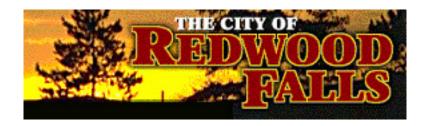
Storm Water Pollution Prevention Planfor



September 2007



Storm Water Pollution Prevention Plan

For

Redwood Falls, Minnesota

The City of Redwood Falls fully intends to incorporate the processes described herein as a means of meeting the requirements of the NPDES Phase II Municipally Separate Storm Sewer permit. Should the City find itself unable to meet the goals set forth in this Storm Water Pollution Prevention Plan, the City intends to report the discrepancy and list the reasons why in its annual report to the Minnesota Pollution Control Agency.

By:		
	Keith Muetzel, City Administrator	

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

By:		
	Andrew R. Kehren, P. E.	
	License No. 19871	

Date: January 2007 Revised: September, 2007

BOLTON & MENK, INC. CONSULTING ENGINEERS & SURVEYORS

Mankato ♦ Fairmont ♦ Sleepy Eye ♦ Burnsville ♦ Willmar ♦ Chaska ♦ Ramsey Ames, IA

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I. Executive Summary

The City of Redwood Falls must develop, implement and enforce a Stormwater Pollution Protection Plan (SWPPP) that is designed to minimize the discharge of pollutants from its storm sewer system in order to protect the water quality of the receiving waters in accordance with the Federal Clean Water Act (CWA) and its recent amendments.

This Storm Water Pollution Prevention Plan is a local plan that has been prepared with the purpose of meeting the requirements of the federal NPDES Phase II permit as outlined in the Minnesota Pollution Control Agency (MPCA) general permit and the most recent modifications to the Federal Clean Waters Act (CWA).

It is also intended to provide a cursory lay out of the steps required to implement the assigned phosphorous TMDL (Total Maximum Daily Load) requirements for the Minnesota River. Future revisions to the SWPPP will be required as the MPCA defines the phosphorus TMDL mitigation procedures.

The purpose of this SWPPP is to maintain water quality standards where there is compliance and to help bring waters that do not meet water quality standards into containment or compliance by minimizing the discharge of pollutants to the Maximum Extent Practicable (MEP). To meet this goal, the City's storm sewer system must be managed, operated and maintained in such a way that minimizes the discharge of pollutants.

A. SWPPP Technique

Best Management Practices (BMPs); including education, maintenance, pollution control techniques, system designs and engineering methods as well as local provisions deemed appropriate; are to be used to meet the minimum requirements of the NPDES Phase II permit.

Best Management Practices fall into two categories:

- Structural, including detention ponds, infiltration designs, etc. and
- Non-structural, including operational practices like street sweeping, educational programs, etc.

When implementing the required BMPs, the City must consider the sources of the targeted pollutants, the potential pollution creating activities in the various watersheds, and the sensitivity of the receiving waters.

B. SWPPP Legal Significance

This SWPPP shall become an enforceable part of the NPDES Phase II permit upon submittal to the Minnesota Pollution Control Agency (MPCA). Modifications as required by the MPCA and/or approved requests by the City shall also become enforceable provisions.

The City must submit an annual report on the implementation of this SWPPP on or before June 30 of each year beginning in 2007.

II. Methods

This document describes the City's 5-year plan to meet each of the six Minimum Control Measures (MCM) described by the permit. The tasks described are not one-time efforts; they will continue throughout the permit period and beyond to maintain water quality. They are:

• No. 1 - Public Education And Outreach On Stormwater Impacts

Distribute educational materials and perform outreach activities to inform citizens about the many ways stormwater becomes polluted and and the impacts polluted stormwater runoff discharges can have on water quality.

• No. 2 - Public Participation And Involvement

Provide opportunites for citizens to participate in program development and implementation, including effectively publicizing public hearings and/or encouraging citizen representatives on a stormwater management panel or committee.

• No. 3 - Illicit Discharge Elimination

Develop and implement a plan to detect and eliminate illicit discharges to the storm sewer system including developing a system map and informing the community about the hazards associated with illegal discharges and improper disposal of waste.

No. 4 - Construction Site Stormwater Runoff Control

Develop, implement and enforce an erosion and sediment control program including ordinances for construction activities.

 No. 5 - Post-Construction Stormwater Management in New Development and Redevelopment

Develop, implement and enforce a program to address discharges of post-construction storm water run-off from new development and redevelopment areas.

• No. 6 - Pollution Control And Good Housekeeping For Municipal Operations

Develop and implement a program with the goal of preventing or reducing pollutant runoff from municipal operations.

It is anticipated that this plan will be updated on an annual basis. The proposed updates will be made public prior to the annual meeting. Updates will be made on the following basis:

- 1. Modifications may be required by the Commissioner of the MPCA based on the following factors:
 - a. Discharges from the City are impacting the quality of the receiving water.
 - b. More stringent requirements are necessary to comply with State or Federal regulations.
 - c. Additional conditions are deemed necessary to comply with the goals and requirements of the Clean Water Act.
- 2. Commissioner ordered modifications will be made in writing, set forth schedules for compliance and offer the City the opportunity to propose alternative program modifications, and comply with other requirements of law to meet objectives of the requested modification.
- 3. Reasonable modifications may be made as requested by the general public in the following formats:
 - a. Oral requests given at the annual meeting.
 - b. Written requests received within a reasonable time so that City staff can review the request and make the requested modification to the plan if deemed reasonable.
- 4. Modifications may be made by the City without prior approval of the Commissioner, provided it is in accordance with the following:
 - a. New BMP's are added and none are subtracted from the SWPPP.
 - b. New BMP's that have failed are replaced with alternate BMP's that addresses the same or similar concerns.
 - c. The Commissioner is notified of the modification in the annual report for the year the modification was made, or in a technical report as needed.

Stormwater Pollution Prevention Program Monitoring, Record Keeping, and Reporting

- 1. The SWPPP should be evaluated annually for compliance and progress towards achieving the identified measurable goals.
- 2. Records required under the NPDES permit must be retained for a minimum of 3 years beyond the term of the permit and submitted to the Commissioner upon request. The SWPPP and required records should be available for public review.

- 3. An annual report must be submitted to the MPCA by June 30th each year of the term of the permit and shall include the following:
 - a. Evaluation of compliance with identified measurable goals.
 - b. Results of information collected and analyzed.
 - c. Upcoming years' planned stormwater activities.
 - d. Modifications to BMPs or measurable goals.
 - e. Notice that another entity will satisfy a portion of the permit obligations.

**** End of Executive Summary ****

Storm Water Pollution Prevention Plan

I. Introduction

A. Storm Water Pollution Prevention Plan (SWPPP) Purpose

The City must develop, implement and enforce a plan that is designed to minimize the discharge of pollutants from its storm sewer system in order to protect the water quality of the receiving waters in accordance with the Federal Clean Water Act (CWA) and its recent amendments.

This Storm Water Pollution Prevention Plan is a local plan that has been prepared with the purpose of meeting the requirements of the federal NPDES Phase II permit as outlined in the Minnesota Pollution Control Agency (MPCA) general permit and the most recent modifications to the Federal Clean Waters Act (CWA).

It is also intended to provide a cursory lay out of the steps required to implement the assigned phosphorous TMDL (Total Maximum Daily Load) requirements for the Minnesota River. Future revisions to the SWPPP will be required as the MPCA defines the phosphorus TMDL mitigation procedures.

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Best Management Practices (BMPs); including education, maintenance, pollution control techniques, system designs and engineering methods as well as local provisions deemed appropriate; are to be used to meet the minimum requirements of the NPDES Phase II permit.

Best Management Practices fall into two categories:

- Structural, including detention ponds, infiltration designs, etc. and
- Non-structural, including operational practices like street sweeping, educational programs, etc.

When implementing the required BMPs, the City must consider the sources of the targeted pollutants, the potential pollution creating activities in the various watersheds, and the sensitivity of the receiving waters.

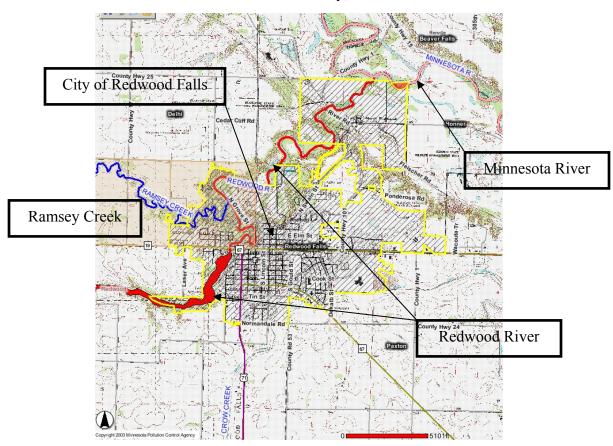
C. SWPPP Legal Significance

This SWPPP shall become an enforceable part of the NPDES Phase II permit upon submittal to the Minnesota Pollution Control Agency (MPCA). Modifications as required by the MPCA and/or approved requests by the City shall also become enforceable provisions.

The City must submit an annual report on the implementation of this SWPPP on or before June 30 of each year beginning in 2007.

II. Location

The City of Redwood Falls lies on the Redwood River near its confluence with the Minnesota River in Redwood County, as shown below.



Ramsey Creek discharges into the Redwood River inside the City. Ramsey Creek is a designated trout stream.

III. Methods

This document describes the City's 5-year plan to meet each of the six Minimum Control Measures (MCM) described by the permit. The tasks described are not one-time efforts; they will continue throughout the permit period and beyond to maintain water quality. They are:

• No. 1 - Public Education And Outreach On Storm Water Impacts

Distribute educational materials and perform outreach to inform citizens about the impacts polluted stormwater runoff discharges can have on water quality.

The public education program will individually address each of the six minimum measures.

The City will hold at least one public meeting per year addressing the SWPPP annual report.

This SWPPP will describe how the education program is coordinated with and makes use of other entities in the area including community groups, nonprofit organizations, lake conservation districts, watershed districts, various levels of other governmental bodies, etc.

In so doing, the City will identify:

- i. The audiences involved.
- ii. The educational goals for each audience in terms of increased awareness, understanding, acquired skills and/or changes in behavior.
- iii. Activities used to reach the educational goals for each audience.
- iv. Activity implementation plans, including responsible department in charge, entities responsible for given activities, and schedules.
- v. Available performance measures that can be used to determine success in reaching educational goals.

Additionally, this SWPPP describes how the education program will be coordinated with, and makes effective use of, other storm water education programs being conducted in the area by other community groups, organizations and county, regional, state and federal governments.

The City has identified the following audiences, goals, activities and performance measures, and may devised an implementation plan for the following:

Audience	Goals To increase public awareness on the following:	Activity	Implementation	Performance Measures
General Public * Outside active individuals * More sedentary	Fertilizer and lawn care techniques	Flier information / web site	Mailers	Advertisement to include comment opportunities at the City's Web site.
individuals	Removal of snow debris	Flier information / web site	Mailers	
Waterfront Properties	Shore land protection techniques	Flier information / web site	Mailers	Flier to include comment opportunities at the City Web site. City maintenance personnel observations.
Building Contractors	Erosion control and waste management	Flier information / web site	Attach targeted literature to the Building Permits	Log of compliance with ordinance requirements. Repeat permit questionnaire.
General Site & Utility Contractors	Erosion control and waste management	Flier information / web site	Review franchise agreements and revise as necessary	Establish inspection procedures by appropriate departments
Developers	Erosion control and waste management	Flier information / web site	Incorporate into development agreement	Log of compliance with ordinance requirements.
Businesses and individuals found to have illicit discharges	Assist them in identifying and mitigating their illicit discharge		Incorporate into enforcement actions	Number of illicit discharges identified. Log of compliance with ordinance requirements.

The City plans to document and maintain a running log of all email and web site responses, and building inspector notes to measure the performance of the educational techniques.

The implementation of activities is dependant upon the availability of adequate staff and financial resources.

• No. 2 - Public Participation And Involvement

Provide opportunites for citizens to participate in program

development and implementation, including effectively publicizing public hearings and/or encouraging citizen representatives on a stormwater management panel or committee. The annual meeting shall afford interested persons a reasonable opportunity to make written or oral statements concerning the SWPPP.

The City will consider all timely, relevant written comments submitted by interested persons concerning the SWPPP.

The permit requires that the City hold at least one public hearing per year addressing the annual report on this Storm Water Pollution Prevention Program. The meeting must be held prior to submitting the annual report to the MPCA.

• No. 3 - Illicit Discharge Elimination

Develop and implement a plan to detect and eliminate illicit discharges to the storm sewer system including developing a system map and informing the community about the hazards associated with illegal discharges and improper disposal of waste.

The City will develop, implement and enforce a program to detect and eliminate illicit discharges.

The City will select and implement a program of appropriate BMPs and measurable goals relative to the elimination of any discovered illicit discharges.

The City will develop a storm sewer system map showing:

- i. Ponds, streams, lakes and wetlands within the City.
- ii. Structural pollution control devices (i.e., grit chambers, separators, etc.).
- iii. All pipes and conveyances that are 24-inches or greater.
- iv. Outfalls and/or discharges to Waters of the State or to other, adjacent jurisdictions that are 24-inch diameter or greater.

The City will review its existing ordinances and, if necessary, adopt an ordinance prohibiting non-storm water discharges into the City storm sewer system. The ordinance will include appropriate enforcement procedures and actions.

The City will review its agreements with private utilities and, if necessary, amend them to reflect their responsibilities to appropriately repair areas disturbed by their activities. Appropriate enforcement procedures and actions will also be considered.

The City will attempt to inform and educate its employees, and the

general public of the hazards associated with illegal discharges and improper disposal of wastes.

The City will attempt to identify potential pollution sources.

The City will develop a program to detect and address non-storm water discharges, including illegal dumping into the storm sewer system.

The City will review the following categories of potential illicit discharges. A BMP will be developed for those categories that are identified as significant contributors of pollutants.

• Water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, de-chlorinated swimming pool discharges, and street wash water, discharges or flows from fire fighting activities.

• No. 4 - Construction Site Stormwater Runoff Control

The City will adopt an erosion and sediment control ordinance that requires the implementation of erosion and sediment control measures. The ordinance shall include sanctions to ensure compliance.

The City will institute a procedure for site plan review that incorporates procedures for evaluating water quality impacts.

The City will also institute site inspection and enforcement measures, including sanctions when necessary.

The City will require permittees to control waste, such as discarded building materials, concrete truck washout chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality.

The City will establish procedures for receipt and consideration of reports of non-compliance or other information on construction related issues submitted by the public.

• No. 5 - Post-Construction Stormwater Management in New Development and Redevelopment

The City will develop, implement and enforce an ordinance to address storm water runoff from new development and redevelopment projects that disturb more than one acre or the size the City establishes. This includes projects that are less than one acre in size but are part of a larger common plan of development (i.e., individual house building permits in a new subdivision will also be required to ensure that controls are in place that would prevent or minimize water quality impacts).

The program will include a set of appropriate BMPs and measurable goals, including the following minimum items:

- i. Developing and implementing strategies that include structural and non-structural BMPs.
- ii. Ensure adequate long-term operation and maintenance of BMPs installed.

The City will initiate the writing of a new ordinance or updating of existing ordinance that meets the permit requirements. The City will begin with the model ordinance provided by MPCA and attempt to tailor the ordinance with BMPs that fit the needs of the City and protect its unique water resources.

The City will also provide educational material to the developers of subdivisions, planned unit developments, commercial sites, industrial sites, renovations, new buildings, etc. as well as any design consultants, using informational fliers describing the impact of new developments on the water quality of its runoff. These fliers will identify BMPs the City recommends for both structural and non-structural practices.

• No. 6 - Pollution Control And Good Housekeeping For Municipal Operations

Develop and implement a program with the goal of preventing or reducing pollutant runoff from municipal operations.

The City will develop an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from its municipal operations. The program will include employee training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet (vehicle) and building maintenance, new construction and land disturbances, and storm water system maintenance.

The City will also:

i. Operate and maintain its storm sewer system in a manner that

- minimizes the discharge of pollutants.
- ii. Annually inspect its pollution control devices and summarize the results in the annual report.
- iii. Annually inspect all of its basins and at least 20 percent of the system outfalls; then summarize the inspection results in the annual report.
- iv. Maintain records of all annual reports.

The City will review its agreements with private utilities and, if necessary, amend them to reflect their responsibilities to appropriately repair areas disturbed by their activities and that provide for appropriate enforcement procedures and actions.

For each of the six minimum control measures, the City will list the applicable BMPs chosen, designate the department in charge of the responsibility, and implement a schedule of measurable goals determining the success or benefits of the BMPs. The City will list all known discharges to the following as each applies:

- a. Waters with prohibited discharges.
- b. Designated Trout Streams.
- c. Wetlands.
- d. Areas requiring Environmental Review.
- e. Areas where endangered species or their habitat are affected.
- f. Historical or archeological sites.

The City will establish record keeping procedures that include:

- a. Inspections shall be summarized in the annual report and shall include inspection dates and the completion of major additional protection measures.
- b. Records shall be kept of inspection results, date, antecedent weather conditions, sediment storage remaining, and any maintenance recommended and performed.
- c. Repair, replace or affect maintenance measures to ensure proper operation of the inspected items. These measures should be completed in the same year as the discovered need. If not completed in the same year, the reason for the delay should be included in the annual report.
- d. If maintenance or sediment removal is required as a result

of each of the first two annual inspections, the inspection frequency shall be increased to at least two times per year to ensure that the pollution removal properties of the inspected structure is maximized. If no maintenance is required after two years of inspections, the inspection frequency may be reduced to once every two years.

The City will provide materials and training courses designed to educate and train its maintenance personnel in the BMPs that will limit pollutants from entering the storm sewer system relative to mowing operations, park and open space management, roadway maintenance practices, street sweeping, etc. This education may include:

- a. Obtaining available tapes and brochures that are available from the MPCA, EPA, other jurisdictions and/or vendors regarding City maintenance practices and requiring mandatory review by all City maintenance personnel.
- b. Internal training key City maintenance personnel in the inspection, maintenance and proper documentation of the City's outfalls and structural pollution control devices.

The City will review its mapped storm sewer system and:

- a. Coordinate a schedule to systematically review at least 20 percent of its outfalls.
- b. Coordinate and schedule the inspection of all of structural BMPs annually.
- c. Keep records of all inspections and maintenance efforts.
- d. Increase or decrease the inspections based on the frequency of needed maintenance
- e. Submit inspection and maintenance records with the annual report.

For each Minimum Control Measure (MCM), a list of appropriate Best Management Practices (BMP's) have been reviewed and chosen by City staff because they have been deemed the most appropriate and cost effective method for meeting the requirements outlined in the general permit. The list is attached in the Appendix.

IV. Municipal Departments With Stormwater Responsibilities (2.1)

During the first year, it will be necessary for the City to identify each internal department with any responsibility related to stormwater. The following are departments with such potential:

A. Administration & Finance

- Responsibilities include the collection of fees and disbursement of funds
- General facility maintenance coordination
- Human Resources supply adequately trained individuals to the various departments
- Create, monitor and update ordinances relating to the implementation of the SWPPP
- Issue permits and administer enforcement actions
- Provide annual financial resources for the implementation of the SWPPP

B. Engineering and Inspections

- Permits review and inspection responsibilities for both infrastructure improvements and building permits
- Zoning enforces standards through the zoning laws
- Community development sets and enforces development standards for the community. Administers development agreements.
- Provide inspection and enforcement services over private utility operations within the city.
- Provide annual budgets for labor, equipment and materials required for the enforcement of the SWPPP.

C. Public Works

- Street maintenance
- Storm Sewer maintenance

D. Parks and Recreation

Park maintenance

V. Outside Agencies With Stormwater Responsibilities (2.2)

The City proposes to contact and involve several outside communities in the implementation of the SWPPP as necessary. Organizations to be contacted may include but will not be limited to the following:

- **A.** The Soil and Water Conservation Districts of Redwood County.
- **B.** Redwood County Soil and Water Conservation District (SWCD), for current state set aside acres, active wells and precipitation monitoring in Redwood County.

- **C.** The Board of Education for education opportunities and maintenance of school stormwater facilities.
- **D.** The watershed district organizations in the watershed for education and funding opportunities, including:
 - Prairie Country Resource Conservation and Development Council (RC&D), Willmar, Mn
 - Redwood, Cottonwood Rivers Control Area (RCRCA)
 - Area II Minnesota River Basin Projects
 - The Minnesota River Basin Initiative
- **E.** Redwood County for coordinating maintenance and for implementation of the County Water Plan
- **F.** Area II Minnesota River Basin Projects, Inc., Coordinator Kerry Netzke phone: (507) 537-6369
- **G.** Minnesota River Basin Joint Powers Board (MRBJPB) Executive Director phone: (952) 361-6590
- **H.** Various community groups for education opportunities
- I. MPCA

VI. Planning Tools & Resources (2.3)

The City has alternative resources with which to organize and implement this plan. During the first year individual resources will be evaluated for their contribution and potential for meeting the ultimate goal in a time effective manor. In subsequent years other resources will be added to the list as they become available. Some tools may include:

- Minnesota River Basin Management Framework Watershed Organizations and Projects http://www.pca.state.mn.us/water/basins/mnriver/mnorgs.html
- Minnesota River Basin Data Center Operated at Minnesota State University at Mankato - http://mrbdc.mnsu.edu/
- Redwood Falls Comprehensive Plan.
- Redwood Falls Source Water Protection Plan, (Well Head Protection Plan)
- Redwood County Comprehensive Water Plan

VII. Mapping per Appendix C of the General Permit (2.4)

The first major task will be the mapping of the stormwater system including all known discharges, conveyance structures, ponds, streams, lakes, rivers, wetlands, storm sewer outfalls and structural pollution control devices that comprise the

overall conveyance system for the City. This requirement also includes identifying certain waters of the state that demand special attention either to install protections to prevent degradation of high quality waters or to initiate higher treatment to help remedy already impaired waters.

These include:

Mapping of all impervious areas is required when any of the following conditions are met:

- Discharges to Waters With Prohibited Discharges
- Discharges to Waters With Restricted Discharges
- Discharges to Trout Waters (APPLIES)
- Discharges to Wetlands (APPLIES)
- Discharges Requiring Environmental Review
- Discharges Affecting Threatened or Endangered Species or Their Habitat
- Discharges Affecting Historic or Archeological Sites
- Discharges Affecting Source Water Protection Areas

In addition to the above requirements, detailed mapping and tabulation of impervious areas is anticipated as part of evaluation of City contribution to existing and future TMDL. Because the Minnesota River has been identified as being nutrient impaired, the City may be subject to future obligations specific to the river system. The planning and selection of BMP's should anticipate the impact and needs to future regulations.

A. Waters With Prohibited Or Restricted Discharge (2.4)

As illustrated below the Minnesota and Redwood Rivers are impaired within or adjacent to the City of Redwood Falls. The features listed in the table below represent the Special and Impaired Waters as defined by the MPCA and found to be within 2000 feet of the City boundaries.

Special Waters - Streams

Ramsey Creek is a DNR designated trout stream Redwood River is designated as scenic and recreational.

Special Waters - Lakes

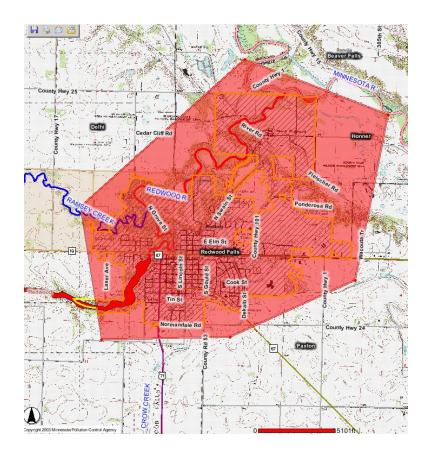
No Features found within 2000 feet of site boundary.

Section containing calcareous fen(s)

No Features found within 2000 feet of site boundary.

Section containing Trout Stream(s)

Ramsey Creek is a DNR designated trout stream.



Scientific and Natural Area

No Features found within 2000 feet of site boundary.

Impaired Stream

Both the Minnesota River and the Redwood Rivers are designated as impaired.

Impaired Lake

Redwood Lake is designated as impaired.

B. Impaired Waters Impact Evaluation

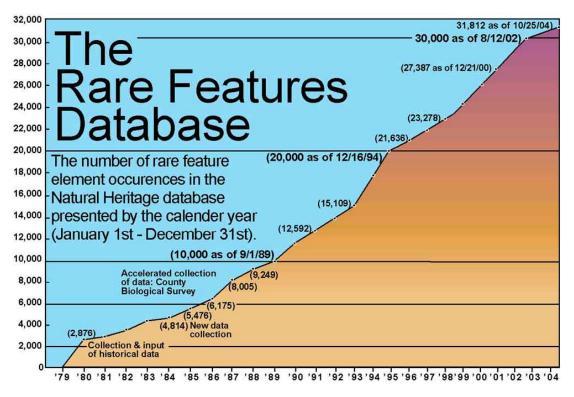
As shown above, several water bodies in the area are impaired. Using storm sewer and land use system mapping, field investigations and review of watershed hydrology, the City will evaluate likely impacts of stormwater discharges from the City on the impaired waters and periodically revise the SWPPP as needed to address City actions relative to impaired waters and any USEPA approved TMDL. (See Section VIII).

This evaluation can be used for revisions to the SWPPP to prioritize and target implementation of BMP's to specifically address the City's contribution, if any, to the impairment.

C. Threatened or Endangered Species or Their Habitat

The federal government already has the laws that protect threatened and endangered species; therefore, the NPDES requirements discussed here do not necessarily create additional obligations on the City. However, the impacts of each individual stormwater project or activity regulated or initiated as part of the SWPPP, would be reviewed relative to databases of rare, threatened and endangered species and any conflicts mitigated.

The avoidance of impacts to threatened or endangered species can only be achieved through education of what species are present and the habitat necessary to sustain them. Changes in the number of recognized species is illustrated below.



These changes only reflect numbers of species, but knowledge on the range and habitat are also being updated constantly. Inquiry to the DNR Natural Heritage Database will provide the City with the latest information necessary to appropriately mitigate any impacts. The DNR request site for this information is http://files.dnr.state.mn.us/ecological_services/nhnrp/nhis_data_request.pdf.

It is recommended that the City secure a 2007 list of species that includes the section, township and range. Some investigation may be necessary on the desirable habitat of some species. Areas that have that habitat should be mapped to assure avoidance. Once in every permit cycle on following significant growth, the City should update the list and mapping.

D. Historic Places Listings (2.4)

The early history of communities was often centered near streams and rivers and

therefore, many historic structures and places are in the vicinity of these stormwater routes.

The federal government already has the National Historic Preservation Act that protects historic places; therefore the NPDES requirements discussed here cannot infringe on those requirements. The impacts of each individual project must be compared to the National Register of Historic Places and any conflicts mitigated. If it is absolutely necessary to impact a historic place or district, the State of Minnesota mandates the preparation of an Environmental Assessment Worksheet (EAW) describing the impacts and the mitigation efforts before any permitting.

A full 2006 listing of the National Register of Historic Places for Redwood Falls is in the Appendix. Mapping will facilitate avoidance of these 'places'. The current listing is available online at http://www.nationalregisterofhistoricplaces.com/mn/Blue+Earth/state.html.

E. Source Water Protection Areas (2.4)

For purposes of security, the precise locations of these areas are not illustrated here but they must be considered in selecting points of discharge and sites for BMP installation.

F. GIS Coverage

The entire city of Redwood Falls is within the coverage area designated by Appendix C of the General Permit and therefore will require the detailed mapping for impervious areas, etc.

VIII. TMDL's (Total Maximum Daily Load) (2.5)

A. Background Information

Specific water resources are especially sensitive to certain pollutants and the responsibility to protect, preserve and maintain these resources has been assigned, by law, statute and rule, to be borne by all or part of the upstream watersheds. Assignment of proportionate responsibility is accomplished by regulatory establishment of a Total Maximum Daily Load (TMDL), a scientific study process that determines the capacity of the water resource to accommodate specific pollutants and/or water quality components.

The Lower Minnesota River encounters severe drops in dissolved oxygen during low flows in the late summer and early fall. These drops are largely caused by the nutrient phosphorous that stimulates algae growth. A TMDL has been established and approved by the MPCA and the Federal EPA that requires the City of Redwood Falls and other MS4's to reduce its contribution of **phosphorous by** 30% based on the year 2000 levels. This must be accomplished by 2015 (except for retrofits of structural urban BMP's).

Modeling performed as part of the TMDL determined that August through September 1988 was the Critical Low Flow Time Period and the TMDL requires the 30% reduction to be met during low flow periods. All stormwater discharges

from the City are to the Minnesota River, either directly or by way of the Redwood River and Ramsey Creek.

There are specific tasks in this plan or tasks that may be adopted in the future to accomplish the 30% reduction required by the Lower Minnesota River dissolved oxygen (LMRDO) TMDL for MS4's. Some of these requirements are already established by the MPCA and others will be required in the coming years.

In the future, the City may be obligated to conform to other TMDL's that will require it to reduce its contribution to downstream pollution. These may apply to different times of year when the lakes provide less natural mitigation. TMDL research and approvals that could affect the City include:

- Minnesota River Basin: Turbidity Turbidity of water is caused by suspended and dissolved matter such as clay, silt, organic matter, algae and color. The target date for implementation of this TMDL is 2006-9.
- Blue Earth River Basin Turbidity Second Phase, The target date for implementation of this TMDL is 2008-12.
- Center and Cedar Creeks, Minnesota River Basin Ammonia & Dissolved Oxygen. The target date for implementation of this TMDL is 2004-7.
- Blue Earth River Basin Fecal Coliform. The target date for implementation of this TMDL is 2006-8.
- Blue Earth River Basin Fecal Coliform Second Phase. The target date for implementation of this TMDL is 2007-11.
- Minnesota River, Mainstem Fecal Coliform The target date for implementation of this TMDL is 2008-12.
- Minnesota River Basin, Mainstem and Mouth of Major Watersheds Turbidity The target date for implementation of this TMDL is 2004-09.
- Minnesota River Basin Impaired Biota The target date for implementation of this TMDL is 2017.
- Lake Pepin Area Turbidity & Excessive Nutrients The target date for implementation of this TMDL is 2009.

The following sections (VIII.B through VIII.E) discuss the City's general implementation plan to meet its obligations relative to the Lower Minnesota River Dissolved Oxygen (LMRDO) TMDL by 2015. Upon notification of the approval of other TMDL's and applicability to the City of Redwood Falls, the City must assess, design and implement appropriate BMP's to achieve any reductions assigned by MPCA and achieve those reductions within the required TMDL timeline. This process will require revisions to the SWPPP over time. A separate BMP (6c-1) has been assigned to the task of accommodation for future TMDL's.

B. TMDL Mapping and Load Calculations (2.7)

As an initial step in evaluating the impact of City's hydrology, land use and stormwater practices on the LMRDO TMDL together with efforts necessary to attain a 30% reduction in phosphorus contribution to the Lower Minnesota River watershed, the City must complete stormwater system mapping and load calculations. To complete necessary load calculations and design of appropriate BMP's to meet the TMDL requirements, the mapping database must include, at a minimum, information on watershed, conveyance system, land use, impervious surfaces, soil types and BMP's. The City will use information developed from TMDL mapping and load calculations as well as BMP effectiveness data to help the City determine its general strategies to meet current and future TMDL's; select/design pollutant tracking processes as they apply specifically to the City of Redwood Falls; and, periodically update this SWPPP with BMP's and other activities necessary to address TMDL (current and future) obligations.

The City currently maintains a portion of the required data as part of its storm sewer mapping, stormwater utility database and zoning system. The City intends to map outlets and in-place BMP's. It is the intent of the City to integrate this information system into a coordinated GIS. This SWPPP requires implementation of specific BMP's (3a-1 and 3a-2) to update the above information as well as other BMP's that, indirectly, will provide additional data for TMDL-related calculations. The implementation schedule dates for mapping-specific BMP's vary from 2007-2011.

To the extent that existing baseline mapping information is available or can expeditiously be developed with available City staff resources, the City is committed to completing TMDL load calculations relative to the LMRDO TMDL on or before June 30, 2008 and submitting them to MPCA by June 30, 2008. If necessary information cannot be readily compiled in advance of the SWPPP BMP timelines, the load calculations will be completed in accordance with the herein SWPPP BMP completion timelines, but not later than June 30, 2009.

C. General Strategies to Meet TMDL

The City of Redwood Falls currently consists primarily of previously developed areas and limited perimeter development. The population of the community has been fairly stable with limited new residential development. There is on-going new commercial and industrial development. The City has generally been proactive in implementing stormwater management controls and BMP's to protect its water resources. Based on conditions within the community, the most effective strategy for meeting current and future TMDL's is summarized and prioritized in following order:

1. City has and will continue to require the installation of appropriate structural BMP's in areas where the land use is changing and new development is occurring. Where possible, structural BMP's will be implemented in accordance with existing comprehensive and stormwater management plans, as updated from time to time in accordance with this SWPPP or as needed to

address specific conditions in new developments.

- 2. To minimize practical/physical limitations and the very high cost of modifying existing or adding structural BMP's in fully developed areas of the community, the City will continue to implement non-structural BMP's, such as its existing street sweeping program, recycling yard waste and fertilizer controls, designed to capture and treat existing pollutant loads.
- 3. As part of the City's infrastructure reconstruction programs and to the extent physically feasible and fundable through local or external funding sources, the City will retrofit the existing stormwater system with appropriate BMP's, including addition of detention basins and other modifications.

D. Pollutant Tracking Issues

Tracking efforts and outcomes for each TMDL are required. Tracking systems appropriate for the City of Redwood Falls will need to be evaluated for each TMDL and extent of City's contribution and allocation. For the LMRDO TMDL, it is anticipated that City will generally be using simple BMP tracking tools with field verification to determine and track progress toward meeting its watershed allocation and reductions. Modeling methods, based on data collection described in VIII.B, will also be utilized in load calculation and tracking processes. Specific tracking processes will be designed in accordance with findings of initial mapping and load calculations and revised from time to time as TMDL or MPCA regulations may require. It is expected that tracking processes will be incorporated into this SWPPP through future additions or revisions to BMP's.

E. General Schedule for Meeting TMDL Requirements

It is the position of the City of Redwood Falls that this SWPPP and its associated BMP's provide a starting point and basic framework for meeting the reductions required by the LMRDO TMDL by the required compliance date. Implementation of BMP's to accomplish the required reductions will occur throughout the current and subsequent MS4 five year permit cycles and will require on-going updates and modifications to the SWPPP as modeling and tracking processes allow implementation to be targeted to effectively achieve required reductions or improve performance of in-place BMP's.

Based on information available to date, without completed stormwater GIS and load calculations, the City of Redwood Falls anticipates that it will be able to meet LMRDO TMDL requirements by 2015, with exception of any long-term retrofitting of storm sewer system and existing BMP's necessary to meet the TMDL. It is anticipated that 20 years will be required to complete retrofitting of storm sewer and existing BMP's.

General milestones for meeting TMDL are estimated as follows:

2007-2011: Completion of Initial Stormwater Mapping and Load Calculations; Creation of GIS for evaluation of Needs and BMP Planning; Implementation of

BMP's for new and changed development; Implementation of non-structural BMP's in accordance with this SWPPP (such as continuation of street sweeping) and other methods as opportunities arise; Implementation of structural BMP retrofits in accordance with City's on-going infrastructure replacement program; On-going evaluation of funding resources and rates (such as new Storm Water Utility) for operation and maintenance of stormwater systems.

2011-2015: On-going BMP tracking, modeling and monitoring to determine effectiveness of implemented BMP's and needs for retrofitting of existing facilities; Continued implementation of BMP's for new and changed development; Refinement of non-structural BMP's for improved performance and/or implementation of additional non-structural BMP's; Implementation of structural BMP retrofits in accordance with City's on-going infrastructure replacement program, as needed.

2015- 2024: Implementation of structural BMP retrofits in accordance with City's on-going infrastructure program, if needed.

As other TMDL's are approved, the City will need to modify this SWPPP and adopt additional procedures and schedules to meet new requirements.

IX. BMP Evaluation Matrix (2.6)

There are numerous methods used to improve the quality of stormwater leaving the urban drainage area and entering major and/or minor streams. Each one has its place based on:

- Effectiveness with targeted pollutant,
- Area available, volume to be treated,
- Hydraulic head available,
- Initial cost,
- Operating cost,
- Maintenance cost,
- Acceptance by the public of any hazards, and
- Sophistication of operation

The table below is <u>preliminary</u> and intended to assist in selecting appropriate BMP's to address both the immediate TMDL requirements for phosphorous and the future TMDL requirements listed in Section VIII. During the first few years of the first permit cycle, it should be possible to add more detailed information.

The MPCA intends to adopt a stormwater manual that stipulates the percentage phosphorous reductions that certain BMP's can achieve. The MPCA acknowledges that its removal values are likely to be more conservative than

some national databases. Currently, the MPCA manual does not intend to list acceptable values for turbidity or nitrogen removal; therefore the values included here are from one of the national databases.

The evaluation must consider a series of issues that are not keyed to the functionality of the systems, i.e., maintenance, training required on the part of operators and developers, potential hazards / nuisances, life expectancy before replacement or major renovation, etc.

Two effective BMP's that will be encouraged but not generally the direct responsibility of the City to operate, are rain barrels or rain gardens. The use of these methods is generally limited to the local property owners, however the construction of rain gardens in public parks and schoolyards could be encouraged through community groups or classroom settings.

BMP Evaluation Matrix
Estimated Removal Rates for Various BMP's

	Bioretention		Filtr	Filtration		ration	Stormwater Ponds			Wetlands					
	Underdrain (BIO)	Infiltration (BIO)	Media Filters	Vegetative Filters (dry)	Infiltration Trench	Infiltration Basin	Dry ED	Flow-Through (Wet) Pond	Wet ED Pond	Micropool ED Pond	Shallow Wetland	Pond/Wetland	ED Shallow Wetland	Open Channel	Water Quality Swale
Average TP Removal Rate	50%	60%	50%	65%	65%	65%		50%	55%	40%	45%	55%	40%		
Maximum TP Removal Rate	65%	75%	60%	75%	90%	90%		70%	70%	75%	65%	75%	75%		
Average Soluble P Removal Rated	60%	70%	0%	70%	80%	80%		60%	70%	30%	50%	65%	30%		
Total Suspended Solids Removal			70- 80%				25- 70%	55- 90%	50- 75%		30- 80%	55- 85%		(50)- 30%	60- 80%
Total Nitrogen Removal			35- 45%				25- 40%	20- 40%	30- 45%		10- 55%	10- 20%	0- 60%	(25)- 10%	
Nitrate Removal			(50)- 20%				(5)- 40%	10- 65%	20- 65%		40- 80%	(45)- 40%	20- 75%	(25)- 10%	(10)- 70%

^{*} Shaded values are from the Minnesota Stormwater Manual.

Un-shaded values are from the *National Pollutant Removal Performance Database* 1997 ed. TheMPCA may not accept these numbers.

BMP Evaluation Matrix – Operational Issues

	Bioretention		Bioretention		Filtration Infiltration		Stormwater Ponds				Wetlands				
	Underdrain (BIO)	Infiltration (BIO)	Media Filters	Vegetative Filters (dry)	Infiltration Trench	Infiltration Basin	Dry ED	Flow-Through (Wet) Pond	Wet ED Pond	Micropool ED Pond	Shallow Wetland	Pond/Wetland	ED Shallow Wetland	Open Channel	Water Quality Swale
Time to reach effectiveness - phosphorous removal															
Maturity rate															
Expected life expectancy															
Structural maintenance requirements															
Non-structural maintenance															
Training															
Construction costs															
Maintenance costs															
Drowning hazard								X	X						
Mosquito breeding											X	X	X		

X. Storm Water Modeling (2.7)

The City is required to demonstrate that the efforts that it is pursuing by installing BMP's, changing operations, etc. are capable of attaining the required 30% reduction in phosphorous as well as the appropriate reductions associated with the other TMDL's. This task may be accomplished by running a computer model of the system with the upstream and downstream watersheds included.

There are a number of sophisticated computer software programs that are capable of predicting the effectiveness of a specific stormwater / phosphorous removal strategy. The selection of a program is dependent on

- The volume of information already available on the individual watersheds,
- The percentage of impervious area,
- Soil types,
- General topography, and
- Knowledge of the specific routes stormwater collects in.

At such time that the MPCA formalizes the TMDL monitoring program, the City of Redwood Falls will consider the selection a software model for this process.

XI. Low Impact Development (LID) (2.8)

Low impact development (LID) is a <u>significant reversal</u> from the development concepts that most communities have subscribed to. Rather than simply equating "low density" with "low impact", it directly examines the impacts on stormwater quantity and quality of stormwater runoff with the densities achieved in certain development patterns. In general, the conclusion is that the higher the density; the less the impact per unit. Therefore, movement toward this concept is encouraged within the MS4 requirements.

Low impact development is a relatively new concept to the people of this area and it may take time before the developers and the public at large embraces it. The City may need to consider and implement changes in its zoning and development ordinances to encourage this practice, if LID is desired.

XII. Legal Tools (2.9)

Many of the recommendations of this plan will require either authority granted by City Council through ordinance, or changes in departmental rules and policies.

The following summary is a list of features for consideration in city ordinances that may be adopted, reviewed and/or modified, as appropriate, to address and control stormwater in the community:

• Review and modify zoning rules, building codes, development standards, etc. to permit the introduction of low impact development (LID) if desired.

- Review agreements with private utilities and, if necessary, amend them to reflect the utility's responsibilities to appropriately repair areas disturbed by their activities and provide for appropriate enforcement procedures and actions.
- Revise the stormwater utility to include the capability of levying fees, performing inspections, initiating construction projects and assessing costs.
- Define discharges that are inappropriate and illicit for discharge to the stormwater system.
- Prohibit illicit discharges into the City storm sewer system and provide for appropriate enforcement procedures and actions.
- Re-assess existing ordinances for coordination with the SWPPP including lawn maintenance, development standards, etc.
- Require erosion and sediment controls as well as sanctions ensuring compliance for construction projects .
- Review and require each construction project to follow its specific SWPPP.
- Develop an inspection program that outlines detection and analysis methods used to address non-storm water discharges, including illegal dumping into the storm sewer system.
- Require routine street sweeping of commercial and industrial parking lots.
- Require that all un-vegetated soil stockpiles be vegetated in a prompt and appropriate fashion.

XIII. Plat Review Process (2.10)

Currently, nearly all land development is defined by the platting process

The City has chosen to become directly involved in developing some commercial, residential or industrial property either as a developer or providing design and financing for suitable improvements.

Confidential pre-planning meetings are encouraged between developers and City staff.

Land use and zoning are defined in the City Code.

It will be necessary for the City to review the platting process in light of this SWPPP.

The City has a great deal of latitude in its current platting and "Development Agreement" process. However, in order to assure that proper and sufficient BMP's are incorporated into future developments, a thorough review of the platting process would be appropriate. A review committee, made up of planning and public works staff and the City Council representatives may be established to review the development process and make recommendations to the City Council for appropriate ordinance revisions.

XIV. Funding Mechanisms (2.11)

The funding of this process will be established and implemented during the permit cycle. The funding may combine a separate stormwater utility fee for more routine costs and special assessments for major capital improvements.

According to the EPA there are approximately 125 different funding methods and variations for local governments (EPA Webcast, July 12, 2006). The keys to selecting the appropriate mechanism are developing a continuing cash flow stream that can fund the program into the future and creating one that can withstand court challenges. Currently, approximately 300-400 cities have chosen the stormwater utility method.

XV. Schedule For Monitoring, Operating, And Maintaining BMP's (2.12)

The City will create a schedule for establishing, monitoring, operating, and maintaining BMPs

The MPCA and University of Minnesota are currently developing guidance that establishes four levels of monitoring. This guidance may be useful in deciding appropriate levels of monitoring for BMPs.

If BMPs are already in place, the monitoring, operation, and maintenance schedule will be established during the permit cycle.

XVI. Inventory Current And Future Technical Tools And Expertise (2.13)

Individual departments in the City government that are in immediate contact with stormwater issues will be responsible to keep up with the technical tools that are available. This can be accomplished by attendance at industry seminars and workshops, and casual review of industry publications.

If changes in technical tools become available, assignment of responsibility will be made to a qualified individual. This will include adequate training with an immediate on-the-job opportunity to implement and practice the tool.

XVII.BMP's That May Be Implemented Immediately (2.14)

- **A.** Structural (e.g. detention ponds, infiltration ponds, bio-filtration systems, etc.)
 - Identify and inspect all existing stormwater detention facilities schedule necessary maintenance.
 - Train parks and recreation personnel in the construction and operation of rain gardens.
- **B.** Non-structural (e.g. street sweeping)
 - Adopt or formalize the City's street sweeping program.
 - Introduce an ordinance that requires street sweeping of commercial, industrial and institutional parking lots. The ordinance may be based on the number of

- employees or size of parking lot. The ordinance may require sweeping in the early spring as snow piles melt away and late fall to remove leaves.
- Initiate the public information program.
- Introduce City personnel to the need for and requirements of this program with departmental training meetings. This should include the identification of illicit discharges.
- Train City personnel who issue building permits and conduct inspections in the requirements. This includes how to read, interpret and approve/deny SWPPP's submitted as part of a permit request.
- Review agreements with private utilities and, if necessary, amend them to reflect the utility's responsibilities to appropriately repair areas disturbed by their activities and that provides for appropriate enforcement procedures and actions.

XVIII. Goals For Next Five Years:

A. The specific Timeline/Implementation Schedule for each BMP is detailed in the BMP Summary Sheet's. The accomplishment of the goals and BMP's as listed herein is dependent upon the procurement of adequate capital, material and staff resources. Dependent upon available resources and the requirement to implement other TMDL BMP's, it is anticipated that the Timeline/Implementation Schedule will be revised annually and amended as appropriate. The general goals of the SWPPP are listed below. It is anticipated that resources will not be available to accomplish the goals within the time frame listed.

1. 2007:

- One of the first tasks will be to assign the responsibility for creating a filing system and performing record keeping.
- Place information pamphlets in utility bills and/or post information on the City website.
- Contact local organizations to determine their educational roles with regard to the Redwood Falls area SWPPP and participate as needed.
- Initiate annual public hearings prior to submittal of annual report. This activity will continue into the future.
- Review current ordinance language, acquire model ordinances and ordinances from surrounding communities with regard to illicit discharges, stormwater runoff from construction sites, sweeping pavements on private properties, stormwater review through the development process, etc.
- Draft changes and/or new ordinances addressing the appropriate areas for improvement.
- Examine mechanisms to fund the stormwater program.

- Distribute fliers for construction site erosion control with issuance of a building permit.
- Ensure compliance with existing construction permits.
- Train municipal employees in how to read and apply both the general SWPPP's and individual project oriented ones.

2. 2008:

- Work with local organizations to facilitate new educational opportunities.
- Draft ordinances by incorporating model ordinance information and drafting new language as required.
- Prepare illicit discharge inspection and assessment program.
- Adopt a stormwater funding method and execute all necessary ordinances.
- Distribute fliers for construction site erosion control with issuance of a building permit.
- Draft and adopt long term operation and maintenance program for stormwater facilities.
- Train City personnel for implementation of the long-term operation and maintenance program.

3. 2009:

- Implement some of the new educational programs through cooperative efforts with local organizations
- Continue to promote and work with local organizations for new and existing educational programs.
- Hold public meeting with regard to the illicit discharge ordinance and public notice.
- Adopt illicit discharge inspection and assessment program.
- Perform training sessions for City personnel and inspection staff.
- Post-educational information on web page.
- Incorporate changes into ordinances as per comments and as directed by the Council.
- Ensure compliance with all construction permits.
- Complete inspections and maintenance as outlined in the long-term operations and maintenance program for stormwater facilities.

4. 2010 - 2011:

• Conduct illicit discharge inspection and assessment as adopted.

XIX. Plan Modifications

A. General

It is anticipated that this plan will be updated on an annual basis. The proposed updates will be made public prior to the annual meeting. Updates will be made on the following basis:

- 1. Modifications may be required by the Commissioner of the MPCA based on the following factors:
 - a. Discharges from the MS4 are impacting the quality of the receiving water.
 - b. More stringent requirements are necessary to comply with State or Federal regulations.
 - c. Additional conditions are deemed necessary to comply with the goals and requirements of the Clean Water Act.
- 2. Modification requirements will be made in writing, set forth schedules for compliance and offer the City the opportunity to propose alternative program modifications, and comply with other requirements of law, to meet objectives of the requested modification.
- 3. Reasonable modifications may be made as requested by the general public in the following formats:
 - a. Oral requests given at the annual meeting.
 - b. Written requests received within a reasonable time so that City staff can review the request and make the requested modification to the plan if deemed reasonable.
- 4. Modifications may be made by the City without prior approval of the Commissioner, provided it is in accordance with the following:
 - a. A BMP is added and none are subtracted from the SWPPP.
 - b. A BMP that has failed is replaced with an alternate BMP that addresses the same or similar concerns.
 - c. The Commissioner is notified of the modification in the annual report for the year the modification was made, or in a technical report as needed.

XX. Monitoring, Record Keeping And Reporting

A. General

To meet the permit requirements, the City will evaluate program compliance, assess identified BMPs and identify progress towards achieving the measurable goals.

The City will keep records required by the NPDES permit for at least 3 years beyond the term of the permit and make the SWPPP and records available to the public during regular business hours

B. Approach

The status of program compliance, assessment of identified BMPs and progress of achieving the measurable goals will be documented in an annual report that is submitted to the MPCA by June 30 of each year covered under the term of the permit. The report will include the following:

- 1. Evaluation and assessment of the SWPPP.
- 2. Results of information collected and analyzed regarding the effectiveness of the SWPPP.
- 3. A summary of next years storm water activities planned.
- 4. Any proposed changes to BMPs or measurable goals.
- 5. A notice that another entity will satisfy some of the permit obligations.

The City will retain a copy of the SWPPP, which includes a copy of the permit application and all supporting information at City Hall that can be viewed by interested persons during business hours. A copy of the SWPPP may be acquired from the City for a fee equal to the cost of plan reproduction. In addition, all data and information used to complete the application, annual reports, records and additional information requested by the Commissioner will be retained at City Hall for a period of at least 3 years beyond the date of permit expiration.

XXI. Summary

A principal feature of this SWPPP will the encouragement of public participation and involvement. This can be accomplished by:

- All meetings will be held within the City.
- Notice must be published at least 30 days prior to the meeting in the official City newspaper and provide a copy of the notice to the MPCA, county officials and all other persons who have indicated an interest in the SWPPP.
- The Notice will contain reference to this SWPPP, the date, time and location of the public informational meeting.
- The Notice will contain a concise description of the manner in which the meeting will be conducted.
- The Notice will indicate where a copy of this SWPPP is available for public review.
- The meeting will solicit public opinion on the adequacy of the SWPPP.

- Interested persons will be given a reasonable opportunity to make oral statements concerning the SWPPP.
- Timely, relevant written material, submitted concerning the SWPPP, will be considered.
- The City will consider the public input, oral or written, and make adjustments as deemed appropriate to the SWPPP.
- Complete minutes will be taken to document the hearing and any submitted written statements regarding the SWPPP.
- The comments may be answered immediately if deemed appropriate by the Council and staff. If more review is necessary, the Council and staff may note the oral and/or written comments to be addressed at the next regularly scheduled meeting. All submitted comments will be addressed. A file of all comments and their conditions of acceptance and/or rejection will be kept on file and open for public review. Accepted amendments will be made part of the annual revision to the SWPPP.

This plan is merely the starting point of this 5-year endeavor and will undoubtedly be modified throughout the period of the permit. The general public is welcome to review this plan and to submit recommendations for revision during the annual SWPPP meeting. The Minnesota Pollution Control Agency is also anticipated to submit comments and recommendations for both mandatory and suggested plan revisions. These requested revisions will be made available to the general public for review and comment.

The City will document its relevant actions proving its efforts to comply with the conditions of the permit. The City intends to keep all documented actions, the most current rendition of this SWPPP and any requested revisions on file with the permit.

Approach toward pollution prevention:

The City's general approach is to map all of its significant discharges into its rivers, lakes and wetlands and to utilize the Best Management Practice approach to limit pollutants and illicit discharges through its outfalls by both structural and non-structural methods. Engineered installations such as retention ponds, sedimentation basins and in-line sediment removal devices are generally considered to be structural methods. Educating the general public as well as the City's maintenance personnel in more pollution conscious methods of mowing, fertilizing and proper waste disposal are generally considered to be non-structural methods.

APPENDICES

HISTORIC PLACES LIST

ACRONYMS

GLOSSARY

EDUCATIONAL PROGRAM TERMS

BMP SUMMARY SHEETS – PUBLIC EDUCATION AND OUTREACH

BMP SUMMARY SHEETS – PUBLIC PARTICIPATION AND INVOLVEMENT

BMP SUMMARY SHEETS – ILLICIT DISCHARGE ELIMINATION

BMP SUMMARY SHEETS - CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

BMP SUMMARY SHEETS – POST CONSTRUCTION STORM WATER MANAGEMENT IN

NEW AND REDEVELOPMENT

BMP SUMMARY SHEETS - POLLUTION CONTROL AND GOOD HOUSEKEEPING FOR

MUNICIPAL OPERATIONS

HISTORIC PLACES



Bank of Redwood Falls Building (added 1980 - Building - #80002141)

2nd St., Redwood Falls

Historic Significance: Event, Architecture/Engineering

Architect, builder, or engineer: Unknown

Architectural Style: Other, Romanesque Area of Significance: Architecture, Commerce

Period of Significance: 1875-1899

Owner: **Private**

Historic Function: Commerce/Trade Historic Sub-function: Financial Institution Current Function: Commerce/Trade

Current Sub-function: Business



Bellig Site (added 1978 - **Site** - #78003580)

Address Restricted, Redwood Falls

Owner: Private



Chollar, H. D., House (added 1980 - **Building** - #80002142)

4th and Minnesota Sts., Redwood Falls

Historic Significance: Event, Architecture/Engineering

Architect, builder, or engineer: Unknown Architectural Style: Italianate

Area of Significance: Architecture, Commerce

Period of Significance: 1875-1899

Owner: **Private**Historic Function: Domestic
Historic Sub-function: Single Dwelling
Current Function: Domestic

Current Sub-function: Multiple Dwelling



Gilfillan ** (added 1980 - **District** - #80002143)

MN 67, Redwood Falls

Historic Significance: Person, Event Historic Person: Gilfillan, Charles D. Significant Year: 1916, 1920, 1882

Area of Significance: Agriculture, Social History, Exploration/Settlement

Period of Significance: 1875-1899, 1900-1924

Owner: Private

Historic Function: Agriculture/Subsistence, Commerce/Trade, Domestic Historic Sub-function: Animal Facility, Secondary Structure, Single Dwelling Current Function: Agriculture/Subsistence, Commerce/Trade, Domestic Current Sub-function: Animal Facility, Secondary Structure, Single Dwelling



Honner-Hosken House (added 1980 - Building - #80002138)

North and Main Sts., North Redwood

Historic Significance: Person

Historic Person: Honnor, J.S.G., et al.

Significant Year: 1872

Area of Significance: Exploration/Settlement, Politics/Government, Industry

Period of Significance: 1850-1874 Owner: **Private** Historic Function: Domestic

Historic Sub-function: Hotel, Single Dwelling

Current Function: Domestic Current Sub-function: Single Dwelling



Ramsey Park Swayback Bridge (added 1980 - Structure - #80002144)

Ramsey Park, Redwood Falls

Historic Significance: Architecture/Engineering

Architect, builder, or engineer: WPA
Architectural Style: Other
Area of Significance: Engineering
Period of Significance: 1925-1949

Owner: **Local Gov't**Historic Function: Transportation
Historic Sub-function: Road-Related
Current Function: Transportation
Current Sub-function: Road-Related



Redwood Falls Carnegie Library (added 1980 - Building - #80002139)

334 S. Jefferson St., Redwood Falls

Historic Significance: Event
Area of Significance: Education
Period of Significance: 1900-1924
Owner: Local Gov't
Historic Function: Education
Historic Sub-function: Library
Current Function: Education

Current Sub-function: Library



Scenic City Cooperative Oil Company (added 1980 - Building - #80002140)

2nd and Mill Sts., Redwood Falls

Historic Significance: Event Area of Significance: Commerce Period of Significance: 1925-1949

Owner: Private

Historic Function: Transportation
Historic Sub-function: Road-Related
Current Function: Commerce/Trade

ACRONYMS

As the regulatory world develops, it becomes increasingly difficult to remember acronyms. The following list has been prepared as part of the League of Minnesota Cities (LMC) NPDES Guide Plan and contains acronyms used within the NPDES permit document, the LMC Guide Plan Material and this Storm Water Pollution Prevention Plan.

 BATBest Available Technology Economically Achievable (applies to non-conventional and toxic pollutants) BCTBest Conventional Pollutant Control Technology (applies to conventional pollutants) BMPBest Management Practice BPJBest Professional Judgment BPTBest Practicable Control Technology Currently Available (generally applies to conventional pollutants and some metals)
 CFRCode of Federal Regulations CODChemical Oxygen Demand CSOCombined Sewer Overflow CWAClean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) CZARACoastal Zone Act Reauthorization Amendments
D.ODissolved Oxygen DMRDischarge Monitoring Report
ELGEffluent Limitations Guidelines EPAEnvironmental Protection Agency
FRFederal Register
GISGeographic Information Systems
HAZMAT Hazardous Material
LMCThe League of Minnesota Cities
MCDMinor Civil Division MCMMinimum Control Measure MEPMaximum Extent Practicable MEPAMinnesota Environmental Policy Act MPCAMinnesota Pollution Control Agency MS4Municipal Separate Storm Sewer System MSGPMulti Sector General Permit

NEPANational Environmental Policy Act

NOINotice of Intent

NOTNotice of Termination

NPDES National Pollutant Discharge Elimination System

NPSNon-point Source

O&MOperation and Maintenance

OWOffice of Water

OWMOffice of Wastewater Management **ORVW**Outstanding Resource Value Waters

PAPermitting Authority

POTWPublicly Owned Treatment Works

SICStandard Industrial Classification

SWPPP Storm Water Pollution Prevention Program

TMDL Total Maximum Daily Load

TSSTotal Suspended Solids

UAUrbanized Area

USEPA United States Environmental Protection Agency

USGS United States Geological Survey

GLOSSARY

The following glossary has been prepared as part of the League of Minnesota Cities (LMC) NPDES Guide Plan and contains terms used within the NPDES permit document, the LMC Guide Plan Material, and this Storm Water Pollution Prevention Plan. Although some specific terms have been added from the Minnesota Pollution Control Agency (MPCA) pertaining to the general permit requirements, most came directly from the Environmental Pollution Control Agency (EPA) Compliance Assistance Guide.

- **Best Available Treatment (BAT)/Best Control Technology (BCT):** A level of technology based on the very best (state of the art) control and treatment measures that have been developed or are capable of being developed and that are economically achievable within the appropriate industrial category.
- **Best Management Practices (BMPs):** Activities or structural improvements that help reduce the quantity and improve the quality of storm water runoff. BMPs include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.
- Clean Water Act (Water Quality Act): (formerly the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972). Public law 92-500; 33 U.S.C. 1251 et seq.; legislation which provides statutory authority for the NPDES program. Also known as the Federal Water Pollution Control Act.
- Common Plan of Development or Sale: Means a contiguous area where multiple separate and distinct construction activities are planned to occur at different times on different schedules under one plan, e.g., a housing development of five ½ acre lots (40 CFR Sec. 122.26 (b)(15)(i)).
- **Conveyance:** The process of water moving from one place to another.
- **Discharge:** The volume of water (and suspended sediment if surface water) that passes a given location within a given period of time.
- **Discharge Monitoring Report:** The required annual report to be submitted by an MS4.
- **Discretionary MS4:** A small MS4 who is required to comply with the NPDES Phase II permit due to the permitting agency's (MPCA's) designated criteria.
- **Dry Weather Flow:** Continued flow through the storm sewer system drains during dry weather conditions that usually indicate illicit connections into the storm sewer system.
- **Erosion:** When land is diminished or worn away due to wind, water, or glacial ice. Often the eroded debris (silt or sediment) becomes a pollutant via storm water runoff. Erosion occurs naturally but can be intensified by land clearing activities such as farming, development, road building, and timber harvesting.
- **Excavation:** The process of removing earth, stone, or other materials from land.
- **General Permit:** A permit issued under the NPDES program to cover a certain class or category of storm water discharges whose operations, emissions, discharges, or facilities are the same or substantially similar. These permits reduce the administrative burden of permitting storm water discharges.

- **Grading:** The cutting and/or filling of the land surface to a desired slope or elevation.
- **Illicit Discharge:** Any discharge to a municipal separate storm sewer that is not composed entirely of storm water, has measurable flow and are significant contributors of pollutants; and is not authorized by a separate NPDES permit or included in an approved SWPPP.
- **Industrial Activity:** Any activity that is directly related to manufacturing, processing, or raw materials storage at an industrial plant.
- **Large Municipal Separate Storm Sewer System (MS4):** An MS4 located in an incorporated place or county with a population of 250,000 or more, as determined by Appendix A Page A-3 Storm Water Phase II Compliance Assistance Guide the latest U.S. Census.
- **Light Manufacturing Facilities:** Described under Category (xi) of the definition of "storm water discharges associated with industrial activity." [40 CFR 122.26(b)(14)(xi)] Under the Phase I NPDES Storm water Program, these facilities were eligible for exemption from storm water permitting requirements if certain areas and activities were not exposed to storm water. As a result of the Phase II Final Rule, these facilities must now certify to a condition of no exposure.
- **Mandatory MS4:** A small MS4 who is required to comply with the NPDES Phase II permit due to the criteria set by the USEPA. Any publicly owned MS4 with a population greater than 10,000 located in an UA (Urbanized Area).
- **Maximum Extent Practicable (MEP):** A standard for water quality protection that applies to all MS4 operators regulated under the NPDES Storm water Program. Since no precise definition of MEP exists, it allows for flexibility on the part of MS4 operators as they develop and implement their programs.
- **Measurable Goals:** Goals required for the NPDES Phase II permit under each Minimum Control Measure and intended to gauge permit compliance and program effectiveness.
- **Medium Municipal Separate Storm Sewer System (MS4):** MS4 located in an incorporated place or county with a population of 100,000 or more but less than 250,000, as determined by the latest U.S. Census.
- **Minimum Control Measure:** If coverage is obtained under a general permit or an individual permit under the Phase II regulations, the operator of a regulated small MS4 is required to implement a storm water management program that includes, at a minimum, the six minimum control measures.
- **Municipal Separate Storm Sewer System (MS4):** A publicly-owned conveyance or system of conveyances that discharges to waters of the U.S. or waters of the State, and is designed or used for collecting or conveying storm water, is not a combined sewer, and is not part of a publicly-owned treatment works (POTW).
- **No exposure:** All industrial materials or activities that are protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products. Material handling activities include the storage, loading and unloading,

- transportation, or conveyance of any raw material, intermediate product, final product or waste product.
- **Non-authorized States:** Any State that does not have the authority to regulate the NPDES Storm water Program.
- **Non-point Source (NPS) Pollutants:** Pollutants from many diffuse sources. NPS pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters, and even our underground sources of drinking water.
- **Notice of Intent (NOI):** An application to notify the permitting authority of a facility's intention to be covered by a general permit; exempts a facility from having to submit an individual or group application.
- **NPDES** (National Pollutant Discharge Elimination System): The name of the surface water quality program authorized by Congress as part of the 1987 Clean Water Act. This is EPA's program to control the discharge of pollutants to waters of the United States (see 40 CFR 122.2). In Minnesota, the MPCA is the permitting authority and also controls the discharge of pollutants to the waters of the State.
- **O&M Expenditures**: The operating and maintenance costs associated with the continual workings of a project.
- **Outfall:** The point where storm water discharges from a sewer pipe, ditch, or other conveyance to a receiving body of water.
- **Permitting Authority (PA):** The NPDES-authorized state agency or EPA regional office that administers the NPDES Storm water Program. PAs issue permits, provide compliance assistance, and inspect and enforce the program.
- **Physically interconnected MS4:** This refers to an MS4 that is connected to a second MS4 in such a way that it allows for direct discharges into the second system.
- **Point Source Pollutant:** Pollutants from a single, identifiable source such as a factory or refinery.
- **Pollutant Loading:** The total quantity of pollutants in storm water runoff discharged to receiving waters.
- **Regulated MS4:** Any MS4 covered by the NPDES Storm water Program (regulated small, medium, or large MS4s).
- **Retrofit:** The modification of storm water management systems through the construction and/or enhancement of wet ponds, wetland plantings, or other BMPs designed to improve water quality.
- **Runoff:** Surface water drainage or flood discharge that leaves an area as surface flow or as pipeline flow and can reach a channel or pipeline by either surface or sub-surface routes.
- **Sanitary Sewer:** A system of underground pipes that carries sanitary waste or process wastewater to a treatment plant.

- **Sediment:** Soil, sand, and minerals washed from land into water, usually after rain and snowmelt. Sediment can destroy fish-nesting areas and clog animal habitats. It can also cloud waters so that sunlight does not reach aquatic plants, predators cannot find prey, and water temperatures increase.
- **Sheet flow:** The portion of precipitation that moves initially as diffuse overland flow in very shallow depths before eventually reaching a stream channel.
- **Site Plan:** A graphical representation of a layout of buildings and facilities on a parcel of land.
- **Site Runoff:** Any surface drainage or flood discharge that is released from a specified area.
- **Small Municipal Separate Storm Sewer System (MS4):** Any MS4 that is not regulated under Phase I of the NPDES Storm water Program and Federally-owned MS4s.
- **Stakeholder:** An entity that holds a special interest in an issue or program -- such as the storm water program -- since it is or may be affected by it.
- **Standard Industrial Classification (SIC) Code:** A four-digit number, which is used to identify various types of industries.
- **Storm Drain:** A slotted opening leading to an underground pipe or an open ditch intended to carry surface water runoff, such as a catch basin.
- **Storm water Management:** Functions associated with planning, designing, constructing, maintaining, financing, and regulating the facilities (both constructed and natural) that collect, store, control, and/or convey storm water.
- **Storm water Pollution Prevention Program (SWPPP):** A program to describe a process whereby an MS4 thoroughly evaluates potential pollutant sources and selects and implements appropriate measures designed to prevent or control the discharge of pollutants in storm water runoff.
- **Surface Water:** Water that remains on the surface of the ground, including rivers, lakes, reservoirs, streams, wetlands, impoundments, seas, estuaries, etc.
- **Total Maximum Daily Load (TMDL):** The maximum amount of pollutants that can be released into a water body without adversely affecting the water quality.
- **Tool Box:** A term to describe the activities and materials that EPA plans to perform/produce to facilitate implementation of the storm water program in an effective and cost-efficient manner. The eight components include: 1) fact sheets; 2) guidance documents; 3) menu of BMPs; 4) compliance assistance; 5) information clearing house; 6) training and outreach efforts; 7) technical research; and 8) support for demonstration projects.
- **Urbanized Area (UA):** A Census Bureau determination of a central place (or places) and the adjacent densely settled surrounding territory that together have a minimum residential population of 50,000 people and a minimum average density of 1,000 people/square mile. This is a simplified definition of a UA, the full definition is very complex.
- **Urban Runoff:** Storm water from urban areas, which tends to contain heavy concentrations of pollutants from urban activities.
- **Watershed:** That geographical area which drains to a specified point on a watercourse, usually a confluence of streams or rivers (also known as drainage area, catchment, or river basin).

Waters of the State: All streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the state or any portion thereof.

Waters of the US: All waters that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide and all interstate waters including interstate wetlands. For a full description, visit the US Army Corps of Engineering website (40 CFR 122.2) at www.usace.army.mil

Wet Weather Flows: Flow that enters storm drains during rainstorms or wet weather events.

EDUCATIONAL PROGRAM TERMS

- **Activity/Educational Activity**: Method used to produce changes in awareness, understanding, skills, and behavior in an audience.
- **Activity Implementation Plan**: Provides details (e.g.: who, what, when) on how activities will be carried out.
- **Audience/Target Audience**: Individuals or groups to whom education is directed. Audiences can often be divided into those who need to take action and those who can support action.
- Awareness: Know that an issue or concern exists.
- **Changes in Behavior**: Regular adoption of a preventive or corrective action.
- **Educational Goal**: Information or an informed action that is desired for a given audience to know, be able to do, or actually be doing.
- **Educational Program**: For this document, an overall educational effort which is made up of individual educational strategies.
- **Educational Strategy**: For this document, an educational effort directed at a specific Minimum Control Measure.
- **Measurable Goal**: Measuring educational goals can be difficult. How do you measure changes in knowledge of the public? A measurable goal is an educational goal that is practical for a Phase II program to measure.
- **Skills/Abilities**: Using one's knowledge to effectively implement preventive or corrective actions.
- **Understanding/Knowledge**: Understand the cause and effect of an issue or concern. Understand sufficiently to explain the issue or concern to others.

Responsible Party for BMP's:

Keith Muetzel
City Administrator
City of Redwood Falls
507-637-5755 Voice
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Table of Best Management Practices (BMP's) Identified 1-PUBLIC EDUCATION AND OUTREACH

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MS4 Name: Redwood Falls

Minimum Control Measure: 1-PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1a-1

*BMP Title: 1a-1 - Distribute Educational Materials Source: PCA

*BMP Description:

- Create and/or select written educational materials that introduce storm water management issues to residential and non-residential system users.
- Alternative methods to distribute information include, but are not limited to Utility bill stuffers; Local press releases; City's web site; Target Mailings; other systems as feasible.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Number of months and pieces of information included with utility bills
- Number or press releases
- Number of hits on City web site

*Timeline/Implementation Schedule:

• 2007-8 Identify the preferred alternatives to distribute educational materials.

Identify the annual budget needs including capital, materials and staff resources.

- 2008-9 Establish and implement the annual budget
- 2010 Initial Phase to distribute educational materials is fully implemented.
- 2011 Consider alternative means and methods of outreach.

Specific Components and Notes:

• Focus on correlating the educational outreach with the appropriate time of the season.

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1b-1

*BMP Title: 1b-1 - Implement an Education Program Source: PCA

*BMP Description:

- Annually, select a theme and sequence of educational materials. Materials should change seasonally to reflect what the near future holds.
- Appraise the City's decision makers (e.g., elected and appointed officials) as to all aspects of the storm water management program.
- Work with watershed SWCD's and others to have their educational brochures, articles, and other materials posted on or linked to the City's website.
- Maintain a continual awareness to find new sources of information and document all new worthwhile finds
- Annually, review the findings against the current materials used and adjust accordingly.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Number of months information included with utility bills
- Number of press releases
- Number of speaking events held
- Number of hits on City web site
- Number of new sources of information found and/or posted

*Timeline/Implementation Schedule:

• 2007-8 Identify the preferred alternative for implementing an education program.

Identify the annual budget needs including capital, materials and staff resources Formalize the responsible party for this BMP.

• 2008-9 Initiate training of the responsible party.

Establish and implement the annual budget.

Formalize staff responsibilities and record reporting.

Secure resources for the implementation of the BMP.

- 2010-11 Initial phase to implement an education program is fully implemented.
- 2011 Evaluate the effectiveness of the BMP.

Consider alternative means and methods to more effectively implement the BMP.

Specific Components and Notes:

It is anticipated that the MPCA will be a primary source for educational materials.

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department

Phone: 507-637-5755

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MS4 Name: Redwood Falls

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1c-1

*BMP Title: 1c-1 – Education Program: Public Education and Outreach Source: PCA

*Audience(s) Involved:

- Adult
- Adolescents
- Children

*Educational Goals for Each Audience:

- Adult
 — Capable of describing the tie between good or bad stormwater management and the clean waters.
- Ability to describe the elements of stormwater management.
- Adolescents Ability to illustrate how previous generations dealt with stormwater issues and the current status of surface water resources.
- Children Cite examples of poor stormwater management and list corrective options.

*Activities Used to Reach Educational Goals:

Activities may include:

- Host a storm water related clean up project.
- Exhibit or partner with other storm water specialists at trade shows and other public gatherings.
- Provide School curriculum targeting stormwater issues.

*Activity Implementation Plan:

2008-9 Identify the annual budget needs including capital, materials and staff.

Formalize the strategy to achieve the BMP.

Formalize the responsible party for the BMP.

• 2009-10 Initiate training of the responsible party.

Establish and implement the annual budget.

Formalize staff responsibility and record reporting.

Identify outside resources for implementation of the BMP.

• 2011 Initial phase to implement a public education and outreach program is fully

implemented.

Evaluate the effectiveness of the BMP.

Consider alternative means and methods to more effectively implement the BMP.

*Performance Measures:

- Number in attendance
- Use evaluation forms to solicit feedback
- Number of classes sessions that include stormwater presentation
- Number of students in attendance

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1c-2

*BMP Title: 1c-2 - Education Program: Public Participation Source: PCA

*Audience(s) Involved:

- Adult
- Adolescents
- Children

*Educational Goals for Each Audience:

Adult Recognize improperly vegetated and maintained buffer strips

Recognize good and poor stormwater control Adolescents

Recognize clean and dirty water Children

*Activities Used to Reach Educational Goals:

Activities may include:

- Civic group guided field trips of stormwater management in the community
- Civic group presentations
- Youth trace the route of stormwater through your neighborhood to nearby bodies of water
- Youth learn how fertilizer, grass clippings, leaves and sediment affect water quality
- HS chemistry class to sample the river and report results
- Construct a reporting form on the City's web site for people to report BMP's requiring maintenance.

*Activity Implementation Plan:

2008-9 Identify the annual budget needs including capital, materials and staff.

Formalize the strategy to achieve the BMP.

Formalize the responsible party for the BMP.

Initiate training of the responsible party. 2009-10

> Establish and implement the annual budget. Formalize staff responsibility and record reporting.

Identify the outside resources for the implementation of the BMP. Initial phase to implement a public participation program is fully 2011

implemented.

Evaluate the effectiveness of the BMP.

Consider alternative means and methods to more effectively implement the BMP.

*Performance Measures:

- Evaluation questionnaires to measure effectiveness
- Record annually the number of presentations and field trips
- Record the number of attendees at each function
- Record the number and character of all calls and emails from the general public

*Responsible Party for this BMP:

Name: City Administrator Department: Street Department Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1c-3

*BMP Title: 1c-3 - Education Program - Illicit Discharge Detection and Elimination Source: PCA

*Audience(s) Involved:

- Street and Utility Staff
- Other Staff, Council and Commissions

*Educational Goals for Each Audience:

- Storm Sewer Utility Staff—Recognize types of illicit discharge; ability to properly document any observations; understand their reporting responsibilities; ability to describe punitive measures. Capable to solicit cooperation from offender to rectify the illicite discharge. Other Street and Utility Staff—Capable of recognizing and reporting illicit discharges.
- Other staff Recognize types of illicit discharge and understand the proceedures to report it to appropriate staff.

*Activities Used to Reach Educational Goals:

• Provide training to City staff so that they can learn their various roles in stormwater management and the detection and elimination of illicit discharges.

*Activity Implementation Plan:

• 2008-9 Identify the annual budget needs including capital, materials and staff.

Formalize the strategy to achieve the BMP.

Formalize the responsible party for the BMP.

• 2009-10 Initiate training of the responsible party.

Establish and implement the annual budget.

Formalize staff responsibility and record reporting.

Identify outside resources for the implementation of the BMP.

2011 Initial phase to implement a public education program for illicit discharge detention and

elimination is fully implemented.

Evaluate the effectiveness of the BMP.

Consider alternative means and methods to more effectively implement the BMP.

*Performance Measures:

• Keep records of training sessions attended by staff

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

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MS4 Name: Redwood Falls

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1c-4

*BMP Title: 1c-4 - Education Program - Construction Site Run-off Control Source: PCA

*Audience(s) Involved:

- Local building construction companies
- Local developers
- Street Utility Staff and Building Officials

*Educational Goals for Each Audience:

- Local building construction companies Describe the purpose of the various BMP's required; recognition of deficient BMP's, capability to effectively implement the site SWPPP, develop an understanding the reporting requirements of individual SWPPP's, instill a clear understanding of the potential penalties associated with non-compliance with the site SWPPP.
- Local developers Capable of describing to homebuyers, housing contractors, landscape contractors and others the responsibilities of compliance with requirements of the project SWPPP.
- Building inspectors ability to understand and enforce the rules of the individual SWPPP.

*Activities Used to Reach Educational Goals:

Activities may include:

- Attend seminars conducted by construction site run-off control specialist.
- Provide educational and regulatory materials with exterior building permit requests.
- Inform those engaged in the construction industry as to seminars conducted by construction site runoff control specialists.

*Activity Implementation Plan:

• 2008-9 Identify the annual budget needs including capital, materials and staff.

Formalize the strategy to achieve the BMP.

Formalize the responsible party for the BMP.

• 2009-10 Initiate training of the responsible party.

Establish and implement the annual budget.

Formalize staff responsibility and record reporting.

Identify outside resources for the implementation of the BMP.

• 2011 Initial phase to implement a public education and outreach program for construction site

run-off control is fully implemented.

Evaluate the effectiveness of the BMP.

• Consider alternative means and methods to more effectively implement the BMP.

*Performance Measures:

- Number of attendees at training seminars.
- Number of building permits with construction site run-off control educational materials attached.

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

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MS4 Name: Redwood Falls

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1c-5

*BMP Title: 1c-5 - Education Program - Post-Construction Stormwater Management in New Development and Redevelopment PCA

*Audience(s) Involved:

- Realtors
- Landscape firms

*Educational Goals for Each Audience:

- Realtors Capability to describe to homebuyers the responsibilities of compliance with requirements of the Storm Water Pollution Prevention Plan including limitations on future grading.
- Landscape firms Ability to understand and describe to customers the limitations on grading in developments as described in the Storm Water Pollution Prevention Plan. Handouts with Building Permits.

*Activities Used to Reach Educational Goals:

- In public meetings on redevelopment include description of stormwater maintenance and limits of alteration
- Advise realty and landscape companies as to seminars that may be available.

*Activity Implementation Plan:

• 2008-9 Identify the annual budget needs including capital, materials and staff.

Formalize the strategy to achieve the BMP.

Formalize the responsible party for the BMP.

• 2009-10 Initiate training of the responsible party.

Establish and implement the annual budget.

Formalize staff responsibility and record reporting.

Identify outside resources for the implementation of the BMP.

• 2011 Initial phase to implement a public education and outreach program for past-construction

stormwater management is fully implemented.

Evaluate the effectiveness of the BMP.

Consider alternative means and methods to more effectively implement the BMP.

*Performance Measures:

- Number of meetings and attendance at meetings.
- Number of seminar notices mailed/posted to web site.

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1c-6

*BMP Title: 1c-6 - Education Program - Pollution Prevention/Good Housekeeping for Municipal Operations PCA

*Audience(s) Involved:

- Street Department Staff
- City/Utility Field Staff and Supervisors

*Educational Goals for Each Audience:

- Storm Sewer Department Staff Capable of recognizing improperly operating BMP's, ability to describe corrective measures, capable of implementing the corrective measures.
- MS4 supervisory staff Capable of recognizing improperly operating BMP's, ability to describe corrective measures, capable of communicating with field staff the required corrective plan.

*Activities Used to Reach Educational Goals:

- Develop a list of activities commonly seen locally that could contribute to pollution and methods used to control them.
- Annually meet with field staff to discuss the proper use of the various BMP's.
- Invite vendors of BMP products to present information and possible training.

*Activity Implementation Plan:

• 2008-9 Identify the annual budget needs including capital, materials and staff.

Formalize the strategy to achieve the BMP.

Formalize the responsible party for the BMP.

• 2009-10 Initiate training of the responsible party.

Establish and implement the annual budget.

Formalize staff responsibility and record reporting.

Identify outside resources for the implementation of the BMP.

• 2011 Initial phase to implement a public education and outreach program for pollution

prevention/good housekeeping is fully implemented.

Evaluate the effectiveness of the BMP.

Consider alternative means and methods to more effectively implement the BMP.

*Performance Measures:

• Attendance list at all training sessions.

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

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MS4 Name: Redwood Falls

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1d-1

*BMP Title: 1d-1 - Coordination of Education Program Source: PCA

*BMP Description:

- Identify other MS4 communities in the area and identify resources to publicize information in each one's area.
- If agreement can be reached, rotate training among the communities and cross publicize the availability of educational programs.
- Hold discussions with local water resources educators to discuss the delivery of storm water educational BMPs, develop agreements with willing partners.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

• Number of meeting invitations; attendance; program inventory; priority list.

*Timeline/Implementation Schedule:

• 2008-9 Identify the annual budget needs including capital, materials and staff.

Formalize the strategy to achieve the BMP.

Formalize the responsible party for the BMP.

• 2009-10 Initiate training of the responsible party.

Establish and implement the annual budget.

Formalize staff responsibility and record reporting.

Identify outside resources for the implementation of the BMP.

• 2011 Initial phase to implement a public education and outreach program for coordination of

education programs is fully implemented.

Evaluate the effectiveness of the BMP.

Consider alternative means and methods to more effectively implement the BMP.

Specific Components and Notes:

Attempt to focus on sharing of staff resources at community events and other outreach programs.

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1e-1

*BMP Title: 1e-1 - Annual Public Meeting Source: PCA

*BMP Description:

- Provide the meeting notice to the public, MPCA, and other persons who have indicated interest in the SWPPP.
- Advertise the annual meeting.
- Document attendance at the meeting.
- Document public input with regard to the adequacy of the SWPPP, whether written or oral opinion.
- Consider adjustments to the SWPPP according to comments received.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Number of attendees
- Number of comments from the public

*Timeline/Implementation Schedule:

• 2007 and on going Begin annual meetings - Meeting scheduled annually throughout the

term of the permit.

Meeting to be held before June 30th.

Specific Components and Notes:

- The notice will be published a minimum of 30 days prior to the meeting.
- Consider adjustments to the SWPPP according to comments received.
- The notice will contain the following information: reference to the SWPPP, date, time and location of the meeting, concise description of the manner in which the meeting is to be conducted and where a copy of the SWPPP is available for the public to review.
- The meeting will solicit public opinion with regard to the adequacy of the SWPPP.
- Interested persons will be given a reasonable opportunity to make oral statements regarding the SWPPP.

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

Table of Best Management Practices (BMP's) Identified 2-PUBLIC PARTICIPATION/INVOLVEMENT

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MS4 Name: Redwood Falls

Minimum Control Measure: 2-PUBLIC PARTICIPATION/INVOLVEMENT

Unique BMP Identification Number: 2a-1

*BMP Title: 2a-1 - Comply with Public Notice Requirements Source: PCA

*BMP Description:

- Document with proof of publication from the newspaper.
- In addition to the legal notice, document issuance of all press releases associated with MS4 compliance.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Affidavit of proof of publication available for public review.
- Number of times per year formal Notices are published on any MS4 issue.

*Timeline/Implementation Schedule:

• 2007-11 Continuing throughout permit period.

Specific Components and Notes:

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 2-PUBLIC PARTICIPATION/INVOLVEMENT

Unique BMP Identification Number: 2b-1

*BMP Title: 2b-1 - Solicit Public Input and Opinion on the Adequacy of the SWPPP | Source: PCA

*BMP Description:

- Include in the annual meeting notice, language that invites public participation and input on the adequacy of the SWPPP.
- External communication and publicity should include contact name of the responsible MS4 staff person, MS4 mailing address, and MS4 general e-mail address if appropriate.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Count of each type of communication received.
- Number of each material sent in response to inquiries.

*Timeline/Implementation Schedule:

• 2008-11 Ongoing through the permit period.

Specific Components and Notes:

• Follow-up tracking of assignments is required.

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 2-PUBLIC PARTICIPATION/INVOLVEMENT

Unique BMP Identification Number: 2c-

*BMP Title: 2c-1 - Consider Public Input Source: PCA

*BMP Description:

- Maintain a file of all comments received throughout the year with documentation to indicate final resolution.
- Request, but do not require, all materials be submitted in writing for the annual meeting.
- Prepare a summary of input received throughout the year. Periodically, issue a press release with the summary if appropriate.
- Assign a note taker to document discussions during the annual meeting.
- Assign follow-up on specific issues as appropriate.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Number of comments received.
- Document the follow-up to comments received.

*Timeline/Implementation Schedule:

• 2008-9 and continuing for the permit period

Specific Components and Notes:

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

Table of Best Management Practices (BMP's) Identified 3-ILLICIT DISCHARGE DETECTION AND ELIMINATION

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MS4 Name: Redwood Falls

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND

ELIMINATION

Unique BMP Identification Number: 3a-1

*BMP Title: 3a-1 - Storm Sewer System Map Source: PCA

*BMP Description:

- Develop a comprehensive map of the storm sewer system with rims, inverts and coordinate locations on each structure.
- Secure record drawing and provide them to MS4 field staff for review.
- Establish procedures where by required modifications to the comprehensive map can be reported and incorporated.
- Incorporate the mapping system into the SWPPP.
- Update the comprehensive map as appropriate.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Make the maps available to MS4 staff.
- Maintain a log of frequency of updating the maps.

*Timeline/Implementation Schedule:

- 2007-8 Create the comprehensive storm sewer map.
- 2009 Develop policy and procedures to report and incorporate changes to the map.
- 2009-10 Analyze the feasibility of making electronic mapping available to Street Department staff.

Specific Components and Notes:

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

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^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 3-Illicit Discharge Detection And Elimination

Unique BMP Identification Number: 3a-2

*BMP Title: 3a-2 - Define Drainage Areas Source: MS4

*BMP Description:

- Superimpose or develop full contours on the stormwater utility map.
- Define all points of discharge (24" diameter and larger) on the map.
- Outline the tributary area for each outlet.
- Identify sub areas with their development pattern as of 2000, 2007 and 2025. Also, identify volume of impervious, landscaped, undeveloped and wetland in each area.
- Illustrate all existing BMP's and types along the routes within the drainage area. Determine the area served by each individual BMP. Note if the BMP was installed prior to 2000.
- Place all information gathered in a database.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Identification of watershed sub areas.
- Identification of storm sewer routes.
- Identification of existing BMP's.

*Timeline/Implementation Schedule:

• 2008 Establish and implement the annual budget.

Formalize staff responsibilities.

• 2008-2009 Complete the map enhancements and data base creation.

Specific Components and Notes:

• As development /re-development occurs or large area re-zonings are approved, the mapping and data bases will be revised.

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND

ELIMINATION

Unique BMP Identification Number: 3b-1

*BMP Title: 3b-1 - Regulatory Control Program Source: PCA

*BMP Description:

- An Illicit Discharge Ordinance will be drafted, adopted and implemented.
- Review current ordinance language; acquire model ordinances.
- Draft and adopt City ordinance, including policies for enforcement and penalties.
- Educate the staff and public on the requirements of the ordinance.
- Enforce the ordinance.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Draft City ordinance and publish public hearing notice.
- Document attendance at public hearing.
- Document public input with regard to the adequacy of the ordinance.
- Adopt illicit discharge ordinance.
- Track compliance and/or violations to the ordinance.

*Timeline/Implementation Schedule:

- 2007-8 Information gathering on model and existing ordinances.
- 2008-9 Draft the illicit discharge ordinance.
- 2009 Identify the annual budget needs associated with the draft ordinance including capital, materials and staff resources.
- 2010 Establish and implement the annual budget.
- 2010 Public hearing for public input on illicit discharge ordinance.
- 2010 Adoption of the illicit discharge ordinance.
- 2010-11 Monitoring of compliance with the illicit discharge ordinance.

Specific Components and Notes:

• In the first two years of permit coverage, an illicit discharge ordinance will be drafted. A public notice will be published a minimum of 30 days prior to the scheduled public hearing. The public hearing will solicit public opinion with regard to the adequacy of the ordinance. Interested persons will be given a reasonable opportunity to make oral statements regarding the ordinance. All timely and relevant comments will be considered in adjusting the ordinance. Adjustments will be made to the ordinance as directed by the Council.

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND

ELIMINATION

Unique BMP Identification Number: 3c-1

*BMP Title: 3c-1 - Illicit Discharge Detection and Elimination Plan Source: PCA

*BMP Description:

- Identify policies (MS4, watershed district, state and regional) that already exist in the surrounding area.
- Identify criminal code (state of Minnesota) that exists.
- Adopt necessary rules to fill-in any gaps that exist in existing codes and rules.
- Develop procedures for identifying and eliminating illicit connections.
- Develop administrative procedures for notifying violators and enforcing compliance.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Develop and implement an illicit discharge identification, investigation, assessment and mitigation program.
- Incorporate the illicit discharge program into the SWPPP.
- Perform inspections as outlined in illicit discharge program.
- Identify illicit discharge issues and concerns.

*Timeline/Implementation Schedule:

- 2007-8 Information gathering on model and existing ordinances.
- 2009 Draft the illicit discharge detection and elimination plan.
- 2009 Identify the annual budget needs associated with the proposed illicit discharge program including capital, materials and staff resources.
- 2010 Establish and implement the annual budget.
- 2010-11 Implement the illicit discharge detection and elimination plan.

Specific Components and Notes:

• In the first two years of permit coverage, an illicit discharge inspection and assessment program will be drafted.

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND

ELIMINATION

Unique BMP Identification Number: 3d-1

*BMP Title: 3d-1 - Public and Employee Illicit Discharge Information Program Source: PCA

*BMP Description:

- Training of targeted City personnel for implementation of the illicit discharge detection and elimination program.
- Brochures and/or other informational materials specifically describing illicit discharges will be added to resource listing for distribution to the general public.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Maintain a list of individuals attending training.
- Document any responses to the inspection and assessment program.
- Modify illicit discharge detection and elimination inspection program according to comments received.

*Timeline/Implementation Schedule:

2010-11 Upon adoption of the Illicit Discharge Detection and Elimination ordinance, ongoing

training will be conducted with the appropriate staff.

Specific Components and Notes:

• As appropriate, work with adjoining communities and agencies to maximize training.

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND

ELIMINATION

Unique BMP Identification Number: 3e-1

*BMP Title: 3e-1 - Identification of Non Stormwater Discharges and Flows Source: PCA

*BMP Description:

- Prepare a list of typical sources of "non-stormwater discharges".
- Identify potential intercepts between non-stormwater discharge points and stormwater routes.
- Drive approximately 20% of the collection routes annually in efforts to identify existing sources of non-stormwater discharges and flows.
- In spring, survey the community for significant snow storage piles. Notify property owner of responsibility to clean up any debris accumulated with the snow.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Track number of illicit discharges identified as well as the actions taken to mitigate non-stormwater discharges and flows.
- 20% of stormwater collection routes driven per year.
- Number of sites with snow storage piles identified and notified.

*Timeline/Implementation Schedule:

• 2008-9 Identify the annual budget needs including capital, materials and staff.

Formalize the strategy to achieve the BMP.

Formalize the responsible party for the BMP.

• 2009-10 Initiate training of the responsible party.

Establish and implement the annual budget.

Formalize staff responsibility and record reporting.

• 2009-10 Identify outside resources for implementation of the BMP.

• 2011 Initial phase to identify non-stormwater discharges and flows is fully implemented.

Evaluate the effectiveness of the BMP strategies.

Consider alternative means and methods to more effectively implement the BMP.

Specific Components and Notes:

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND

ELIMINATION

Unique BMP Identification Number: 3f-1

*BMP Title: 3f-1 - MN River D. O. TMDL Source: MS4

*BMP Description:

- Define Drainage Areas see BMP 3a-2.
- Define Land Use Patterns with attention paid to potential phosphorous generating / releasing land uses see BMP 3f-2.
- Illicit Discharge Detection and Elimination Plan to the extent that discharges are laden with phosphorous—see BMP 3c-1.
- Determine Impervious and BMP Changes 2000-2006 see BMP 3f-3.
- Prioritize Drainage Areas for Installation of BMPs to reduce phosphorous see BMP 3f-4.
- Corridor Preservation see BMP 5a-2.
- Prioritize and Implement Corridor Preservation see BMP 5a-3.

Location(s) in SWPPP of detailed information relating to this BMP:

 The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

As defined in the individually referenced BMPs.

*Timeline/Implementation Schedule:

• As defined in the individually referenced BMPs.

Specific Components and Notes:

• The TMDL for 30% phosphorous reduction in the Minnesota River is measured against the year 2000. This reduction is not measured directly by pound of phosphorous removed. Since that level is a function of the amount of impervious area and the BMP's in place to treat it, the reduction percentage can be determined from the changes in impervious area / BMP's to treat it. Phosphorus reduction will be measured as defined by the MPCA rules/guidelines.

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND

ELIMINATION

Unique BMP Identification Number: 3f-2

*BMP Title: 3f-2 - Year 2000 Land Use Source: MS4

*BMP Description:

- Collect aerial photography of the area from 2000.
- Using similar methods as used to determine the current amount of impervious area, determine the amount of impervious area in the year 2000.
- Identify all wetlands, detention and retention ponds present in 2000.
- Attention should be paid to potential phosphorous generating / releasing land uses.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- The percentage of the city covered with the assembled materials.
- The percentage of the city processed through the impervious area 2000 calculation.

*Timeline/Implementation Schedule:

- 2007 Assemble documents
- 2008 Determine the area of impervious in 2000

Specific Components and Notes:

- The TMDL for 30% phosphorous reduction in the Minnesota River is measured against the year 2000.
- In determining the impervious area in 2000, adjustments may be necessary for widened streets or the installation of sidewalks.

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND

ELIMINATION

Unique BMP Identification Number: 3f-3

*BMP Title: 3f-3 - Impervious and BMP Changes 2000-2006 Source: MS4 *BMP Description: Subtract the total area of impervious in 2000 from the total area in 2006 to determine the change. Identify all BMP's installed since the year 2000 and determine its service area and land uses. Apply the appropriate reduction rate for that BMP to its service area and land use. Location(s) in SWPPP of detailed information relating to this BMP: The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP. *Measurable Goals: Determination of change in impervious area. Determination of BMPs implemented since 2000. *Timeline/Implementation Schedule: Document the changes. 2008-09 **Specific Components and Notes:** *Responsible Party for this BMP: City Administrator Name: Street Department Department: Phone: 507-637-5755 E-mail: kmuetzel@ci.redwood-falls.mn.us

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND

ELIMINATION

Unique BMP Identification Number: 3f-4

*BMP Title: 3f-4 - Prioritize Drainage Areas for Installation of BMP's Source: MS4

*BMP Description:

• Draw the boundaries of the individual drainage areas.

- Use the current land use, amount of impervious, and currently installed BMP's, to define a "contributor factor". This represents the likely contribution of from the particular area.
- Subjectively evaluate each drainage area for available open space to install BMP's, the proximity to the final release point, and a cost factor associated with the BMP that could be installed.
- Develop an evaluation matrix to prioritize the drainage areas so the focus can be held on the maximizing the use of monies spent.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- The coverage of the city where drainage boundaries are determined.
- The number of drainage areas reviewed for open space, proximity to final release and cost factor.
- The entry of the data into a database capable of sophisticated sorting operations.

*Timeline/Implementation Schedule:

- 2007-8 Draw boundaries of drainage areas.
- 2008 Subjective evaluation performed.
- 2009-11 Begin using the matrix tool to closely examine various areas for BMP installation.

Specific Components and Notes:

• The most highly rated areas should be based on high potential contribution, space available, near final release, and low cost.

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

1 Holle: 201 031 2122

 $E\text{-mail:}\quad kmuetzel@ci.redwood\text{-}falls.mn.us$

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

Table of Best Management Practices (BMP's) Identified 4-CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

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MS4 Name: Redwood Falls

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER

RUNOFF CONTROL

Unique BMP Identification Number: 4a-1

*BMP Title: 4a-1 - Ordinance or other Regulatory Mechanism Source: PCA

*BMP Description:

- Identify policies (MS4, watershed district, state and regional) that already exist.
- Review current ordinance language; acquire model ordinances.
- Draft City ordinance.
- Complete public hearing notice.
- Document attendance at public hearing/meeting.
- Document public input with regard to the adequacy of the ordinance, whether written or oral opinion.
- Adjust the ordinance according to comments and as directed by the Council.
- Adopt construction site storm water runoff control ordinance.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Conformance with the timetable for this BMP
- Enactment of policies at the department level
- Enforcement for ordinance violations

*Timeline/Implementation Schedule:

- 2007-8 Information gathering on model and existing ordinances.
- 2008-9 Draft the construction site stormwater runoff control ordinance.
- 2009 Identify the annual budget needs associated with the draft ordinance including capital, materials and staff resources.
- 2010 Establish and implement the annual budget.

Public hearing for public input on the ordinance.

Adopt the ordinance.

Specific Components and Notes:

- In the first two years of permit coverage, a construction site storm water runoff control ordinance will be drafted.
- A public notice will be published a minimum of 30 days prior to the scheduled public hearing presenting the proposed ordinance.
- The public hearing will solicit public opinion with regard to the adequacy of the ordinance.
- Interested persons will be given a reasonable opportunity to make oral statements regarding the ordinance.
- All timely and relevant comments will be considered in adjusting the ordinance.
- Adjustments will be made to the ordinance as directed by the Council.

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER

RUNOFF CONTROL

Unique BMP Identification Number: 4b-1

*BMP Title: 4b-1 - Construction Site Implementation of Erosion and Sediment Control BMPs Source:

*BMP Description:

- Upon adoption of the regulatory control ordinance, implement the ordinance.
- In conjunction with the building permit process, distribute BMP details and guidelines.
- Utilize the City web site or direct mailings to advise contractors as to erosion control training courses.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Document site observations.
- Document the distribution of BMP details and guidelines.

*Timeline/Implementation Schedule:

• During the year following adoption of the storm water ordinance, start the implementation of these BMP.

Specific Components and Notes:

• Make certain that the BMP details and guidelines are consistent with the requirements of the Phase II General Stormwater Permit for Construction Activity.

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER

RUNOFF CONTROL

Unique BMP Identification Number: 4c-1

*BMP Title: 4c-1 - Waste Controls for Construction Site Operators Source: PCA

*BMP Description:

- Verify that ordinances in place appropriately address construction site operators.
- Examine that site specific BMP's are adequate for control of construction site operators.
- Assess construction site material storage and waste management problems and identify definitions and criteria needed to promote proper construction site materials storage and ordinance.
- Provide training to contractors and suppliers in the proper use and storage of potentially hazardous and non-hazardous MS4 regulated materials through utilization of MPCA and other seminars and training courses.

Location(s) in SWPPP of detailed information relating to this BMP:

 The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- List all key construction site material storage and waste management issues encountered.
- Provide seminar and other training opportunities to contractors & developers.

*Timeline/Implementation Schedule:

• During the year following the adoption of the stormwater ordinance, start the implementation of the BMP.

Specific Components and Notes:

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department

Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER

RUNOFF CONTROL

Unique BMP Identification Number: 4d-1

*BMP Title: 4d-1 - Procedure for Site Plan Review Source: PCA

*BMP Description:

• Developed the procedures site plan reviews.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

Number of plans reviewed annually

*Timeline/Implementation Schedule:

• During the year following the adoption of the construction site storm water ordinance (BMP 4a-1), start the implementation of the site plan review process.

Specific Components and Notes:

• The review procedures need to include the MPCA stormwater rules.

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER

RUNOFF CONTROL

Unique BMP Identification Number: 4e-1

*BMP Title: 4e-1 - Establishment of Procedures for the Receipt and Consideration

of Reports of Stormwater Noncompliance

Source:

*BMP Description:

- Formally adopt a policy on the procedure to receive and process noncompliance reports.
- Items may be referred to administration, field staff, council or outside consultants for recommendations and/or resolution.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Number of reports received annually.
- Time required to bring non-compliance issues into compliance.

*Timeline/Implementation Schedule:

• During the year following the adoption of the stormwater ordinance, start implementation of the BMP.

Specific Components and Notes:

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER

RUNOFF CONTROL

Unique BMP Identification Number: 4f-1

*BMP Title:	4f-1 - Establishment of Procedures for Site Inspections and Enforcement	Source:
		PCA

*BMP Description:

- Establish procedures for site inspections and enforcement.
- Initiate site inspection and enforcement programs.
- Provide training for inspection and enforcement officials.

Location(s) in SWPPP of detailed information relating to this BMP:

 The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

Achieve approval of the site inspection and enforcement procedures.

*Timeline/Implementation Schedule:

• During the year following the adoption of the stormwater ordinance, start implementation of the BMP.

Specific Components and Notes:

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

Table of Best Management Practices (BMP's) Identified

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MS4 Name: Redwood Falls

Minimum Control Measure: 5-POST-CONSTRUCTION STORMWATER

MANAGEMENT IN NEW DEVELOPMENT AND

REDEVELOPMENT

Unique BMP Identification Number: 5a-1

*BMP Title: 5a-1 - Development and Implementation of Structural and/or Non-structural BMPs Source:

*BMP Description:

- Assign the responsibility for stormwater management to a specific position in MS4 organization.
- Amend the City's Stormwater Comprehensive Plan to include Stormwater Management as applicable.
- Review and amend development standards as necessary to include provision for low impact development (LID), if desired.
- Enact ordinance prohibiting the modification, removal or disabling of any BMP without formal written authority from the City.
- Review stormwater utility fee to insure that sufficient funds are being collected to fund the MS4 requirements.

Location(s) in SWPPP of detailed information relating to this BMP:

 The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Number of revised and new ordinances adopted.
- Stormwater utility fund operating in the black.

*Timeline/Implementation Schedule:

- 2007-8 Assign the responsibility
- 2008-9 Enact ordinance prohibiting the modification of existing BMP's.

Amend the Comprehensive Storm Sewer Plan as applicable.

- 2009-10 Review and amend development standards as applicable.
- 2009-11 Review and adjust stormwater utility fees within reasonable affordability limits for the community.

Specific Components and Notes:

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 5-Post-Construction Stormwater Management In

New Development And Redevelopment

Unique BMP Identification Number: 5a-2

*BMP Title: 5a-2 - Corridor Preservation Source: MS4

*BMP Description:

- Superimpose the utility map developed in 3a-2 on a recent aerial photo to illustrate the available property neighboring each outlet.
- Identify open ground in the lower regions of the tributary area.
- A Corridor Preservation Ordinance will be drafted, adopted and implemented. This will be derived from model ordinances, ordinances used by surrounding communities and language deemed necessary by the City.
- Perform preliminary designs of appropriate BMP types for each of the outlets defined in 3a-2. Apply the designs to the open space available or designate property acquisitions necessary.
- Identify at least one design for each outlet.
- If the property owner attempts to develop or otherwise make the property unavailable, implement the provisions of the Ordinance.

Location(s) in SWPPP of detailed information relating to this BMP:

The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- % of outlets covered with active BMP's
- % of outlets with identified locations for future BMP's

*Timeline/Implementation Schedule:

The BMP would be implemented in conjunction with the amendment to the Comprehensive Storm Sewer Plan as described in BMP 5a-1.

Specific Components and Notes:

*Responsible Party for this BMP:

Name: City Administrator Department: Street Department Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 5-Post-Construction Stormwater Management In

New Development And Redevelopment

Unique BMP Identification Number: 5a-3

*BMP Title: 5a-3 - Prioritize and Implement Corridor Preservation Source: MS4

*BMP Description:

- Assess the risk of pollution escaping from each outlet identified based on the character of development in each area, potential pollutant sources & materials, length of drainage course to the outlet (could a spill be stopped?).
- Develop a priority list of outlets to be addressed based on: the risk assessment, effectiveness of eligible BMP, availability & cost of land, cost of construction, available monies & funding mechanisms and the current status on the full implementation plan for 2025.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

• Once determined, number of sites remaining to be secured.

*Timeline/Implementation Schedule:

• The BMP would be implemented in conjunction with the amendment to the Comprehensive Storm Sewer Plan as described in BMP 5a-1.

Specific Components and Notes:

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: No. 5 - Post-Construction Storm Water Management In

New Development And Redevelopment

Unique BMP Identification Number: 5a-4

*BMP Title: 5a-4 - Review and Adjust Existing Ordinances and Development Standards Source: MS4

*BMP Description:

- Examine existing ordinances for conflicts with the standards and recommendations included in this SWPPP and the State Stormwater Manual, i.e.
- Address changes to the runoff characteristics of the area (i.e., paving over pervious concrete or asphalt pavements, etc.).
- Examine procedures for site plan review that incorporates procedures for evaluating water quality impacts for developments, street/utility plans, individual building permit requests, etc.
- Institute site inspections and enforcement measures for non-compliance.
- Develop a procedure for dealing with non-compliance reported by the public.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

• The number of ordinances and policies reviewed.

*Timeline/Implementation Schedule:

- 2008-9 Identify all ordinances and policy manuals that require change.
- 2009-10 Draft, adopt and implement the changes necessary.

Specific Components and Notes:

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: No. 5 - Post-Construction Storm Water Management

In New Development And Redevelopment

Unique BMP Identification Number: 5a-5

*BMP Title: 5a-5 - Examine mechanisms to fund the stormwater program. Source: MS4

*BMP Description:

Establish a committee to examine the various methods of funding these MS4 requirements and make recommendations for the method to pursue. Committee should consist of:

City Staff

Location(s) in SWPPP of detailed information relating to this BMP:

 The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

• Secure outside funding for the implementation of the new MS4 rules.

*Timeline/Implementation Schedule:

- 2007 Form Committee.
- On going Examine funding mechanisms.

Specific Components and Notes:

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 5-POST-CONSTRUCTION STORMWATER

MANAGEMENT IN NEW DEVELOPMENT AND

REDEVELOPMENT

Unique BMP Identification Number: 5b-1

*BMP Title: 5b-1 - Regulatory Mechanism to Address Post Construction Runoff from New Development and Redevelopment PCA

*BMP Description:

- Adopt ordinance with provisions to regulate runoff from development and redevelopment.
- Review existing BMP's and evaluate their effectiveness.
- Develop an incentive program to encourage the use of effective BMP's.
- Develop a regulatory program to penalize those who remove alter or modify BMP's which diminish their effectiveness.

Location(s) in SWPPP of detailed information relating to this BMP:

 The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Review current ordinance language; acquire model ordinances and surrounding community ordinances.
- Draft City ordinance.
- Publish public hearing notice.
- Document attendance at public hearing.
- Document public input with regard to the adequacy of the ordinance, whether written or oral opinion.
- Adjust the ordinance according to comments and as directed by the Council.
- Adopt post construction storm water management ordinance.
- Track implemented BMPs as outlined by ordinance.
- Number of BMP's allowed for the character of development / redevelopment.

*Timeline/Implementation Schedule:

• The BMP would be implemented in conjunction with BMP 4a-1.

Specific Components and Notes:

- In the first two years of permit coverage, a post construction storm water management ordinance will be drafted.
- A public notice will be completed a minimum of 30 days prior to the scheduled public hearing.
- The public hearing will solicit public opinion with regard to the adequacy of the ordinance.
- Interested persons will be given a reasonable opportunity to make oral statements regarding the ordinance.
- All timely and relevant comments will be considered in adjusting the ordinance.
- Adjustments will be made to the ordinance according to the public comment and as directed by the Council.

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 5-Post-Construction Stormwater Management

In New Development And Redevelopment

Unique BMP Identification Number: 5b-2

*BMP Title: 5b-2 - Verify enforcement options with private utilities Source: MS4

*BMP Description:

- One element of development disturbance occurs during the installation of private utilities. Often this is performed after the developer's contractor is complete. Since no local permits are required, the relationship between the City and the utility is not well defined.
- The City will carefully examine current agreements for stormwater related pollution mitigation opportunities.
- The City will attempt to establish appropriate responsibilities and inspection requirements.
- The requirements will include fines, when appropriate.
- If appropriate responsibilities are not in the current agreement, the City will approach the utilities to amend the current agreement. If cooperation is not forthcoming, the City will require the inclusion in future agreements, as applicable.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

Number of agreements with private utility companies.

*Timeline/Implementation Schedule:

• 2010 Come to mutual agreements with private utility companies.

Specific Components and Notes:

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department

Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 5-POST-CONSTRUCTION STORMWATER

MANAGEMENT IN NEW DEVELOPMENT AND

REDEVELOPMENT

Unique BMP Identification Number: 5b-4

*BMP Title: 5b-4 - Trout Stream Thermal Protection Source: MS4

*BMP Description:

- Specific construction and maintenance requirements will be established for areas upstream and along designated trout streams.
- These requirements should apply to municipal, commercial, industrial and residential settings.

Location(s) in SWPPP of detailed information relating to this BMP:

The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP

*Measurable Goals:

• Reduction of un-shaded paved areas.

*Timeline/Implementation Schedule:

• Years 1-5 Receipt of new approved TMDL's will occur throughout the permit period and changes will be necessary.

Specific Components and Notes:

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 5-POST-CONSTRUCTION STORMWATER

MANAGEMENT IN NEW DEVELOPMENT AND

REDEVELOPMENT

Unique BMP Identification Number: 5c-1

*BMP Title: 5c-1 - Long-term Operation and Maintenance of BMPs Source: PCA

*BMP Description:

- Create a database of all structural BMP.
- Assign responsibility to maintain the database to a specific position include it in their job description.
- Develop an operation and maintenance program for BMP's.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Inventory structural runoff controls.
- Establish and implement a preventive maintenance schedule for all structures.
- Inspect permanent storm water control structures annually.

*Timeline/Implementation Schedule:

- 2007-11 Inventory existing runoff controls and BMP's.
- 2008 Assign responsibility for this task.
- 2009-10 Develop and implement an operation and maintenance program.

Specific Components and Notes:

• Long range development plans should include:

Open space preservation Sensitive area protection

• Develop a program for inspection and maintenance of storm water control structures.

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department

Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

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MS4 Name: Redwood Falls

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

Unique BMP Identification Number: 6a-1

*BMP Title: 6a-1 - Municipal Operations and Maintenance Program Source: PCA

*BMP Description:

- A long-term operation and maintenance program will be developed and implemented to minimize the discharge of pollutants from the MS4 outfalls.
- Establish a clear line of authority and responsibility for compliance with this SWPPP.
- Train maintenance personnel on importance of performing good housekeeping as a part of every day's activities.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Keep records of inspections and maintenance measures.
- Submit inspection and maintenance records with annual report.

*Timeline/Implementation Schedule:

•	2007-8	Review models of long-term operation and maintenance programs from other
		MS4's.

- 2008-9 Draft long-term operation and maintenance program.
 2008-9 Adopt long-term operation and maintenance program.
- 2009-11 Perform inspections and maintenance as outlined.

Specific Components and Notes:

- Develop a consistent inspection, maintenance and documentation program through training.
- Maintain a log of all training received by MS4 personnel.
- Include a discussion of training needs and accomplishments in annual reviews.
- Submit inspection maintenance documentation annually with SWPPP annual report.

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

Unique BMP Identification Number: 6a-2

*BMP Title: 6a-2 - Street Sweeping**

Source: PCA

*BMP Description:

- Establish a street sweeping program.
- Target specific areas for more frequent street sweeping, if applicable. Also indicate the reason for selecting the specific target area and how the frequency differs.
- Require street sweeping as a condition on certain soil disturbing building permits issued.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Total length of pavement swept.
- Number of building permits issued that required street sweeping.
- Number of tons of material removed each sweeping scheduled (could be kept for areas of the MS4).
- Number of violation notices sent.
- Non-compliance citations issued for sweeping requirements on private property.

*Timeline/Implementation Schedule:

- 2007-8 Develop a street sweeping plan and schedule.
- 2008-9 Implement the plan for city streets.
- 2008-9 Develop the building permit sweeping requirements.
- 2009-10 Implement the building permit requirements.

Specific Components and Notes:

- Frequency of street sweeping events, including the time(s) of year that it will be conducted.
- Type of street sweeping equipment used (brush or vacuum).
- Target areas for more frequent street sweeping, if applicable. Also indicate the reason for selecting the specific target area and how the frequency differs.

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

Unique BMP Identification Number: 6a-3

*BMP Title: 6a-3 - Examine mechanisms to fund the stormwater program. Source: PCA

*BMP Description:

- Establish a committee to examine the various methods of funding these MS4 requirements and make recommendations for the method to pursue. Committee should consist of:
 - o City Staff
 - o City Council

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Recommendations made.
- Implementation of recommendations.

*Timeline/Implementation Schedule:

• 2008 Committee formed.

• Ongoing Committee explores funding alternatives.

Specific Components and Notes:

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

Unique BMP Identification Number: 6b-2

*BMP Title: 6b-2 - Annual Inspection of All Structural Pollution Control Devices Source: PCA

*BMP Description:

- Annually inspect all structural BMPs, including, as appropriate:
 - Storage practices such as wet ponds and extended-detention outlet structures.
 - Filtration practices such as grassed swales, bioretention cells, sand filter strips.
 - Infiltration practices such as infiltration basins and trenches.
- Initiate appropriate maintenance efforts to restore the effectiveness of the structures.
- Inspection may include photographs to illustrate the condition of the device.

Location(s) in SWPPP of detailed information relating to this BMP:

 The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Inspect each structural BMP
- Summary of maintenance requirements
- Cost of maintenance for each type of BMP

*Timeline/Implementation Schedule:

• 2007-11 Maintain annual inspections

Specific Components and Notes:

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

Unique BMP Identification Number: 6b-3

*BMP Title: 6b-3 - Inspection of a Minimum of 20 percent of the MS4 Outfalls, Sediment Source:

Basins and Ponds Each Year on a Rotating Basis

PCA

*BMP Description:

- In the spring inspect 20% of all outfalls 24" diameter and larger.
- Initiate appropriate maintenance.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Number of outfalls inspected each year.
- Completion of updating the database.

*Timeline/Implementation Schedule:

• 2007 Identify locations of all outfalls requiring inspection & develop a schedule.

• 2008-11 Conduct the inspections.

Specific Components and Notes:

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

Unique BMP Identification Number: 6b-4

*BMP Title: 6b-4 - Annual Inspection of All Exposed Stockpile, Storage and Material Handling Areas Source:

*BMP Description:

- Create a procedure and an inventory to register and track stockpile sites (material, temp or perm, location, BMPs used), inspection results.
- Enact ordinance for all businesses with exposed (both temporary and permanent) stockpiles and/or material handling areas to register the sites with the MS4.
- Add to exterior building permit request forms a question where soil materials will be stockpiled and the BMP to be used to prevent erosion.
- From the registry inventory create a list for inspection.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Number of permanent and temporary stockpiles of record (registered and on building permits)
- Minimize the time required for inspection
- Actions recommended for non-compliance

*Timeline/Implementation Schedule:

• 2009-10 Enact ordinance requiring registration

• 2010 & ongoing Conduct routine annual inspections

Specific Components and Notes:

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

Unique BMP Identification Number: 6b-5

*BMP Title: 6b-5 - Inspection Follow-up Including the Determination of Whether Repair,

Replacement, or Maintenance Measures are Necessary and the

Implementation of the Corrective Measures

Source: PCA

*BMP Description:

- Maintain a log of all non-compliance occurrences, together with the final resolution of the situation, cost, time of year, contractor, and engineer if necessary
- Use the database to create reports of incomplete or unresolved issues.
- When the inspection reveals that an issue is resolved, mark it in the database and report to the reporting source, as appropriate.

Location(s) in SWPPP of detailed information relating to this BMP:

 The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

Number of unresolved situations

- Average turn around time for resolution
- Cost of compliance, if known.

*Timeline/Implementation Schedule:

• 2009 Establish the database to log events.

• 2010 Implement inspection and resolution process.

• 2010 & on going Continue using the database to track performance.

Specific Components and Notes:

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

Unique BMP Identification Number: 6b-6

*BMP Title: 6b-6 - Record Reporting and Retention of Inspections and Responses to the Inspections PCA

*BMP Description:

• Develop standardized forms for the inspectors to use.

 A spreadsheet or database should be used to log all reports and communication (incoming and outgoing).

Location(s) in SWPPP of detailed information relating to this BMP:

 The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Compliance with schedule for implementation.
- Number of training opportunities utilized.

*Timeline/Implementation Schedule:

- 2007 Develop standardized forms.
- 2007-8 Train inspectors.
- 2008-11 Initiate and maintain record keeping program.

Specific Components and Notes:

Evaluation adjectives like excellent, good, poor" should be avoided.

Quantitative evaluations based on some measurable feature of the BMP or the breech should be employed (cy of material that escaped from the site, etc.)

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

Unique BMP Identification Number: 6b-7

*BMP Title: 6b-7 - Evaluation of Inspection Frequency Source: PCA

*BMP Description:

- The frequency of conducting inspections is somewhat dependent on the diligence of the various members of the community in practicing and maintaining the BMP's.
- At the time of a new inspection, the site should be scored for compliance with the BMP. If it found to be non-compliant, the extent of work required to bring it into compliance should be logged as a separate running total for each BMP. BMP's with higher running totals may warrant a more frequent inspection cycle.
- If similar items fall out of compliance, greater attention should be placed on proper installation in the first place or some way of improved maintenance.

Location(s) in SWPPP of detailed information relating to this BMP:

 The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Total number of sites inspected on an annual basis.
- Scoring totals for each BMP.

*Timeline/Implementation Schedule:

- 2007-8 Develop scoring criteria for BMP's and begin the evaluation.
- 2009-10 Ongoing evaluation to continue. Make adjustments as necessary.

Specific Components and Notes:

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

Unique BMP Identification Number: 6c-1

*BMP Title: 6c-1 - Compliance with Approved Current and Future TMDL's Source: TMDL

*BMP Description:

- Periodically, in the future Total Maximum Daily Loads (TMDL) will be mandated that address specific pollutants along specific reaches of river. These studies will establish the TMDL for the stream and allocate the load among the various sources within the watershed. The TMDL research will also specify tasks required for each MS4 community.
- At this time, a Dissolved Oxygen TMDL Implementation Plan has been adopted for the Minnesota River which states that "By May 2006, the MPCA will provide guidance to communities on the additional measures that need to be added to the SWPPP in order to achieve the necessary phosphorous reductions."
- Upon receipt of instructions, the SWPPP will be modified accordingly.

Location(s) in SWPPP of detailed information relating to this BMP:

 The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

• Keep records of all guidance materials received and adjustments made.

*Timeline/Implementation Schedule:

• 2007-11 Receipt of new mandated TMDL's will occur throughout the permit period and changes will be necessary.

Specific Components and Notes:

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

^{*}Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.

MS4 Name: Redwood Falls

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

Unique BMP Identification Number: 6c-2

*BMP Title: 6c-2 - Minimize or Avoid Impacts on Current and Future Source Water Protection Zones MS4

*BMP Description:

- The City must maintain due vigilance over any public water supply in the vicinity with regard to the assignment or extension of any Source Water Protection Area.
- This involves all public water suppliers (PWS) including neighboring cities, mobile home parks, townships, etc.
- If a protection area is established; the City will examine its discharges in the area, including the downstream flow direction, and take the necessary actions to avoid the water supply, when necessary.

Location(s) in SWPPP of detailed information relating to this BMP:

• The information included or referenced on this Summary Sheet is intended to meet all SWPPP requirements for this BMP.

*Measurable Goals:

- Keep records of all protection areas defined and adjustments made.
- Maintain a record of all changes made in the SWPPP.

*Timeline/Implementation Schedule:

• 2007-11 Annually query neighboring public water supplies for the defined boundaries of their well head protection areas. Investigate any conflicts and negotiate acceptable solutions.

Specific Components and Notes:

*Responsible Party for this BMP:

Name: City Administrator
Department: Street Department
Phone: 507-637-5755

 $[*]Indicates\ a\ REQUIRED\ field.$ Failure to complete any required field will result in rejection of the application due to incompleteness.