



CONTINUING THE CITIZEN-BASED STREAM MONITORING PROGRAM IN THE YAHARA RIVER WATERSHED

Project Proposal

***Nancy Sheehan
Coordinator, Stream Monitoring
Program
864 Collins Road
Jefferson, WI 53549
608.233.7758
608.515.9434***

2015 Project Proposal: Summary

With this proposal, Rock River Coalition (RRC) requests **\$23,873** to build on accomplishments achieved in the first two years of this three year effort to develop a robust volunteer stream monitoring program in the Yahara River watershed. Table 1 summarizes this project request.

Table 1: Project Request	
Volunteer Recruitment, Training and Support	\$6,698
Project Management and Data Analysis	\$4,800
Capital Equipment Purchases	\$12,375
Total Request	\$23,873

Project activity will begin in January 2015 with a completion date of March 2016.

The RRC stream monitoring coordinator will continue to recruit and train volunteers to conduct water quality monitoring thereby augmenting the water quality data collected by in-stream water quality monitoring programs conducted by the US Geological Survey (USGS), WDNR, and MMSD.

By involving volunteers in this program, Yahara WINs partners will continue to construct an in-stream monitoring framework that:

- includes more stream stretches than might otherwise be possible with more expensive monitoring methods;
- increases the frequency of monitoring;
- reduces the overall cost of expanding the network of monitoring sites; and,
- builds greater awareness of the threats to water quality in the Yahara River Watershed.

As with the first two years of this program, the RRC will continue to work collaborative with various partners. Partners include (but are not limited to) the Madison Metropolitan Sewerage District, Yahara WINs partners, Water Action Volunteers Program (co-sponsored by the Wisconsin Department of Natural Resources and UW Extension), Dane County Office of Lakes and Watersheds, Dane County Land and Water Resources Division, River Alliance of Wisconsin, Friends of Starkweather Creek, Friends of Pheasant Branch Conservancy, Friends of Yahara River Headwaters and the Village of DeForest, Town of Windsor and Token Creek Conservancy Committee, Friends of Lake Kegonsa, Friends of Cherokee Marsh and others.

The RRC stream monitoring coordinator will continue to collaborate with these and other partners within the watershed to:

- schedule spring stream monitoring trainings,
- recruit, train and support volunteers, and
- provide data analysis reports for selected stream monitoring sites.

2015 Citizen Stream Monitoring Program: Nested Monitoring Approach

By the end of 2015, there will be a total of **46 unique sites** in the Yahara River watershed.

During the 2015 monitoring season, the RRC will continue to employ a nested monitoring approach in which a subset of volunteer teams will conduct baseline water quality monitoring while other volunteer teams will conduct water quality trends monitoring as well as collect nutrient samples. This nested monitoring approach is described below.

Baseline (*Level 1*) Monitoring Program

Goal: By the end of 2015, there will be 20 sites where volunteers will collect various *Level 1* program parameters.

At these sites, volunteers will:

1. Measure DO levels using HACH kits,
2. Collect instantaneous water temperatures using thermometers,
3. Record water clarity using transparency tubes,
4. Measure water velocity (when possible) using WAV methods, and
5. Calculate stream health using Biotic Index.

2015 Proposed Activities: The RRC will:

- Maintain 12 *Level 1* sites established in previous years of this project
- Maintain 5 sites where volunteers will calculate Biotic Index.
- Add 3 new *Level 1* sites

Trends (*Level 2*) Monitoring Program

Goal: By end 2015, there will be 28 sites where volunteers will collect *Level 2* program parameters.

At these sites, volunteers will:

1. Measure DO levels using YSI 50A meters,
2. Collect continuous water temperatures using thermistors, and
3. Measure water clarity using transparency tubes.

2015 Proposed Activities: The RRC will:

- Maintain 17 existing *Level 2* sites
- Graduate 5 existing *Level 1* sites to 5 *Level 2* sites
- Add 6 new *Level 2* sites

Nutrient Sampling (*Level 3*) Monitoring Program

Goal: By end 2015 there will be 31 sites where volunteers will collect nutrient samples.

2015 Proposed Activities: The RRC will:

- Maintain 19 *Level 3* sites
- Graduate 6 *Level 1* sites to Level 3 nutrient sampling sites
- Add 6 new *Level 3* nutrient sampling sites

Table 3: List of 46 Unique Sites By End 2015

#	Stream Monitoring Program			Stream Name	Location
1	Level 1			Badfish Creek	Old Stage Road
2	Level 1			Badfish Creek	North Casey Road
3	Level 1			Murphy's Creek	Byrne Road below wetlands complex
4	Level 1			Pheasant Branch	Clark Street
5	Level 1			Six Mile Creek	Division St and Knightsbridge Rd
6	Level 1			Starkweather Creek	Melvin Ct 200 ft upstream of bike path
7	Level 1			Starkweather Creek	Hwy 30, Madison
8	Level 1			Starkweather Creek E Branch	Milwaukee St
9	Level 1			Stormwater ditch to Starkweather Creek	bike path/Olbricht Gardens, Madison
10	Level 1			Swan Creek	Haight Farm Road and Cty Hwy MM
11	Level 1			Unnamed Trib, Swan Creek	Irish Lane
12	Level 1			Willow Creek	Linden Dr foot bridge
13	Level 1			Wingra Creek	Olin Park, Madison
14	Level 1			Door Creek	Siggelkow Road
15	Level 1		Level 3	West Branch Yahara River	North Yahara River Road
16	Level 1 (BI only)	Level 2	Level 3	Yahara River	Prospect St
17	Level 1 (BI only)	Level 2	Level 3	Pheasant Branch Creek	Airport Road, Middleton
18	Level 1 (BI only)	Level 2	Level 3	Six Mile Creek	Mill Road, Waunakee
19	Level 1 (BI only)	Level 2	Level 3	Pheasant Branch	Middleton High School
20	Level 1 (BI only)	Level 2	Level 3	Murphy Creek	Lalor Rd
21		Level 2	Level 3	Cherokee Marsh	Unnamed road off of Wheeler and School Road, Madison
22		Level 2	Level 3	Keenan's Creek	Keenan Road, Dunn Township
23		Level 2	Level 3	Leutens Creek	Spring Road
24		Level 2	Level 3	Nine Springs Creek	Anderberg Drive, Fitchburg
25		Level 2	Level 3	Pheasant Branch	Water Street and County M
26		Level 2	Level 3	Rutland Branch	Cty Hwy A
27		Level 2	Level 3	Swan Creek	Lalor Rd
28		Level 2	Level 3	Token Creek	Hwy C
29		Level 2	Level 3	Unnamed Trib, Lake Kegonsa	Hwy B and Pleasant Road
30		Level 2	Level 3	Unnamed Trib, Lake Kegonsa	Greene Road
31		Level 2	Level 3	Unnamed Trib, Upper Mud Lake	Femrite Drive
32		Level 2	Level 3	Unnamed trib, Yahara River	Hammond Road, south of Stoughton
33		Level 2	Level 3	Door Creek	County Hwy MN
34		Level 2	Level 3	Pine Spring Creek, trib of Yahara River	River Road, Village of DeForest
35		Level 2	Level 3	Primary Upper Yahara Rv	Linden Drive, Village of DeForest
36		Level 2	Level 3	Six Mile Creek	Sth 113
37		Level 2	Level 3	Token Creek	Daentl Road

Table 3 (continued): List of 46 Unique Sites By End 2015

38		Level 2	Level 3	Token Creek	Egre Road
39		Level 2	Level 3	Token Creek	Mill Road
40		Level 2	Level 3	Token Creek	Portage Road
41		Level 2	Level 3	Yahara River	Hwy 113, Madison
42		Level 2	Level 3	Little Door Creek	Natvig Road
43			Level 3	Pheasant Branch Creek (west branch)	Schneider Road, Middleton
44			Level 3	Six Mile Creek	Woodland Dr
45			Level 3	Yahara River	8th Street, Stoughton
46		Level 2		Nine Springs	Jenni and Kyle Preseve

2015 Citizen Stream Monitoring Program: Explanation of Capital Equipment Costs

The RRC requests **\$12,375** to equip all volunteers for this 2015 monitoring program. Costs associated with each Water Quality Monitoring Program are summarized in Table 4.

Table 4: Capital Equipment Budget		
Total Level 2 Equipment	\$10,625	To add 11 <i>Level 2</i> sites
Total Level 1 Equipment	\$280	To add 1 <i>Level 1</i> site
Total Level 3 Equipment	\$660	To add 12 <i>Level 3</i> sites
Total Level 1 Resupplies	\$280	To maintain current <i>Level 1</i> sites into 2015
Total Level 2 Resupplies	\$500	To maintain current <i>Level 2</i> sites into 2015
Total Level 3 Resupplies	\$30	To maintain current <i>Level 3</i> sites into 2015
Total--Capital Equipment	\$12,375	

2015 Citizen Stream Monitoring Program: Explanation of Project Management Costs

The RRC requests **\$11,498** to:

- maintain equipment inventory
- recruit, train and support volunteers
- assist volunteers in database use
- analyze data for a select number of sites and parameters
- accounting of related project expenses
- final report

A summary of costs appear on Table 5.

The RRC will work with various partners to recruit and train new volunteers to fill gaps in the monitoring program. In the spring of 2015, the RRC stream monitoring coordinator will organize and facilitate one *Level 1* training for prospective volunteers in the Village of Deforest. The RRC stream monitoring coordinator will also provide stream-side training for individuals on an as-needed-basis. In the spring of 2015, the RRC stream monitoring coordinator will organize and facilitate one combined *Level 2 & Level 3* training workshop for prospective volunteers in the Village of Deforest. The RRC stream monitoring coordinator will also provide stream-side training for individuals on an as-needed-basis.

The RRC stream monitoring coordinator will coordinate volunteers in the scheduling of their monitoring dates, work with WDNR to facilitate the entry of Level 1 and Level 2 data onto the WDNR WAMS database and create site reports for selected sites. The RRC will submit a final report to Yahara WINS upon completion of this project.

Table 5: Project Management Budget		
Volunteer Recruitment, Training, and Support	Est. Hrs.*	Total
Program promotion and recruitment of volunteers – all levels of monitoring	50	\$1,120
Training -- Organize and facilitate: <ul style="list-style-type: none"> ■one six-hour Level 1 training workshops+prep ■one five hour Level 2/3 training workshop+prep ■estimated 30 stream side trainings on an as-needed-basis (including re-staffing 2014 existing sites) +prep 	85	\$1,904
Purchasing and preparation of all monitoring equipment and maintaining for use during off season	30	\$672
Supporting all levels of volunteers in the field	90	\$2,016
Periodic Review and Quality Check on Data entered into WAV Database	20	\$448
Periodic Communications with Volunteers	24	\$538
Sub-total	299	\$6,698
General Administration, Data Analysis and Mileage/Expenses	Est. Hrs.	Total
Periodic reporting, mapping, sharing data with partners, and end project report	35	\$784
Data analysis	90	\$2,016
Mileage		\$700
Administrative Costs		\$1,150
Materials development		\$ 150
Sub-total	125	\$4,800
Total Project Management		\$11,498

Appendix #1: Letters of Support

Letters of support included in appendix #1:

- Friends of Yahara River Headwaters
- Friends of Lake Kegonsa
- Town of Windsor and Token Creek Conservancy Committee
- Friends of Starkweather Creek
- Friends of Cherokee Marsh
- City of Fitchburg
- Village of DeForest
- RCC