

Chapter IV

GOALS, OBJECTIVES, MONITORING, EVALUATION, AND ESTIMATED COSTS

INTRODUCTION

The Racine County Land and Water Resources Management Plan incorporates inventory findings, including land use, natural resource data, soil type, agricultural assets and water quality data into this plan. Additionally, the plan addresses a 10-year scope with principal land and water resource concerns and issues identified by the Citizen Advisory Committee and public survey responses. A comprehensive set of goals, workplan objectives, and planned actions were developed based on the principal issues and concerns that were identified by the Citizen Advisory Committee and include the following:

- Reduce non-point source pollution, primarily cropland erosion, to improve water quality through the Agricultural Performance Standards as outlined in NR 151 of the Wisconsin Administrative Code;
- Undertake management and control of aquatic and terrestrial invasive species;
- Prioritize and promote repair of Lake Michigan bluff erosion, shoreline erosion and streambank/ditch bank erosion;
- Increase the awareness and provide further education towards environmental stewardship to farmers, youth, elected officials and the general public, and;
- Protect and preserve natural resources and environmental corridors.

The issues were used as a basis for developing the goals, workplan objectives, and planned actions for the Racine County Land and Water Resources Management Plan. To achieve these goals the Racine County LCD plans to partner with State and Federal agencies and other environmental organizations on a variety of projects and programs. The objectives of the plan were divided into categories: agricultural performance standards implementation, invasive species control, shoreline erosion control, educational programming and natural resource preservation. The recommended goals, workplan objectives, and planned actions for the years 2023-2032 are summarized in the following section.

Racine County's Land and Water Resource Management Plan is a long-range, living document to plan conservation efforts over a 10-year period, therefore, the workplan activities may require amendments due to varying environmental conditions, local priorities, changing programs and policies, and funding considerations. The general goals of this plan, developed as a part of a public participation process and approved by the Department, will add any necessary amendments to workplan activities to be accomplished with proper approvals from the Racine County Land Conservation Committee and WI DATCP.

Additional goals and requirements will be listed in this Chapter as part of the daily workload performed by the LCD. This work is required through Administrative Rules or Wisconsin State Statutes. While all goals are of equal priority, staff time is generally based on the workload as it is generated by client demand. The customer, in most cases the landowner, is taken through the process needed based on permitting, program availability, timing, cost-share availability and a many other items that vary depending on the projects needs.

Planned actions with measurable outcomes (in bold) are in the tables that follow the narrative. The other planned activities may be accomplished as time, staff or need permits.

GOAL #1

REDUCE CROPLAND EROSION AND IMPROVE WATER QUALITY THROUGH THE AGRICULTURAL PERFORMANCE STANDARDS

Goals and Workplan Objectives

The goals and objectives set forth in this plan focus on achieving the State minimum performance standards for rural nonpoint source pollution as well as the recommendations identified in the regional water quality and watershed management plans. Specifically, the goals and workplan objectives that were identified include the following:

- Implement the statewide agricultural performance standards and manure management prohibitions;
 - All cropped fields shall meet the tolerable (T) soil erosion rates established for that soil to control sheet, rill and wind erosion.
 - No tillage operations may be conducted within 5 feet of the top of the channel of surface waters.
 - Croplands, pastures, and winter grazing areas shall average a phosphorus index of 6 or less over the accounting period and may not exceed a phosphorus index of 12 in any year within the accounting period.
 - All new, substantially altered, or abandoned manure storage facilities shall be constructed, maintained, or abandoned in accordance with accepted standards. Failing and leaking existing facilities posing an imminent threat to public health or fish and aquatic life or violate groundwater standards shall be upgraded or replaced.
 - There may be no significant discharge of process wastewater to waters of the State.
 - Runoff from agricultural buildings and fields shall be diverted away from contacting feedlots, manure storage areas and barnyards located within water quality management areas (300 feet from a stream or 1000 feet from a lake or areas susceptible to groundwater contamination.)
 - Agricultural operations applying nutrients to agricultural fields shall do so according to a nutrient management plan.

MANURE MANAGEMENT PROHIBITIONS

- No overflow of manure storage facilities.
- No unconfined manure piles in a water quality management area.
- No direct runoff from feedlots or stored manure into State waters.
- No unlimited livestock access to waters of the State in locations where high concentrations of animals prevent the maintenance of adequate or self-sustaining vegetative cover.

Planned Actions

The planned actions are to be used in to achieve goals and workplan objectives include developing farm conservation plans for agricultural producers and encouraging landowners and farmers to utilize a wide variety of best management practices designed to target soil erosion.

The LCD will continue to work with farmers to develop nutrient management plans that consider a variety of best management practices such as soil testing, accounting for legumes and manure before fertilizer application, and utilizing integrated pest management to reduce the amount of applied chemicals to fields. The LCD will monitor manure management practices in the county to ensure that practices are in compliance with the State Performance Standards.

The LCD will work with the Watershed Protection Committee of Racine County (WPCR) to promote soil health practices, such as no-tillage and cover crops. Soil health will be promoted at Field Days and Workshops to educate producers, youth, elected officials and the general public. Racine County leased Case Eagle Park to the WPCR for research and demonstration. The research will compare conventional production practices to regenerative agriculture. This environmental and economic data will be used to provide data regarding long term agricultural productivity and improving water quality. The LCD has assisted the WPCR to expand their boundary throughout the entire County and really have begun to move the dial in a positive direction regarding regenerative agriculture.

The LCD will continue to permit new, substantially altered or the abandonment of manure storage facilities. Staff will complete inspections and verify facilities comply with the NRCS Technical Standards.

The LCD has developed a detailed database utilizing geographic information system (GIS) technology to identify and assist in management of farms prioritized for compliance with State performance standards. All conservation practices are documented on the GIS data base as installed by year, type of practice and location. The database is continually updated.

The LCD supports and implements the Farmland Preservation Program with eligible farmers in the Towns of Waterford and Burlington. The LCD works with participating farmers on annual certifications, nutrient management plan updates, farm inspections and other best management practices to keep farms in compliance with the program. Certificates of Compliance are mailed to eligible farmers every January.

The LCD follows up on complaints relating to agriculture. A variety of complaints are received annually, including; flooding, drainage, manure spreading, manure pile locations/size, erosion, odor, wetland filling or draining, tree removal and other various issues. The LCD follows up on all complaints with contacting the landowner and site inspections relating to County policy and then take appropriate actions. In cases where the County is not the appropriate contact for the complaint, staff will forward the information to the proper agency or municipality.

The LCD administers local ordinances pertaining to agriculture. Chapter 20, Article XIII of the Racine County Code of Ordinances is titled Animal Waste Management. The Article references definitions and standards used by staff to follow up on compliance and inspections on farms with less than 500 animal units. Chapter 20, Article VIII references conditional uses. More specifically, Section 20-1167 is titled Procedures for Siting Livestock Facilities which references for farms with 500 – 999 animal units to be regulated by the LCD. Farms with 1000 animal units or more are regulated through the Wisconsin Pollutant Discharge Elimination System (WPDES) permits for Confined Animal Feeding Operations (CAFOs) and are renewed every five years and regulated by the Wisconsin DNR.

AGRICULTURAL PERFORMANCE STANDARDS IMPLEMENTATION STRATEGY

The goals, workplan objectives and planned activities presented in this chapter represents part of the framework for an annual workplan that will be developed and carried out by the Racine County LCD over the next ten years. Proposed planned activities were purposely broadly defined in order to meet future changes in the environment, changes in programs and policies, changes in local priorities and changes in available funding. As required by DATCP, a more detailed list of planned activities are set forth below, as a strategy to implement the nonpoint pollution performance standards and prohibitions under NR 151. Also an estimate of the costs associated with plan implementation is provided.

Implementation Strategy (Agricultural)

To implement the above noted standards and prohibitions fairly in the agricultural areas, a systematic and comprehensive approach is required. The strategy for implementation detailed below is a likely process for implementation with some need for flexibility as program experience develops and fiscal conditions may dictate.

In the following sections, the term “landowner” is used generically to describe the person responsible for compliance with the above noted standards.

1. Conduct information and education activities:

Racine County LCD will distribute information and educational material prepared by the WDNR, WIDATCP and the County to appropriate landowners. The information will also be distributed via our *Ties to the Land* newsletter, the county website, social media, public information meetings, and one-on-one contacts.

The educational materials will be designed to achieve the following objectives:

- Educate landowners about Wisconsin’s agricultural performance standards and prohibitions, county ordinances, applicable conservation practices, and cost-share grant opportunities;
- Promote voluntary implementation of conservation practices necessary to meet the performance standards and prohibitions;
- Inform landowners of compliance procedures and agency roles to be used statewide and locally and
- Make landowners aware of expectations for compliance and consequences for noncompliance.

2. Priority Farms Strategy:

The Racine County LCD will identify and evaluate farms for compliance with standards and prohibitions. The LCD will use GIS as a tool to identify priority farms for compliance determinations, track progress on implementing performance standards and meet reporting requirements. Color digital orthophotos from spring 2010 have been used as a base map for initial screening, while 2015 and 2020 orthophotos are used to record and document best management practices and continued compliance.

The Racine County two-foot contour maps and water resource layers, including the Water Quality Management Areas (WQMA’s) which are within 300 feet from a stream or 1000 feet from a lake have been delineated. This is the same area defined as the Shoreland Zone for the Racine County Development Services Division. These areas are more restrictive for erosion control and animal waste application.

Digital land units from the USDA-Farm Service Agency are being used to identify field boundaries. Information from the Soil Survey may also be used to identify “potential” locations of runoff or groundwater problems. These data layers combined with a hydrologic data layer will help identify water resources and locate potential problem areas within the WQMA. Agricultural fields and livestock operations within this area can be identified and a list of owners for contacting generated from the Land Information System parcel maps. Once the list of landowners is created, LCD staff can conduct a records inventory search for files related to conservation planning prepared by the LCD. This is an initial review to determine potential compliance with the performance standards based on past or present program participation. If no records are found, or if the records are found to be out of date with existing farming operations, an on-site farm visit will be scheduled.

In the initial stages, implementation will focus on high priority areas, WQMA, livestock operations, highly erodible soil areas, and lands not slated for development in the near future. Landowners within these areas will be contacted for compliance evaluation based on initial screening data noted above. Additional on-site review may also be identified through complaints or staff observations. The Racine County LCD plans to conduct a minimum of five priority farm inventories annually. This number may increase after the GIS tool is in place and initial screening data is collected. The number of compliance evaluations is also limited by existing program efforts and staffing levels.

3. Document and report compliance status.

Following completion of records review and on-site evaluations, an NR 151 Status Report will be prepared and issued to owners of the parcel evaluated. This report will include at a minimum:

- Compliance status of individual parcels with each of the performance standards and prohibitions.
- Corrective measure options and an approximate cost estimate to comply with each of the performance standards and prohibitions for which a parcel is not in compliance.
- Status of eligibility for cost-sharing available.
- Grant funding sources and technical assistance available from federal, state, and local government, and third party service providers.
- An explanation of conditions that apply if public cost share funds are used.
- A timeline for completing corrective measures, if necessary.
- Signature lines indicating landowner agreement or disagreement with report findings.
- Process and procedures for contesting evaluation results to the county.
- A copy of performance standards, prohibitions and technical design standards.

All evaluations and compliance status reports will be kept as public record in the office of Racine County Development Services Division. If a landowner agrees with the initial compliance determination and no corrective actions are required, a Letter of Compliance will be issued and the site mapped appropriately on the Racine County Land Information System. If a landowner disagrees with the initial compliance determination, the landowner may meet and discuss concerns with the LCD regarding the compliance determination process and results.

4. Technical assistance and available cost-sharing to implement appropriate best management practices.

If a site is determined to be out of compliance with the state standards, technical assistance through the LCD utilizing NRCS Standards and cost-sharing will be offered to the landowner to bring them into compliance. A list of conservation practices likely to be utilized to meet state performance standards and potential sources of cost-share funding is found in Appendix A. If no cost-sharing is available, a landowner is not required to comply until such time that cost-sharing becomes available. However, if cost-sharing is offered, and a landowner still refuses to make the corrective actions needed to bring the site into compliance, future cost-sharing is not required.

5. Administer funding and technical assistance.

Once a landowner agrees to implement the corrective actions to bring the site into compliance with the state standards, and if cost-sharing is involved, the cost-share agreement and schedule for implementation will be executed. If technical assistance is required it will be arranged for through appropriate agencies/staff with the proper engineering job approval or conservation planning certifications.

After the corrective measures are applied, the site will be re-evaluated to determine if the parcel is now in compliance with the relevant performance standards or prohibitions. An official notification will be sent to notify the landowner that the site has been determined to now be in compliance with applicable performance standards and prohibitions. Once a site is determined to be in compliance, it is required that the site remains in compliance for perpetuity without additional cost-sharing being required.

6. Issue required notices and enforcement activities.
Following compliance status notification, if appropriate action is not taken by the landowner/operator in a reasonable amount of time as detailed in the NR 151 Status Report, enforcement action may commence.
7. Compliance monitoring and Annual reporting.
Racine County LCD will use GIS and a spreadsheet database to record progress on implementing performance standards and meet reporting requirements. Compliance monitoring may be done as random spot checks or through scheduled inspections of sites previously cost-shared. Annual reports will be compiled to evaluate the progress of administering performance standards and prohibitions and submitted to the WDNR and DATCP.

GOAL #2

INVASIVE SPECIES MANAGEMENT AND CONTROL

Goals and Workplan Objectives

Invasive species can alter ecological relationships among native species and can affect ecosystem function, economic value of ecosystems, and human health. In order to more effectively control the infestation and spread of invasive animal and plant species, specific goals and workplan objectives have been identified as follows:

- Distribute informational material, answer phone and direct inquiries;
- Organize and educate local work and youth groups to identify and eliminate exotic and invasive species;
- Continue to conduct periodic workshops and presentations on invasive plant and animal species control;
- Apply for grants to hire contracted staff to assist with the clean boats, clean waters volunteer program;
- Create a monitoring program to track control measures over time and;
- Encourage the development and adoption of aquatic plant management plans for all inland lakes, and;
- Participate as needed in Aquatic Invasive Early Detection and Response Projects.

Planned Actions

Invasive species control strategies rely heavily on information, education, and communication. Therefore, our plan will include a wide range of activities to implement an effective identification, prevention, and eradication program.

Racine County will continue to respond to citizen concerns of gypsy moths in the county. The County participated in biological control through aerial treatments of 20 acres in 2009 and 15 acres in 2010.

The emerald ash borer is native to Asia and has killed 90% or more ash trees in the Great Lakes region. Infestations have been confirmed in most of Racine County as well as most of southeast Wisconsin. Racine County will continue to remove dead ash trees located in road right-of-ways, county parks, and within the county-owned Root River environmental corridor. The dead ash tree removal is prioritized for public safety.

The WDNR has recognized aquatic invasive species as a serious problem in Racine County lakes. When outbreaks of aquatic invasive species occur, Racine County LCD along with the DNR will participate as a partner in their detection and eradication. Planned activities include the continuation of an ongoing program of public information and education being provided to both riparian landowners and lake users. Also, encourage lake association/districts to develop and adopt aquatic plant management plans for their individual lakes. Starting in 2021, Racine County has entered into a Cooperative Agreement with the University of Wisconsin-Madison Sea Grant Institute to hire a part-time staff to implement the Lake

Monitoring and Protection Program in Racine County. This staff coordinates the Clean Boats, Clean Waters watercraft inspection program and works with local lake associations and districts to implement the Citizen Lake Monitoring Network and Aquatic Invasive Species Prevention Program.

Invasive shrubs such as buckthorn and honeysuckle prevent the regeneration of young trees, causing long-term, serious impacts to the forestry of Racine County.

Garlic mustard can invade woodlands and displace native vegetation. It spreads rapidly and can dominate the forest floor within ten years. It not only invades disturbed habitats, but readily spreads into high quality forests. Garlic mustard provides little food and habitat for wildlife.

Wild parsnip is an aggressive weed found mostly in grassland areas or in roadside ditches of Racine County. The plants spread very quickly due to their adaptive nature, ability to flower and spread their seeds rapidly and tend to choke out native species. While this plant causes a range of impacts to the environment, the largest concern from this invasive species is its ability to inflict burns to skin of people that come into contact with the sap from the plant. This reaction is called phytophotodermatitis as the sap will burn the skin when exposed to sunlight. Staff provides information to landowners about invasive species eradication and long-term maintenance.

Dames Rocket blooms in May and June, 3-4' flowering stalks bear lovely four-petaled flowers ranging in color from very pale pink, through blues, and into purple. Its colorful blooms are easily seen along our roadsides, and in both woodlands and open fields. This perennial plant is on the NR 40 list of regulated invasive plants in WI; it spreads easily due to its prolific seed production, and so crowds out native plants that feed our native wildlife.

Purple loosestrife and Phragmites are aggressive plants in our natural wetlands and even roadside ditches of Racine County. These plants spread quickly and choke out high-quality native wetland plant species, which consequently makes wetlands less useful for wildlife. Staff provide information to landowners about eradication and long-term maintenance.

Oak Wilt is caused by a fungus, *Bretziella fagacearum*, that grows through the infected tree's water conducting system and causes the tree to wilt and die.

Bur oak blight causes infected leaves to develop purple and brown lesions along the mid-vein and underside of the leaves. As chlorosis and necrosis expand on the leaves, the affected leaving eventually wilt and die, severely affecting the trees.

While native earthworms provide benefits to the ecosystem, Asian jumping worms have been found in Wisconsin since 2013. The invasive jumpers ravenously feed on organic matter and consume much of the nutrient intended for the plants, animals, fungi and bacteria to survive. This leaves the soil looking like coffee grounds, which has poor structure and support to sustain plant life.

The County identifies areas on public land and implements eradication for invasives previously mentioned. Staff also provide information to landowners about invasive species eradication and long-term maintenance.

Racine County LCD will continue to be a member of the Southeast Wisconsin Invasive Species Consortium (SEWISC) and attend the annual invasive species awareness event. Racine County will follow the SEWISC suggested timing of control for invasive species management throughout the County.

Racine County LCD will assist in communication between the lake and river organizations within the County.

GOAL #3

BLUFF, SHORELINE AND STREAMBANK EROSION CONTROL

Goals and Workplan Objectives

Bluff, shoreline and streambank erosion are prominent in Racine County. The goal is to eliminate erosion and prioritize areas where structures and public infrastructure may be directly impacted. Additionally, water quality degradation due to erosion will be identified and addressed.

Planned Actions

Lake Michigan bluff erosion and stability is a concern to many landowners, public land managers and elected officials due to land values, property assets, land uses, economics, lake access, ecological value, public infrastructure, health and safety. Bluff erosion is a complex process and result of numerous factors which include lake elevations, wave heights, land use, land cover, bluff angle, and surface water and subsurface water drainage patterns.

Racine County LCD will continue to work with local municipalities to monitor Lake Michigan shoreline, especially in those reaches with relatively high unprotected bluffs and where shoreline protection structures are in need of maintenance, failing or failed, and where shoreline protection structures have been placed in isolated situations and are likely to cause differential erosion processes acting on unprotected portions of the shoreline in the vicinity of those structures.

Racine County will assist with erosion as follows:

- Work with all impacted municipalities to inventory and prioritize actively eroding areas.
- Utilize Federal partners to search for potential solutions, grants and other available resources.
- Apply for grants to receive funding to construct bluff stabilization projects.

Shoreline erosion is occurring on most inland lakes in Racine County. Shoreline erosion occurs due to wave action, foot traffic and ice heave. Rock riprap, combined with native shoreline plantings, are promoted by the Racine County LCD and in some cases cost-share may be available to assist with an eroding shoreline.

In order to meet the identified goals and workplan objectives related to the protection and preservation of Racine County's land and water resources, soil erosion from unstable river and lake shorelines should be quantified. Priority sites have been mapped along the main stem of the Fox River and funding sources have been identified and obtained to assist landowners in implementing shoreline protection measures. The remainder of the County can be mapped as well to locate and prioritize these sites.

Racine County supports a vegetative buffer zone through shoreland zoning. The buffer zone prevents erosion, protects water quality, promotes fish / wildlife habitat and adds to a natural scenic preservation of shorelines. The LCD will:

- Work with impacted landowners on best management practices for erosion control.
- Utilize available cost share programs to assist with BMP construction of shoreline erosion control.
- Provide the Shoreline Stabilization Guide to lake associations and homeowners.
- Implement the vegetative buffer zone ordinance.
- Promote a 75' setback from the shoreline to promote natural aesthetics and wildlife habitat.

Streambank and ditch bank erosion are occurring throughout much of the County. The erosion occurs for many reasons, a few include: vertical streambanks, wave action, large storm events, foot traffic, equipment traffic, and unlimited livestock access. Depending on the severity of the erosion and site conditions, the LCD will promote best management practices to correct the erosion as well as recommend riparian buffers as an effective method to protect water quality. The LCD will continue to:

- Work with impacted landowners on best management practices for erosion control.
- Utilize available cost share programs to assist with BMP construction of streambank erosion control.
- Promote riparian buffers
- Restore natural streams and/or create two stage channels in degraded waterways.
- Work with the Racine County Drainage Board to promote streambank/ditch bank stabilization.
- Support a study on the Rochester Dam to determine if upstream channels, such as the Wind Lake Canal, would have less erosion if the dam were removed.
- Promote long-term observations of water levels in the Fox River and the Root River before and after the Waukesha Water Diversion is finished.

GOAL #4

PROMOTE AWARENESS AND EDUCATION OF ENVIRONMENTAL STEWARDSHIP

Goals and Workplan Objectives

Developing and implementing a sound educational program is an important component of the land and water resources management plan. The goals and workplan objectives related to educational programming include the following:

- Enhance the general public's appreciation and involvement in natural resource protection and restoration;
- Provide information to rural landowners and farm operators on the agricultural performance standards;
- Promote learning strategies for environmental education among our youth;
- Provide outreach programs to developers, engineers, landscapers, local officials, and work groups that will increase awareness of storm water pollution impacts;
- Increase landowner and producer/operator awareness of conservation practices and programs;
- Provide information to riparian property owners and landscape contractors on the benefits of riparian buffers;
- Educate landowners, agricultural supply businesses, lawn maintenance companies, and golf course superintendents on the importance of nutrient and chemical management and;
- Provide information to county residents about how they can control water pollution, groundwater contamination, and control invasive species.

Planned Actions

The planned actions to meet the educational goals and workplan objectives in the agricultural areas include working with the Watershed Protection Committee of Racine County to offer a Summer Field Day and Winter Workshop each year to promote soil health.

Provide certification and training courses on nutrient management planning, as well as compliance obligations set forth in the State performance standards, will be offered to landowners, producers, cooperatives and agricultural suppliers.

Educate producers about existing cost-share programs for voluntary implementation of conservation best management practices along with the agencies involved and their roles.

Promote aquatic invasive species control through presentations at annual lake association meetings. Provide information with signs at boat launches, county parks, and other waterfront establishments regarding aquatic invasive species control.

Utilize school groups and non-profit organizations with events to control garlic mustard and buckthorn.

Informational and educational programming will be targeted towards Lake Michigan riparian property owners. Informational materials will be developed and distributed containing the details involved with Lake Michigan shoreline erosion processes. Additionally, material shall be provided that identifies the most appropriate methods to protect the shoreline from erosion and proper setback distances for structures from the shoreline.

Work with Racine County Drainage Board to support proper bank stabilization slopes and methods during dredging to ensure spread spoils are seeded or farmed to not re-enter the surface water.

It is important to utilize new and existing programs and teaching materials to develop curriculum for in-school programs that identify valuable natural resources and also identify ways to protect those resources, restoration methods, and sources of natural resource degradation, including nonpoint source pollution.

In order to implement the informational and educational program goals and workplan objectives, the following strategies and methods are part of our 10-year planned activities.

- Provide one-to-one contact with individuals, businesses, or local levels of government;
- Inform new and existing landowners about their obligation to maintain compliance with performance standards through personal contact, direct mail, newsletters, fact sheets, website, workshops, social media, field days, etc;
- Work with local non-profit environmental groups to assist with public and municipal employee education;
- Utilize new and existing programs to help implement a curriculum to inform students about natural resource issues, their function and role in the environment, and ways they can manage and restore those resources;
- Assist area youth groups in the development of outdoor classroom activities to promote land and water conservation;
- Make available internships to provide real work experience opportunities for High School and College students;
- Participate in the State of Wisconsin Environmental Poster Contest. This educational contest allows students to make posters using their creativity and artistic skills while educating students on an environmental topic. Winning posters are advanced to regional and state competitions.
- Distribute information material during office and site visits.
- Provide information at display booths at county fair, lake association meetings, and other environmental events;
- Partner with lake districts and associations on shoreline protection and restoration demonstration projects and workshops. Continue to distribute the shoreline stabilization packets to riparian landowners;

- Continue to distribute informational materials to homeowners on pet waste, leaf and grass clipping disposal, lawn fertilization techniques, and the problems associated with dumping chemicals directly into storm sewers;
- Promote storm drain stenciling and provide materials to schools and youth groups;
- Promote conservation education along bike trails throughout the County;
- Organize and educate local work and youth groups to identify and eliminate invasive species;
- Conduct seminars or workshops for the farming community, riparian residents, businesses, and local levels of government to include;
 - General awareness of conservation and/or runoff pollution
 - Land use/planning (including farmland preservation and development rights)
 - Groundwater management (including well abandonment and septic systems)
 - Shoreland mitigation efforts (rain gardens, rain barrels, pervious pavers)
 - Lake/river/shoreland management
 - Wetland/pond creation/enhancement/restoration
 - Woodlot/prairie/savannah management
 - Invasive species management
 - Wildlife habitat management
- Provide informative on the County social media pages focusing on different land conservation issues in the County;
- Use cable TV, radio, website, social media and newspaper to deliver environmental programming and circulate opinion surveys and;
- Maintain a County natural resource and land conservation website devoted to conservation programs, technical services, and cost-shared practices, with links to other sources of information;
- Promote internal conservation education training between County departments.

GOAL #5

PROTECT AND PRESERVE LAND AND WATER RESOURCES

Goals and Workplan Objectives

In order to more effectively protect and preserve land and water resources, specific goals and workplan objectives have been identified as follows:

- Conserve Racine County's unique natural resources as lands become more developed;
- Prevent the degradation and disturbance of wetlands;

- Create, restore and enhance wetland, riverine, and wildlife habitat throughout the county;
- Prepare and/or update comprehensive lake and watershed management plans;
- Promote riparian buffers along all water resources in the County;
- Promote regenerative farming and soil health practices.
- Protect the quality and quantity of groundwater supplies;
- Support efforts to protect and enhance our forests and woodlots and;
- Continue to implement and refine the County’s shoreland management program with emphasis on shoreline protection, restoration, and enhancement.

Planned Actions

Racine County LCD will encourage farmers to utilize regenerative agricultural practices and promote soil health along with its principles.

The regional water quality management plan update^[1] will provide specific recommendations on land use, the point source pollution abatement, and the nonpoint source pollution abatement. These recommendations were determined by detailed modeling needed to achieve the adopted water use objectives for the southeastern Wisconsin region. The recommendations and guidance for water quality management set forth in SEWRPC Planning Report No. 50 are an invaluable resource tool for Racine County, the Towns, and local governments in land and water management planning.

Wetlands should be protected through NR 151, NR 103 and local ordinances to insure setback requirement for protected areas are met. The County and local governments will continue to work cooperatively to implement the recommended actions identified in the regional natural areas and critical species habitat plan.

The Racine County LCD and the WDNR will work together update and review water quality inventory data to assess existing conditions, as well as providing a benchmark to evaluate the effectiveness of nonpoint source pollution control best management practices. This baseline data will be used to monitor progress of the land and water resource management plan implementation. The needed data would be obtained by the WDNR, by lake associations/districts and other work groups with an interest in water quality monitoring.

Racine County LCD will continue to encourage lake associations/districts to develop, adopt, update, and implement lake management and aquatic plant management plans for their individual lakes, become more active in water quality monitoring and encourage interested organizations to apply for various grants for both lake and river protection activities. The LCD will continue to partner with the Southeastern Wisconsin Regional Planning Commission to provide assistance in identifying grant opportunities and in the grant application process itself.

Riparian buffers are one of the most effective means of protecting water quality through reducing sediment delivery. Accordingly, Racine County LCD will continue to work with and form more resource partnerships to educate riparian landowners of the water quality benefits of buffers. Racine County LCD will offer SWRM cost-share funds, as available, to install bio-engineered systems with vegetated buffers. Racine County is currently promoting voluntary programs such as the Conservation Reserve Program (CRP) and the Conservation Reserve Enhancement Program (CREP) to protect water quality.

^[1]SEWRPC Planning Report No. 50, A Regional Water Quality Management Plan Update for the Greater Milwaukee Watersheds.

Additionally, Racine County will protect the shoreline and water resources from continued degradation by continuing to administer its shoreland ordinance regulation limiting the extent of activities such as filling, tree cutting, and grading that occurs within the shoreland zone. Racine County LCD also provides shoreland erosion control reviews for 1 and 2 family dwelling and subdivisions within the shoreland jurisdiction of the county zoning.

Racine County will continue to administer the floodplain ordinance. We have adopted floodland zoning regulations and are participating in the Nation Flood Insurance Program to effected units of local government.

In order to meet the goals and objectives to reduce the threat to groundwater contamination, Racine County LCD will continue to use SWRM grant funds to cost-share the decommissioning of abandoned and unused wells. The County will also encourage and support local governments in developing wellhead protection programs to ensure safe setbacks from all municipal wells. The County will continue the current comprehensive onsite sewage disposal system management program and also to address the provisions set forth in the recently revised Comm 83 as needed. The County continues to facilitate the use of funding sources for repairing or replacing failing septic systems.

Because of the concerns associated with groundwater contamination from agriculture and related industries, the County LCD and NRCS staff will work with agricultural producers to soil test farm fields and provide assistance to producers to develop nutrient management plans for farm fields. The County will utilize the available inventory data and GIS mapping that is set forth in the regional groundwater inventory to delineate those areas that are considered groundwater related water quality management areas. The educational program activities mentioned above will include an element to increase the awareness level of the importance of groundwater and ways to protect groundwater resources through informational workshops, fact sheets and literature. In addition to existing programs and educational materials, new in-school programs will be encouraged to include: sources of groundwater and its importance, groundwater uses, and protection of groundwater.

To ensure the continued quality of groundwater resources in Racine County, the LCD, Towns, and local government shall incorporate information on groundwater recharge areas and the potential for groundwater contamination as one component of future land use planning. Furthermore, new urban development will be encouraged to be located in areas where public water supply systems are available. The Southeastern Wisconsin Regional Planning Commission has conducted a regional water supply study for the Southeastern Wisconsin Region. The recommendations and guidance for groundwater sustainability set forth in SEWRPC Planning Report No. 52^[2] will be considered by Racine County when evaluating the sustainability of proposed developments and in conducting local land use planning.

NONAGRICULTURAL PERFORMANCE STANDARDS

Goals and Workplan Objectives

Nonagricultural and urban land uses are a significant source of nonpoint pollution. To achieve the requirements of NR 151 Nonagricultural Performance Standards, the goals and objectives of this plan focus on storm water management, construction site erosion control, and sound land use planning. Specifically goals and workplan objectives include the following:

- Implement the State Nonagricultural Performance Standards including Construction Site Performance Standards for Permitted and Non-Permitted Sites
 - Erosion and Sediment Control Practices
 - Sediment Performance Standard
 - Preventative Measures to incorporate and maintain existing vegetation

^[2]SEWRPC Planning Report No. 52, A Regional Water Supply Plan for Southeastern Wisconsin.

— Best Management Practice locations and implementation

- Implement the Post-Construction Performance Standards, including:
 - Total Suspended Solids load reduction
 - Peak Discharge Performance Standard
 - Infiltration Performance Standard
 - Protective Area Performance Standard

Planned Actions

In order to accomplish the identified nonagricultural nonpoint pollution goals and workplan objectives, a number of management practices need to be implemented. Construction sites are one of the highest contributors of erosion and sedimentation when best management practices are not properly installed and maintained. Storm water management and erosion control standards need to be established to provide consistent storm water permit requirements countywide. In addition, Racine County, the Towns and local governments, should work together to develop a consistent monitoring program for construction sites to ensure proper establishment and maintenance of best management practices. Racine County and local governments should set standards that require developers and contractors to leave the maximum amount of vegetation on a construction site. The County, Towns and local government should also, require through guidelines or adopted ordinance, developers to provide a site plan inventory of the drainage network including contiguous properties extending beyond the site boundary to show surface and subsurface runoff patterns onto, through, and from the site; watercourses that may affect or be affected by runoff from the site; flow path and direction for all storm water conveyance sections; watershed boundaries used in hydrology determinations to show compliance with performance standards; lakes, streams, wetlands, channels, ditches, and other watercourses on and immediately adjacent to the project site.

Storm water runoff is one of the principal factors associated with nonpoint source pollution. Not only does storm water transport sediment and contaminants, but it also contributes to erosion of streambanks, and temperature fluctuations of water resources. A coordinated program should be developed to prepare and implement detailed comprehensive storm water management plans for logical sub-watershed and groundwater protection areas. This program should emphasize new development, redevelopment of existing urban areas, and existing urban areas. Additionally, the Towns and local government should take on the primary responsibilities associated with maintenance of major storm water management facilities for future developments, to ensure that long-term maintenance issues are properly addressed, by providing a stable, responsible party for storm water management. Racine County, the Towns and local government should continue to work to develop coordinated and simplified requirements for storm water management facility permitting and regulation. Additionally, local requirements should be coordinated with the Wisconsin Department of Natural Resources permitting program.

Implementation Strategy

To implement the above noted standards and prohibitions fairly in the nonagricultural areas, a systematic and comprehensive approach will be required. Runoff pollution from urban lands can be the leading cause of water quality problems in some areas. As in rural areas the number one pollutant is sediment, or small bits of soil particles washed into streams and lakes. Attached to the soil particles are nutrients such as phosphorus that fuels the growth of algae and weeds in bodies of water. Other pollutants from urban areas include flakes of metal from vehicles, particles from vehicle exhaust, bits of tire and brake linings, soot from smokestacks, lead, zinc, pet waste, leaves and grass clippings and a variety of chemical compounds. This permit process involves plan review, on-site inspection, and necessary enforcement actions. In Racine County stormwater management is regulated by the local municipality.

In Racine County, the local municipality regulates erosion control on single-family home construction and the Racine County LCD provides shoreland erosion reviews for family dwellings and subdivisions within the shoreland jurisdiction of the county zoning.

NONMETALLIC MINING RECLAMATION

Goals and Workplan Objectives

The goal is to rehabilitate sites where nonmetallic mining takes place. Final reclamation promotes the removal of mining refuse and haul roads no longer in use. Final grading will promote surface water flow in a manner to prevent environmental pollution. Final restoration of the site includes the replacement of topsoil onto stable soil conditions with the establishment of a vegetative cover. Site restoration needs to comply with the previously approved reclamation plan.

Implement Non-Metallic Mining Reclamation Standards

- General Standards
 - Refuse and solid wastes shall be properly disposed of, removed or reused onsite.
 - Minimize the disturbed area to the extent practical.
 - All sites shall be reclaimed following regulations governing public health and safety.
 - Include habitat restoration in the reclamation plan as practical.
 - Comply with other state and local laws referring to zoning or land use.
- Surface Water, Wetland and Groundwater Protection
 - Provides necessary measures for proper drainage.
 - Prevent any pollution to surface waters or groundwater.
 - Do not permanently adversely impact surface or groundwater quantity for the future users.
- Topsoil management, final grading and revegetation for site stabilization
 - Removal of topsoil and stockpiling in a manner to prevent erosion for future use onsite.
 - Final grading shall not exceed a 3:1 slope and in a manner to blend into the existing grades.
 - Respread topsoil and revegetate the site in accordance with the approved reclamation plan.

Planned Actions

In order to accomplish the items above, the Racine County Development Services and Land Conservation Division staff inspect all approved non-metallic mining sites every two years. The sites are reviewed for any changes or discrepancies in the existing phasing and restoration plans. The site inspections verify proper locations of stockpiles, wash ponds, and promote the restoration of mined out or unused areas as shown in the reclamation plan.

The financial assurance is also revisited by Racine County to determine if the level of bonding or other means of financial assurance meets the current level needed for full reclamation.

Implementation Strategy

To implement the above noted standards, Racine County uses a cycle of renewing a Conditional Use Permit and then a Site Plan Review two years later to ensure all non-metallic mining facilities are following their approved extraction, phasing and reclamation plans. Staff meets with non-metallic mining operators prior to their meeting with the Economic

Development and Land Use Planning Committee to review the sites for compliance and discuss any other mining activity or changes relating to their plans.

FINAL COST SUMMARY

Estimated Costs of Plan Implementation

This plan does not have the authority to establish county budget items, the estimated costs provided below are solely intended to meet LWRM planning requirements and are a representation based on historical amounts provided in Racine County LCD budgets. It is assumed that no additional staff resources will be made available to implement this plan beyond what is currently allocated to land conservation programs in the County (3 FTE's). The cost estimates contained in Table 17 are based on average annual costs to maintain existing program efforts and staffing levels.

The average salary increases and inflationary costs are included in the increases shown each year. Currently all cost-share funding is acquired from Federal, State, and additional grant sources. Racine County LCD will continue to apply for grants to supplement those funds. The table assumes that Racine County's current budgeted staffing level of three full-time employees is maintained, and it assumes stable segregated and bonding cost-share funds by the State.

Conservation practices, such as diversions, riparian buffers, filter strips and building projects such as manure storage facilities, concrete barnyards and roofed feedlots are considered "hard practices". Cropping practices, such as nutrient management, no-till and cover crops are known as "soft practices." The projected cost-share needs for installing hard and soft best management practices over the next ten years is only an approximate estimate due to uncertain funding levels, changing land use and farm economy, and increasing practice installation costs.

Summary

The procedures and cost estimates outlined in this chapter represent the best estimates of the LCD at the time of plan preparation and are all subject to change. No attempt is made to identify the source of funding beyond the assumptions noted above. All of the estimated costs are subject to the annual budget processes at the county, state and federal levels. The LCD will make every attempt to take advantage of the wide array of grants and partnerships that may be available through public or private sources to implement this plan.

Table 8

RACINE COUNTY WORKPLAN: 2023-2032

Goal	Workplan	Planned Actions	Status of Planned Action	Agencies
<p>GOAL #1 Increase Resource Protection by Reducing Non-Point Source Pollution (2080 hours per year)</p>	<p>Implement the State Agricultural Performance Standards to protect water quality</p>	<ol style="list-style-type: none"> 1) Continue to work with agricultural producers to utilize a wide variety of best management practices to target soil erosion and animal waste management to improve water quality. 2) Assist farmers to develop nutrient management plans through farmer training or consultants. 3) Utilize the Watershed Protection Committee of Racine County to promote soil health practices to reduce soil erosion, promote water infiltration and reduce runoff. 4) Provide technical assistance for manure storage facilities, whether they are new, substantially altered or planned for abandonment. 5) Inventory at least 5 priority farm landowners yearly to evaluate compliance status. 6) Continue to use GIS for priority farm mapping as part of the tracking system. 7) Keep landowner's notified of compliance status through the issuance of compliance certifications or schedules of compliance. 8) Put landowner's on a maintenance schedule if already in compliance. 9) Assist with BMP implementation to put landowners into compliance with the Standards. 10) Respond to complaints to ensure the Agricultural Performance Standards are being met. 	<p>Ongoing</p>	<p>LCD</p>

Goal	Workplan	Planned Actions	Status of Planned Action	Agencies
	Monitor and support the Farmland Preservation Program (FPP)	<ol style="list-style-type: none"> 1) LCD staff will monitor program participants for compliance with the applicable standards at least once every four years through a combination of landowner visitation, field inspections, and compliance checks. 2) Send the schedule of compliance in the form of a letter for each participating landowner to sign annually. 3) Update FPP parcels and acreages as properties are sold or rezoned. 4) Continue to assess and evaluate farm practices to keep conservation and nutrient management plans updated for compliance. 5) Send an annual report to DATCP with parcels rezoned out of exclusive agricultural zoning (A-1) 6) Annually email DATCP a list of FPP participants along with their Certificate of Compliance number. 7) Mail the correct FC Tax Schedule and updated Certificate of Compliance to FPP participants for use with Wisconsin tax preparation. 	Ongoing	LCD, DATCP
	Reduce soil erosion to (T) tolerable rates	<ol style="list-style-type: none"> 1) Work with the Watershed Protection Committee of Racine County (WPCR) to promote soil health activities. 2) Encourage farm conservation plans to include no-till and cover crops. 3) Correct all gully erosion with grassed waterways or appropriate best management practices. 4) Continue to promote farming practices to reduce sheet and rill erosion, including: <ol style="list-style-type: none"> A. Conservation tillage, including strip till and no till. B. Consider less erosive crop rotations with hay or winter wheat. C. Promote contour farming, contour strip cropping or field buffers to break up steeper slopes as applicable. D. Promote the Conservation Reserve Program for HEL, WQMA's, or other marginal farmland. E. Promote combinations of soil health activities to improve water infiltration and reduce runoff. 	Ongoing	LCD, DATCP NRCS, FSA

Goal	Workplan	Planned Actions	Status of Planned Action	Agencies
GOAL #1 (continued) Increase Resource Protection by Reducing Non-Point Source Pollution	Manage animal waste and livestock access to water resources in accordance with State performance standards	<ol style="list-style-type: none"> 1) Utilize cost-share funds to install conservation practices that improve barnyard runoff control, animal waste storage, animal waste storage abandonment and other animal waste management issues. 2) Enforce the Racine County Animal Waste Management ordinance. 3) Enforce the Racine County Livestock Facility Siting Ordinance. 4) Assist farmer with management decisions such as animal location, fencing, manure stacking location, stormwater runoff, milkhouse waste or other management issues. 5) Respond to animal waste storage and spreading complaints. 	Ongoing	LCD, DATCP, DNR, NRCS
GOAL #1 (continued) Increase Resource Protection by Reducing Non-Point Source Pollution	Develop, implement, and monitor compliance of nutrient and pest management plans to protect water quality	<ol style="list-style-type: none"> 1) Continue to work with producers, DATCP, NRCS and technical service providers to expand nutrient management and pest management planning and implementation. 2) Utilize DATCP's restriction maps during the planning process. 3) Integrate plans to reduce the amount of manure, fertilizers, and pesticides applied. 4) Assist with support and information when producers have questions regarding their nutrient or pest management plans or are considering changes to their plan. 5) Utilize GIS to report nutrient management planned acreage along with plan years, including an expiration date requiring new soil tests and plan updates. 6) Conduct compliance inspections on existing plans for proper implementation and assist with updating plans as needed. 	Ongoing	LCD, NRCS, DATCP, TSP's

Goal	Workplan	Planned Actions	Status of Planned Action	Agencies
GOAL #1 (continued) Increase Resource Protection by Reducing Non-Point Source Pollution	Reduce soil delivery rate from riparian cropland to waters of the State	<ol style="list-style-type: none"> 1) Utilize cost-share funds through the SWRM, TRM, CRP, CREP, CSP, EQIP or other programs as needed to reduce sediment delivery. 2) Enforce the tillage setback. 3) Work with landowners, farmers, and agency partners to establish buffers within riparian corridors. 4) Stabilize eroding banks along agricultural drainage ways as well as recommend buffers where sediment is being delivered to the surface water. 5) Clean out accumulated sediment from agricultural drainage areas as needed, incorporating the proper permitting process and associated sediment removal actions. 6) Promote stream naturalization such as two-stage channels with a base flow stage and a flood stage. 7) Promote the removal of legacy sediment. 	Ongoing	LCD, NRCS, DATCP, FSA

Table 9

RACINE COUNTY WORKPLAN: 2023-2032

<p>GOAL #2 Invasive Species Management and Control. (520 hours per year)</p>	<p>Control the infestation of terrestrial invasives, aquatic invasives plants and animal species</p>	<ol style="list-style-type: none"> 1) Present at annual workshops, lake district meetings or other opportunities about invasive plant and animal species control. 2) Apply for the WI DNR Lake Monitoring and Protect Grant each year and utilize funds to hire part-time AIS coordinator. 3) Distribute informational material, answer phone and direct inquiries 4) Assist the clean boats, clean waters volunteer program, and support purple loosestrife biological control 5) Work with environmental non-profit groups to organize and educate local youth groups to identify and eliminate invasive species 6) Encourage the development and adoption of aquatic plant management plans for all inland lakes 7) Support the DNR AIS network by reporting aquatic invasive species to the regional coordinator. 8) Assist the DNR in the rapid response grant program 9) Work with the County Parks to identify areas with invasive species and plan for removal and or a control plan. 10) Work with the County highway operations staff to identify invasive species and plan to reduce their spread and even eliminate some populations through roadside maintenance. 	<p>Ongoing</p>	<p>LCD, UW-Ext, SEWISC, Non-Profit Environmental Groups, Lake Associations, DNR</p>
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Table 10

RACINE COUNTY WORKPLAN: 2033-2032

Goal	Workplan	Planned Actions	Status of Planned Action	Agencies
<p>GOAL #3 Prioritize and promote repair of Lake Michigan bluff erosion, shoreline erosion and streambank / ditch bank erosion. (520 hours per year)</p>	<p>Implement Technical Standards for bluff erosion</p>	<ol style="list-style-type: none"> 1) Continue to identify and map areas of severe erosion that may impact public infrastructure or damage private property. 2) Work with impacted municipalities and Federal partners to search for potential solutions, utilize grants and other means of assistance. 3) Work with local Commissions, Environmental Non-Profits, and Lake Association's to educate and provide technical / financial assistance to citizens. 4) Apply for Great Lakes grants where bluff erosion stabilization is an acceptable practice. 	<p>Ongoing</p>	<p>LCD, DNR, Local Gov'ts, Environmental Non-Profit Groups, Lake Associations</p>
	<p>Implement NRCS Technical Standards for shoreline erosion and implement the shoreland zoning ordinance</p>	<ol style="list-style-type: none"> 1) Continue to promote shoreline protection on eroding shorelines with technical assistance. 2) Utilize existing cost-share programs to provide assistance to landowners with eroding shorelines. 3) Promote Riparian Buffer zones and implement the shoreland buffer zone ordinance. 4) Provide the Shoreline Stabilization Guide to lake associations and homeowners. 5) Promote the 75' shoreline buffer. 		
	<p>Implement NRCS Technical Standards for streambank protection and two-stage channel creation</p>	<ol style="list-style-type: none"> 1) Work with impacted landowners on best management practices for streambank erosion control 2) Utilize existing cost-share programs to provide assistance to landowners with eroding streambanks. 3) Promote riparian buffers along streams. 4) Restore natural streams and create two stage channels in degraded waterways. 5) Provide technical erosion control and streambank stabilization comments on Racine County Drainage Board proposed projects. 		

Table 11

RACINE COUNTY WORKPLAN: 2023-2032

Goal	Workplan	Planned Actions	Status of Planned Action	Agencies
<p>GOAL #4 Increase awareness and provide further Information and Education Activities to promote environmental steward to farmers, youth, elected officials and the general public (520 hours per year)</p>	<p>Provide outreach programs to developers, engineers, landscapers, local officials, environmental consultants and work groups that will increase awareness of stormwater pollution impacts</p>	<ol style="list-style-type: none"> 1) Host or attend an annual workshop on stormwater and erosion control BMP's 2) Promote environmentally sensitive land development designs 3) Educate landowner associations in charge of stormwater basin management and maintenance 4) Provide information to developers about nonagricultural performance standards and prohibitions 	<p>Ongoing</p>	<p>LCD, DNR, UW-Ext, Towns, WI DATCP, Producer Led Groups, Local Govt.</p>
	<p>Increase landowner, farmer, County Official and youth awareness of conservation practices and programs</p>	<ol style="list-style-type: none"> 1) Continue to provide an annual newsletter <i>Ties to the Land</i> to 3500+ landowners and producers 2) Provide information at display booths at the county fair, Fox River Summit and Watershed Protection Committee of Racine County (WPCR) events 3) Promote the WPCR Winter Workshop's and Summer Field Day's by mailing brochures to agricultural producers, posting the events on social media and sending press releases to newspaper outlets 4) Assist the WPCR with research and demonstration plots at Case Eagle Park and share information with producers. 5) Include a technical education topic at Land Conservation Committee meetings. 6) Host periodic Southeast Area Land & Water Conservation Association summer tours. 7) Help sponsor a Dairy Breakfast field day annually to promote dairy farming 8) Maintain the Land Conservation Website on conservation programs, technical services, and cost-shared practices 9) Distribute informational material during office and site visits 10) Use direct mailings to contact priority farms 	<p>Ongoing</p>	<p>LCD, FSA, NRCS, Local Gov'ts, WI DATCP, Producer Led Groups</p>

Goal	Workplan	Planned Actions	Status of Planned Action	Agencies
GOAL #4 (continued) Increase awareness and provide further Information and Education Activities to promote environmental steward to farmers, youth, elected officials and the general public (520 hours per year)	Provide information to riparian property owners and landscape contractors on the benefits of riparian buffers	<ol style="list-style-type: none"> 1) Continue to distribute the Shoreline Stabilization brochure to Lake Association leaders within the County 2) Partner with the WPCR to provide cover crop seed samples will pollinator species for riparian landowners to utilize along shorelines or within rain gardens or natural areas. 3) Hold seminars targeted towards landscape contractors on the effectiveness of riparian buffers and potential design options for residential and business situations 3) Assist in developing demonstration sites to illustrate sound riparian land management for buffer establishment 4) Partner with lake districts and associations on shoreline protection and restoration demonstration projects and workshops 5) Informational and educational programming targeted towards riparian property owners 	Ongoing	LCD, WDNR, UW Ext, Lake Groups

Goal	Workplan	Planned Actions	Status of Planned Action	Agencies
GOAL #4 (continued) Increase awareness and provide further Information and Education Activities to promote environmental steward to farmers, youth, elected officials and the general public (520 hours per year)	Educate landowners, agricultural supply businesses, lawn maintenance companies, and golf course superintendents on the importance of nutrient chemical management	<ol style="list-style-type: none"> 1) Organize an annual nutrient management planning certification, update or revision training course 2) Work with area coops and other suppliers to develop seminars targeted to nutrient and agri-chemical management and regulations, as well as area lawn companies, golf course and park superintendents 	Ongoing	LCD, UW-Ext, DATCP

Goal	Workplan	Planned Actions	Status of Planned Action	Agencies
GOAL #4 (continued) Increase awareness and provide further Information and Education Activities to promote environmental steward to farmers, youth, elected officials and the general public (520 hours per year)	Provide information to the county residents about how they can control water pollution and groundwater contamination	<ol style="list-style-type: none"> 1) Continue monthly surface water quality testing in 22 locations and provide water quality data at Workshops or Field Days to share information 2) Promote water conservation, rain gardens and rain barrels to reduce surface runoff and increase groundwater recharge 3) Promote tap water testing from wells in areas known for high nitrate or other contaminants 4) Continue to distribute informational materials to homeowners on pet waste, leaf and grass clipping disposal, lawn fertilization techniques, winter salt usage and problems associated with dumping chemicals directly into storm sewers 5) Promote storm drain stenciling and provide materials to schools and youth groups 	Ongoing	LCD, UW-Ext, DATCP, Schools, Youth Groups, Work Groups
GOAL #4 (continued) Increase awareness and provide further Information and Education Activities to promote environmental steward to farmers, youth, elected officials and the general public (520 hours per year)	Provide information to county residents about how they can control exotic and invasive species	<ol style="list-style-type: none"> 1) Conduct one workshop to educate local work and youth groups on how to identify and eliminate exotic and invasive species 2) Assist with Clean Boats, Clean Waters Volunteer program 3) Utilize and assist with the SEWISC inventory and monitoring program 	Ongoing	LCD, WDNR, DATCP, UW Ext, Schools, Work Groups, Youth Groups

Table 12

RACINE COUNTY WORKPLAN: 2013-2022

Goal	Workplan	Planned Actions	Status of Planned Action	Agencies
<p>GOAL #5 Protect and Preserve Land and Water Resources (1,080 hours per year)</p>	<p>Conserve Racine County's unique natural resources under development pressure</p>	<ol style="list-style-type: none"> 1) Assist in the preparation of the annual <i>Farm Fresh Atlas</i> to advertise farmer's markets to support "farm to table" initiatives helping local farmers connect with local buyers. 2) Continue land use planning and regulatory tools to preserve productive farmland and agricultural businesses, including: <ol style="list-style-type: none"> A. Protect farmland through Exclusive Ag Zoning, Agricultural Enterprise Areas, and Purchase of Agricultural Conservation Easements Programs. B. Protect farmland through land division ordinances. C. Promote local and sustainable farm practices. D. Recommend open areas and green space to builders and developers. E. Promote rural cluster developments. 3) Advise subdivision associations regarding management of their wetlands, woodlots, and detention ponds. 4) Continue to support the acquisition and preservation of environmental corridors and important identified natural areas and critical species habitat areas. 5) Encourage urban-density land use to be confined to and within the identified urban service areas. 	<p>Ongoing</p>	<p>LCD, UW-Ext, Local Gov'ts</p>
	<p>Create, restore, enhance, and protect wetland, riverine, and wildlife habitat throughout the county</p>	<ol style="list-style-type: none"> 1) Assist planning commission staff, state and federal partners, and local work groups with 1 or more wetland mitigation or stream relocation project 2) Work with landowners, WDNR, FSA, USF&W, Racine/Kenosha Land Trust and NRCS to utilize local, state and federal program funds for wetland and riverine improvements 3) Seek funding sources for lake and river water quality protection 4) Continue to notify the appropriate government agencies of wetland disturbance or destruction 5) Work together with the WDNR, USACE and SEWRPC to resolve wetland related issues 	<p>Ongoing</p>	<p>LWCD, UW-Ext, WDNR, NRCS, SEWRPC, D FSA, USACE, Work Groups</p>

Goal	Workplan	Planned Actions	Status of Planned Action	Agencies
GOAL #5 (continued) Protect and Preserve Land and Water Resources	Prepare, update and implement comprehensive lake and watershed management plans	<ol style="list-style-type: none"> 1) Work with planning commission staff, lake association members, and outside contractors in the development of 1 or more lake or watershed management plans 2) Encourage native grasses, plants and bio-stabilization on shorelines where applicable 3) Support lawn soil testing for application of less fertilizers 4) Advise lake groups and watershed management teams about non-point source pollution runoff best management practices 5) Encourage lake associations/districts to develop, adopt, update, and implement lake management and aquatic management plans for their individual lakes. 	Ongoing	LCD, UW-Ext, NRCS, WDNR, FSA, Work Groups
	Promote riparian buffers along all water resources in the County	<ol style="list-style-type: none"> 1) Continue to implement CREP agreements/easements (estimate 40 acres per year) 2) Continue to implement continuous and general CRP to protect water quality and promote wildlife habitat 3) Continue to work with and form more resource partnerships to educate riparian landowners of the water quality benefits of buffers 4) Use GIS and field inspections to characterize the existing riparian buffer widths along county streams 5) Recommend alternative methods available to protect shorelines subject to low erosion intensity 6) Offer SWRM cost-share funds to install bio-engineered systems with vegetated buffers 	Ongoing	LCD, DATCP, NRCS, UW-Ext, FSA
	Protect the quality and quantity of groundwater supplies	<ol style="list-style-type: none"> 1) Utilize SWRM and EQIP cost-share funds to permanently abandon 1-2 unused wells annually 2) Conduct one hazardous waste clean-up day each year 3) Encourage the infiltration of storm water as set forth in Chapter NR 151 of the <i>Wisconsin Administrative Code</i> 4) Help developers identify potential storm water infiltration areas using field data, web based GIS mapping, and the soil survey layer 5) Incorporate SEWRPC Regional Water Supply Plan recommendation into future planning efforts 6) Work with agricultural producers to soil test and provide assistance to producers to develop nutrient management plans for farm fields 	Ongoing	LCD, DATCP, NRCS, SEWRPC, WDNR

Goal	Workplan	Planned Actions	Status of Planned Action	Agencies
GOAL #5 (continued) Protect and Preserve Land and Water Resources	Support efforts to protect and enhance our forests and woodlots	<ol style="list-style-type: none"> 1) Administer the annual Racine County tree program distributing 30,000+ trees and shrubs each spring 2) Work with the local DNR forester to provide forestry assistance to landowners 3) Continue to support the Woodland Stewardship Program 4) Support the Managed Forest Law Program 	Ongoing	LCD, WDNR
	Implement the County's shoreland/floodplain management program	<ol style="list-style-type: none"> 1) Continue to enforce the county shoreland regulations through review and issuance of 30+ shoreland permits annually 2) Administer existing floodplain maps and encourage mapping of un-modeled areas 3) Administer adopted floodplain zoning regulations and participation in the National Flood Insurance Program to effected municipalities 4) Preserve and protect streams and watercourses impacted by new construction and redevelopment 5) Continue to monitor Lake Michigan shoreline, especially in those reaches with relatively high unprotected bluffs 	Ongoing	LCD, WDNR, County Dev Services, Local Gov'ts
	Assure compliance of the reclamation of non-metallic mining sites	<ol style="list-style-type: none"> 1) Continue to act as the regulatory authority staff administering the Nonmetallic Mining Reclamation NR 135. 2) Approve submitted reclamation plans with a reclamation permit 3) Maintain proof of adequate financial assurance 4) Collect annual fees 5) Submit annual report to WDNR 6) Certify proper reclamation of closed non-metallic mines. 7) Conduct semi-annual compliance inspections of active and reclaimed sites 	Ongoing	LCD, WDNR, County Dev Services

Table 12

RACINE COUNTY WORKPLAN: 2013-2022

Required Activities	Workplan	Planned Actions	Status of Planned Action	Agencies
<p>GOAL #5 (continued) Protect and Preserve Land and Water Resources</p>	<p>Implement the Shoreland Zoning Ordinance within the impacted municipalities.</p>	<ol style="list-style-type: none"> 1) Continue to review 50+ erosion control plans for new, redevelopment, earth disturbance or relevant activity within the shoreland zone. 2) Continue to encourage the adoption of storm water management and construction site erosion control standards and guidelines for urban, urbanizing, and redeveloping areas as set forth in Chapter NR 151 of the Wisconsin Administrative Code. 3) Work with local governments and towns to develop programs to routinely inspect, remove sediment, and otherwise maintain stormwater detention basins and other facilities. 4) Encourage municipalities and towns to take responsibility for maintenance of major stormwater management systems. 5) Continue to respond to complaints of erosion problems and notify local building inspectors or Development Services Staff of uninstalled or unmaintained erosion control measures. 6) Provide guidance to contractors, developers, and local building inspectors with erosion control issues. 7) Recommend special protection to outstanding and exceptional water resources and environmentally sensitive areas. 	<p>Ongoing</p>	<p>LCD, DNR, Local Gov'ts</p>
	<p>Comply with the Municipal Separate Storm Sewer System (MS4) permit requirements under NR 216 of the <i>Wisconsin Administrative Code</i></p>	<ol style="list-style-type: none"> 1) Assist in the implementation of the MS4 permit requirements, which include: Public outreach and education, Illicit discharge detection and elimination, Construction site pollution control and prevention. 2) Complete annual MS4 permit report and submit to the DNR. 3) Provide SLAMM reports and updates as needed to show permitted areas, infiltration rates, and the reduction of total suspended solids attributed to stormwater runoff meeting the reduction requirements set forth in Wisconsin Administrative Code NR 216. 	<p>Ongoing</p>	<p>LCD, DNR, Local Gov'ts</p>

NOTES: All goals are of equal priority. Planned Actions with measurable outcomes are indicated in bold.

Agency acronyms used in this table are defined below:

DATCP = Wisconsin Department of Agriculture, Trade and Consumer Protection
 WDNR = Wisconsin Department of Natural Resources
 FSA = USDA Farm Service Agency
 LCD = Racine County Land Conservation Division
 NRCS = USDA Natural Resources Conservation Service
 TSP = Technical Service Provider
 SEWRPC = Southeastern Wisconsin Regional Planning Commission
 USACE = United States Army Corps of Engineers
 USF&W = United States Department of Agriculture–Fish & Wildlife Services
 UWEX = University of Wisconsin-Extension

Table 13

ESTIMATED TOTAL COSTS FOR PLAN IMPLEMENTATION: 2023-2032

Cost Category	2023	2024	2025	2026	2027
Salary and Benefits ^a	\$292,805	\$295,733	\$298,690	\$301,677	\$304,694
Operating Expenses ^a	29,917	30,216	30,518	30,823	31,131
Landowner Cost-Share Hard Practices ^b ..	55,000	55,000	55,000	55,000	55,000
Landowner Cost-Share Soft Practices ^b ...	80,000	80,000	80,000	80,000	80,000
Total Annual Costs	\$457,722	\$460,949	\$464,208	\$467,500	\$470,825

Cost Category	2028	2029	2030	2031	2032	Ten-Year Total Costs
Salary and Benefits ^a	\$307,741	\$310,818	\$313,926	\$317,065	\$320,236	\$3,063,385
Operating Expenses ^a	31,443	31,757	32,075	32,395	32,719	312,994
Landowner Cost-Share Hard Practices ^b ..	55,000	55,000	55,000	55,000	55,000	550,000
Landowner Cost-Share Soft Practices ^b ...	80,000	80,000	80,000	80,000	80,000	800,000
Total Annual Costs	\$474,184	\$477,575	\$481,001	\$484,460	\$487,952	\$4,726,379

^aAnticipate 1 percent annual increases for salaries, benefits, and operating expenses.

^bThe costs provided by landowners and other grant recipients would be approximately \$405,000

Source: Racine County Land Conservation Division, prepared in 2022 by CES