

Project Information

C. Project Summary and Description

City of Oconomowoc Comprehensive Storm Water Management Plan

Project Information

C. Project Summary and Description

The City of Oconomowoc is applying for UNPS and SW Planning Program Funding for a Comprehensive Storm Water Management Plan to detail existing and proposed storm water quality conditions and recommended improvements. The City of Oconomowoc seeks to protect and improve water quality of the Upper Rock and Oconomowoc River Watersheds, of which the City is a part. Lac La Belle and Oconomowoc Lake are listed as 303 (d) water bodies. Protecting and improving these valuable resources is a priority for both the City and its constituents.

One of the first steps towards preservation and protection of these resources is to complete a storm water management plan. The successful implementation of a comprehensive storm water management program will result in a significant improvement of water quality throughout the City and the watersheds in which it is located. This plan is designed to be an effective planning tool for existing conditions and future development and redevelopment. The City is taking a proactive approach toward storm water management and the plan will facilitate implementation of the City's WPDES Storm Water Permit. The scope of the study will include 1) examination of existing storm water and water quality conditions; 2) performance of a water quality analysis for the entire City using the Source Loading and Management Model (SLAMM); 3) development and analysis of alternatives to produce a recommended plan meeting the City's goals and the requirements of the WPDES Permit; 4) evaluation of existing ordinances for water quality goals; 5) development of public education and involvement programs; 6) development of an illicit discharge detection and elimination program and ordinance; 7) analysis of existing municipal operations for permit compliance; 8) examination of water quality in wellhead protection areas including alternative analysis and recommendations; 9) prioritization and performance of a fiscal analysis of the recommended improvements; and 10) completion of a report summarizing the findings and recommendations of the plan.

City of Oconomowoc Comprehensive Storm Water Management Plan

Part II

Question 2. Project Evaluation Strategy

A. Evaluation

The Storm Water Management Plan will demonstrate how implementation of the recommended plan will decrease pollutant loadings to the Oconomowoc River, Lac La Belle, Oconomowoc Lake and Fowler Lake and will be submitted to the Department. A copy of the final report demonstrating the positive impact to the local waterways will be provided to DNR.

The tracking strategy for this project seeks to ensure the timely implementation of the recommendations outlined in the Storm Water Management Plan. The implementation of the Plan will be tracked to verify that the City is following the recommendations of the Plan and is in compliance with their WPDES permit. The City will submit annual reports to the Department for two years following completion of the study to inform the Department of the schedule and results of all proposed control measures. Items to be tracked include procedures and facilities implemented and their associated costs and measured results during the previous year, anticipating activities to be completed in the upcoming year and any quantitative water quality sampling to demonstrate effectiveness. In summary, the tracking will monitor the City's progress towards its measurable goals developed as part of the planning effort.

Question 3. Evidence of Local Support

A. Government

A letter from City Administrator Diane Gard demonstrates the City's commitment to include the local-share portion in its 2008 proposed budget. A copy of the letter is attached to the application.

B. Community

The Storm Water Management Plan has received support from the Fowler Lake Management District and the Lac La Belle Lake Management District. A copy of the letters of support are attached to the application.

Part III

Question 7. Plans and Regulations

A. Consistency with resource management plans

The Upper Rock River Watershed Management Plan, 2002 (PUBL WT-668b-2002) identifies development as a stressor to the watershed. The report recommends that municipalities adjacent to the Oconomowoc River should enforce construction site erosion and storm water management ordinances and implement farm conservation plans to minimize sediment delivery to the Oconomowoc River. The plan further recommends that DNR staff work with municipalities in the watershed to apply for funding through the TRM or Urban Nonpoint Pollution grant programs to develop storm water management plans and install practices that control urban storm water impacts.

The *Waukesha County Land and Water Resource Management Plan 2006-2010* also contains recommendations that the City will examine as a part of the proposed storm water management plan. The following goals and objectives listed in Chapter III of the Waukesha County plan will be implemented as a part of the proposed storm water management plan:

1. Goal 1: Control Urban Runoff Pollution and Flooding
 - a. Objectives:
 - i. Improve consistency and effectiveness of storm water ordinance implementation
 - ii. Clarify infiltration and soil testing requirements
 - iii. Improve maintenance plans and agreements for storm water practices
 - iv. Encourage innovative BMPs for erosion control & storm water management
 - v. Encourage practices that treat storm water as an asset
 - vi. Control runoff from existing developments
 - vii. Promote stream and wetland buffers
2. Goal 2: Minimize Impacts of Land Development on Water Resources
 - a. Objectives:
 - i. Promote and demonstrate watershed protection planning
 - ii. Work towards the protection of outstanding/exceptional resource waters
 - iii. Promote low impact development
3. Goal 3: Protect the Quality and Quantity of Groundwater
 - a. Objectives:
 - i. Encourage protection of groundwater recharge areas
 - ii. Minimize the impacts on groundwater of nutrients, pesticides and road salt contained in storm water runoff
4. Goal 5: Inform and Educate Children and Adults about Conservation Issues
 - a. Target Audiences / Key I/E Topics

City of Oconomowoc Comprehensive Storm Water Management Plan

- i. Homeowners & general public/Nonpoint source pollution, groundwater & water conservation, public health impacts of pollution, and exotic species control
 - ii. Rural land owners & Farm operators / Agricultural performance standards, erosion control, animal waste & nutrient management, buffers, wetland restoration and soil survey use
 - iii. Builders, developers & engineers / Storm water management & erosion control, native plantings & management, exotic species control and conservation subdivisions
 - iv. Schools & youth groups / Groundwater & water conservation, nonpoint pollution, rain gardens, Green Schools, recycling, water quality monitoring
 - v. Lake groups & riparian property owners / Nonpoint pollution, value of shoreline buffers and how to best manage them, and exotic species control
5. Goal 7: Monitor Water Quality/Flow of Local Lakes and Streams
- a. Objectives
 - i. Encourage and promote volunteer citizen monitoring efforts
 - ii. Promote agency monitoring, stream gauges and data sharing

Optional Additional Information

According to the *Upper Rock River Watershed Management Plan* recent development in the area has had a substantial impact on many waterways within the watershed. As a result the DNR has listed Lac La Belle and Oconomowoc Lake as 303d listed water bodies.

The City of Oconomowoc is committed to preserving and protecting all water bodies and waterways within its borders for future generations. The City realizes the imminent importance of controlling the effects of new development and retrofitting areas of existing development on the fragile environment of all water bodies and waterways within the City and the watershed.

The development of a City-wide Storm Water Management Plan and the implementation of revised construction and post construction storm water ordinances will ensure that storm water runoff from existing and future development is controlled, thus reducing sediment, nutrient, and pollution loadings from the City.

Additional Information on Storm Water Management Plan Activities

The City of Oconomowoc is requesting technical assistance for the following activities:

- **Existing System Inventory.** Define all basins and sub-basins within the study area based upon existing 1" = 200' scale topographic maps. The sub-basins shall be delineated to represent areas draining to major outfalls and as needed to evaluate the adequacy of existing and future system components.

Characterize the climate of the study area including temperature, precipitation, snow cover and frost depth.

Map and characterize the soils within the study area. This will include general soil properties in each sub-basin, and the areas covered by each of these groups.

Define, map, and characterize wetland and other environmentally sensitive locations within the study area based upon available information.

Identify and define historic local water quality problems within the study area based upon information provided by City staff and officials.

- **Demonstrate Adequate Legal Authority.** Research existing legal constraints, institutional agreements and ordinances that may impact storm water drainage and nonpoint source pollution controls within the study area. Propose ordinance changes to provide adequate legal authority to implement the recommended storm water management plan and meet the requirements of NR 216.

Optional Additional Information
City of Oconomowoc Comprehensive Storm Water Management Plan

- **Develop a Storm Water System Map.** Develop a storm sewer system map based upon existing and GPS located digital storm sewer, cadastral, and land use and topographical maps to meet the requirements of NR 216. Identify watershed boundaries, storm sewers, ditches, swales and other conveyance or storage components. Identify the final urban storm water planning area. List and locate all known municipal storm water outfalls discharging to waters of the state and classify the outfalls as major or minor. Locate and describe currently operating or closed municipal landfills, WPDES permit holders, storm water structural controls and publicly owned parks, recreational areas and other open lands.
- **Describe Existing Management Programs.** Describe existing management programs to control pollutants from municipal separate storm water systems.
- **Discharge Characterization.** Provide a characterization of the quality and quantity of storm water runoff and the effect this runoff has on receiving bodies of water based on existing data and conditions. The characterization will meet the requirements of NR 216 and will include monthly mean rain and snowfall estimates, frost depth, location and description of land use activities including runoff coefficients and population densities, projected 10-year population growth, existing qualitative discharge data, and a list of receiving water bodies with known water quality impacts.
- **SLAMM Analysis.** Utilizing the WDNR Source Loading and Management Model (SLAMM), calculate annual pollutant loadings within the study area in accordance with NR 151, NR 216 and the City's WPDES permit. Provide calculations under existing and fully developed land use for the following pollutants: total suspended solids, total phosphorus, cadmium, copper, lead, and zinc. Also, calculate total suspended solids reduction under existing land uses with no storm water controls, existing controls, and examine alternatives to reach 20% and 40% sediment reduction goals.
- **Water Quality Improvements.** Recommend both structural and non-structural best management practices to improve water quality and meet the requirements of NR 151, NR 216 and the City's WPDES permit. Recommendations are expected to include structural practices, implementation of construction and post construction best management practices, implementation of construction and post construction ordinances, development of information and education programs and improvements to municipal projects and procedures designed to improve water quality.
- **Illicit Discharge Program.** Develop an illicit discharge and elimination program and ordinance to meet the requirements of NR 216 and the City's WPDES permit.
- **Fiscal Analysis.** Conduct a fiscal analysis of the estimated capital and operation and maintenance expenditures to implement the proposed management programs. Describe

potential funding sources, including a storm water utility and outline potential annual budgets.

- **Implementation Plan.** Develop an implementation plan to construct the recommended improvements within a specified schedule.
- **Public Education and Participation Program.** Develop a public education and participation program to involve the community in improving the quality of the local waterways in accordance with the Village WPDES permit. Anticipated activities may include direct mailings, demonstration project, partnerships with local environmental and/or youth groups, storm clean up days, guest speaking engagements at local shows and many other activities.
- **Evaluate Existing Public Works Facilities.** Conduct an evaluation of existing public works facilities, programs and procedures for impacts on water quality. Include a review of the current deicing management, street sweeping, facility maintenance, spill response, development review, and associated programs.
- **Groundwater Recharge Analysis.** Conduct an analysis of the potential for groundwater aquifer contamination via surface water runoff pollution. In particular, areas in and around wellhead protection regions will be examined.
- **Report.** The consultant will prepare a written report summarizing the findings and recommendations of the study. City staff will review the report and revisions will be made as necessary. Following the approval of the report by City staff, the consultant will make a presentation of the study findings to the City Council.