



# Environment and Natural Resources Trust Fund (ENRTF) M.L. 2018 ENRTF Work Plan (Main Document)

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**Today's Date:** February 20, 2018

**Date of Next Status Update Report:** January 31, 2019

**Date of Work Plan Approval:** 06/05/2018

**Project Completion Date:** June 30, 2020

**Does this submission include an amendment request?** NO

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**PROJECT TITLE:** Expanding River Watch Program on the Minnesota River with High School Teams

**Project Manager:** Ted L. Suss

**Organization:** Friends of the Minnesota Valley

**College/Department/Division:** NA

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**City/State/Zip Code:** Bloomington, Minnesota 55420

**Telephone Number:** 507-828-3377

**Email Address:** tedluss@gmail.com

**Web Address:** <http://www.friendsmnvalley.org/river-watch-program.html>

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**Location:** The entire Minnesota River Basin will be included in this program

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**Total Project Budget:** \$100,000

**Amount Spent:** \$0

**Balance:** \$100,000

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**Legal Citation:** M.L. 2018, Chp. 214, Art. 4, Sec. 02, Subd. 05e

**Appropriation Language:** \$100,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Friends of the Minnesota Valley to expand a River Watch program on the Minnesota River to recruit at least 15 additional teams of high school students in monthly monitoring and reporting of water quality.

**I. PROJECT STATEMENT:**

The River Watch program is a high school team based program through which each team will conduct water quality monitoring at 3-5 sites on the main channel of the Minnesota River or a tributary river or stream.

Water will be monitored for nitrates, dissolved oxygen, phosphorous, clarity, bacteria, sediment content, and flow levels will also be recorded. All data will be reported to the MNPCA.

This project is a continuation of a limited River Watch program Friends of the Minnesota Valley launched with six high school based teams during the 2017-2018 school year. Classroom-based teams are typically 20 to 30 students - averaging 23 students in phase 1. Afterschool teams are usually smaller and expected to be between 10 to 12 students.

A major outcome of the River Watch program is building a stronger public awareness and public support for river water quality improvement and associated land management improvement is essential if the Minnesota River water quality and sediment issues are to be successfully addressed. The River Watch program is modeled after the highly successful River Watch program operated by the International Water Institute on the Red River.

Another outcome is to provide a hands-on learning experience for students that will lead them to a greater understanding and appreciation of water quality issues and provide them with technical knowledge and skills.

**Overall GOALS**

One: Conduct monthly water quality monitoring using PCA protocols and report the data to MNPCA to enable state and local units of government to make data drive decisions to improve water quality and reduce sediment transfer.

Two: Increase in the amount of reliable water quality data to policy makers and the public.

Three: Engage students and the public in a water quality improvement project.

**II. OVERALL PROJECT STATUS UPDATES:**

**First Update January 31, 2019**

**Second Update June 30, 2019**

**Third Update January 31, 2020**

**Final Update June 30, 2020**

**III. PROJECT ACTIVITIES AND OUTCOMES:**

**ACTIVITY 1:**

**Description:** Recruit 15-20 High School based teams, including identifying a team leader, and train the team leader to oversee team water quality monitoring efforts.

**ENRTF BUDGET:** \$ 14,000

Outcome	Completion Date
1. 15-20 teams recruited for the 2018-2019 school year (Classroom-based teams are 20 to 30 students - averaging 23 students) Afterschool teams are 10 to 12 students)	August 1, 2018

2. 2018-2019 Team Leader training provided	August 15, 2018
3. Recruit teams to replace teams that quit the program or to add to the number of teams and provide training to team leaders	August 15, 2019

**First Update January 31, 2019**

**Second Update June 30, 2019**

**Third Update January 31, 2020**

**Final Update June 30, 2020**

**ACTIVITY 2:**

**Description:** Purchase one YSI Sonde water quality monitoring Probe to be shared by the high school based teams.

**ENRTF BUDGET:** \$6,000

Outcome	Completion Date
1. Purchase YSI Sonde probe and accessories	August 15, 2018
2.	
3.	

**First Update January 31, 2019**

**Second Update June 30, 2019**

**Third Update January 31, 2020**

**Final Update June 30, 2020**

**ACTIVITY 3:** Plan and conduct monthly water quality monitoring and reporting at three or more locations per team.

**Description:**

**ENRTF BUDGET:** \$ 60,000

Outcome	Completion Date
1. 2018-2019 school year water quality monitoring by 15-20 teams	June 30 2019
2. 2019-2020 school year water quality monitoring by 15-20 teams	June 30, 2020
3.	

**First Update January 31, 2019**

**Second Update June 30, 2019**

**Third Update January 31, 2020**

**Final Update June 30, 2020**

**ACTIVITY 4:**

**Description:** Plan and convene two annual Minnesota River Basin Wide Forums at which all teams will present their experiences, report their data, and share data analysis. All state and local water quality policy makers and all other elected officials will be invited along with news media.

**ENRTF BUDGET: \$20,000**

<b>Outcome</b>	<b>Completion Date</b>
1. Convene 2018-2019 school year annual River Watch Forum	June 30, 2019
2. Convene 2018-2019 school year annual River Watch Forum	June 30, 2020
3.	

**First Update January 31, 2019**

**Second Update June 30, 2019**

**Third Update January 31, 2020**

**Final Update June 30, 2020**

**IV. DISSEMINATION:**

**Description:** Due to the high degree of public engagement in this project, dissemination will occur simultaneously with project work. A brief dissemination outline follows:  
Team Recruitment will involve communicating via email and phone with administrators in virtually every school district in the Minnesota River basin. All written and email communication will highlight the role of the LCCMR and the ENRTF in funding the project.

Water quality monitoring performed by high school students is extremely news worthy in the communities of the Minnesota River basin. Press are invited to photo the monitoring efforts and interview students. A press packet will highlight the role of LCCMR and ENRTF funding

The end of the year forum for team members will be widely promoted throughout the Minnesota River basin, elected and appointed governmental officials will be invited and press coverage is likely. Again the role of LCCMR and ENRTF funding will be highlighted.

**First Update January 31, 2019**

**Second Update June 30, 2019**

**Third Update January 31, 2020**

**Final Update June 30, 2020**

**V. PROJECT BUDGET SUMMARY:**

**A. Preliminary ENRTF Budget Overview:** See attached budget spreadsheet

**Explanation of Capital Expenditures Greater Than \$5,000:** Friends of the Minnesota Valley intends to purchase one YSI Sonde Probe for water quality monitoring. The probe itself is a multi-function electronic tool to be purchased at a cost of \$3,200. In addition to this device, three cables of different lengths, each equipped with sensors, are needed.

Students will use the probes by lowering the cable from a bridge into the river water below the sensors collect data which is transmitted through the cable to the probe. The students will read and record the various data from the probe. The total purchase package from a single vendor may exceed \$5,000.

In addition to the probe and cables, carrying cases, sensor sanitizing/neutralizing agents, safety gear such as reflective vests and traffic cones will be purchased.

The \$6000 budget amount is based on our experience purchasing one YSI Sonde and related equipment for use during the 2018-2018 school year.

**Explanation of Use of Classified Staff:** NA

**Total Number of Full-time Equivalent (FTE) Directly Funded with this ENRTF Appropriation:** one

Enter Total Estimated Personnel Hours: 2,080	Divide by 2,080 = TOTAL FTE:
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**Total Number of Full-time Equivalent (FTE) Estimated to Be Funded through Contracts with this ENRTF Appropriation:** one (through professional services contract for one half time each of two years)

Enter Total Estimated Personnel Hours: 2080	Divide by 2,080 = TOTAL FTE: 1
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**B. Other Funds:**

SOURCE OF AND USE OF OTHER FUNDS	Amount Proposed	Amount Spent	Status and Timeframe
<b>Other Non-State \$ To Be Applied To Project During Project Period:</b>			
Friends of MN Valley Staff Time	\$ 20,000	\$ 0	Ongoing during project, committed from funds on hand.
<b>Other State \$ To Be Applied To Project During Project Period:</b>			
	\$ 0	\$ 0	
<b>Past and Current ENRTF Appropriation:</b>			
	\$ 0	\$ 0	
<b>Other Funding History:</b> Friends of the MN Valley has invested or will spend approximately \$30,000 in launching the program during the 207-2018 school year prior to July 1, 2018.			
	\$	\$	

**VI. PROJECT PARTNERS:**

**A. Partners receiving ENRTF funding**

<b>Names</b>	<b>Title</b>	<b>Affiliation</b>	<b>Role</b>
None			

**B. Partners NOT receiving ENRTF funding**

<b>Name</b>	<b>Title</b>	<b>Affiliation</b>	<b>Role</b>
Friends of the Minnesota Valley		Sponsor	Project Management

**VII. LONG-TERM- IMPLEMENTATION AND FUNDING:**

**VIII. REPORTING REQUIREMENTS:**

- The project is for two years, will begin on July 1, 2018, and end on June 30, 2019.
- Periodic project status update reports will be submitted January 31 and June 30 of each project year.
- A final report and associated products will be submitted between June 30 and August 15, 2020.

**IX. SEE ADDITIONAL WORK PLAN COMPONENTS:**

- A. Budget Spreadsheet

**Attachment A:  
Environment and Natural Resources Trust Fund  
M.L. 2018 Budget Spreadsheet**

**Project Title: Expanding River Watch Program on the Minnesota River with High School Teams**

**Legal Citation: M.L. 2018, Chp. 214, Art. 4, Sec. 02, Subd. 05e**

**Project Manager: Ted L. Suss**

**Organization: Friends of the Minnesota Valley**

**College/Department/Division: NA**

**M.L. 2018 ENRTF Appropriation: \$100,000**

**Project Length and Completion Date 2 yers June 30, 2020**

**Date of Report: February 19, 2018**



<b>ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET</b>	<b>Budget</b>	<b>Amount Spent</b>	<b>Balance</b>
<b>Professional/Technical/Service Contracts</b>	\$70,000		\$70,000
<i>Project Manager, the selected person will be experienced in program mangement specifically water quality or natural resources mangement. This person will be responsible for training, monitoring oversight, reporting oversight, team recruitment, and planning of the forums</i>			
<b>Capital Equipment over \$5,000</b> one YSI Sonde water quality monitoring Probe The probe itself is a multi function electronic tool to be purchased at a cost of \$3,200. In addition to this device, three cables of different lengths, each equipped with sensors, are needed. The total purchase package from a single vendor may exceed \$5,000.	\$6,000		\$6,000
<b>Printing</b>	\$2,000		\$2,000
Travel expenses in Minnesota Program Manager instate travel, mileage and lodging, to numerous monitoring sites within Minnesota River Basin on a monthly basis. Cost estimated based on analysis of expected team locations and expected monitoring locations for each team.	\$12,000		\$12,000
<b>Other: expenses for two forums</b>			
<i>These expenses will include hall rental for Annual River Watch Forum - estimated 200 people to attend - Two times - once for each of 2 years of funding. (Public space with no charge will be used if possible) and materials and items provided to participants. Refreshments for students at the forum.</i>	\$10,000		\$10,000
<b>COLUMN TOTAL</b>	\$100,000		\$100,000

