

La Crosse County

Land & Water Resource Management Plan

2012 - 2016



La Crosse County Land and Water Resource Management Plan 2012-2016

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**LAND AND WATER RESOURCE MANAGEMENT PLAN 2012-2016
LA CROSSE COUNTY WISCONSIN**

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PLAN SUMMARY

La Crosse County sits in the heart of the un-glaciated region of Wisconsin. The landscape here consists of towering bluffs and vast coulees that provide panoramic views of contoured farm fields, wooded hillsides and clear running streams. Bordered by the Mississippi River to the west and the Black River to the north, La Crosse County is rich in high quality natural resources. Diverse and complex ecosystems thrive here. La Crosse County and the Coulee Region support many rare plants and animals that are only found in this part of the state. This abundance of natural resources and beauty has led the La Crosse area to be known as “God’s Country”. Over 130,000 people choose to live here and many more come to visit, primarily because the quality of life the area has to offer is unmatched. The natural resources base of this area contributes mightily to that desire to be a part of God’s Country.

The La Crosse County Department of Land Conservation has been charged with the responsibility of protecting and enhancing the soil and water resources of the county. In conjunction with our conservation partners, Department of Natural Resources, (DNR) Natural Resources Conservation Service (NRCS) and Department of Agriculture, Trade and Consumer Protection, (DATCP) we develop and administer programs that provide technical, planning and financial assistance to landowners that cooperatively implement conservation measures that protect soil and water resources. The purpose of the La Crosse County Land and Water Resource Management Plan is to:

- Identify and prioritize natural resources issues and concerns for La Crosse County
- Develop a coordinated effort to resolve those issues and concerns
- Provide guidance for cooperating agencies to assist in implementing the plan
- Develop activities, goals and objectives that give clear direction for implementation of the plan
- Obtain financial assistance to implement the Land and Water Resource Management Plan

This plan relies heavily on the assumption that state and federal monies will be available to the Department of Land Conservation to systematically implement the major goals and objectives established by the La Crosse County Planning, Resources and Development Committee. It is imperative that there be adequate staff hours to fulfill the time commitments required to address the needs of the county’s valued natural resources. The Wisconsin Department of Agriculture, Trade and Consumer Protection must also re-evaluate their allocation of staffing grants to counties. Those counties that fully participate in DATCP programs and give preference to meeting their goals should be considered for priority staff funding over those counties that do not. The Department of Natural Resources also needs to make a stronger financial commitment to counties who are mandated to implement storm water management and construction site erosion control ordinances. Unfunded mandates such as NR 216 puts stress on those local units of government that, by WPDES permit, are obligated to implement a program that requires hiring well-trained staff and to expend additional financial resources.

Funding for cost share assistance to cooperating landowners will be a necessity to provide incentive for conservation program participation. The Department of Land Conservation is required to provide cost share assistance when implementing the rules of NR 151. Providing financial assistance for those participating in the state’s Farmland Preservation Program is not required but incentive money will be critical in achieving conservation compliance by the 2015 deadline.

Abbreviated Table of Contents

- Chapter 1: Background, Plan Development, Citizen Participation, Public Input, Plan Oversight, Funding and Mandates, Program of Work, Estimated Program Costs
- Chapter 2: 2007-2011 Plan Accomplishments
- Chapter 3: Basins, Watersheds, Water Quality Assessment-Goals and Standards, Water Quality Monitoring, Topography, Land Use, Soil Erosion Conditions, Water Quality Assessment Schedule
- Chapter 4: Agricultural Performance Standards- NR 151, ATCP 51, County Activities Subject to Regulation- Chapter 23, Permits, Enforcement, Technical Requirements
- Chapter 5: Agricultural Performance Standards Implementation, Prioritizing for Compliance, Priority Farms-Farmland Preservation Program, Targeted Watersheds, Financial and Technical Assistance Policies, Cost Share Sources, Information and Education, Nutrient Management, FPP Self Certification, Basin and LWRM Plan Coordination, Tracking and Monitoring, Intergovernmental Cooperation, Agricultural Performance Standards Implementation Schedule
- Chapter 6: Urban Performance Standards Implementation, Urban Land Use Assessment, NR 151 Non-Agricultural Performance Standards, NR 216 Storm Water Discharge Permits, Non-Agricultural Performance Standards Implementation, NR 216 Implementation, Urban Performance Standards Implementation Schedule
- Chapter 7: Non-Metallic Mining Ordinance, County Reclamation Program, Non-Metallic Mining Ordinance Schedule

Chapter 1: Introduction

Background: This plan is a revision of the 2007-2011 La Crosse County Land and Water Resources Management Plan. This plan is in response to Wisconsin 1997 Acts 27 and 1999 Act 9 which amended Chapter 92 to require counties to develop and implement Land and Water Resources Management plans.

Plan Development: The La Crosse County Department of Land Conservation convened a meeting of cooperating agencies in May of 2011 to review natural resources data and discuss current resource management issues in La Crosse County. Representatives from the Department of Natural Resources, Natural Resources Conservation Service, Farm Service Agency and UW-Extension were in attendance.

Citizen Participation: Land Conservation Department staff held several citizen participation meetings throughout La Crosse County to solicit public input regarding natural resources issues and concerns and how DLC staff can address them through program administration. For urban related issues, an environmental educator was hired to meet with contractors, builders, homeowners and realtors to gauge the department's effectiveness in construction site erosion control and storm water management programs and solicit ideas to make improvements.

Public Participation: A public hearing regarding the contents, goals and objectives of the La Crosse County revised Land and Water Resources Management Plan was held on Tuesday, September 20th, 2011 at 6:30 pm in the La Crosse County Administrative Building, 400 4th Street North, Room B190, La Crosse, WI 54601.

Plan Oversight: The La Crosse County Planning, Resources and Development Committee has approved procedures for the implementation and any revisions of this plan.

Funding and Mandates: The DLC details concerns about LWRMP implementation when state grant funds for staff is steadily decreasing.

Program of Work: The Department of Land Conservation has two primary areas of work which consist of rural programs and urban based programs. The department has trained staff that assists the public with wide-ranging issues that may involve animal waste management or complex storm water runoff control in an urbanized area. The Department of Land Conservation has 7 full-time employees. The Department has 14,430 available staff hours annually.

Estimated Program Costs: Department staff has estimated that it will cost \$2,877,703.00 to implement this plan with the State of Wisconsin providing \$717,633.00 and La Crosse County providing \$2,160,070.00 over the five year period.

Chapter 2: 2007-2011 Plan Accomplishments

2007-2011 Plan Accomplishments: Records indicate that the DLC was successful in obtaining all of the “high priority” goals and objectives for both the agriculture and urban programs and nearly accomplished all of the other goals set by the PR&D Committee.

Chapter 3: Water Quality Assessment

Basins: La Crosse County contains two primary watershed basins; the Black River Basin and the La Crosse-Bad Axe River Basin. Both of these basins drain to the Upper Mississippi River Watershed Basin.

Watersheds: La Crosse County has many diverse sub-watersheds. Many of them are considered to be high value resources that support cold- water sport fisheries. Other watersheds often support warm-water sport fisheries and receive high levels of recreation from fishing to canoeing and kayaking as well as swimming and recreational boating.

Water Quality Goals and Standards: The PR&D Committee has established goals for the County’s water resources that are in line with other County Departments, State and Federal Agencies and based on scientific research. The committee has established the following water quality parameters; total phosphorus- 0.05 mg/L or less, fecal coliform bacteria-1000 colonies/100 ml and dissolved oxygen-not less than 5 mg/L of water at any time of the year, not less than 6 mg/L of water for streams supporting a cold water sport fishery and no less than 7 mg/L of water during trout spawning seasons.

Water Quality Monitoring-Performance Standards: La Crosse County has operated an extensive stream water quality monitoring station since 1995. The DLC staff also regularly monitors 27 of the County’s largest sub-watersheds to watch for possible pollution from agricultural sources and get a general idea of the overall health of the County’s streams.

Topography, Land Use, Soil Erosion Conditions: La Crosse County is located in the heart of Wisconsin’s drift-less region. It consists of steep bluffs and deep coulees covered by rich and fertile, wind-blown silt loam. There are 170,000 acres of farmland in the county, most of which is cropped for feeding dairy cattle or for cash grain. Much of the farmed acres are steep slopes that are susceptible to soil erosion and animal waste runoff. It is estimated that the County’s average erosion rate is 4.2 tons/ac/yr compared to the County’s average “tolerable” soil loss rate of 4.5 tons/ac/yr.

Water Quality Assessment Schedule: The DLC has established a schedule for monitoring the County’s water resources over the next five years and have estimated the associated costs at \$57,411.00.

Chapter 4: Agricultural Performance Standards

State Agricultural Performance Standards, NR 151: It is the intent of this plan and the DLC to implement the state’s agriculture performance standards and prohibitions and incorporate the practices in all department activities and programs.

ATCP 51: La Crosse County, by way of a zoning ordinance, regulates the number of animal units that a landowner may keep on their property before needing to obtain permits. The County’s limit is 200 animal units for new and expanding operations or a 20% increase in animal units for existing operations with more than 200 animal units. The DLC uses the ATCP 51 Livestock Facility Siting Application and rule process to review affected farming operations.

County Activities Subject to Regulation, Chapter 23: La Crosse County adopted an Animal Waste Management Ordinance in 1998. The ordinance regulates the construction and operation of both animal feedlots and manure storage facilities. The ordinance incorporates and enforces the Agriculture Performance Standards and Prohibitions of NR 151.

Permits: Permits are required for the construction of new manure storage facilities and feedlots. Notices of non-compliance may be issued for existing feedlots and storage facilities that do not meet ag performance standards and prohibitions.

Enforcement: La Crosse County can take enforcement and appeals action for non-conforming pre-existing regulated activities by way of the Animal Waste Management Ordinance-Chapter 23.

Technical Requirements: The Department of Land Conservation utilizes the Best Management Practices as listed in ATCP 50 Subchapter VIII. Conservation practice installation is also done in accordance with the USDA-NRCS Field Office Technical Guide.

Chapter 5: Agricultural Performance Standards Implementation

Prioritizing for Compliance: Agricultural facilities that are new or expanding and sites previously determined to be non-compliant with the agriculture performance standards will be given highest priority for technical and financial assistance when enforcing the state ag performance standards under NR 151.

Priority Farms, Farmland Preservation Program: La Crosse County is zoned as exclusive agriculture. There are currently 261 participants in the FPP in the county. All participants will be required to be in full compliance with NR 151 ag performance standards to remain eligible to receive the program tax credit. DLC staff will provide planning and technical assistance and privileged financial assistance for those program participants who wish to stay eligible for the program. They are the DLC's highest priority farms.

Targeted Watersheds: The DLC participates in the DNR's Targeted Runoff Management grant program to correct agriculture related water quality issues. The Department targets watersheds with degraded water quality that are listed by the DNR as an impaired water body. These watershed projects, when active, are given a high priority.

Financial And Technical Assistance Policies: The Department of Land Conservation will allocate limited financial assistance monies to those landowners who are 1. in the Farmland Preservation Program and are found to be non-compliant. 2. Those landowners seeking to voluntarily comply with the NR 151 ag performance standards. 3. those who are facing enforcement actions due to noncompliance issues and are considered a threat to the health and safety of the general public and aquatic life. Technical assistance policies mirrors those for financial assistance. No assistance, financial or technical is given to those applying for a permit under ATCP 51.

Cost Share Resources: La Crosse County utilizes the following sources to provide cost share assistance to landowners who participate in county conservation programs; La Crosse County Environmental Fund, DATCP's Soil and Water Resource Management Program, DNR's Targeted Runoff Management grant program and the USDA-NRCS Environmental Quality Incentive Program.

Information and Education Program: The Department of Land Conservation will work with UW-Extension Services to develop and implement an effective educational program for rural landowners and will continue to have town hall meetings regarding program updates.

Nutrient Management: Land Conservation staff, in conjunction with NRCS and UW-Extension, will continue to provide nutrient management planning assistance for farmers who need to remain in compliance with conservation standards. The private sector businesses that provide soil testing services have not increase staff to meet the demand for more soil sampling and nutrient management planning services. The DLC will attempt to assist with the nutrient management plan writing until the workload exceeds staff capacity.

FPP Self Certification: La Crosse County provides a self-certification process for FPP participants to easily certify their compliance with the ag performance standards and prohibitions.

Basin and LWRM Plan Coordination: The Department of Land Conservation and Department of Natural Resources will continue to work cooperatively to develop and implement strategies that address local water resources concerns.

FPP and Tracking: Department staff will monitor conservation compliance requirements for FPP participants with mandatory annual crop reporting and on site spot-checks once every four years.

Intergovernmental Cooperation: The La Crosse County Land and Water Resource Management Plan relies on the cooperation of departments and agencies at the Town, County, State and Federal level. The DLC will continue this relationship when implementing the plan.

Agricultural Performance Standards Implementation Schedule- Objectives, Actions, Dates, Costs: This plan sets program goals, anticipated actions and dates and highly subjective estimated costs.

Chapter 6: Urban Performance Standards Implementation

Urban Land Use Assessment: Urban sprawl around the La Crosse Metro Area continues to convert agricultural lands. The recent economic slow-down has stymied the conversion of farmland to residential and hobby farm uses. There are over 2400 undeveloped lots available in La Crosse County, enough to supply the expected growth in the County for the next 25 years.

NR 151 Non Agricultural Performance Standards for Construction Site Erosion Control and Storm Water Management: The La Crosse County Land and Water Resource Management Plan references the Best Management Practices as listed in Subchapter III of NR 151. These BMP's are assumed to provide an 80% reduction in sediment load on construction sites.

NR 216 Storm Water Discharge Permits: La Crosse County is listed as a municipal separate storm sewer system (MS4) and is required to obtain a Wisconsin Pollution Discharge Elimination System permit.

Non Agricultural Performance Standards Implementation: The La Crosse County Board of Supervisors approved the Post-Construction Storm Water Management Ordinance in November of 2008. The ordinance controls erosion and storm water runoff from construction sites that are an acre in size or larger.

NR 216- Implementation of MS4 Requirements: This plan describes the details for implementing the requirements of the County's WPDES permit including Public Information and Outreach, Illicit Discharge Detection and Elimination, Construction Site Pollutant Control, Post-construction Site Storm Water Management and Pollution Prevention/Good Housekeeping.

Chapter 7: Non-Metallic Mining Ordinance

County Reclamation Program: La Crosse County has established a mine reclamation program to regulate 17 non-metallic mines which include 190 active acres. The program requires mine owners and operators obtain permits with the submittal of a mine reclamation plan and provide financial assurance until the mine is completely reclaimed. Annually, DLC staff inspects the mines and reports the active acres at each site.

APPENDIX

LAND AND WATER RESOURCE MANAGEMENT PLAN

2012-2016

LA CROSSE COUNTY WISCONSIN

Prepared by: La Crosse County Department of Land Conservation

Chapter 1: INTRODUCTION

BACKGROUND

The La Crosse County Board finds that runoff from land disturbances and agricultural facilities carries a significant amount of sediment and other pollutants to the waters of the state, and, that improper management of animal wastes, inorganic fertilizers and soil resources causes pollution of surface and ground water, harming public health, aquatic life, and consequently quality of life.

The La Crosse County Department of Land Conservation is charged with developing strategies, implementing programs, and providing the technical assistance to abate runoff pollution caused by the improper management of animal wastes, inorganic nutrients and soil resources.

1997 Wisconsin Act 27 and 1999 Wisconsin Act 9 amended Chapter 92 of the Wisconsin Statutes, requiring counties to develop Land and Water Resource Management Plans. The intent of this charge was to foster and support a locally led process that improves decision-making, streamlines administrative and delivery mechanisms and better utilizes local, state and federal funds to protect Wisconsin's soil and water resources.

This plan is a requirement of ATCP 50.12 and is to be revised every five years. It provides goals and objectives that the Department of Land Conservation proposes to implement as a means of reducing both urban and agricultural nonpoint sources of pollution from degrading our surface and groundwater resources and protecting our soils from erosion. This plan contains the following information;

- Water Quality and Soil Erosion Conditions
- State and Local Regulations to Implement the Plan
- Water Quality Objectives
- Key Water Quality and Soil Erosion Problem Areas
- Best Management Practices to Address Problem Areas
- A Plan To Address Priority Farms
- Strategies to Encourage Voluntary Implementation
- Compliance Procedures, Enforcement and Appeals
- A Multi-Year Work Plan To Implement Rural and Urban Performance Standards, Priorities and Costs
- Compliance and Progress Monitoring for Performance Standards
- Information and Education Programs
- Coordination with Federal State and Local Agencies

PLAN DEVELOPMENT

The La Crosse County Land and Water Resources Management Plan has been compiled using information from several local and state-wide sources including the La Crosse County Comprehensive Plan, Farmland Preservation Plan, DNR Watershed Basin Plans, the National Agricultural Statistics Service and La Crosse County Water Quality Monitoring Data.

Information was also obtained from cooperating agencies that collect and maintain natural resources data that is directly related to the management of our soil and water resources. The people listed below have provided assistance to the La Crosse County Department of Land Conservation and collaborated efforts to protect the area's natural resources. The agencies that routinely provide assistance to the Department of Land Conservation include:

Wisconsin Department of Natural Resources

- Forester
- Water Resources Management Specialist
- Waste Water Specialist
- Basin Supervisor
- Program and Policy Analyst
- Water Management Specialist
- Fisheries Biologist
- Water Regulations and Zoning Engineer
- Runoff Management Water Resource Engineer

United States Department of Agriculture

Natural Resources Conservation Service

- State Engineer
- Area Engineer
- Area Conservationist
- District Conservationist
- Soil Conservation Technician

Farm Service Agency

- Chief Executive Director

United States Geologic Survey-Upper Midwest Environmental Sciences Center

- Wildlife Biologist and Partnership Coordinator
- Geospatial Biologist

University Of Wisconsin- Extension Services

- Agriculture Agent
- Community Development Agent

A meeting of natural resource cooperating agencies and partners was held on Tuesday, May 24th, 2011 in the La Crosse County Administration Building (notes from the meeting are available in the La Crosse County Department of Land Conservation). The purpose of the meeting was to collect new or updated data and information regarding the state of the County's natural resources, in particular, those concerning the quality of soil and water resources. The participants were also given the opportunity to express any resource issues or concerns they felt could be addressed through the revised LWRM plan. The results of the meeting indicated that there was little information, outside of the water quality data collected by the Department of Land Conservation, to indicate that the natural resources needs in La Crosse County currently were not being addressed.

Uncertainty regarding Local, State and Federal budgets and future program allocations concerned the meeting participants. Anticipation of staff reductions and reduced financial support will most likely negatively impact the agency's ability to continue to monitor water quality conditions, analyze existing data and propose solutions, implement corrective measures and verify results. Of major concern is the potential loss of human and financial resources that may result in the inability to identify rapidly changing water quality conditions and to respond in a timely matter. The inability to anticipate natural resources needs will lead to degraded water quality and produce a longer list of environmental violations and complaints that will consume valuable staff time.

Those in attendance at the meeting include:

Gregg Stangl, Director, Department of Land Conservation
Bruce Olson, Engineering Specialist, Department of Land Conservation
Matt Hanewall, Nutrient Management Planner, Department of Land Conservation
Bob Nelson, Water Quality Specialist, Department of Land Conservation
Cindy Koperski, Program and Policy Analyst, Department of Natural Resources
Linda Cabasos, Farm Service Agency
Chris Papenfuss, Conservation Technician, Natural Resources Conservation Service

CITIZEN PARTICIPATION

The La Crosse County Department of Land Conservation routinely conducts information and education meetings throughout the year to gauge citizen concerns regarding natural resources management issues. These meetings have open question and answer sessions that give citizens the opportunity to share their concerns or suggestions to improve the management of La Crosse County's natural resources. Meaningful dialogue at these meetings results in the sharing of ideas and the development of processes that improve program delivery. Some of the regularly scheduled meetings include:

Farmland Preservation Program Update Meetings - January 11th and 12th, 2011
Nutrient Management Planning Workshops – January 25th and 26th, 2011
Annual NMP Revision Workshop - February 7th through the 10th, 2011

The Department of Land Conservation is a member of the La Crosse Area Local Municipal Storm Water Group. It is a coalition of Municipal Separate Storm Sewer System (MS4's) that are permitted by the DNR under the WPDES permit system. The Group has hired a private consultant (NewGround) to develop and implement a public outreach and education program. NewGround also acts as a liaison between the group members and area contractors, home builders, developers, realtors, building suppliers and trade schools. NewGround solicits comments and concerns regarding local storm water ordinances and program delivery. The comments have shaped the way our local programs are implemented and how services are delivered.

La Crosse County continues to improve its website to provide better information about the services that the Department of Land Conservation offers and links to other helpful sites. A new website, La Crosse Waters.com, was developed primarily to provide information on urban storm water management issues to the general public and home builders. The website was expanded to include businesses, home owners and home buyers. It was designed to be a one-stop information center regarding all things related to storm water management. The website has a public comment section and strongly encourages the public to utilize the feature.

PUBLIC INPUT

The general public was given an opportunity to review and comment on the La Crosse County Land and Water Resource Management Plan. A Public Hearing was held on Tuesday, September 20th, 2011 at 6:30 pm in the La Crosse County Administrative Building, 400 4th Street North, Room B190, La Crosse, WI 54601. Public comment was requested at the hearings and a two week written-comment period was observed. The public hearings notice was published on September 9, 2011 and on September 13, 2011.

A draft copy of the Land and Water Resource Management Plan was made available on the County's website at <http://www.co.la-crosse.wi.us/departments/land%20con/> for the public to review prior to the scheduled public hearings.

PLAN OVERSIGHT

The La Crosse County Planning, Resources and Development (PR&D) Committee is required, under Chapter 92 Wisconsin State Statutes, to jointly develop a Land and Water Resource Management Planning program with the assistance from the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) and the Wisconsin Land and Water Conservation Board. The PR&D's duties include; plan preparation, landowner notification, conduct public hearings and submit a final plan to DATCP and the Land and Water Conservation Board.

The Planning Resource and Development Committee has long established policies to guide the plan development process as well as any subsequent revisions to an approved Land and Water Resource Management Plan. The PR&D Committee policies include the following:

Plan Revisions Actions of the La Crosse County Board or Planning Resource and Development Committee (PR&D) affecting content of this plan shall be considered revisions to this plan. The plan is to be considered a working document and is kept current through these revisions. In accordance with the provisions of

Chapter 92, the PR&D Committee shall submit a revised Land and Water Resource Management Plan every five years to DATCP and the Land and Water Conservation Board for approval.

Plan Implementation

- Staff and cost-share grants from DATCP are tied to an unknown level of plan implementation. Therefore any costs estimated or programs or policies described are to satisfy state planning requirements but are not to encumber current or future Department budgets.
- Providing technical and financial assistance to land users to protect County surface waters, groundwater, and soil resources is the Department's primary goal. Implementation of the State's Agricultural and Urban Nonpoint Pollution Runoff Management Program (NR 151) shall be the underlying principle for achieving that goal.
- This plan does not have the authority to establish fiscal policy for the County. For the schedules listed herein, the activities estimated will be accomplished to the extent state funds are available. Beyond that funding, and within available County resources, the Department will continue to work towards implementation of the agricultural and urban performance standards. The estimated staff time and costs herein are to satisfy state planning requirements and do not suggest anticipated Department budgets

FUNDING AND MANDATES

The La Crosse County Board supports the need for minimum state agricultural and urban performance standards but adequate state funding to implement the performance standards and mandates for progress is a primary concern. Therefore successful implementation of this plan is contingent upon consistent and accelerated appropriations of state funding to the County, the seamless integration of related state programs, and the removal of impediments to an accelerated program.

DATCP provides capped annual staff and cost-share grants to counties to implement Land and Water Resource Management Plans. Grants are distributed to counties based on a formula not linked to measurable work products or workload, or the need for implementation of the state performance standards. However, DATCP may review plan implementation progress, and based on unknown levels of expectation, may reduce a county's grant allocation. The unknown level of state expectation is a concern, particularly when workloads vary greatly between counties. Counties with substantial urban and rural NPS workloads will accrue county tax levy costs for implementing a plan (i.e. performance standards) far in excess of the states ability to reimburse the County. Because of unanticipated workloads, fixed budgets and additional mandates, counties may not be able to accomplish all the objectives in their plan.

Although this plan's primary goal is to insure landowner compliance with performance standards, the County must consider the extent to which it can accomplish that goal from County tax levy in excess of the state reimbursements. Based on La Crosse County Board Resolution 72/05 that "mandates must be fully paid by the state" the County may expend state grants to meet the administrative and technical needs of the LWRMP, but will not be expected to deliver any work products in excess of the states ability to reimburse the County for those activities. New mandates or other expectations of the state not met by the County should not be cause for reduced annual allocations. The costs and related time commitments listed in the implementation schedules of this plan indicate proportional state and county commitments to LWRMP implementation.

PROGRAM OF WORK

Urban

A summary of Department programs which mainly comprise the LWRMP include:

- Administer the Erosion Control Land Disturbance Ordinance, Chapter 21

Control of sediment and storm water from construction sites, and sediment from logging roads, has been addressed by ordinance through the La Crosse County Land Disturbance Erosion Control Ordinance. The Department reviews and accepts applications and reviews erosion control plans prior to issuing erosion control permits for land disturbances in unincorporated areas of La Crosse County. Permits are issued for land disturbances where more than 4,000 sq. ft. is disturbed on slopes of up to 20%, or 2,000 square feet on slopes

of 20% and steeper, where more than 400 cubic yards of fill /excavation occurs and where excavation of logging roads is necessary. The Department also enforces restrictions on land disturbances where slopes exceed 30%. The ordinance was adopted by the County Board in January 1992 and is administered and enforced through the Department of Land Conservation under authority granted by S.59.693 Wisconsin Statutes. The ordinance is applicable to all unincorporated areas of the County.

- Administer the Erosion Control Provisions of the Department of Commerce Uniform Dwelling Code (UDC)

Through agreement with 10 of 12 townships, the Department, in accordance with the UDC, accepts applications, investigates sites, issues and enforces erosion control permits and requirements during the construction of one and two family dwellings.

- Administer the Post Construction Storm Water Management Ordinance, Chapter 29

Uncontrolled, storm water from post construction runoff has a significant adverse impact upon water resources and the health, safety and general welfare of the community and diminishes the public enjoyment and use of natural resources. On November 20th, 2008, the La Crosse County Board of Supervisors passed a resolution approving the implementation of a county-wide storm water management ordinance. The Department of Land Conservation is responsible for the day-to-day implementation of the ordinance. Department staff receive and review storm water applications, review and approve storm water management plans, inspect construction sites for compliance and collect fees for the following;

1. Land disturbance activities greater than 1 acre in size
2. Development that results in a cumulative addition of 0.5 acres of impervious surface
3. A subdivision plat
4. A certified survey map
5. The private development of a road that will become public

- Provide Site Evaluations for Urban and Rural Landowners

Upon request the Department provides individuals and units of government site evaluation and technical design information on a variety of urban land and surface water related issues.

- Provide Site Evaluations for PR&D Committee Review and Approval

For PR&D approval, the Department reviews erosion, sediment, and storm water control plans for plats and other sites in excess of 5 acres land disturbance.

- Administer the Technical Requirements of the Non-Metallic Mining Ordinance

In cooperation with Zoning, Planning and Land Information the Department accepts, reviews and approves reclamation plans for new and existing mines. The Department tracks financial assurance fees for all active areas within mines. The Department certifies reclamation of sites and mine site closures.

Rural

- Administer the La Crosse County Animal Waste Management Ordinance, Chapter 23

The Department regulates the construction of manure storage pits and prohibits the improper handling of animal waste within water quality management areas, including: regulation of the placement of manure stacks, runoff from feedlots, overflow of manure storage structures, and overgrazing of stream banks.

- Administer the Conservation Requirements of the Farmland Preservation Program

The Department certifies that landowners meet the Soil and Water Conservation Standards for Farmland Preservation Program participants. Certified participants receive tax credits if performance standards are met.

- Administer the State Agricultural Performance Standard Requirements

Department staff provides the technical assistance to landowners to assist them in meeting the agricultural (and urban) performance standards of ATCP 50 and NR 151.

- Provide Nutrient Management Planning Services

The Department provides information, develops plans and conducts plan development workshops to insure the proper application of animal wastes and crop fertility needs while providing surface water protection from the impacts of manure runoff.

- Administer a Countywide Water Quality Monitoring Program

The Department maintains a permanent water quality monitoring station, regularly samples the County's 24 sub-watersheds, and conducts research sampling of individual sites and projects during a variety of runoff conditions. Data is organized for educational, research, and policy purposes.

- Provide the Technical Assistance for the Installation of Best Management Practices

The Department provides county and state cost sharing, survey, design, and installation technical assistance for a wide variety of rural Best Management Practices for cropland and surface water protection or other erosion control purposes.

- Administer Timber Harvest Program in the County Forest System

In cooperation with the DNR forester the Department administers the timber cuts within Hoeth Forest and the Raymond C. Bice Forest Preserve in the County forest system for the harvesting of pulpwood and timber products. The Department also provides access road and fire lane maintenance for fire protection and vandalism control.

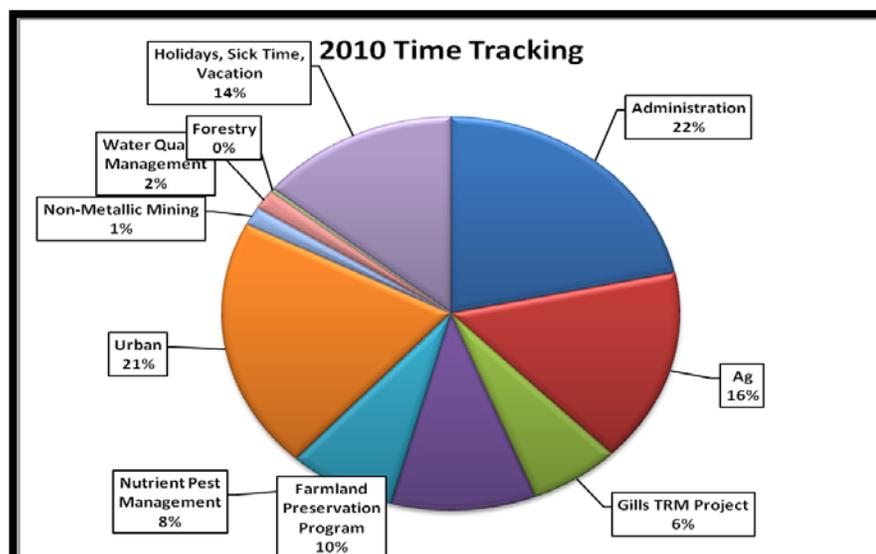
- Operate and Maintain Flood Control Structures

La Crosse County has two Flood Control Structures that were built in 1960 to alleviate flooding in the community of Coon Valley in Monroe County. The Department of Land Conservation is responsible for the operation and maintenance of the aging flood control structures.

- Administer ATCP51 Livestock Facility Siting Rule

The Department of Land Conservation reviews applications for local approval of new or expanding livestock facilities for compliance with county ordinance requirements and the state's agriculture performance standards and prohibitions.

Figure 1-1,
2010 STAFF TIME / WORKLOAD DISTRIBUTION



14,430 Total Staff Hours Annually

ESTIMATED PROGRAM COSTS

A schedule of activities, objectives, dates and costs for the administration only of all Department programs for 2011-17 follows. The proposed activities are based on the counties urban and agricultural program of work indicated in this plan. County staff costs and associated state staff reimbursements for activities between 2011 and 2016 are based on actual 2010 County costs and approved 2010 DATCP staff disbursements extrapolated over five years. Costs do not account for inflation. This plan only documents a wide level of activities to be consistent with ss. 92.10 (6) Wis. Statutes. Costs to implement activities may not represent actual costs or commitments. The plan provides the framework for a more detailed level of planning to occur as needed.

PROGRAM ADMINISTRATION SCHEDULE 2012 - 2016

36 % TOTAL PROGRAM HOURS 5,195	ACTIVITY	OBJECTIVE	DATES	5 YEAR PROJECTED COSTS	
				COUNTY (1)	STATE (2)
DLC	Administration of all Department programs (see program of work Rural and Urban) including County Forest timber harvests and forest properties maintenance. Administration includes meetings and prep for meetings reporting, budget management, personnel management, grant applications, coordination with other agencies and units of government, and general assistance to the public. Includes holidays, sick leave and vacation.	Coordinate programs with County Board, DNR, NRCS, DATCP,UWEX	2012-2016		
Total Cost				\$775,042	\$258,347

- (1) Based on 2011 salary and fringe for program administration. Includes operating expenses/supplies and county cost sharing to implement all sections of the LWRMP. Does not include matching revenues / expenditures.
- (2) Based on 2011 SWRM staff and supply (operating expense) reimbursement.

Chapter 2: 2007-2011 PLAN ACCOMPLISHMENTS

The following is a summary of the priority work items in the 2007-2011 La Crosse County Land and Water Resource Management Plan.

Agriculture

- Assess all Farmland Preservation Program participants for compliance with state agriculture performance standards.
- Develop GIS based tracking program of landowner compliance with agriculture performance standards
- Enroll landowners into nutrient management planning program.
- Work towards full compliance of agriculture performance standards for landowners in designated priority areas
- Expand water quality monitoring program and coordinate data exchange with DNR
- Develop and participate in education and information programs

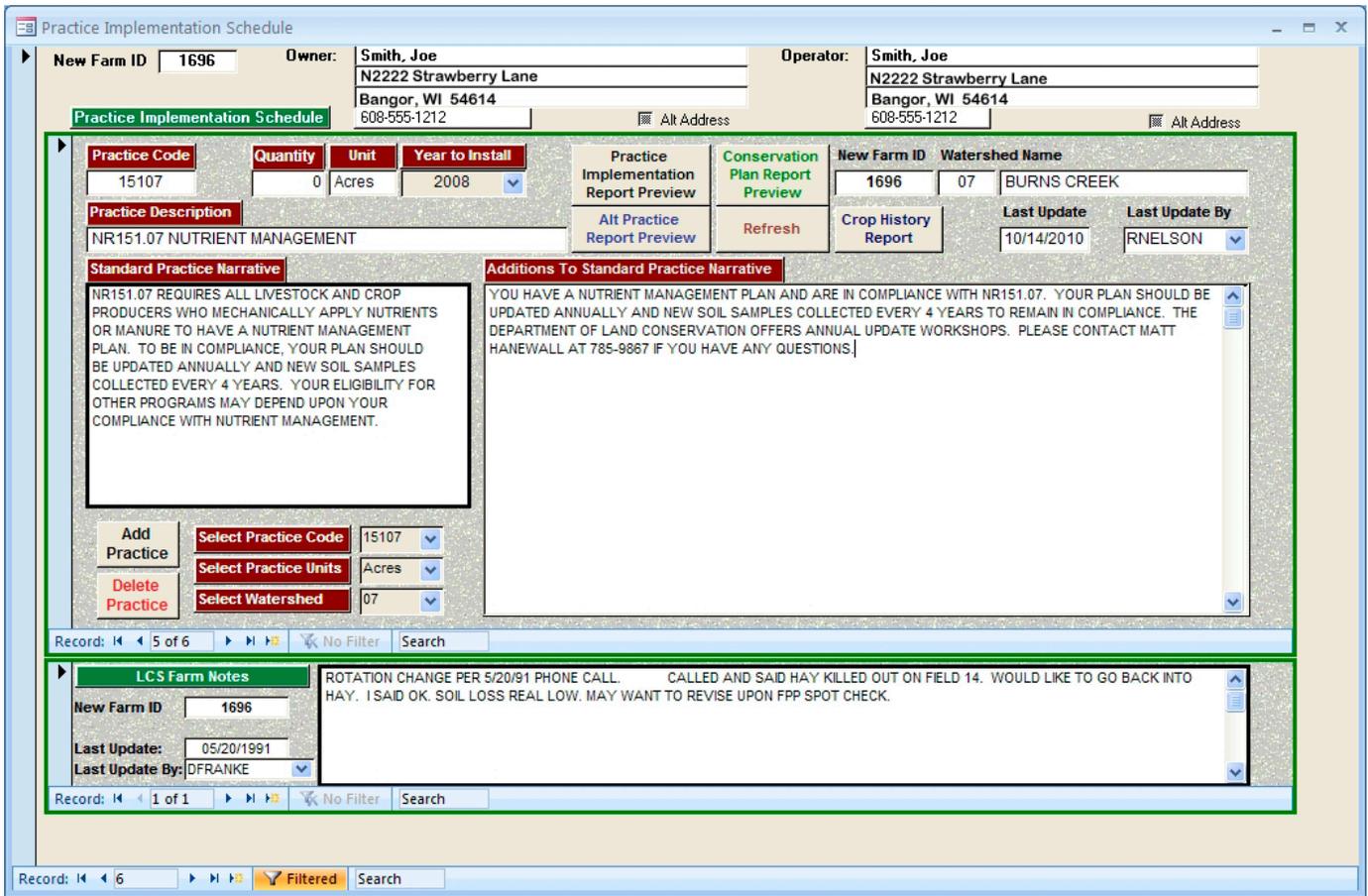
Urban

- Develop County-wide Storm Water Management Ordinance
- Create and implement an illicit discharge program
- Develop a public education and outreach program with the other MS4 permitted municipalities in La Crosse County
- Promote Storm Water practices through field demonstrations
- Work with La Crosse Area Builders Association to provide training opportunities for their membership
- Enforce provisions of the Erosion Control and Land Disturbance Ordinance
- Conduct annual inspections of non-metallic mines to determine compliance with reclamation plans

Implementation of the 2007-2011 Land and Water Resource Management Plan was successful in meeting a number of goals and objectives. The following is a partial list of the accomplishments achieved by the La Crosse County Planning, Resources and Development Committee and the Department of Land Conservation from 2007 through mid year 2011:

1. The Department of Land Conservation, in an attempt to collect important farm operation data, mailed a survey called La Crosse County Animal Waste Management Information (see Appendix 1) to screened County landowners that owned 20 or more acres of cropland. The survey was sent to 1,325 landowners with 885 (66%) responding by returning their survey. The farm data that was collected was entered into a GIS based tracking system to retain historical information that is time sensitive. The data will be used to determine whether existing farms are in compliance with conservation standards established in NR 151.

- The Department of Land Conservation has developed a Geospatial database that tracks the land use records of all conservation compliant assessed properties in La Crosse County. The GIS program provides quick access to farm owner/operator records as well as produces a conservation compliance certification form for all Farmland Preservation Program participants.



- The Department has reestablished contact with previous Farmland Preservation Program participants to reaffirm their current level of program participation. This gave the Department a solid number of participants, as well as identities, to assist and monitor through 2015. It was learned that there are 261 landowners and 62,000 acres of farmland enrolled in the program.
- Conservation compliance assessments for Farmland Preservation Program participants began in 2008. This is a farm-by-farm detailed assessment that determines which, if any, of the agriculture performance standards or prohibitions are not being met. A schedule of compliance is developed for those participants not meeting the conservation compliance requirements of the program. To date, there have been conservation assessments done on 61 farms, which make up nearly 20,000 acres of farmland.
- Conservation work in three designated watersheds was completed in 2010 and 2011. These priority watersheds were selected due to high phosphorus levels, sediment loads and bacteria counts. The watershed projects provided special cost-share assistance rates to landowners who participated in the projects and installed prescribed conservation practices. Adams Creek showed the best reductions in bacteria and phosphorus levels, Burr Oak Creek had greatly improved E.coli bacteria counts but maintained high

phosphorus levels. Gill's Coulee Creek has controlled thousands of tons of sediment and restored several miles of eroding stream bank.



Gills Creek - Before



Gills Creek - After

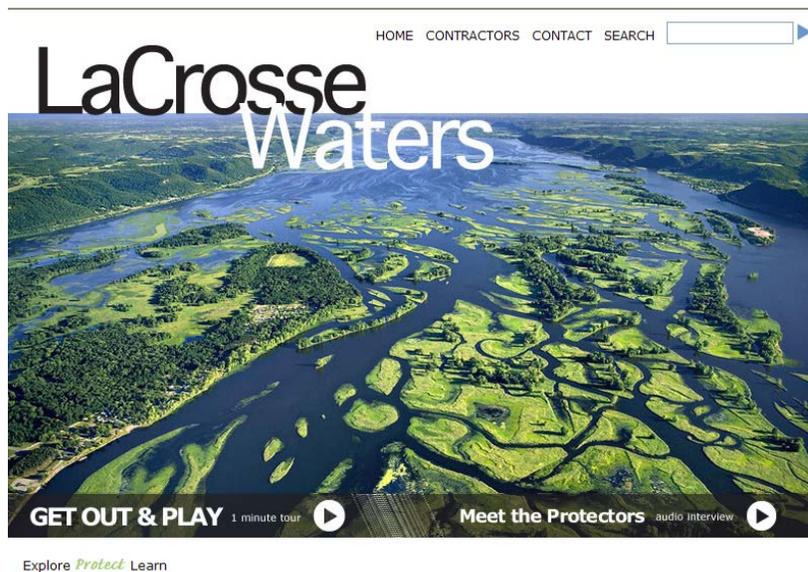
6. The Department of Land Conservation has been providing nutrient management training courses for County farmers for 17 years. Between 2007 and 2011, there were 111 new farmers trained to write their own nutrient management plans, many of them were also participating in the Farmland Preservation Program. This added 18,695 new acres that are farmed under a certified nutrient management plan.
7. Two new Dissolved Oxygen Sondes were added to the County's water quality monitoring program. The sondes measure dissolved oxygen levels and temperature in streams and rivers on a 24 hour, continuous basis. The sondes are mobile and can be quickly set to take water quality readings over a month-long period without having to recharge its batteries. The sondes can be moved to a suspected area of pollution and monitored to detect water quality changes.



8. In 2008, the Department of Land Conservation developed and implemented a Post-Construction Storm Water Management Ordinance. This was in conjunction with the

County's Erosion Control and Land Disturbance Ordinance that was created in 1992.

9. La Crosse County joined other municipalities in the La Crosse-Onalaska-Holmen metro area to form a consortium to develop a unified, public information and outreach program. The municipal storm water group organized meetings and developed strategies to conduct a public education program that addressed storm water management practices in urbanized areas. The Group hired Nancy North of **NewGround** to carry out many of the educational activities.
10. The La Crosse Area Municipal Storm Water Group developed a common website that provides information and education material to citizens, homebuilders, contractors, realtors and developers regarding storm water management and local regulations. The website has ordinances, permit forms and instructions on-line for the convenience of its users. www.LaCrosseWaters.org.



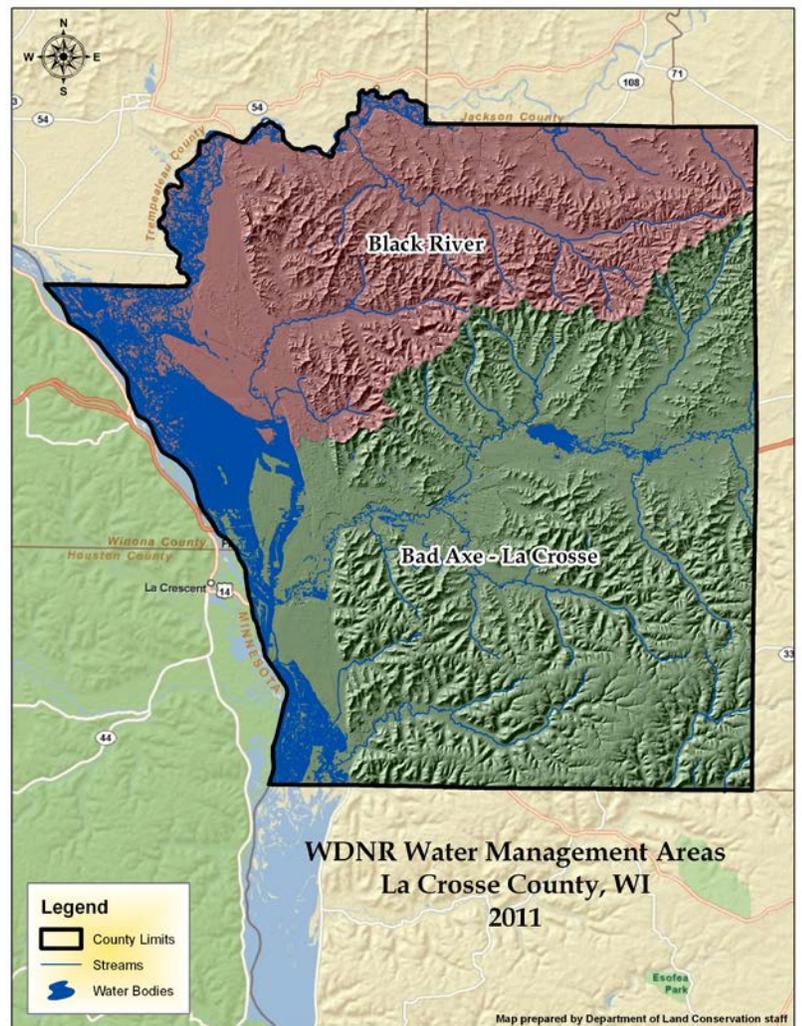
11. The Department of Land Conservation and UW-Extension Services developed an urban rain garden and rain barrel education program to improve awareness of private landowner storm water management practices. Three rain garden demonstration sites were built as well as 5 storm water infiltration basins in the La Crosse County parking lot during renovation of the Law Enforcement Center. Over 200 rain barrels were sold to landowners before the program was turned over to a private third party to manage.

Chapter 3: WATER QUALITY ASSESSMENT

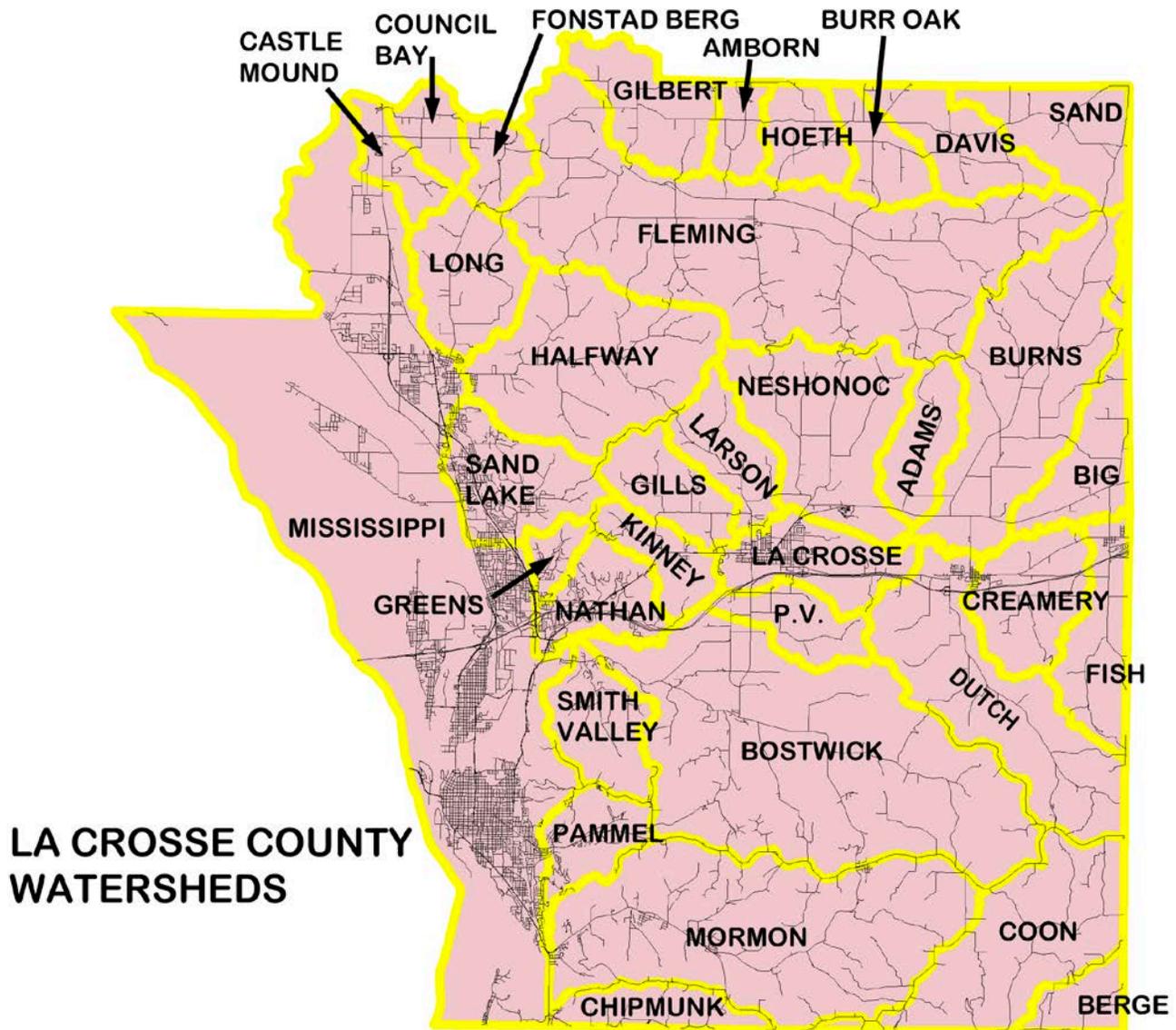
BASINS

Two Basins, identified by the Department of Natural Resources, are found in La Crosse County; the Black River and the La Crosse-Bad Axe River. Waters in the northern third of the County drain land within the Black River Basin. In the central half of the County, streams drain to the La Crosse River. Streams near the southern border are considered part of the Bad Axe River Basin and drain to either Coon Creek or the Mississippi River. Surface water flow in the County is all directed toward the Mississippi River, which borders the County to the west.

There are also two lakes in the County. Lake Onalaska, a 5,400 acre flowage created by the Dresbach and Onalaska Corps of Engineer dams on the Mississippi and Black Rivers; and Lake Neshonoc, a 600 acre lake created by a dam on the La Crosse River at West Salem. Both of these lakes are continually losing their depth due to siltation. Primary pollutant sources are agricultural (non-point), and urban storm water.



WATERSHEDS



Adams Valley Creek

Adams Valley Creek is a spring-fed tributary to Burns Creek in eastern La Crosse County. It flows in a southwesterly direction for 2.5 miles before reaching Burns Creek. This stream has a slight gradient of 21 feet per mile and drains lowland farms and adjacent wooded hillsides. Adams Valley Creek is a Class II trout stream for the upper one mile and Class III for the lower 1.5 miles. The entire length of Adams Valley Creek is on the Wisconsin 303d list of impaired waters for sedimentation of the stream causing lack of in-stream habitat for the fish species expected to flourish in the stream – brook trout. La Crosse County Land Conservation Department has also documented regularly low dissolved oxygen levels in two locations of the stream.

In January 2000, the La Crosse County Land Conservation Department secured a Targeted Runoff Management (TRM) grant to focus installation of best management practices on land adjacent to Adams Valley Creek. Eroded streambanks were reshaped, riprapped and seeded and livestock were limited to select stream crossings. Best management practices installation ended in 2003. A 2005 fish survey on two stations was conducted to determine if the stream improved enough to change the trout classification. Even with the streambank improvements, the brook trout numbers in the stream did not increase as expected. In-stream habitat, which was not part of the TRM grant, should be installed to improve trout habitat. Manure laden runoff from one landowner to Adams Valley Creek has been shown to reduce dissolved oxygen levels in the stream to below 3 ppm. After this runoff problem is addressed, additional fish surveys should be conducted to determine the status of the fishery.

Before the TRM grant in 2000, four stations were sampled for fish and habitat. The surveys documented a stream bottom comprised mainly of sand with lesser amounts of clay, gravel and detritus. The riparian land use was largely meadow and pasture; however streambank erosion due to grazing was noted. In order of abundance, in-stream cover consisted of woody debris, overhanging vegetation, submergent vegetation and undercut banks. Forage fish species dominated the lower stations (#1 and 2) while the upper two stations (#3 and 4) contained only brook trout. This stream was sporadically stocked from 1962 to 1994 with brook trout. Access is possible from two road crossings.

La Crosse County should continue baseflow water chemistry monitoring of Adams Valley Creek to determine water quality trends after completion of work with landowners adjacent to Adams Valley Creek. The DNR should survey Adams Valley Creek of the La Crosse County LCD project to document any fish or habitat changes.

Bell Coulee Creek (Creek 25-8) Bell Coulee Creek, located in northern La Crosse County, flows in a northerly direction for 3.5 miles before reaching Fleming Creek. This stream has a gradient of 62 feet per mile and drains a largely agricultural watershed with some forested hillsides. Bell Coulee Creek is not a classified trout stream.

The most recent survey was conducted in 2001. The fish community was comprised of several forage fish species and one brook trout. Soon after the survey, wild brook trout were stocked in Bell Coulee Creek. The dominant substrate was sand, followed by silt and clay. Gravel was more prevalent in the most upstream reaches of the creek. Riparian land use consisted of pasture, woodland and meadow. In-stream cover for adult game fish included woody debris and overhanging vegetation. A fish survey of Bell Coulee Creek should be conducted to determine the status of the wild brook trout.

Berge Coulee Creek Berge Coulee Creek, also known as Bergen Coulee and Creek 35-16, is located in southeastern La Crosse County, northeast of Coon Valley. It flows in a southerly direction for approximately 1.5 miles before reaching Timber Coulee Creek. It has a steep gradient of 77 feet per mile and drains forested hillsides, lowland pasture and agricultural land. Berge Coulee Creek is a Class I trout stream for its entire length and an outstanding resource water (NR102)

The most recent habitat survey, conducted in 1975, found clear, cool water that carried a low suspended silt load. The streambed consisted of rubble, gravel, sand, silt and abundant aquatic vegetation. Pasture comprised the majority of bank cover, with some swamp hardwood and shrub marsh also. In-stream cover was common and consisted of undercut banks, rocks, boulders, logs and trees. A few deep holes were present in the lower section of the stream with good underwater cover. A 1983 fishery survey documented a naturally reproducing population of brown trout. There are no WDNR stocking records for Berge Coulee Creek. Access is available from three road crossings and WDNR streambank easements.

Big Creek Big Creek flows for approximately 5.9 miles in a southerly direction toward the La Crosse River near Rockland. Upper Big Creek and East Upper Big Creek merge to form Big Creek in Monroe County. Big Creek has an average gradient of 18 feet per mile and drains lowland farms and wooded hillsides in both La Crosse and Monroe Counties. Big Creek is a Class II trout stream upstream of Hamilton Ave. and Class III downstream of Hamilton Ave. in Monroe County to STH 16.

A 2005 survey of Big Creek documented a stream bottom comprised mainly of sand. Streambank erosion was noted. Overhanging vegetation and woody debris provided overhead cover for fish. Brook trout, brown trout and a numerous forage fish species inhabited the station, which was immediately downstream of HWY 16. Brook trout have been stocked in Big Creek since 1993. Access to Big Creek is from three road crossings.

Black River The lower 25 miles of the Black River forms a portion of the La Crosse County border. This segment of river averages 250 feet wide and contains areas of eroding sandy banks and sand bars. Much of the river in La Crosse County flows through the Van Loon State Wildlife Area and the Upper Mississippi River Fish and Wildlife Refuge to meet the Mississippi River in the City of La Crosse. The lower Black River harbors numerous species of game fish and freshwater mussel species. The largely natural setting with much public land surrounding the lower Black River results in high recreational use. The Black River in La Crosse County is on the Wisconsin 303d list of impaired waters due to a contaminated fish consumption advisory for mercury.

Bostwick Creek Bostwick Creek, also known as Irish Coulee Creek, is located in central La Crosse County. This stream flows in a northwesterly direction for approximately 13.6 miles, before reaching the La Crosse River. It has a moderate gradient of 38 feet per mile and drains forested hills and agricultural valley land.

Bostwick Creek is a Class II trout stream from its mouth upstream to CTH M, and Class I from CHT M upstream to its headwaters. From CTH O upstream to the headwaters, Bostwick Creek is an Exceptional Resource Water (NR102).

A fishery survey conducted in 2001 suggested that Bostwick Creek should be upgraded from Class III to Class II in the lower portion. Additional fishery surveys in 2005 confirmed the improved trout classifications. Good carry over of stocked fish and adequate habitat was noted. In-stream habitat in the upper portions of the stream allows for natural reproduction and good winter survival. However, streambank erosion and sedimentation of Bostwick Creek is a problem throughout its length. Additional in-stream habitat development in Bostwick Creek would benefit the trout fishery. Bostwick Creek was last stocked in 2001 with wild brown trout. Access to Bostwick Creek is from WDNR owned easements and seven road crossings.

Burns Creek

Burns Creek is a spring-fed stream located in eastern La Crosse County. It flows in a southwesterly direction for approximately 12 miles before reaching the La Crosse River just upstream of Lake Neshonoc. It has a gradient of 29 feet per mile and drains rolling agricultural land and forested hillsides. Burns Creek is a Class I trout stream upstream of the dam located in T17N R5W S21 and Class II downstream of the dam. The dam acts as a barrier for migration of brown trout into the upper five miles of Burns Creek, enabling the successful introduction of native brook trout into the upper half of the creek with minimal competition from brown trout. The uppermost 4.5 miles (from T17N R5W S10 upstream) is an Exceptional Resource Water (NR102).

The most recent comprehensive stream survey, completed in 1999, documented a stream bottom consisting mainly of sand with some clay, silt and gravel. Riparian land use was mainly wooded, with meadow, cropland, and pasture. Fish cover consisted of woody debris, overhanging vegetation and undercut banks. Both brook and brown trout were found during this survey, along with a wide variety of aquatic invertebrates and minnow species. In 2005, one fishery survey in the upper end of Burns Creek documented naturally reproducing brook trout with some brown trout. Streambank erosion and sedimentation has reduced in-stream cover for fish. Much of the stream contains a sand bottom. Fish cover is only located where overhanging vegetation or woody debris are present. From 1960 to 1975, the stream was stocked with brown trout. In 1976, the introduction of brook trout into the upper half began and has continued with occasional stocking of browns below the dam. Access is possible from several road crossings and DNR owned easements.

Coon Creek (Bohemian Valley Creek)

Coon Creek, also known as Bohemian Valley Creek in La Crosse and Monroe Counties, begins in Monroe County and flows for approximately two miles in a westerly direction before reaching La Crosse County. It then flows in a southwesterly direction through La Crosse County for approximately seven miles in the southeast corner of the county. It has a moderate gradient of 45 feet per mile and drains steep sloped agricultural land and forested hillsides as well as lowland pasture. The La Crosse County portion of Coon Creek is a Class I trout stream for its entire length as well as an Exceptional Resource Water (NR102).

Three P.L. 566 dry pool flood detention structures exist in the watershed draining toward Bohemian Valley Creek. From the Korn Spring (Section 24, T15N, R5W) downstream, water quality and stream temperature are ideal for brown trout. The cool water temperatures are the result of more than 50 springs entering the creek in La Crosse County alone. Fishery population surveys conducted in the 1980's and 1990's documented a healthy, naturally reproducing brown trout population along with a variety of forage fish. A 1999 fish survey documented no forage fish in the stream, probably due to the abundant piscivorous brown trout. In 2000, sculpin were introduced to the stream to establish a forage fishery. A 2005 fish survey revealed a robust brown trout population, an abundance of sculpin and very few brook trout.

The most recent habitat survey was conducted in 1975. The water was clear and contained a low suspended silt load. The streambed consisted mainly of boulder, rubble, gravel, and sand with lesser amounts of silt and detritus. Bank cover was composed of firm pasture, shrub marsh, meadow pasture and upland hardwood. In-stream fish cover was found throughout the stream and consisted of wing deflectors, LUNKER structures, boulders, aquatic vegetation beds, and log tangles.

In 1955, the Wisconsin Conservation Department (now the WDNR) initiated a fishery habitat demonstration project along Bohemian Valley, Timber Coulee and Rullands Coulee Creeks. The purpose of this project was to develop and refine in-stream habitat restoration techniques. This pioneering project resulted in restoration methods that are still used today in coulee region streams.

Perpetual fish management easements were purchased by the WDNR, as recommended in the Coon Creek Fishery Area Master Plan, from Korn Springs in Monroe County downstream to the Vernon and La Crosse County line.

Nearly the entire length of stream in La Crosse County is covered by WDNR fishing easements. Protection easements were also purchased on most of the major springs entering Bohemian Valley Creek. This stream has not been stocked with trout since 1996. Access to the stream is possible from three road crossings and WDNR easements and WDNR owned lands.

Creamery Creek (Severson Coulee, Creek 20-1) Creamery Creek, also know as Severson Coulee Creek and Creek 20-1, flows in a northerly direction for nearly four miles before reaching Fleming Creek near Mindoro in north central La Crosse County. This stream has a gradient of 63 feet per mile and drains agricultural valleys and forested hillsides. Creamery Creek is a Class III trout stream for its entire length.

A 2001 survey of the stream over three stations documented numerous brook trout and five forage fish species along with bluegill and green sunfish. The substrate was dominated by sand and gravel. Some stream banks were highly eroded and corn was found in the stream. In-stream cover for adult fish consisted largely of overhanging vegetation and woody debris with some undercut banks. Domestic brook trout were stocked in Creamery Creek for many years, but the most recent stockings have been wild brook trout. A follow up fish survey is necessary to determine if the trout population has become self sustaining.

Davis Creek Davis Creek, located in northeast La Crosse County, flows for 3.4 miles in a northwesterly direction before reaching the Black River. It has a gradient of 27 feet per mile and drains agricultural lands. Much of the stream corridor is forested with adjacent farm fields. Davis Creek is a Class II trout stream.

The most recent survey was conducted in 1973. It documented brook trout, burbot, and a variety of forage fish species. Sand was the dominant substrate with some gravel. WDNR should conduct fish and habitat surveys on Davis Creek.

Dutch Creek Dutch Creek is a spring-fed stream located in east central La Crosse County. It flows in a northwesterly direction for approximately 9.4 miles before reaching the La Crosse River at Bangor. Dutch Creek has a gradient of approximately 30 feet per mile and drains steep forested hillsides and agricultural valley land. Dutch Creek is a Class II trout stream for its entire length. From Russlan Coulee Road (T16N R5W S8) upstream to the headwaters, Dutch Creek is an Exceptional Resource Water (NR102).

The most recent survey, completed in 2005, documented cool, clear water with a bottom consisting mainly of sand, with the upstream portion dominated by rubble and gravel. Riparian land consisted mainly of pasture. Streambank erosion was evident due to high water and overgrazing. In the lower half of Dutch Creek, in-stream cover was scarce consisting of scattered log tangles and over-hanging grasses. In the upper portions, in-stream cover consisted mainly of undercut banks, log and brush tangles and scattered beds of aquatic vegetation. Both brook trout and brown trout were found in Dutch Creek. Brown trout were naturally reproducing, whereas the stocked brook trout were not. Forage fish consisted of only a few brook stickleback and Johnny darters.

The La Crosse County Land Conservation Department has operated a continuous water quality monitoring station since 1995 in Dutch Creek. Continuous flow, temperature and dissolved oxygen are collected as well as bacteria and nutrient samples during both base flow and runoff events.

Brown trout were last stocked in 2003 and wild brook trout have been stocked from 2003-2005. Access is possible from several road crossings and DNR owned easements.

Eggens Coulee Creek Eggens Coulee Creek, located in central La Crosse County, flows for approximately 1.4 miles in a southerly direction before reaching Neshonoc Creek. It has a moderate gradient of 50 feet per mile and drains steep forested hills and agricultural valley land. Eggens Coulee Creek is a Class II trout stream for its entire length.

A 2005 fishery survey documented naturally reproducing brook trout. Since this stream has not been stocked by WDNR since the early 1960s, reclassification to Class I was substantiated. The stream bottom was largely comprised of sand with lesser amounts of silt and gravel. Some streambank erosion was apparent throughout the survey reach. Access to Eggens Coulee Creek is from two road crossings.

Fish Creek Fish Creek is a spring-fed coulee stream located in east central La Crosse County and west central Monroe County. Fish Creek begins in Monroe County and flows in a northerly direction for approximately 1.7 miles with a steep gradient of 100 feet per mile and then through La Crosse County for 5.2 miles with a more moderate gradient of 35 feet per mile before reaching the La Crosse River near Rockland. This stream

drains steep forested hillsides and agriculture valley land. Fish Creek is not a classified trout stream in Monroe County but is a Class III trout stream for the entire length in La Crosse County.

During 2001, fish and habitat surveys were conducted on two stations. The stream bottom consisted mainly of sand. Riparian land consisted of cultivated crops and pasture. The shifting sand bottom prevented growth of aquatic vegetation and in-stream cover was limited to woody debris, overhanging vegetation and undercut banks. Streambank erosion and sedimentation were noted as well as lack of cover for adult fish. Brown trout was the dominant species in Fish Creek, followed by American brook lamprey, brook trout, Johnny darter, and northern pike. Wild brook trout were stocked from 2003 to 2005. A 2005 fish survey at one station noted only three young of year brown trout. A more thorough fish survey of Fish Creek should be conducted to determine if stocking of wild brook trout should continue. Access is possible from six road crossings.

Fishback Creek Fishback Creek, located in southeastern La Crosse County, flows in a southerly direction for two miles before reaching Coon Creek (Bohemian Valley Creek). It has a steep gradient of 100 feet per mile and drains forested hillsides and agricultural land. Fishback Creek is classified as a Class II trout stream for the lower 0.5 mile and Class III for the remaining 1.5 miles. The lowest half mile of Fishback Creek is an Exceptional Resource Water (NR102).

A 1975 stream survey documented cool, clear water that carried a low suspended silt load. Rubble comprised the majority of the streambed with lesser amounts of sand, silt, gravel, and boulder. The riparian land consisted of pasture, swamp hardwood, and shrub marsh. Approximately six acres of wetland adjoin the creek. In-stream cover was common and composed of boulders, woody debris and aquatic vegetation. A 1988 fish survey documented brook trout, brown trout and a variety of minnow species. The WDNR should update fish and habitat data from Fishback Creek.

Fishback Creek has not been stocked since 1990. Access is possible from the CTH G road crossing where DNR easements border the stream above and below the bridge for approximately 182 feet of public frontage.

Fleming Creek Fleming Creek, located in northern La Crosse County, flows in a westerly direction for approximately 17 miles before reaching the Black River. It has a gradient of 25 feet per mile and drains agricultural valley land with wooded hillsides. Fleming Creek is not a classified trout stream. The upper half of Fleming Creek (above Mindoro) is on the Wisconsin 303d list of impaired waters for sedimentation of the stream causing lack of in-stream habitat for the fish species expected to flourish in the stream.

The most recent survey of Fleming Creek was in 2001 when both fish and habitat data was collected. The bottom substrate was primarily sand with small amounts of silt and gravel. In-stream habitat for adult game fish was limited to woody debris. Much of the riparian corridor was either wooded or meadow with some pasture land. Cropland was found adjacent to the stream in the upstream reaches. The fish community was primarily comprised of 11 forage fish species. Burbot were also present throughout the stream. Even though Fleming Creek has not been stocked with trout, brook trout were encountered in the upper half of the creek. Some tributary streams have been stocked and the fish likely migrated downstream. The Mindoro Sanitary District operates a permitted wastewater treatment facility that discharges to Fleming Creek.

Garbers Coulee Creek (Creek 28-7) Garbers Coulee Creek (Creek 28-7), located in south central La Crosse County, flows in a northerly direction for 3.2 miles before reaching Bostwick Creek near Barre Mills. This stream has a gradient of 42 feet per mile and drains agricultural lands which are quickly changing to rural housing on two to five acre lots. It also flows through a portion of a golf course. Garbers Coulee Creek is a Class II trout stream.

A 2004 fish survey at two stations documented a naturally reproducing brook trout population. Some brown trout were also found. The stream bottom was mostly sand and cover for fish included overhanging vegetation, naturally undercut banks, and some woody debris. Data from the 2004 survey justified reclassification of Garbers Coulee Creek to Class I trout. This stream was last stocked in 1979. For this fishery to remain stable and viable, storm water volumes from any new subdivisions in the watershed should be minimized by implementation of storm water best management practices which promote infiltration.

Gavin Coulee Creek (Creek 18-15) Gavin Coulee Creek, located in north central La Crosse County, flows in a northerly direction for approximately two miles before reaching Fleming Creek. It has a gradient of 40 feet per mile and drains predominantly agricultural lands with some wooded hillsides. Gavin Coulee Creek is not a classified trout stream.

A 2002 fishery survey documented several forage fish species at two stations. Three brook trout were found. The substrate was dominated by sand and in-stream fish cover consisted of overhanging vegetation and woody debris. The lower end of this stream had extensive streambank erosion and sedimentation. Very little gravel or cobble was found at the two stations. No WDNR stocking records exist for this stream.

Gills Coulee Creek Gills Coulee Creek, located in central La Crosse County, flows for approximately three miles in a southerly direction before reaching the La Crosse River near West Salem. It has a gradient of 44 feet per mile and drains agricultural valley land with some steep wooded hills. Gills Coulee Creek is a Class III trout stream from the mouth upstream for one mile, then Class II for the remaining upstream miles. The entire length of Gills Coulee Creek is on the Wisconsin 303d list of impaired waters for sedimentation of the stream causing lack of in-stream habitat for the fish species expected to flourish in the stream – brook trout.

In a 2004 fish survey, only forage fish species, one brook trout and one brown trout were documented at the lower station. Only brook trout were found at the upper station. Evidence of natural reproduction of brook trout was also documented. The stream was last stocked with brook trout by the WDNR in 1996. Heavy bank erosion due to cattle access and steep eroding streambanks create a scarcity of in-stream cover, and a predominantly silt and sand bottom. In 2005, La Crosse County Land Conservation Department began implementing best management practices on lands in the upper half of the Gills Coulee Creek watershed in order to improve the stream. Stream bank restoration and upland erosion control practices were completed as part of the DNR TRM Grant in 2011. Access to Gills Coulee Creek is from six bridge crossings.

Halfway Creek Halfway Creek, located in western La Crosse County, flows for 11.3 miles in a westerly direction before reaching the Black River north of Onalaska. This stream has an average gradient of 19 feet per mile; however, the lower end of the creek has a much lower gradient. Halfway Creek is a Class II trout stream from CTH W upstream to its headwaters and Class III downstream of CTH W to CTH DH in the Village of Holmen. Stream miles 7-9 are on the Wisconsin 303d list of impaired waters due to sedimentation resulting in reduced in-stream habitat for fish.

A 2002 fish and habitat survey of Halfway Creek documented a stream bottom consisting primarily of sand, silt and clay. In-stream cover for adult game fish consisted of woody debris and overhanging vegetation. One segment of stream contained LUNKER structures and boulders. Streambanks of the urban segment in the Village of Holmen were unsightly and unhealthy for the stream. Piles of cut grass, brush and garbage were noted. Only adult brown trout were documented in the lower stations; however, the majority of them contained lesions of an unknown source. Creek chub, Johnny darter, white sucker, stonecat and black nose dace made up the forage fishery. The most upstream station contained a naturally reproducing population of brook trout. Since the WDNR has no documentation of brook trout stocking to Halfway Creek, their presence is unexplained.

Frequent flooding of Halfway Creek in its lower reaches and sedimentation of Mississippi River backwater areas prompted a study of the Halfway Creek watershed. The increased flood frequencies were linked to sediment loading throughout the 36 square mile Halfway Creek watershed. An estimated sediment load of 50,170 tons per year, or 1,400 tons/sq. mile/year, reaches Halfway Creek (Vierbicher). A portion of that sediment load is transported downstream. As the stream gradient decreases near the Mississippi River, movement of this sediment slows and accumulates in the stream channel, causing the stream to become wide and shallow, which leads to lower flood thresholds.

The Village of Holmen has been requiring storm water treatment for new subdivisions. Many storm water detention ponds now exist in and around Holmen. The sandy soil of the area allows much of the water accumulating in these ponds to infiltrate into the ground. With the historical flooding problems of lower Halfway Creek, this best management practice is vital to reduce flood flows and reduce sedimentation of the stream from urban sources.

Halfway Creek flows through the Village of Holmen and receives treated wastewater from the Holmen wastewater treatment plant. During the facility planning process, the community of Holmen should examine regionalized sewerage treatment with the City of La Crosse as a potentially cost effective option.

Metallics, Inc. also discharges process wastewater to Halfway Creek. A study to determine water quality below the discharge in Halfway Creek was conducted in 1996. Continuous monitoring equipment measured a number of water quality parameters. No measurable negative effects to Halfway Creek with regard to temperature, dissolved oxygen or pH were documented (Sullivan and others).

Hoyer Valley Creek (Creek 23-7) Unnamed Creek 23-7, located in central La Crosse County, flows for approximately two miles in a southwesterly direction before reaching Neshonoc Creek. It has a gradient of 53 feet per mile and drains agricultural valley land and forested hillsides. Creek 23-7 is a Class I trout stream for its entire length.

The most recent survey, conducted in 1978, documented a cold, spring-fed stream with good trout spawning habitat. Brook trout and a variety of forage fish species were present. An updated fish and habitat survey should be conducted to document current conditions of Creek 23-7. Brook trout were last stocked by WDNR in 1989. Access to Creek 23-7 is from one road crossing.

Johns Coulee Creek (Creek 20-6) Johns Coulee Creek, also known as Creek 20-6, is located in southern La Crosse County. It flows in a southwesterly direction for approximately two miles before reaching Mormon Coulee Creek. This stream has a moderate gradient of 47 feet per mile. Johns Coulee Creek is a Class I trout stream for its entire length.

A fish and habitat survey conducted in 2000 documented a naturally reproducing brook trout population and very few brown trout. The stream bottom was comprised mainly of sand, gravel and clay. Overhanging vegetation was the primary in-stream fish habitat, followed by woody debris and undercut banks. No WDNR stocking records exist for Johns Coulee Creek. Access to the stream is possible from two road crossings and WDNR owned fishing easements on the lower end.

Johnson Coulee Creek Johnson Coulee Creek, located in northwestern La Crosse County, flows in a southerly direction for 3.1 miles before reaching Halfway Creek just upstream of Holmen. This stream has a gradient of 64 feet per mile and drains agricultural land and wooded hillsides. Johnson Coulee Creek is not a classified trout stream. Johnson Coulee Creek is on the Wisconsin 303d list of impaired waters due to sedimentation resulting in lack of fish habitat.

Very little biological information has been collected from this stream. A 1988 runoff event brought an estimated 2,000 cubic yards of clay into the creek from a quarry operation where no erosion control measures were taken. A thorough survey of Johnson Coulee Creek should be conducted to document the existing aquatic biological communities.

La Crosse River The La Crosse River flows for approximately 30 miles through central La Crosse County before discharging to the Mississippi River in the City of La Crosse. It has a gradient of 3.6 feet per mile and is bordered by wetlands, forest, farm fields and private residences for much of its length through the county. Where the river banks are tall and steep, some erosion is taking place whereas others have adequate vegetation to minimize erosion. The Villages of Bangor and West Salem have permits to discharge treated wastewater to the river. Access to the La Crosse River can be found at many road crossings and parks.

An August 2005 fish survey of the La Crosse River, conducted from Lake Neshonoc downstream to the Mississippi River, revealed numerous game fish species and forage fish species along the entire length. Game fish species included: walleye, sauger, large mouth bass, small mouth bass, northern pike, yellow perch, bluegill, black crappie, channel catfish and flathead catfish. In-stream cover for fish was primarily woody debris.

Lake Neshonoc Lake Neshonoc is a 737 acre impoundment of the La Crosse River in West Salem. The dam is operated to produce electricity which consequently affects water levels in the lake and the river downstream. La Crosse County operates a park along the western and southern shores of the lake with three boat landings and one handicapped accessible fishing pier. Homes and a privately owned recreational park surround much of the rest of the lake. New housing subdivisions have recently been approved immediately south of the lake. Proper storm water containment and treatment from these subdivisions will be necessary to reduce their negative influence to the lakes water quality. High bacterial counts, nuisance algal blooms, and sedimentation of Lake Neshonoc are all due to the runoff of soil, nutrients, and bacteria from the land upstream of the lake which extends into Monroe County. The La Crosse County Health Department has closed the Lake Neshonoc swimming beaches on a regular basis due to harmful bacteria levels. Sediment was hydraulically dredged from Lake Neshonoc to create fish habitat and a sediment trap at great expense. Lake Neshonoc is on the Wisconsin 303d list of impaired waters due to bacterial contamination and excessive nutrients which result in nuisance algae blooms and pH values above the water quality standard.

A 2003 fish survey confirmed that Lake Neshonoc contains a diverse fishery which includes: walleye, northern pike, bluegill, yellow perch, white crappie, black crappie, carp, small mouth bass, large mouth bass, white bass and a

variety of forage fish species. Very little aquatic vegetation is present in the lake except for the eastern end, where the river enters the impoundment. Sand and silt are the predominant sediment types in the lake.

Lake Onalaska Lake Onalaska is part of the Mississippi River on the western edge of La Crosse County. It is bounded by Lock and Dam 7 and French Island to the south, the Black River delta to the north and La Crosse County to the east. Numerous boat landings allow access to this lake for fishing and other recreational opportunities. However, hunting is not allowed. Numerous game fish and non-game fish species abound in Lake Onalaska. Zebra mussels also are found in the lake. Cleaning of boats and trailers used in the Lake Onalaska to remove all life stages of the mussels is essential in reducing the spread of zebra mussels to any inland waters of La Crosse County.

Larson Coulee Creek Larson Coulee Creek, located in central La Crosse County, flows for approximately 3.5 miles in a southerly direction before reaching the La Crosse River. It has a moderate gradient of 40 feet per mile and drains agricultural valley land and steep wooded hills. Larson Coulee Creek is a class Class I trout stream above CTH M for about 0.5 miles and Class II for approximately 3 miles below CTH M.

A 2002 fish survey documented naturally reproducing brook trout and some brown trout. Longnose dace, American brook lamprey, and brook stickleback comprised the forage fishery. Abundant watercress, a sign of spring inputs to the stream, was noted. Much of the stream bottom was sand and silt, with small amounts of gravel and cobble. Riparian land cover was mostly wooded with some meadow. Fish cover was dominated by woody debris and undercut banks. Overhanging and submerged vegetation also provided cover for adult game fish. Larson Coulee Creek was last stocked with wild brook trout by the WDNR in 2004. Results of the 2002 fish survey justified reclassifying the entire length of Larson Coulee Creek as Class I. Access to Larson Coulee Creek is from WDNR owned easements and five road crossings.

Little Burns Creek Little Burns Creek, located in north east La Crosse County, flows in a southeasterly direction for approximately 1.3 miles before reaching Burns Creek. It has a steep gradient of 80 feet per mile and drains rolling agricultural and forested land. Little Burns Creek is a Class I trout stream for its entire length.

The most recent survey, conducted in 1977, documented cool, clear water and a stream bottom which consisted of sand, gravel and silt. Riparian land use was primarily pasture and wetland, with some bank erosion due to excessive livestock grazing. Many brook trout and one forage fish species were found during this survey. The fishery of Little Burns Creek would benefit from the addition of in-stream habitat. To update information on the status of Little Burns Creek, a fish and habitat survey should be conducted. No DNR stocking records exist for this stream. Access is possible from two road crossings and DNR owned easements.

Long Coulee Creek Long Coulee Creek, also known as Creek 8-6, is located in northwest La Crosse County. This stream flows for approximately 3.9 miles in a southerly direction before reaching Halfway Creek just east of Holmen. This stream has a relatively low gradient of 26 feet/mile. Long Coulee Creek is not a classified trout stream. Long Coulee Creek is on the Wisconsin 303d list of impaired waters for excessive sedimentation resulting in reduced in-stream habitat for fish.

A 2006 survey documented Johnny darter and brook stickleback. Steep raw banks which slough off into the stream contribute sediment to the stream. At the time, the stream was heavily pastured. This stream has the potential to become a Class II trout if sedimentation to the stream were reduced.

McKinley Coulee Creek (Creek 23-12) McKinley Coulee Creek, also known as Creek 23-12, is located in central La Crosse County. This stream flows for approximately three miles in a southwesterly direction before reaching Neshonoc Creek. It has a moderate gradient of 43 feet per mile and drains agricultural valley land and steep forested hills. McKinley Coulee Creek is a Class III trout stream from its mouth upstream for 0.5 miles then Class II for 2.3 miles upstream.

The most recent survey, conducted in 2006, documented a small, spring-fed stream which supports brook trout with some natural reproduction. The stream bottom consisted of primarily sand with lesser amounts of silt, gravel, cobble and clay. In-stream cover consisted of log tangles, undercut banks and overhanging vegetation. Streambank erosion was threatening the fishery of this stream. WDNR has stocked this stream with brook trout since 1960. Access to McKinley Coulee Creek is from four road crossings.

Mississippi River The Mississippi River borders La Crosse County on the east. Lock and Dam 7 is located on the west side of French Island which creates Pool 7 upstream of the dam. The remainder of La

Crosse County is bounded by Pool 8 of the Mississippi River. Access to the river can be found via Goose Island County Park, numerous city parks such as Pettibone Park and Riverside Park, as well as several boat landings. Within La Crosse County, the Mississippi River receives flow directly from the Black River, the La Crosse River, Pammel Creek and Mormon Coulee Creek. Numerous game fish and non-game fish species abound in the Mississippi River. Zebra mussels also are found in the river. Cleaning of boats and trailers used in the Mississippi River is essential in reducing the spread of zebra mussels to any inland waters of La Crosse County. The Mississippi River in La Crosse County is on the Wisconsin impaired waters list (303d list) due to a contaminated fish consumption advisory for mercury and PCBs (polychlorinated bi-phenols).

Mormon Coulee Creek Mormon Coulee Creek, located in southeast La Crosse County, flows in a westerly direction for approximately 15 miles before reaching the Mississippi River south of the City of La Crosse. It has a gradient of 23 feet per mile and drains steep forested hillsides, agricultural valley land, and numerous housing developments. Mormon Coulee Creek is a Class II trout stream for its entire length.

This stream contains a gravel and cobble bottom in the extreme upper end which eventually changes to more sand, silt and clay downstream. Brown trout have been stocked in Mormon Coulee Creek since 1976. Recently, wild brown and brook trout were stocked in Mormon Coulee Creek. Several forage fish species and numerous year classes of brown trout and brook trout were documented in both June 2000 and October 2005 surveys. The majority of in-stream cover was woody debris. More permanent cover in the form of LUNKER structures has been installed in some areas. Mormon Coulee Creek would benefit from the purchase of additional streambank easements and in-stream habitat restoration. Much of Mormon Coulee Creek is entrenched with steep streambanks, especially throughout its lower reaches. Access to Mormon Coulee Creek is from 14 road crossings, a Town of Shelby park, and DNR streambank easements.

The lower end of Mormon Coulee Creek is located on the south end of the City of La Crosse and the Town of Shelby. The stream has a fairly wide valley here surrounded by steep hills. The major land use was agriculture until fairly recently. Due to the close proximity to the City of La Crosse and beautiful landscape, numerous housing developments have been built in the lower end of the Mormon Coulee Creek watershed and more are planned. Control of soil erosion during construction of homes or other buildings is vital for the continued trout stream classification of Mormon Coulee Creek. Soils which are allowed to leave a construction site and reach the stream will smother spawning habitat for fish as well as habitat for aquatic insects on which the fish feed. After a construction site is stabilized, the storm water generated off that site during a rain storm can also detrimentally affect a trout stream if not managed properly.

Trout streams in urban areas are rare due to changes in storm water runoff volume and temperature from an urban landscape. Stormwater from areas with impervious surfaces, such as roofs, sidewalks and streets generate more runoff than vegetated areas. This added volume of runoff is often times warmer than the cold temperatures healthy trout streams require. When this warm water is discharged to trout streams or their tributaries, warming of the stream creates conditions which stress trout. The accumulation of these subdivisions eventually will produce storm water volumes that exceed what agricultural lands previously generated. Additional volume of storm water can reduce in-stream habitat through its scouring and erosive action. Infiltration of storm water reduces surface water volume fluctuations in the stream during both dry and wet periods by returning the storm water to groundwater, as was the case with natural vegetation or agricultural crops. Rain and snow that percolates through the ground, rather than over the land surface, is much cooler once it reaches the stream. All new subdivisions in the Mormon Coulee Creek watershed should detain and infiltrate their storm water using rain gardens, grass swales, or infiltration basins. To reduce the costs of storm water systems and reduce the affects of storm water to the stream, the City of La Crosse and the Town of Shelby should create a storm water plan for the Mormon Coulee watershed with costs shared by new subdivision developments.

Neshonoc Creek Neshonoc Creek, also known as Scotch Coulee Creek, is located in central La Crosse County. This stream flows for approximately five miles in a southwesterly direction before reaching the La Crosse River downstream of Lake Neshonoc. It has a moderate gradient of 29 feet per mile and drains roughly six square miles of agricultural land and steep forested hillsides. The lower 2.4 miles of Neshonoc Creek are Class III trout and the upper 2.4 miles are Class II.

A 2005 fishery survey documented a healthy reproducing brook trout population in the upper portions of Neshonoc Creek and a robust forage fishery with some brook trout in the lower reaches. Streambank erosion was noted as a problem in both surveyed stations. The data collected during this survey suggest that Neshonoc Creek should be upgraded to Class I in the upper 2.4 miles and Class II in the lower 2.4 miles. Neshonoc Creek has been stocked regularly with brook trout by the WDNR since 1960. Access to this stream is from four road crossings.

Pammel Creek Pammel Creek, located in southwest La Crosse County, flows for five miles in a westerly direction before reaching the Mississippi River on the south side of La Crosse. This stream has a gradient of 22 feet per mile. Pammel Creek is not a classified trout stream. Pammel Creek flows through some agricultural areas, an expanding rural home setting, a mobile home park, then through the southern portion of the City of La Crosse. Several subdivisions located on nearby hillsides drain their storm water to Pammel Creek. Frequent flooding of homes adjacent to the creek precipitated a flood control project that resulted in a two mile long concrete lined ditch built in the late 1980's. Upstream of the concrete channel, the stream bottom is comprised mainly of sand with small areas of gravel. Once the stream enters the concrete channel, the flow disperses across 15 feet of concrete to a maximum depth of a few inches during normal flow. Any accumulation of sediment in the concrete channel is regularly removed by the City of La Crosse. Due to the lack of habitat and shallow water in the channel, no fish are present. Wild brook trout were stocked in the Pammel Creek upstream of the concrete ditch. A 2005 fish survey showed natural reproduction and three year classes of fish. This self sustaining population of brook trout justifies classifying Pammel Creek upstream of the concrete ditch as a Class I trout stream. Mississippi River fish frequent the portion of Pammel Creek downstream of the flood control channel. Flashy flows do still exist upstream of the concrete ditch. Stormwater in the surrounding urbanizing area above the concrete ditch should be controlled with infiltration techniques to preserve the cold summer temperatures found in the creek. Erosion of steep banks contributes to the sediment load of the stream.

Pinkish Coulee Creek (Creek 27-3) Pinkish Coulee Creek, also known as Creek 27-3, flows in a southeasterly direction for 1.3 miles before reaching Bohemian Valley (Coon) Creek in southeastern La Crosse County. This stream has a gradient of 133 feet per mile and is not a classified trout stream. A May 2005 fish survey revealed two year classes of brown trout. There are no WDNR stocking records for this stream. The station surveyed was pastured, but bank erosion was only moderate.

Pleasant Valley Creek (Creek 18-2) Pleasant Valley Creek, also known as Creek 18-2, is located in central La Crosse County. This stream flows in a westerly direction for approximately six miles before reaching the La Crosse River. It has a gradient of 30 feet per mile and flows through agricultural land with heavy pasturing, rural housing, and a golf course. Pleasant Valley Creek has been channelized as it runs parallel to I-90. A portion of the stream flows through culverts under I-90 and railroad tracks into wetlands adjacent to the La Crosse River. The rest of the flow eventually reaches Bostwick Creek in Section 18. Pleasant Valley Creek is not a classified trout stream.

A 1988 stream survey of Pleasant Valley Creek near the golf course documented a variety of forage fish species. In 2004 and 2006, fish surveys conducted further upstream of the golf course turned up only brook stickleback. Much of the stream corridor is buffered through the agricultural fields. However, streambank erosion adjacent to CTH M due to livestock was causing degradation of in-stream fish habitat.

Poplar Creek Poplar Creek, located in southeastern La Crosse County and northwestern Vernon County, flows for approximately two miles in a southerly direction before reaching Coon Creek northeast of Coon Valley. In Vernon County, this stream is also known as Creek 4-8 and in La Crosse County as Creek 33-11. This stream has a steep gradient of 100 feet per mile and drains steep forested land, agricultural and lowland pasture. Poplar Creek is classified as a Class II trout stream for the 0.6 miles located in Vernon County and Class I for the 1.4 miles in La Crosse County. Fish surveys conducted in 2003 and 2004 in La Crosse County documented several year classes of brown trout. In-stream cover for adult fish was scarce, however the substrate was adequate for young brown trout. No WDNR stocking records exist for Poplar Creek.

Sand Creek Sand Creek, located in northeastern La Crosse County, flows in a northwesterly direction for nearly nine miles through La Crosse, Monroe, and Jackson Counties, before reaching the Black River. The 2.5 miles that flow through La Crosse County has a gradient of 38 feet per mile and is a Class I trout stream for its entire length. Adjacent lands are primarily wooded with stands of old growth timber. Streambank grazing and cropland erosion negatively affect the La Crosse County portion of Sand Creek. This stream has good water quality and potential for fishery habitat improvement. The DNR designated a corridor surrounding Sand Creek for streambank protection via land purchase. Through this program, the DNR has acquired approximately 715 acres surrounding approximately one and a half miles of Sand Creek in Monroe County. In-stream habitat structures were installed and prairie and oak savannah restoration efforts began in 1997 on a newly acquired one square mile piece of land. The prairie will be maintained by periodic burning. Preliminary endangered resource inventory work was done on the property. More detailed information should be collected for both aquatic and terrestrial species.

Sand Lake Coulee Creek Sand Lake Coulee Creek, located in east central La Crosse County, flows in a westerly direction for approximately four miles before reaching the wetlands adjacent to Lake Onalaska in the Town of Midway. This stream has a gradient of 24 feet per mile and drains forested hillsides, only a small amount of agriculture, a rural subdivision, golf course, and the urbanizing area between the Village of Holmen and the City of Onalaska. Sand Lake Coulee Creek is not a classified trout stream.

A portion of Sand Lake Coulee Creek, adjacent to the Cedar Creek Golf Course, was straightened and ditched. A low head dam was placed on the stream within the golf course which impounds approximately two acres of water. A 1988 fish survey confirmed forage fish in the stream above the golf course. Sedimentation and increased runoff volumes have caused this stream to flood frequently. The sediment load from this sub-watershed (8 square miles) is estimated at approximately 4,470 tons per year, or 560 tons/square mile/year. (Vierbicher). In 2005 and 2006, the lower end of Sand Lake Coulee Creek in the Town of Midway experienced periodic dewatered episodes during the summer months. This lack of water had been noted in previous years and may be due to low groundwater levels from drought. This problem may also be related to high capacity wells in the area.

Smith Valley Creek Smith Valley Creek, located in central La Crosse County, flows for approximately four miles in a northerly direction before reaching the La Crosse River just east of the City of La Crosse. It has a gradient of 46 feet per mile and drains a rural subdivision and some agricultural land. Smith Valley Creek is not a classified trout stream.

The configuration of Smith Valley, the road, stream, and development patterns have required the installation of many culverts and bridges over the creek. If these stream crossings are not designed and constructed properly, damage to the fishery, in-stream habitat, and upstream property can result. The Smith Valley Creek watershed is experiencing a boom in rural home building. Stormwater from these subdivisions should be infiltrated as much as possible to preserve the groundwater inputs to the stream. Ponds on the upstream end of the stream warm the water temperatures. A 2002 fish survey documented enough brook trout to reclassify the stream to Class II brook trout. However, a 2005 fish survey found no trout. The stream should be surveyed once again. Smith Valley Creek was last stocked in 1994 with brook trout. Access to the stream is from four road crossings.

Sour Creek Sour Creek flows in a northerly direction for approximately three miles before reaching Fleming Creek in north central La Crosse County. It has a gradient of 37 feet per mile and drains agricultural lands with some forested hillsides. Sour Creek is not a classified trout stream.

Surveys of Sour Creek in 2001 documented very few forage fish; however, it was determined that the stream had potential for brook trout. The stream bottom was primarily sand and the dominant fish cover was overhanging vegetation. In 2004, wild brook trout were stocked in Sour Creek and a 2005 survey documented both adult and young of the year brook trout. Some of the adults appeared to have a skin disease. Additional surveys of this stream should be conducted to determine if the brook trout population in Sour Creek is self sustaining.

Spring Coulee Creek Spring Coulee Creek, located in north central La Crosse County flows in a southerly direction for nearly two miles before reaching Halfway Creek. It has a gradient of 31 feet per mile and drains forested hillsides and agricultural valleys. Spring Coulee Creek is not a classified trout stream. A 2002 fish survey documented four forage fish species and one bluegill.

St. Joseph Coulee Creek (Creek 26-15) St. Joseph Coulee Creek, also know as Creek 26-15, flows in a northerly direction for three miles before reaching Bostwick Creek in central La Crosse County. It has a gradient of 78 feet per mile and drains forested hillsides and agricultural land in both the valleys and hilltops. St. Joseph Coulee Creek is not a classified trout stream.

A 2005 fish survey documented brown trout. The stream bottom was dominated by silt and cobble. Streambank erosion and sedimentation of the stream were also noted.

Tollefson Coulee Creek (Creek 28-16) Tollefson Coulee Creek, also known as Creek 28-16, flows in a northerly direction for two miles before reaching Bostwick Creek in central La Crosse County. It has a gradient of 87 feet per mile and drains forested hillsides and agricultural valleys and hilltops. Tollefson Coulee Creek is not a classified trout stream.

A 2004 fish survey documented brown trout, brook stickleback and white sucker. The stream bottom consisted of primarily sand and cobble. Streambank erosion and sedimentation were limiting in-stream adult game fish cover. No WDNR stocking records exist for this stream.

Wet Coulee Creek (Creek 26-1)

Wet Coulee Creek, located in north central La Crosse County, flows in a northerly direction for nearly three miles before reaching Fleming Creek. This stream has a gradient of 80 feet per mile and drains agricultural valleys and forested hillsides. Wet Coulee Creek is not a classified trout stream.

A 2001 fish survey documented five forage fish species as well as a few brook trout. The substrate was dominated by gravel and sand. In-stream cover for fish consisted of overhanging vegetation with some scattered boulders and undercut banks. Wild brook trout were stocked in 2001. A 2005 fish survey found only a few adult brook trout and no young of the year. It was determined this stream was too small to support a self sustaining brook trout fishery. At the time of the survey, adjacent land use was not detrimentally affecting the stream.

*WATER QUALITY ASSESSMENT / GOALS AND STANDARDS

La Crosse County has 274 miles of stream, or 983 surface acres, excluding the Mississippi River, and approximately 730 surface acres of lakes, excluding Lake Onalaska. La Crosse County has 9 waterbodies on the State's 303(d) list, the Lower Black, the Mississippi, Long, Halfway, Johnson Coulee, Gills, Adams, Lake Neshonoc and Fleming Creek. The County also has exceptional waters in Larson Coulee, Hoyer Coulee, Little Burns, Burns, Dutch, Bostwick, Poplar Coulee, Coon, and Fishback Creeks. There is also one outstanding waterbody, Berge Coulee Creek.

The Department's water quality monitoring program provides the data that is primarily used to prioritize its programs and cost-sharing. The Department of Land Conservation has carried out a variety of water quality monitoring projects for the past 18 years; a permanent monitoring station has been established on Dutch Creek, county-wide baseflow monitoring of the County's 27 watersheds, and upstream-downstream sampling at several signs of success project sites are examples of the monitoring program. The Dutch Creek monitoring station has shown how single runoff events dominate pollutant loadings for an entire year. The county-wide baseflow sampling has illustrated the water quality differences of the County's streams and is used for prioritization purposes. Upstream-downstream sampling has shown how effective stream corridor practices have been in improving water quality. County and DNR water quality data are used to compliment each other's programs.

For the purpose of this plan, "water quality" refers to the suitability of those water bodies for a designated use. Designated uses for most Wisconsin streams and lakes are for support of fish and other aquatic life, and whole body contact recreation such as wading or swimming.

La Crosse County's designated use water quality goals for surface waters are that surface waters be safe for whole body contact recreation, and, that surface waters meet County Health Department bacteria standards. **The Department has established surface water quality goals compatible with existing goals for total phosphorus, fecal coliform bacteria, and dissolved oxygen.**

Total Phosphorus: 0.05 mg/L or less. To prevent excessively high phosphorus levels that may lead to eutrophic conditions and low dissolved oxygen levels. 89% of the streams do not meet goal based upon the county-wide averages from 1998-2006.

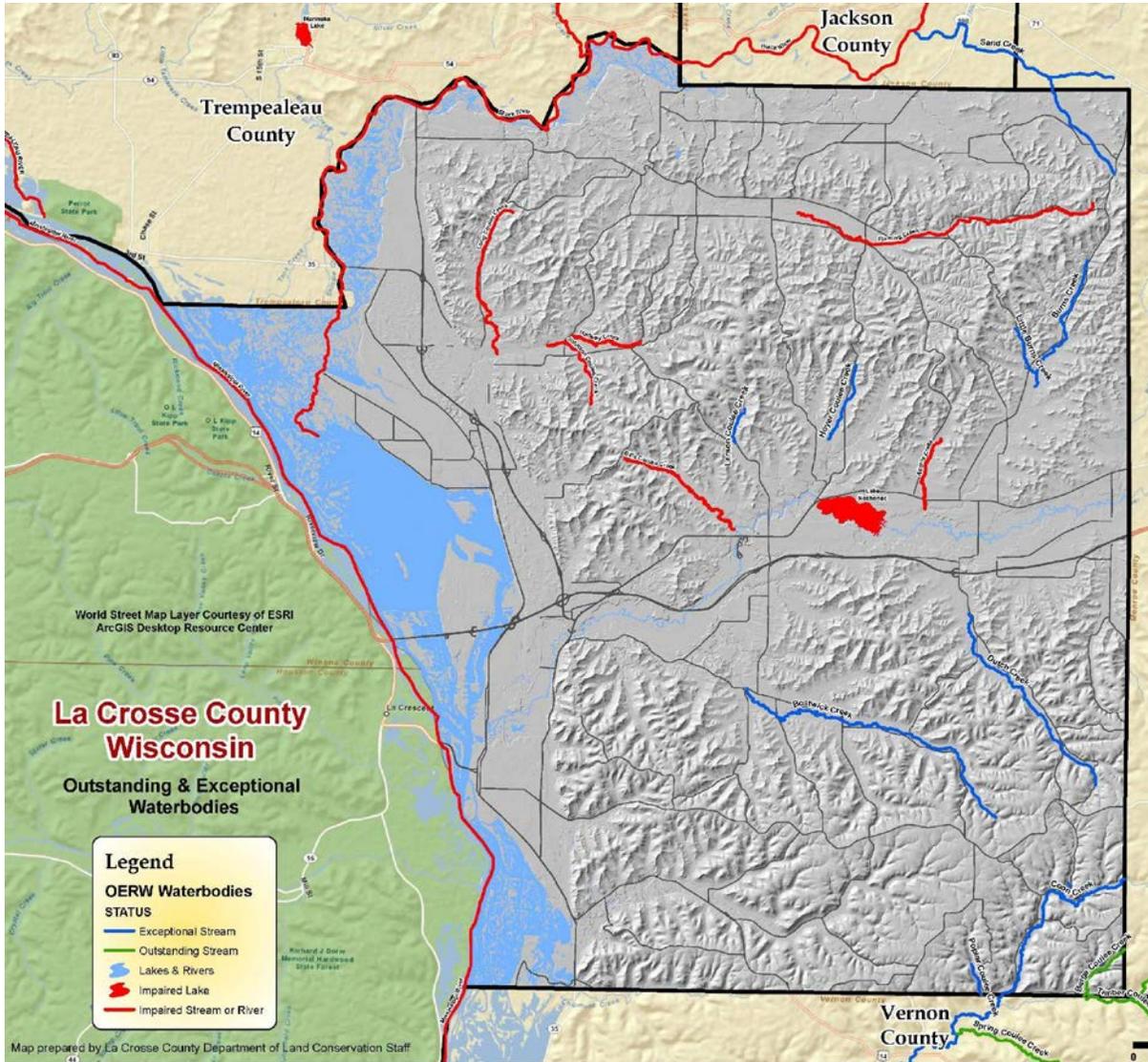
Fecal Coliform Bacteria: Less than 1,000 colonies per 100ml. Department water samples from 1998-2006 show that 63% of La Crosse County streams average over the 1000 fecal coliform colonies per 100 ml standard, and are not suitable for whole body contact recreation.

Dissolved Oxygen: No less than 5 mg/L at any time; no less than 6 mg/L for trout waters; and no less than 7 mg/L during spawning season.

That surface waters attain their fishery potential as indicated in the DNR Black River Basin Water Quality Management Plan, and Bad Axe-La Crosse Rivers Water Quality Management Plan.

Based on data from the Department's water quality monitoring program the Department has ranked the water quality of all 27 watersheds in the County. This ranking mirrors the Department of Natural Resources ranking of 303d waters in the County. In general the highest ranked watershed will be the County's priority area for receipt of technical assistance and the expenditure of funds.

Figure 3-1
LA CROSSE COUNTY EXCEPTIONAL,
OUTSTANDING AND IMPAIRED WATERS



WATER QUALITY MONITORING – PERFORMANCE STANDARDS The Department has been conducting water quality monitoring activities for a number of years; the Dutch Creek monitoring station since 1995, a county-wide base flow sampling program since 1998, and various upstream-downstream sampling programs (or Signs of Success) at various sites in Dutch, Adams and Gills Creeks since 1998.

Monitoring Station The Dutch Creek monitoring station was set up and operating in January 1995. The station is located off of Darling Road, 3 miles south of the village of Bangor. It is equipped with an ISCO 4130 bubbleline flowmeter, an ISCO 3700 sampler, and an ISCO tipping bucket rain gauge. A Scientific Instruments AA current meter is used for taking discharge measurements. A YSI 600R sonde is used to measure dissolved oxygen and water temperature. ISCO's Flowlink software is used to communicate with and program the flowmeter.

Except for brief downtimes for equipment repair, the Dutch Creek monitoring station has been operating continuously since February of 1995. Water samples taken during runoff events are tested for total phosphorus and total suspended solids concentrations. These concentration values, along with stream discharge information, allow us to compute total loadings of phosphorus and suspended solids for runoff events.



The average percentage of suspended solids and phosphorus over 16 years of data is shown in figure 3-2. Calendar year 2008 has contributed the most of both suspended solids and phosphorus, with more than double the amount of solids and almost double the amount of phosphorus compared to any other year. This increase was due to storm events occurring on one weekend, June 7 & 8, 2008. Four separate rain events occurred, with the last 2 both exceeding the previously recorded high flow mark. This was the same weekend that Lake Delton failed and Cedar Rapids, Iowa flooded.

Figure 3-2

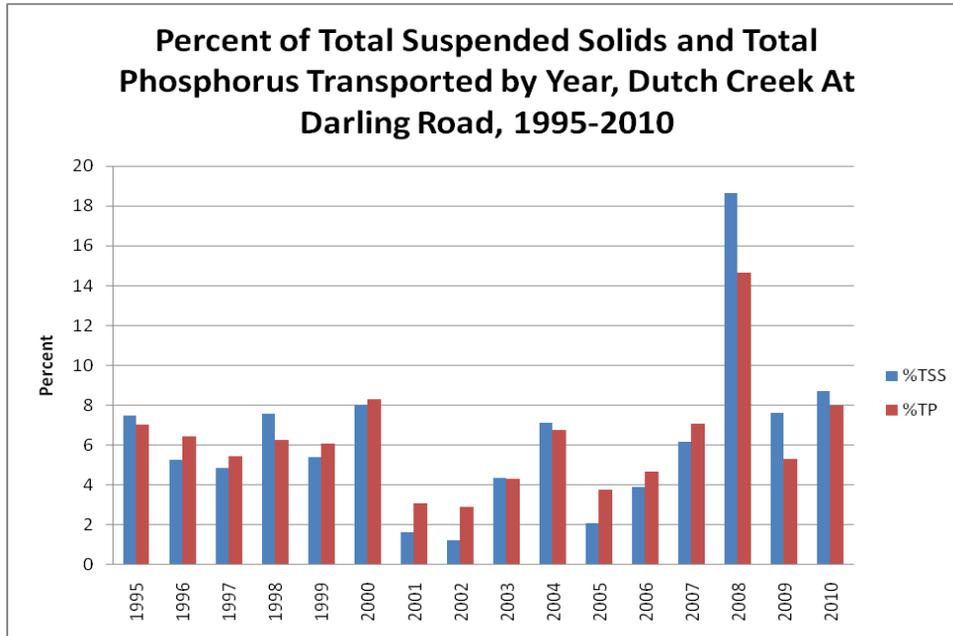
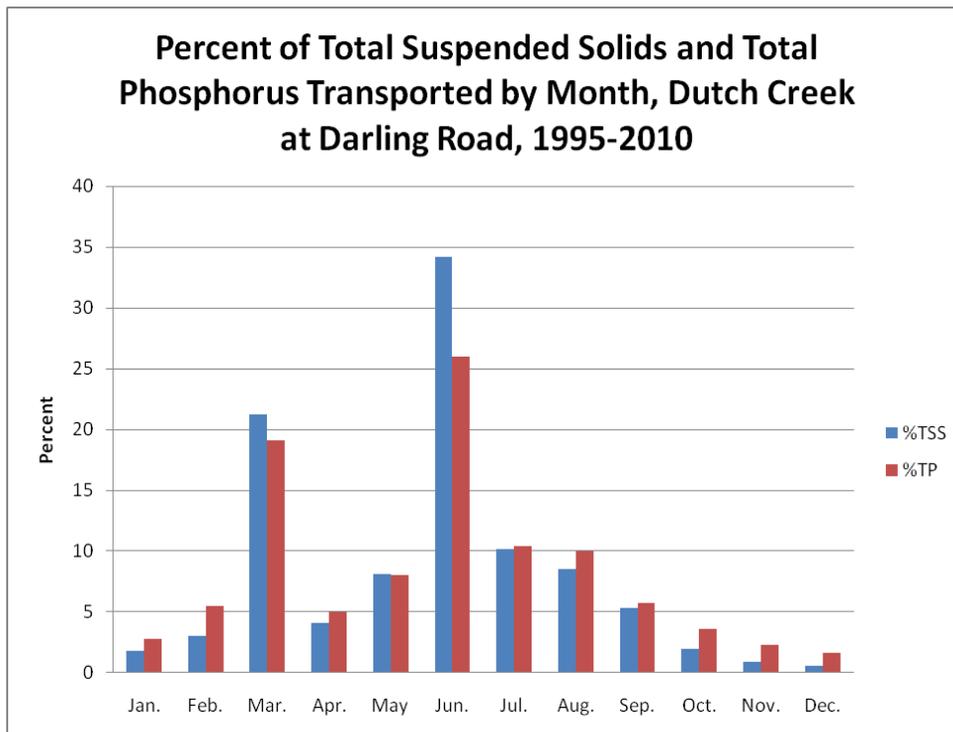


Figure 3-3 has the Dutch Creek monitoring data broken out by month. In the 2005 Land & Water Plan, the month of March had the greatest percentages of suspended solids and phosphorus. With the June 2008 runoff events, June has now surpassed March with almost 35% of the suspended solids and 25% of the phosphorus now transported. March is in second place with about 20% for both parameters.

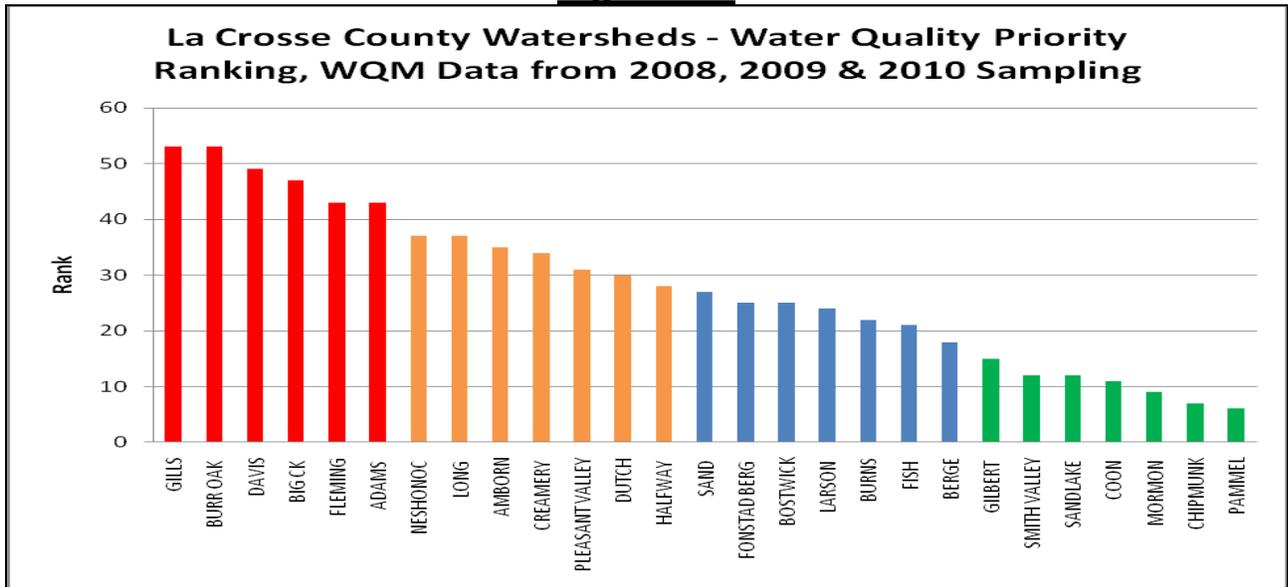
Figure 3-3



Baseflow Stream Monitoring The county-wide stream sampling program was started in the summer of 1998. Water chemistry samples for most streams in the County are collected within about a 2.5 hour timeframe at a time when there has been at least 72 hours of no runoff activity from rainfall or snowmelt. Depending upon available funding, these sample runs have been done from 2 to 4 times per year. Samples collected are analyzed for fecal coliform bacteria and total phosphorus. Each one of these snapshots in time isn't necessarily reflective of the streams general water quality, but over time and looked at as a whole, they are a good indication of which streams have the best quality and what ones have the poorest.

Adams Creek typically has had the poorest water quality in the County. It suffers from streambank erosion, feedlot and milkhouse runoff, and poor cattle management in the riparian corridor. The Burns-Adams TRM project made improvements in some of the streambank erosion and cattle management issues. A manure storage facility has had a major impact on improving water quality.

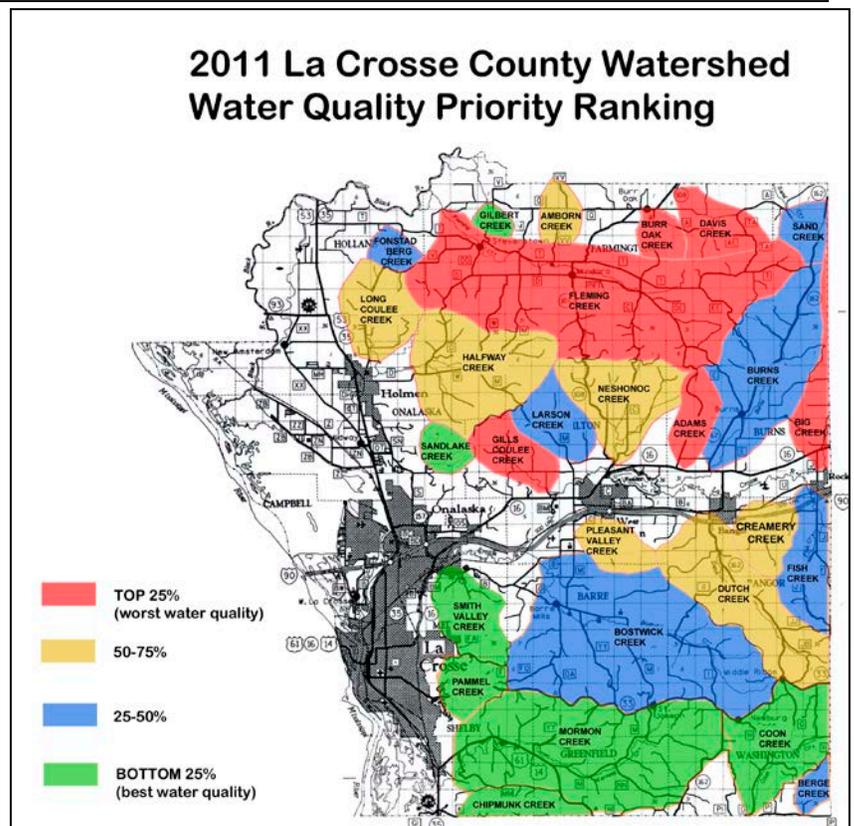
Figure 3-4



Generally, the streams with the poorest water quality are found in the northern half of the County and the best water quality are in streams south of Highway 33.

The La Crosse County Watershed Water Quality Priority Ranking graph, figure 3-4, indicates County streams ranked worst to best, based upon the county-wide base flow sampling. The streams are color coded by quartile, the worst 25% in red to the best 25% in green. The locations of these streams and watersheds follow the same color coding in figure 3-5.

Figure 3-5

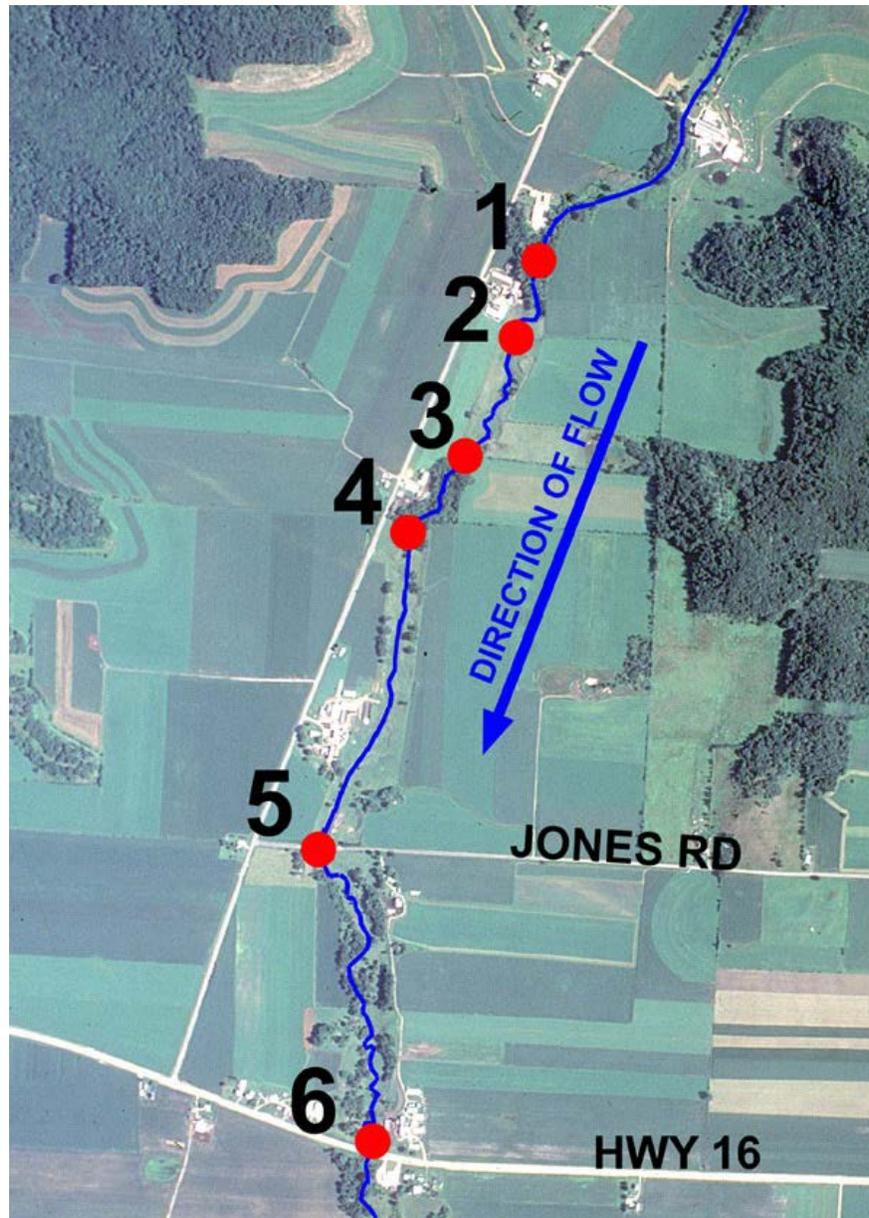


Signs of Success Monitoring Signs of success monitoring are upstream and downstream of project areas on Adams and Gills Creeks. Data collected includes grab samples for total phosphorus and fecal coliform bacteria, dissolved oxygen and water temperature. Dissolved oxygen and temperature are measured with a YSI DO200 meter.

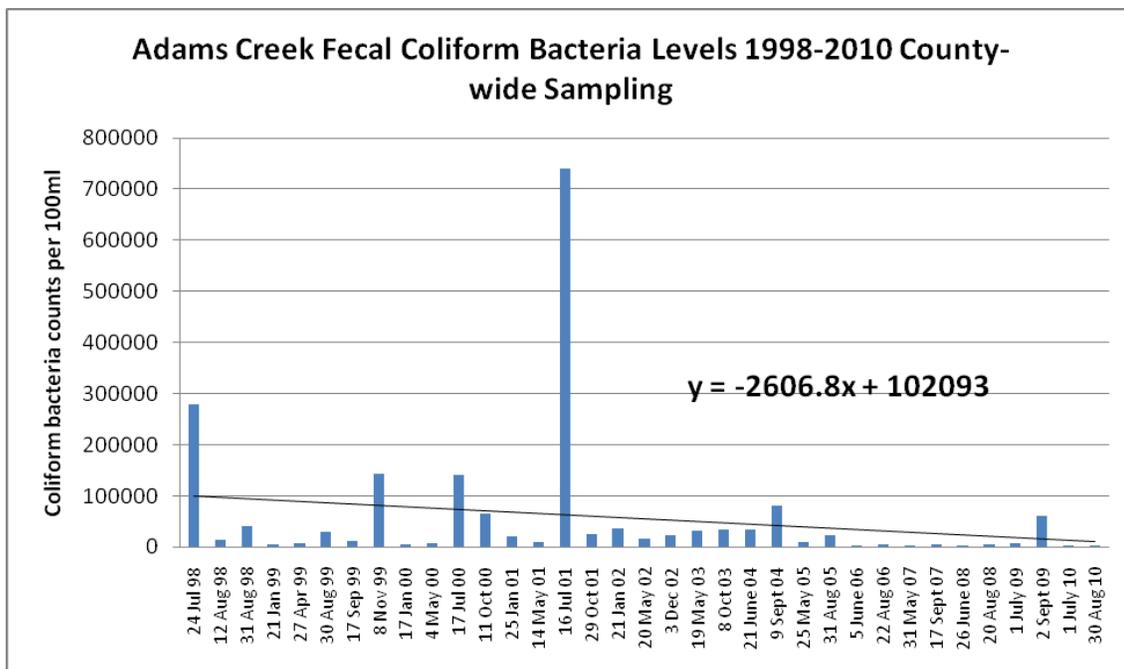
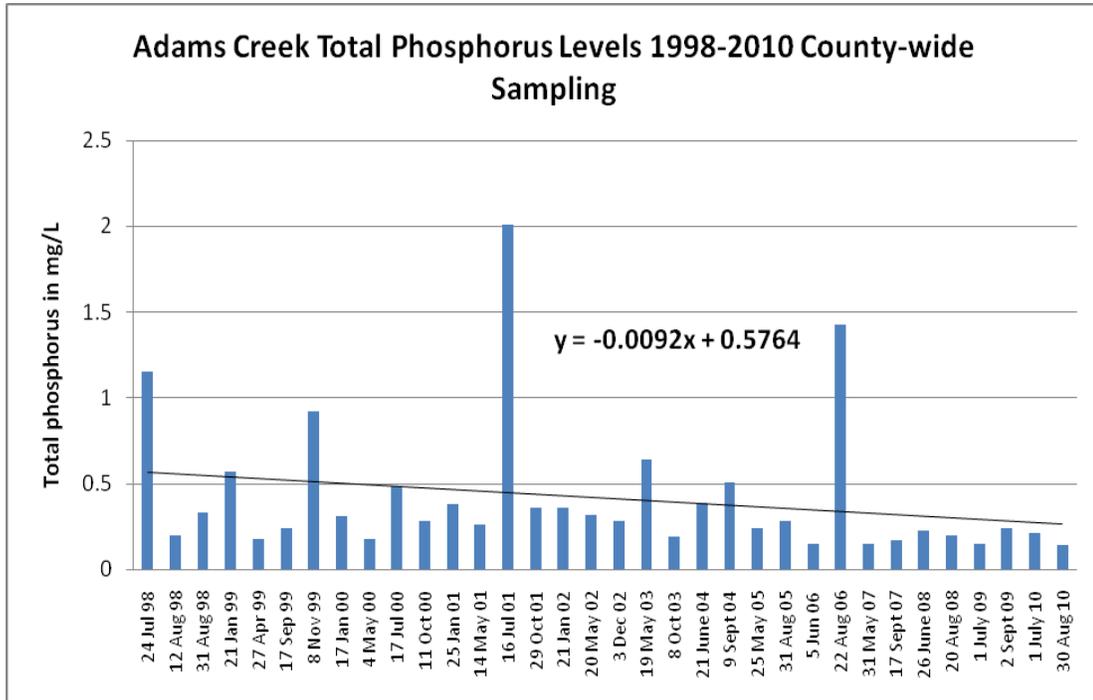
The Adams Creek monitoring has been conducted since 2001 at 6 sites along the stream profile, figure 3-6. In addition to the above sampling, Eco Instruments Aqua Sonde continuous dissolved oxygen probes have also been installed at Sites 5 and 6.

Figure 3-6

ADAMS CREEK



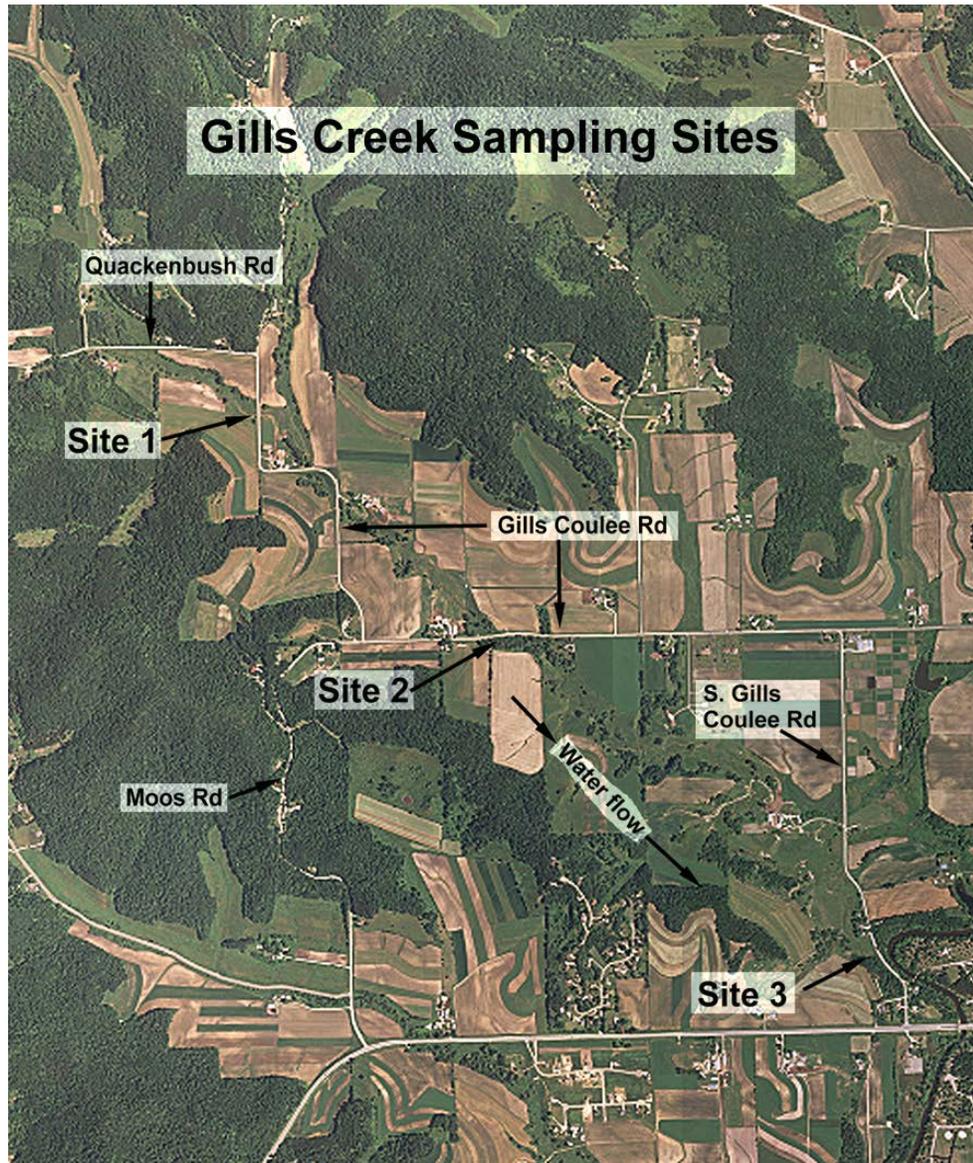
One sonde was purchased by the Department and the other is on loan from the DNR. These sondes record dissolved oxygen and water temperature at 15 minute intervals throughout the spring, summer, and fall. Various streambank protection practices were installed along several reaches in 2003. Averages for total phosphorus, fecal coliform bacteria and dissolved oxygen showed an initial improvement in 2004, especially at Sites 5 and 6, which are the furthest downstream. Unfortunately, any improvements were negated in 2005 by a feedlot sprinkler system upstream of Site 5. A manure and runoff storage structure was installed upstream of Site 5 in 2006 and has helped to improve water quality conditions. With practices continuing to be installed in Adams Creek, the Department plans to continue the sampling scheme at least through 2012.



Gills Creek water samples have been collected at three sites since 2003, figure 3-7. The upper portion of the watershed, above Site 2, has been selected as a DNR Targeted Watershed and has received a DNR TRM Grant.

Streambank protection and upland erosion control practices have been installed on six farms in the Gills Creek watershed. Installation of these practices ended in September of 2011. Although it is very early in the stream restoration project to anticipate major water quality improvements, stream monitoring has indicated that dissolved oxygen and water temperature have responded positively.

Figure 3-7



TOPOGRAPHY, LAND USE, SOIL EROSION CONDITIONS

General La Crosse County lies in the heart of the driftless area in Western Wisconsin. It is in an area untouched by recent glacial activity. The total land area of La Crosse County is 469 square miles or 300,160 acres. There are twelve townships, four villages and two cities. There are approximately 115,477 acres of cropland; 92,895 acres of woodland; 36,925 acres of pasture; 45,858 acres in urban use; and 9,005 acres of other land.

Many small streams have shaped the county, carving out hundreds of small valleys known as coulees. This erosion process has left the county traversed with narrow wooded ridges and narrow valley bottoms. Many of the ridges have bluffs of exposed limestone outcroppings that are especially prominent on the western edge of the county bordered by the Mississippi River.

The coulee region is the birthplace of the first large scale organized government effort to reduce soil erosion. In 1932 the Upper Mississippi Erosion Experiment Station was established near the City of La Crosse. The Civilian Conservation Corp was very active in the area and in La Crosse County from 1933 until 1941. The nation's first watershed project, SCS Project No. 1 in Coon Creek is located partially in La Crosse County. The Bostwick Creek Soil Conservation District was established in 1933, and the La Crosse County Soil Conservation District in 1939, one of the first districts in the nation.

The 1940s and 1950s were years of expanding technical and educational programs. With the federal government cost sharing conservation practices, contour strip cropping became the practice which reshaped the surface landscape in the county. Prior to the mid 70s, all technical assistance to landowners was provided by the staff of the USDA Soil Conservation Service, which generally consisted of two employees.

The mid-1970's and 1980's became another period of transition. Increasing awareness and concern for the environment, specifically nonpoint source pollution and soil erosion, led to the creation of several new programs. These programs were complimented by a commitment from the County of La Crosse to hire staff in 1975 to provide the needed technical assistance to carry out these programs. On June 17, 1982, in accordance with Chapter 92, Wisconsin's Soil and Water Conservation Law, La Crosse County abolished its Soil and Water Conservation District and created a Land Conservation Committee and Department of Land Conservation. In 2004 the La Crosse County Land Conservation Committee responsibilities became part of the new county Planning Resource and Development committee.

Geology / Soils La Crosse lies in the center of a driftless area, an area untouched by the most recent Wisconsin glaciations. The evidence of this is seen by the lack of natural lakes and undrained depressions. Abrasion by the Wisconsin Glaciations resulted in deep deposits of loess being blown into the county after the retreat of the glaciers, 10,000 years ago.

La Crosse County's soils have formed from: weathered sandstone bedrock, loess or wind laid silts, and water laid silts or sands on stream terraces. In most of the county, loess was blown onto the uplands from the western plains. In the northern part of the county the loess is thin and the parent materials of the soils are sandstone. The soils in the valley bottoms reflect the location of largest deposits of loess or soils formed from sandstone that were carried by water. The relationship of soils to each other can be categorized into two areas. Where uplands are underlain by dolomite rock, as in the southern part of the county, Fayette soils will occur on ridge tops and Dubuque soils on the side slopes. In the north, where sandstone is the parent material, Gale-Hixton and Sparta-Plainfield occur adjacent to each other. Throughout the county where slopes are steep, the soil materials were removed by water almost as fast as they were deposited. Soils here are shallow and poorly developed.

Land Use / Agriculture The dominate land use is still agriculture however urban areas are expanding throughout the county. There were approximately 845 farms in La Crosse County in 2010. Although the land in farms dropped to 165,368 acres, the average size of farms stayed nearly the same at 201 acres. Many are dairy farms, but other farms produce beef, hogs, and cash grains, timber, or acreage enrolled in the Conservation Reserve Program.

There are several factors which are cause for the reduction in farm numbers including the consolidation of farms and the selling of marginal or other lands for hobby farms and developments. Many small family-operated dairy farms in the county have also been replaced by larger dairies or cash-grain operators. Dairying is still the most common farm enterprise in the county.

Woodland Woodlands are widely distributed throughout La Crosse County. More than 44 percent of the county is currently in woodland. The majority of woodlands lay on the steep slopes of the ridges, between 20 and 60 percent in slope. The majority of woodlands consist of hardwoods. The soils and conditions are suitable for harvesting quality timber. The major timber types are oak and hickory, 65 percent; maple and birch, 17 percent; pine, 8 percent; and bottom land hardwoods and aspen, 10 percent. These timber types reflect the parent soil types in the county. A large part of the wooded acreage consists of stony or sandy soils. These soils are easily damaged by erosion.

Since the 1930's woodland acreage has slowly increased. Steep lands which were cleared and farmed with small equipment or horses have been replanted or retired from agricultural production and allowed to naturally reforest. Rural economic conditions and the expansion of forest based industries in the county also provide an incentive to maintain forest productivity. Another trend has been the removal of livestock from woodlands. In 1954, approximately half the pasture acreage was in woodland. Landowners in general realize the benefits of reforestation in terms of reduced runoff potential from steep barren slopes. The result of increased and better quality woodlands has been a reduction in erosion, improved water quality, and reduced flooding potential. Other associated benefits of improved fisheries, wildlife habitat, and aesthetics are no less important but more difficult to assess.

Soil Erosion Conditions Soil loss from crop fields is a primary non-point source pollutant. There are approximately 86,885 cropland acres in La Crosse County. The Department had cropland soil loss data on approximately 94% of these acres. Crop type, rotations and tillage records were established for all program participants and soil loss rates were determined by USLE or RUSLE2. Plans were developed specifying acceptable soil losses for those crop fields based on soils, crop type and rotation, field slope, and tillage methods. The plan establishes crop rotations and tillage methods to meet soil loss guidelines insuring soil losses are at "T" or "tolerable" levels of soil loss for crop production.

The average "T" for county soils is 4.5 tons soil loss (movement) per acre per year. Based on existing plans developed since 1986 the estimated county average cropland erosion rate = 4.2 tons per/ac./yr.

Eroded conditions of La Crosse County soils, from NRCS Soil Survey, La Crosse County, are shown in Figure 3-8.

Eroded Conditions of La Crosse County Soils



Figure 3-8

- Severly eroded
- Moderately eroded
- Uneroded
- Water

WATER QUALITY ASSESSMENT SCHEDULE – OBJECTIVES, ACTIVITIES, DATES, COSTS

A schedule of activities, objectives and costs for Water Quality Assessment for 2007-11 follows. The proposed activities are based on the county's program of work indicated in this chapter. County staff costs and associated state staff reimbursements for activities between 2007 and 2011 are based on actual 2005 county costs and approved 2005 DATCP staff/supply disbursements extrapolated over five years.

This plan is only to provide a framework for planned Department activities to be consistent with ss. 92.10. Costs to implement these activities may not represent actual costs or commitments. This plan will be reviewed as necessary to revise goals, objectives, actions or priorities.

WATER QUALITY ASSESSMENT SCHEDULE 2012 – 2016

2.0 % TOTAL PROGRAM HOURS 289	ACTIVITY	OBJECTIVE	DATES	PROJECTED COSTS*	
				COUNTY (1)	STATE (2)
DLC	Conduct quarterly sampling of 24 county watersheds	Obtain water quality data to establish county priorities and water quality baseline	2012-2016		
DLC	Maintain monitoring station and collect data as required from Dutch Creek monitoring station	Obtain water quality data to establish county priorities and water quality baseline	2012-2016		
DLC	Submit samples to health lab for analysis	Obtain water quality data to establish county priorities and water quality baseline	2012-2016		
DLC, DNR	Coordinate exchange data with DNR	Obtain water quality data to establish county priorities and water quality baseline	2012-2016		
DLC	Analyze data, prioritize surface water bodies for planning purposes.	Prioritize watersheds	2012-2016		
DLC	Report annually to the PR&D monitoring program data	Obtain water quality data to establish county priorities and water quality baseline	2012-2016		
Total				\$43,059	\$14,352

*Based on 2011 costs includes salary, fringe and administrative supplies to implement this section of the LWRMP

- (1) Based on 2011 staff costs only to implement this section of the LWRMP.
- (2) Based on 2011 SWRM staff and supply reimbursement

Chapter 4: AGRICULTURAL PERFORMANCE STANDARDS

STATE AGRICULTURAL PERFORMANCE STANDARDS, NR 151

In 1997 the legislature passed Wisconsin Act 27. This act was in response to growing public concern, a legislative audit over water pollution from animal waste runoff, and response to the inability of the state to administer an effective animal waste management program. Act 27 was to provide the framework for the regulation of animal waste from livestock operations. Act 27 identified four "prohibited activities" or agricultural performance standards to be applied within Water Quality Management Areas. Water Quality Management Areas, or WQMA's, are areas within 1000 feet of lakes, and 300 feet of streams, or areas of direct runoff to navigable or ground water. Administrative rules NR 151 further defined additional agricultural performance standards. Counties are "expected" to administer the new requirements in exchange for limited staff and cost-share grants. The new requirements apply state-wide and are detailed in ATCP 50.04, and NR151.02 to 151.08 Wis. Adm. Code. The agricultural performance standards are:

1. Sheet Rill and Wind Erosion, NR 151.02 and ATCP 50.04 (2). All land where crops or feed are grown shall be cropped to achieve a soil erosion rate less than or equal to the tolerable soil loss (T- value) established for that soil. Cropping plans to achieve T-Value are to be compliant with the initial or amended soil loss formula and calculations in effect at the time a plan is approved by the Land Conservation Department.
2. Tillage Setback, NR 151.03. Tillage operations shall not negatively impact stream banks or directly deposit soil directly to surface waters. Adequate sod buffers of 5 to 20 feet will be required to meet this standard.
3. Phosphorus Index, NR 151.04. Croplands, pastures, and winter grazing areas shall average a phosphorus index of 6 or less over the accounting period and may not exceed a phosphorus index of 12 in any individual year within the accounting period.
4. Manure Storage Facilities, NR 151.05. New or substantially altered facilities shall be designed, constructed and maintained consistent with NR 151.05, Wis. Adm. Code. The closure of facilities and failing and leaking existing facilities shall comply with NR 151.05, Wis. Adm. Code.
5. Process Wastewater Handling, NR 151.055. There shall be no significant discharge of process wastewater to waters of the state.
6. Clean Water Diversions, NR 151.06. Runoff shall be diverted away from feedlot, manure storage areas and barnyards within water quality management areas consistent with NR 151.06, Wis. Adm. Code, except that a diversion to protect a private well under s. NR 151.015 (18)(a) is required only when the feedlot, manure storage area or barnyard area is located upslope from the private well.
7. Nutrient Management, NR 151.07 and ATCP 50.04 (3). Manure, commercial fertilizer, and other nutrients shall be applied consistent with NR 151.07 and ATCP 50.04(3), Wis. Adm. Code. Each participant shall have an annual nutrient management plan as scheduled consistent with NR 151.07 (4) through (6).
8. Manure Management Prohibitions, NR 151.08. Participants shall comply with the manure management prohibitions consistent with NR 151.08, Wis. Adm. Code, including:
 - a) No overflow of manure storage facilities
 - b) No unconfined manure pile in a water quality management area
 - c) No direct runoff from a feedlot or stored manure into waters of the state
 - d) No unlimited livestock access to waters of the state where high concentrations of animals prevent the maintenance of adequate sod or self-sustaining vegetative cover.

ATCP 51

Beginning November 1, 2006, applications, processes for approval, and regulated activities required for the approval of conditional use permits for livestock facilities of 200 or greater shall be subject to administrative rule ATCP 51.

COUNTY ACTIVITIES SUBJECT TO REGULATION, CHAPTER 23

Chapter 23, La Crosse County Code of ordinances, the Animal Waste Management Ordinance, was originally developed to implement the core recommendations of the Animal Waste Advisory Committee (AWAC). It was adopted by the County Board in December 1998. AWAC was created in 1994 as a response to Legislative Audit Bureau reports that Wisconsin's animal waste programs were largely ineffective. The committee included a cross-section of agricultural and environmental advocates. AWAC's primary directive was to:

Develop a program to ensure that waters affected by animal waste meet water quality standards, and can be implemented with a minimum of cost and red tape allowing for profitable farm operations.

The Animal Waste Advisory Committee reached consensus on several principles and published their findings in a report titled "Protecting and Improving Water Quality through Better Manure Management".

La Crosse County's Land and Water Resource Management plan and Animal Waste Management Ordinance are based on these principles. Key components of the AWAC recommendations include identifying prohibited activities or behaviors, and identifying Water Quality Management Areas. The AWAC recommendations mirrored the needs of La Crosse County by focusing on those activities that are the primary sources of poor water quality. Due to an acknowledged lack of technical and financial resources the focus of the new requirements was narrowed to specific prohibited activities. Chapter 23, the La Crosse County Animal Waste Management Ordinance was designed to mirror these prohibited activities.

Chapter 23 was to provide a local framework for enacting the state agricultural performance standards. The performance standards of the La Crosse County Animal Waste Management Ordinance are:

- That a livestock operation has no overflow of manure from manure storage structures.

Although the number of livestock operations has decreased in the County, the total number of livestock has increased, creating a greater need for the storage of animal waste. Improper handling of manure can be a significant source of nitrate groundwater contamination and a serious human health hazard. The Animal Waste Management Ordinance regulates the location, design, and construction of new manure storage facilities, and the alterations or abandonment of existing manure storage facilities.

- That a livestock operation have no unconfined manure stack in a water quality management area, or in areas of concentrated flow where the drainage area is one acre or greater, unless a stack location, dimension and runoff plan has been approved and is on file with the DLC.
- That a feedlot operating within a water quality management area has no direct runoff. Direct runoff means surface water flow from a feedlot that exceeds a phosphorus threshold in lbs. per year as determined by accepted models.

Due to topography, many feedlots in the county are typically located on or near intermittent or perennial streams. Because of their location to water, a relatively small number of animals or feedlots can significantly contribute to water quality problems. Department "Signs of Success" monitoring data confirms the effect of these feedlots on county streams. A typical feedlot of 60 dairy cows draining directly to surface waters may deliver between 50 to 150lbs of phosphorus to surface waters annually. A single cow will generate as much organic pollution as 18 people. Fecal coliform counts generally increase dramatically from upstream to downstream where no management practices exist and where feedlots are adjacent to surface waters or are within stream corridors or water quality management areas.

- That mismanaged pastures are prohibited within water quality management areas.

Mismanaged pastures are those where confinement of livestock for the purpose of feeding, browsing or loafing prevents the adequate maintenance of sod cover, causing bank erosion. Water quality management areas are defined as areas within 1,000' of the ordinary high water mark of navigable waters that consist of a lake, pond or flowage; areas within 300' of the ordinary high water mark of the

navigable waters of a river or stream; areas with potential to be direct conduits for groundwater contamination; or areas of direct runoff from animal waste to surface water.

The amount of heavily pastured stream corridors in the county has decreased as confinement feeding of livestock increases. Urbanization of rural areas has caused a substantial increase in new small "hobby farm" feedlots located in the stream corridors. These operations generally start small but increase in time beyond benchmark points where permits are required and water quality standards must be met.

Chapter 23 became effective January 1999. ATPC 50 and NR 151 were adopted in 2002 codifying additional standards and procedures. The state administrative rules requirement for cost-sharing, lost opportunity payments and other provisions impeding an accelerated NPS program pre-empted much of the usefulness of La Crosse County's Animal Waste Management Ordinance. However Chapter 23 will still be used as the primary compliance mechanism for ensuring that the state agricultural performance standards in s. 281.16 (3) (a), and county animal waste pollution prevention priorities are met. In addition, the ordinance also requires that all new construction of manure storage facilities and feedlots meet state construction standards. The county will amend its pre-existing ordinance within the next five years to meet the needs of the county and to parallel ATPC 50 and NR 151 where necessary.

PERMITS

Excepting applications under ATPC 51, permits required under Chapter 23 are necessary prior to construction for new impoundments and new feedlots. It is the responsibility of the owner of such sites to ensure compliance with the La Crosse County Animal Waste Management Ordinance prior to construction. New impoundments and feedlots are any impoundment or feedlot constructed after the effective date of the La Crosse County Animal Waste Management Ordinance dated January 2, 1999.

Prior to issuance of a permit, landowners who installed new impoundments or feedlots after January 1, 1999, shall provide the Department with information necessary to determine that sufficient land under their control is available to apply manure per recommendations. Pre-existing feedlots are exempt from enforcement or permits until a site evaluation is conducted, cost-share offered and conformance achieved.

For pre-existing feedlots, notices of noncompliance and notice extensions shall specify timeframes for compliance. Due to the requirement for cost-sharing, pre-existing feedlots may continue to operate under a notice of non-compliance. Notices of noncompliance for pre-existing feedlots will allow the landowner or county to implement the ordinance based on available technical and financial assistance. Under state rules pre-existing feedlots are not subject to enforcement until a notice of non-compliance is issued, financial aid rejected, and compliance timetables expire.

For impoundments, permits are granted upon approval of as-built construction plans. For new feedlots, permits are granted after a site evaluation by the DLC has determined that the facility plan (as-built) is in conformance with the La Crosse County Animal Waste Management Ordinance. Permit procedures are indicated below.

ENFORCEMENT

Chapter 23 La Crosse County may take enforcement and appeals action through Chapter 23 against nonconforming pre-existing regulated activities. Enforcement actions where needed will include the required procedures in NR 151.

The Department may pursue action through 23.11(3)(d) of the La Crosse County Animal Waste Management Ordinance on any site where the severity of a violation is such that conditions threaten public health, safety or welfare, or the potential for severe offsite damage warrants immediate attention. This section is intended to expedite the clean up of animal waste spills, breaches or failure of an impoundment, or the removal or location of unconfined manure stacks within Water Quality Management Areas.

With the exception of severe violations (Chapter 23.11(3) (d)); permit violations for new impoundments and feedlots; and unconfined stacks (Chapter 23.06 (1) (a)), enforcement actions shall occur as indicated in ch. 23.11 and 23.12 and where applicable, after cost-sharing has been offered and rejected or compliance periods not met.

ATCP 51 / Conditional Use Permits Enforcement actions taken as a result of violations of a conditional use permit for facilities permitted under ATCP 51 requirements will be subject to the enforcement procedures in La Crosse County Zoning Ordinance ch. 17.82 and 17.83

TECHNICAL REQUIREMENTS

Technical specifications ensure that practices applied to the landscape are installed to meet uniform requirements as specified in state administrative code or adopted by the county. Technical specifications are prescriptive measures detailing requirements needed to plan, design, install, and maintain various Best Management Practices. Performance standards are measurable goals to be achieved. Those goals may be achieved by a landowner using any necessary means.

All agricultural facilities are required to meet agricultural performance standards. Landowners may achieve performance standards by complying through the Department; through the Department's agricultural performance standards certification program; through the prioritization timetable as described in Chapter 5, or independent of DLC oversight. It is the landowner's responsibility to ensure that measures applied to their site meet performance standards if those measures are applied independent of DLC oversight.

Department of Land Conservation technical specifications for Best Management Practices are those adopted by the county Planning Resource and Development Committee and the Natural Resources Conservation Service and on file with the Department. All technical standards and specifications shall apply to lands owned and operated by the County.

Best Management Practices This Land and Water plan must describe the conservation practices and cost-share policies and rates needed to address key water quality and erosion issues. Any practice listed in ATCP 50 Subchapter VIII may be used by La Crosse County in the implementation of this plan. See subchapter VIII for full description. Those practices primarily used by the county to address key water quality and erosion issues are:

ATCP 50.62 "Manure storage systems" means a manure storage facility and related practices needed for the environmentally safe storage of manure at that facility.

ATCP 50.63 "Manure storage system closure" means permanently disabling and sealing a leaking or improperly sited manure storage system.

ATCP 50.64 "Barnyard runoff control system" means a system of facilities or practices used to contain, divert, retard, treat or otherwise control the discharge of runoff from outdoor areas of concentrated livestock activity.

ATCP 50.65 "Access road and cattle crossing" means a road or pathway which confines or directs the movement of livestock or farm equipment, and which is designed and installed to control surface water runoff, to protect an installed practice, to control livestock access to a stream or waterway, to stabilize a stream crossing, or to prevent erosion.

ATCP 50.66 "Animal trails and walkways" means a travel lane to facilitate movement of livestock.

ATCP 50.67 "Contour farming" means plowing, preparing, planting and cultivating sloping land on the contour and along established grades of terraces or diversions.

ATCP 50.69 "Critical area stabilization" means planting suitable vegetation on erodible areas such as steep slopes, gullies and roadsides to reduce soil erosion or pollution from agricultural non-point sources.

ATCP 50.70 "Diversion" means a structure installed to divert excess surface runoff water to an area where it can be used, transported or discharged without causing excessive soil erosion.

ATCP 50.73 "Grade stabilization structures" means a structure which stabilizes the grade in a channel in order to protect the channel from erosion, or to prevent gullies from forming or advancing.

ATCP 50.74 “Heavy use area protection” means installation of surface material to control runoff and erosion in areas subject to concentrated or frequent livestock activity.

ATCP 50.75 “Livestock fencing” means either of the following: Excluding livestock, by fencing or other means, in order to protect an erodible area or a practice under this subchapter, or restricting by fencing or other means human access to manure storage structures or other practices under this subchapter which may pose a hazard to humans.

ATCP 50.76 “Livestock watering facilities” means a trough, tank, pipe, conduit, spring development, pump, well or other device or combination of devices installed to deliver drinking water to livestock.

ATCP 50.77 “Milking center waste” means waste water, cleaning ingredients, waste milk or other discharge from a milking parlor or milk house. “Milking center waste control system” means a system of facilities or equipment designed to contain or control the discharge of milking center waste.

ATCP 50.78 “Nutrient management” means controlling the amount, source, form, location and timing of plant nutrient applications, including application of organic wastes, commercial fertilizers, soil reserves and legumes in order to provide plant nutrients while minimizing the movement of nutrients to surface and groundwater.

ATCP 50.81 “Relocation or abandoning animal feeding operations”. “Abandoning” means discontinuing animal feeding operation in order to prevent surface water or groundwater pollution from that animal feeding operation.

ATCP 50.84 “Roofs” means a weather-proof covering that shields an animal lot or manure storage structure from precipitation, and includes the structure supporting that weather-proof covering

ATCP 50.85 “Roof runoff systems” means facilities for collecting, controlling, diverting, and disposing of precipitation from roofs.

ATCP 50.86 “Sediment basins” means permanent basins that reduce the transport of waterborne pollutants such as eroded soil sediment, debris and manure sediment.

ATCP 50.87 “Sinkhole treatment” means modifying a sinkhole, or the area around a sinkhole, to reduce erosion, prevent expansion of the hole, and reduce pollution of water resources.

ATCP 50.88 “Streambank and shoreline protection” means using vegetation or structures to stabilize and protect the banks of streams, lakes, estuaries or excavated channels against scour and erosion, or to protect fish habitat and water quality from degradation due to livestock access.

ATCP 50.92 “Underground outlets” means a conduit installed below the surface of the ground to collect surface water and convey it to a suitable outlet.

ATCP 50.93 “Waste transfer systems” means components such as pumps, pipes, conduits, valves and other structures installed to convey manure and milking center wastes from buildings and animal feeding operations to a storage structure, loading area or treatment area.

ATCP 50.94 “Wastewater treatment strips” means an area of herbaceous vegetation that is used as part of an agricultural waste management system to remove pollutants from animal lot runoff or wastewater, such as runoff or wastewater from a milking center.

ATCP 50.95 “Water and sediment control basins” means an earthen embankment or a ridge and channel combination which is installed across a slope or minor watercourse to trap or detain runoff and sediment.

ATCP 50.96 “Waterway systems” means a natural or constructed waterway or outlet that is shaped, graded and covered with vegetation or another suitable surface material to prevent erosion by runoff waters.

Manure Storage Regardless of funding sources, all manure storage facilities shall be designed and installed according to technical specifications as adopted by the County. The design and installation of any manure storage facility within the County shall be certified by an agricultural or civil engineer, or Department of Agriculture Trade and Consumer Protection, or Natural Resource Conservation Service Engineering Practitioner as meeting current standards and specifications prior to the facility becoming operable.

Cropland Soil Erosion For landowners, the ability to estimate or quantify the extent of erosion occurring on a crop field is the key to their understanding of the relationship between soil loss and loss of soil productivity. Soil loss models provide the guidance for a landowner to farm their soils according to tolerable soil loss levels to assure that productivity levels remain high.

It is the policy of the Planning Resource and Development Committee that all crop fields be planned to tolerable or "T" soil loss standards. RUSLE2 shall be used to calculate soil erosion for new croplands or where compliance determinations are to be made. Planning landowners to "T" by RUSLE2 is staff-time intensive. Landowners with existing conservation plans based on USLE are required to maintain planned rotations until such time that a plan update is requested or a plan is substantially revised

Plan Revisions Plan revisions to cropping rotations for the purpose of achieving "T" may be requested by a landowner or may be required by the county as part of a cost-share contract, violation of performance standards or as a required update to an existing plan. Plan revision timetables shall be established by the Department on a per plan basis and in the general order of county priorities.

The county Planning Resource and Development Committee has approved of using RUSLE2 to allow landowners to develop their own crop rotation plan, similar to the Department's Nutrient Management Planning process. By enabling landowners to develop their own plan, the hope is that plans will be better understood and more likely to be implemented; planned acres will increase and county administrative time will be reduced.

For Farmland Preservation Program participants, the technical standards in effect at the time a landowner applies for a zoning certificate shall remain in effect for that landowner until updates are provided by the Department subject to availability of technical and or financial assistance.

Feedlots Mathematical models use specific on-site parameters providing a uniform and relatively objective means of comparing pollution potential from feedlots. The Barnyard Model (BARNY) or its equivalent will be used to determine pollutant loads from feedlots. A statistical variation or tolerance of + 20% will be allowed when calculating phosphorus from feedlots. The Department will not require retrofitting of permitted feedlots based on updated models. For the most part phosphorus limits can be met through the application of basic feedlot Best Management Practices, water diversions, buffers, filter areas or on lot settling basins.

Chapter 5: AGRICULTURAL PERFORMANCE STANDARDS IMPLEMENTATION

PRIORITIZING FOR COMPLIANCE

The Department's prioritization of sites for implementation of the agricultural performance standards is indicated in figure 5-1. The Activity column ranks technical service priorities, generally highest to lowest.

Agricultural facilities that are expanding or new, and sites previously determined to be in compliance but have become non-compliant, are the highest priority. In these cases technical assistance shall be limited to certifying compliance with performance standards.

For all other sites technical and administrative assistance will be based generally on the priorities as indicated in figure 5-1 and other factors as indicated below:

- Conditional Use Permit Requirements are those permit applications that require Department review as a result of a Zoning Planning and Land Information Department, or Planning Resource and Development Committee Request.
- Farmland Preservation Program Revisions are those requested by landowners outside of the prioritization scheme based on returned self-certification forms.
- Complaints are to be acted upon as soon as technical assistance is available.
- Targeted Priority Watersheds will be based on the Department's ranking of its watersheds from county-wide base flow data obtained by the Department. The watershed ranking applies to long-term planning for performance standard implementation.
- Cost-sharing will generally be distributed based on the ranking priorities, beginning with FPP revisions, as indicated in the Implementation Work Plan. Due to the county's "priority farm" requirements, Annual Certifications of landowner compliance with standards would not necessarily receive priority over landowners participating in the Farmland Preservation Program.

Figure 5-1

AGRICULTURAL PERFORMANCE STANDARDS IMPLEMENTATION WORK PLAN

ACTIVITY	FPP PARTICIPANTS COMPLIANCE REQUIREMENTS	ALL LANDOWNERS COMPLIANCE REQUIREMENTS
New or Expanding Agricultural Facilities New Non-Compliant Activities	ATCP50, NR151 and Chapter 23 prior to expansion or creation of new facility or to rectify non-compliant site	ATCP50, NR151 and Chapter 23 prior to expansion or creation of new facility or to rectify non-compliant site
Conditional Use Permit Requirements	ATCP 51, ATCP 50, NR151 and Chapter 23	Chapter 23
FPP Revisions (Priority Farms)	ATCP50, NR151 and Chapter 23	Chapter 23
Complaint	ATCP50, NR151 and Chapter 23	Chapter 23
Targeted Priority Watersheds	ATCP50, NR151 and Chapter 23	Chapter 23
Cost-Sharing Provided (General)	ATCP50, NR151 and Chapter 23	Chapter 23
Annual Certifications Per Compliance with Standards	ATCP50, NR151 and Chapter 23	N/A
"Severe" Non-Compliant Sites	ATCP50, NR151 and Chapter 23	Chapter 23

Priority Farms and Targeted Watersheds are considered the Department's long term priorities and will consume the greatest amount of staff resources. These activities are described below in more detail.

PRIORITY FARMS, FARMLAND PRESERVATION PROGRAM

Priority farms are those farms where landowners receive annual tax credits through the Farmland Preservation Program. Participants in La Crosse County must take out annual zoning certificates. All of the approximate 261 FPP participants should be in compliance with previous FPP program standards. Participants receive an average property tax credit of \$891.

Each FPP participant is required to meet the new Soil Conservation Standards approved by the Wisconsin Land and Water Conservation Board in June 2005. Due to the large number of participants the Department is using a self-certification process to determine priorities for site investigations. Site investigations will begin the planning process for getting all participants into compliance. New participants will receive highest priority for certification with the performance standards based on an accepted timetable. Given sufficient resources the Department will attempt to make determinations of compliance on all FPP participants by 2011.

For “priority farms” Department staff will contact landowners based on the following information provided from returned self-certification forms:

- Location within a targeted, or next highest ranked watershed; see Figure 3-3
- Non-Compliant sites
- Highest to lowest animal units relative to surface waters
- Non-compliant feedlots within Water Quality Management Areas

Once contacted and a site visit completed, participants shall develop and be compliant with a farm conservation plan as approved by the Department. In cases where non-compliant sites are determined, a Notice of Non-Compliance shall be sent via certified mail to the landowner. The Department may allow individual participants up to five years to achieve the standards from the year the plan is approved by the Department. A farm conservation plan shall be the participant’s record of activities, schedule of compliance, data and decisions made in applying measures or BMP’s to achieve or remain in compliance with standards.

Once notified of the requirement to meet or maintain standards the participant may continue to apply for tax credits and shall be considered meeting the standards if they implement the plan to achieve full compliance within the allotted schedule.

Participants compliance with the farm conservation plan schedule will be contingent upon the Department’s “Implementation Work Plan” and other considerations including a participant’s number and severity of non-complying sites, previous compliance history, willingness to comply, or nature of corrective actions to be taken and availability of cost-sharing. Sufficient annual progress with the plan shall be made to ensure that all standards are met according to the schedule of compliance and farm conservation plan.

By a specified date, and on documents provided by the Department, participants shall certify their progress towards compliance with the county standards. Certification may include the reporting of crops or compliance with the conservation plan schedule of compliance or other means.

The La Crosse County PR&D shall issue a notice of non-compliance as provided under s. 92.105(5), Wis. Stats. if it has been determined that farming operations on participant’s lands do not comply with soil and water conservation standards, LWRMP implementation policies and procedures or a farm conservation plan.

Dropping out of the program does not exempt a participant from complying with any agricultural performance standards under other mechanisms available that are consistent with NR 151, or ATCP 50.04 Wis. Adm. Code or Chapter 23.

In cases where landowners refute staff determinations of non-compliance, hearing procedures as specified in the county LWCB approved standards shall be used. La Crosse County Farmland Preservation Program Soil and Water Conservation Standards are included in the Appendix.

TARGETED WATERSHEDS

Targeted watersheds are those designated by the La Crosse County PR&D to receive highest priority for administrative or technical assistance or for special program funding. The Department will select priority watersheds for implementation of agricultural performance standards from those watersheds evaluated and ranked within this and DNR basin plans. The timing, selection, and implementation of the performance standards within each successive targeted watershed will continue throughout the county on a systematic basis as funds and technical assistance are provided and all sites meet performance standards.

Landowners in targeted watersheds will be contacted regarding the requirements to comply with NR 151 and Chapter 23. Contacts will be by mail, site visit, or informational meetings. Self-certification forms will be mailed to landowners within the targeted watersheds. Independent of contact by the Department, landowners are encouraged to request a site evaluation from the Department to determine compliance with standards. The landowner or their representative shall participate with Department staff during a site evaluation.

A site evaluation will result in an issuance of a notice of noncompliance or a determination that the site complies with standards. If a notice of noncompliance is issued, landowners may request technical and or financial assistance, self-comply per a schedule approved by the Department, appeal the determination, or take no action. Where no action is taken, the Department will begin enforcement procedures as authorized. Tracking of compliance will occur as described within this plan.

If a landowner chooses to self-comply after a notice of non-compliance, the schedule for compliance shall be no longer than the implementation period for the targeted watershed. Landowners who self-comply would be offered the technical assistance necessary to ensure that performance standards are met.

If a landowner has taken no action within the timeframe specified (151.095 (6) (b)) within the notice of noncompliance and notification of the availability of cost-share, or when a grant may expire, the Department will pursue enforcement action under chapter 23 and appropriate procedures under NR 151.

FINANCIAL AND TECHNICAL ASSISTANCE POLICIES

Where applicable, assistance will be available to landowners to meet Chapter 23 and NR 151 agricultural performance standards. No financial assistance will be provided under ATCP 51 applications. Applications for cost-sharing are accepted by the Department at any time. Funding eligibility is based on Department evaluation, Implementation Work Plan priorities, and availability of funds. Where necessary the Department may piggyback county Environmental funds with other funding sources. Environmental Funds shall only be for BMP's needed to meet performance standards.

Assistance for sites outside priority areas may only be for BMP's necessary to bring landowners into compliance with NR 151 standards. Landowners receiving any cost-sharing through the Department must develop a schedule for compliance of all applicable non-compliant sites under their ownership as a condition of that cost-sharing.

Landowners may self-comply with the agricultural performance standards without public financial or technical assistance. However landowners installing BMP's without technical or financial assistance are advised to request a site evaluation to ensure that the work performed is needed, and that the installed work meets engineering and performance standards.

Priorities for cost sharing are as follows:

- "Priority Farms"
- Voluntary applications to comply with NR 151 and Chapter 23
- Pre-existing non-compliant sites within targeted areas
- Pre-existing non-compliant sites outside of targeted areas, such as a TRM project
- Other sites where the installation of BMP's is necessary

Allocation of cost-sharing for BMP's to comply with state agricultural performance standards and Chapter 23 will be based on the Implementation Workplan priorities and the following conditions:

- Nutrient Management plans be developed where livestock or croplands are present
- BMP's are necessary to meet standards
- BMP's are located within a WQMA
- Phosphorus reduction potential is greater than other applications
- The practice versus its benefit is greater than other applications
- The severity of the site is greater than compared to other applications
- A contract / schedule of compliance is made indicating that all standards will be met
- BMP's are installed to Department specifications
- BMP costs are the lowest to bring the site into compliance
- Sufficient acres exist to pasture livestock
- Costs to comply with standards for expansions of a pre-existing feedlots shall be limited to costs based on pre-existing animal units

No county or other cost-sharing will be granted for the following:

- BMP's required through litigation, failure to comply voluntarily, or criminal or gross negligent discharges of pollutants
- Impoundment spills or breaches
- Bringing abandoned impoundments into compliance
- New regulated activities
- Relocation of manure stacks
- Maintenance of practices

Policies and cost-share rates for distributing financial assistance shall be established annually by the county Planning Resource and development Committee. Current policy allows the piggybacking of county Environmental Funds with other sources to exceed state minimums. This policy is to provide additional incentive for landowners to voluntarily install BMP's to comply with performance standards.

COST SHARE SOURCES

County Environmental Fund In 1998, La Crosse County established an Environmental Fund in the Department of Land Conservation budget. The fund is approved annually by the County Board. The Environmental Fund is to provide a stable funding source for cost sharing to assist landowner implementation of NR 151 and Chapter 23 standards.

Due to an increase in state mandates and fixed tax levy limits the Department's Environmental Fund balances have decreased from \$80,000 in 1999 to \$50,000.00 in 2011. Funds are used for installation of Best Management Practices for improving or maintaining surface water quality and soil resources with the priority on practices necessary to bring landowners into compliance with agricultural performance standards. The funds may be used to supplement other state, federal or private cost-share sources or to fully or partially fund any project approved by the Department or PR&D. Cost-share rates and policies for disbursing these funds are re-established annually by the PR&D.

Soil & Water Resource Management Program, DATCP The Department of Agriculture Trade and Consumer Protection provides grants to counties with approved Land and Water Resource Management Plans. The degree to which NR 151 and ATCP 50 is implemented is contingent upon the annual allocation of staff and cost-share appropriations to the county from the Department of Agriculture Trade and Consumer Protection and the number of impediments to an "accelerated" NPS program counties must overcome. Procedures for the disbursement of SWRM funds shall be in accordance with ATCP 50.

Targeted Runoff Management Grants, DNR The Targeted Runoff Management Program is the primary DNR program for implementation of the NPS rules. The TRM program provides for the selection of projects to accomplish the states non-point source program objectives. Impaired (303d list) and exceptional resource waters receive DNR's highest priority for funding. Funding is limited to \$150,000.00 per project for two years. All applicants compete for funding which changes annually. The competitive process and unreliable funding amounts

make it difficult for La Crosse County to address problems in a timely manner. TRM program funding will be the county's primary non-county funding source to implement projects based on county water quality data and DNR basin plan priorities.

Environmental Quality Incentive Program (EQIP) and Other Federal Funds Landowners that receive cost sharing for practices through EQIP, or other federal funding to meet performance standards are responsible for ensuring that the practices installed make the site compliant with county and state performance standards.

The Department and NRCS cooperate in establishing NRCS and County priorities through participation in the Local Work Group. NRCS and the county coordinate available county, state, and federal resources to install BMP's. Annually the county and NRCS have coordinated the piggybacking of EQIP or county Environmental Funds with other project funds administered by either the NRCS or the county. The county has funded a substantial portion of special stream projects initiated by NRCS. NRCS has piggybacked EQIP funds in TRM grant projects where funding was limited. NRCS and county staff also cooperate to provide each other technical assistance where needed. The county and NRCS will continue to cooperate through the Local Work Group or outside of memorandums of understanding as a matter of professional interaction and courtesy.

INFORMATION AND EDUCATION PROGRAM

From discussions generated by the LWRMP Agricultural Advisory Committee it is clear that the statewide educational component of the Non-Point Source program is largely non-existent. The base concept of the revised NPS program, as clearly identified by the state's Animal Waste Advisory Committee, was that landowners must have a clear understanding of what is expected of them. Landowners should be able to answer the questions: What do I need to do; when do I need to do it; how do I do it, and why should I care?

It was clear from committee discussions that landowners for the most part can not answer these questions. A strategy was developed that will generally involve more Department staff time for information education activities. The strategy will also target more farm groups, increasing "passive" education at meetings where farmers gather, insure that the message farmers receive is as uniform as possible, and insure that information is tailored to be La Crosse County specific.

It was also clear from committee discussions that the Department's NPM planning workshops should be expanded if possible. Several challenges to the expansion of the workshops were discussed including the timing and lack of people to take soil samples, completion of conservation maps, soil spreading plans, manure sampling, spreader calibrations and slope measurements. Given limited resources there was no resolution to these challenges. The results of the LWRMP agricultural committees work is indicated below.

Figure 5-3 Information & Education Strategy for Voluntary Compliance

Priority Activities	Objectives	Material	Frequency					Who	
			12	13	14	15	16		
MEETINGS			12	13	14	15	16		
1)	Pork Producers Twilight	Perf. Stds. Handouts	Handouts	1	1	1	1	1	UW Extension
2)	Holstein Breeders Twilight	Perf. Stds. Handouts	Handouts	1	1	1	1	1	UW Extension
3)	Towns Association	Permits / Performance Standards	Handouts	1		1			DLC
4)	Farm Bureau	Water Quality Info (monthly & annual meetings)	Power Point / Display / Discussion of Perf. Stds	1	1	1			DLC
5)	Croplands	Performance Standards	Handouts	1	1	1	1	1	Co-op / DLC/ UW-EXT/ NRCS / Basin Educator
6)	WTC	Bring teachers up-to-date	Power Point / Materials		1		1		DLC
NOTIFICATIONS									
1)	Town Boards	Update on Permits & Perf. Stds.	Handouts / Mail	1	1	1	1	1	DLC
2)	Ag Building Contractors	Permit Regulations	Handouts / Mail	1	1	1	1	1	DLC
3)	FSA Newsletter	Performance Standards	Articles	1	1	1	1	1	NRCS / FSA / DLC
4)	Farm Bureau	Perf. Stds / Newsletters	Articles / Handouts	1	1	1	1	1	DLC (1 per Year)
5)	Post brochures at Ag Service Center, Co-op, etc.	Performance Standards / Permits	Handouts	1	1	1	1	1	DLC

NUTRIENT MANAGEMENT

Phosphorus from manure is a primary contributor to eutrophication of the La Crosse County's surface waters. When managed properly, animal waste is a valuable resource. When mismanaged, a pollutant. Manure entering streams can transmit pathogens, destroy fish habitat and recreational opportunities. In La Crosse County, over application of manure to fields adjacent to streams is generally a result of winter spreading convenience as animal lots are located next to streams in narrow valley bottoms with generally narrow small fields comprising the stream corridor.

Soil tests from critical fields adjacent to streams and near feeding areas and buildings where livestock concentrate, often result in phosphorus levels at or above 150 ppm, or 500% higher than that which is required to grow most crops. Over time, nutrient management planning could significantly reduce phosphorus loads to surface waters, and potentially provide landowner savings by reducing expenditures on commercial fertilizers. Nutrient Management Plans are a cost-effective practice; therefore the Department has implemented nutrient management planning workshops to maximize NPM planning in the county.

Planning Workshops The proper placement, amount, and timing of manure applications to crop fields is the most cost effective and beneficial of water quality protection practices. The Department of Land Conservation in cooperation with U W Extension and NRCS, offer manure management workshops to assist landowners in the development of manure management plans. Any landowner may participate in these workshops.

The workshop format allows landowners to create and maintain ownership of their plan. Workshops involve the landowner in creating conservation maps that indicate crop field acreage and slope on a field-by-field basis; collecting of soil samples, filling out manure spreading maps; manure management worksheets; fertilizer summaries; calibrating manure spreaders and completing manure generation and crop rotation summaries. These records of landowner decisions are done in a format that can be maintained by the landowner and on charts that are readily accessible.

After receiving the soil sample results, the first of two group-planning sessions occur. During the first session (January – February) landowners create their manure spreading maps. During the second session (January – February) landowners fill out nutrient budget worksheets, manure spreading guides, and additional fertilizer and manure summaries. The Department retains copies of this information.

Landowners required to develop plans include those who receive public funds for best management practices, have applied for manure storage permits, or reside in an active priority area. Landowners may develop plans through the workshops, or private consultant.

Soil Sampling Soil sampling is critical to NPM planning. The small window of time for collecting soil samples and the limited staff and resources for doing so severely limits the number of NPM plans that can be developed annually. The Department will pay a consultant for the collection of initial soil samples and for the lab analysis. Soil sampling fees are paid from the county Environmental Fund for landowners who participate in the scheduled workshops. The Department will only pay for soil samples collected on rented lands when a lease of three years or more is signed between the operator and owner. The Department will not pay for soil sampling fees in cases where the landowner chooses to have a plan developed by an independent consultant. For soil sampling funded through the Department:

- Samples will be collected on rented acres where a manure barter is established.
- The person bartering manure must have a signed release form acknowledging that samples will be collected by an agent working on behalf of the Department.
- The person bartering the manure shall have full control of all nutrient applications for three cropping years, effective the day the soil samples are collected.
- Landowners who rent land and develop plans on that land as a requirement of Department programs are responsible for those plans to be followed.
- No soil samples will be collected for participants where samples have been taken within the past three years.
- Landowners that fail to attend the group planning sessions or complete plans will be billed by the County for county soil sample expenditures.
- No funding will be allocated for soil samples for new agricultural facilities constructed after October 2002 or facilities expanded after October 2002.

Plan Development Timetable Landowners who develop plans through workshops must commit to the January-February workshops no later than the end of the previous August so preparations can be made for collecting soil samples. Conservation maps of participating landowners will be updated to display slope and approximate acreage for each field (August – October). A consultant acting as an agent of the County, or county staff, will collect soil samples (November). Manure samples will be collected and manure spreaders will be calibrated (October – November) by Department or other qualified staff. While calibrating manure spreaders, crop rotation summaries and manure generation summaries will also be filled out. Field numbering on the crop rotation summaries will coincide with the field numbering on the updated conservation maps.

FPP SELF CERTIFICATION

In 2005-2006 the Department mailed out, and received back 100% (302) of self certifications forms mailed to FPP participants. Results were categorized and priorities set for on-site evaluations. Actual determinations of non-compliance are made only after a site visit and procedures for determining non-compliance are followed.

Landowners who do not return or do not complete portions of the form may be considered in non-compliance. A notice of non-participation or non-compliance may be issued by the PR&D. A notice blocks tax credits until compliance with all standards is met.

Self-certification assists the Department in tracking Farmland Preservation Program participants. The county is required to administer the conservation compliance requirements of the program but is prevented by Department of Revenue from accessing names of landowners who have claimed tax credits. Through the required return of the self-certification form by FPP participants the county is able to maintain a generally accurate list of program participants.

At minimum, the Department will schedule status reviews through this form or other means once every 4 years. A copy of the self-certification form is in the Appendix.

BASIN and LWRM PLAN COORDINATION

La Crosse County and DNR water quality priorities are based on shared water quality data. DNR has received phosphorus and total suspended solids data and bacteria and fecal Coliform bacteria data from the Department's county-wide water quality sampling program. Coordination with DNR also includes providing county data to DNR for a DNR winter / spring snowmelt investigation of pollutant movement during winter runoff events; and dissolved oxygen, temperature, bacteria, and phosphorus, for a TMDL study on Gills Creek.

In turn the DNR has loaned monitoring equipment to the county, coordinated with the county in conducting biotic index surveys on Dutch Creek in conjunction with the monitoring station data. The DNR has also conducted fish surveys on Gills and Adams Creek to coordinate the counties Targeted Runoff Management projects with basin plan programs.

The county and DNR also coordinate and communicate in cases where there are violations of the state performance standards under NR 151.

TRACKING AND MONITORING PERFORMANCE STANDARD IMPLEMENTATION

Policy for tracking and monitoring is as follows: Staff visiting any "agricultural facility" due to a request for cost-sharing, technical assistance or specific request from zoning or other unit of government and shall inventory the site to make determinations regarding compliance with county and state standards. If unable to make those determinations at an initial visit, arrangements for a follow-up will be made. All parcels under a landowner's ownership shall be reviewed for compliance and results documented. If non-complying sites are found, priority for corrective action or enforcement shall be prioritized as indicated in the "Implementation Work Plan"

After a site visit, an evaluation report to include all state and county standards should be mailed to the landowner. The report will notify the landowner of non-compliant sites and available options. For standards not met, a determination will be made regarding the availability of cost-sharing.

If cost-sharing is available, the report will identify for which of the non-complying sites cost sharing will be offered. If cost sharing is limited, staff shall determine the highest priority for offer of cost share. As an example, if a non-complying feedlot is low priority the landowner will be notified of insufficient cost-share to correct the pollutant source therefore further action would be suspended until cost-share is available.

Tracking of compliance will primarily be through the Geographic Information System (GIS). The County's Land Records Office made use of GIS software accessible to staff for farm planning and recording landowner decisions. Most all office farm data is recorded and tracked through this system. The Department is currently using GIS to accommodate tracking of specific compliance data generated from FPP participant self-certifications or other individual landowner compliance with standards.

FPP TRACKING and MONITORING

At a minimum once every 4 years, the Department shall determine a participant's compliance with the La Crosse County Soil and Water Conservation Standards for the Farmland Preservation Program. These determinations may be made through a combination of field inspections, crop reporting, annual certifications, or examination of aerial photos or slides, or refusal to supply information. Data will be tracked through the Department's GIS.

INTERGOVERNMENTAL COOPERATION

Towns The Department has entered into mutual agreements with 10 of 12 townships allowing the Department to administer the one and two family dwelling erosion control requirements of the Uniform Dwelling Code. Towns have signed memorandums of understanding with the Department waiving erosion control permit fees while requiring that town construction follow the requirements of the County Construction Site Erosion Control Ordinance.

County A cooperative working arrangement exists between the Land Conservation Department, Zoning, Planning and Land Information Department, Health Department, and the U.W. Extension office. As an example, CREP, an FSA program, is administered through the U.W. Extension office.

The goals of the LWRM Plan may be met through cooperation of these Departments. Interdepartmental roles and responsibilities may be assigned and agreed upon when necessary within the goals and objectives of this plan and as resources allow. During the process of filing the Notice of Intent for a WPDES general permit as an MS4, the Department worked with and will continue to work with the Highway and Parks and Facilities Departments to implement the requirements of the County's Pollution Prevention and Storm Water Quality Management components of the permit. County Board approval of this Land and Water Resource Management Plan shall constitute a directive for interdepartmental cooperation.

Federal When providing technical assistance to La Crosse County landowners, the county encourages the Natural Resources Conservation Service to insure that clients are made aware of state agricultural performance standards and Chapter 23 requirements. NRCS is encouraged to provide their clients the technical assistance to assist them in meeting those standards. Department staff are encouraged to make landowners aware of federal programs available to La Crosse County landowners including the Conservation Reserve Program (CRP), the Conservation Reserve Enhancement Program (CREP), the Environmental Quality Incentives Program (EQIP), the Wetland Reserve Program (WRP), and the Stewardship Incentive Program (SIP).

The Department participates with NRCS in setting priorities as a member of a local work group. Participation in the local work group fosters dialogue between the NRCS and the Department regarding prioritization and installation of BMP's. NRCS staff is committed to assisting the Department with its Manure Management Planning workshops. Department and local NRCS staff work cooperatively on projects providing technical assistance and when possible piggyback county or federal cost-sharing on county or federal projects regardless of program origin.

AGRICULTURAL PERFORMANCE STANDARDS IMPLEMENTATION SCHEDULE- OBJECTIVES, ACTIONS, DATES, COSTS

A schedule of activities, objectives and costs for the Agricultural Performance Standards Implementation Schedule for 2012-22 follows. The proposed activities are based on the counties program of work indicated in this chapter. County staff costs and associated state staff reimbursements for activities between 2012 and 2016 are based on actual 2010 county costs and approved 2010 DATCP staff disbursements extrapolated over five years. This plan is only to provide a framework for planned Department activities to be consistent with ss. 92.10. Costs to implement these activities may not represent actual costs or commitments. This plan will be reviewed as necessary to revise goals, objectives, actions or priorities.

AGRICULTURAL PERFORMANCE STANDARD IMPLEMENTATION SCHEDULE

40 % TOTAL PROGRAM HOURS 5,772	ACTIVITY <u>High Priority Activities are in Bold Print</u>	OBJECTIVE	DATES	5 YR PROJECTED COSTS	
				COUNTY (1)	STATE (2)
DLC	Conduct determinations of compliance with Ag. Performance Standards for an estimated 261 FPP participants by 2015. See “FPP Tracking”	Make determinations on an estimated 50 participants per year.	2012-2015		
DLC	Maintain FPP participants land use decisions in GIS for monitoring purposes	Improve water quality, implement performance standards	2012-2016		
DLC	Develop schedules of compliance for FPP participants not meeting ag performance standards	Improve water quality, implement performance standards	2012-2014		
DLC	Amend Chapter 23 Animal Waste Management Ordinance	Improve water quality, implement performance standards	2013		
DLC	Work towards full compliance of agricultural performance standards based on the general priorities as indicated within the LWRMP work plan	Improve water quality, implement performance standards	2012-2016		
DLC	Conduct annual spot checks of 65 FPP participants to ensure compliance with conservation standards	Improve water quality, implement performance standards	2012-2016		
DLC	Implement information education activities as indicated in figure 5-3	Improve landowner awareness of NR 151, ATCP 50, ATCP 51 and Chapter 23 requirements	2012-2016		
DLC, NRCS	Participate in Local Work Group meetings	Coordination	2012-2016		
DLC	Update / Maintain Department Web-site. Include new materials developed for new I&E program	Increase landowner knowledge of performance standards	2012-2016		
DLC, NRCS, UWEXT	Enroll 75 landowners into NPM workshops where financial assistance is received, conduct annual NPM workshops	Improve water quality, implement performance standards	2012-2016		
DLC	Mail out self-certification forms to FPP participants, within targeted watersheds and others as necessary	Implement priority farms strategy	2012-2016		
Total Cost				\$861,157	\$287,053

(1) Based on 2011 staff costs only to implement this section of the LWRMP.

(2) Based on 2011 SWRM staff and supply reimbursement.

Chapter 6: Urban Performance Standards and Implementation

URBAN LAND USE ASSESSEMENT

Land use estimates from the Mississippi River Regional Planning Committee indicate that in the year 2010 greater than 1300 acres of agricultural or open space will be developed into residential, commercial or industrial use in La Crosse County. Of that projection 72% of that development will be residential – the balance almost equally split between commercial and industrial. When you consider the changes in the landscape in the seven year period between 1990 and 1997 there was less than 4000 acres converted out of agriculture. The current projections for 2010 are that 34+% of that total seven year acreage will occur in a single year. It is apparent that urbanization will have a huge impact on the environment in La Crosse County. The areas immediately adjacent to the already urban hub on the western border of the County will show the greatest change as was apparent between 1990 and 1997 when the towns surrounding Holmen, Onalaska, and La Crosse had close to 8% of their agricultural acreage converted to other uses.

As development occurs, surface waters and groundwater may be heavily impacted by the increase in impervious areas if improvements in treating storm water aren't addressed. All construction sites under the jurisdiction of the La Crosse County Land Disturbance and Erosion Control Ordinance shall apply the standards as indicated below. The Department will take the lead role to develop an urban program to address these requirements.

NR 151 NON-AGRICULTURAL PERFORMANCE STANDARDS FOR CONSTRUCTION SITE EROSION CONTROL AND STORM WATER MANANAGMENT

Subchapter III of NR 151 contains the performance standards for all construction sites. These standards apply to sites that disturb one or more acres of land. The main component of the standard is the requirement to (by design) reduce the sediment load off the site under construction by 80%. The DNR is currently accepting the implementation of approved construction site erosion control BMP's as meeting the 80% reduction.

The post-construction site or storm water management performance standards apply to construction sites that are subject to the erosion control standard. These standards address the following:

- TSS (total suspended solids)
- Peak Discharge
- Infiltration
- Protective Areas
- Fueling and Maintenance Areas
- Information and Education – applies to developed urban areas
- Non-Municipal Property Fertilizer

NR 216 STORM WATER DISCHARGE PERMITS

NR 216 was revised to conform to federal regulations. Subchapter I of NR 216 addresses municipal permits. The revisions to NR 216 incorporate the non-agricultural performance standards of NR 151. La Crosse County has been designated as the operator of a municipal separate storm sewer system (MS4). This means that the County is required to obtain a Wisconsin Pollutant Discharge Elimination System (WPDES) permit. There are six WPDES permit requirements for an MS4 to meet;

- Public education and outreach
- Public involvement and participation
- Illicit discharge detection and elimination
- Construction site pollutant control
- Post-construction site storm water management
- Pollution Prevention/Good housekeeping

NON-AGRICULTURAL PERFORMANCE STANDARDS IMPLEMENTATION

Construction Site Erosion Control The Department administers and enforces Chapter 21 of the County Code of Ordinances – Land Disturbance and Erosion Control Ordinance that was adopted in 1992. See Chapter 1 program of work for more detail. A main component of this ordinance is the restriction of development on slopes of 30% or steeper. There are limited types of land disturbance that can occur in these areas. Since the Department's access to the LiDAR system, an initial slope determination is performed utilizing GIS. Revisions to Chapter 21 effective in June of 2006 address the non-ag construction site performance standards contained in Subchapter III of NR 151.

Department of Commerce Jurisdiction The Department of Commerce has jurisdiction over construction site erosion control on all building sites. Chapter 21, the County ordinance, now only applies to commercial building sites (grandfather clause) and any site where land disturbances not associated with the construction of a one and two family dwellings are involved. Through agreements with 10 of 12 towns the Department approves erosion control plans and monitors one and two family building sites.

Post Construction – Storm Water Management The La Crosse County Board of Supervisors approved Chapter 29 – Post Construction Storm Water Management ordinance in November of 2008. The ordinance addresses several of the requirements of the County's WPDES permit including illicit discharge and elimination, post construction site storm water management and pollution prevention.

The ordinance is primarily aimed at controlling polluted runoff from the following site:

- Construction sites of 1 or more acres in size
- Sites that increase the amount of impervious area by greater than .5 acres – including agricultural development that creates new impervious surface areas exceeding .5 acres when those sites are located within a water quality management area
- Sites with potential for direct conduits for ground water contamination (generally sink holes that are present in some areas of the County)
- Areas of direct runoff from animal waste to surface water
- Subdivision and condominium plats
- Certified survey maps that will create land development activity that may ultimately result in .5 acres once the entire area is developed

The ordinance also addresses the following:

- Impacts of thermal pollution in areas that could impact specific cold water streams
- Restricts altering flow from one drainage area to another unless proof of no impacts are provided
- Locations where non-municipal stockpiling of off-site snow occurs
- Development of steep slopes (greater than 25%) – due to increase risk from storm water runoff (requires consideration if necessary additional information on **all** new development that require an erosion control permit).
- Restricts direct discharge from surface or subsurface drainage to adjacent properties (applies to all new development)

NR 216 – IMPLEMENTATION OF MS4 REQUIREMENTS

Current, ongoing, and planned endeavors that provide the County with the means to meet the MS4 requirements include:

- Public Education and Outreach – Public Involvement and Participation The La Crosse Area Storm Water Group consists of the eight municipalities in the County that are designated as MS4's. This group was created to pool funds that could then be utilized to obtain a consultant to assist members in meeting the public education and outreach and the public involvement and participation requirements with a unified message. One of the most significant features of this effort is the La Crosse Waters website (www.lacrossewaters.org). It has been recognized as being a model for other municipalities to follow.

- Illicit Discharge Detection and Elimination Illicit discharges are addressed in Chapter 29 – Post Construction Storm Water Management of the La Crosse County Code of Ordinances. This portion of the ordinance provides a method for the County to control illegal discharges into our County drainage systems.
- Construction Site Pollutant Control Currently Chapter 21 is enforced by the Department in all unincorporated municipalities. The Department also enforces the erosion control portion of the UDC in 10 of the 12 townships by a Memorandum of Understanding with the towns.
- Post-construction site storm water management Chapter 29 of the La Crosse County Code of Ordinances was created to assist in providing compliance with this requirement.

The other portion of this requirement is storm water quality management. The County contracted with a private engineering firm which determined that the County is exceeding the sediment reduction requirements set by the State. The Department continues to work with County Highway to ensure that the areas within the County ROW's that act as control structures remain intact.

- Pollution Prevention / Good Housekeeping The consultant that was hired to determine the County's compliance with meeting sediment reduction requirements also developed storm water management plans for the County facilities that fall within the urbanized area that is under the County's jurisdiction. The Department will continue to assist the Highway, Facilities and Solid Waste Departments with our expertise to see that state requirements are met as well as integrate various projects as training experiences for County staff.

One area that needs to be completed in more detail is the mapping of the storm water conveyance system within the urbanized area that lies within the County's responsibility. This is planned to be continued in 2012 and will involve locating and determining elevations of drainage ways and culvert inverts within the urbanized area. The Department will be coordinating with the County Highway Department to provide employees with details to assist them in completing annual inspections of the critical areas that directly impact water quality.

URBAN PERFORMANCE STANDARDS SCHEDULE

21.0 % TOTAL PROGRAM HOURS 3,030	ACTIVITY	OBJECTIVE	DATES	5 YEAR PROJECTED COSTS	
				COUNTY (1)	STATE (2)
DLC	Review 10 plat plans and sites, issue 600 erosion control permits and conduct 500 inspections and enforcement activities per chapter 21	Implement Chapter 21	2007-2011		
La Crosse Co.	Identify areas of illicit discharge under NR 216	Implement storm water management program	2012		
DLC, UWEX	Promote storm water BMP's through 3 field demos	Promote storm water education	2012-2016		
DLC, UWEX	Hold 5 workshops on County Stormwater Management Ordinance	Implement storm water management program	2012-2016		
UWEX, DLC	Coordinate storm water I&E efforts with other MS4's	Implement storm water management program	2012-2016		
DLC	Educate landowners regarding shoreline and Streambank erosion	Promote storm water education	2012-2016		
DLC	Provide construction site erosion control training to other County LCD staff	Promote storm water education	2012-2016		
DLC	Assist Land Information and Zoning with conditional use permit reviews	Implement Chapter 21	2012-2016		
DLC	Integrate tracking of urban permitted sites with GIS	Implement Chapter 21	2012-2016		
Total Costs				\$452,107	\$150,703

(1) Based on 2011 staff costs only to implement this section of the LWRMP.

(2) Based on 2011 SWRM staff and supply grant award

Chapter 7: NON-METALLIC MINING ORDINANCE

COUNTY RECLAMATION PROGRAM

1993 Wisconsin Act 464 established the nonmetallic mining reclamation law. The law mandates that counties adopt ordinances to establish reclamation programs to comply with the uniform state reclamation standards contained in NR 135. La Crosse County adopted Chapter 27 in 2001. All mines in the County have applied for and received approval for reclamation permits.

Reclamation Standards Performance, not prescriptive standards are established. Based on post-mining land use, a reclamation plan capable of meeting the reclamation standards will be developed by the operator and approved by the Department. Reclamation standards address the salvage and protection of topsoil for use in final reclamation; re-vegetation; site stabilization and site grading. Protection of waters of the state is achieved by not having any more acreage affected by mining than is necessary to support the operation. Land use must be consistent with local zoning requirements.

Reclamation Plan and Permit All mines must have a reclamation permit. Permits are applied for at the Zoning, Planning and Land Information office. The reclamation permit is to be a life-of-mine permit. The Department of Land Conservation reviews and accepts plans to assure that state maximum standards are met. For new mines public informational hearings are required.

A reclamation plan must be approved prior to operation of a new mine. Plans must show final site reclamation to a desired land use compliant with the uniform reclamation standards. Reclamation during the mining process includes: topsoil salvage and storage, surface and groundwater protection, and minimizing the acreage exposed to wind and water erosion.

Financial Assurance A surety bond or other form of financial assurance is required from the mine operator based on the cost to implement the reclamation plan. Financial assurance is to ensure reclamation. The Department determines the amount of surety money to be available to make certain that the County can obtain the funds necessary to perform site reclamation in the event of a default. Determinations of financial assurance are made annually through field investigations or other appropriate means.

Program Funding The reclamation program is intended to be self-funded through annual fees based on non-reclaimed acres. The fees support County and DNR administration. The fee is based on the unreclaimed portions of the mine. Chapter 27 was revised in 2001 to mirror changes to the reporting time requirements for assessing annual fees. In order to assure compliance, the Department performs an annual on-site investigation of each active mine. During these investigations, a GPS unit is utilized to determine the current active mine acres. This information is then provided to the permittees to assist them in determining the required annual fee. The Department reports annually to the DNR.

OBJECTIVES, ACTIVITIES, DATES, COSTS NON-METALLIC MINING PROGRAM

1% TOTAL PROGRAM HOURS 144	ACTIVITY	OBJECTIVE	DATES	5 YR PROJECTED COSTS	
				COUNTY (1)	STATE (2)
DLC	Review NMM plans issue permits and enforce Chapter 27	Insure proper reclamation of mines as required by the state	2012-2016		
DLC	Conduct annual site inspections to determine compliance / unreclaimed acreage	Insure proper reclamation of mines as required by the state	2012-2016		
Total Cost				\$28,705	\$7,176

APPENDIX

Land & Water Resource Management Plan

La Crosse County

La Crosse County Dept. of Land Conservation
400 4th St N - Room 3270
La Crosse, WI 54601-3200

**IMPORTANT!
RESPONSE REQUIRED**



**DEPARTMENT OF LAND CONSERVATION
400 4th St N - Room 3270, La Crosse, WI 54601
Telephone (608) 785-9867**



La Crosse County Animal Waste Management Information

Dear Landowner,

This informational form is being sent to you on behalf of the La Crosse County Department of Land Conservation. By State rule and local county ordinance, you are required to maintain compliance with established agricultural performance standards. The agricultural performance standards are contained in the following form. You must complete numbers 1 through 6 to verify your level of compliance with the agricultural performance standards. After completion, return this form to our department.

- Landowners of agricultural land must submit the following information in compliance with the La Crosse County Animal Waste Ordinance (Chapter 23)
- Landowners who rent their property must obtain necessary information from renter to certify all 6 sections within this form.

Print Name of Landowner		
<i>Name & Address of <u>Primary</u> Landowner.</i>		

Name (Last, First, M. I.)		

Street Address		

_____	_____	_____
City	State	Zip Code
_____		_____
Township		Telephone Number

Agricultural Performance Standards

Instructions:

- All 6 sections shall be completed, even if you rent your land
- Check boxes or circle numbers for all 6 sections
- Questions apply to all property under your ownership
- **Description of key words (in italics) are on page 7.**

1) **DIRECT RUNOFF FROM FEEDLOTS** “Direct runoff” from *feedlots* is **not** allowed within *Water Quality Management Areas (WQM's)*.

Read the description for *feedlots* and *WQM's* before completing this section. If you have livestock on your property for any amount of time in the current year, you must complete this section. This section only determines the number of *feedlots*. “Direct runoff” will be determined through on-site investigations.

<input type="checkbox"/>	Does not apply. I, nor anyone else, have livestock on my property. If checked, go to Section 2, “Sheet Rill and Wind Erosion”.
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a.

Indicate the animal type and maximum number of livestock you had on your property on May 1, 2006.					
<u>DAIRY CATTLE:</u>	<u>No.</u>	<u>SWINE:</u>	<u>No.</u>	<u>CHICKENS:</u>	<u>No.</u>
Milking & Dry Cows		Pigs (55 # to market)		Layers (each)	
Heifers (800# - 1200#)		Pigs (up to 55#)		Broilers (each)	
Heifers (400# - 800#)		Sows (each)		Broilers - continuous overflow watering	
Calves (up to 400#)		Boars (each)			
				Layers or Broilers - liquid manure system	
<u>BEEF:</u>		<u>DUCKS:</u>			
Steers or cows (600# to market)		Ducks - wet lot (each)			
		Ducks - dry lot (each)		<u>TURKEYS</u> (each)	
Calves (under 600#)					
Bulls (each)		<u>HORSES</u> (each)		<u>SHEEP</u> (each)	

b.

Total number of all feedlots. (Read the description for feedlots on page 7.)
 1 2 3 4+ (circle one)

c.

Total number of all *feedlots* in a *Water Quality Management Area*. Include any feedlot where any portion of the lot is within a *Water Quality Management Area*.
 0 1 2 3 4+ (circle one)

d.

Total number of all feedlots within a *Water Quality Management Area* that are contained within a *Barnyard Runoff Control System* (see description).
 0 1 2 3 4+ (circle one)

e.

Address where livestock kept if different than primary landowner.

2) **SHEET RILL and WIND EROSION** All land where crops or feed are grown shall be cropped to achieve a soil erosion rate equal to, or less than the “tolerable” (T) rate established for that soil.

Check one of the statements below that applies:

<input type="checkbox"/>	I do not have any cropland.
<input type="checkbox"/>	I have developed and am following a conservation plan.
<input type="checkbox"/>	I have developed a conservation plan, but I’m currently not following it.
<input type="checkbox"/>	I do not have a conservation plan.

- 3) **NUTRIENT MANAGEMENT** All land that is cropped and where manure or commercial fertilizer is applied shall have a *Nutrient Management Plan* approved by one of the following by January 2008:
- (1) Certified Crop Consultant;
 - (2) Certified Crop Advisor;
 - (3) Registered Crop Scientist or Specialist;
 - (4) Soil Scientist or Specialist;
 - (5) Professional Agronomist;
 - (6) A plan developed and approved through Department of Land Conservation Nutrient Management Planning workshops.

(Municipal sludge plans do not meet state Nutrient Management Plan Requirements.)

<input type="checkbox"/>	Does not apply. No manure or commercial fertilizers are applied. If checked, go to Section 4, "Unconfined Manure Stacks".
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<input type="checkbox"/>	No approved Nutrient Management Plan exists for cropland I own. If checked, go to Section 4, "Unconfined Manure Stacks".
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<input type="checkbox"/>	An <u>approved</u> <i>Nutrient Management Plan</i> exists for <u>all</u> crop fields I own.
1 2 3 4 5 6 Circle the corresponding number of the planner from the choices listed above.	
Print name of person who prepared or approved plan.	
Print name of company who prepared or approved plan.	

- 4) **UNCONFINED MANURE STACKS** Manure stacks are prohibited within *Water Quality Management Areas*, or in areas of concentrated flow where the drainage area is one acre or greater.

<input type="checkbox"/>	Does not apply. No <i>unconfined manure stacks</i> exist within any <i>Water Quality Management Area</i> or in any area where water concentrates and the area draining to it is one acre or greater. If checked, go to Section 5, " <i>Manure Storage</i> ".
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<input type="checkbox"/>	Yes, <i>unconfined manure stacks</i> exist within <i>Water Quality Management Areas</i> or in areas where water concentrates and the area draining to it is one acre or greater.
1 2 3 4+ Number of <i>unconfined manure stacks</i> . (circle one)	

5) MANURE STORAGE

<input type="checkbox"/>	Does not apply. There is no <i>manure storage</i> on my property. If checked, go to Section 6, " <i>Mismanaged Pastures</i> ". If manure storage exists, continue with a. through c.
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a. *Manure storage constructed prior to January 1, 1999* *Manure storage constructed prior to January 1, 1999 must not pose an immediate threat to public health.*

<input type="checkbox"/>	There are 1 2 3 4+ <i>Manure storage</i> structures existing on my property that were constructed prior to January 1, 1999. (Circle one)						
For each structure indicate the year it was built, if public funds (cost-share) were used to build it, and if abandoned, the year abandoned.							
Impoundment #	Year constructed	Public Funding				Year Abandoned	
1	<input type="text"/>	Yes	<input type="checkbox"/>		No	<input type="checkbox"/>	<input type="text"/>
2	<input type="text"/>	Yes	<input type="checkbox"/>		No	<input type="checkbox"/>	<input type="text"/>
3	<input type="text"/>	Yes	<input type="checkbox"/>		No	<input type="checkbox"/>	<input type="text"/>
4+	<input type="text"/>	Yes	<input type="checkbox"/>		No	<input type="checkbox"/>	<input type="text"/>

b. *Manure storage constructed after January 1, 1999.* *Manure storage facilities designed and constructed after January 1, 1999 shall comply with standards.*

<input type="checkbox"/>	<p><i>Manure storage</i> has been constructed on my property after January 1, 1999. A permit from the county has been issued.</p> <p>1 2 3 4+ Number of <i>manure storage</i> impoundments (circle one)</p>
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<input type="checkbox"/>	<p><i>Manure storage</i> has been constructed on my property after January 1, 1999. A permit from the county has not been issued.</p> <p>1 2 3 4+ Number of <i>manure storage</i> impoundments (circle one)</p>
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c. *Substantial Alterations* Modifications after January 1, 1999 that alter the *manure storage* liners or structures shall comply with approved standards.

<input type="checkbox"/>	<p><i>Substantial alterations</i> to existing <i>manure storage</i> impoundments have been made after January 1, 1999. A permit from the county has been issued.</p> <p>1 2 3 4+ Number of <i>substantial alterations</i> (circle one)</p>
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<input type="checkbox"/>	<p><i>Substantial alterations</i> to existing <i>manure storage</i> impoundments have been made after January 1, 1999. A permit from the county has not been issued.</p> <p>1 2 3 4+ Number of <i>substantial alterations</i> (circle one)</p>
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6) **MISMANAGED PASTURES** Pasturing livestock within *Water Quality Management Areas* where their confinement for the purpose of feeding, browsing or loafing prevents the maintenance of adequate sod cover causing bank erosion is prohibited.

Check only one of the following boxes that applies

<input type="checkbox"/>	There are no streams or lakes on my property. (Note: see definition of streams under <i>Water Quality Management Area</i> .)
<input type="checkbox"/>	There are streams or lakes on my property, but no livestock pasture within the <i>Water Quality Management Areas</i> .
<input type="checkbox"/>	Livestock pasture stream or lakeshores within <i>Water Quality Management Areas</i> .

I declare that I have examined this form and have made compliance determinations for the 6 (six) agricultural performance standards listed herein on all properties under my ownership. I declare that to the best of my knowledge and based on the information contained herein, my determinations are true, correct and complete, and that incomplete or misrepresented information may result in reduced technical and / or financial assistance.

I understand that the information I provide is to be used by the Department of Land Conservation for prioritizing and planning purposes to bring La Crosse County landowners into compliance with State Standards. I also understand that no determinations of non-compliance with performance standards can be made by the Department without conducting on-site reviews and that I intend to fully co-operate during those reviews.

All six (6) Sections Must Be Completed or Form Will Be Returned.

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Signature of **Landowner** Primarily Responsible for Implementation of Agricultural Performance Standards Date

State law requires counties to seek penalties or injunctions against persons who violate standards or do not meet compliance deadlines. The status of existing compliant sites may be affected by an increase in the number of livestock, expansion of livestock facilities or changes in manure management. Consult with the Department of Land Conservation before changes are made.

Landowners may apply at any time with the La Crosse County Department of Land Conservation for technical or cost-share assistance for abatement of non-point sources of pollution.

Call (608) 785-9867 for questions regarding this form; the installation of conservation practices; technical or financial assistance; or County or State Agricultural Performance Standards.

Retain a copy of this form for future reference.

DESCRIPTION OF TERMS

"Abandoned Impoundment" means an animal waste impoundment not used for three consecutive years.

"Barnyard Runoff Control System" means a system of facilities or practices designed, constructed and approved to meet state standards to contain, divert, retard, treat or otherwise control the discharge of runoff from outdoor areas of concentrated livestock activity. A "barnyard runoff control system" may include components that contain, divert, retard, treat or control surface water runoff.

"Feedlot" means a lot or building, or combination of contiguous lots and buildings, intended for the confined feeding, breeding, raising or holding of animals and designed as a confinement area in which animal waste may accumulate, or where the concentration of animals is such that a vegetative cover cannot be maintained within the enclosure. Open lots used for feeding and rearing of poultry (poultry ranges) and barns, dairy facilities, swine facilities, beef lots and barns, horse stalls, and mink ranches shall be considered to be animal feedlots. (Pastures where livestock are fed from feeders or feed wagons where feeding prevents sod cover, are considered *feedlots*. It is a *feedlot* in a *Water Quality Management Area* if livestock are fed from a bale feeder in a pasture within 300' of a stream, unless a feed wagon or feeders are moved frequently preventing loss of sod cover.)

"Manure Storage" means any earthen, concrete, wooden, steel or otherwise fabricated structure intended to hold an accumulation of animal waste.

"Mismanaged Pastures" means those pastures within 1000 feet of the ordinary high-water mark of a lake, pond, or flowage, or within 300 feet from the ordinary high-water mark of navigable waters of a river or stream, where confinement of livestock for the purpose of feeding, browsing or loafing prevents the maintenance of adequate sod cover causing bank erosion.

"Nutrient Management Plan" means a written plan and map accepted by the department detailing the amount, form, placement and timing of applied animal waste.

"Substantial Alterations" means any modifications to an impoundment that alters the integrity of the liner or structure; or the integrity, capacity, or design requirements of a feedlot.

"Unconfined Manure Stack" means a stack (stored accumulation of mechanically placed animal waste) from which runoff leaves its perimeter or is not confined to its immediate area.

"Water Quality Management Areas" means

1. Areas within 1000 feet of lakes
2. Areas within 300 feet of rivers or streams (For the purpose of this certification if water flows in the stream bed at least 8 months in a year consider it a stream)
3. Sites susceptible to groundwater contamination.
 - a. An area within 250 feet of a private well or 1,000 feet of a municipal well.
 - b. Areas that drain to sink holes or exposed bedrock
 - c. Areas where soil depth to groundwater or bedrock is less than 2 feet.
 - d. Areas of sandy soils with limited amounts of silt and clay.

If you have any questions, please call the
Department of Land Conservation
(608) 785-9867.

Thank you for taking the time to complete this Animal Waste
Management Information sheet.

FOLD IN HALF AND PLACE STRIP OF TAPE IN CENTER OF TOP OPENING
(DO NOT STAPLE)

LA CROSSE COUNTY
DEPARTMENT OF LAND CONSERVATION
400 4TH ST N - ROOM 3270
LA CROSSE, WI 54601

“Lack of mutual cooperation among conservation groups is reflected in laws and appropriations. Whoever gets there first writes the legislative ticket to their own particular destination. We have somehow forgotten that all this unorganized avalanche of laws and dollars must be put in order before it can permanently benefit the land, and that this onerous job, which is evidently too difficult for legislators and propagandists, is being wished upon the farmer and upon the administrator of public properties. The farmer is still trying to figure out what the many-voiced public wants them to do. The administrator, who is seldom trained in more than one of a dozen special fields of skill comprising conservation, is growing grey trying to shoulder their new and incredibly varied burdens. The stage, in short, is all set for somebody to show that each of the varied public interests in land is better off when all cooperate than when all compete with each other.”

Aldo Leopold (1935)