



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting

Wednesday, March 17, 2021

Agenda Item

Item 4. D. - Authorize payment to Riley Purgatory Bluff Creek Watershed District for Lower Riley Creek restoration project

Prepared By

Linda Loomis, Administrator

Summary

In 2017, the LMRWD partnered with the Riley Purgatory Bluff Creek Watershed District (RPBCWD) to address turbidity impairments on Riley Creek. The LMRWD agreed to contribute \$150,000 to a project RPBCWD planned for a reach of Lower Riley Creek, which is now essentially complete and RPBCWD has requested payment from the LMRWD.

Young Environmental Consulting Group was asked to review documentation provided by RPBCWD to advise the Board whether or not the project was completed in as agreed. A report advising the Board is attached.

Staff will request water quality data from RPBCWD for the next ten years as suggested in the Technical Memorandum. It should be noted that since 1999 Metropolitan Council has operated a WOMP (Watershed Outlet Monitoring Program) station on Riley Creek. A Fact Sheet (2014) prepared by the Met Council is attached. More detailed information can be found using this [link](#).

Attachments

Invoice from RPBCWD

Technical Memorandum re: Lower Riley Creek Ecological Restoration - Funding Review Request dated March 12, 2021

MCES Riley Creek Fact Sheet

Recommended Action

Motion to authorize reimbursement to RPBCWD contingent upon receipt of as-built construction drawings or staff agreed upon construction documentation.

Lower Riley Creek Streambank Stabilization Summary

The Project's location in the Riley Creek Conservation Area provides opportunities for close collaboration between the Project partners to enhance the ecological value of the stream corridor within a rare section of the remaining "Big Woods". This provides a unique opportunity for interpretive signage and future programming to educate and connect the public on the importance of the diverse stream corridors and remnant "Big Woods". The Project includes the development of an Ecological Enhancement Plan, an innovative shift in the Project and partnership coordination which documents the goals of the partnership for the Project and establishes roles and responsibilities of Project partners for the 20-year life of the agreement. While it is common for RPBCWD to partner with the cities within the District, the project formed a unique three-way partnership between RPBCWD, LMRWD, and the city of Eden Prairie. The LMRWD partnered on the Project, which is outside the LMRWD boundary, because the LMRWD foresaw the importance and cost effectiveness of preventing sediment erosion at the source rather than dealing with dredging the material out of the navigation channel in the Minnesota River, one of the LMRWD primary missions.

This purpose of the Lower Riley Creek Stabilization Project (Project) is the enhancement and stewardship of ecological resources by restoring 4,600 feet of creek and 375 feet of a tributary ravine. The stream was extremely incised (over 10 feet in some locations) with severe bank sloughing and scraps along the corridor (up to 30 feet high). The elevation of the Riley Creek channel was raised through constructing a series of approximately 30 rock riffles, thus providing areas of grade control and allowing higher flows to better access a restored floodplain. The newly connected floodplain was sized proportional to its setting in a narrow valley and is approximately 30 to 60 feet wide. A series of 8 log/rock step pools were constructed using trees salvaged on-site to provide variable flow conditions. In addition, a variety of bioengineering methods, including rock cross vanes, rock vanes, log vanes, root wads, and toe wood bank stabilization, were incorporated across the Project reach as needed to dissipate stream flows. The tributary ravine was stabilized through the use of riprap, cross checks, scarp toe stabilization, and scarp stabilization. The Project was cut/fill neutral, meaning there will be no net gain or loss of soil materials from the Project site. The Project also modified or replaced five storm sewer outfalls along the 4,600 foot creek reach. One new pedestrian bridge was constructed to connect with an existing, paved access trail to the nature trails within the Riley Creek Conservation Area. By establishing a stable stream corridor, it is estimated that the project reduces the annual TSS load by 2,173,930 pounds per year and TP load



1,250 pounds per year, thus helping address the MPCA’s identified turbidity impairment within this reach of Riley Creek and the Lower Minnesota River impairments. In addition the photos below show how the restored reach reduces sediment load by comparing the turbid inflowing water (below left photo) to the relatively clear waters at the downstream end of the restored creek reach (below right photo).



The project partners include the RPBCWD, LMRWD, and City of Eden Prairie. The following table summarizes the total project construction cost through January 2021 and the anticipated remain construction cost for continues vegetation establishment activities for the next couple years.

Item	Amount
Payment Application 1	\$43,959.83
Payment Application 2	\$110,681.65
Payment Application 3	\$1,339,841.89
Payment Application 4	\$255,806.10
Payment Application 5	\$184,152.62
Payment Application 6 (partial retainage release)	\$22,009.89
Total Construction Payment through Jan 2021	\$1,956,451.98
Remaining Vegetation management work	\$14,590.00
Remaining Retainage to be Released	\$22,260.33
Anticipated Total Construction Amount	\$1,978,712.31

Technical Memorandum

To: Linda Loomis, Administrator
Lower Minnesota River Watershed District

From: Katy Thompson, PM
Della Schall Young, CPESC, PMP

Date: March 12, 2021

Re: Lower Riley Creek Ecological Restoration—Funding Review Request
(LMRWD No. 2021-008)

The Riley Purgatory Bluff Creek Watershed District (RPBCWD) is requesting that the Lower Minnesota River Watershed District (District) approve the \$150,000 contribution to the Lower Riley Creek Ecological Restoration Project (Project) per the 2019 cooperative agreement between the District and RPBCWD (**Attachment 1**).

Background

In 2016, the District, City of Eden Prairie, and RPBCWD partnered on a study of Riley Creek (Creek). The study, as documented in the Engineer's Report for Lower Riley Creek Stabilization Project, identified opportunities to improve the Creek's water quality on RPBCWD reaches D3 and E and the LMRWD reach downstream of Flying Cloud Drive (**Figure 1**). The Lower Riley Creek is impaired for aquatic life, with turbidity being identified as the key stressor. The study proposed a project to stabilize the creek in reaches D3, E, and LMRWD to reduce streambank erosion, thereby reducing total suspended solids (TSS) and total phosphorus (TP) transport to downstream waterbodies, including the Minnesota River. Based on the study's documented benefits and the Project's alignment with the District's strategy to partner with local governments inside and outside its jurisdiction to leverage resources to protect, preserve, and manage water and natural resources within the District and how the Project would address the following issues and goals, the managers approved contributing \$150,000 to the Project:

- Issue 3: Water Quality
- Issue 5: Erosion and Sediment Control
- Issue 7: Commercial and Recreational Navigation
- Goal 2: Surface Water Management—to protect, improve, and restore surface water quality
- Goal 4: Unique Natural Resources Management—to protect and manage unique natural resources
- Goal 7: Erosion and Sediment Control—to manage erosion and control sediment discharge
- Goal 8: Commercial and Recreational Navigation—to maintain and improve navigation and recreational use of the Lower Minnesota River

Project Update

In 2018, as part of the Hennepin County Flying Cloud Drive reconstruction project, the District repaired the LMRWD reach of Riley Creek, downstream of Flying Cloud Drive.

Between October 2019 and November 2020, the Project reached substantial completion, pending final vegetation work in spring 2021. RPBCWD undertook the \$1.98 million Project, installing rock riffles and log/rock step pools as well as stabilizing scarp toes and scarp surfaces. As RPBCWD estimated, the Project reduces TSS and TP entering the Minnesota River by approximately 2.1 million and 1,250 pounds per year, respectively. Figure 2 illustrates the benefit of the Project.



Figure 2. Example of how the restored reach is reducing sediment load downstream; left photo shows streamflow entering the restored reach, and right photo shows streamflow leaving the restored reach downstream (provided by RPBCWD).

The RPBCWD has submitted a payment request for the District's approved \$150,000 contribution to the Project as agreed per the attached cooperative agreement.

Recommendations

Because the Project goals align with the District's, Young Environmental recommends conditionally approving RPBCWD's request of \$150,000, pending receipt of as-built

construction drawings or staff agreed upon construction documentation. As previously recommended in our August 8, 2019, review of the funding request, the District should consider requiring water quality data from RPBCWD for the next ten years showing changes resulting from the Project.

Attachments

- Executed Cooperative Agreement between LMRWD and RPBCWD
- Figure 1: Lower Riley Creek Ecological Restoration Sites

COOPERATIVE AGREEMENT
AMONG CITY OF EDEN PRAIRIE,
LOWER MINNESOTA RIVER WATERSHED DISTRICT AND
RILEY-PURGATORY-BLUFF CREEK WATERSHED DISTRICT

LOWER RILEY CREEK CORRIDOR ENHANCEMENT PROJECT

This cooperative agreement is made by and among the City of Eden Prairie, a Minnesota municipal corporation (Eden Prairie); the Lower Minnesota River Watershed District, a watershed district created pursuant to Minnesota Statutes chapters 103B and 103D (LMRWD); and the Riley-Purgatory-Bluff Creek Watershed District, a watershed district created pursuant to Minnesota Statutes chapters 103B and 103D (RPBCWD), to implement the Lower Riley Creek Corridor Enhancement Plan in Eden Prairie, Hennepin County, Minnesota, to stabilize reach E and reach D3 of lower Riley Creek to provide an ecologically diverse stream with significantly reduced streambank erosion, diverse habitat layers and enhanced public access and understanding of why stable stream systems are important. (Eden Prairie, LMRWD and RPBCWD are referred to collectively herein as the Partners.)

Recitals

WHEREAS RPBCWD has an approved water resources management plan pursuant to Minnesota Statutes section 103B.231 (the Plan) that has as a primary goal addressing all impairments in water resources in RPBCWD's jurisdiction and removing all RPBCWD waterbodies from the State of Minnesota impaired waters list;

WHEREAS RPBCWD completed the Lake Riley Outlet Improvements and Riley Creek Lower Valley Stabilization Feasibility Study in 2007, which determined that the lower valley of Riley Creek requires stabilization to limit erosion of the stream channel and steep valley bluffs;

WHEREAS Riley Creek is listed on the Minnesota Pollution Control Agency's 303(d) list of impaired waters for excessive turbidity, aquatic macroinvertebrate bioassessments, fishes bioassessments and *E. coli*, and the Minnesota River, into which Riley Creek flows, is impaired for nutrients/eutrophication and turbidity;

WHEREAS a 2015 Creek Restoration Assessment Strategy report produced by RPBCWD evaluated segments of all creeks in the Riley, Purgatory and Bluff Creek watersheds and prioritized reach E in the lower valley of Riley Creek for restoration;

WHEREAS the RPBCWD Board of Managers has determined that reaches E and D3 are the highest-priority locations for stabilization in the lower valley of Riley Creek and that restoration should begin at those sites;

WHEREAS the capital improvements program in the Plan includes the lower Riley Creek Restoration and Stabilization (Reach D3 and E) project (the Project), which was the subject of the duly noticed public hearing on December 7, 2016, after which the RPBCWD Board of Managers ordered the Project (which at the time was referred to as the Riley Creek Water Quality Improvement Project);

WHEREAS in June 2018 the RPBCWD engineer produced the Lower Riley Creek Corridor Enhancement Plan (the Enhancement Plan), attached to and incorporated herein as Exhibit A, which articulates background on and a plan for implementation of the Project that was collaboratively developed by the Partners and will provide greater stream depth variability, more channel bed substructure types and varied channel velocities in lower Riley Creek to reduce erosion and improve water quality while also improving natural stream habitat for aquatic organisms;

WHEREAS the Enhancement Plan states a key expected outcome of the Project as reduction from Riley Creek and, consequently, the Minnesota River, of 2,173,930 pounds of total suspended solids and 1,250 pounds of total phosphorus;

WHEREAS the Partners find that implementing the Enhancement Plan will provide better floodplain connectivity for lower Riley Creek, which will enhance surrounding riparian habitat and, by establishing a stable creek corridor, will also address the identified turbidity impairment within reach E and reach D3 of Riley Creek;

WHEREAS the Project will be constructed entirely on property owned by Eden Prairie in the Riley Creek Conservation Area as depicted in Enhancement Plan (the RCCA), and at Eden Prairie's request in conjunction with and as part of construction of the Project, a new pedestrian bridge will be constructed in the RCCA;

WHEREAS Eden Prairie operates its stormwater-management system under the state Municipal Separate Storm Sewer System general permit, and construction and maintenance of the Project is intended to accrue to the benefit of Eden Prairie's fulfillment of its obligations under the permit; and

WHEREAS Eden Prairie, LMRWD and RPBCWD are authorized by Minnesota Statutes section 471.59 to enter into this cooperative agreement for the Project.

Agreement

NOW, THEREFORE, THE PARTNERS enter into this agreement to document their understanding as to the scope of the Project, reaffirm their commitments as to the general responsibilities for and tasks to be undertaken by the Partners, dedicate the

necessary rights to the use of the RCCA, and facilitate communication and cooperation to successfully complete the Project.

1 Project. The Project elements are described in detail in and supported by the Enhancement Plan, which serves as the basis for and provides technical data and analysis supporting the Partners' agreement.

1.1 DESIGN. Design and preparation of all necessary construction documents (plan sheets, drawings, technical specifications) for the Project. The design of the Project will incorporate elements described in section 7.1 of the Enhancement Plan, and will be accompanied by plan sheets, drawings and technical specifications for a new pedestrian bridge in the RCCA (the Bridge), which will be included in the bidding documents for the Project as a bid alternate.

1.2 CONSTRUCTION. The Project and, if selected, the Bridge will be constructed by a contractor under contract to RPBCWD and with construction oversight and management by the RPBCWD engineer. Construction will include advance determination and procurement of permits and other regulatory approvals necessary for the Project. Construction documents will provide for a three-year warranty on vegetation. Construction also will include completion of as-built surveys of outfalls and, if selected by Eden Prairie pursuant to paragraph 4.3 below, the Bridge. Construction will include restoration of portions of the RCCA utilized for the Project, including trails used for access and staging of construction, to a condition materially suitable for the usual public uses thereof, except to the extent the RCCA is improved through construction of the Project and, if selected, the Bridge.

1.3 MAINTENANCE. RPBCWD and Eden Prairie will implement inspection, monitoring and maintenance of the Project as described in section 7.2 of the Enhancement Plan.

2 Costs

2.1 RPBCWD will be responsible for:

- a. The costs of design, construction and implementation, as well as construction oversight and management, of the Project, except as will be reimbursed by Eden Prairie and LMRWD in accordance with the agreement;
- b. The costs and fees associated with complying with regulatory requirements applicable to the Project, except that Eden Prairie will assess no fee to RPBCWD for city permits required for the Project, if any;
- b. The in-kind costs of its participation in post-construction monitoring and inspection of the Project as described in the Enhancement Plan.

2.2 Eden Prairie will:

- a. Contribute the land-use rights necessary for implementation of the Project and construction of the Bridge in the RCCA at no out-of-pocket cost to any party;
- b. Contribute designs, plans and specifications for the Bridge for integration into the bidding and, if selected, construction documents for the Project;
- c. Reimburse RPBCWD \$150,000 of documented Project costs;
- d. Reimburse RPBCWD 50 percent of documented costs of storm sewer outfalls installed as part of the Project, not to exceed a contribution of \$50,000;
- e. Reimburse RPBCWD the entirety of the documented construction cost of the Bridge, if selected;
- f. Conduct, after the three-year warranty period provided in accordance with subsection 1.2, at its sole discretion and expense, routine post-construction inspection and Routine Maintenance of the Project as defined in section 7.2.2 of the Enhancement Plan.

2.3 LMRWD will:

- a. Reimburse RPBCWD \$150,000 of documented Project costs.

2.4 Each of the Partners will bear the internal, administrative and incidental costs of fulfilling its responsibilities and obligations under this agreement, as well as the costs incurred in providing and conducting public education, outreach and meetings for the Project. In the event of cancellation in accordance with subsection 3.5 herein, each party will bear its costs incurred prior to RPBCWD's issuance of notice of cancellation.

3 RPBCWD's Specific Rights and Duties

3.1 RPBCWD has contracted with the RPBCWD engineer for the development of the design and plans for the Project, along with the specifications and all other necessary bidding and construction documentation. Notwithstanding the foregoing, RPBCWD makes no warranty to Eden Prairie or LMRWD regarding the RPBCWD engineer's or another third party's performance in design, construction or construction management for the Project or the Bridge, if selected. RPBCWD has submitted to Eden Prairie and LMRWD the 90 percent complete design and plans for the Project (attached hereto and incorporated herein as Exhibit B). Under contract with RPBCWD, the RPBCWD engineer will prepare contract documents for the Project, accompanied by plans, designs and technical specifications for the Bridge provided by Eden Prairie in accordance with paragraph 4.2 below, for solicitation of a contractor in accordance with state procurement

law. The RPBCWD engineer will integrate the plans, designs and technical specifications for the Bridge into the bidding documents for the Project as a bid alternate.

3.2 In its sole discretion and based on bids for construction of the Project without regard to bid price of the Bridge, RPBCWD will select a contractor and contract for the construction of the Project and, if selected, the Bridge in accordance with applicable public-procurement law, as analyzed by RPBCWD, and will ensure that the Project, when constructed, is consistent with the RCCA and this agreement. RPBCWD will award and enter a contract for the construction of the Project that will:

- a. Require the contractor to indemnify, defend and hold harmless Eden Prairie and LMRWD, their officers, governing-board members, employees and agents from any and all actions, costs, damages and liabilities of any nature, including reasonable attorney's fees, arising from the contractor's negligent or otherwise wrongful act or omission, or breach of a specific contractual duty, or a subcontractor's negligent or otherwise wrongful act or omission, or breach of a specific contractual duty owed by the contractor to RPBCWD. The contract will require that for any claim subject to indemnification by an employee of selected contractor or a subcontractor, the indemnification obligation is not limited by a limitation on the amount or type of damages, compensation or benefits payable by or for the contractor or a subcontractor under workers' compensation acts, disability acts or other employee benefit acts.
- b. Require that the contractor procure general liability insurance and name Eden Prairie and LMRWD as additional insureds with primary coverage for general liability on a noncontributory basis for both ongoing work and completed operations to the extent of RPBCWD's statutory liability limit.
- c. Extend all product warranties and workmanship guaranties to Eden Prairie.

3.3 As between the Partners and with the assistance and cooperation of Eden Prairie, RPBCWD will obtain all permits, licenses and other necessary approvals for itself and Eden Prairie from entities with regulatory authority.

3.4 RPBCWD will contract for construction of and will ensure that the Project and, if selected, the Bridge are completed in accordance with applicable law and regulatory standards and criteria.

3.5 RPBCWD or the RPBCWD engineer on RPBCWD's behalf will oversee the construction of the Project, and if selected, the Bridge. RPBCWD may adjust the plans, design and specifications for the Project during construction in consultation with Eden Prairie, as long as the revised plans do not require RPBCWD to exceed the scope of the rights granted under this agreement or create maintenance obligations not anticipated

hereunder. Until completion of construction, if RPBCWD, in its judgment, should decide that the Project is infeasible, RPBCWD, at its option, may declare this agreement rescinded and annulled. If RPBCWD so declares, all obligations herein, performed or not, will be voided; RPBCWD will return the RCCA as nearly as reasonably feasible to its preexisting condition or to a condition agreed on by Eden Prairie and RPBCWD to the extent the RCCA has been physically disturbed by RPBCWD, its contractor, agents or assigns. On completion of construction of the Project, the RPBCWD engineer will certify construction of the Project as substantially complete for the purposes intended.

3.6 RPBCWD will notify Eden Prairie on completion of construction, and thereafter RPBCWD will participate in monitoring the effectiveness of and inspecting the Project and will, in collaboration with Eden Prairie, produce an annual report on the status of the Project, consistent with the Enhancement Plan. At the request of Eden Prairie, RPBCWD will duly consider levying and dedicating funds for maintenance and/or repair of the Project.

4 Eden Prairie's Specific Rights and Duties, and Grant of Access, Construction and Maintenance Rights

4.1 Eden Prairie has reviewed and approves, by its signature hereunder, the 90 percent complete design and plans for the Project provided in Exhibit B.

4.2 Eden Prairie, for itself or by a contractor on its behalf, will submit a design, plans and bidding specifications for the Bridge in a form and format specified by the RPBCWD engineer for inclusion in the solicitation of a contractor for the Project as a bid alternate. In the event Eden Prairie does not submit a design, plans and bidding specifications for the Bridge to the RPBCWD engineer, the Bridge will not be included in the solicitation and RPBCWD will solicit contractors for construction of the Project only. Under any circumstances, solicitation of and selection of a contractor for construction of the Project will be made on the basis of cost of the construction of the Project alone (i.e., the base bid).

4.3 After receipt of responses to the solicitation of contractors for construction, Eden Prairie in its sole discretion will determine whether to direct RPBCWD to include construction of the Bridge in the contract between RPBCWD and the selected contractor for construction of the Project. In the event Eden Prairie elects not to direct RPBCWD to include construction of the Bridge in the contract for construction of the Project, Eden Prairie may separately contract for construction of the Bridge and will be solely responsible for coordination of construction of the Bridge with construction of the Project.

4.4 Eden Prairie will cooperate with RPBCWD's efforts to obtain permits and approvals needed for the Project and act to facilitate proper and efficient processing of applications for city approvals.

4.5 LAND-USE RIGHTS.

a. Eden Prairie hereby grants to RPBCWD, its contractors, agents and assigns a temporary and nonexclusive license through the three-year warranty period provided in accordance with subsection 1.2 herein to access and use the portions of the RCCA shown in the Enhancement Plan and occupying parcels designated in the Hennepin County property records by property identification numbers

29-116-22-32-0004	29-116-22-31-0009
29-116-22-31-0018	29-116-22-24-0015
29-116-22-24-0048	29-116-22-24-0019
29-116-22-21-0030	29-116-22-21-0051

for purposes of construction of the Project and, if selected, the Bridge. RPBCWD, on reasonable notice to Eden Prairie, may temporarily restrict or preclude public access to a portion or portions of the RCCA to ensure safety while construction activities are under way.

b. Eden Prairie will forbear from any activity that unreasonably interferes with the RPBCWD's ability to exercise its rights or meet its obligations under this agreement. Subject to its interest in preserving public safety, Eden Prairie will cooperate with RPBCWD's reasonable exercise of its rights under this agreement with regard to access to and use of the RCCA. Eden Prairie will not take any action within or adjacent to the RCCA that could reasonably be expected to diminish the effectiveness or function of the Project for the purposes intended, and after notice of completion of construction of the Project from RPBCWD, Eden Prairie will continue to maintain the RCCA in a manner that avoids inhibiting the effectiveness of the Project. If Eden Prairie transfers ownership of a fee interest in the RCCA or any portion of the RCCA improved by the Project during the term of this agreement, it will require as a condition of sale and enforce a requirement that the transferee assume in writing Eden Prairie's responsibilities and obligations under this agreement.

c. On completion of construction of the Project, Eden Prairie will retain ownership of the RCCA, and, if selected for construction, the Bridge, provided that if Eden Prairie transfers ownership of a fee interest in the RCCA or any portion of the RCCA improved by the Project or the Bridge during the term of this agreement, it will require as a condition of sale and enforce a requirement that the transferee assume in writing Eden Prairie's responsibilities and obligations under this agreement.

4.6 Eden Prairie may, at its sole discretion and expense, adjust the plans, design and specifications for the Bridge during construction, as long as the revised plans do not require Eden Prairie to exceed the scope of the rights granted under this agreement and, to the degree the changes affect design or construction of the Project, with concurrence of the RPBCWD engineer.

4.7 On notification from RPBCWD of completion of construction in accordance with paragraph 3.6, Eden Prairie will on its own, or by contract with an engineer licensed in the State of Minnesota, certify construction of the Bridge as substantially complete for the intended purposes, if selected by Eden Prairie for construction in conjunction with the Project in accordance with paragraph 4.3.

4.8 After certification of construction of the Project as substantially complete for the intended purposes, Eden Prairie will participate for the duration of this agreement in inspecting the Project and will, in collaboration with RPBCWD, produce an annual report on the status of the Project, consistent with the Enhancement Plan. Eden Prairie will complete or contract for the completion of, in its sole discretion and at its sole expense, Routine Maintenance as defined in the Enhancement Plan of the Project for 20 years from the date the Project is substantially complete for the intended purposes.

4.9 On receipt of documentation of costs incurred and paid, Eden Prairie will reimburse RPBCWD as described in section 2 of this agreement.

4.10 After completion of construction of the Project, Eden Prairie may solicit contributions from RPBCWD and/or LMRWD for non-routine maintenance and/or repairs of the Project.

4.11 Eden Prairie may conduct data-collection and analysis on the performance of the Project in reducing loading of sediment and other pollutants to Riley Creek, or request and utilize RPBCWD data and analysis for the purpose, and may utilize all credit generated by the Project toward compliance with goals and requirements imposed by state and federal regulatory programs, such as the National Pollutant Discharge Elimination System as applicable to Eden Prairie.

5 LMRWD's Specific Rights and Duties

5.1 LMRWD has reviewed and approves, by its signature hereunder, the 90 percent complete design and plans for the Project provided in Exhibit B.

5.2 On receipt of documentation of costs incurred and paid, LMRWD will reimburse RPBCWD as described in section 2 of this agreement.

6 General Terms

6.1 INDEPENDENT RELATIONSHIP; LIABILITY. This agreement does not create a joint powers board or organization within the meaning of Minnesota Statutes section 471.59, and no party agrees to be responsible for the acts or omissions of another pursuant to subdivision 1(a) of the statute. Only contractual remedies are available for the failure of a party to fulfill the terms of this agreement. Eden Prairie, LMRWD and RPBCWD enter this agreement solely for the purposes of improving the ecological health and condition of lower Riley Creek in Eden Prairie and downstream receiving waters. Accordingly, with respect to any and all activity undertaken pursuant to this agreement, Eden Prairie, LMRWD and RPBCWD (each party as an Indemnitor Party) agree to hold each other harmless, and defend and indemnify the other parties, their officers, employees and agents (individually, an Indemnified Party) from and against any and all liability, loss, claim, damage or expense (including reasonable attorney fees, costs and disbursements) that an Indemnified Party may incur as a result of the Project due to any negligent or willful act or omission by the Indemnitor Party or the Indemnitor Party's breach of any specific contractual duty. Notwithstanding the foregoing or any other provision of this agreement, Eden Prairie's, LMRWD's and RPBCWD's obligations under this paragraph will survive the termination of the agreement.

This agreement creates no right in and waives no immunity, defense or liability limitation with respect to any third party. As between the parties, only contract remedies are available for a breach of this agreement. Notwithstanding the foregoing, RPBCWD will not be deemed to have acquired by entry into or performance under this agreement, any form of interest or ownership in or to any portion of the land that is the site of the construction of the Project or adjacent property. RPBCWD will not by entry into or performance under this agreement be deemed to have exercised any form of control over the use, operation or management of any portion of the property that is the site of the Project or adjacent property so as to render RPBCWD a potentially responsible party for any contamination under state and/or federal law, however this will not relieve the RPBCWD from liability as a potentially responsible party on the basis of categories other than ownership and operation as provided for under state and federal law.

6.2 PUBLICITY AND ENDORSEMENT. Any publicity regarding the Project must identify Eden Prairie, LMRWD and RPBCWD as the sponsoring entities. For purposes of this provision, publicity includes notices, informational pamphlets, press releases, research, reports, signs, and similar public notices prepared by or for Eden Prairie, LMRWD or RPBCWD individually or jointly with others, or any subcontractors, with respect to the Project. RPBCWD, LMRWD and Eden Prairie will collaborate on the development of educational and informational signage and materials pertinent to the Project, and each

party, at its cost, may develop, produce and, after approval of the other parties, distribute educational, outreach and publicity materials related to the Project.

6.3 DATA MANAGEMENT. All designs, written materials, technical data, research or any other work-in-progress will be shared between the parties to this agreement on request, except as prohibited by law. As soon as is practicable, the party preparing plans, specifications, contractual documents, materials for public communication or education will provide them to the other party for recordkeeping and other necessary purposes.

6.4 DATA PRACTICES. All data created, collected, received, maintained or disseminated for any purpose in the course of this agreement is governed by the Data Practices Act, Minnesota Statutes chapter 13, any other applicable state statute, or any state rules adopted to implement the act, as well as federal regulations on data privacy

6.5 ENTIRE AGREEMENT. This agreement contains the complete and entire agreement among the parties relating to the subject matter hereof, and supersedes all prior negotiations, agreements, representations and understandings, if any, between the parties respecting such matters. The recitals stated at the outset are incorporated into and a part of the agreement.

6.6 COMPLETE AGREEMENT. This agreement, as it may be amended in writing, constitutes the entire agreement between the Partners. Any amendment to this agreement must be in writing and will not be effective until it has been executed and approved by the same parties who executed and approved the original agreement or their successors in office.

6.7 WAIVERS. The waiver by Eden Prairie, LMRWD or RPBCWD of any breach or failure to comply with any provision of this agreement by the other party will not be construed as nor will it constitute a continuing waiver of such provision or a waiver of any other breach of or failure to comply with any other provision of this agreement.

6.8 NOTICES, COORDINATION. The Partners designate the following authorized representatives, each to serve as the liaison to the other parties for purposes of coordinating inspection, construction oversight and maintenance of the Project as provided in this agreement. Any written communication required under this agreement will be addressed to the other parties as follows, except that any party may change its address for notice by so notifying the other parties in writing:

Eden Prairie

Patrick Sejkora
Water Resources Engineer
8080 Mitchell Road
Eden Prairie MN 55344
952-949-8360
psejkora@edenprairie.org

RPBCWD

Claire Bleser
Administrator
18681 Lake Drive East
Chanhassen MN 55317
952-607-6512
cbleser@rpbcwd.org

LMRWD

Linda Loomis,
Administrator
112 Fifth St. E.
Chaska MN 55318
763-545-4659
naiadconsulting@gmail.com

6.9 TERM; TERMINATION. This agreement is effective on execution by all three parties and will terminate 20 years from the date of execution or on the written agreement of the Partners. Any responsibility or obligation that has come into being before expiration, specifically including obligations under section 2 and paragraphs 5.2, 6.1 and 6.2 herein, will survive expiration. Further, if Eden Prairie transfers ownership of a fee interest in the RCCA or in any portion of the RCCA improved by the Project subsequent to the term of this agreement, Eden Prairie will require as a condition of sale and enforce that the purchaser agree in writing to refrain from taking any action that could reasonably be expected to diminish the effectiveness or function of the Project for the purposes intended.

IN WITNESS WHEREOF, the parties have caused the agreement to be duly executed intending to be bounded thereby.

(Signature page follows.)

CITY OF EDEN PRAIRIE

[Signature]
By: Ronald K. Case, Mayor

Date: 4/16/2019

[Signature]
By: Rick Wetschow, City Manager

Date: 4/16/2019

Approved as to form & execution:

[Signature]
City attorney

LOWER MINNESOTA RIVER
WATERSHED DISTRICT

[Signature]
By: _____, President

Date: _____

Approved as to form & execution:

District counsel

RILEY-PURGATORY-BLUFF CREEK
WATERSHED DISTRICT

By: Richard Ward
By: RICHARD WARD, President

Date: MAY 1, 2019

Approved as to form & execution:

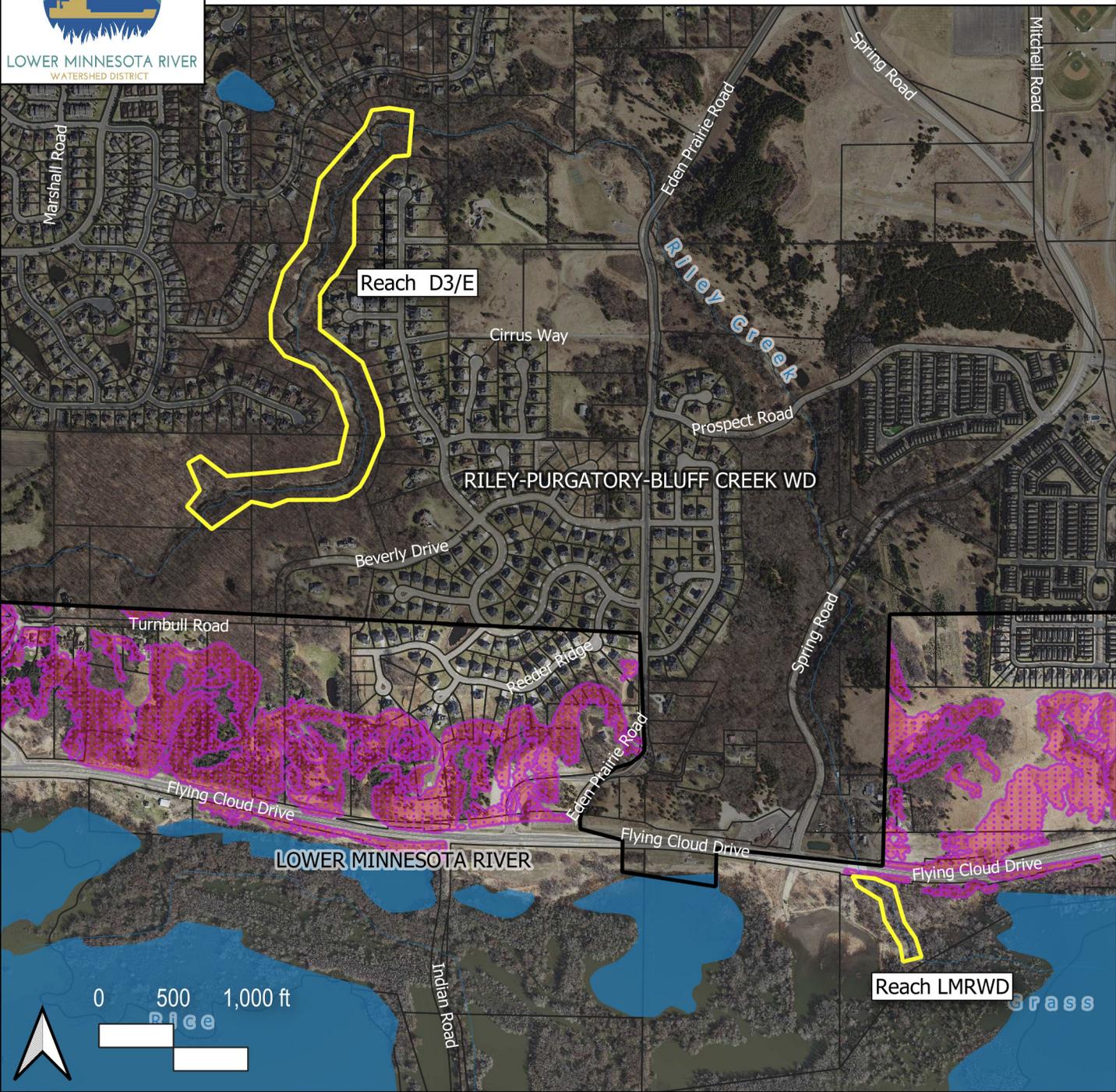
[Signature]
District counsel

EXHIBIT A
Lower Riley Creek Corridor (Reach E and D3) Enhancement Plan

EXHIBIT B
90 percent Complete Design and Plans for the Project



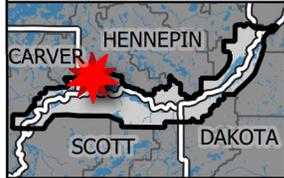
Figure 1: Lower Riley Creek Ecological Restoration Sites



LEGEND

- Lower Riley Ck Ecological Restoration Sites
- Public Waterways
- Public Waters
- Hennepin Co. Parcel Data
- Steep Slopes Overlay District [SSOD]
- LMRWD Boundary
- RPBCWD
- County Boundaries

LMRWD Watershed Location Map





Riley Creek

www.metrocouncil.org

ENVIRONMENTAL SERVICES

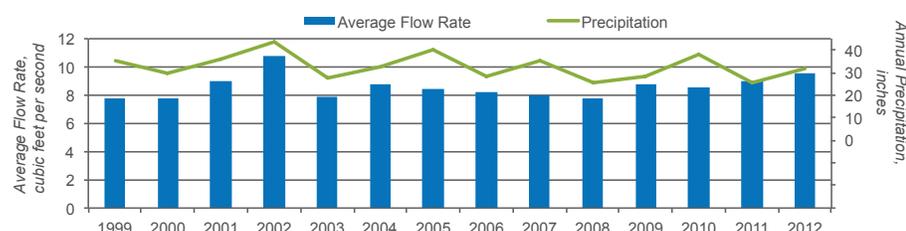
Riley Creek is located in the western metropolitan area. It begins at Lake Lucy in Chanhassen and runs through lakes, open land, urban areas and the Minnesota Valley National Wildlife Refuge before entering the Minnesota River.

Flow

Stream flow, or the rate of water flowing in a stream, affects aquatic life and the ecosystem. High flows can lead to flooding and erosion, and transport pollutants.

Riley Creek flows year-round due to groundwater and lake outflow. Its flow is also influenced by how much rain or snow has fallen in any given year. Since 2003, the average flow in Riley Creek is nearly 8.5 cubic feet-per-second. At that rate, it would take the creek a little more than 30 days to fill the Target Center in Minneapolis.

Riley Creek Annual Flows and Precipitation



Sediment

Sediment from poorly-managed construction sites, farm fields, or eroded stream banks and gullies can decrease the light available in streams and harm aquatic life. Another term for sediment is “total suspended solids.”

Riley Creek’s median sediment concentration is among the highest of the MCES-monitored streams in the Minnesota River basin, only lower than Sand and Bluff Creeks. These high sediment concentrations are probably due to streambank and ravine erosion in the steeper parts of the watershed. For the last ten years, Riley Creek carried an average of 2.5 million pounds of sediment to the Minnesota River. This amount of sediment would fill 75 15-ton dump trucks!

Nutrients

Nutrients, like nitrogen and phosphorus, are necessary for stream health. However, elevated nutrient levels, caused by materials like fertilizers, animal manure, pet waste or grass clippings, can cause excessive algae growth and harm aquatic wildlife, insects and fish.

Riley Creek has a lower nitrogen (measured as nitrate) level than the more agricultural streams monitored by MCES, but it is higher than the more urban streams in the Minnesota River basin. Phosphorus concentration in

FAST FACTS

Major river basin: Minnesota River

Water source: Lake outflow, groundwater, and surface water runoff

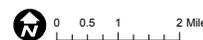
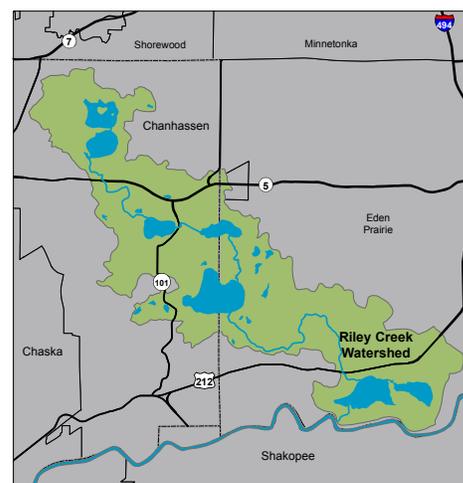
Length: 10 miles

Watershed area: 13.1 square miles

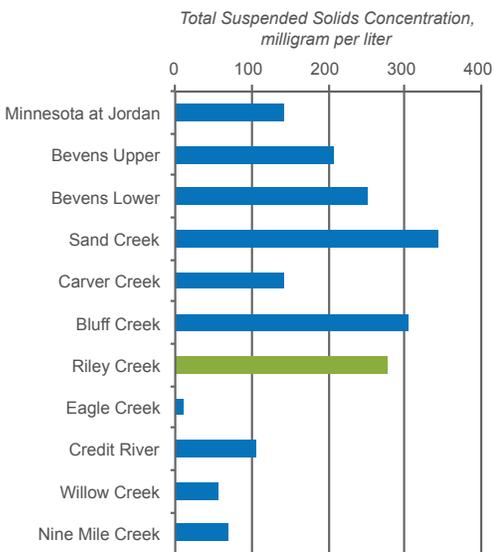
Watershed land use: Mixed urban land, open space, and wetlands

Cooperator organization: Eden Prairie

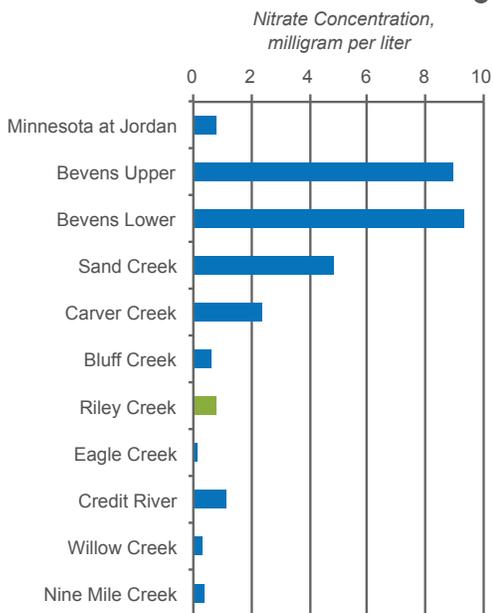
Year first monitored: 1999



Median Sediment Concentrations in the Minnesota River and Tributary Streams, 2003–2012



Median Nitrate Concentrations in the Minnesota River and Tributary Streams, 2003–2012



Riley Creek is also lower than the more agricultural streams, but higher than the more urban streams monitored by MCES in the Minnesota River basin.

Chloride

Chloride, one component of salt, is typically used for winter road, parking lot, and sidewalk maintenance and home water softening.

Riley Creek has a moderate concentration of chloride compared to other streams monitored by MCES in the Minnesota River basin.

Preserving our Creeks

The Riley-Purgatory-Bluff Creek Watershed District is the local governing body responsible for managing the Riley Creek watershed. They partner with private landowners, cities and Carver Soil and Water Conservation District to complete various improvement projects, including:

- Constructing chemical treatment systems to reduce phosphorus loads to Lakes Lucy and Susan
- Completing shoreland restoration on Lake Lucy
- Installing a winter aeration system on Rice Marsh Lake to control invasive carp populations
- Conducting herbicide treatments on Lakes Riley and Susan to control invasive plants, restore native plants, and reduce phosphorus loads
- Supporting the construction of stormwater best management practices

Is the Stream Improving?

Data analysis and computer modeling indicate that Riley Creek’s water quality has improved because the sediment and nitrate levels in the creek have decreased. However, the water quality has declined because phosphorus levels have increased. Since Riley Creek’s phosphorus and sediment levels are higher than the Minnesota River, the creek could potentially contribute to the degradation of the river.

Protecting the Region’s Water Resources

This work supports the regional policies established in the Metropolitan Council’s *Thrive MSP 2040* and *Water Resources Policy Plan* to collaborate with partners to promote the long-term sustainability and health of the region’s water resources, including surface water, wastewater and water supply.

For more information

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Visit www.metrocouncil.org/streams for the full results of the Comprehensive Water Quality Assessment of Select Metropolitan Area Streams.