## Lake Remediation October 15-November 10

This is a diary of 3 very busy weeks of lake clean-up. Many things happened before October 15 and fish clean-up and drain planning have occurred since November 10. My goal is to keep this sort of journal for each phase of the remediation plan.

Overview: As you all know, the lakes have been drained, the fish have been killed and 99% of them have been removed. We were not successful with our removal of sediment and weeds because not contractors would go into the lake with large equipment. We will see a reduction in weed growth next year and will have to manage them with other means.

We have managed to stay right at our estimated budget. While our equipment costs went down, our Rotenone costs, shipping costs on the aeration and Manual Labor costs went up! We also have included the price of electrical work in this budget which was not in the original estimation. We can plan on a reimbursement of approximately \$3000.00.

October 15- Les Carriel and Eric Fraleigh managed to open the first gate valve. It was not easy. The gate had to be opened with a jack since the nut system had badly corroded. Les, Eric and Gaylynn Mooney monitored streams and coverts downstream with the help of SBSWRD and Swaner Nature Preserve for the following 2 weeks and Les opened the valve more each day.

October 25- We started letting water out of the eastern drain. Les and Gaylynn maintained a pump with the help of Bailey's crew. We got the lake down to 1 acre foot of water!

October 28- November 1-Mike Mooney, Gordon Lange and Dave Rajamaki removed fish.

October 30- Les, Eric, Gaylynn, Matt Lindon engineer from Jack Johnson and a contractor met to discuss drain structure plans. We had a great brain storming session and a clear picture of what needs to be done.

**November 1-** Les met Cross Marine and we capped off both of the drain openings. The lakes immediately gained unplanned water. Mountain Regional and Summit water were taking as much as they could from the spring but we received more than we planned.

November 2- Charlie Thompson, Mike Mooney and Gaylynn began the Rotenone treatment in the lake. We initially treated 2 acre feet of water but gained approximately 1 acre foot per day. We posted signs and fences around the drip barrels. Gaylynn and Julia Loughlin handed out safety information to all lake front homeowners. Beth McNichol, Gordon Lange and Buck Buchenroth installed the aeration system in the upper lake.

**November 3-** Beth, Gordon and Gaylynn cleaned up fish all day with the help of a 5 man crew. Buck installed aeration with the help of Brad Bailey and 3 of his employees. Charlie and Gaylynn recharged barrels.

November 4- Beth, Gaylynn, Nancy Robinson, Les, Buck and Herb Lepley removed fish all day. Charlie and Gaylynn recharged barrels.

November 5- Beth, Gaylynn, Les, Mike, Grant Hedges and Herb removed fish. Mike and Charlie recharged barrels.

November 6- Mike, Gordon, Les, Beth, Gaylynn, Grant and Brian Robinson removed fish.

November 7- Beth, Gaylynn, Mike and Laurie Lange removed fish. Mike and Charlie recharged barrels and added more rotenone to the reservoir. Les and Gaylynn met with Dam engineers. Les and Matt Lindon scoped the horizontal pipes exiting the drain structures.

November 8- Mike removed fish and recharged barrels with Charlie.

November 9- Eric, Les and Gaylynn met with a representative from Jack Johnson and a contractor who builds the drain structures. He is preparing two different bids on two different structures.

November 10- Les had the drain structures surveyed.

Overall: we have been very successful. We are almost certain that we have completely killed all of the goldfish. We removed over 10,000 pounds of goldfish. This will drastically decrease our load of nutrients. We rescued several trout. We have two aeration systems installed and ready to be wired. We are getting close to working designs on the drain structures and know what it will take to bring our drain system up to modern standards. We are also very close to securing the non interest loan from the EPA. I have worked very closely with Shelly Quick to make sure it will happen.

I spoke with a biologist who believes that our lake was so close to dead that we would have had a disgusting situation on our hands during one of the next couple of springs. If our water would have become toxic enough to kill all of the goldfish, we would have had problems draining and cleaning up. It is nice that we did it when we did and managed the problem when it was not an emergency situation.

Thanks to all who have put time and effort into this project.

Gaylynn Mooney