

WATER MONITORING

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Volunteers from the community meet on a monthly basis to monitor the water quality of the Traverse Creek Watershed. The Traverse Creek Watershed is in the top ten at -risk for water quality degradation because of the logging, recreation, mining, and housing in the area. The locations that we monitor are the Georgetown Nature Area, the waterfalls on Traverse Creek, and three places near Meadow Brook and Bear Creek Roads. The Resource Conservation District and the American River Conservancy trained about 20 volunteers last spring. Our group is called TraCkS, which stands for Traverse Creek Stewardship.

You might be wondering how we monitor water and how many instruments we have. The “how” is simple, we take water samples from each location and use the instruments to take the readings. We can then compare the readings to see if there has been any change. We have five instruments that are used to measure pH, potential of Hydrogen, turbidity, (that’s my favorite!), conductivity, and D.O or dissolved oxygen, and air and water temperature. pH is the amount of hydrogen in the water. This is important for the survival and growth of aquatic organisms. Turbidity is a measure for the clarity of the water. The greater the turbidity, the higher amount of algae, clay, silt, and organic matter is in the water. Excessive sedimentation in streams is considered to be the major cause of surface water pollution. Conductivity is a measure of how well the water can pass an electrical current. It is an indirect measure of presence of inorganic solids, such as nitrates, sulfates, and iron. Dissolved Oxygen is the amount of oxygen dissolved in the water. Fish need oxygen in the water so they can breathe. Temperature is a measure of how cold or hot the water is. Fish and aquatic organisms have a specific temperature range in which they can survive.

We have been collecting data for seven months, and have seen some interesting changes. For example, in the Georgetown Nature Area, the pH range of Alder Creek is 7.1 to 8.1 and can easily support all kinds of aquatic life. Our research shows as temperature increases pH decreases. The average pH is 7.2 over the last seven months. Another test that we do is turbidity. The normal turbidity range that animals and fish can live in is 1 to 8 JTU. In the Nature Area creek the range is 2.2 to 7.86 JTU, with the average being 5.18 JTU. By monitoring the different streams and using different instruments, we can identify problems and monitor pollution. Water monitoring helps the water, the animals that live in it, and the watershed.

I am a sixth grade home school student and have been participating in water monitoring since last year. I have been trained and the monthly monitoring times are days I look forward to. My whole family does water monitoring, and enjoys it very much. If other people would join and monitor water with us, we would have more help keeping the water clean for animals to live in, and for us to drink. I like meeting new people, and making new friends, and just having fun! Meeting Susan Whittington, my teacher, was the best thing that happened to me last year.