2021. Landowners who install Best Management Practices (BMP's) that will help improve water quality are eligible. Administered by the Land Conservation & Zoning Department, this program provides local cost sharing dollars throughout the county for pollution abatement and water quality protection measures.

If a project is eligible, the program will provide cost-sharing up to 70% of costs for the project to a maximum of \$5000 along with technical assistance through the Waushara County Land Conservation & Zoning Department in planning, design and supervision of project installations.

Plan Evaluation and Monitoring

Annual Review

The annual review will take place during the first month of each year by LCD Staff.. This review will be used to evaluate short-term progress. Items that will be looked at are: landowner contracts, reduction of phosphorus or sediment loading, high residue management systems, nutrient management acres planned and BMP installation. All of this information will be used by the Land/Water & Education Committee to set workload priorities for the coming year.

Administrative Reporting

Annually each year, the Land Conservation Department will conduct a progress evaluation and conduct a review meeting with the LWE Committee, a Citizens Advisory Committee representative, Basin Team Leaders and other interested groups, cooperating agencies and units of government as time and schedules allow. This meeting will provide the opportunity to review and evaluate progress on previous years' accomplishments by ecoregion, basin and watershed.

Financial Reporting

This reporting will include all funds under LCD responsibility. The following reporting will be accomplished:

1. Total year end and cumulative payments for BMP installation
2. Total funds encumbered in project cost-share agreements
3. Total all other funds appropriated for the implementation of the Land and Water Resource Management Plan. This includes applicable staff and other related Administrative support costs.

Inventories

Several methods are in current use to gather information that track changes in land use and/or land management practices. Listed below are the major inventory methods and the resource agency responsible for maintaining each database.

<u>Inventory Method</u>	<u>Resource</u>	<u>Responsible Agency</u>
National Resource Inventory	Land Use	NRCS
LANDSAT Photos	Land Cover	DNR
CRP Acres	Cropland & Pasture Land	FSA
Sediment Delivery	Cropland/Streambank	LCD
Phosphorous Delivery	Barnyards	LCD

Monitoring

Monitoring the progress of reducing phosphorus and sediment loading will be accomplished in several ways. Sign of Success (SOS-see glossary) will be used to document short-term qualitative improvements. Pre-and-Post bmp data collection will be accumulated using current models. Photographs or digital pictures documenting before and after Best Management Practices (BMP's) may also be used.

Single sources monitoring will start during the records review stage of implementation (exp. BARNY or current barnyard inventory program). Data old and new will be gathered to show where the priority sites are located and at what rate these sites are contributing to loading. When this information is combined with accomplishment reports, a true picture can be developed concerning pollutant load reductions that have occurred.

For watershed wide or countywide progress, several of the above mentioned inventory methods would need to be combined to show, on a quantitative basis, what installation of multiple best management practices has done. This will be a long-term evaluation method to show improvements in collection of quantitative data.

Non-point source programs are always scrutinized for being unable to track the progress made. Our goal is to perform internal reviews of our workload annually. This will also help to make necessary adjustments and revisions to this "working plan" as they are needed.

The non-point pollution reduction goals have been identified and include installation of all applicable best management practices, regardless of agency/program. Communication with cooperating agencies will be needed to accurately track the installation and pollutant load reduction associated with each practice. The LWE Committee will review the work plan annually and adjustments will be made to insure the LWRM Plan is being implemented to its fullest extent. Reporting will be done annually to DATCP and DNR according to ATCP 50.

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APPENDICES

APPENDIX - A

Conservation Practice Definitions

Agricultural Sediment Basins - structures designed to reduce the transport of sediment of other pollutants eroding from agricultural fields to surface waters and wetlands.

Barnyard Abandonment or Relocation – the relocation of an animal lot from a critical site such as a floodway to a suitable site to minimize the amount of pollutants from the lot to surface or groundwater.

Barnyard Runoff Management - structural measures to redirect surface runoff around the barnyard, and collect, convey or temporarily store runoff from the barnyard.

Cattle Mounds - earthen mounds used in conjunction with feeding and dry lot operations intended to provide a dry and stable surface area for cattle.

Contour Farming - the farming of sloped land so that all operations from seed bed preparation to harvest is done on the contour.

Contour Strip Cropping - growing alternating strips of row crops and grasses or legumes on the contour.

Critical Area Stabilization - the planting of suitable vegetation on non-point source sites and other treatments necessary to stabilize eroding lands.

Cropland Protection Cover (Green Manure) - close-growing grasses, legumes or small grain grown for seasonal soil erosion protection and soil improvement.

Easements - legally binding restrictions on land titles. Easements are purchased to provide permanent vegetative cover that will enhance or sustain a desired outcome..

Field Diversions - a channel constructed across the slope with a supporting ridge on the lower side, to divert excess water to safe outlet in other areas.

Grade Stabilization Structure - a structure used to reduce the grade in a channel to protect the channel from erosion or to prevent the formation or advance of gullies.

Grassed Waterways - a natural or constructed channel shaped, graded and established with suitable cover as needed to prevent erosion by runoff waters.

High Residue Management – a system which leaves at least 30 percent of the ground covered with crop residue after crops are planted.

Intensive Grazing Management (Rotational Grazing) - the division of pastures into multiple cells that receive a short but intensive grazing period followed by a period of recovery of the vegetative cover. Rotational grazing systems can correct existing pasturing practices that result in degradation and should replace the practice of summer dry-lots when this practice results in water quality degradation.

Lake Sediment Treatment - a chemical, physical or biological treatment of polluted lake sediments. Sources of pollution to the lake must be controlled prior to treatment of lake sediments. Treatment does not include dredging.

Land Acquisition - the purchase of land or the interest in land, which is contributing or will contribute non-point source pollution or for the construction of an urban structural practice.

Livestock Exclusion from Woodlots - the exclusion of livestock from woodlots to protect the woodlots from grazing by fencing or other means.

Manure Storage Facility - a structure for the storage of manure for a period of time that is needed to reduce the impact of manure as a non-point source of pollution. Livestock operations where this practice applies are those where manure is winter spread on fields that have a high potential for runoff to lakes, streams and groundwater. The facility is needed to store and properly spread manure according to a management plan.

Manure Storage Facility Abandonment - the proper abandonment of leaking and improperly sited manure storage systems, including: a system with bottom at or below groundwater level; a system whose pit fills with groundwater; a system whose pit leads into the bedrock; a system which has documented reports of discharging manure into surface or groundwater due to structural failure; and a system where there is evidence of structural failure. The practice includes proper removal and disposal of wastes, liner materials, and saturated soil as well as shaping, filling, and seeding of the area.

Milking Center Waste Control Systems - a piece of equipment, practice or combination of practices installed in a milking center for purposes of reducing the quantity or pollution potential of the wastes.

Nutrient Management - the management and crediting of nutrients from all sources, including legumes, manure, and soil reserves for the application of manure and commercial fertilizers. Management includes the rate, method and timing of the application of all sources of nutrients to minimize the amount of nutrients entering surface and groundwater. This practice includes manure nutrient testing, routine soil testing, and residual nitrogen soil testing.

Pesticide Management - the management of the handling, disposal and application of pesticides including the rate, method and timing of application to minimize the amount of pesticides entering surface and groundwater. This practice includes integrated pest management scouting and planning.

Roofs for Barnyard Runoff Management and Manure Storage Facilities - roofs and supporting structure constructed specifically to prevent rain and snow from contacting manure.

Shoreline and Streambank Stabilization – the stabilization and protection of stream banks and lake shores against erosion and the protection of fish habitat and water quality from livestock access.

Shoreline Buffers – permanently vegetated areas immediately adjacent to lakes, streams, channels and wetlands designed and constructed to manage critical non-point sources or to filter pollutants from non-point sources.

Structural Urban Best Management Practices - practices that are source area measures, transport systems and end-of-pipe measures designed to control storm water runoff rates, volumes and discharge quality. These practices will reduce the amount of pollutants carried in runoff and flows destructive to

stream habitat. These measures include such practices as infiltration trenches, porous pavement, oil water separators, sediment chambers, sand filtration units, grassed swales, infiltration basins and detention/retention basins.

Terraces - a system of ridges and channels with suitable spacing and constructed on the contour with a suitable grade to prevent erosion in the channel.

Wetland Restoration - the construction of berms or destruction of the function of tile lines or drainage ditches to create conditions suitable for wetland vegetation.

Appendix B:
 WAUSHARA COUNTY
 LAND CONSERVATION DEPARTMENT USER SURVEY 2021

1. What do you think are the most important natural resource issues that should be addressed in Waushara County over the next 10 years?

Rank the most important issue 1, the 2nd most important issue 2, the 3rd issue 3, and so on. Use each number once.

- | | |
|---|---|
| <p>_____ Groundwater / drinking water quality
 river quality</p> <p>_____ Wildlife habitat quality and availability
 lots</p> <p>_____ Disposal and handling of manure and septic waste
 houses</p> <p>_____ Education programs on conservation issues</p> <p>_____ Invasive Species (aquatic & terrestrial)
 areas</p> <p>_____ Wildlife damage</p> <p>_____ Wind erosion</p> <p>_____ Other _____</p> | <p>_____ Surface water / lakes, streams,</p> <p>_____ Management of forest and wood</p> <p>_____ Over development / too many
 houses</p> <p>_____ Air quality</p> <p>_____ Need for more parks and natural
 areas</p> <p>_____ Soil erosion</p> |
|---|---|

2. The following are the major programs the Land Conservation Department is currently involved with. Rank the programs in the order you feel the Waushara County will benefit the most from over the next 10 years.

Rank the most important program as 1, the 2nd issue as 2, the 3rd as 3, and so on. Use each number once.

- _____ *Land and Water Resource Management Plan & Cost-sharing*
- _____ *Working Lands Initiative (Formerly the Farmland Preservation Program (FPP))*
- _____ *Construction Site Erosion Control / Storm water Management Assistance*
- _____ *Central Wisconsin Windshed Partners (CWWP)*
- _____ *Conservation Reserve Enhancement Program (CREP)*
- _____ *Aquatic Invasive Species (AIS)*
- _____ *Information & Education*
- _____ *Water Quality Improvement Program (WQIP)*

3. If applicable, which of the above listed major programs of the Land Conservation Department have you have been involved with and how (employed by, learned from, recipient of benefits)?

4. Please list what other important issues or programs the Land Conservation Department should focus on in Waushara County for the next 10 years.

Please describe why you answered as you did.

WAUSHARA COUNTY LAND CONSERVATION DEPARTMENT

SUMMARY AND BRIEF DESCRIPTIONS OF MAJOR PROGRAMS

Land and Water Resource Management Plan & Cost-Sharing

This plan was done in 1999 in response to a legislative call to redesign Wisconsin's programs to reduce pollution from unknown sources. It is intended to guide and direct the Land Conservation Department by identifying long term goals and implementation strategies to reduce sediment and phosphorus in rivers, streams, and lakes in Waushara County. Some of the other goals include bringing all lands to within tolerable soil loss; providing sufficient areas of shoreline plants between the water and buildings along the edge of all lakes, rivers, and streams; and provide technical assistance to landowners. Cost sharing is available to share the cost of implementing practices that accomplish these goals and objectives.

Working Lands Initiative (Formerly Farmland Preservation Program)

The Farmland Preservation Program began in 1980, and is a tax incentive program encouraging farmers to keep their farms in agriculture production. Contracts with the State Department of Agriculture can be signed for periods of 10-25 years. The farmers agree to keep their lands in agricultural production and to farm in accordance with an approved conservation plan. In turn they are eligible for a reduction in their state income tax. Currently there are approximately 40 active agreements in Waushara County.

Construction Site Erosion Control / Stormwater Management Assistance

The Land Conservation and Zoning Department staff currently assist individual landowners by providing erosion control and storm water management assistance during residential construction. Many of these properties abut lakes and streams. In addition, staff also provides review of minor and major subdivisions and large development projects to assure that these types of developments will not compromise water quality or the environment.

Central Wisconsin Windshed Partners

Formed in 1995, this coalition of counties, the Central Wisconsin Vegetable Growers and the Golden Sands RC&D was organized to provide planning, layout, installation, maintenance and to share the cost measures to reduce wind erosion of the soil. The partners provide assistance to area farmers resulting in the annual planting of approximately 15 miles of trees or shrubs to reduce the force of wind, so less soil is blown off the farm fields.

Conservation Reserve Enhancement Program (CREP)

CREP is an opportunity for Wisconsin landowners to voluntarily enroll agricultural lands in the 9 Eastern CREP designated townships into conservation practices, such as riparian buffers, filter strips, wetland restorations, waterways and the establishment of native grasslands in the grassland project area. It is a joint partnership between the United States Department Of Agriculture (USDA), the Farm Service Agency (FSA), Department of Agriculture Trade and Consumer Protection (DATCP), the Wisconsin Department of Natural Resources (WDNR), the Natural Resources Conservation Service (NRCS) and County Land Conservation Departments (LCD). Fifteen-year agreements and perpetual easements are available. Depending on a variety of factors and application options, annual rental rates can range from \$35-\$120 per acre. USDA also provides an incentive & maintenance payments. In addition, the State of Wisconsin offers an incentive payment for the agreements.

Information & Education

Land Conservation Staff work with schools, camps, lake associations, groups & organization and individual property owners in teaching land and water stewardship, and conservation education in general. Some of the annual events involving local school children are Conservation Field Days, the Conservation Poster Contest, and Ground Water Education. The Land Conservation Department also provides a scholarship each year for a student to attend Conservation Camp.

AIS

Infestations of aquatic invasive species (AIS) create a chain reaction of impacts to the lake's ecology, decreasing the recreational value, sporting value and aesthetic value of the water body, which may in turn result in decreased property values. In an effort to take a pro-active approach, Waushara, Wood, Marathon and Portage County Land Conservation Departments (LCD's) see a need for involvement with and guidance to lake management units grappling with AIS issues.

Water Quality Improvement Program (WQIP)

A county level cost-sharing program, which assists landowners with conservation projects that do not qualify for LWRM cost-sharing or assist landowners in conservation projects where the LWRM cost-share amount is only 50%.

Appendix - C

2021 LWRM Information & Education Strategy

BACKGROUND

This section will explain the information and education (I&E) strategy that will be used to help the county achieve its goals. Implementation of this strategy is intended to build awareness about local resource concerns and encourage residents to adopt the Best Management Practices (BMP's) needed to preserve, protect and restore the resource.

To address knowledge barriers; our I & E Strategy contains activities designed to disseminate information throughout the county. Examples include websites, newsletters, direct mailings, media coverage, or informational meetings. In order to address skill barriers; demonstrations, field days, and one-on-one instruction are planned. In order to address attitude barriers; an individual could be encouraged to become a volunteer Aquatic Invasive Species (AIS) monitor or a Clean Boats Clean Water (CBCW) volunteer and help out at a boat landing. This type of activity gets people involved in the project and gives them a stake in its success.

This entire strategy is based on building awareness and inducing long term behavior modification to achieve the goals and objectives of the Plan. This strategy lists the I & E objectives that need to be accomplished. Each objective aims to provide information to support or teach a BMP to a particular audience. Each objective is accompanied with a list of activities to fulfill this function. Accomplishing the goals in the I&E Strategy will require a collaborative effort between the Waushara County Land Conservation and Zoning Department, UW-Extension, Department of Natural Resources, USDA - Natural Resources Conservation Service, and many other State and local agencies, local conservation organizations, lake districts and associations.

OBJECTIVE: Continue Ag Performance Standards Implementation and Reduce Soil & Wind Erosion

Planned strategy:

- Review and Promote Agricultural Performance Standards with landowners
- Implementation of Agricultural Performance Standards & Animal Waste Prohibitions
- Reduce wind erosion
- Continue to promote existing conservation programs
- Provide Best Management Practices (BMP) information on the County Website
- Promote Nutrient Management Planning (NMP) and continue conducting NMFE courses and meeting one-on-one and/or with small groups with farmers.

OBJECTIVE: Protect and enhance near shore lake & stream habitats including: littoral, riparian, wetland and nearby upland habitat

Planned strategy:

- Educate riparian owners and the general public on the value of conservation buffers
- Demonstrate and Promote Shoreland Buffers and Shoreland Protection BMPs
- Restore buffers in Waushara County using Waushara County's Buffer Program.
- Restore, protect and enhance upland regions of Waushara County
- Restore and enhance previously altered wetlands throughout Waushara County
- Stabilize stream banks and lakeshores in Waushara County

- Provide Best Management Practices (BMP) information on the County Website

OBJECTIVE: Protect Surface Waters from Construction Site Erosion & Non Metallic Mining Operations

Planned strategy:

- Create awareness of sediment loading from all construction sites
- Control run-off from construction sites
- Assure proper rehabilitation of mining sites
- One on one landowner visits and construction site inspections
- Provide Best Management Practices (BMP) information on the County Website
- Promote low maintenance landscaping and natural soil enhancing techniques

OBJECTIVE: Protect Water Quality on Lakes and Streams

Planned strategy:

- Assist lake management groups in updating lake management plans as needed.
- Reduce Invasive Species in area lakes and minimize the transfer of species
- Work with Golden Sands RC&D to maintain DNR Aquatic Invasive Species Grant
- Establish water quality information on area streams
- Provide landowners with shoreline protection & shoreland habitat designs and technical assistance for installation
- Have lake management planning details on the County website.
- Meet with individual lake groups and review results

OBJECTIVE: Increase and continually improve our Environmental Information and Education efforts

Planned activities:

- Provide "Hand's on" environmental learning for Waushara County Fifth grade students
- Provide additional educational activities promoting conservation
- Provide ground water education in schools
- Provide elementary schools with environmental education for adults
- Support environmental education through WI Land and Water sponsored contests
- Protect ground water quantity through sound conservation practices education
- County personal on WI Land and Water Youth Education Committee.

Evaluation

As part of the annual accomplishment report, the county will prepare a summary of its information and education efforts over the year. The summary will address how the I & E strategy was implemented and how residents/students participated.

Evaluating the I & E Strategy

The staff will summarize the I & E activities they accomplished during the year. If the strategy was used to select and plan activities, it will be seen as an indication that the strategy is working. Whether the activities actually reached their intended audiences and whether they caused participants to successfully change their behavior can be measured by evaluating participation rates and BMP adoption.

Evaluating Participation

Since the strategy depends on activities to get people aware and involved, participation at those activities can help evaluate the success of I & E efforts. Participation will be measured not only by

attendance at field days and volunteer events, but will also include newsletter readership, website contacts, requests for information, and signed cost-share agreements. If residents are attending planned I & E events and signing cost share agreements as budgets allow, I & E activities are probably having their desired impact. If residents never call the LCD office to learn more about the project or attendance at field days and demonstrations are consistently low, this would probably indicate that new activities are needed.

Evaluating I & E's success based primarily on participation can be misleading since participation is not an indicator of successful BMP adoption. For example, just because someone attended a demonstration does not mean that they learned what the staff wanted them to and just because a farmer installs a BMP does not mean that they are using it successfully. To determine if the I & E Strategy is persuading residents to successfully adopt BMPs involves monitoring the performance of the participants.

Evaluating BMP Adoption and Behavior Modification

Evaluating the adoption process involves monitoring the successes and failures that participants have experienced while using and maintaining their new BMPs, along with the performance of the BMP. This means that staff will continue working with participants after a BMP is installed to ensure that the practice has been adopted successfully. Landowners are very good communicators of their displeasure so we will know immediately if the newly installed BMP is not performing as designed or anticipated. Success means that the BMP benefits both the participant (profitability included), and soil and water conservation and quality.

The techniques used to evaluate I & E activities include informal discussions with participants posing questions such as: "Did you find the information in the newsletter helpful?" "Did you learn from the demonstration?" and "How can we improve future I & E activities?" Some other techniques include surveys that ask similar questions but do it confidentially or staff observations that can be completed by asking colleagues how they thought an activity went through the use of polls. The staff will use the information gathered from these evaluations to improve each activity the next time it is offered.

More formal ways to evaluate both activities and objectives are surveys, focus groups, and examining performance records. These methods are most useful when baseline data is available for comparisons. Nutrient management and tillage surveys can be used to provide baseline data for later performance record evaluations of those two practice

**APPENDIX: D
AGRICULTURAL PERFORMANCE STANDARDS CHECKLIST**

**WAUSHARA COUNTY CHECKLIST / RANKING SHEET
AGRICULTURAL PERFORMANCE STANDARDS & PROHIBITIONS
CHAPTER NR 151, RUNOFF MANAGEMENT**

EVALUATOR:
DATE:

APPLICANT:
ADDRESS:
PHONE:
TOWNSHIP: SECTION:

	<u>YES</u>	<u>NO</u>
Is the project located within Lunch Creek HUC 12 Watershed?	<input type="checkbox"/>	<input type="checkbox"/>
Is the project located within Little Pine Creek-Mecan River HUC 12 Watershed?	<input type="checkbox"/>	<input type="checkbox"/>
Is the project located within a WQMA?	<input type="checkbox"/>	<input type="checkbox"/>
Is the site located in a 303D impaired watershed?	<input type="checkbox"/>	<input type="checkbox"/>
Will an abandoned well on the property be decommissioned?	<input type="checkbox"/>	<input type="checkbox"/>
Is the practice part of other state or federal programs?	<input type="checkbox"/>	<input type="checkbox"/>

Resource concern(s) addressed:

Surface Water

Ground Water

List the State Performance Standards to be addressed: (Check all that apply - 3 points each)

<i>No significant discharge from feedlot</i>	<input type="checkbox"/>
Sheet & Rill erosion NR 151.02	<input type="checkbox"/>
Phosphorus index below 6 151.04	<input type="checkbox"/>
Manure storage (151.05)	<input type="checkbox"/>
Processed Waste Water 151.055	<input type="checkbox"/>
Clean Water Diversion 161.06	<input type="checkbox"/>
Nutrient Management 151.07	<input type="checkbox"/>
Sularian Bedrock 151.075	<input type="checkbox"/>
Manure Mgt Prohibitions 151.08	<input type="checkbox"/>
<i>a) No overflow of manure storage structures</i>	<input type="checkbox"/>
<i>b) No unconfined manure stacking within water quality areas</i>	<input type="checkbox"/>
<i>c) No direct runoff from feedlots or stored manure to waters of the state</i>	<input type="checkbox"/>
<i>d) No unlimited livestock access to waters of the state where high concentrations of animals prevent adequate sod cover maintenance</i>	<input type="checkbox"/>

List Practices to be installed: (Check all that apply - 1 point each)

BARNYARD RUNOFF CONTROL SYSTEM ATCP

50.64

ACCESS ROAD ATCP 50.65

TRAILS & WALKWAYS ATCP 50.66

CONTOUR FARMING ATCP

50.67

COVER CROPS ATCP 50.68

CRITICAL AREA STABILIZATION ATCP

50.69

DIVERSIONS ATCP 50.70

FEED STORAGE RUNOFF CONTROL ATCP 50.705

FIELD WINDBREAKS ATCP

50.71

FILTER STRIPS ATCP 50.72

GRADE STABE STRUCTURE ATCP 50.73

LIVESTOCK FENCING ATCP

50.75

LIVESTOCK WATERING FACILITY ATCP 50.76

MILKING CENTER WASTE CONTROL ATCP 50.77

NUTRIENT MANAGEMENT ATCP 50.78

PESTICIDE MANAGEMENT

50.79

List Practices to be installed (Cont.)

PRESCRIBED GRAZING 50.80

RELOCATING/ABANDONING ANIMAL FEEDING OPERATIONS ATCP 50.81

RESIDUE MGT ATCP 50.82

RIPARIAN BUFFERS ATCP 50.83

ROOFS ATCP 50.84

ROOF RUNOFF SYSTEM ATCP 50.85

SEDIMENT BASINS ATCP 50.86

SINKHOLE TREATMENT ATCP 50.87

STREAMBANK/SHORELINE PROTECTION ATCP

50.88

STREAM CROSSING ATCP

50.885

STRIPCROPPING ATCP 50.89

SUBSRFACE DRAINS ATCP

50.90

TERRACE SYSTEM ATCP 50.91

UNDERGROUND OUTLETS ATCP 50.92

WASTE TRANSFER SYSTEM ATCP 50.93

WATER TREATMENT STRIPS ATCP 50.94

WASCOB ATCP 50.95

WATERWAY ATCP 50.96

*WETLAND RESTORATION ATCP 50.98

OTHER

Total Points

EST. SEDIMENT SAVINGS

EST. PHOSPHORUS SAVINGS

PROJECT COMMENTS:

*WETLAND RESTORATION: NRCS delineated Farmed Wetlands (FW), Prior Converted Wetlands (PC), or restoration sites that provide a 3:1 Riparian Buffer to wetland acres installed

APPENDIX : E
Public Hearing Class II Posting

LEGALS

**NOTICE OF PUBLIC HEARING
STATE OF WISCONSIN
COUNTY OF WAUSHARA COUNTY
TO WHOM IT MAY CONCERN:**

Appendix - F

Policy Statement For Implementing NR 151 and ATCP 50

This document outlines the steps necessary to implement the agricultural performance standard NR 151, and administrative rule ATCP 50. The purpose of this policy statement is to better clarify what process is to be used when addressing these standards. The process is outlined in chronological order.

Determining Compliance

A. Records Inventory

A records inventory shall be used initially to determine current compliance to the standards. Existing FPP, Watershed & LWRM participant files as well as the barnyard and streambank inventories shall be used to get started on this component. Existing files that contain animal operations will be given priority in the records review process. As new landowners request technical assistance or cost sharing, a complete records review will be conducted. The review process will involve all program participants who have received cost sharing in any of the LCD programs on or after October 2002, when NR 151 & ATCP 50 took effect. Each review will be accompanied by a *NR 151 Compliance Status Report*. This *Status Report* documents compliance to the standards.

B. Initial Notification

Once a file has been reviewed, “Status of Compliance with Performance Standards & Prohibitions (**Appendix A**)” documenting this fact will be sent to the landowner/operator stating the need for an on-site evaluation. A list of participants who will receive this initial notification letter will be brought to the LWE for review & approval **prior to sending the notification letter**. Once this notification letter is sent, a follow up contact (if necessary) shall be made within two weeks of the date on the notification letter.

C. Onsite Evaluations

The onsite evaluation will identify and document all resource concerns on the property. All on-sites **must** have an updated, Streambank, or Shoreline inventory. Once the onsite evaluation is made and the Compliance Status report is completed, compliance determination can be made.

Implementation

A. In Compliance

Once a determination is made and the landowner is found to be in compliance, “Full Farm Assessment & Compliance with Chapter NR 151, Wis. Admin. Code” (**Appendix B**) will be sent. This letter documents the Compliance Status Report has been completed, any necessary onsites have been conducted, and states the landowner’s compliance to the performance standards, now and in the future.

B. Out of Compliance

¹ Revised May 1, 2021

Once a determination is made and the landowner is found to be out of compliance, “Notification Letter & Cost-Share Offer” will be sent. This letter documents the Compliance Status Report has been conducted, necessary on-sites have been conducted, and states the landowner is out of compliance with the performance standards and is required to take corrective actions. At this point, staff will offer cost sharing, technical assistance and an implementation schedule. This letter also outlines an implementation schedule. This implementation schedule will at a minimum outline:

What corrective actions will be taken

Estimated cost to install practice(s)

Timeline for installing practice(s)

1 year to begin implementation of corrective bmp's

2 years to complete the installation of bmp's

Table 1. Existing Cropland Practices & Livestock Facilities Covered by this Letter of Non-Compliance will be used for documenting which standards are out of compliance.

Table 2. Best management practices eligible for cost sharing to bring cropland and livestock facilities identified in Table 1 into compliance with performance standards and prohibitions will be used for this purpose.

Table 3. Estimated costs to comply with performance standards and prohibitions identified in Table 1 will be used for this purpose.

Enforcement

Exhaust every option with landowner. Has cost sharing & technical assistance been offered? Will the landowner agree to an implementation schedule? Has a cost share agreement been signed with no installation of bmp's within the 2 year installation period? Are there extenuating circumstances that prohibit the landowner from complying within the two years allowed?

If compliance can not be achieved, refer to Department of Natural Resources for enforcement.

Wautoma Field Office:

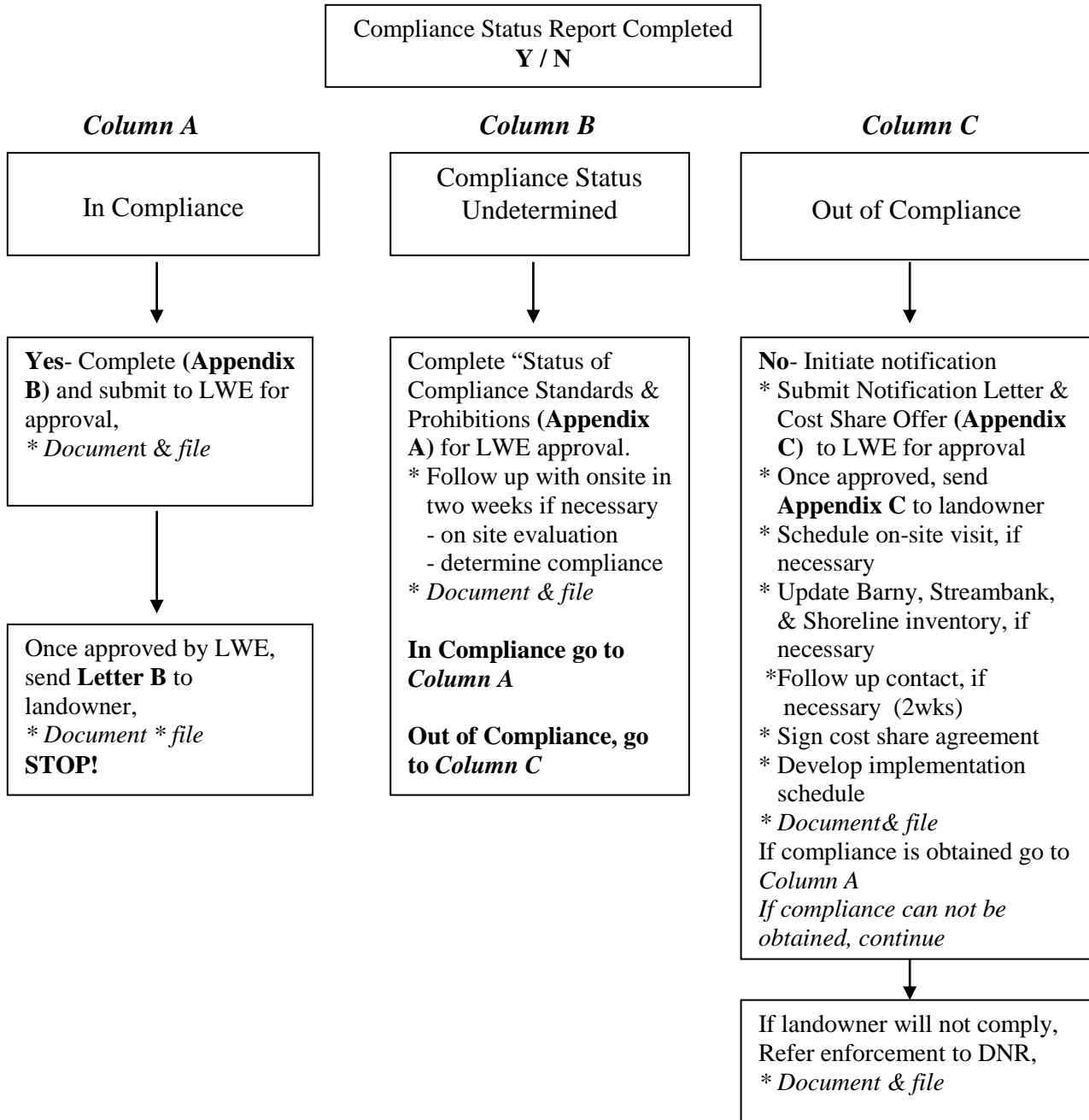
Water Resources – **Ted Johnson**

Oshkosh Office:

Non-point Coordinator – **Eric Evenson**

NR 151 Compliance Determination

Flow Chart



Note – In every step along the way, complete documentation is required. Conservation 6 notes, all correspondence, etc., shall be documented and organized in the conservation file.

² Revised May 1, 2021

³ Revised May 1, 2021

It is mutually agreed that:

This agreement shall become effective on the date of signature hereto and shall continue in effect until amended by the Land Conservation Committee.

Signed this day October 6th, 2021

Mark Piechowski - Land/Water/Education Committee Chair (Date)

Mike Knapp - Land/Water/Education Committee Vice Chair (Date)

John Jarvis - Land/Water/Education Committee Sec. (Date)

Robert Wedell - Land/Water/Education Committee (Date)

Randal Loehrke - FSA Rep. (Date)

Appendix G – Letter A

Waushara County
Land Conservation & Zoning Office
P.O. Box 1109
Wautoma, WI 54982-1109
(920) 787-0453
Fax (920) 787-6516

Date

Name
Street Address
City, State, ZIP

Subject: Status of Compliance with Performance Standards and Prohibitions

Dear _____:

The Waushara County Land Conservation Department has made a records review of the (cropland practices) (livestock facilities) on your farm to determine your degree of compliance, achieved to date, with the performance standards and prohibitions contained in Subchapter II of Chapter NR 151, Wis. Admin. Code. The results of this records review conducted to date are contained in the attached Compliance Status Report. Information about cropland practices and livestock facilities not covered by this assessment will be made available to you as any onsite evaluations are completed. You must contact our office within 30 days of receipt of this notification to schedule an appointment for an on site review.

Cropland practices and livestock facilities described in the Compliance Status Report will fall into one or more of the following categories:

Existing or New Practices or Facilities Determined to be Compliant. This designation is assigned to practices and facilities that are determined to be in compliance with one or more performance standards or prohibitions. The specific performance standards and prohibitions that are currently being achieved are identified for each practice and facility. These practices and facilities must remain in compliance with the specific performance standards and prohibitions regardless of whether cost sharing is provided to the owner or operator. Since these practices and facilities are now deemed to be in compliance with the performance standards and prohibitions as listed in the attached Compliance Status Report, it is imperative that you and any future owners or operators maintain this level of compliance. The Land Conservation staff will inform you of special cost share offers that are available to you if any of these practices and facilities were enrolled in CRP or CREP on October 1, 2002, or are determined in the future to be out of compliance solely because of a change in evaluation tools.

Existing Practices and Facilities Determined to be Non-Compliant. This designation is assigned to existing practices and facilities that are out of compliance with one or more performance standards or prohibitions. The specific performance standards and prohibitions that are not being met are identified for each practice and facility. These practices and facilities must eventually be brought into compliance to protect water quality. Additional information about these practices and facilities will be sent to you that describes what

corrective management measures are needed, the estimated costs to implement these measures, cost sharing (if required) that must be offered to you, deadlines for completing the work and process for appeal. You may proceed to bring practices and facilities into compliance without cost sharing, but once compliance is achieved it must be maintained regardless of cost sharing.

New Practices and Facilities Determined to be Non-Compliant. This designation is assigned to new practices and facilities that are out of compliance with one or more performance standards or prohibitions. The specific performance standards and prohibitions that are not being met are identified for each practice and facility. You must bring these practices and facilities into compliance immediately regardless of available cost share assistance. Chapter NR 151 also requires that any additional new cropland practice, or livestock facilities that you construct or substantially alter in the future must meet performance standards and prohibitions at the time the change is initiated, regardless of cost-sharing.

“Practices” means cropland practices. “Facilities” means livestock facilities. “Existing” practices or facilities are those in place prior to October 1, 2002. “New” practices are those initiated on or after October 1, 2002. “New” facilities are those constructed or substantially altered on or after October 1, 2002.

Thank you for your continued conservation efforts. You have contributed significantly to improved water quality within Waushara County. If you have any further questions or concerns, please contact me at:

Waushara County Land Conservation Department
PO Box 1109
Wautoma, WI 54982 920-787-0443

Sincerely,

Sender's Name
Sender's Title

cc: Ed Hernandez, County Conservationist

Appendix H – Letter B

Waushara County
Land Conservation & Zoning Office
P.O. Box 1109
Wautoma, WI 54982-1109
(920) 787-0453
Fax (920) 787-6516

Date:

Name
Address
City, State, Zip

Subject: Full Farm Assessment and Compliance with Chapter NR 151, Wis. Admin. Code

Dear _____:

The Waushara County Land Conservation Department has determined that all practices and facilities on your farm are currently in compliance with all agricultural performance standards and prohibitions currently in effect. The practices and facilities covered by this determination are identified in the attached Compliance Status Report prepared for your farm. These standards and prohibitions, including their effective dates, are contained in Subchapter II of Chapter NR 151, Wis. Admin. Code.

Chapter NR 151, Wis. Adm. Code requires that you maintain this level of compliance regardless of future cost sharing. This will require your continued operation and maintenance of all cropland practices and livestock facilities in accordance with accepted standards of practice. This compliance assessment and determination does not cover performance standards and prohibitions that become effective at a future date. Also, any new cropland practices or facilities initiated or constructed on your farm in the future must comply with all effective performance standards at the time you initiate the change on your farm, regardless of cost sharing.

Thank you for your continued conservation efforts. They have contributed significantly to improved water quality within Waushara County. If you have any further questions or concerns, please contact me at:

Land Conservation Department
P.O. Box 1109
Wautoma, WI 54982 920-787-0443

1. Note: "Practices" means cropland practices. "Facilities" means livestock facilities. "Existing" practices or facilities are those in place prior to October 1, 2002. "New" practices are those initiated on or after October 1, 2002. "New" facilities are those constructed or substantially altered on or after October 1, 2002.

Sincerely,

Sender's Name
Sender's Title

cc: Ed Hernandez, County Conservationist
File, DNR

Appendix I - Letter C

Waushara County
Land Conservation & Zoning Office
P.O. Box 1109
Wautoma, WI 54982-1109
(920) 787-0453
Fax (920) 787-6516

Date
Name
Address
City, State, ZIP

Subject: Notification Letter and Cost-Share Offer

Dear _____:

Based upon observations made by Waushara County Land Conservation Department, one or more cropland practices or livestock facilities on your farm fails to comply with the agricultural performance standards and prohibitions contained in Subchapter II of Chapter NR 151, Wis. Admin. Code. Detailed information about these practices and facilities is included in the attached Compliance Status Report prepared for your farm.

This Letter of Non-Compliance is issued in accordance with s. (NR 151.09(5)) (NR 151.095(6)), Wis. Adm. Code. It covers only those practices, facilities, performance standards and prohibitions specifically identified in Table 1 (attached). If necessary, additional notices may be issued to address other non-complying practices and facilities on your farm.

You are required to take corrective actions to prevent further impacts to waters of the state in accordance with the compliance schedule identified in Table 1. To help accomplish this, you should work with the Waushara County LCD or consultant to identify appropriate corrective management measures. Please schedule an appointment with Tammi Kenton of the Waushara County LCD office at 920-787-0443.

Because the (cropland practices) (livestock facilities) (cropland practices and livestock facilities) identified in Table 1 are determined to be "existing" as defined within s. (NR 151.09(4)) (NR 151.095(5)), Wis. Adm. Code, and corrective measures are eligible for cost-share assistance, the Waushara County Land Conservation Department, through this letter, is offering you cost-share funds and technical assistance to comply. These funds are available to you on a reimbursement basis. This offer of cost sharing complies with the cost-share eligibility and cost share availability requirements of s. (NR 151.09(4)) (NR 151.095(5)) (ATCP 50).

Proposed corrective measures to achieve compliance with performance standards and prohibitions must be approved by Waushara County. Table 2 (attached) includes a list of practices that are eligible for cost sharing and available for your use.

The total cost to comply with the prohibition is dependent upon selected best management practices and site conditions. Table 3 (attached) is an estimate of the cost to achieve compliance. The final cost share amount will be based on actual installation costs. The figures in Table 2 assume a cost-share rate of 70% . In economic hardship situations, landowners may qualify for up to 90% cost-sharing for eligible costs. Economic hardship criteria are established by the state in s. (NR 154.03(3)) (ATCP 50.42(4)), Wis., Adm. Code. If you believe you qualify for economic hardship funding, you should contact Ed Hernandez of the Waushara County LCD at the aforementioned phone number within the next few weeks. You should be aware that efforts to pursue economic hardship status do not extend the final deadline for compliance established in this letter.

If you fail to implement approved corrective measures by the compliance deadlines listed in Table 1, enforcement action may be taken by DNR under state law, including referral to the Department of Justice for forfeitures for noncompliance pursuant to s. 281.98, Wis. Stats. State of Wisconsin Appeals.

You have the right to challenge this decision. Wisconsin statutes, administrative codes and case law establish time periods within which requests to review Department decisions must be filed.

For judicial review of a decision pursuant to sections 227.52 and 227.53, Stats., you must file a petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to section 227.42, Stats., and section NR 2.05(5), Wis. Adm. Code, you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the time period for filing a petition for judicial review.

All hearing requests must be made in accordance with s. NR 2.05(5), Wis. Adm. Code, and must identify the grounds for the petition and explain the following:

The substantial interest of the petitioner which is injured in fact or threatened with injury by the DNR action or inaction:

That there is no evidence of legislative intent that this interest is not to be protected;

That the injury to the petitioner is different in kind or degree from injury from the general public caused by the DNR action or inaction; and

That there is a dispute of material fact. (You must specify the disputed facts.)

Local Appeals

AUTHORITY Under authority of Chapter 68 Wis. Stats. and 59.694, Wis. Stats. the Waushara County Board of adjustments is authorized to hear and decide appeals where it is alleged that there are errors in any order, requirement, decision or determination by the Director or his/her designee in administering this Ordinance. The procedures specified in Sections 58.106 of the Waushara County Zoning Code (Ordinance No. 58) shall be followed in hearing such appeals.

WHO MAY APPEAL Appeals may be taken by any person having a substantial interest, which is adversely affected by the order, requirement, decision, or determination made by the director or his/her designee, the LCD, or the LCC.

Your cooperation in this matter is greatly appreciated. Feel free to contact me at 920-787-0443 if you have any further questions.

Sincerely,

Ed Hernandez
County Conservationist

cc: Todd Wahler, Land Conservation & Zoning Director
Ruth Zouski, Corporation Council
DNR

Location of Practice or Facility (Refer to attached Air Photo if necessary)	Description Of Practice or Facility	Status of Cropland Practice or Livestock Facility	Practice or Facility Fails to Comply with the Following Performance Standards and Prohibitions *	Compliance Deadline

*Administrative Rule Reference	Description of Standard or Prohibition
s. NR 151.02	Sheet, rill and wind erosion
s. NR 151.05(2)	Manure storage facilities: new construction, alterations
s. NR 151.05(3)	Manure storage facilities: closure
s. NR 151.05(4)	Manure storage facilities: failing & leaking existing facilities
s. NR 151.06	Clean water diversions
s. NR 151.07	Nutrient management
s. NR 151.08(1)	Prohibition on overflow of manure storage facilities
s. NR 151.08(2)	Prohibition on unconfined manure in the water quality management area
s. NR 151.08(3)	Prohibition on direct runoff from a feedlot or stored manure into state waters
s. NR 151.08(4)	Prohibition on unlimited livestock access to state waters

Table 2. Best management practices eligible for cost sharing to bring cropland practices and livestock facilities identified in Table 1 into compliance with performance standards and prohibitions.

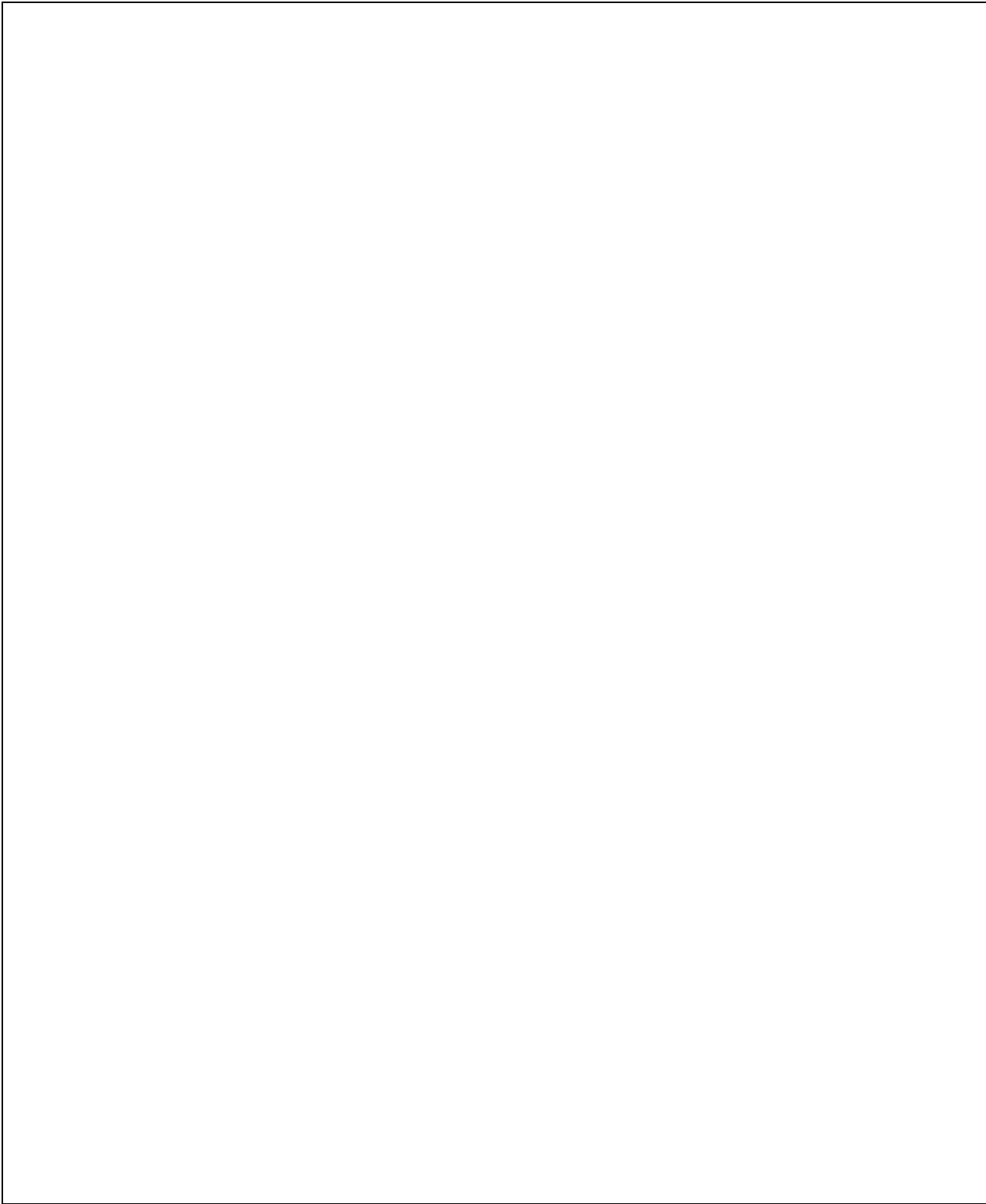
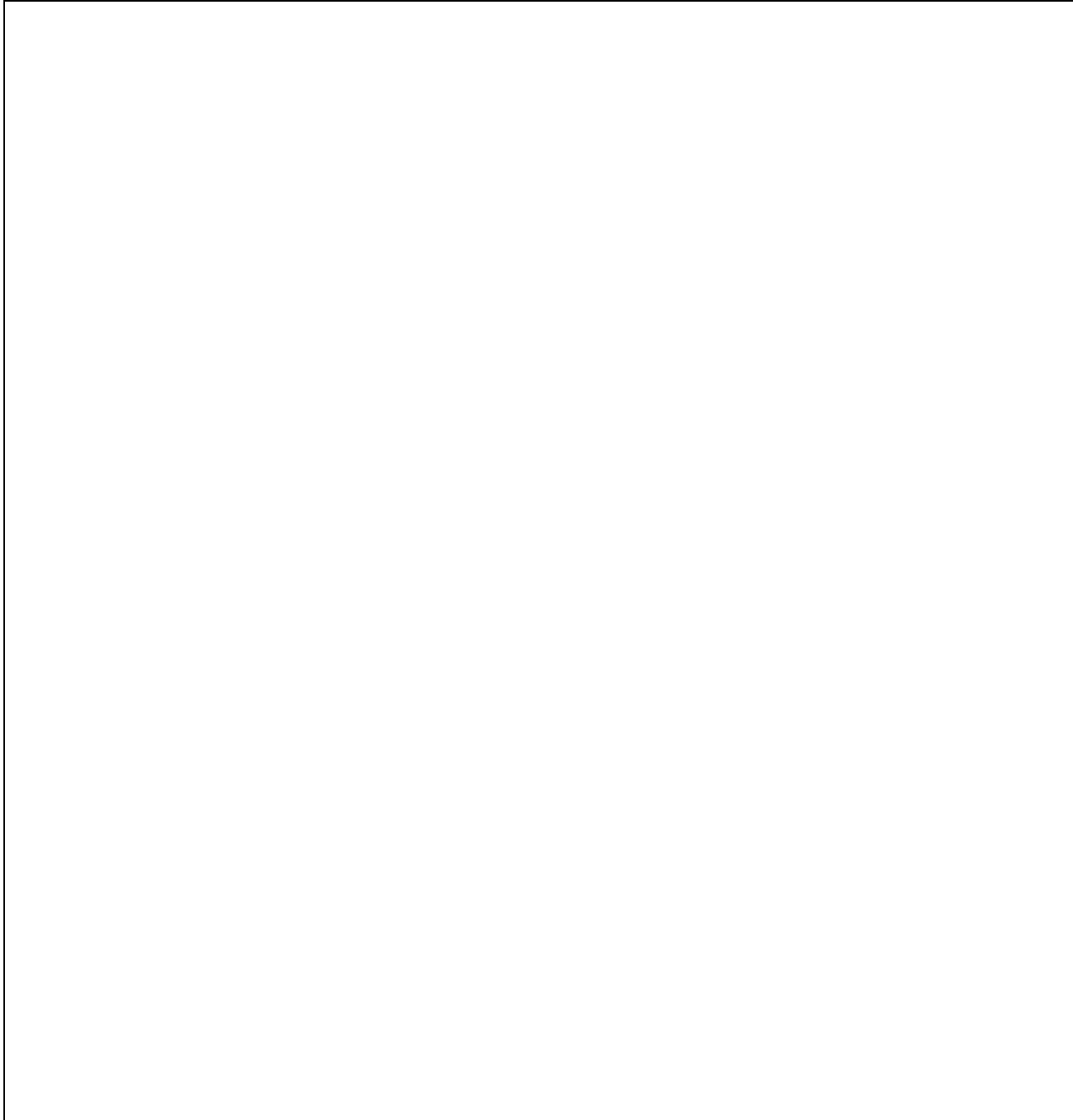


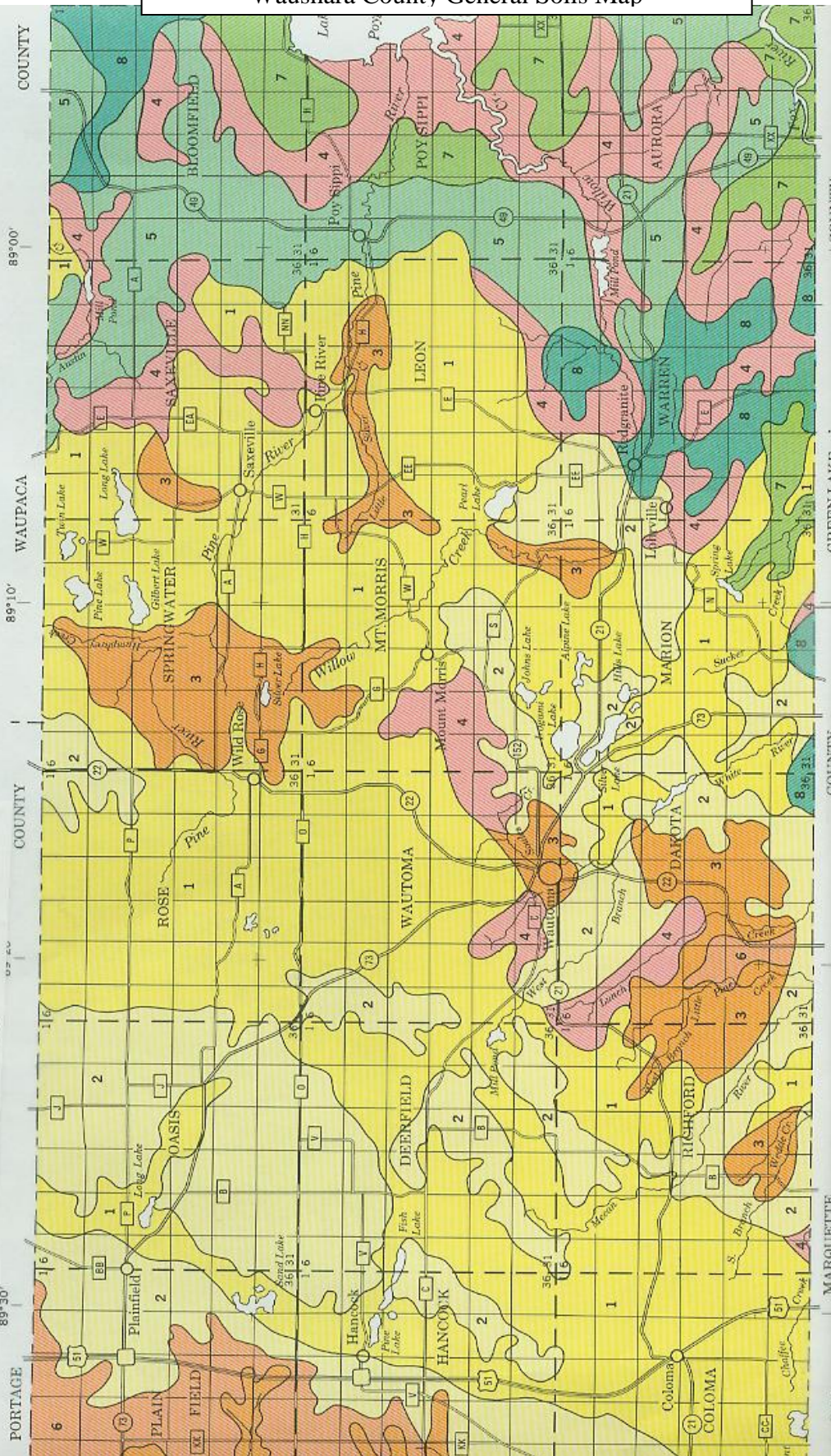
Table 3. Estimated costs to comply with performance standards and prohibitions identified in Table 1.



Appendix J

Waushara County General Soils Map

UNITED STATES DEPARTMENT OF AGRICULTURE
 SOIL CONSERVATION SERVICE
 THE RESEARCH DIVISION OF THE COLLEGE OF AGRICULTURAL AND LIFE SCIENCES
 UNIVERSITY OF WISCONSIN

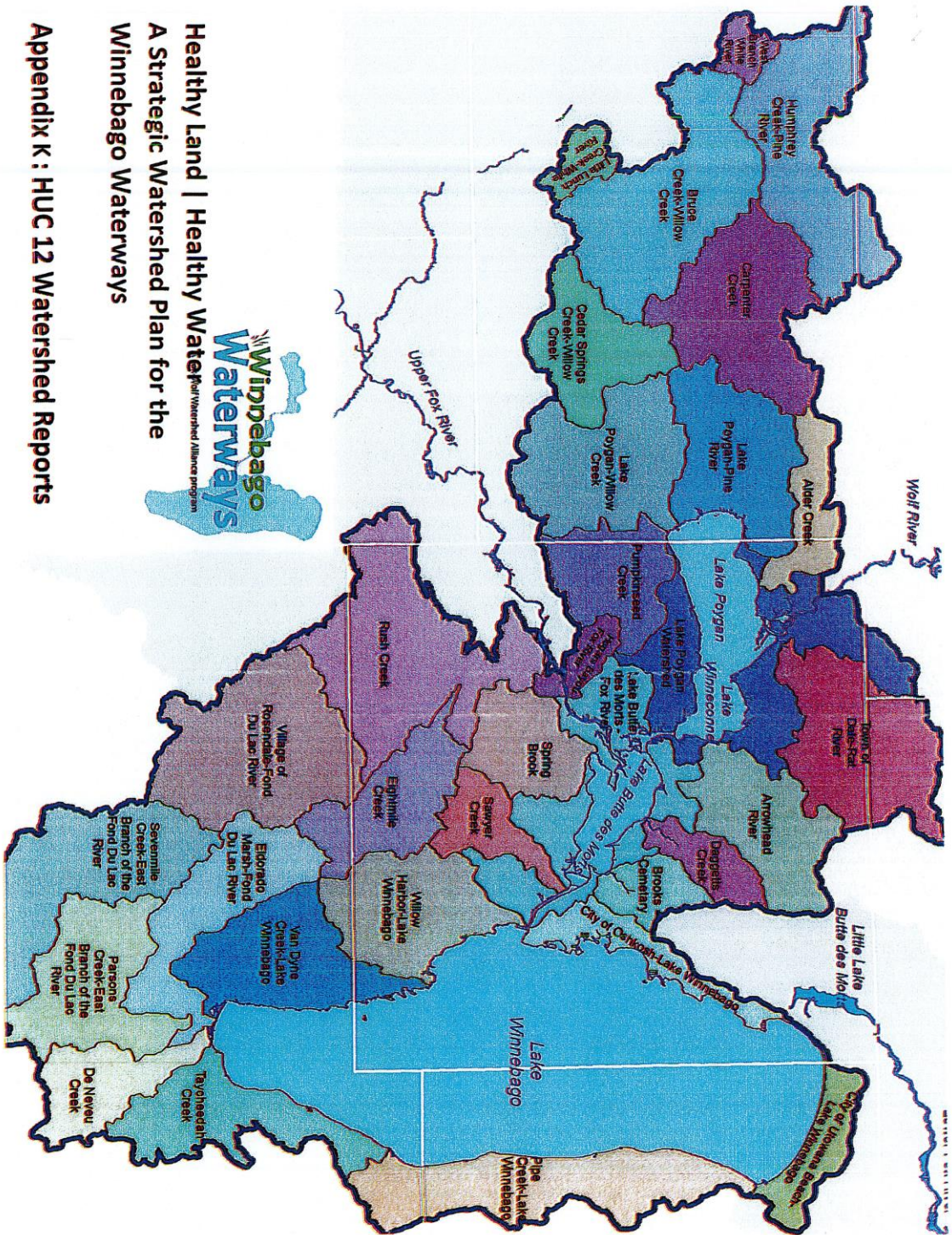


LEGEND*

- 1 **PLAINFIELD-OKEE-RICHFORD ASSOCIATION:** Sloping to steep, somewhat excessively drained and excessively drained, sandy soils; on moraines and terraces
- 2 **PLAINFIELD-RICHFORD-BOYER ASSOCIATION:** Nearly level and gently sloping, well drained to excessively drained, sandy soils; on outwash plains and terraces.
- 3 **KINGSVILLE-MEEHAN ASSOCIATION:** Nearly level and gently sloping, poorly drained and somewhat poorly drained, sandy soils; on outwash plains and in glacial lake basins
- 4 **HOUGHTON-ADRIAN-WILLETTE ASSOCIATION:** Nearly level, very poorly drained, mucky soils; on outwash plains, in glacial lake basins, and on moraines
- 5 **HORTONVILLE-SYMCO-MANAWA ASSOCIATION:** Nearly level to sloping, well drained and somewhat poorly drained, silty, loamy, and sandy soils; on moraines and in glacial lake basins
- 6 **PLAINFIELD-PEARL-LEOLA ASSOCIATION:** Nearly level and gently sloping, moderately well drained and somewhat poorly drained, sandy soils; on outwash plains
- 7 **POY-ZITTAU-POYGAN ASSOCIATION:** Nearly level and gently sloping, somewhat poorly drained and poorly drained, clayey and silty soils; in glacial lake basins and on moraines
- 8 **MOROCCO-KINGSVILLE-KEOWNS ASSOCIATION:** Nearly level and gently sloping, somewhat poorly drained and poorly drained, sandy and silty soils; in glacial lake basins

*The texture given in the descriptive headings refers to the surface layer of the major soils in the associations.

Compiled 1988 **GENERAL SOIL MAP WAUSHARA COUNTY, WISCONSIN**
Scale 1:190,080



Healthy Land | Healthy Water
A Strategic Watershed Plan for the
Winnebago Waterways



Appendix K : HUC 12 Watershed Reports

An Adaptive Process: Farmers and Landowners can choose how to meet the reduction targets.

A 9 Key Element Plan requires utilizing a set of conservation practices to model reductions that will result in meeting water quality targets.

For this plan, Snap Plus was used to model edge of field phosphorus loss through a variety of cropping scenarios. The modeling team maximized the reductions possible through cropping practices including cover crop, no-till or reduced till and low disturbance manure management. If the reduction target could not be achieved through cropping scenarios, the remaining reductions were assigned to be met through structural practices.

This exercise provides practitioners with a guide for implementing in the watershed and offers targets to work towards achieving.

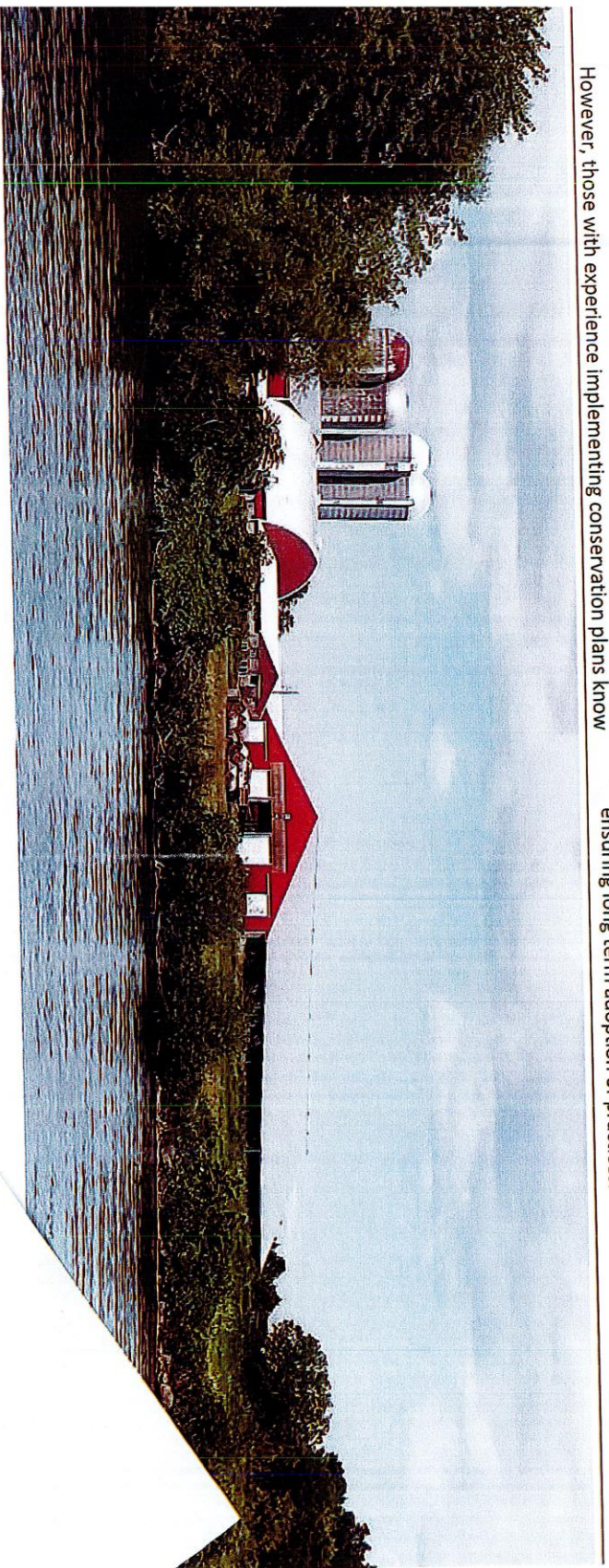
However, those with experience implementing conservation plans know

changing agribusiness, available equipment and weather are all factors that can impact implementation of a plan.

The ultimate goal of this Watershed Plan is to increase conservation on the landscape to meet water quality goals. The total phosphorus load reduction from the waterbodies is what really matters.

Practitioners implementing the watershed plan will utilize the reduction targets to advance watershed implementation. **Conservation professionals will work with farmers or landowners to determine what type of conservation practices work best on their individual land and for their individual business to meet the load reduction needed from their land.** This may mean following the modeled plan in the HUC 12 and implementing a significant amount of cropping practices. It may mean installing more structural practices than planned and reducing the amount of cropping practices.

Finding the right practices for each farmer/landowner will be critical to ensuring long term adoption of practices.



Implementation Prioritization

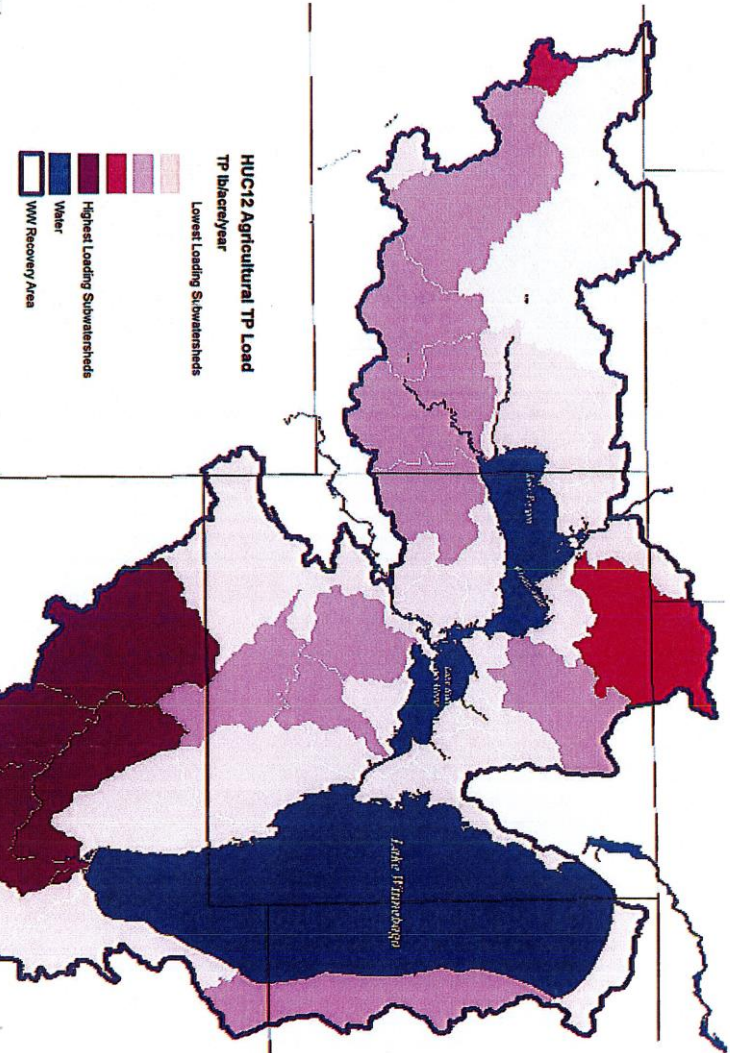
Due to the size of the Winnebago Waterways Recovery Area, developing an implementation prioritization to guide strategic implementation was important so that we can track progress, report on measurable milestones and monitor for interim success.

To begin prioritization, the watersheds were examined and sorted based on the highest loading by agricultural acre.

Additional factors taken into consideration included:

- Current implementation efforts
- County Land Conservation Department capacity

The HUC 12 Watershed Implementation Prioritization schedule along with anticipated reduction timeline can be found on the next page (Table 7).



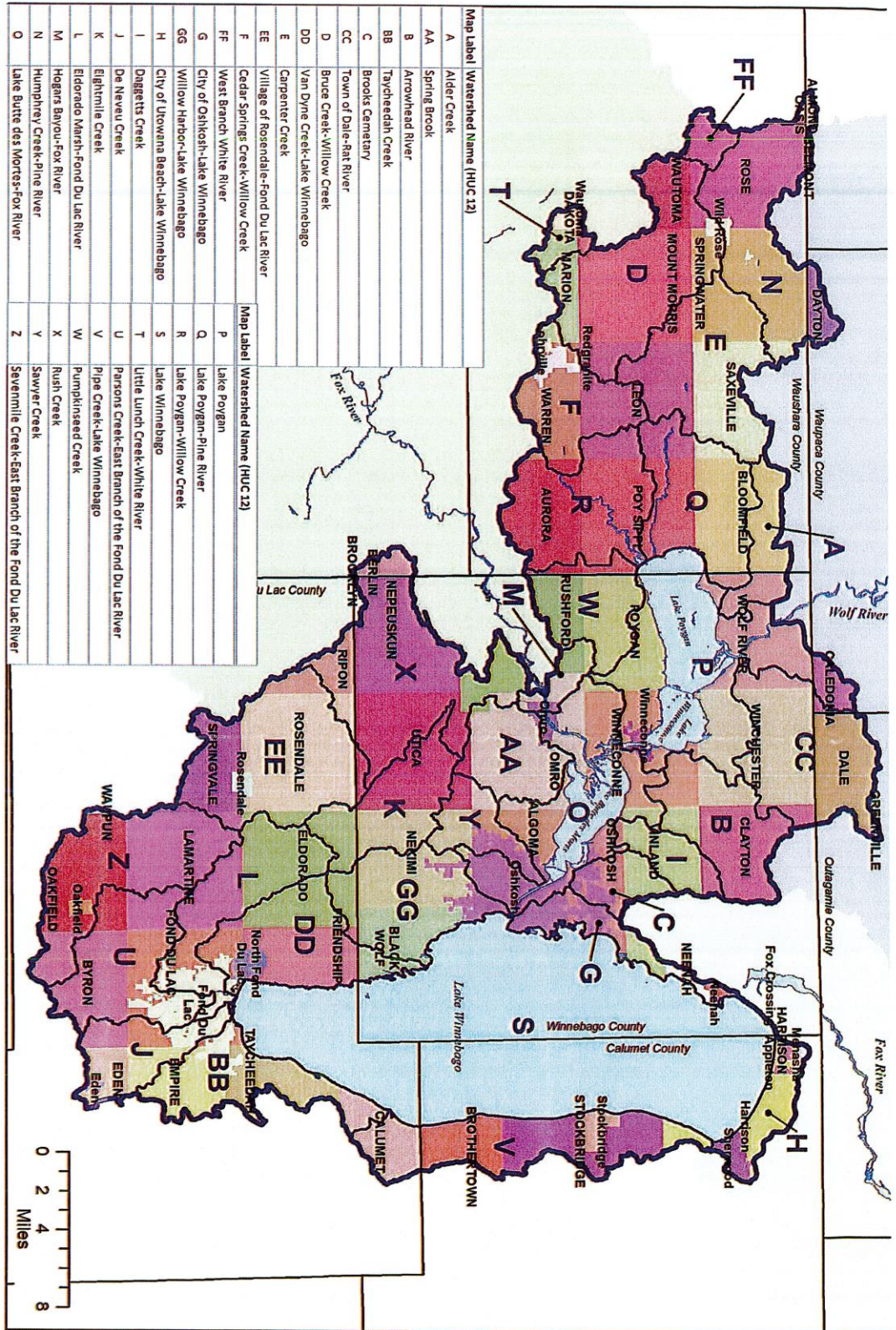
This strategy lays out a staggered approach for intensive implementation within the 32 HUC 12 watersheds. Provided the needed resources are available:

1. Implementation within an individual HUC 12 is planned for 10 years.
2. Full implementation within the WWRA to meet TMDL goals reduction goals is anticipated to take 20 years.

*Implementation of the Watershed Plan is dependent upon having resources available for both technical assistance and cost share funding for practice installation.

County which the majority of the HUC 12 resides or County leading Implementation		Assumptions: Wastewater 100% compliant by 2022												
Waukegan County		Urban MSA - 10% compliant by 2025, 25% by 2027, 50% by 2030, 75% by 2035, 100% by 2040												
Winnebago County		Urban (non-permitted) - 25% by 2035, 50% by 2035, 75% by 2037, 100% by 2040												
Fond du Lac County		Agriculture - 10% reduction towards goal each year after start of implementation												
Calumet County		Phosphorus Reduction Targets												
HUC 12	Implementation (No year)	Agricultural lbs/year	Urban lbs/year	Urban MSA lbs/year	Waste water lbs/year	Total lbs/year	Phosphorus Reduction Targets							
							2023	2025	2027	2030	2033	2035	2037	2040
Pipe Creek-Frontal Lake Winnebago	2019	3,549	100	-	288	3,937	1,065	1,918.50	2,700.30	3,837	3,862	3,887	3,912	3,937
Town of Dale-Flat River (also resides in OC)	2021	5,416	141	-	152	5,708	1,083	2,166.20	3,363.30	5,026	5,603	5,638	5,673	5,708
Eldorado Marsh-Fond Du Lac River	2021	6,565	68	193	-	6,826	1,313	2,645.28	3,987.20	6,005	6,678	6,744	6,761	6,826
Willow Creek	2021	3,598	112	-	7	3,657	708	1,418.74	2,128.11	3,191	3,573	3,601	3,629	3,657
Parsons Creek-East Branch Fond Du Lac River	2022	9,896	69	148	-	10,113	990	2,983.64	4,985.10	7,991	9,987	10,042	10,059	10,113
Arrowhead River	2022	3,730	68	-	121	3,919	873	1,179.41	1,955.60	3,105	3,868	3,885	3,902	3,919
Sevenmile Creek-East Branch Fond Du Lac River	2023	10,964	58	-	791	11,213	-	3,504.70	4,738.85	8,046	11,169	11,184	11,198	11,213
Village of Rosendale-Fond Du Lac River	2023	16,996	91	-	546	17,033	-	5,191.83	6,967.94	12,023	16,965	16,988	17,011	17,033
Cedar Springs Creek-Willow Creek	2023	1,726	136	-	814	2,676	-	737.85	983.80	1,722	2,483	2,514	2,642	2,676
Pumpkinseed Creek	2023	2,460	93	-	-	2,552	-	924.65	1,300.70	1,607	2,469	2,506	2,529	2,552
Bruc Creek-Willow Creek	2024	2,679	230	-	-	2,909	-	535.78	803.67	1,587	2,292	2,794	2,852	2,909
Spring Brook	2025	2,400	42	-	-	2,441	-	239.96	479.92	1,200	1,930	2,421	2,431	2,441
Sawyer Creek	2025	1,259	33	101	-	1,393	-	135.98	276.99	680	1,066	1,351	1,359	1,393
Eightmile Creek	2025	3,173	58	-	-	3,232	-	317.34	634.68	1,587	2,553	3,203	3,217	3,232
West Branch White River	2026	2,454	167	-	-	2,620	-	8.19	398.30	797	1,380	1,794	1,999	2,620
Tychesdash Creek-Frontal Lake Winnebago	2026	1,899	65	82	-	2,036	-	247.01	619.39	1,006	1,364	1,640	1,763	2,036
De Neveu Creek-Frontal Lake Winnebago	2026	1,172	23	145	465	1,805	-	781.36	284.59	826	1,617	2,179	2,713	2,762
Willow Harbor-Frontal Lake Winnebago	2027	2,567	83	111	-	2,762	-	-	-	1,242	2,087	2,932	3,778	4,209
Rush Creek	2028	4,140	69	-	-	4,209	-	-	-	4,499	4,995	5,491	5,987	6,247
Hogans Bayou-Fox River	2028	2,559	97	-	-	2,647	-	1,895.50	2,843.25	4,499	4,995	5,491	5,987	6,247
Pine River-Frontal Lake Poygan	2028	1,990	50	-	122	2,408	-	61	91.50	757	1,223	1,688	2,154	2,408
Alder Creek	2028	1,990	50	-	-	1,439	-	-	-	417	707	998	1,288	1,439
Van Dyne Creek-Frontal Lake Winnebago	2029	2,039	61	107	-	2,890	-	10.66	26.65	571	1,157	1,744	2,303	2,890
Dagezits Creek	2029	880	17	-	-	896	-	-	-	176	356	536	716	896
Brooks Cemetery	2029	704	24	45	-	773	-	4.48	11.20	152	310	488	615	773
Little Lunch Creek-White River	2029	1,427	244	-	2,591	4,262	-	1,295.50	1,943.25	2,876	3,223	3,569	3,915	4,262
City of Oshkosh-Frontal Lake Winnebago	2030	420	20	240	-	680	-	23.99	59.98	102	231	400	489	680
City of Ottovana Beach-Frontal Lake Winnebago	2030	590	23	78	-	692	-	7.79	19.48	79	222	365	489	692
Lake Poygan	2030	4,275	196	-	2,296	6,767	-	1,148	1,722	2,724	3,628	4,532	5,436	6,767
Lake Butte des Morces-Fox River	2030	1,926	109	396	52,445	54,875	-	26,262	39,433	52,736	53,248	53,759	54,172	54,875
Carpenter Creek-Pine River	2030	1,697	300	-	-	1,996	-	-	-	170	584	998	1,412	1,996
Humphrey Creek-Pine River	2030	2,117	277	-	296	2,689	-	148	222	508	1,000	1,493	1,985	2,689
Lake Winnebago	2025	107,993	3,292	1,645	92,789	205,719	5,591	69,825	104,519	156,723	181,953	191,790	199,031	205,719
Total Project Area Implementation Schedule	2019	107,993	3,292	1,645	92,789	205,719	9%	34%	51%	76%	88%	93%	97%	100%

- This strategy lays out a staggered approach for intensive implementation within the 32 HUC 12 watersheds. Provided the needed resources are available:
1. Implementation within an individual HUC 12 is planned for 10 years.
 2. Full implementation within the WWRA to meet TMDL goals reduction goals is anticipated to take 20 years.



Map Label	Watershed Name (HUC 12)
A	Alder Creek
AA	Spring Brook
B	Arrowhead River
BB	Taycheedah Creek
C	Brooks Cemetery
CC	Town of Dale-Rat River
D	Bruce Creek-Willow Creek
DD	Van Dyne Creek-Lake Winnebago
E	Carpenter Creek
EE	Village of Rosendale-Fond Du Lac River
F	Cedar Springs Creek-Willow Creek
FF	West Branch White River
GG	City of Oaklath-Lake Winnebago
GGG	Willow Harbor-Lake Winnebago
H	City of Utowana Beach-Lake Winnebago
I	Daggett's Creek
J	De Neveu Creek
K	Elphinstle Creek
L	Eldorado Marsh-Fond Du Lac River
M	Hogans Bayou-Fox River
N	Humphrey Creek-Pine River
O	Lake Butte des Morts-Fox River

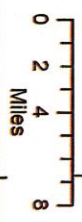
Map Label	Watershed Name (HUC 12)
P	Lake Poygan
Q	Lake Poygan-Pine River
R	Lake Poygan-Willow Creek
S	Lake Winnebago
T	Little Lunch Creek-White River
U	Parsons Creek-East Branch of the Fond Du Lac River
V	Pipe Creek-Lake Winnebago
W	Pumpkinseed Creek
X	Rush Creek
Y	Sawyer Creek
Z	Severnille Creek-East Branch of the Fond Du Lac River



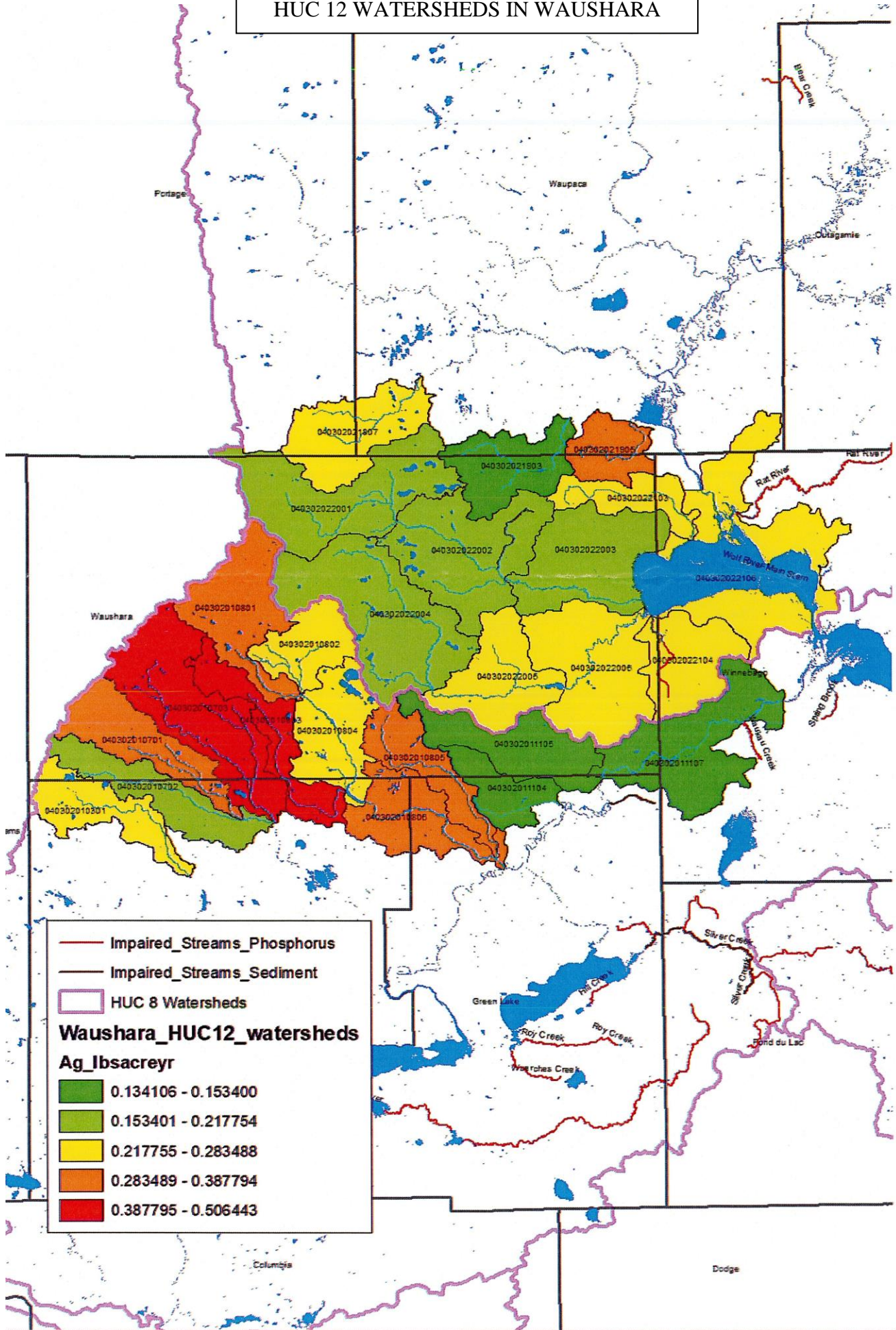
Winnebago Waterways Recovery Area Towns, Cities, and HUC12s

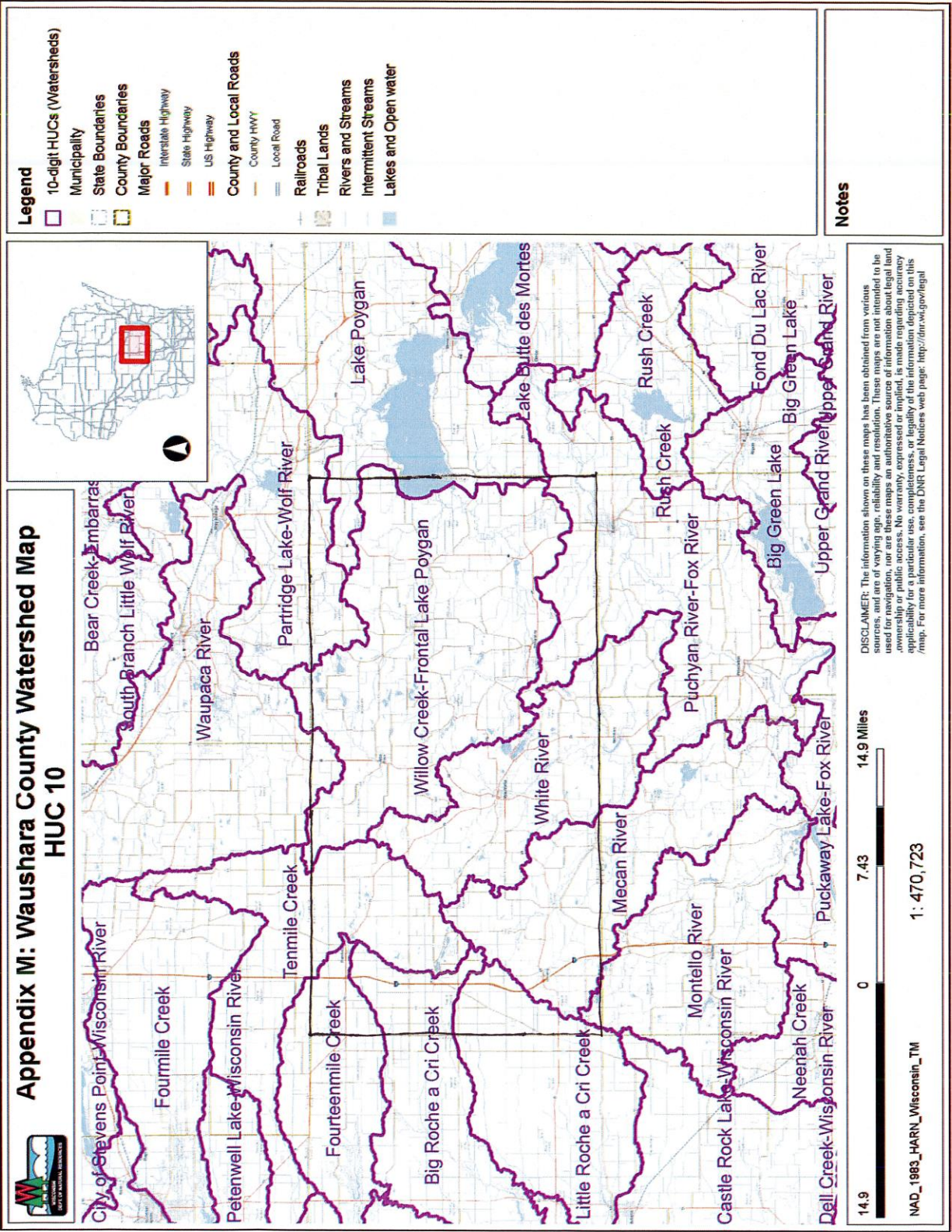
Towns are labeled in all CAPS; Cities and Villages are labeled in sentence case.

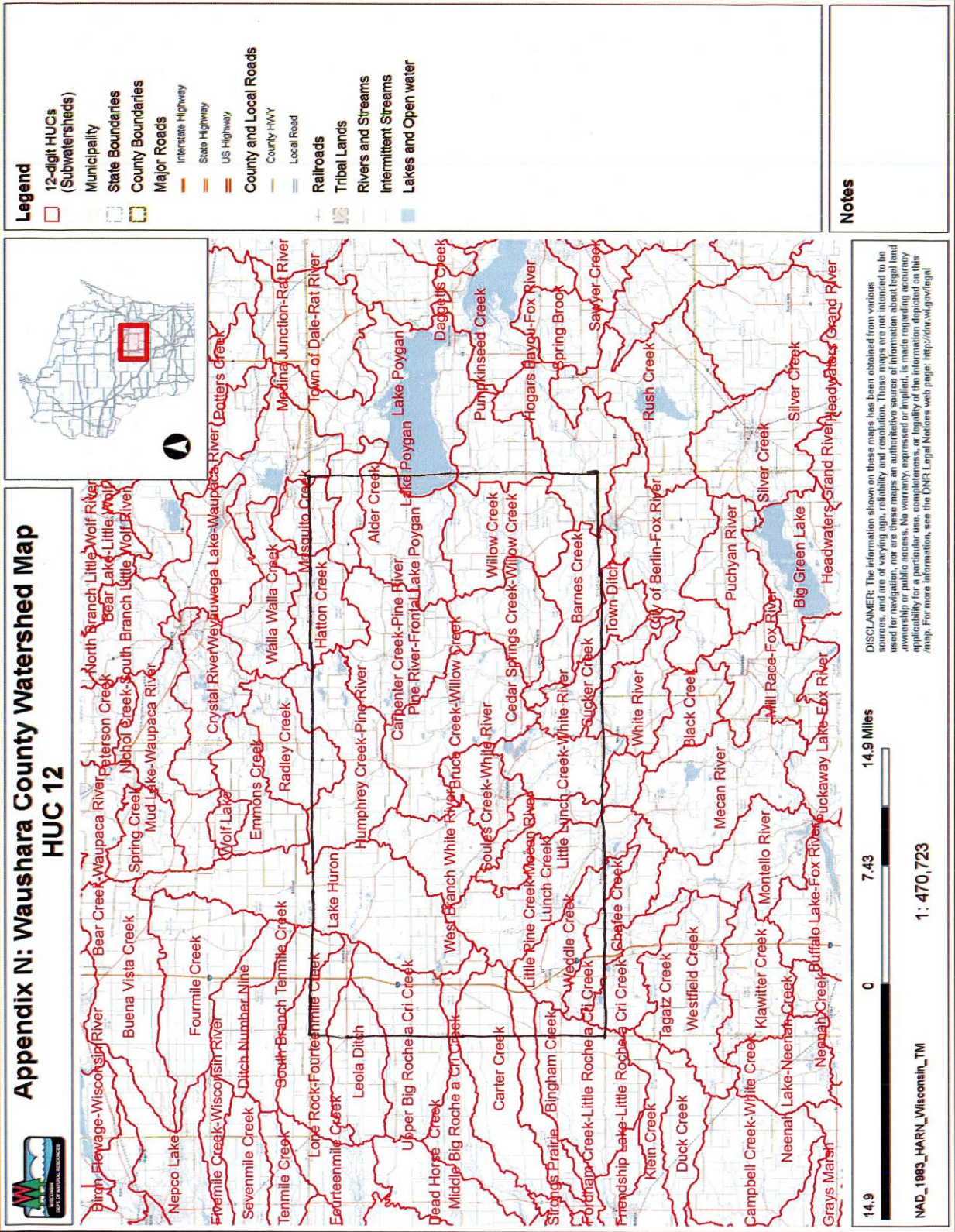
HUC 12
 County Boundary
 Waterbody
 WWRA Boundary



APPENDIX L
 DNR MAP OF PHOSPHORUS DELIVERY OF
 HUC 12 WATERSHEDS IN WAUSHARA







APPENDIX O ACRONYM GLOSSARY

- APHIS - **Animal Plant Health Inspection Service** (Waushara County contracts with this company to provide the Wildlife Abatement Program)
- BMP - **Best Management Practice** - the most effective practices or combination of practices for reducing nonpoint source pollution to acceptable levels.
- CREP - **Conservation Reserve Enhancement Program** – a program where landowners or operators set aside cropland (or pasture that is adjacent to surface waters) with annual rental payments through the contract period.
- CRP - **Conservation Reserve Program** - A provision of the 1985 federal farm bill, and has been included in all federal farm bills since 1985, this program takes eligible cropland out of production and puts it into grass or tree cover for a specified number of years.
- DATCP **Department of Agriculture, Trade and Consumer Protection** - The central state agency for setting and implementing statewide soil and water conservation policies and administering the state’s soil and water conservation programs. The department administers state cost-sharing funds for a variety of LCC operations, including staff, materials and conservation practices.
- DNR - **Department of Natural Resources** - The state agency responsible for managing state owned lands and protection public waters. DNR also administers programs to regulate, guide and assist LCC’s, LCD’s and individual land users in managing land, water, fish and wildlife.
- FPP - **Farmland Preservation Program** - DATCP program that provides income tax credits to farmers who agree to keep their land in farming and who meet soil conservation standards on cropland enrolled in the program.
- EQIP - **Environmental Quality Incentives Program** - The Environmental Quality Incentives Program focuses assistance to locally identified conservation priority areas or areas where agriculture improvements will help meet water quality goals. Funds pay for technical assistance and cost-sharing on conservation practices. Fifty percent of the funds are dedicated to conservation associated with livestock operations.
- FSA - **Farm Service Agency** - Part of the USDA, it administers a variety of agricultural assistance programs including production controls, price supports, and conservation cost-sharing.
- GIS - **Geographic Information System** - A computerized system of maps and layers of data about land including soils, land cover, topography, field boundaries, roads and streams.
- LWE - **Land/Water & Education Committee** - the portion of county government empowered, by chapter 92 of the Wisconsin Statutes, to conserve and protect the county’s soil, water and related natural resources.

- LCD - **Land Conservation Department** - The department of county government responsible for administering the conservation programs and policies of the county.
- NRCS - **Natural Resources Conservation Service** - Federal Agency primarily concerned with technical resources for soil conservation and water quality. Provides conservation planning, technical, and financial assistance to local participants in federal programs.
- RC&D - **Resource Conservation and Development** - USDA program that focuses on utilizing and conserving natural resources for economic development.
- SOS - **Sign of Success** - Photographs, landowner interviews, referrals etc. that demonstrate success of a project. Before and after inventory models can also be used to scientifically document reduction of pollutants during project implementation.
- T- **Soil Loss Tolerance** - Erosion rate in tons per acre per year at which a soil could maintain productivity.
- SWRM **Soil and Water Resource Management Program** - DATCP program that provides counties with funds to hire and support Land Conservation Department staff and to assist land users in implementing DATCP conservation programs.
- US-FWS **United States Fish and Wildlife Service** - A department with a mission to provide leadership in sustaining and enhancing fish, wildlife, and their habitats for the benefit of the American people and to engage citizens in the shared Stewardship of our Nation's natural resources.
- UW-Ext. **University of Wisconsin Extension** - extends the boundaries of the university to the boundaries of the state, establishing important learning connections with people from all walks of life.
- WEP - **Wind Erosion Prediction** The USDA-Agricultural Research Services, in cooperation with the USDA-Natural Resources Conservation Service, the USDI-Bureau of Land Management, and the Environmental Protection Agency, has developed technology to help predict wind erosion. The Wind Erosion Prediction System (WEPS) is a daily simulation model which outputs average soil loss and deposition values for selected areas and periods of time.
- WHIP - **Wildlife Habitat Incentives Program** - The Wildlife Habitat Incentives Program provides assistance to help landowners improve wildlife habitat on private lands.
- WRP - **Wetlands Reserve Program** - Wetlands Reserve Program allows landowners to choose either permanent or 30-year easements or cost-share agreements to restore wetlands.
- WQIP - **Water Quality Incentive Program**, County Cost share program with \$25,000 in annual cost-sharing.

