

# River Watch of CO Enhancements for Our Next 30 Years

Luke Javernick, Ph.D.



### What is River Watch

A statewide citizen science volunteer water quality program with the mission:
"Real People, doing Real Science, for a Real Purpose."

Partnership between River Science (501c3) and CO Parks and Wildlife







# Citizen SCIENCE

Our program depends on our volunteer scientists who have been trained to collect water quality samples and perform on site analysis to a very high rigor.

# **Data Users**

Our data is used by many groups which include Colorado Department of Public Health and Environment (CDPHE) as well as the EPA. This speaks to our data quality.

# **Data to Decisions**

Our study design was built to inform Clean Water Act and aid in decision-making processes to help conserve and restore the health of CO rivers.

0000			
1000			
1000			
0000			
0000			
2000			
00000			
7.000			
100			
0000			
0000			
000			
00000			
0000			
33			
000000000000000000000000000000000000000			
000			
00000			
000			
0000			
0000			
00001			
00001			
00001			
00001			
00000			
0000			
0000			
100			
000000000000000000000000000000000000000			
0000			
10000			
0000			
00000			
000000			
00000			

# WILDLIFE

FOR COLORADO DIVISION OF WILDLIFE EMPLOYEES

Volume No. 65 - June 15, 1993

### Inside This Issue:

- -Central Region News
  - page 2
- —Lateral transfer opportunities
  - page 6
- -State personnel changes

page 7

# Riverwatch gets the kids involved



DOW wildlife biologist Barb Horn stands on the South Platte River bank with students from Horizon High School. The school is one of 124 schools studying on 75 rivers throughout Colorado with the Riverwatch program. (photo by Ed Kosmicki)





# **Achievements Over 30 Years**

As of July, 2021

# How Many Volunteers Have Participated over the last 30 years?

- A) 25,000
- B) 50,000
- C) 75,000
- D) 3 Million





# **Achievements Over 30 Years**

As of July, 2021

>75,000

Volunteers since 1991

59,000

Miles of River Monitored

(65% of CO's River Miles)

\$1.02M

Dollars of In-Kind Volunteer Time

(2004-present)





# **Improving Our Program**

Training and Resources

COVID forced us to reconsider training and volunteer support

We have compiled our training into short segmented videos available to all volunteers (>100 videos)

**CDIP Approved!** 

First CDIP year, we certified 94 students







# **Improving Our Program**

Training and Resources

### **CDIP Benefits**

- Greater focus to the students = increased engagement
- Creates more certified volunteers = greater QA/QC
- Provides additional funding to schools and RW program = sustainability
- Students get certification = skill sets and resume builder





### COLORADO RIVER WATCH CERTIFICATION

This certification is given to

## Student Name

for demonstrating and applying water quality knowledge and skillsets.



MICHAELA TAYLOR River Watch Program Manager





LUKE JAVERNICK, PH.D.
River Science
Executive Director





THIS PARTICIPANT HAS COMPLETED THE FOLLOWING TESTS/PRACTICUMS AND IS CERTIFIED IN THE RIVER WATCH METHODS AND PROTOCOLS FOR SAID MODULES.

- · Sample Preparation
- · Sample Collection
- Temperature
- · pH Lab Test
- · Dissolved Oxygen Lab Test
- · Alkalinity Lab Test
- Hardness Lab Test
- Metals and Nutrients
- Demonstration of River Continuum





# SPATIAL WATER

MONITOR - MANAGE - MAINTAIN

REAL-TIME INFO YOU NEED

AT YOUR FINGERTIPS





Dissolved Oxygen
Conductivity
Temperature
Turbidity
Nitrate
Ammonia
Depth
pH



Set parameter thresholds and receive Text and Email alerts when conditions change.



Data can be transmitted through cellular networks, mesh-systems, or satellite



# DATA DASHBOARD

Data is sent to our AWS cloud and presented in our data dashboard to provide targeted information for decisions and management

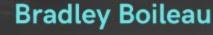
# Thank you!

Feel free to reach out to us if you have any questions.

Thank You To Our 30 Year Sponsors:



Michaela Taylor







**Phone Number** 

719.428.9609

### **Email Address**

michaela@coloradowatershed.org bradley@coloradowatershed.org luke@river.science (no .com)

### Website

www.river.science/river-watch