



# Rice Creek Watershed District Stormwater Management Grant Program 2025 Application Form

## I. APPLICANT INFORMATION

Organization (to be named as Grantee): White Bear Township  
Street Address: 1281 Hammond Road  
City, State, Zip: White Bear Township, MN 55110  
Tax Status: Local Government Tax ID#: 41-6005642  
(e.g., local government, non-profit 501(c)(3), private business, etc.)

## II. PROJECT CONTACTS

Project Officer: Patrick Christopherson Financial Officer: Tom Kelly  
Title: Clerk/Treasurer Title: Finance Officer  
Telephone: 651.747.2768 Telephone: 651.747.2757  
Fax: 651.426.2258 Fax: 651.426.2258  
Email: pat.christopherson@whitebeartownship.org Email: tom.kelly@whitebeartownship.org

## III. PROJECT INFORMATION

Project Name: Silver Fox Area SAFL Baffles  
Location(s) of Project: \_\_\_\_\_  
City: White Bear Township State: MN County: Ramsey  
Project Start Date: May, 2025 Project Completion Date: November, 2025  
Project Type (check only those that directly apply):  
 Water Quality Treatment Project  Stormwater Reuse Irrigation Project  
 Peak Runoff Rate Control Project  Runoff Volume Control / Flood Storage Project  
 Other: \_\_\_\_\_  
Is a RCWD Rule C permit required for this project?  YES  NO  UNKNOWN

## IV. GRANT REQUEST

RCWD Grant Funding Requested: \$ 73,250  
Applicant Match Funding Committed: \$ 73,250  
State/Other Funding Committed: \$ \_\_\_\_\_ Source(s): \_\_\_\_\_  
Total Estimated Project Cost: \$ 146,500  
Would you be willing to accept grant funding in an amount less than requested?  YES  NO

## V. SIGNATURE OF APPLICANT

I certify that the information contained within this application is true and accurate.

Signature of Project Officer

12-19-24

Date

## VI. Executive Summary / Abstract

Include a brief Executive Summary (100 words or less) that summarizes the main goals and activities of the project and the expected environmental outcomes that will be achieved. Identification of the total amount of funds being requested along with the required match. The summaries will be used in the grant review process and on the RCWD website, for projects that are funded.

The project proposes to install sump manholes with SAFL Baffles to capture sediment and debris in three locations of White Bear Township's Silver Fox neighborhood: Jenni Lane, Suzanne Circle and Buffalo Street. Stormwater facilities in these areas outlet to the wetland located east of the project. The drainage is then conveyed through a ditch to Bald Eagle Lake. Please see the attached map.

## VII. Description (10 points)

The RCWD has established guidelines for prioritizing projects based on location. Water quality improvement projects should be located to benefit a RCWD lake classified as either "Protection" or "Restoration" (see Table 2-4 in the RCWD 2020 Watershed Management Plan), and/or a waterbody with an approved Total Maximum Daily Load (TMDL) study or other recognized diagnostic water quality study. Flood storage and runoff rate control projects should focus on reducing peak flood elevations in known regional flood hazard areas and/or documented local problem areas. Describe the specific watershed management, water quality or quantity need(s) that the project will address and its impact on the target water resource within the District.

Name the target waterbody benefiting from this project: Bald Eagle Lake

List and describe the Best Management Practices (BMPs) to be incorporated into this project

Bald Eagle Lake is listed as impaired for Hg in Fish Tissue and Excess Nutrients RCWD 2020 Watershed Management Plan Table 2-4). SAFL Baffles reduce up to 55% in deposition of total suspended solids in downstream water bodies . (Source: Minnesota Department of Natural Resources) and removes sediment from stormwater and the harmful chemicals (such as phosphorus) that cling to the surface area of sediment.

If applicable, describe how the project impacts or protects RCWD groundwater resources, minimizes impervious surfaces, and/or maximizes infiltration.

Not applicable

Provide drawings, maps and/or schematics which graphically illustrate the location and conceptual design of the project. **(Attach separate sheets.)**

Describe how long-term operation and maintenance of the project will be accomplished and identify the individual(s) responsible for maintenance activities if different than the project officer listed in section 2.

White Bear Township Public Works staff will be responsible for maintenance of the SAFL Baffles. Annual inspection activities include up two visual inspections and removal of debris with a vactor truck followed by a jet wash of the baffle.

### VIII. Prioritization (15 points)

How does the project support existing regional planning efforts such as the RCWD Watershed Management Plan, municipal surface water management plans, TMDLs, or other recognized diagnostic studies? Is the project included on the Member Community Project List (Appendix G) within the RCWD Watershed Management Plan? Please provide citations where possible.

Section 4.2.5 Water Quality Grant Program: Implement innovative water quality improvements to address sites with limited land area for conventional means to control the volume and rate runoff.

Section 4.2.10 Municipal Capital Improvements: Collaborate with partners to provide funding water quality projects.

Section 4.2.14 Watershed Communication and Outreach Program: Share information about infrastructure to inform the public.

Section 5.3.1 Bald Eagle Lake Water Management District and TMDL supports projects that manage or improve the lake water quality including stormwater management and treatment.

### IX. Targeting (15 points)

Describe the critical pollution or flooding sources and risks addressed by this project. Explain why the proposed project is the most cost-effective and feasible means to attain the expected resource benefits. Has a formal analysis been conducted to substantiate this position?

The Silver Fox Area is an established neighborhood with pavement condition ratings in poor condition. Underground storm water treatment structures such as SAFL baffles are the most cost effective and feasible solution for stormwater treatment due to the limited availability of right of way.

### X. Measurable Outcomes (20 points)

Provide a detailed estimate and description of the anticipated pollutant reduction, stormwater rate/volume reduction, groundwater withdrawal reduction, and/or other environmental or natural resource benefits associated with the project. Describe the methods and cite the sources (i.e. P8 model, HydroCAD, XP-SWMM, MIDS, MN Stormwater Manual, etc.) used to calculate or estimate the pollutant reductions and/or hydrologic outcomes. **(Mandatory for RCWD to consider your proposal!)**

The University of Minnesota's St. Anthony Falls Laboratory has tested these facilities for effectiveness in removing total suspended solids and sediments during low flow conditions. No independent analysis has been completed.

### **XI. Cost-Effectiveness (20 points)**

Provide a detailed budget that lists each item for which funding is being requested. You must also list the sources of required local matching contributions. Why is this the most cost-effective approach to solving the problem? Have other alternatives been explored? **(Attach separate sheets if needed.)**

See attached budget.

This is the most cost effective approach given the maturity of the neighborhood and the lack of available land to construct other water quality features.

White Bear Township will estimate the TSS removal annually based on the amount removed when the sumps are vacuumed and cleaned. RCWD will continue to monitor the water quality of Bald Eagle Lake to evaluate the success of the project.

### **XII. Project Readiness (10 points)**

Please describe the anticipated timeline for implementing this project. What steps have been taken to ensure that the project can be implemented according to this timeline? Are any permits needed? (If permits are required please cite from what agency and where the project is in that process)

White Bear Township has adequate funding for its portion of the project.

It is anticipated that the improvements will be installed as part of White Bear Township's 2025 Pavement Management Project. In the event that the pavement management project does not get constructed in 2025, the SAFL baffles will be installed under a separate contract.

### **XIII. Engagement Opportunities (10 points)**

Demonstrate any potential for public engagement, education and demonstration and describe what methods will be used to ensure that the purpose and success of the project are made known to the public. Applicants must incorporate a public engagement component into the project.

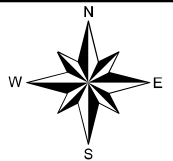
White Bear Township engages its residents in public improvement projects by hosting open houses and keeping information current on the Township's website, social media, pamphlets and mailings. The Township has a Utility Commission which makes recommendation to the Town Board on stormwater issues.

The Township is interested in working with RCWD to develop appropriate signage that would education the public about the stormwater system and how it is connected to the water quality of Bald Eagle Lake.



# WHITE BEAR TOWNSHIP

## STORM MAP



- EXISTING STORM SEWER
- PROPOSED SAFL BAFFLE STRUCTURE





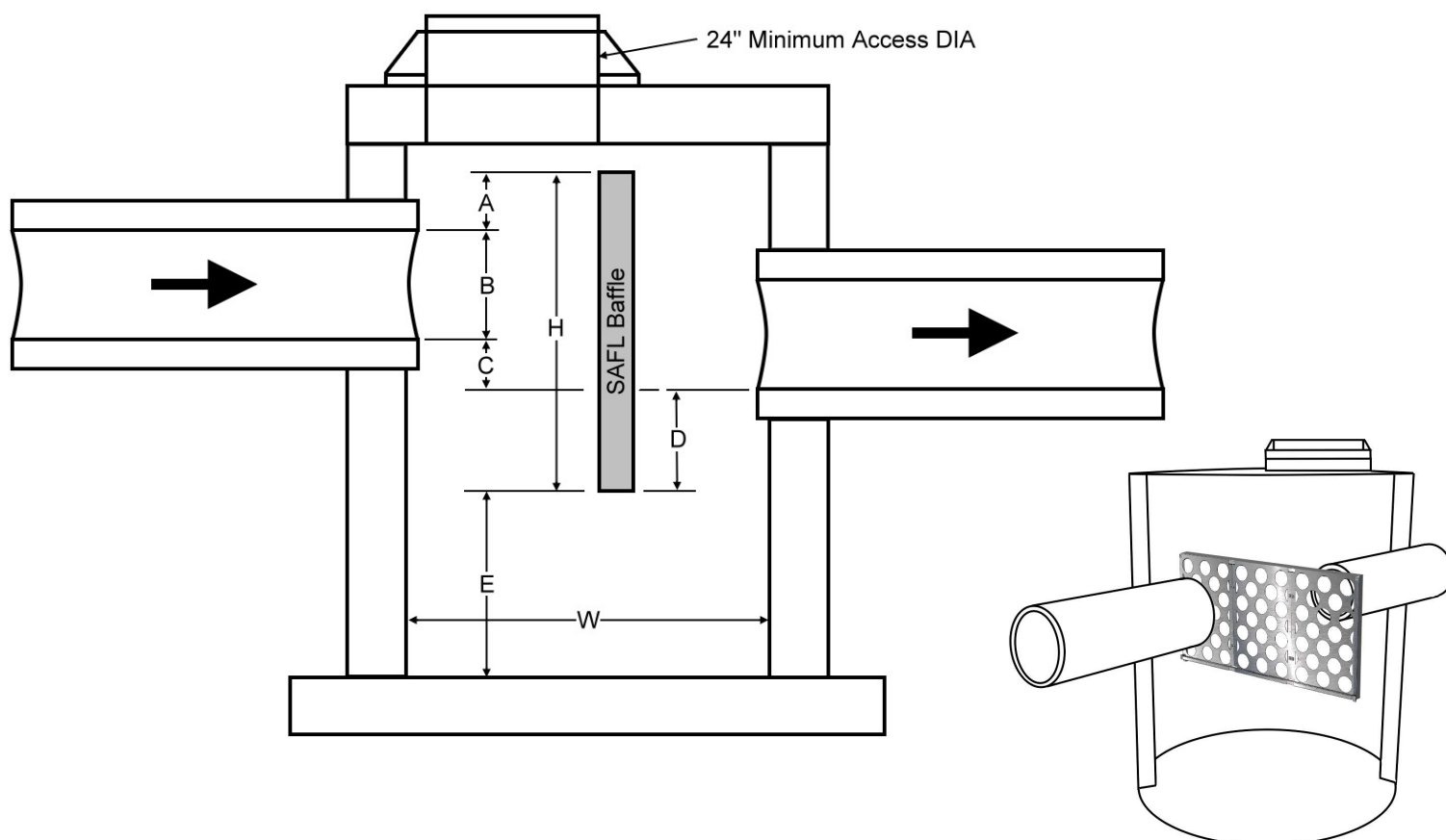
**SILVER FOX AREA SAFL BAFFLE STORM IMPROVEMENTS**  
**WHITE BEAR TOWNSHIP**  
**ENGINEER'S PRELIMINARY ESTIMATE OF COST**  
**12/17/2024**

**STORM SEWER IMPROVEMENTS**

STRUCTURE & SAFL BAFFLE	EA	3	\$	18,200	\$	54,600
CASTING	EA	3	\$	1,400	\$	4,200
REMOVE & REPLACE PAVEMENT	LS	3	\$	5,000	\$	15,000
REMOVE & DISPOSE OF EXSTING PIPE	LF	60	\$	165	\$	9,900
FURNISH & INSTALL NEW STORM SEWER PIPE	LF	60	\$	95	\$	5,700
SITE RESTORATION	LS	3	\$	4,000	\$	12,000
MOBILIZATION	EA	3	\$	3,200	\$	9,600
CONSTRUCTION COST					\$	111,000
+10% CONTINGENCIES					\$	11,100
SUBTOTAL WITH CONTINGENCIES					\$	122,100
+20% ENGINEERING, LEGAL, FISCAL, AND ADMINISTRATION					\$	24,400
SUBTOTAL WITH +20% ENGINEERING, LEGAL, FISCAL, AND ADMINISTRATION					\$	146,500
<b>TOTAL ESTIMATED PROJECT COST</b>					<b>\$</b>	<b>146,500</b>
<b>RCWD COST-SHARE FUNDS REQUESTED</b>					<b>\$</b>	<b>73,250</b>

The estimated costs are according to average prices received on similar projects in other areas. The actual costs for this project will be determined through a bidding process and can vary with market conditions at the time of the bid.

# SAFL BAFFLE SIZING REQUIREMENTS



A	0 to 6" 6" is ideal
B	Inlet pipe inside diameter
C	0 to 6" 0" is ideal
D	12"
E	36" Minimum. 48" or greater is ideal and results in less frequent sump cleanout
W	W = Sump diameter if round or width if rectangular
H	Baffle height = A + B + C + D
Purchase Baffle Size	W x H View the complete list of <a href="#">Available Baffle Sizes</a>
	Also see: <a href="#">Bracing Guide</a> & <a href="#">Stacking Guide</a>
NOTE 1	If H is greater than 57" two SAFL Baffles may be stacked.
NOTE 2	75% of flow must be horizontal. No more than 25% falling from above
NOTE 3	This detail does not cover sizing the sump for sediment removal efficiency. Contact Upstream for sump sizing or use <a href="#">SHSAM Software</a>
NOTE 4	For more information, see our <a href="#">Design Guide</a>

PATENT PROTECTED Patents: US #8663466B2 - US #8715507B2 - US #9506237B2 - CA #2742207

This generic detail does not encompass the sizing, fit, and applicability of the SAFL Baffle for this specific project. It is the ultimate responsibility of the design engineer to assure that the design is in compliance with all applicable laws and regulations. The SAFL Baffle is a patented technology of Upstream Technologies, Inc. Upstream Technologies does not approve plans, sizing, or system designs.

## SAFL BAFFLE SIZING DETAIL

UPSTREAM TECHNOLOGIES INC.  
5201 EAST RIVER ROAD, SUITE 303  
FRIDLEY, MN 55421  
651-237-5123

