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Place Based Science and Education in the Clearwater:
Not Just Chalkboards and the Nature Channel Anymore
by the Clearwater Resource Council

In recent years our local schools, teachers and students, school administrators and volunteers have worked to bring our local environment into the classroom. Or more accurately, to move the classroom outside linking students with the natural resources and remarkable place we call home. Recent examples include the work they are doing in our streams and watersheds, forests, trails, and even within the business community via the new Seeley Lake Elementary Outside Learning Center. The students have been documenting their work (see the “Junior Journal”) in the *Pathfinder* and on the web, (check out the link on crcmt.org) strengthening the learning experience and giving the rest of us a better view into our own watershed. This is a great example of what educators call “place based education” that brings real world lessons from the place we call home. It showcases our schools and it has also brought substantial benefits to our community.

Place-based student work brings new funding sources

Clearwater Resource Council and our partner organizations, have had the privilege of working with some of the teachers and school related projects. As part of the normal process of searching for funding to do our work it’s often useful to consider the benefits, in new funding and new information, that these efforts generate. Recently we added some of those benefits up from just two efforts: Patti Bartlett’s “Morrell Riparian Classroom” where students, teachers and volunteers began restoration of a degraded section of Morrell Creek, and Tonya Smith’s “Students in Action” where water quality in Morrell Creek and the effects of climate change have been a focus. We can account for more than \$130,000 in the last five years. This includes the direct funding that paid for equipment, supplies, local labor, and laboratory time as part of those projects. It also includes funding that expanded the work at our schools to a larger network of streams, schools and communities in the Blackfoot and Swan watersheds. Our generous contributors include the Seeley Lake Community Foundation, the State of Montana, Plum Creek Timber Co., the Roundtable on the Crown of the Continent, the Forest Service, and Missoula County.

Student research highlights local stream conditions

The information generated through the schools has been important as well. New data on stream flows and water quality are telling us about some key sources of pollution that directly control the conditions in our lakes. Those data can help guide or evaluate restoration in the future. The data on Morrell Creek provide a baseline to help understand changes that are occurring with climate and watershed development and a foundation to understand existing conditions and the changes in streams across the entire Clearwater Watershed.

One example of new information is from stream flows and temperature in Morrell Creek. Most people noticed that 2015 was a very strange year for weather, but the data from the schools provides some real perspective. In “normal” years we see the peak in runoff in late April or May. In 2015 high flows happened in early March, we never saw a real peak and summer flows were lower than we’ve ever seen. The stream was also warmer than we’ve ever seen. This very different year cannot be attributed directly to climate change, but it is an example of the sort of years and “water events” that scientists predict should be more and more common in the future. The data collected on Morrell Creek by our teachers and students are beginning to contribute to a much larger perspective in the scientific world. Our schools are providing important benefits for our community and they are also doing real science on real issues that may benefit others.

Seeking volunteers for new stream monitoring project

In 2016 CRC will again build on the stream related work at the schools. We are sponsoring a new project to collect information on streams throughout the Clearwater watershed with Morrell Creek as our calibration point. We will need help from volunteers who can visit streams on a weekly basis from March through June to collect samples that parallel the work at the schools. Since many of the sites may still be snowbound in March and April, we’ll need volunteers with snow machines (or perhaps ATVs) who are willing to make a trip to several of those streams each week through the runoff in March-May. If you’re interested contact Joann (370-2483, Joann@CRCMT.org). You can learn more about CRC at crcmt.org