



# SHARED EXPERIENCE: VOLUNTEER MANAGEMENT

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Water Quality Program Name: Rivers of Colorado Water Watch Network (River Watch)

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## River Watch Volunteers make the Program

*Submitted by Barb Horn, January 2013*

**Colorado:** River Watch began in 1989 with the goals of providing statewide, quality aquatic data while providing a hands-on science experience to foster environmental stewardship. The program is housed at the Colorado Parks and Wildlife Agency. We partner with a local non-profit that provides professional staff, funding, and programming. River Watch data is the largest data source for surface water chemistry, physical habitat, and macroinvertebrate data in Colorado.



Colorado River Watch Logo

We generate a large volume of data serving 140 groups annually, who monitor about 650 stations per year on 350 some rivers, sampling monthly for field (6 indicators) and metals (26), biannual for nutrients (6) and annually for physical habitat and macroinvertebrates. We have about 770,000 river miles, many of which are difficult to access, to cover so need all the help we can get.

Our volunteers are primarily schools (6th grade up, private, public) but include municipalities, adult groups and industry. Regardless of who the volunteer is, each volunteer uses the same protocols, equipment and sample design. We have teachers that participate for 20 years. We have more groups than we can serve, volunteer retention in the larger sense is not an issue for us allowing us to focus on performance primarily.

River Watch's primary targeted decision maker is the Clean Water Act, specifically standards development, water body use assessment, impaired listings work and monitoring project restoration or documentation for restoration. Colorado Parks and Wildlife and local groups are our secondary target audience.

Our volunteer management model centers around contributions from school children and their teachers, we want to accommodate their schedules and needs. In 1989, schools made up 100% of our volunteers, now they comprise about 85%. Our volunteer management model has several key components contributing to our success:

- a. Clear expectations of both volunteer and us, documented in an annual agreement, that includes 12 performance measures we actually measure of each volunteer. If sampling does not happen, a plan is made to rectify or equipment is picked up and given to another group.
- b. Honorable method for us to say no to a volunteer, take their equipment and a way for them to say no to us after trying or serving.
- c. A minimum training requirement (\$300 one time upfront and four days, scholarships available) to receive equipment. One teacher two students, or two volunteers from adult group are trained together. Only conduct two trainings per year. This sets up a team ready to hit the ground monitoring when return home.
- d. Communication and support on how they are doing and the difference data is making. Really important because decisions are slow through the Clean Water Act versus result connected to a spill for example.
- e. Same equipment and methods for all volunteers, a clear quality control and assurance plan, each volunteer knows their role and why they do what they are asked to do.
- f. Annual site visits with each volunteer that includes unknown test they perform (we know answers they don't, answer questions, resupply and correct any issues we have).
- g. Minimal rewards (certificates from training, site visit and annual small gift), annual letters thanking principal or supporting organization, biannual newsletters characterizing difference data made that year and rotating basin mini watershed reports. Volunteers know they are part of real science and decision making and that alone keeps them performing, along with our acknowledgment and they see we work hard so they work hard.

Education is a fad business. Teachers jump in on the latest fad, do it for a while and then move. on to the next fad. We asked why our teachers stay involved for 5-20 years? Their response was it was real kids doing real science making a real difference. The way we designed our program it has fit into all the fads, interdisciplinary, hands-on, focus on math/science, state or federal curriculum standards, service learning and many more. Colorado is a state that allows each district to determine how its curriculum will meet state requirements. Our program is not for every teacher or person, but when there is a fit, it is usually a long lasting one. Teachers take equipment from job to job. Children of original teachers now teach River Watch. We do not have a curriculum, but instead of a study design. In our trainings we provide credit for teachers, discuss how to implement the program in their school or community and have many resources available to capture their attention. Teachers implement on their own time, create a class, create a unit w/in a class, independent study, service learning and/or a club as some examples. They decide the trade off between quantity and quality for the students. In training we not only provide intensive instruction and testing on how to test, but also on why we care about each indicator and how it is used for decisions. Trained students come back and teach at our trainings as well. We don't require a sampling day or time, but once in that month. This type of flexibility is one reason we have volunteer retention.



Photo from CORW: Volunteers sample for macroinvertebrates.

Recent barriers have inhibited teachers from doing this and much more for our youth. Overtime, legal hurdles and cut budgets have made it more complicated for teachers to get students to the river. Changing curriculum to teach to standards as eliminated ALL extra school programs including science fair, Olympiad of the minds and other popular programs. Ninety minute classes help and hinder. We work around and through these and in worse cases a teacher returns the equipment because they can't find a fit, not because they don't want to.



Photo from CORW: Volunteers conducting stream habitat assessment.

We selected schools to be our primary volunteer on purpose. Teachers and students first will always be in a community and always need to learn science. Teachers also have a predictable set of needs that we could develop then a consistent service and product model. Adult volunteer groups vary too much in too many ways. In the early years we conducted annual surveys to teachers asking them what worked, didn't and what need. That has led to a refinement of many things including our annual agreement where teachers have their principal sign it, so they can show the principal their agreement if they need to. We took the time, based on advice given to us, to develop a volunteer management plan and it has paid off.

The disadvantage is coverage. Schools are primarily located downstream, not in headwater stream orders 1 and 2. We have developed a partnership with Trout Unlimited to cover more remote areas that do not have communities or schools proximate.

Our motto has always been to let a volunteer try, they don't always know what they are getting into and their limits even though we try to vet that as thoroughly as we can. We have learned the hard way that many volunteers do not want to quit, they see it as a failure and so they won't quit, but need to. We have found ways to measure performance objectively so we have information to ask them to quit in a way that honors them.

Our hardest lessons have come with adult, non-school groups. It is more difficult to get expectations on the table. They are more likely to blame the program for their inadequacies or unmet expectations (we never agreed to meet) and that can cause personal relations damage. Also, no one values free, so payment has to enter in somehow. All this has led us to have a separate application process, agreement document and fee structure for groups. This has helped align expectations and minimize miscommunication.

**So many people said that this could not be done....but it was! And, now YOU can make a difference!**

Join River Watch by contacting us at [riverwatch.wildlife@state.co.us](mailto:riverwatch.wildlife@state.co.us) or (303) 291-7322. Or go to <http://wildlife.state.co.us/LandWater/Riverwatch/ParticipantInfo/Pages/Volunteer.aspx>