

**Environment and Natural Resources Trust Fund  
2009 Phase 2 Request for Proposals (RFP)**

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**LCCMR ID: 062-B2**

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**Project Title:** Lafayette Campus Stormwater Management Project

**Total Project Budget:** \$ \$865,000

**Proposed Project Time Period for the Funding Requested:** 2 Years

**Other Non-State Funds:** \$ \$60,000.00

**Priority:** B2. Reduce Peak Water Flows

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**First Name:** Mark

**Last Name:** Doneux

**Sponsoring Organization:** Capitol Region Watershed District

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Saint Paul MN 55108

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**Region:**

Metro

**County Name:**

Ramsey

**City / Township:**

Saint Paul

**Summary:** The Lafayette Campus Project will improve stormwater quality from a 16-acre site that has approximately 90 percent impervious surfaces and contributes to the existing impairment of the Mississippi River.

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**Main Proposal:** 1008-2-051-proposal-2. Main Proposal - Lafayette Campus LCCMR Grant.pdf

**Project Budget:** 1008-2-051-budget-3. Project Budget Lafayette Campus LCCMR Grant.pdf

**Qualifications:** 1008-2-051-qualifications-5. Project Manager Qualifications and Organizatio

**Map:** 1008-2-051-maps-4. Map - Lafayette Campus LCCMR Grant.pdf

**Letter of Resolution:** 1008-2-051-resolution-6. Support Resolution of LCCMR Grant.pdf

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# PROJECT TITLE: Lafayette Campus Stormwater Management Project

## I Project Statement

Effective stormwater management is the primary approach to improving local water quality. Stormwater runoff from streets and parking lots contain pollutants that contribute to impairments in lakes and rivers. The Lafayette Campus is currently in compliance with all applicable regulatory stormwater requirements and is located just south of University Avenue on Lafayette Avenue in St. Paul. The Lafayette Campus houses three state environmental agencies; Pollution Control Agency (PCA), Department of Natural Resources (DNR) and the Board of Water and Soil Resources (BWSR). The Lafayette Campus and adjacent parking facilities is a 21-acre site that contains approximately 90 percent impervious surfaces and includes parking lots, buildings and adjacent property. This site generates nearly 16 million gallons of stormwater runoff annually that contains numerous pollutants, including phosphorus, pathogens, oil and other particulates. The Lafayette Campus lies in the Capitol Region Watershed District's (CRWD) Trout Brook (Interceptor Storm sewer) subwatershed that is tributary to the Mississippi River. Stormwater runoff generated from this site contributes to the existing multiple impairments of bacteria and turbidity in the Mississippi River.

The project has three primary goals: 1) Plan and install a variety of innovative stormwater Best Management Practices (BMP's) that reduce the impacts of the site on the impairment of the Mississippi River, 2) Monitor, document and communicate the effectiveness of the installed BMPs; and 3) Create a state of the art "walking tour" of innovative stormwater BMPs for education purposes on the Lafayette Campus of the State's three primary environmental agencies.

To implement this project a Stormwater Management plan will be developed first for one of the 21 subwatersheds that are tributary to the Trout Brook Storm sewer and ultimately the Mississippi River (see enclosed map). This 213 acre subwatershed includes major transportation facilities including the "Spaghetti Junction" section of I-94/I-35 and the I-94/US52 interchange as well as the Regions Hospital Campus and the Lafayette industrial park area of Saint Paul that houses PCA, DNR & BWSR. Once a Stormwater Management Plan is completed for the entire subwatershed we will move into design and construction phase for the recommended practices for the Lafayette Campus area. To improve the water quality of stormwater leaving this site peak flows will be reduced by reducing the volume of site-generated stormwater runoff that is practical for the site conditions and budget. Rain gardens, tree plantings, infiltration basins, pervious pavement and green roofs as well as innovative parking strategies and new open space are a few of the possible BMPs that may be installed as part of this Project.

Monitoring the effectiveness of stormwater Best Management Practices (BMPs) is also planned as part of this Project. At the start up of the project monitoring stations will be set up and operated by the University of Minnesota (U of M). It is anticipated that two stations will be set up to measure stormwater quantity and quality on the upstream and downstream side of the Lafayette Campus site. The monitoring data will provide both pre and post BMP data to document the improvements in water quality from the project. A final, long-term monitoring plan will be developed and carried out jointly by the U of M and the CRWD. To implement the third goal of the project will include using the site as a demonstration/education project for other developed, industrial sites and using the site to educate state and local stormwater professionals, city staff, designers, engineers and contractors on proper design, construction, operation and maintenance of the selected stormwater management facilities.

## II. Description of Project Results

The project partners will hire a technical expert to develop a concept plan that will design a site-specific stormwater management strategy for the entire 21-acre site. The primary goal of this strategy will be to infiltrate the maximum volume of site-generated stormwater runoff that is practical for the site and budget.

### **Result 1: Site and BMP Monitoring**

Budget: \$165,500

Installation of monitoring devices at identified site locations to capture data for both the quality and quantity of the stormwater generated at this site in order to evaluate the final project effectiveness.

Deliverable

Completion Date

1. Purchased and Installed stormwater runoff Monitoring Equipment
2. Monitoring report providing pre-project runoff data to be compared with post project data
3. Long term monitoring plan to document BMP effectiveness and maintenance requirements over the life cycle of practices

October 1, 2009

December 1, 2010

July 1, 2011

**Result 2: Stormwater Management Plan & Site Specific BMP Installation**

Deliverable

1. Stormwater Management Plan
2. Installation of a multiple and varied stormwater BMP's to treat 16-acre Lafayette Campus

Budget: \$650,000

Completion date

July 1, 2010

July 1, 2011

**Result 3: Development and installation of and educational displays**

Deliverable

1. Signage and educational materials necessary to make the project a stormwater demonstration site for Minnesota.

Budget: \$50,000

Completion Date

July 1, 2011

**III PROJECT STRATEGY AND TIMELINE**

**A. Project Partners**

Capital Region Watershed District is designated as the Project lead and primary contact for the Legislative-Citizen Commission on Minnesota Resources (LCCMR) grants process. The Minnesota Pollution Control Agency will provide technical and regulatory expertise in the Project design and implementation phases. The designated implementation site is owned by NGP Capital, 444 Lafayette LLC and Meritex, Inc. The property owners have agreed to participate in the design phase of the process as well as provide a commitment to operate and maintain the Best Management Practices that will be installed as part of the Project. NGP will operate and maintain the installed BMPs and provide site accessibility when needed for demonstration and/or educational purposes. Once the project has been approved, the property owners will provide an easement to the BMP implementation site to ensure that the equipment will remain on the site and be available for demonstration, educational and research activities. The University of Minnesota will provide assistance with measurement of infiltration rates and Project effectiveness monitoring as well as identifying new innovative technology that may be installed and studied as part of this Project.

**B. Project Impact**

The primary goal of this Project is infiltrating the maximum volume of site-generated stormwater runoff that is practical for the site and budget. Monitors will be installed to evaluate pre and post-project water quantity and water quality data. The assessment of monitoring data collected from the site will provide a quantitative and qualitative evaluation of the reduction/elimination of stormwater runoff from the project site that is currently contributing to the impairment of the Mississippi River. The completed project will demonstrate opportunities for evaluating stormwater runoff from developed, urban industrial sites and the method for implementing selected stormwater management practices. The completed project site will be available for state and local stormwater inspectors to observe, first hand, stormwater management equipment and learn the proper management methods for the selected BMPs. Although the project scope is defined by the 18-acre implementation site, the final concept plan will provide a strategy for addressing stormwater management from approximately 32 acres of the local watershed. Monitoring the effectiveness of stormwater Best Management Practices (BMPs) is also planned as part of this Project. The planned effectiveness monitoring will provide data to be used in educational and regulatory analyses to evaluate the potential cumulative reduction capacity from the selected stormwater management practices. The suite of BMPs that are selected for this site will apply to many other industrial areas with a significant amount of existing impervious surface.

**C. Time**

The first step is to install monitoring equipment in the fall of 2009. Monitoring will be conducted through out the life of the project to be used as an aid to the design process and to assess post project results. The Stormwater Management Plan will be initiated at the start of the project and will be completed by July of 2010. Construction plans for the recommended stormwater BMP's will begin in the summer of 2010 and be completed by the summer of 2011. The long-term monitoring plan will be developed and by the U of M and cooperatively implemented by the U or M and CRWD.

**D. Long-Term Strategy**

The long-term strategy behind this Project is to turn the Lafayette Campus into a living laboratory of state of art stormwater practices that educate and demonstrate urban retrofits for stormwater to help reduce the impairment of the Mississippi River from state facilities.

## Project Budget

### IV. TOTAL PROJECT REQUEST BUDGET

<u>BUDGET ITEM</u>	<u>AMOUNT</u>	<u>% FTE</u>
<b>Personnel:</b>	\$ -	%
CRWD - Monitoring Technician - Technical Field Support for monitoring	\$ 15,000	15%
U of M - Regional Extension Educator - Development of Educational Displays	\$ 25,000	25%
U of M - Research Scientist - Monitoring	\$ 45,000	100%
U of M - Research Scientist - Evaluation of Monitoring Data	\$ 45,000	100%
<b>Contracts:</b>	\$ -	
Engineering Consultant - Stormwater Management Plan	\$ 75,000	
Engineering Consultant - BMP Design, Construction Plans & Observation	\$ 75,000	
Construction Contractor (Construction of Stormwater BMPs)	\$ 500,000	
Environmental Testing Lab (Analysis of stormwater samples)	\$ 20,000	
<b>Equipment/Tools: <i>What? List general description of needs.</i></b>	\$ -	
<b>Acquisition (Including Easements):</b>	\$ -	
Educational Displays and Materials	\$ 25,000	
Monitoring Equipment	\$ 40,000	
<b>TOTAL PROJECT BUDGET REQUEST TO LCCMR</b>	<b>\$ 865,000</b>	

### V. OTHER FUNDS

<u>SOURCE OF FUNDS</u>	<u>AMOUNT</u>	<u>Status</u>
<b>Remaining \$ From Previous Trust Fund Appropriation (if applicable):</b>	\$ -	N/A
<b>Other Non-State \$ Being Leveraged During Project Period:</b>	\$ 60,000	<i>Landowner dedication of easements and site prep</i>
<b>Other State \$ Being Spent During Project Period:</b>	\$ -	<i>Secured or Pending</i>
<b>In-kind Services During Project Period: (MPCA, CRWD &amp; U of M In-Kind Project Management &amp; Technical Support)</b>	\$ 146,500	Landowner site prep
<b>Past Spending:</b>	\$ -	

## **5. Project Manager Qualifications and Organization Description**

The Project Manager for this project will be Mark Doneux, Administrator for the Capitol Region Watershed District, 1410 Energy Park Drive, Suite 4, Saint Paul, MN 55108, 651.644.8888, mark@capitolregionwd.org

### **Summary of qualifications**

Twenty three years experience in water resource management. Proficient in organizational and project management skills, including overseeing contract development and final report preparation; supervising and conducting field investigations; and tracking project schedules and costs. Specialize in watershed and water quality analyses, wetland and lake restoration studies, land conservation planning and erosion control, permitting and agency coordination. Personnel management experience includes supervising, hiring, and training engineers, and scientists.

### **Professional experience**

CAPITOL REGION WATERSHED DISTRICT, Saint Paul, MN

January 2003 – Present, Administrator

Responsible for overall operation of District including annual budget of (\$5.2 mil 2009), 8 full-time staff, managing \$5 mil in capital assets, regulatory, education and monitoring program as well as capital improvement program.

WASHINGTON CONSERVATION DISTRICT, Stillwater, MN

June 1995 - 2002, Water Resource Coordinator

Coordinate technical water resources planning, coordination, and on-site review services to watershed management organizations, Washington County and local units of government. Assist with the preparation and implementation of watershed management plans.

R. A. SMITH & ASSOC., INC., Brookfield, WI

September, 1987 - May 1995, Environmental Project Manager

Managed environmental studies for watershed, lake, wetland and water quality projects.

MIDWEST RECLAMATION PLANNERS, INC., Dubuque, IA

June, 1985 - September 1987, Environmental Specialist

Performed soil erosion control planning for four Wisconsin counties, covering over 500,000 acres of cropland.

**Education** - B.S. Land Reclamation, University of Wisconsin-Platteville, 1985.

### **Capitol Region Watershed District**

Capitol Region Watershed District was formed in 1998 as a result of a petition by a small group of dedicated citizens concerned about water quality in Como Lake. CRWD, like all Minnesota's 46 watershed districts formed under State Statute 103 B & D, is a special purpose unit of local government that working to protect and improve water quality in lakes, rivers, and wetlands within its boundaries, and to protect residents against flooding. CRWD is governed by a five-member Board of Managers that guides CRWD in the implementation of goals and objectives set forth in the District Watershed Management Plan adopted in 2000. The programs, activities and initiatives of CRWD are carried out by eight staff members. The District covers 40 square miles within Ramsey County, and includes portions of Falcon Heights, Lauderdale, Maplewood, Roseville and St. Paul. The District has a population of 245,000 people, and drains to the Mississippi River, its primary water resource. Lakes in the District include St. Paul's Como Lake, Crosby Lake, and Loeb Lake, and Lake McCarrons in Roseville.

# Lafayette Campus Stormwater Project

