

IS THE ROGUE RIVER SAFE?

Presence of Heavy Metals from Dam Removals Harmful to Fish and Humans

by Curtis Hayden

Seeing the words “hexavalent chromium” and “drinking water” in the same sentence should scare the bejeezus out of anyone. The material, also known as chromium-6, was made famous in the movie *Erin Brockovich* in which 50% of the population of the small town of Hinkley, California, came down with cancer after PG&E dumped chromium-6 into unlined ponds, which seeped into the groundwater. PG&E finally settled for \$335 million.

Thus, when I received a letter from Herb Carter, a concerned citizen, about the presence of a “heavy black magnetic material,” including chromium-6, in the Rogue River, it caught my interest.

According to Carter, “Since the removal of two dams, and especially the Gold Ray Dam, many heavy metals have been disturbed and released into the Rogue River.”

Wanting to learn more, I arranged for an interview with Carter on Thursday, May 19, at the Powderhorn Restaurant. With him was Michael Cope, a local environmental investigator, who has been studying the composition of the rocks which wind up in the Rogue River for the last twenty years.

“When Savage Rapids Dam was slated to come out in the summer of 2009, I was concerned,” Cope said. “So I took sediment samples before

and after the dam removal. The Rogue River has always been a source of magnetic metals, primarily because we live in one of the most minerally diverse areas in the entire world, so I wasn’t surprised to see an increase in those metals after the dam came out.”

While the metals eventually stabilized by dropping to the center of the river, they quickly spread over beaches and spawning beds.

They also gummed up the works at the City of Grants Pass’ Water Filtration Plant and the Grants Pass Irrigation District’s new pumps. Massive movements of sediment were required to unplug the pumps. GPID also had to replace one of the new pumps after corrosion by an unknown source that ate its way into the system. The seal, as well as corrosion, appeared to be the problem.

In the spring of 2010, Cope sent a sample off to Reed Laboratories in Carlsbad, California, which found a whole host of magnetic material, including chromium, which came in relatively high.

That was not surprising since Josephine County was one of the leading sources of chromium mining in the world from 1917-1958. (Note: Not all chromium is bad for the human body; it’s just the nasty little chromium-6 we have to be concerned about).

That, however, was just the tip of the iceberg. In the summer of 2010,

the Gold Ray Dam east of Gold Hill was removed. It was a defunct hydroelectric dam that was used mostly for recreation, and the Jackson County Board of Commissioners decreed it should be removed in lieu of having to pay for new fish ladders.

"All of a sudden I started seeing this black goo showing up on the beaches," Cope said. "It was full of heavy metals. I could take a sample from the river, or even from the sand, and it would stick to a magnet. It made me wonder exactly what was in there. In all my years of testing, I'd never seen that much heavy metal sediment in the river or on the beaches."

Taking It to the Top

Another person concerned about chromium-6 is Allen Ehr, a local environmental specialist and investigator who has been monitoring environmental safety concerns for the last 25 years. When he was shown the data from Reed Laboratories, he began pestering the City of Grants Pass about testing for chromium-6.

"They test every year for total chromium, and except for a little spike in 1986, the data always came back as 'not detectable' according to EPA standards," Ehr said. "The City always said they were safe with chromium, but they were never specifically testing for chromium-6. They told me it was too expensive."

Ehr decided to take it to the top. He wrote to the EPA in Washington and told them there could possibly be a chromium-6 problem in the drinking water. The EPA agreed there could be a problem and, in fact, released a study, "Toxicological Review of Hexavalent Chromium" in September 2010.

Ehr and the EPA were on the same page, and on January 11, 2011, the EPA recommended testing for chromium-6 in drinking water in municipalities all across the U.S. Grants Pass was one of them.

According to Jason Canady at the Walter Filtration Plant, they've tested for chromium-6 for the last four months. "We've found less than one part per billion in each of our tests except for March, which was a little over one part per billion. We, however,

think that was an anomaly or lab error."

As far as City Manager Laurel Samson is concerned, no one knows what a safe level of chromium-6 is. "No standards have been yet to be set by the EPA," she said. "Right now they're just having everyone testing for it, so we're helping them gather data. We can't make any decisions on what is safe or how to go about dealing with it until we hear from the EPA. When they release their standards, we'll be able to make a decision."

Allen Ehr doesn't want to wait.

"I've had a lot of close friends and family die of cancer, and everything I do revolves around protecting the public," he said. "Chromium-6 causes various kinds of intero-gastro-intestinal cancers, including breast and pancreatic cancers. Two years ago I called the hospital and asked how many cases of cancer were of the intero-gastro-intestinal variety, and they said 17.2%. This year, after both of the dams were taken out, that number went up to 42.6%. You can't tell me there's not a connection."

Maybe Those Dam Removals Weren't Such a Good Idea After All

Both Cope and Ehr believe Gold Ray Dam is responsible for the black beaches and gooey mess in the river, including the possibility of elevated levels of chromium-6. Cope, who deals with miners, finds it very ironic that government is blithely breaking its own rules.

"When the intake boxes at the Grant Pass Water Filtration Plant got stopped up, the City was dredging tons of sediment back into the river," he said. "If a miner was caught doing that, he'd be cited, heavily fined, and responsible for the cleanup of what they dredge. Not only that but at Gold Ray Dam, they were in such a hurry for fear of lawsuits that they put in on the fast track without getting all the necessary permits. Again, if a miner had done that, he would have been arrested."

Ehr was even more apocalyptic when it came to Gold Ray Dam. "When and if the City of Grants Pass finds

that their drinking water has been inundated with unacceptable levels of chromium-6, there will be lawsuits against every government agency involved in the removal of Gold Ray Dam," he said. "That includes Jackson County, which removed the dam without doing the proper studies, and the Department of State Lands (DSL), which gave the final approval."

According to Ehr, the State Legislature is California is already considering a bill "to establish a primary drinking water standard for hexavalent chromium on or before January 1, 2013.

"It will be set at limits far below what is currently found in Grants Pass drinking water," he said. "I would assume the EPA would eventually set similar standards for chromium-6 across the county."

Oh, the Irony of It All

This whole episode has Mike Cope scratching his head. Is the black magnetic material the source of the chromium-6?

"There are a number of problems with the removal of these dams," he said. "They did it to help the salmon, but the presence of these heavy metals has literally destroyed the salmon beds. They're now lined with a concrete-like material which hampers spawning. They installed pumps at Savage Rapids Dam, which get corroded and have to be replaced. Sediment buildup in front of the pumps means they have to disperse more sediment back into the river, destroying more spawning beds. Our beaches are now encrusted with black heavy metals, and it's not safe to walk on. And the worst yet—our drinking water may be compromised."

Sneak Preview **The Rogue Valley's News & Review**

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