SECTION 319 NONPOINT SOURCE POLLUTION CONTROL PROGRAM

INFORMATION/EDUCATION PROJECT

FINAL REPORT

Red River Basin River Watch & River of Dreams

by

Danni Halvorson, International Water Institute

December 29, 2022

This project was conducted in cooperation with the State of North Dakota and the United States Environmental Protection Agency, Region 8.

Grant# 00863320

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EXECUTIVE SUMMARY

Project Title: Red River Basin River Watch and River of Dreams

Project Start Date: 06/01/2020 Project End Date: 10/31/2022

FUNDING:	Total Budget	$298,000
	Total EPA Grant	$178,800
	Total Expenditures of EPA Funds	$178,800
	Total Section 319 Match Used	$119,200
	Total Expenditures	$298,000

SUMMARY OF ACCOMPLISHMENTS

The River Watch (RW) program provides watershed education opportunities for local high school students through hands-on science, water quality monitoring, and river recreation activities designed to challenge students and facilitate understanding and appreciation of water resources. River of Dreams (ROD) is a complimentary program that engages elementary students to explore the connectivity of our planet's water supply and how watersheds function. This project sought to provide these watershed education opportunities to thirteen (13) high schools and sixteen (16) elementary schools within the Red River Basin.

During the project ten (10) high school groups participated in RW activities; 38 water quality sampling events, 14 Macroinvertebrate collections, 15 River Explorer trips, 6 Fall Kick-Offs and 2 RW Forums. ROD participants included nineteen (19) schools with activities in forty-four (44) classrooms.

INTRODUCTION

The North Dakota Department of Environmental Quality (NDDEQ) has identified the need to deliver a balance of information and education as a critical component of the Non-Point Source (NPS) Pollution Management Program. NPS pollution can affect the state's water resources and it is important for citizens to understand NPS causes and effects; including how the NPS pollution is affected by a variety of water issues ranging from flooding, farming practices, drought, and wetland drainage.

Students today are increasingly disconnected from their natural environment. The RW and ROD programs engage students in hands-on educational programs to better understand how humans interact and affect valuable river resources of the Red River Basin through integrated classroom and outdoor experiences that:

- build awareness of river ecosystems and watershed connections
- increase student capacity to make informed decisions about their environment
- instill a sense of place by highlighting the historic, economic, and ecological uniqueness of their local watershed

PROJECT GOALS, OBJECTIVES, AND ACTIVITIES

The project goal is to engage North Dakota Red River Basin high school and elementary students in hands-on education programs focused on river resources within their local watershed. Program activities include integrated classroom and outdoor experiences that build awareness of river ecosystems and watershed connections, increase student capacity to make informed decisions about their environment, and instill a sense of place about the uniqueness of their local watershed.

Obj. 1. River Watch: Increase awareness and knowledge of local land use and watershed connections through water quality monitoring, biological monitoring, watershed exploration and STEM activities. Engage thirteen RW teams (260 students) to explore streams and other aquatic environments in the Red River Basin, documenting local watershed conditions.

Water Quality and Biological Monitoring: Stream Sampling and Macroinvertebrates.

- Water Quality – RW Students and Team Leaders will be trained to use field sampling equipment (e.g. sonde, Van Dorn sampler and Secchi tube). RW teams monitor local rivers and streams. Parameters measured typically include stage, appearance, recreational suitability, stream condition/habitat assessment, transparency, water temperature, dissolved oxygen, pH, and conductivity. Frequency: Two times annually.
- Macroinvertebrate Collection – River Watch students will sample macroinvertebrate communities and learn about the relationship between water quality and biological communities. Teams will monitor biological communities in their own watershed when conditions allow, however; if local conditions are not adequate River Watch teams will be encouraged to visit Prairie Waters Education and Research Center. Frequency: One time during the project.
- Review water quality data collected with RW teams and teachers. Provide insight into

conditions at the monitoring sites. Frequency: Once annually.

Red River Explorers Paddling Program: Lead guided river ecology excursions (13 trips) from July 2020 through June 2022 on various reaches of rivers in the Red River Basin.

- Thirteen guided river ecology excursions in the Red River Basin, all utilizing GPS and mapping/photo documentation of baseline geomorphology and recreation conditions.
- Create and share information from river trips on the IWI website via online maps and multimedia reports. Reports may include the following; number of trip participants, river route and reach(s) covered, photo documentation of river conditions, and a summary of observations by trip participants on river conditions, land use, and recreation suitability.

Obj. 2. STEM assistance: Assist in the provision of Science, Technology, Engineering and Math (STEM) education and engagement opportunities through watershed science. Host regional fall kick-off events for RW teachers and youth leaders. Events will incorporate team-building skills, local watershed project presentations and data interpretation. Utilize the annual River Watch Forum to provide exposure to relevant research topics and an opportunity to present findings from current research involvements. Provide opportunities for youth to engage in scientific research and outreach.

- 2-3 regional fall kick-off events/training sessions in each year 2020 and 2021.
- River Watch Forum presented in February or March each year 2021 and 2022 with keynote speaker and concurrent sessions focused on emerging watershed education and research. Poster displays, written reports and/or video presentations of assigned research topics, service learning projects and special investigations by RW teams in collaboration with watershed partners.

Obj. 3. River of Dreams: Engage elementary students in a hands-on education program that incorporates a number of core education topics including math, science and geography (1,200 students).

Engage an entire grade level of students by partnering with teachers to bring experiential watershed education into their classrooms and then into their watershed.

- School classroom sessions. Hold classroom sessions to discuss watershed terminology and to virtually tour local watersheds and basins. (60 classrooms).
- Field sessions with ROD participants. Release of individual ROD canoes and review of watershed lessons learned by students.
- Evaluation of ROD activities using pre/post surveys of students.

PLANNED AND ACTUAL MILESTONES

Objectives and Tasks	Planned Events	Actual Events	Number of Participants	Activities	Topics
OBJECTIVE 1 – River Watch: Completed 10/31/22					
Task 1 – Water Quality Monitoring	52	38	300	Water quality sampling training and sample collection.	Multi-parameter sonde use, water clarity, stage measurement, photo documentation.
Task 2 - Biological Monitoring	13	14	150	Macro-invertebrate collection.	Collection procedures, bug identification, Pollution Tolerance Index.
Task 2 - Red River Explorers	13	15	150	Kayak trips and story maps.	Safety, kayaking basics, watershed geography, geo-tagging camera use, story map creation.
OBJECTIVE 2 - STEM Assistance: Completed 12/31/2021					
Task 1 - Fall Kick Off Events	6	6	300	Team building, sampling training, data analysis.	Macro collection and ID, water sampling procedures and equipment basics, continuous data collection, water quality standards, non-point source vs point source pollution, Pollution Tolerance Index.
Task 2 - River Watch Forum	2	2	300	Virtual Forum (2021), Local River Watch Forums (2022).	Watershed geography, water quality measurement and assessment, watershed education, audience identification, presentation development, video production.
OBJECTIVE 3 - River of Dreams: Completed 5/30/2022					
Task 1 - School classroom and field sessions.	60	44	816	Classroom presentation, canoe release, student evaluation.	Watershed terminology, geography, canoe design, dream creation, canoe launch, canoe tracking, pre and post student assessment quiz.

EVALUATION OF GOAL ACHIEVEMENT

The number of completed events varied from the number planned because Covid-19 restrictions caused many events to be delayed or missed and forced program delivery methods to be adjusted. The adjustment to virtual presentations and activities allowed us to complete 119 of the 146 events that were planned. The goal of engaging 1,460 high school and elementary students within North Dakota Red River Basin school districts in hands-on education programs focused on river resources within their local watershed was not reached. The total program reach was limited to 1,116 students. Covid-19 was not the only factor that limited reach. Smaller than anticipated elementary classroom size also played a role in the total number of students engaged.

SUPPLEMENTAL INFORMATION

Additional information about the Red River Basin RW Program which includes the Minnesota and North Dakota programs can be found in the latest annual report provided to the International Water Institute Board of Directors. Included as Attachment A.

LONG-TERM BEHAVIOR MODIFICATION/PROGRAM EVALUATION

Twenty-five Minnesota and North Dakota educators that were involved with the RW program were provided an opportunity to complete an online survey. Eighteen (18) educators completed the online survey (seven from North Dakota). Overall teachers were pleased with the quality of watershed science activities offered and found them useful in helping them meet education requirements. Select individual question responses are shown below (Figures 1 – 5). Full survey results are provided in Attachment B.

Figure 1.

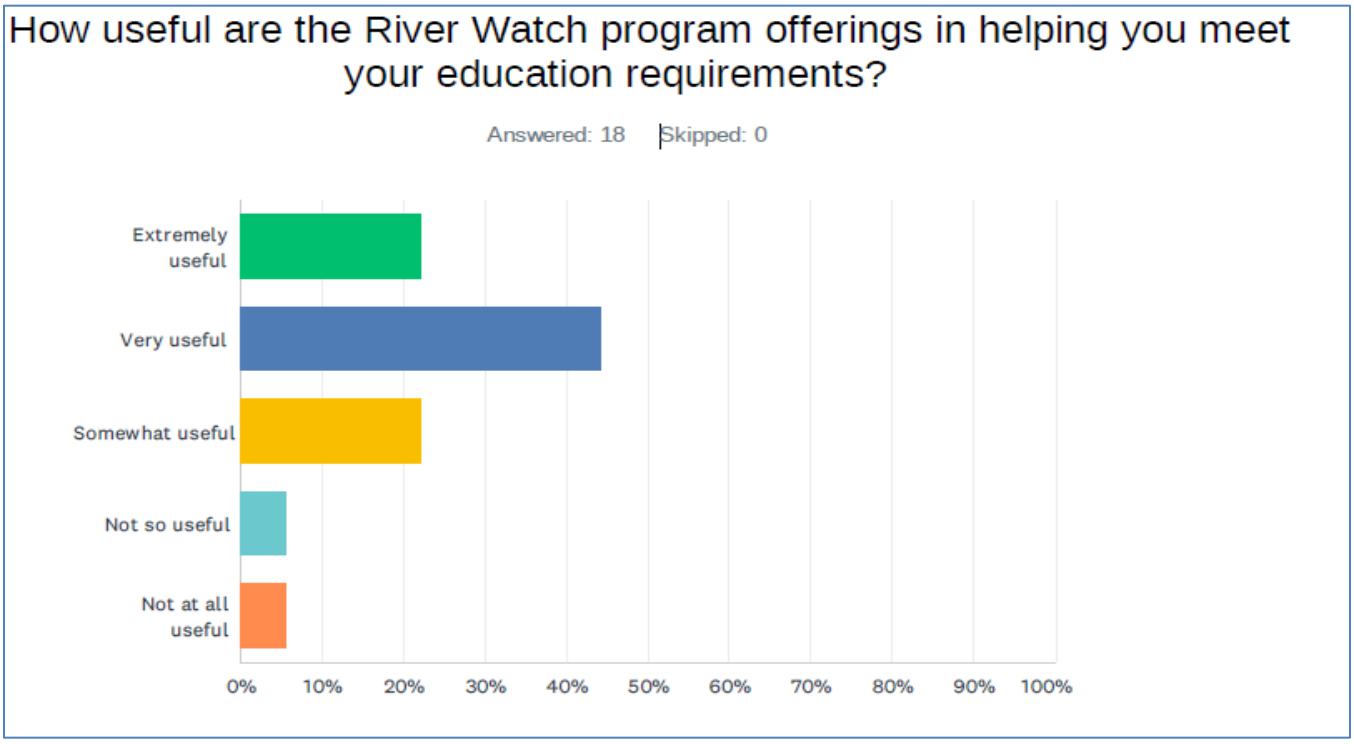


Figure 2.

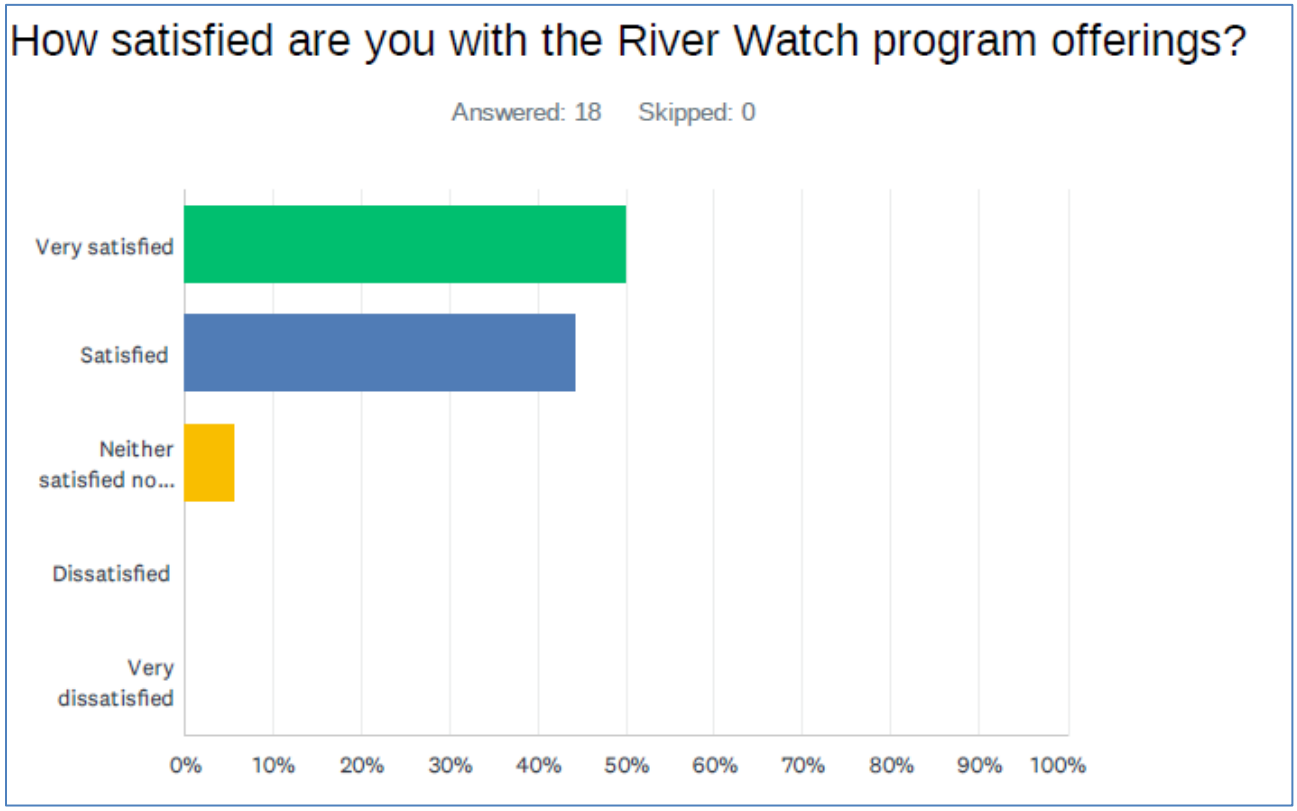


Figure 3.

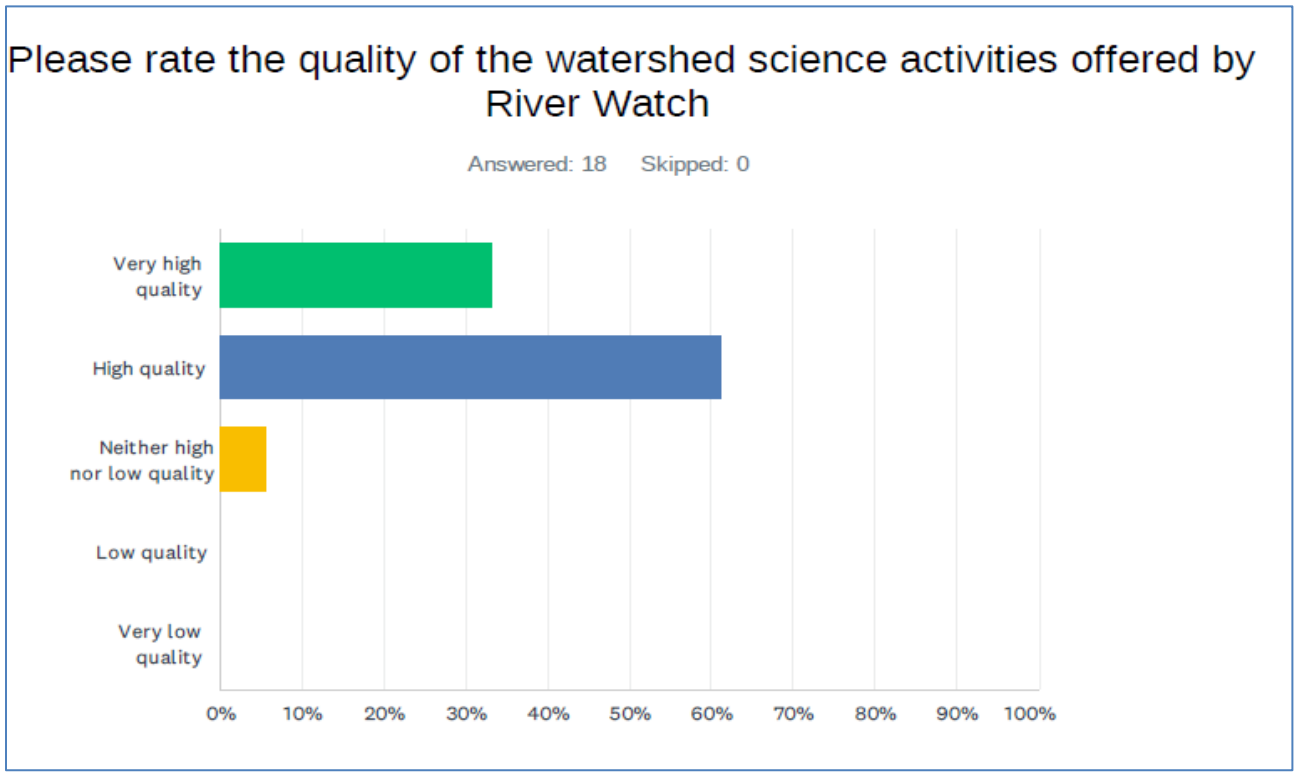


Figure 4.

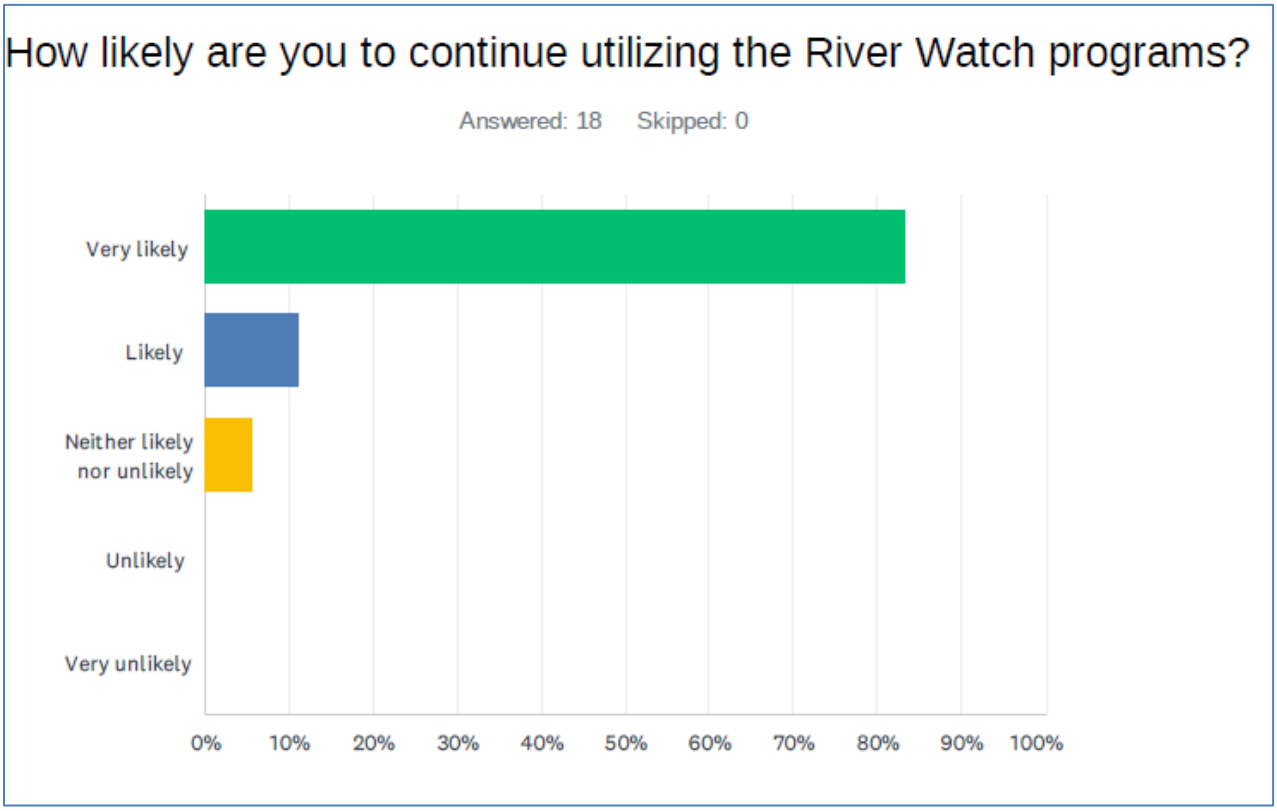
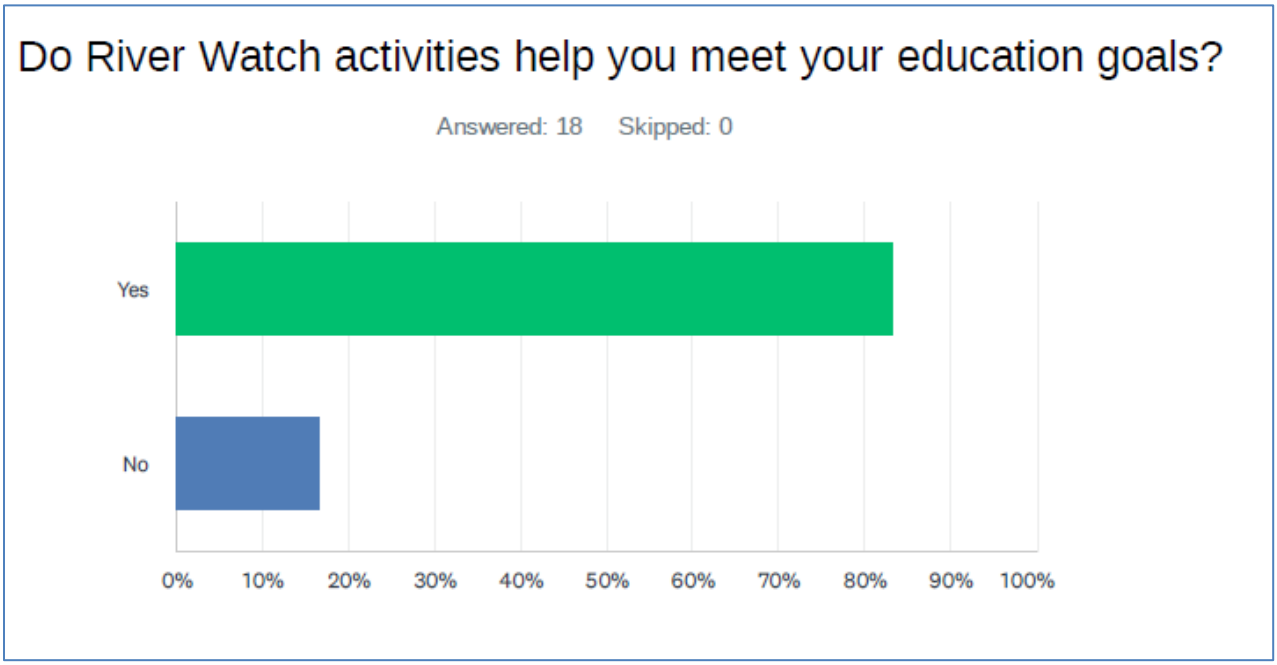


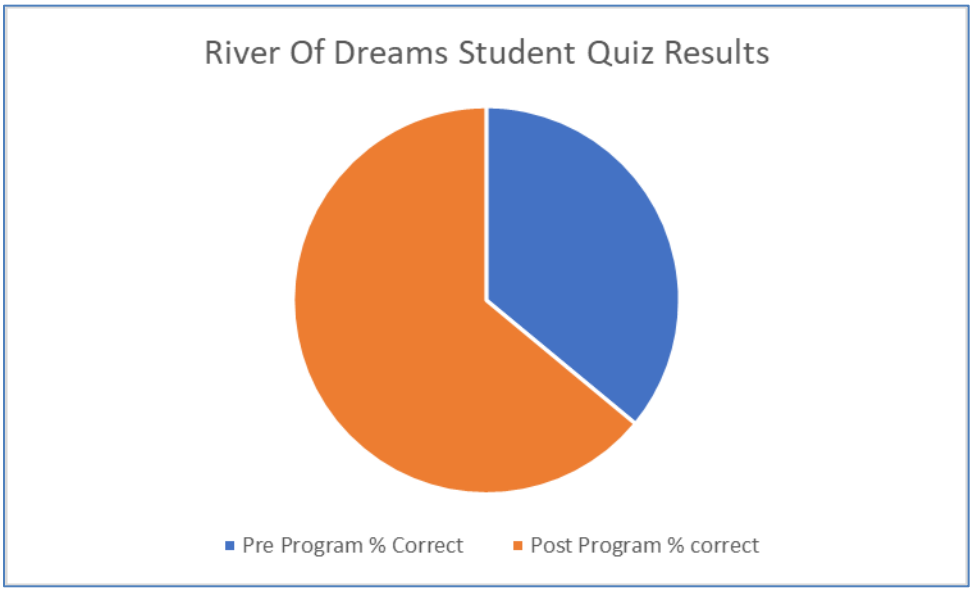
Figure 5.



Student pre and post-quizzes were given during classroom sessions for ROD. Students were asked a series of questions related to watershed/river terminology and pollution sources. Post-activity correct

response rates increase by 30%. Student quiz response results are shown below (Figure 6). Complete results are given in Attachment C.

Figure 6.



PUBLIC INVOLVEMENT AND COORDINATION

Communities across the basin were engaged in local watershed education events that were designed, created, coordinated, and delivered by RW teams. Written materials and videos of the "*Together Again; Your Watershed, Your Community, Your Forum*" events can be viewed here. Story maps for public use were also created detailing River Explorer outings on local waterbodies. Each story map contains landscape and ecosystem observations, trip highlights, and photos. To view the paddling trip stories, click here.

ASPECTS OF THE PROJECT THAT DID NOT WORK WELL

Delivery of the project's events and activities was affected by Covid-19 and related restrictions. Field trips and event gatherings were either postponed or canceled resulting in virtual activities as a replacement. The virtual realm worked but program interest and impact were not as great as in the past when face-to-face interaction/instruction was used to deliver program activities.

FUTURE ACTIVITY RECOMMENDATIONS

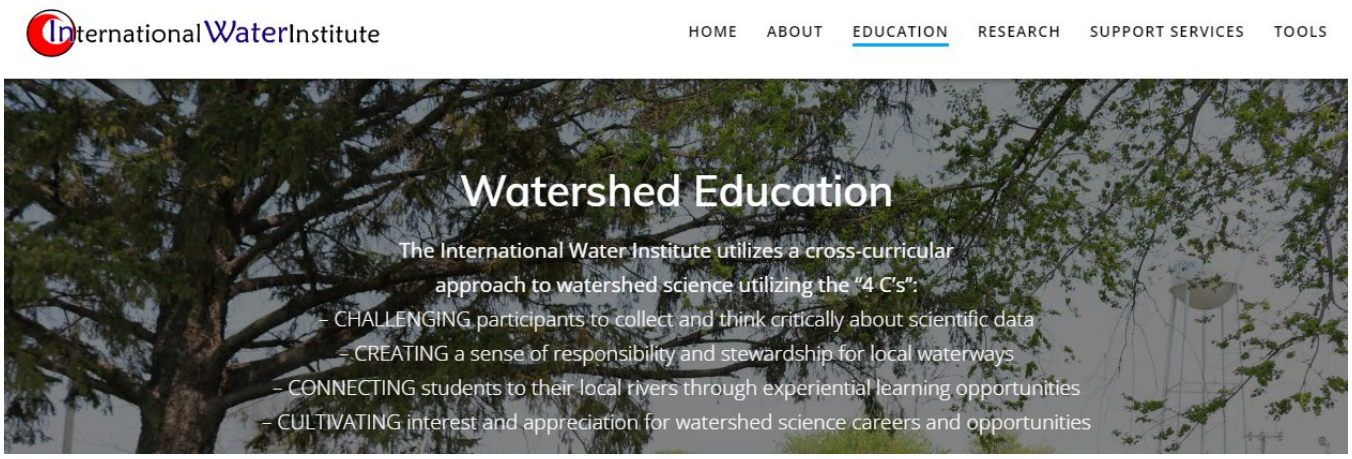
Eligible RW grant activities should target elementary through high school-aged students, teachers, and youth groups. Examples of effective RW program opportunities suited to a local school, community, and watershed needs are listed below.

- *Water Quality Monitoring:* Collect and record conditions at local rivers and streams using state-of-the-art scientific methods and equipment.
- *Biological Monitoring*: Macroinvertebrate monitoring provides additional insights into watershed and ecosystem health.

- *River Explorers:* Guided kayak excursions on local rivers to observe and document watershed conditions.
- *Annual Teacher and Student Training:* proper sampling techniques, data analysis and provide access to resources and experts in current watershed issues.
- *River Watch Forum:* Annual event challenging students to learn and share about emerging local watershed issues.
- *Real-Time Monitoring:* Students build, deploy and maintain real-time water quality monitoring stations. Data analyzed and used to characterize stream water quality.
- *River of Dreams:* A cross-curriculum watershed education program tailored to elementary students. Participants learn watershed terminology and how their sub-watershed fits into their River Basin.

INFORMATION AND EDUCATION OUTPUTS

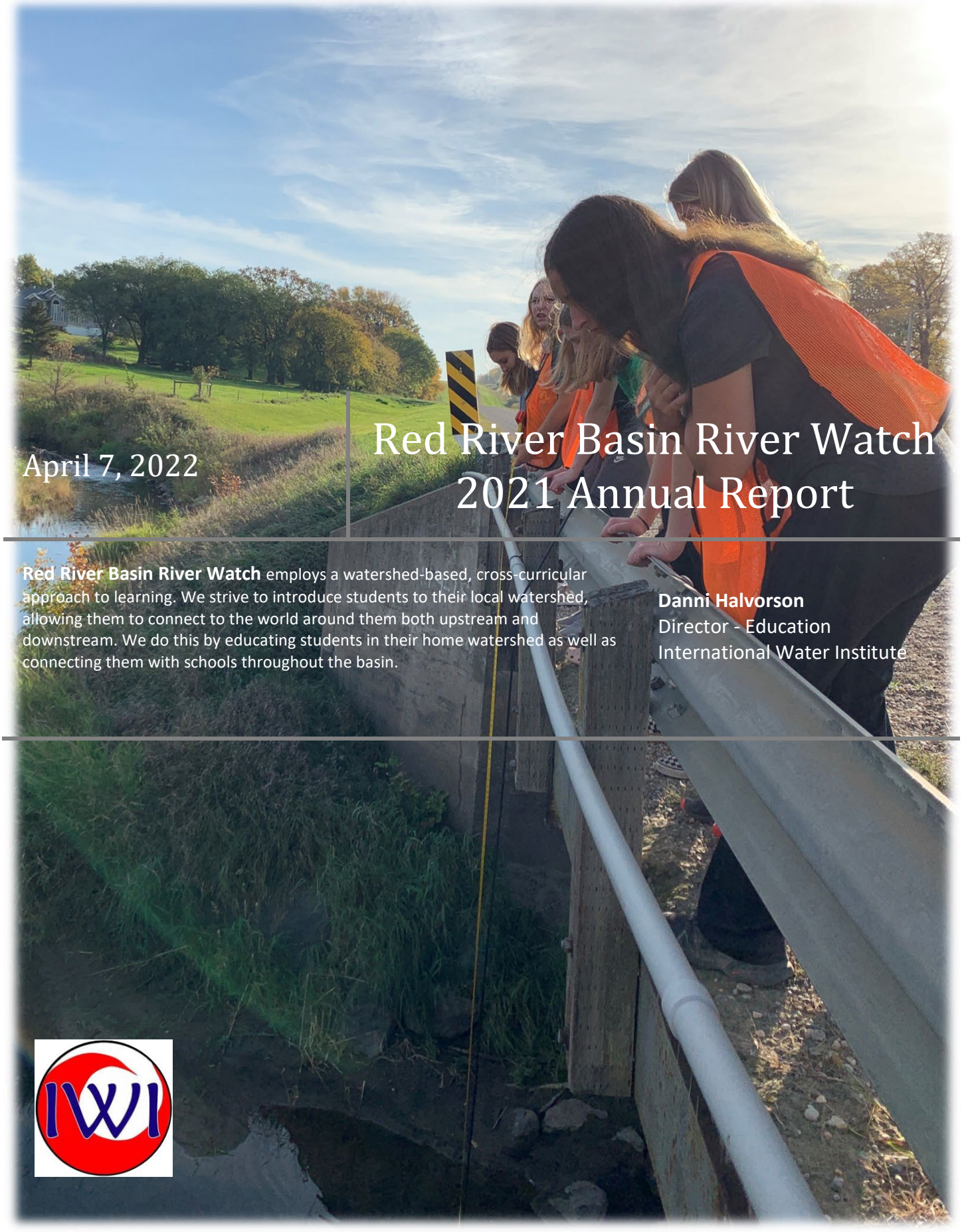
The Red River Basin RW Program has been an ongoing program for 27 years and has developed numerous information and education outputs throughout the years. Recent outputs including training materials, videos, virtual activities, education opportunities, and newsletters can be explored on the International Water Institute Education Website.



PROJECT SOURCES OF FUNDING

Support from the Red River Joint Water Resource District has built an effective and popular watershed education program across the Red River of the North Basin that focuses on local watersheds. Project funding contributions are shown below.

	SFY 21	SFY 22	Total
FY2020 Section 319 Funds	$89,400	$89,400	$178,800
State and Local match:			
1) ND Joint Water Resources District	$59,600	$59,600	$119,200
			$298,000



April 7, 2022

Red River Basin River Watch 2021 Annual Report

Red River Basin River Watch employs a watershed-based, cross-curricular approach to learning. We strive to introduce students to their local watershed, allowing them to connect to the world around them both upstream and downstream. We do this by educating students in their home watershed as well as connecting them with schools throughout the basin.

Danni Halvorson
Director - Education
International Water Institute

Contents

Program Overview

River Watch (RW) enhances watershed understanding and awareness for tomorrow's decision-making through direct hands-on, field-based experiential watershed science. Schools throughout the Red River of the North Basin participate in a variety of unique and innovative watershed engagement opportunities suited to their school, community, and watershed needs. Classroom and outdoor activities are designed to address education initiatives, including:

- ✓ Build capacity of local communities to protect and sustain water resources
- ✓ Provide education and outreach to inform Minnesotans' water choices
- ✓ Encourage citizen and community engagement on water

Support from the Red River Watershed Management Board, Red River Joint Water Resource District and local districts has built an effective and popular watershed education program across the Red River of the North Basin that focuses on water quality. Since program inception, RW teams from schools throughout the Red River Basin have collected water quality data to complement the state assessment of surface waters. Clean Water Act (MN) and Dept. of Environmental Quality (ND) funds have enabled the International Water Institute (IWI) to build on this established and popular RW foundation by providing additional opportunities for participants to understand how to protect and improve the Red River Basin's valuable water resources, including:

Water Quality Monitoring:

Collect and record conditions at local rivers and streams using state-of-the-art scientific methods and equipment. Grab samples and real-time monitoring.

Annual River Watch Forum:

Annual event challenging students to learn and share about emerging local watershed issues.

Macroinvertebrate Monitoring:
Macroinvertebrate monitoring provides additional insights on watershed and ecosystem health.

River Explorers:

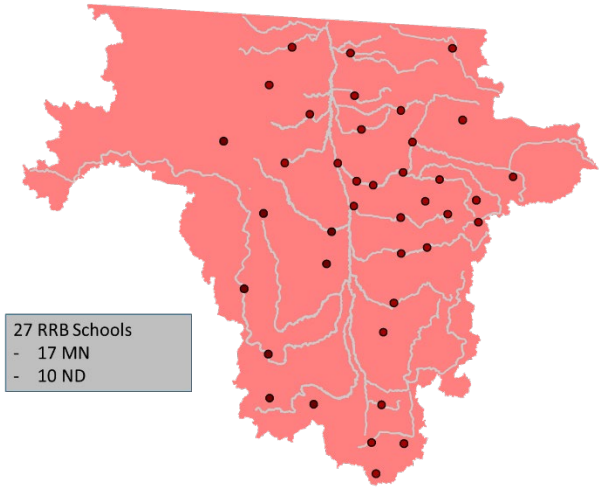
Guided kayak excursions on local rivers to observe and document watershed conditions.

River of Dreams:

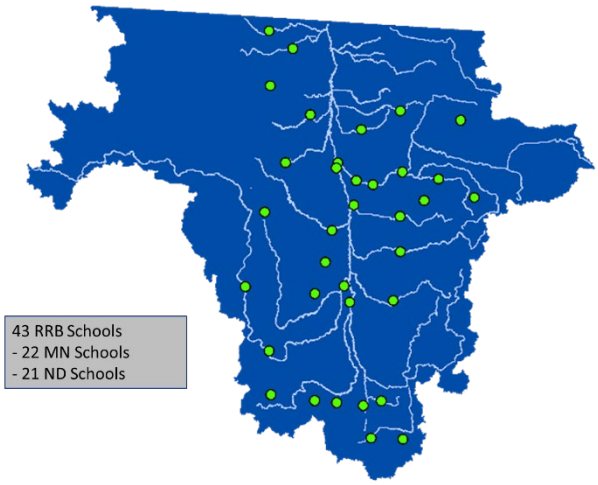
A cross-curriculum watershed education program tailored to elementary students.

Participating Schools

River Watch



River of Dreams



Project Progress

This report is for the Red River Basin River Watch Project covering January 2021 through December 2021. The Red River Watershed Management Board and ND Red River Joint Water Resource District are the project sponsors with lead coordination and project management provided by the International Water Institute. The remainder of this report is organized by activities undertaken in 2021.

Outdoor Education and Covid-19

Some of the busiest weeks of the year for our River Watch Teams are the weeks between the start of the school year and the formation of ice on the rivers. Though last fall was not full of large in-person events like it has in the past, it remained one of the busiest seasons of the year, an exciting change of pace after an abrupt ending to the spring programming in 2020.

Our schools operated in a variety of models in 2021, allowing us to socially distance outside, meet over video calls, and prepare new virtual interactive activities. River Explorers kayaking trips lend themselves especially well to social distancing and after two autumns with high water, this year's paddling season was especially appreciated. IWI staff was able to take groups paddling on eight tributaries as well as the Red River itself. Trips spanned across the Red River Basin from the Red Lake River in Red Lake, MN to the Forest River in Walsh County, ND. Alongside River Explorers trips, River Watch Teams were able to conduct macroinvertebrate sampling and Water Quality Monitoring throughout the Red River Basin.

26th Annual Forum – Just Around the River Bend

The 26th Annual River Watch Forum was a huge success! With 20 schools participating from across the Red River Basin, we hosted a three-week virtual forum from March 8th to March 26th. From first-year River Watch Teams to those who have been involved for 26 straight years, each team geared up for a new challenge each week.

Challenge #1: Water Quality of the Red River

River Watch staff collected a 'snapshot' of water quality along 300 miles of the Red River by collecting field data and collecting water samples for further analysis at a lab. This dataset was then given to schools with the task of matching the data to one of the 14 locations on the map.

Challenge #2: Macroinvertebrates of the Red River Basin

River Watch teams were able to collect and identify macroinvertebrates last Fall. This provides and in-depth understanding of the biological component of rivers and streams. For this activity, each team had to identify several macroinvertebrates from five separate locations and to calculate a Pollution Tolerance Index for each location.

Challenge #3: Sharing and Preparing

After a few weeks of tough challenges, Week 3 was all about sharing a fun River Watch memory for a social media contest and preparing for 2021 summer and fall activities. Check out the winners and their Social Media posts below.

Red Lake Falls River Watch, for the first time in their 23 years as a team, took home 2021 River Watch Forum **Gold Award**.

Climax-Shelly River Watch received the 2021 River Watch Forum **Silver Award**, for the second year in a row.

The **Minto** River Watch Team, which has been active since 2007, took home the 2021 River Watch Forum **Bronze Award**.

The competition was pretty tight with this year's River Watch Forum. With little room for score interpretation, there were several who scored incredibly well but didn't quite make the top three. **Honorable Mention** River Watch Teams; Norman County East, Campbell-Tintah and Lakota.

River of Dreams

Due to school closures and social distancing guidelines in 2020, group canoe launches were pushed back into 2021. In response, our teachers had to adapt accordingly and we have been working to support whatever alternative works best for them and their classrooms.

A majority of our 2020 participants canoe releases happened in 2021. Other schools opted to have students launch their canoes with their family and share photos with one another.

Even though programming looked a little different in 2020, canoes launched in recent years continue to make their way to Hudson Bay.

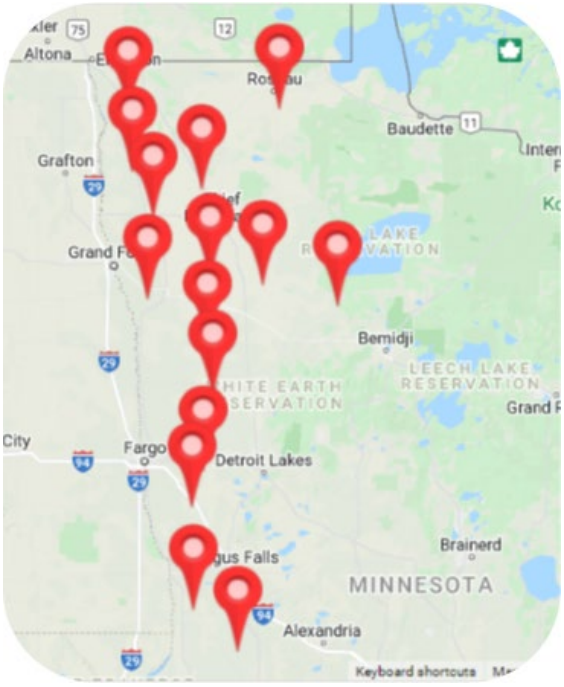
2021 River of Dreams activities began in a virtual setting with pre-recorded local watershed information activities designed to engage the students in learning watershed vocabulary followed by an interactive Zoom session that takes students around their local watershed illustrating how they connect to the rest of the world around them.

2021 canoe release activities were in person with 40 schools, 60 classrooms, and 1,354 students.

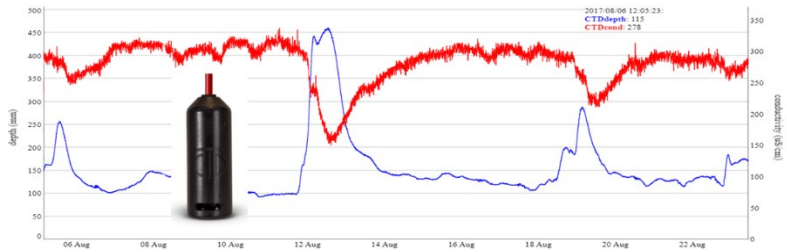
To view the latest River of Dreams sightings, click **here.**

Continuous Monitoring Stations in the Red River Basin

RW utilizes continuous monitoring stations designed by Stroud Research Center to collect data every five minutes. Stations are placed at sites close to RW Schools, teams are responsible for checking up on stations throughout the year. We currently have 10 stations with 7 of them utilized during the 2021 sampling season. To check out the data collected from our stations, visit: https://monitormywatershed.org/browse/

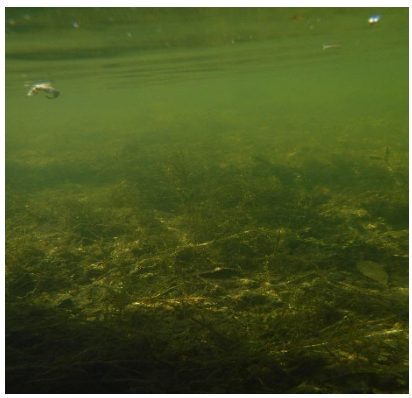


RW staff deploy stations every year; launching them in the spring and retrieving them in the fall before the ice covers the basin. RW Teams help maintain stations in their sub-watershed - ensuring that the data is compared to sonde data and that the stations stay in tip-top shape.



River Explorers

River Explorers is an educational program that was created to get students in our River Watch program out on the rivers that they sample on. While out in our fleet of kayaks, students take photos and make observations on wildlife, land use, water quality, and anything else that catches their eyes. All of this is put together to create a "story map" on ArcGIS online to share the paddling adventure with the public. We hope that helping students get out on the rivers in their watershed will lead to more members in the community recreating in their free time – a hobby that is especially relevant during a season of life where people find themselves increasingly outdoors.



Using ArcGIS Online, River Watch Teams compile maps with photos and commentary from their River Explorers Paddling Trips. In 2021, 208 students participated in 14 paddling trips covering 192 miles. If you're interested in scoping out some of the tributaries to the Red River, take a look at the River Explorers Map Gallery at the button below.

View Paddling Trips Here!

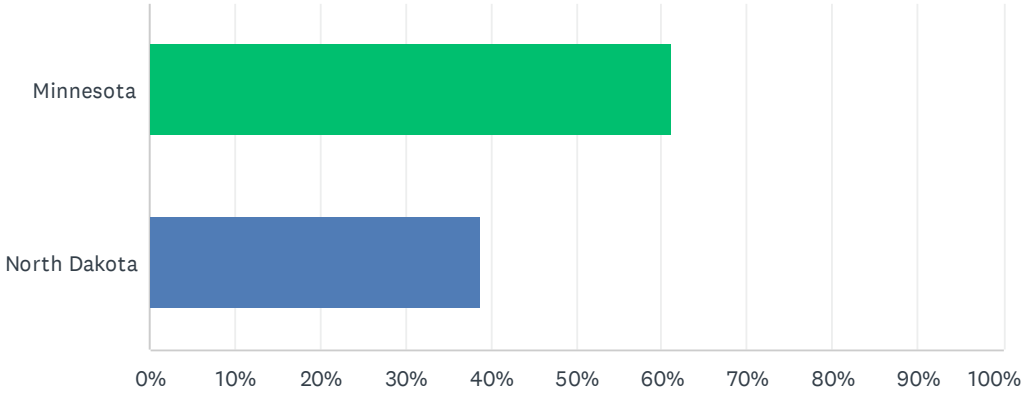
Project Budget

Funds for this project are contributed by the Red River Watershed Management Board, ND Red River Joint Water Resources District, MN Clean Water Legacy Act and the ND Department of Environmental Quality. Summary of the 2021 project budget expenditures by program is shown below.

Red River Basin River Watch Funding Sources	
Federal Grants/Appropriations	$89,400
State Grants	$150,000
Other	$209,600
Total	**$449,000**
Project Budget	
Personnel	$243,264
Technical Services	$3,000
C-corps	$0
Subtotal	$246,264
Project-Related Expenses	
Part. Support/Stipends (Direct Expenses)	$11,700
Training Sessions	$3,000
Supplies	$27,850
Telephone/Cell Phone	$4,500
Mileage	$34,259
Equipment	$19,064
Meetings/Venue	$8,500
RW Forum	$12,000
Promotional	$1,500
Monitoring Expenses	$1,400
Misc. Project-Related	$6,300
Total Project-Related Expenses	$130,073
Project Management	$72,663
TOTAL EXPENSES	**$449,000**

Q1 Please select your state.

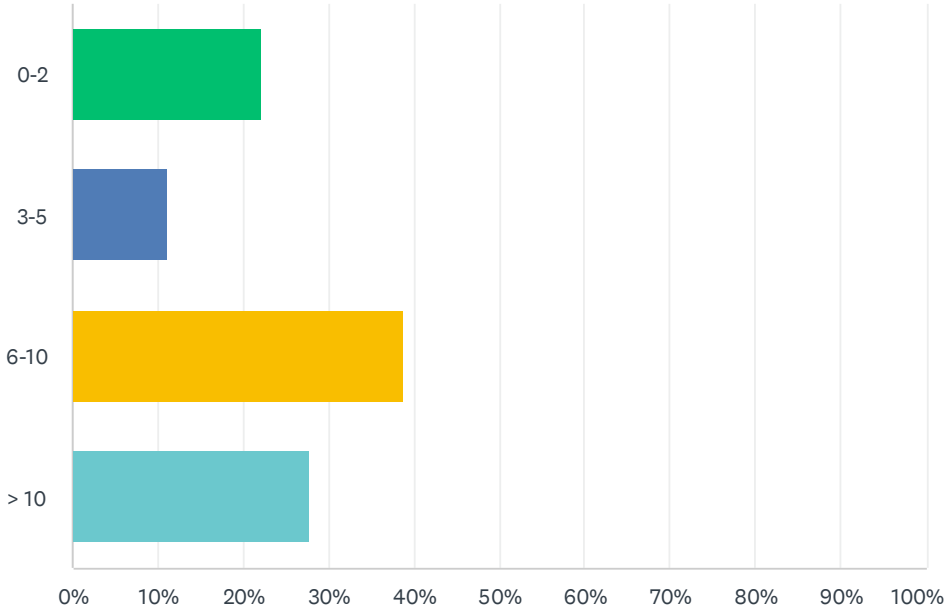
Answered: 18 Skipped: 0



ANSWER CHOICES	RESPONSES	
Minnesota	61.11%	11
North Dakota	38.89%	7
TOTAL		18

Q2 How many years of River Watch Experience do you have?

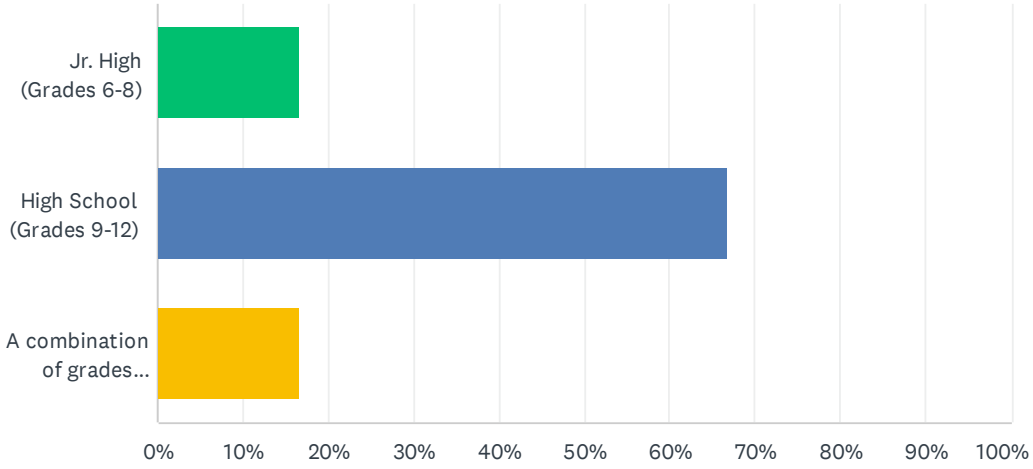
Answered: 18 Skipped: 0



ANSWER CHOICES	RESPONSES	
0-2	22.22%	4
3-5	11.11%	2
6-10	38.89%	7
> 10	27.78%	5
TOTAL		18

Q3 What grade level do you engage with River Watch activities?

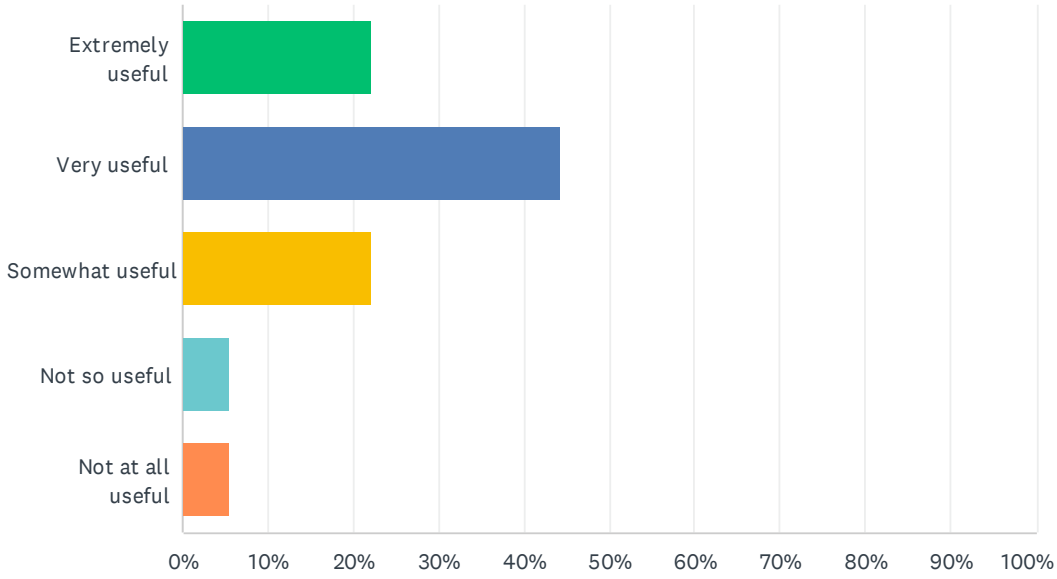
Answered: 18 Skipped: 0



ANSWER CHOICES	RESPONSES	
Jr. High (Grades 6-8)	16.67%	3
High School (Grades 9-12)	66.67%	12
A combination of grades (7-12)	16.67%	3
TOTAL		18

Q4 How useful are the River Watch program offerings in helping you meet your education requirements?

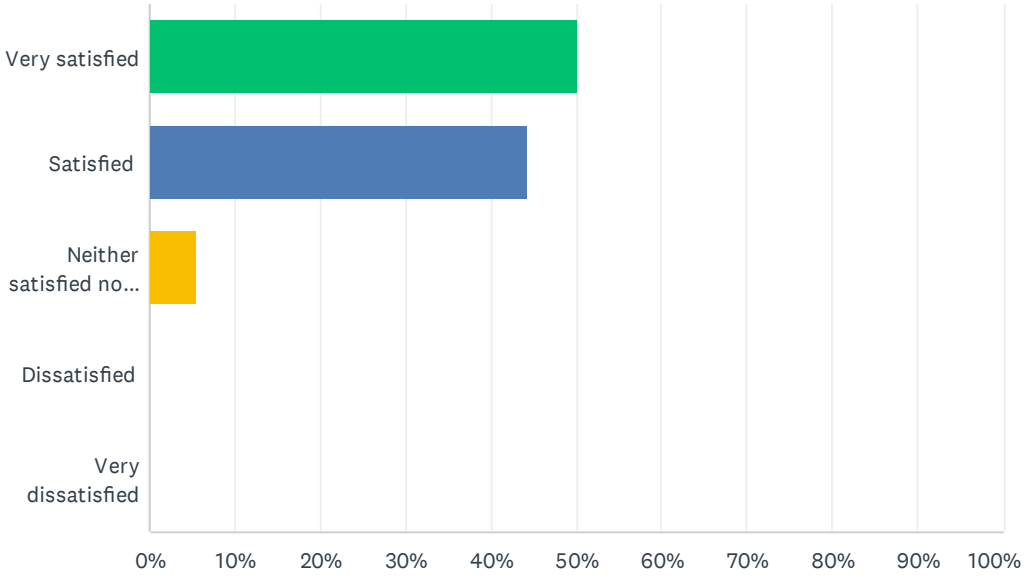
Answered: 18 Skipped: 0



ANSWER CHOICES	RESPONSES	
Extremely useful	22.22%	4
Very useful	44.44%	8
Somewhat useful	22.22%	4
Not so useful	5.56%	1
Not at all useful	5.56%	1
TOTAL		18

Q5 How satisfied are you with the River Watch program offerings?

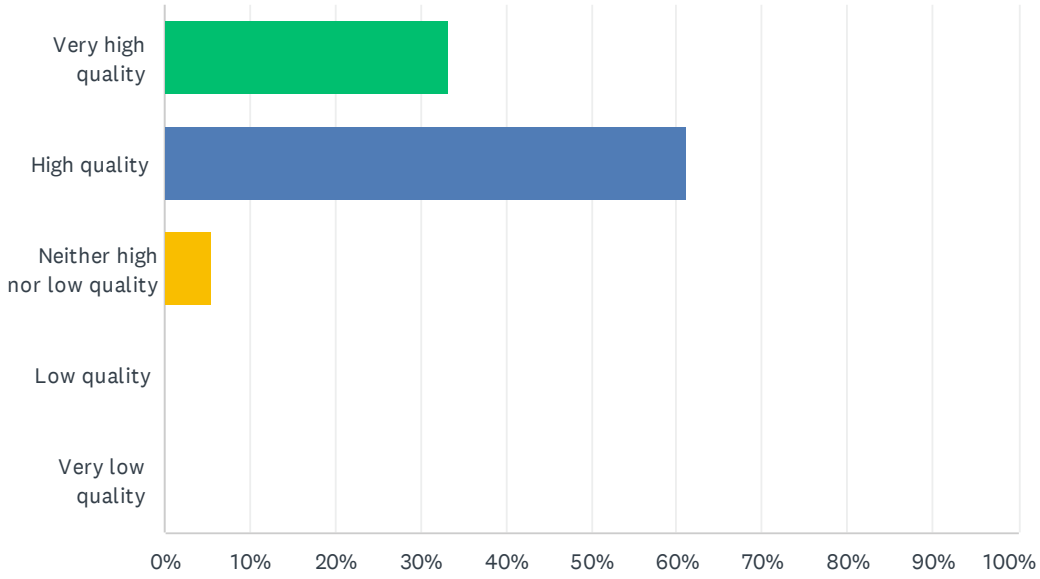
Answered: 18 Skipped: 0



ANSWER CHOICES	RESPONSES	
Very satisfied	50.00%	9
Satisfied	44.44%	8
Neither satisfied nor dissatisfied	5.56%	1
Dissatisfied	0.00%	0
Very dissatisfied	0.00%	0
TOTAL		18

Q6 Please rate the quality of the watershed science activities offered by River Watch

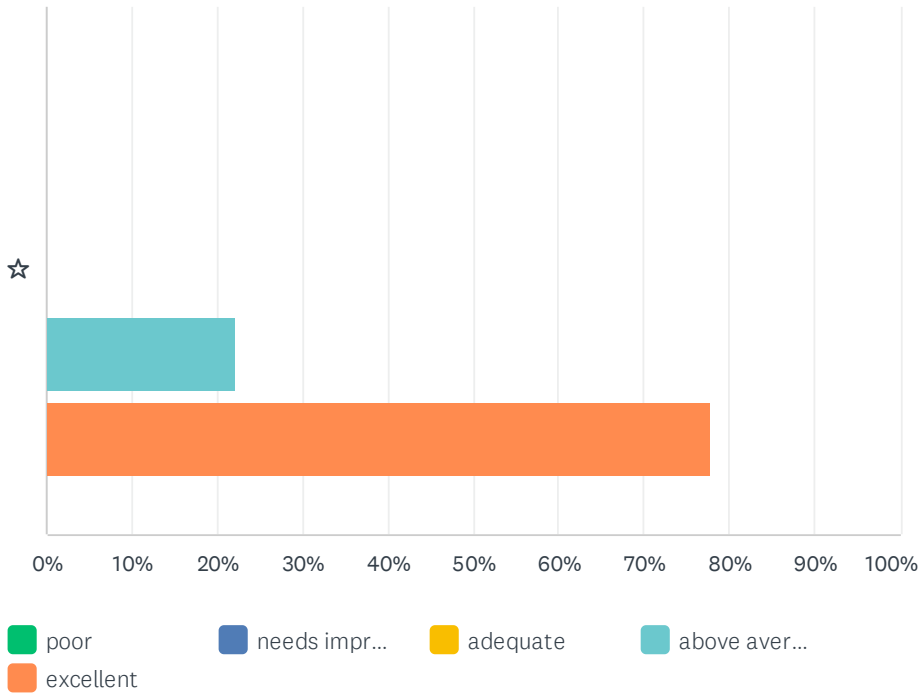
Answered: 18 Skipped: 0



ANSWER CHOICES	RESPONSES	
Very high quality	33.33%	6
High quality	61.11%	11
Neither high nor low quality	5.56%	1
Low quality	0.00%	0
Very low quality	0.00%	0
TOTAL		18

Q7 Please rate the staff that assist you with River Watch activities

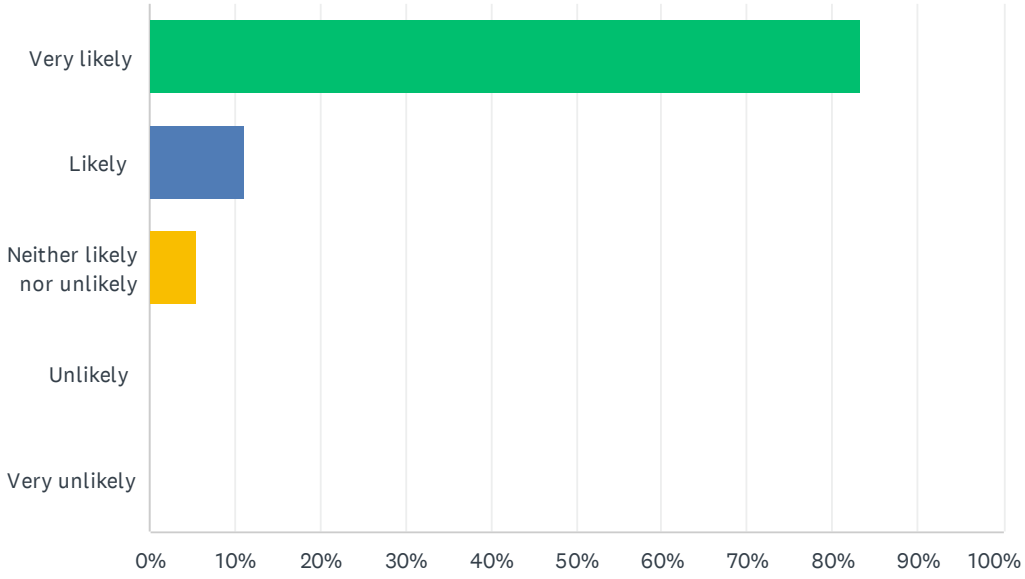
Answered: 18 Skipped: 0



	POOR	NEEDS IMPROVEMENT	ADEQUATE	ABOVE AVERAGE	EXCELLENT	TOTAL	WEIGHTED AVERAGE
☆	0.00% 0	0.00% 0	0.00% 0	22.22% 4	77.78% 14	18	4.78

Q8 How likely are you to continue utilizing the River Watch programs?

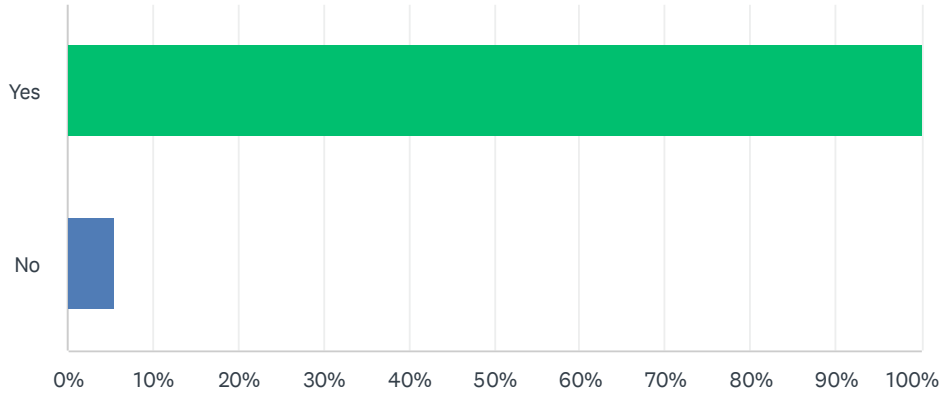
Answered: 18 Skipped: 0



ANSWER CHOICES	RESPONSES	
Very likely	83.33%	15
Likely	11.11%	2
Neither likely nor unlikely	5.56%	1
Unlikely	0.00%	0
Very unlikely	0.00%	0
TOTAL		18

Q9 Would you recommend River Watch to a colleague or neighboring school?

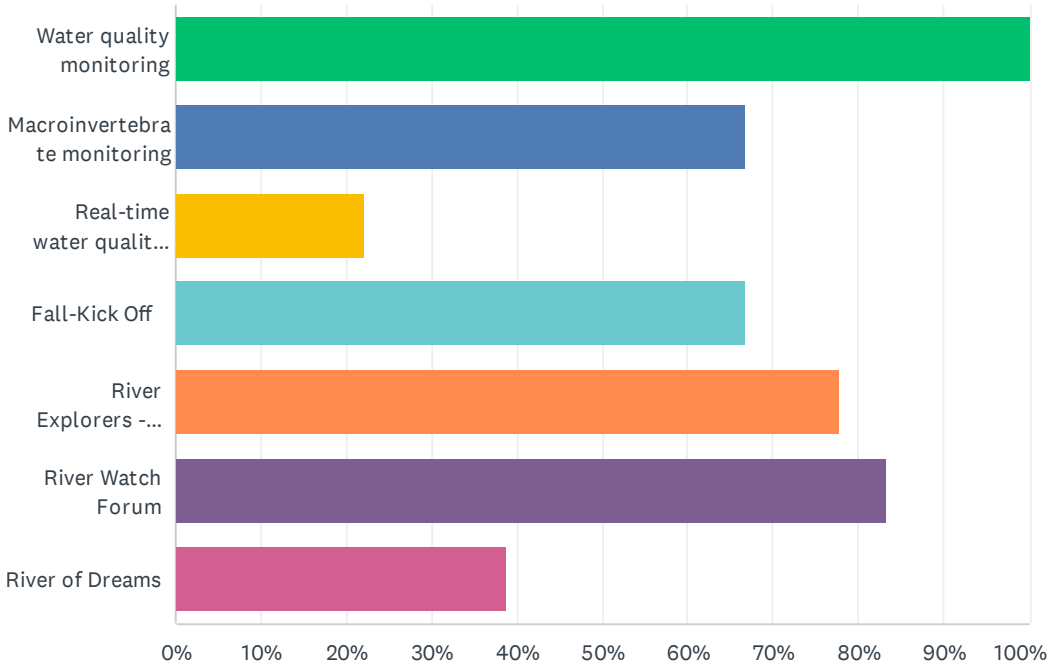
Answered: 18 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	100.00%	18
No	5.56%	1
Total Respondents: 18		

Q10 During your years of involvement, which of the following River Watch program offerings have you participated in (check all that apply)?

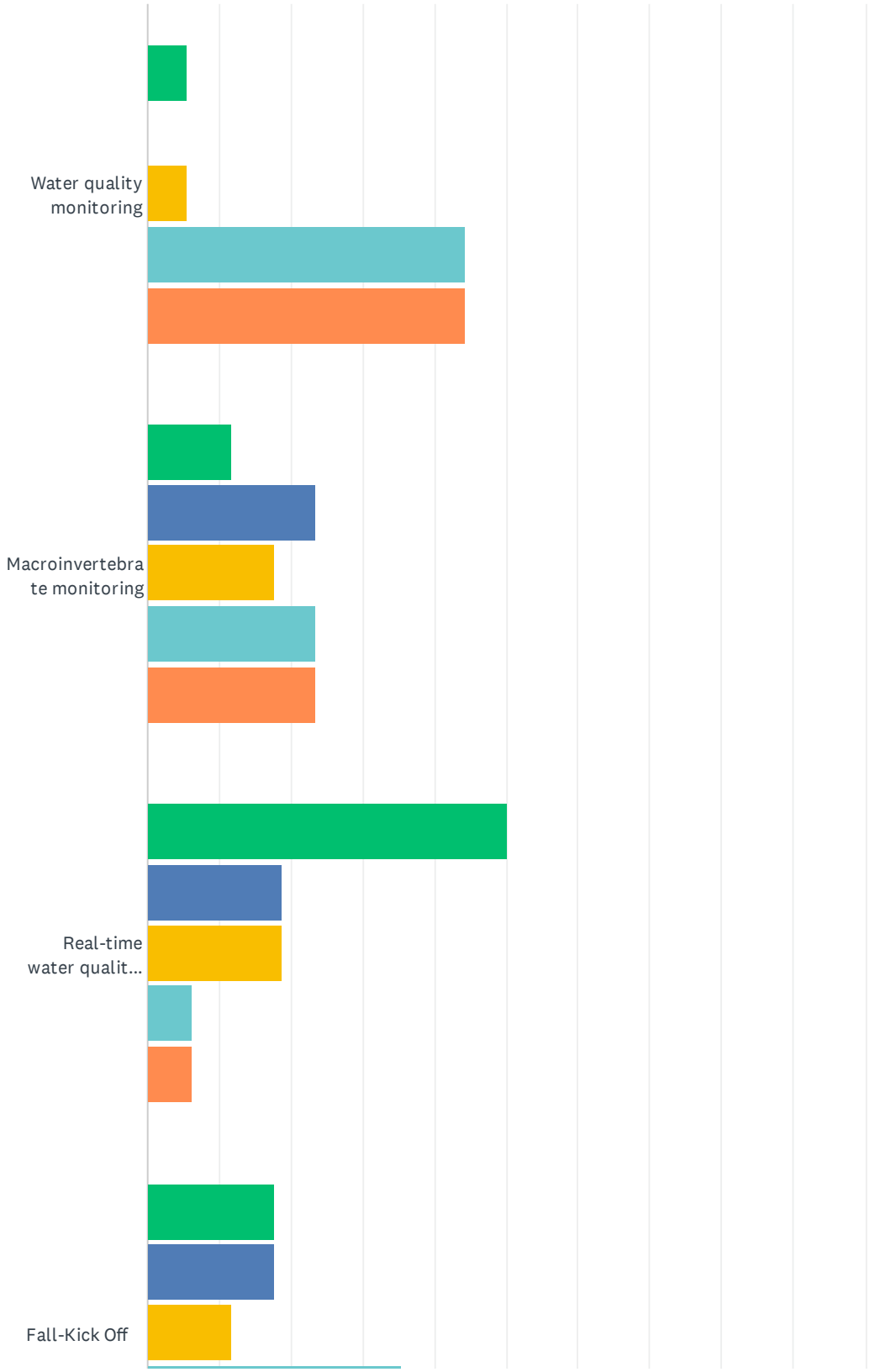
Answered: 18 Skipped: 0

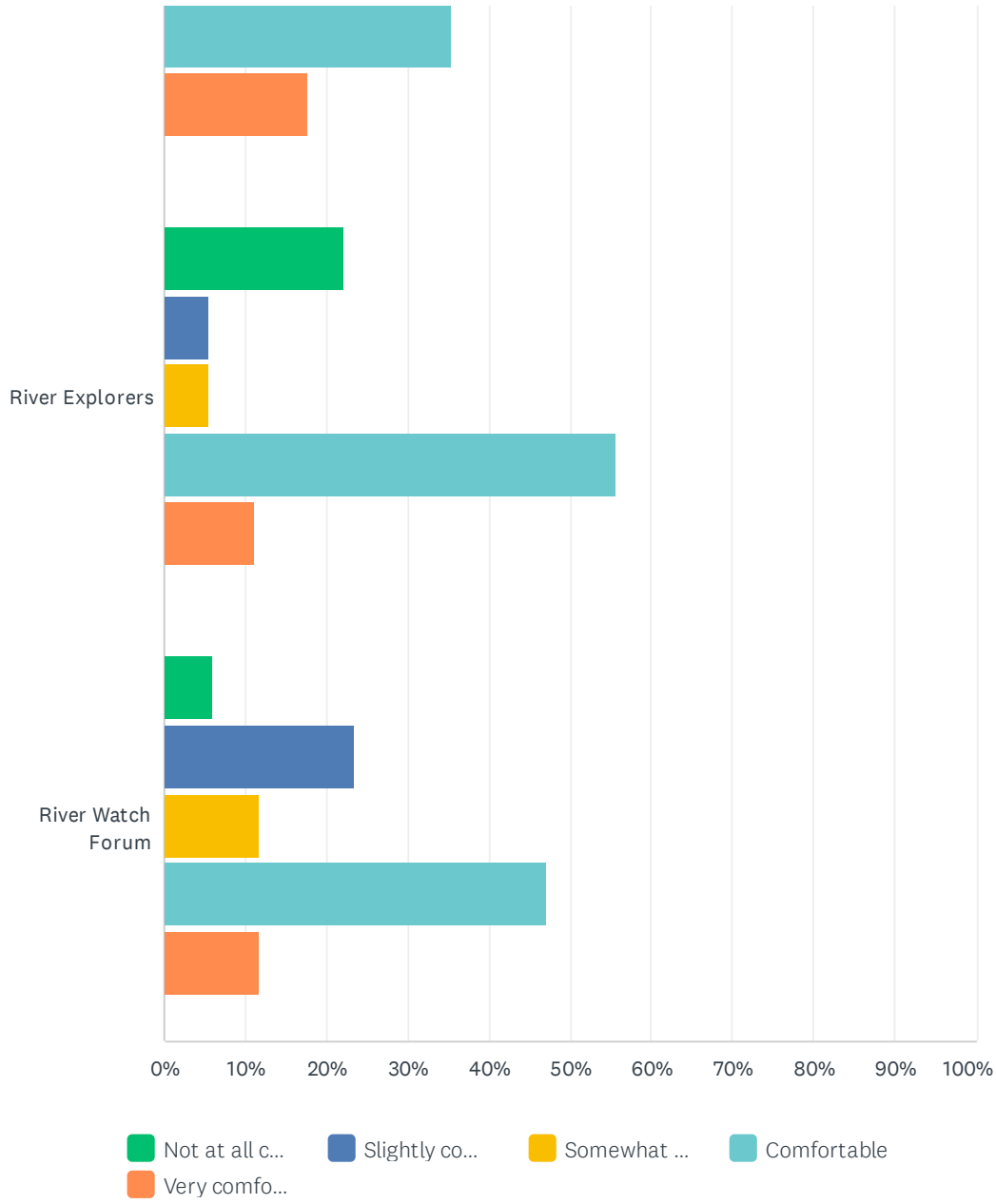


ANSWER CHOICES	RESPONSES	
Water quality monitoring	100.00%	18
Macroinvertebrate monitoring	66.67%	12
Real-time water quality station	22.22%	4
Fall-Kick Off	66.67%	12
River Explorers - Kayaking	77.78%	14
River Watch Forum	83.33%	15
River of Dreams	38.89%	7
Total Respondents: 18		

Q11 Please indicate your comfort level leading activities focused on each of the following

Answered: 18 Skipped: 0

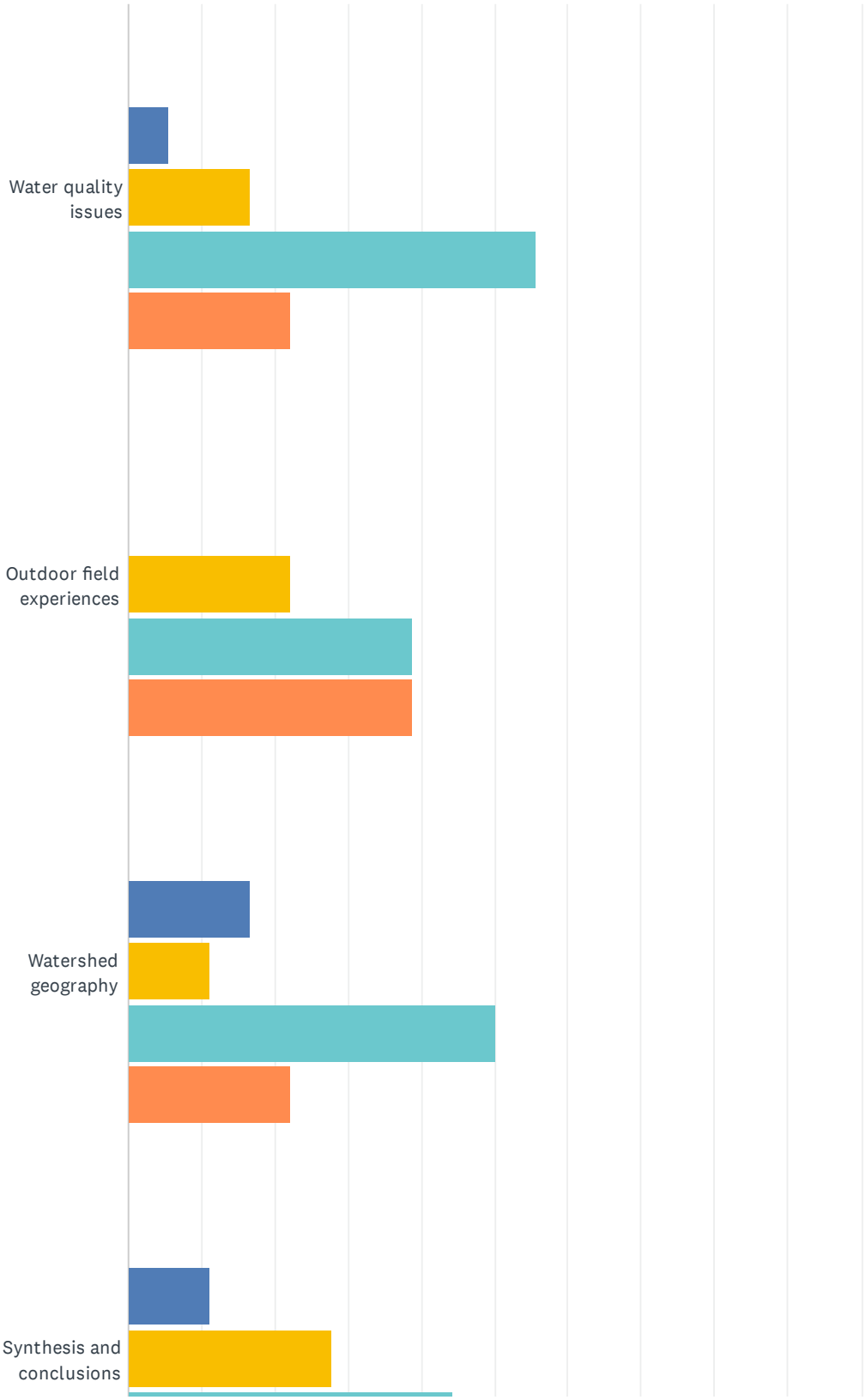




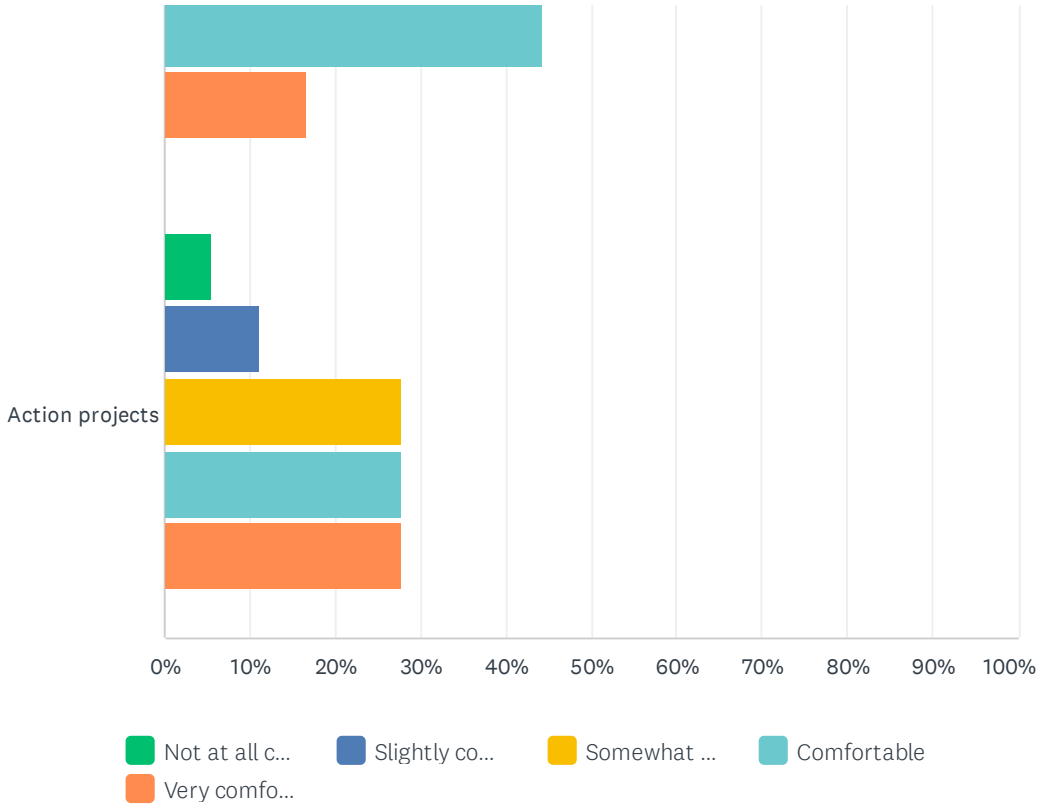
	NOT AT ALL COMFORTABLE	SLIGHTLY COMFORTABLE	SOMEWHAT COMFORTABLE	COMFORTABLE	VERY COMFORTABLE	TOTAL
Water quality monitoring	5.56% 1	0.00% 0	5.56% 1	44.44% 8	44.44% 8	18
Macroinvertebrate monitoring	11.76% 2	23.53% 4	17.65% 3	23.53% 4	23.53% 4	17
Real-time water quality station	50.00% 8	18.75% 3	18.75% 3	6.25% 1	6.25% 1	16
Fall-Kick Off	17.65% 3	17.65% 3	11.76% 2	35.29% 6	17.65% 3	17
River Explorers	22.22% 4	5.56% 1	5.56% 1	55.56% 10	11.11% 2	18
River Watch Forum	5.88% 1	23.53% 4	11.76% 2	47.06% 8	11.76% 2	17

Q12 Please indicate your comfort level implementing lessons focused on each of the following

Answered: 18 Skipped: 0



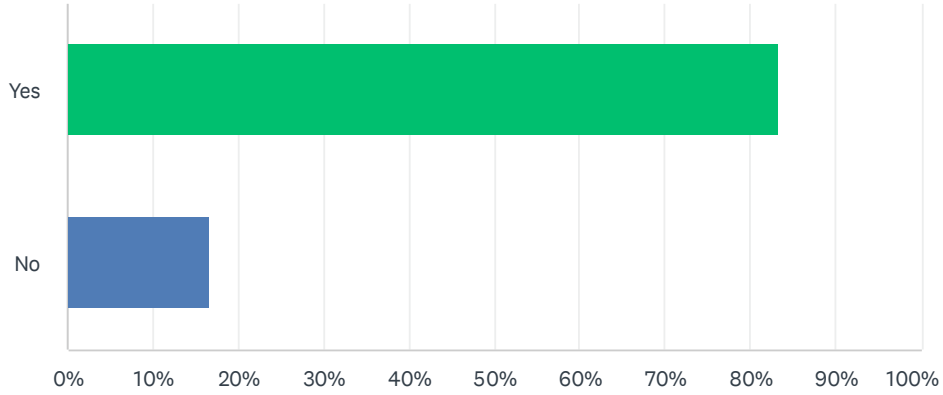
2022 River Watch Evaluation - Teachers



	NOT AT ALL COMFORTABLE	SLIGHTLY COMFORTABLE	SOMEWHAT COMFORTABLE	COMFORTABLE	VERY COMFORTABLE	TOTAL
Water quality issues	0.00% 0	5.56% 1	16.67% 3	55.56% 10	22.22% 4	18
Outdoor field experiences	0.00% 0	0.00% 0	22.22% 4	38.89% 7	38.89% 7	18
Watershed geography	0.00% 0	16.67% 3	11.11% 2	50.00% 9	22.22% 4	18
Synthesis and conclusions	0.00% 0	11.11% 2	27.78% 5	44.44% 8	16.67% 3	18
Action projects	5.56% 1	11.11% 2	27.78% 5	27.78% 5	27.78% 5	18

Q13 Do River Watch activities help you meet your education goals?

Answered: 18 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	83.33%	15
No	16.67%	3
TOTAL		18

Q14 Please list the Education Standards that the River Watch activities/materials help you meet.

Answered: 15 Skipped: 3

Q15 Please provide one sentence that describes your experience with River Watch.

Answered: 18 Skipped: 0

River of Dream Pre - Post Quiz results % Correct Reponses															
Pre	0.75	0.38	0.27	0.38	0.26	0.37	0.19	0.24	0.32	0.3	0.46	0.35	0.2	0.21	0.334286
Post	0.9	0.69	0.7	0.81	0.57	0.67	0.45	0.48	0.69	0.66	0.75	0.69	0.49	0.44	0.642143
change	0.15	0.31	0.43	0.43	0.31	0.3	0.26	0.24	0.37	0.36	0.29	0.34	0.29	0.23	0.307857

Avg Change:	0.307857

Pre Progra	36
Post Progr	64
	100