**Lakes, Streams and Roads …… what's the link? EOE for Clearwater Resource Council**

**By Bruce Rieman**

If you've followed the ongoing discussion about the lakes in the ***Clear***water valley you probably know that a lot of folks are working to make sure they stay,…… clear. As a community we have a lot invested in our lakes and the watersheds (the upstream basins or land areas that drain in to the lakes). Community volunteers spend time on each of the major lakes every couple of weeks during the summer measuring the water clarity. We have had graduate students and professors from the University of Montana summarizing information from past and current studies to figure out if things are getting better or worse. And we have agencies like the Forest Service and MT Fish Wildlife and Parks, and local groups like the Clearwater Resource Council, Big Blackfoot Chapter of Trout Unlimited, the Blackfoot Challenge and others working to identify and prioritize management in the watersheds that will make sure we protect important streams and, in turn, the lakes downstream. The Forest Service, The Wilderness Society and several groups including the Blackfoot Challenge, Swan Ecosystem Center, and the Clearwater Resource Council are partnering in something known as the Southwest Crown of the Continent Collaborative. The collaborative started three years ago and will help guide the next 7 years of funding, which could be over 40 million dollars spent treating the forest, moderating fire-fuels, and implementing watershed work in the Clearwater, Swan and a portion of the Upper Blackfoot basins. Part of the focus is improving watershed condition that is important for water quality of our streams and lakes.

So what's the big deal about watersheds and lakes? There are two key points to answering that question: 1. The lakes are focal point of our community. They are a source of drinking water, a place to fish and play, important habitat for fish and wildlife, and a critical piece of the scenery. They are key to our economy, our property values, our lifestyle, and the vitality of our community. The lakes really help us define our sense of this place. And 2. Lakes sit at the bottom of their watersheds, and just about everything we do or put in the watershed can make its way to a lake sooner or later.

The result is that the condition of our lakes can reflect past activities higher in the watersheds. We know that in the 1970s and 80s, we had some real problems in some watersheds where erosion from a lot of dirt roads and a lot of timber harvest introduce pollutants – mostly sediment, and "nutrients" like nitrogen and phosphorous can change the character of the lakes. Roads have been a focus of concern across our watersheds for a long time… and not just in the Clearwater, but across the entire western United States. And that can be another touchy subject.

Roads and trails are incredibly important to everything we do. We need them for access to get to our homes, manage forests, hunt and fish, to fight fires, and for recreation on snow mobiles, ATVs, bikes, and even on foot. Roads might be as important to our economy and our life style as the lakes. But roads also come at a cost. They are extremely expensive to build and to maintain. If they are built in the wrong places or are not properly maintained they can be an important source of erosion and downstream pollutants. So what are we to do? How do we have both?

Like most things in life there are tradeoffs that involve potentially conflicting uses or values…. like roads and lakes. Fortunately in this case we should be able to look at those tradeoffs with knowledge about how roads and watersheds work. The bad news is that we have a lot of old roads, more than 2,500 miles in the Clearwater basin. Maintenance is expensive especially for roads that were built some time ago when we knew less about how to minimize the negative effects. There simply isn't enough money and time to maintain or repair all the roads in the basin. The good news is that not all roads are created equal. Preliminary results of work by scientists from the Forest Service, local volunteers, and other groups working with the Southwest Crown project indicate that a few roads cause most of the problems. We also know that not all roads are critical for management, access, or recreation, that roads effects can be minimized with the right actions, and that some roads that are critical can be moved. All that means is that it should be possible to make thoughtful tradeoffs by focusing available $$ for maintenance in some key places where roads are critical to retain, removing or closing roads that are particularly damaging, but not critical for other reasons, and carefully managing the roads that are key to all. Certainly this is not a simple process. It requires good information and thoughtful participation by all that have an interest. The funding needed to learn what we need to pull it off is limited, but those $$ are being stretched by volunteer time, grants from non-government sources, other restoration and research collaborations that are interested in the same problem in other places, and some hard work by folks in the Southwest Crown project and our community.

One way we are trying to learn more is to carefully measure how roads and watershed condition influence pollutants (like eroding sediment) that flow to streams and lakes. The Clearwater Resource Council, Forest Service and Southwest Crown Collaborative, and local volunteers are starting a new project this spring to measure nutrients and turbidity in watersheds that have a wide range of road effects. The work will help us see if road maintenance really is important for the lakes, to see whether some watersheds are recovering as anticipated, and to guide the most efficient use of funding for maintenance of roads across our basin. In the spring and early summer of this year volunteers will collect water samples from selected streams on Forest Service lands, or other streams that they may be interested in, to help learn more.

If you are interested in volunteering to learn more about our streams in the Clearwater contact Joann Wallenburn 210-8453 joann@crcmt.org, or Bruce Rieman 677-3813, brieman@blackfoot.net.