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Memorandum

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Company
Subject: Item 6G – BWSR Clean Water Fund Grants Update
Date: December 10, 2009
Project: 23/27 051 2009 617/618

6G. BWSR Clean Water Fund Grants Update

Recommended/requested Commission actions:

1. Information only, no action needed.

BWSR Clean Water Fund Grants Update

On behalf of the Commission, staff applied for \$500,000 from the BWSR Clean Water Fund grants for two projects in the Commission's CIP—the channel restoration projects on Plymouth Creek and the Main Stem of Bassett Creek. Although the local match required for the grant is 25%, the Commission only requested \$300,000 for the Plymouth Creek project (local match \$665,200, or 69%) and \$200,000 for the Bassett Creek project (local match \$436,100, or 69%). The application was submitted November 25, 2009; applications were due December 1, 2009.

BWSR staff report that they received 209 grant applications totaling \$44 million in requested funding; BWSR has \$13,030,000 available. Of the total available funding, \$2,650,000 is dedicated to the “pot” of funding for which the Commission applied.

Attached is the grant submittal package: the submittal email, the project narrative form, and the pertinent parts of the spreadsheet.

Karen Chandler

From: Karen Chandler
Sent: Wednesday, November 25, 2009 5:30 PM
To: 'bwsr.grants@state.mn.us'
Cc: Len Kremer; Bassett Creek Recording Administrator
Subject: BCWMC submittal for BWSR competitive grant
Attachments: BWSR Grant_FY10-1_CWF_Narrative.docx; BWSR clean water fund grant application_BCWMC.xlsx

Hello –

On behalf of the Bassett Creek Watershed Management Commission (BCWMC), I am pleased to submit to BWSR the BCWMC's grant application for the Bassett Creek and Plymouth Creek stream stabilization projects. Attached are:

1. Outcomes and budget application form (Excel document)
2. Clean Water Fund Competitive Project Narrative (Word document)

If you have any questions, please contact Len Kremer, as I will be out of the office on Mon 11/30 and Tue 12/01. Len's contact information is 952-832-2813 or lkremer@barr.com (he is copied on this email).

Thank you!

Karen Chandler

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Project Narrative Form FY10-1

FY 2010 Clean Water Fund Water Quality Comprehensive Project Narrative

The entire narrative portion of the application should be no more than 3 pages in length and should include the following topics as section headings

Title: (10 words or less):

Bassett Creek and Plymouth Creek Stream Stabilization Projects

Project Abstract (30 words or less):

These projects will reduce the contribution of pollutants to downstream impaired waters, restore fisheries and wildlife habitat, and improve recreational opportunities in, and downstream of, the project areas.

Overall Project Narrative (500 words or less): This section of the narrative should describe the level of project partners' coordination, cooperation and community support for the project, projects that have proven to be successful in similar circumstances or prior successful projects and the level of project partners' project management expertise and experience and any habitat benefits that may result from this project.

The Bassett Creek and Plymouth Creek stream stabilization projects will prevent future stream bank erosion and sedimentation problems in these stream reaches, which will also restore the fisheries and wildlife habitat in the project areas, and in Medicine Lake and Bassett Creek downstream of the project areas. Part of the Plymouth Creek project includes relocating and reconfiguring the downstream section of the creek to a more natural stream pattern, and approximating its historic location. This will reduce flooding in the area and improve the ecological function of the wetlands and the stream.

The Bassett Creek Watershed Management Commission (BCWMC) completed feasibility studies for stream bank stabilization projects on the main stem of Bassett Creek in Golden Valley and Crystal and on Plymouth Creek in Plymouth. These projects are included in the BCWMC's capital improvement program (CIP), an aggressive program to improve the water quality of the lakes and streams in the watershed. The CIP is an essential part of the 2004 BCWMC *Watershed Management Plan*. The CIP began in 2004, and includes projects to restore all of the watershed's major lakes and approximately 20 miles of streams (Bassett Creek and Plymouth Creek). The BCWMC funds its CIP projects through grants and an ad valorem tax levied by Hennepin County over the entire Bassett Creek watershed.

Based on the results of the feasibility studies, and after holding a public hearing, the BCWMC decided to proceed with the two stabilization projects, and entered into cooperative agreements with the affected cities (Plymouth, Golden Valley,

and Crystal). Both projects are slated to begin in 2010. The BCWMC is in the process of securing funding for these two projects.

The City of Plymouth will be responsible for constructing the Plymouth Creek project, and the City of Golden Valley will be responsible for constructing the Bassett Creek project (including the portion in the City of Crystal). This responsibility includes obtaining permits/approvals, preparing construction documents, obtaining public input, securing easements, obtaining bids, and making payments to the contractors. The BCWMC is responsible for reviewing the construction design, reimbursing the cities for their project costs, and performing project inspections.

Golden Valley and Plymouth have successfully completed similar projects. In 2008, the City of Golden Valley completed the BCWMC's first stream stabilization project on the Sweeney Lake Branch of Bassett Creek. Between 2005 and 2009, the City of Plymouth completed stabilization projects for three small tributaries to Medicine Lake—a ravine north of County Road 9, Timber Creek and Wood Creek. Both cities have also completed other BCWMC water quality CIP projects, such as buffers, infiltration basins, and water quality treatment ponds. The BCWMC and the cities in the watershed also have a strong record of working together to inspect and maintain all of the BCWMC flood control projects constructed in the watershed since 1980.

Explain how this project will mitigate or prevent current or future water quality impairments.

The Bassett Creek and Plymouth Creek stream stabilization projects will reduce the contribution of suspended solids and phosphorus to downstream impaired waters from these reaches by 1) repairing actively eroding sites, and 2) preventing erosion at other sites by installing preemptive measures to protect existing stream banks.

The P8 modeling study performed as part of the Medicine Lake TMDL project found that the Plymouth Creek project would reduce the annual phosphorus loading by about 300 pounds and the annual TSS loading by 75,000 pounds (38 tons).

A 2000 BCWMC study estimated that stabilizing the project reach of Bassett Creek would reduce phosphorus loads by 96 lbs/yr and TSS by 100 tons/yr (200,000 pounds/yr). These estimates were based on computations that used a combination of streambank erosion estimates, density of eroded soil estimates, and soil phosphorus data.

How will this project address the hydrologic function of the immediate affected watershed and keep water on the land?

The two stream stabilization projects will use biological/vegetative measures to the extent practical. In some locations, streambanks will be graded to be less steep. In other locations, grade stabilization structures will be added to the streambed, which will create multiple pools in the stream. The restoration of the original stream pattern on Plymouth Creek will allow for more frequent inundation of the adjacent wetland, which will increase infiltration and transpiration losses. More vegetation and flatter slopes on the streambanks will allow more stormwater runoff to infiltrate into the soil, helping keep water on the land.

Identify long-term inspections and maintenance needs of the project and how these activities will be accomplished.

After completion of the projects, they will require periodic inspection; trash and debris removal; weed control (mowing and/or spot treatment); establishment of project landscaping features (first several years); replacement of dead plants/reseeding; controlled burns (if feasible); trimming (if needed); and repair of bank failures. The inspection and maintenance activities will be undertaken by the cities and/or the BCWMC, depending on the level of effort required. The respective maintenance commitments (and schedule) will be included in the cooperative agreements between the cities and the Commission for these projects.

Describe the coordination of this project with local groundwater plans.

The Bassett Creek project is not in a wellhead protection or source water protection area. Plymouth's Wellhead Protection Plan (2007) shows that the Plymouth Creek project is located in a moderate vulnerability portion of the DWSMA. Moderate vulnerability means the project area is characterized by outwash sand and gravel at or near the surface, but the depth to bedrock is greater than 100 feet. The Wellhead Protection Plan does not call out any specific actions or preventive measures for projects such as streambank restoration in moderate vulnerability areas. The BCWMC Plan and Plymouth local water plan include goals and policies for groundwater protection. Hennepin County has an adopted groundwater plan (1994).

Please indicate any permits this project will require. Identify the current stage of the permitting process.

The BCWMC prepared a Resource Management Plan (RMP) that was submitted to the St. Paul District Corps of Engineers (COE), which was public noticed in September 2009. The goal of the RMP was to complete as much of the coordination and review of the COE permitting process for all of the projects included in the RMP. The RMP also provided details in the permitting required from federal, state, and local governments for the projects. Comments were received from the Minnesota Department of Natural Resources and the Minnesota Historical Society. Both projects will require review by the cities for WCA determination and may require DNR Public Waters Work permits. An EAW will be required for the creek relocation part of the Plymouth Creek project.

If the project participants choose to consider the conservation value of land where Clean Water Fund conservation practices will be installed as local match, please describe the valuation and application methods.

N/A

If using Clean Water Funds for incentives to encourage landowners to install structural practices or to adopt land management practices that improve or protect water quality, please describe the LGU's adopted policy for evaluating the necessity, method of calculation, and effectiveness of the proposed incentives.

N/A

2010 Comprehensive Competitive Grant Application

i. Applicant Information Form

Applicant Organization	Bassett Creek Watershed Management Commission
Organization Type	Watershed Management Organization
Fiscal Agent Organization	City of Golden Valley
Day-to-Day Contact Person	Len Kremer
Mailing Address	Barr Engineering Company, 4700 W. 77th Street
City	Minneapolis
State	MN
Zip Code	55435
Office Phone Number	952-832-2781
Office Phone Extension	
Fax Number	952-832-2601
E-mail Address	lkremer@barr.com
Organization Web Site	bassettcreekwmo.org
eLINK Reporting Contact	Len Kremer
Unique ID Number (Internal Use Only)	

2010 Comprehensive Competitive Grant Application

ii. Funding Source Detail Form

Funds Available	Governmental Units Eligible for Funding	Complete Outcome Spreadsheet Tab	Complete Narrative Form (Word Document)	<i>Is your organization willing to accept the following funds, if available? (Yes/No)</i>
BWSR Runoff Reduction Grants	WDs, WMOs	1	FY10-1	No
BWSR Legacy Assistance Grants (LAG)	SWCDs, WDs, WMOs, Counties, and JPBs of these organizations	1	FY10-1	Yes
BWSR Shoreland Management Grants	SWCDs, WDs, WMOs, Counties, Cities, and JPBs of these organizations	1	FY10-1	No
BWSR Feedlot Water Quality Management Grants	SWCDs, WDs, WMOs, Counties, Cities, and JPBs of these organizations	2	Does not apply	No
BWSR and MPCA SSTS Grants	Counties, Cities*	3	FY10-3	No
MDA AgBMP Loan	Eligible AgBMP Loan authorities	1,2,3	FY10-1 and FY10-3	No
BWSR Conservation Drainage Grants	SWCDs, WDs, WMOs, Counties, and JPBs of these organizations	4	FY10-4	No
BWSR Native Buffer Cost Share Grants	SWCDs	5	FY10-5	No
BWSR Cooperative Weed Management Area Grants	SWCDs	6	FY10-6	No

*Cities eligible for Imminent Health Threat Abatement Funds Only

iii. Past Performance Form

1. Has your organization received Clean Water Legacy Grant funding in the past 3 years (yes/no)?	No
1A: If so, for how much funding?	\$0
1B: How much has been encumbered or authorized through local Board action?	\$0
1C: How much funding was spent?	\$0
1D: If funding was returned to the State of Minnesota from a CWL Grant, how much was returned?	\$0

2. Has your organization undergone a financial audit from a third party within the last 2 years?	Yes
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1. FY10 Clean Water Fund
Competitive Grants
Outcomes & Budget

This spreadsheet applies to Runoff Reduction, Legacy Assistance, and Shoreland Management Grants

Remember to Complete Narrative Form FY10-1

Targeted Project Initiatives

Initiative Number	Project Element Description	Project Intermediate Outcomes	Water Resources of Concern	Is the water resource of concern impaired?	303d Listed Impairments	TMDL or Water Plan Reference	TMDL Load Reduction Goals	Relationships to Water Quality Trends or Management Goals
Example	Targeted Installation of Rain Gardens	Install 3 rain gardens within 300 feet of Lake Stormy to reduce sedimentation and water quality impairment.	Lake Stormy and Snake Creek outlet	Yes or No	Low dissolved oxygen, fecal coliform, turbidity, excess nutrients	Snake Creek Watershed Low DO TMDL implementation plan and 1999 Lake Stormy CWP Diagnostic Study	Stormwater runoff will be reduced by 25% from the project area, which will meet intermediate hydrologic and P reduction goals of the Cloudy City Stormwater Pollution Prevention Plan.	The Stormy County water plan indicates that total P levels and Secchi disk readings over the last decade have worsened with increased urban stormwater runoff.
1	Plymouth Creek Stabilization Project	Restore and protect 3/4 mile of Plymouth Creek channel from erosion; reduce phosphorus loads to Medicine Lake by 300 pounds/year and TSS loads by 75,000 pounds (38 tons)/year	Medicine Lake	Yes	Excess nutrients	Bassett Creek Watershed Management Commission Watershed Management Plan (and CIP), City of Plymouth local water management plan (project is also included in draft Medicine Lake TMDL report)	The draft Medicine Lake TMDL estimates an annual reduction of 1,287 lb of TP from the watershed will be necessary for the lake to meet the state TP standard of 40ug/L for deep lakes in the North Central Hardwood Forest ecoregion.	Water quality data collected for Medicine Lake in 2007 indicate an average growing season TP concentration of 60.0 ug/L. Modeling performed for the draft TMDL estimates an annual reduction of 1,287 lb of TP from the watershed will be necessary for the lake to meet the state TP standard of 40ug/L for deep lakes in the North Central Hardwood Forest ecoregion. Flux modeling applied to 2007 monitoring data from Plymouth Creek indicates an annual TP loading of about 1,750 lbs and an annual TSS loading of about 680,000 lbs (340 tons). The BCWMC CIP includes stream restoration projects to address channel and bank erosion problems identified by the member cities.
2	Bassett Creek Stabilization Project	Restore and protect 1 mile of Bassett Creek channel from erosion; reduce phosphorus loads to downstream waters by 96 pounds/year and reduce TSS loads to downstream waters by 100 tons/year	Bassett Creek	Yes	Fish bioassessments, fecal coliform, chloride (draft 2010)	Bassett Creek Watershed Management Commission Watershed Management Plan (and CIP), City of Golden Valley Surface Water Management Plan	The adopted capital improvement program for the watershed (part of the Bassett Creek Watershed Management Commission Watershed Management Plan) has a phosphorus reduction goal of 34% (3,660 lbs) of the total estimated watershed load with full development.	Monitoring data from the Bassett Creek WOMP station in 2003 indicates an annual TP loading of 9,300 lbs and TSS loading of 2,140,000 lbs (1,070 tons). The BCWMC CIP includes stream restoration projects to address channel and bank erosion problems identified by the member cities.
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Overall Budget Summary

Project Applicant: ***Bassett Creek Watershed Management Comm***

Program	Total Grant	Total Loan	Total Grant and Loan Request
1. Clean Water Fund Competitive Grants	\$500,000	\$0	\$500,000
2. BWSR Feedlot Water Quality Management Grant	\$0	\$0	\$0
3. BWSR-MPCA SSTS Inventories and Fix Up Grants	\$0	\$0	\$0
4. BWSR Conservation Drainage Grant	\$0	Does not apply	\$0
5. BWSR Native Buffer Cost Share Grant	\$0	Does not apply	\$0
6. BWSR Cooperative Weed Management Grant	\$0	Does not apply	\$0
Total Project Budget	\$500,000	\$0	\$500,000