

Riley Purgatory Bluff Creek Watershed District Permit Application Review

Permit No: 2022-061 (formerly 2020-041 which was withdrawn on August 6, 2022)

Considered at Board of Managers Meeting: September 14, 2022

Received complete: August 6, 2022

Applicant: Albert Eliasen

Consultant: Civil Methods, Kent Brander

Project: Shoreline Stabilization – The applicant is seeking an after-the-fact permit for maintenance of 140 feet of Lotus Lake shoreline on an existing single-family home property at 7420 Chanhausen Road in Chanhausen.

Location: 7420 Chanhausen Road, Chanhausen, MN

Reviewer: Scott Sobiech, PE, Barr Engineering

Proposed Board Action

Manager _____ moved and Manager _____ seconded adoption of the following resolutions based on the permit report that follows and the presentation of the matter at the September 14, 2022 meeting of the managers. Resolved that the application for Permit 2022-061 is approved, subject to the conditions and stipulations set forth in the Recommendations section of the attached report;

Resolved that on determination by the RPBCWD administrator that the conditions of approval have been met, the RPBCWD president or administrator is authorized and directed to sign and deliver Permit 2022-061 to the applicant on behalf of RPBCWD.

Upon vote, the resolutions were adopted, _____ [VOTE TALLY].

Rule Conformance Summary

Rule	Issue	Conforms to RBPCWD Rules?	Comments
B	Floodplain Management and Drainage Alterations	See Comment	See Rule Specific Permit Condition B1 related to confirmation of compliance with topsoil and decompaction requirements.
C	Erosion Prevention and Sediment Control	See Comment	See Rule Specific Permit Condition C1-C2 related to confirmation of compliance with topsoil and decompaction requirements.
F	Shoreline and Streambank Stabilization	Yes	
L	Permit Fee	See Comment	See Rule Specific Permit Condition L1 replenishing the deposit as needed. As of August 19, 2022 the amount due is \$3,038.50.
M	Financial Assurance	See Comment	Because the site is stabilized and this an after-the-fact permit, no financial assurance is recommended

Project Background

In 2020, the applicant installed riprap and filter material to stabilize the shoreline of his property along Lotus Lake without receiving a permit from Riley Purgatory Bluff Creek Watershed District (RPBCWD) or the state Department of Natural Resources. The project is located at the residence at 7420 Chanhassen Road in Chanhassen. RPBCWD staff issued a notice of probable violation (NOPV) on February 11, 2020 for the placement of riprap without a permit. In conjunction with the transmittal of the original NOPV RPBCWD's Watershed Planning Manager Terry Jeffery included a completed Shoreline Erosion Intensity Worksheet and aerial photography. Mr. Jeffery sent a second NOPV on May 6, 2020. The applicant submitted materials prepared by Civil Methods, Inc on June 26, 2020, and a signed permit application with associated permit fee on July 9. The RPBCWD managers briefly discussed the status of the work at the property at their July 8, 2020, meeting and found the application to be incomplete at the August 2020 meeting.

In March of 2021, RPBCWD revised Rule F to allow maintenance of shoreline stabilizations in their present form without needing to demonstrate need or assess erosion intensity. The applicant withdrew the prior permit application (2020-041) and submitted the current application to qualify for consideration under the revised Rule F provisions for maintenance of the riprap.

The project site information is summarized below:

Description	Area
Total Site Area	1.06 acres
Length of Shoreline impacted	140 feet
New (Increase) in Site Impervious Area	0
Disturbed impervious surface	0
Total Disturbed Area	0.019 acres

The following materials were reviewed in support of the permit request:

- Permit application dated August 6, 2022
- Technical memorandum by Civil Methods, Inc dated June 26, 2020. Memo includes project narrative, pre and post photographs, May 6, 2020 NOPV, hand sketch of cross section of stabilization installation
- An as-built Shoreline Protection Plan certified by Kent Brander, a professional engineer in Minnesota, dated July 29, 2020 (revised July 30, 2020)

Rule Specific Permit Conditions

Rule B: Floodplain Management and Drainage Alterations

Because the project disturbed land below the 100-year floodplain of Lotus Lake (897.4 msl) to stabilize an eroding shoreline, the project must conform to the requirements in the RPBCWD Floodplain Management and Drainage Alteration rule (Rule B, Subsection 2.1).

Rule B, Subsections 3.1 and 3.4 are not relevant because no building was constructed or reconstructed as part of the project, and no impervious surface was created or re-created within 50 feet of a watercourse. Because the cross-section information provided on the as-built drawing submitted by the applicant shows excavation and installation of stabilization measures entirely below the existing ground level, the project did not result in the loss of flood storage volume below the 100-year floodplain, the project conforms to Rule B, Subsection 3.2. Because the applicant has demonstrated that the project did not place fill in the floodplain, the engineer concurs that the project preserves the existing 100-year flood level and the project did not alter surface flows, complying with subsection 3.3.

Because the work is done and RPBCWD has no evidence of erosion or sedimentation into the lake, the subsection 3.5 requirement is no longer relevant to compliance with the rule, but the applicant must comply with the requirements noted below under the Rule C analysis. The RPBCWD Engineer finds that the proposed project conforms to the applicable design criteria in Rule B.

Rule C: Erosion and Sediment Control

In accordance with paragraph 3.5 of Rule B, the project must conform to the requirements in the RPBCWD Erosion and Sediment Control rule (Rule C, Subsection 2.1). Because the construction activities are complete and the applicant is pursuing an after-the-fact permit, documentation must be provided to demonstrate construction of the project did not introduce sediment into Lotus Lake and that the site was restored in accordance with the criteria in Rule C. Because RPBCWD permit inspector, Mat Nicklay, reviewed the site on August 22, 2022 and determined the area was decompacted to 100 psi, adequate topsoil was placed, and the site was stabilized with vegetation, the construction activities conform to RPBCWD Rule C requirements.

Rule F: Shoreline and Streambank Stabilization

Because the applicant installed riprap to stabilize 140 feet of the shoreline of Lotus Lake, the project must conform to the requirements in the RPBCWD Shoreline and Streambank Stabilization rule (Rule F, Subsection 2). The work falls within the scope of Minnesota Department of Natural Resources General Permit #2015-1192. The applicant requested this project to be considered maintenance of existing riprap installed prior to February 1, 2015. Photographic information submitted shows that riprap boulders were present on the site in 2014. Because the applicant provided site photographs and construction drawings documenting that the maintenance work will not increase the length of the existing stabilization along the shoreline, the proposed activities qualify as maintenance under Rule F Subsection 3.4 and issuance of a permit is subject to documentation of compliance with all applicable criteria of subsection 3.3. Based on the as-built drawing (which was certified by a registered engineer),

site photograph and site visit conducted by Mr. Jeffery in February 2020, the riprap used in the shoreline erosion protection was sized in accordance with the criteria in paragraph 3.3b for riprap placement along shorelines and was fieldstone boulders between 6" and 30" in diameter. The riprap size takes into account the potential for wave action at the site and the resulting erosional forces.

Because the as-built slope shown on the design plan is 3:1 (horizontal to vertical) or flatter waterward of the ordinary high water level, the project conforms to Rule F, Subsection 3.3.a.ii. The riprap stabilization appears to have followed the configuration of the existing shoreline and did not encroach horizontally from existing conditions. The as-built plan indicates no riprap or filter material was placed more than six (6) feet waterward of the ordinary high-water level (OHW) of elevation 896.3. As a result, the project conforms to Rule F, Subsection 3.3.a.iii.

The riprap used in the shoreline erosion protection was natural stone between 6" and 30" in diameter to disperse wave energy and resist movement to meet the requirements of Rule F, Subsection 3.3.b.i. The as-built drawing indicates that the riprap was placed to conform to the natural alignment of the shoreline to meet the criteria in Rule F, Subsection 3.3.b.ii. Consistent with the requirements in Rule F, Subsection 3.3.b.iii, a filter fabric conforming to Minnesota Department of Transportation (MnDOT) specification 3733 and 6 inches of granular fill conforming to MnDOT specification 3601.2 were provided as a transitional layer between the existing shoreline and the riprap. In addition, a note on the as-built drawing indicates riprap was not placed to cover emergent vegetation, consistent with Rule F, Subsection 3.3.iv. The cross section on the as-built drawing and site photograph confirm that the riprap was installed to the approximately the top of bank elevation which conforms to Rule F, Subsection 3.3.b.v. As required by Rule F, Subsection 3.3.b.vi, the applicant demonstrated with a site photo and the engineer concurs that project was needed to stabilize an eroding shoreline from future erosion and it was not for cosmetic purposes.

The applicant provided an as-built drawing certified by a professional engineer in Minnesota documenting the installed riprap location and thickness, riprap material, finished slope, transition layer materials and thickness, 100-year flood elevation, ordinary high-water level, and topographic contours. Because the riprap installation was complete, adding a baseline with fixed measuring points would serve no purpose and thus was not shown on the as-built. The drawing also shows the proposed modification to incorporate native vegetation above the installed riprap.

The RPBCWD Engineer finds that the proposed project conforms to the applicable design criteria in Rule F.

Rule L: Permit Fee Deposit:

The RPBCWD permit fee schedule adopted in February 2020 requires permit applicants to deposit \$200 For land-disturbing activities on record single-family residential property to be held in escrow and applied to cover the \$10 permit-processing fee and reimburse RPBCWD for permit review and inspection-related costs and when a permit application is approved, the deposit must be replenished to the applicable deposit amount by the applicant before the permit will be issued to cover actual costs

incurred to monitor compliance with permit conditions and the RPBCWD Rules. A permit fee deposit of \$300 was received on July 9, 2020 under permit 2020-041. Because the permit 2020-041 application was determined to be incomplete and subsequently withdrawing by the applicant, the applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. The replenishment must reimburse RPBCWD for the permit-application processing fee and permit reviews under permit number 2020-041 and 2022-061. Subsequently, if the costs of review, administration, inspections and closeout-related or other regulatory activities exceed the fee deposit amount, the applicant will be required to replenish the deposit to the original amount or such lesser amount as the RPBCWD administrator deems sufficient within 30 days of receiving notice that such deposit is due. The administrator will close out the relevant application or permit and revoke prior approvals, if any, if the permit-fee deposit is not timely replenished

- L1. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. As of August 19, 2022 the amount due is \$3,038.50.

Rule M: Financial Assurance:

Because the site is stabilized and this an after-the-fact permit, no financial assurance is recommended.

Applicable General Requirements:

1. The granting of the permit does not in any way relieve the permittee, its engineer, or other professional consultants of responsibility for the permitted work.
2. The grant of the permit does not relieve the permittee of any responsibility to obtain approval of any other regulatory body with authority, except as may be provided under Minnesota Department of Natural Resources General Permit 2015-1192, compliance with which, including payment of any applicable fee, is entirely the responsibility of the permittee.
3. The issuance of this permit does not convey any rights to either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
4. In all cases where the doing by the permittee of anything authorized by this permit involves the taking, using or damaging of any property, rights or interests of any other person or persons, or of any publicly owned lands or improvements or interests, the permittee, before proceeding therewith, must acquire all necessary property rights and interest.
5. RPBCWD's determination to issue this permit was made in reliance on the information provided by the applicant. Any substantive change in the work affecting the nature and extent of applicability of RPBCWD regulatory requirements or substantive changes in the methods or means of compliance with RPBCWD regulatory requirements must be the subject of an application for a permit modification to the RPBCWD.
6. The applicant, by applying for the permit, grants access to the site of the work at all reasonable times during and after construction to authorized representatives of the RPBCWD for inspection of the work.

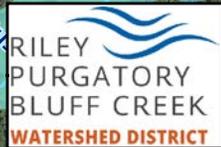
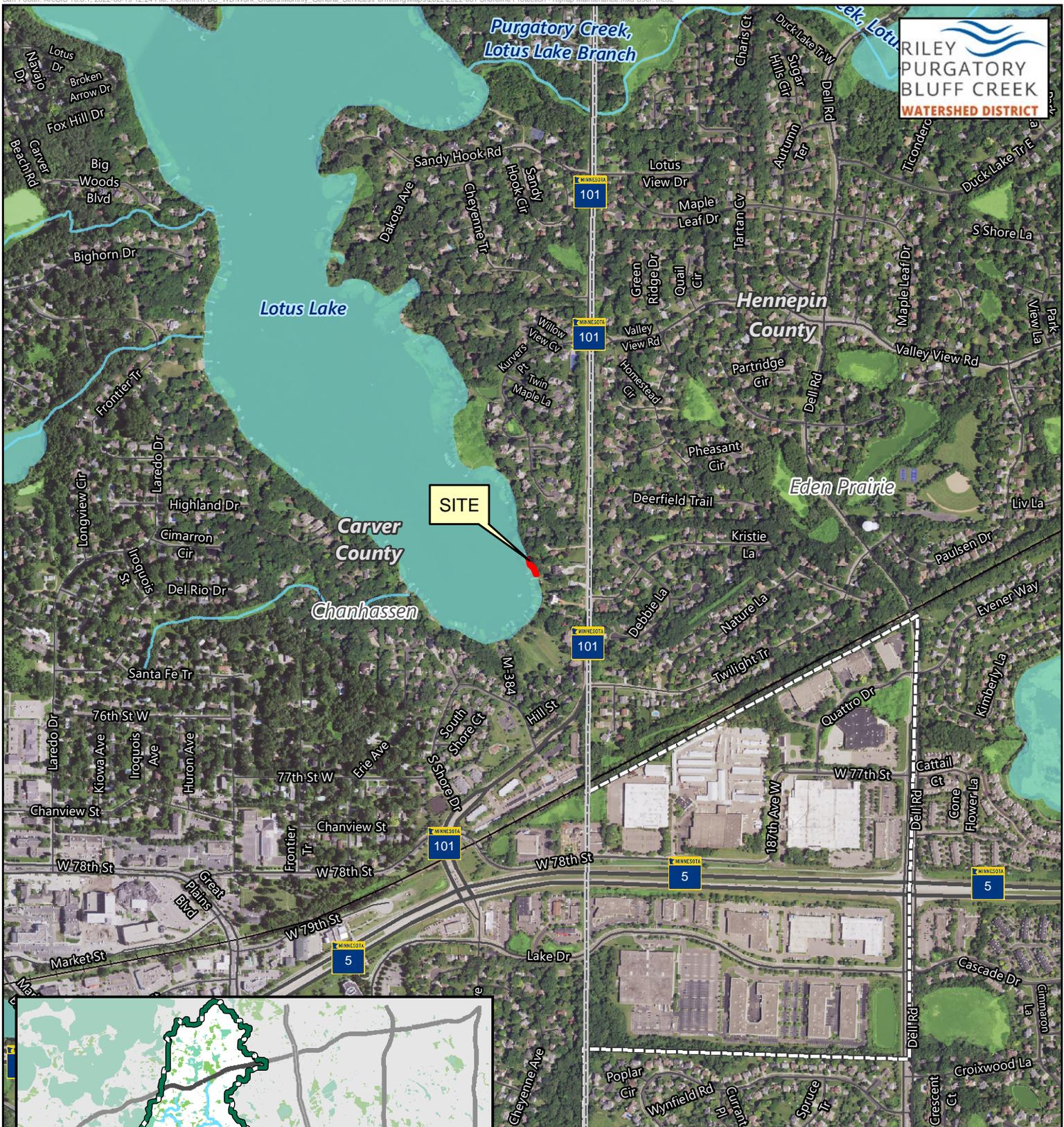
Findings

1. The applicant is requesting after-the-fact approval for the maintenance of riprap along 140 feet of Lotus Lake shoreline.
2. The project will conform to Rules B, F and C, if the rule specific comments detailed above are addressed.
3. Under Minnesota Department of Natural Resources General Permit 2015-1192 (attached to this report), approval of work under RPBCWD rule(s) F constitutes approval under applicable DNR work in waters rules. Compliance with conditions on approval and payment of applicable fees, if any, are necessary to benefit from general permit approval and are the responsibility of the applicants.

Recommendation:

Approval of the permit contingent upon:

1. Demonstrate that the final site stabilization measures resulted in at least six (6) inches of topsoil or organic matter being spread and incorporated into the underlying soil during final site treatment wherever topsoil was removed.
2. Demonstrate soil surfaces compacted during construction and remaining pervious upon completion of construction were decompacted to achieve a soil compaction testing pressure of less than 1,400 kilopascals or 200 pounds per square inch in the upper 12 inches of soil or a bulk density of less than 1.4 grams per cubic centimeter or 87 pounds per cubic foot in the upper 12 inches of soil.
3. The applicant must provide the permit fee deposit to the original amount due before the permit will be issued. As of August 19, 2022 the amount due is \$3038.50.



SITE

Permit Location Map

SHORELINE PROTECTION/
RIPRAP MAINTENANCE
Permit 2022-061
Riley Purgatory Bluff Creek
Watershed District



