

Merrill Creek; Just what were they putting in the water?

By Val Aubrey, Publisher of Eagle Lake Fishing Information and Network

Well, the best place to start is always the beginning when attempting to tell about a series of observations that led to needed changes to protect the lake. However, neither government agency (state and federal) were willing to acknowledge or discuss the problem because the problem was so disgusting that the public would have been outraged.

The folks who have fished this lake for decades have always known that the algae bloom can not only affect the fishing but affect the recreation if one didn't want to swim in brown slimy water. Generally, the algae blooms in summer and for a few weeks it can make keeping a trolling line clean nearly impossible. It can also appear uninviting to swim in but in normal years we never really paid that much attention to it...but we never had seen it 3 to 4 ft thick on the surface of the lake as we did in 2004. It was so thick that it would plug up your water pump as well as chew up your impeller in a matter of weeks. It was then that we began taking notice.

This article is my attempt at lining out our observations and the end result of our persistent and relentless pursuit to protect Eagle Lake. It isn't because we want to, it is because we HAVE to. This article describes only one out of many problems that our lake has, trust me, there are many more. Here we go.

Living up here in winter provides us with some special benefits such as having the entire lake to ourselves...well, nearly to ourselves. You would not think there is much going on in the winter at Eagle Lake but it is just a matter of looking or being there. We enjoy the winter wildlife but we also keep our eyes on the melting of the local snow and the flowing of the creeks.

In 2004 Merrill Creek at the campground was looking terrible. There was a lot of ugly water that grew grasses and "iron algae" (the red stuff that looks...well...like rusty iron goo) despite being in winter. The iron algae also produces an oily sheen to the water...[\(PHOTO\)](#) but what could be feeding it so well that not only iron algae thrived in winter but our typical brown algae that grows in the lake in the summer was doing quite during a season that normally doesn't allow it to actively grow or bloom. Lassen National Forest (LNF) claimed the water was from the "intermittent springs" near the campground and it was normal. For decades, LNF had a long wide board at the creek crossing of the walking trail to keep walkers feet dry when crossing. No one including LNF wanted to get their feet wet in that water. Way back when I was a kid I used to play in that very area and we never saw a large amount of yucky water ever flow from the "intermittent springs" especially to the degree where it caused the iron algae to just go off the charts or cause an algae bloom in the lake in March. However, we would have to wait to continue our investigation as Merrill Campground was going to be remodeled in 2005. (The dumping of the creosote barriers that were removed is a completely different story).

We continued to check on the creek during construction and had a major fish rescue in spring of 2006 just before the newly remodeled campground was to open. The water flowing from above the road seemed clearer to us than the water downstream of the paved road. The downstream water from the "intermittent springs" down had a milky color to it before it became red and mucky. Shortly after that fish rescue and on our way to the next creek needing attention we noticed that there was a large "algae bloom" in front of Merrill Campground...in March. (?) Seeing a large mass that was a few hundred feet wide and stretched the length of the beach that stayed localized for several weeks was unusual to say the least. This "bloom" lasted for weeks before winds scattered the localized algae around the south basin...just in time to have cleaner water off the beach for opening weekend (which was also the grand reopening of the newly remodeled Merrill Campground). In our travels we noticed a similar "bloom" in the lake off Christie Beach and Christie Campground but it was very minor compared to the one off Merrill.

The water levels in the "intermittent springs" on Merrill Creek at the campground continued to rise during the 2006 season and the iron algae simply went crazy. Just about the time that LNF was winterizing their sewage and water systems we noticed that the water level was increasing in the "intermittent springs" and some of it froze in layers as it accumulated. Of course, one would drain fresh drinking water down the gravel cisterns while blowing out the pipes for winter but what if doing so flushed out the accumulated grey water and residual

soaps from people pouring their washing and dishwater into the cisterns?

By mid January when every other spring was frozen over, but these springs kept flowing ([PHOTO 1-2-07](#)) and added layer upon layer of ice ([PHOTO 1-19-07](#)) and. We didn't believe that it was so much sewage or "black water" but it wasn't normal spring water either. The water flowing under the ice continued to have a murky color to it, which again is unusual...even in January. Dribbles of this water flowed to the lake over the winter but by March the ice cube that had formed over the winter below the "intermittent springs" had melted quickly and everything that grew in the water over the winter rushed downstream to the lake. ([PHOTO upstream 3-12](#))

The water flowing in the last photo was only flowing from the "intermittent springs" to the lake. Merrill Creek had not flowed under the paved road (A-1, Eagle Lake Road) from above at this time. So in 2007 we asked Lahontan Regional Water Quality Control Board to come out and investigate this as well as the dilapidated sewage pond liners at the Eagle Lake Sewage Ponds site above Merrill Campground.

Lahontan requested "as built" plans of the sewage lines that crossed the creek channel underground. We also requested a copy ourselves. Lahontan didn't believe that the creek or intermittent springs were being contaminated as they had seen similar happenings at Lake Tahoe with iron algae. In spring of 2007 there was a very thick algae bloom again directly off Merrill Campground and again, it had drifted off before opening weekend. Over the season and into fall of 2007 water levels in the "intermittent springs" remained high ([PHOTO 10-18-07](#)) and the algae blooms that summer seemed to last forever. However, about now we are seeing a similar happening off Christie Beach too, but we can only do one thing at a time.

The state water boys did not want to run any water tests on the "spring water". Well, that would be a normal conclusion if it were limited to its original use. But, LNF remained in denial and stood strong on their "facts" and only performed cheap limited tests for unusual levels of E-coli to indicate whether it was sewage leeching into the "springs". Well, needless to say, other water tests could have been done to find out exactly what WAS in that water. LNF refused to run any tests that would indicate grey water. Why should they, it was only drinking water.....oops...well that is what it was supposed to be but I have never seen pure drinking water cause the problems I saw in the "intermittent springs". LNF didn't need to test the water, they knew exactly what was in it. I believe it was for the reason you are all thinking too....no tests, no proof of anything.

So we took a little trip to a water testing agency who just happened to contract with the state for their water tests. We were directed how to take the water samples properly and were issued proper bottles from the company. We were also instructed on how to transport the water as to not disturb the quality of the sample. With my background, the company didn't have a problem accepting my ability to collect them. We followed all the directions from the company; dotted every "i" and crossed every "t". We did have E-coli run on the samples but our main concern at this point is just what is fertilizing the algae's.

Our water samples from the "intermittent springs" and one other area downstream showed massive spikes of ammonia (the worst type for fish not total of both types) and the phosphates were literally "off the charts". Both elements separately and combined made great fertilizer with lots of nitrogen. Now we had something to go on...but of course Lahontan and LNF laughed off our water tests because we weren't "educated" in proper sampling. However, I was responsible and educated enough to perform bio-medical maintenance and medico-legal documentation of testing and calibrating medical equipment that your very life depended on during surgery but not so for bonehead water tests. Well, I didn't buy that song and dance either but Lahontan seemed very gullible when accepting information as truth from LNF. Of course, this is only one problem the government agencies have; having to believe that other agencies are telling the truth. To the agencies and those who operate them, citizens don't know anything and are NOT credible witnesses.

The "as built" plans were finally submitted by LNF for the sewage and water lines crossing the creeks but one thing stood out and that was the gravel cisterns at the drinking water faucets did not drain into the sewage system. It seemed that their drainages were channeled to the creek in some areas and towards the lake in others. One would think that fresh drinking quality water would not cause a problem if channeled into a lake, creek or "intermittent spring". Heck, it is just pure fresh water from the faucets, isn't it?

In 2007 a few of the long time campers made contact with us and quite a few more in 2008 when guidelines in the campgrounds appeared to have changed. It seems that in the past campers (mostly those folks roughing it in tents or small campers as well as self contained travel trailers who didn't want to pay for full hook ups) had been required to pour their soapy dishwater/washing water in the gravel cisterns at the drinking water faucets rather than on the ground at their campsite. Folks also admitted to brushing their teeth and washing their hands at the faucets for drinking water.

Now this is beginning to make sense. How about you? Figure it out yet?

Why would LNF want to fill up their dilapidated sewage ponds and septic and/or holding tanks with fresh drinking water that spills over from filling jugs that people take back to camp when it could easily be channeled back into the environment and be used for wildlife and flora? THAT had been the idea behind the design. What happened from design to what appears to be misuse or abuse regarding this alternate method of disposing of grey water? Was it Intentional or accidental? No one will ever know or tell, besides the ground should filter out any chemicals before reaching the lake, that is, unless the "filter" or the sand and dirt, has been overloaded over many years and unable to do its job until it finishes filtering the load it has.

In 2008 at Merrill Campground LNF installed special sinks for grey (sink) water (dishwater, hand washing water etc) that are connected to the sewage system as well as installed signs at the drinking water faucets regarding hand washing. (PHOTO) Folks camping at Christie Campground reported being contacted several times a day by the camp host regarding changes in "campground rules" for dumping their grey water. Grey water was now to be poured down the toilets and flushed rather than the gravel cisterns at their drinking water faucets in Christie Camp.

Water levels at the "intermittent springs" at Merrill have been reduced to a dribble, even at maximum capacity at the campground and LNF no longer needs the board at the creek crossing to keep people's feet dry, it was removed it last year. (PHOTO at crossing 12-2009, PHOTO downstream 12-2009) The algae bloom in the lake in 2009 was a fraction of what it had been and even though it took time, the winter algae blooms off Merrill Campground have nearly (not completely) disappeared. The water at the "intermittent springs" remains but it is much cleaner, at very low levels and only in specific locations in the creek channel.

We commend Lassen National Forest for installing the sinks, signs and making a few changes.

Now, what do you think was in the water at Merrill Creek?