What’s The Damage?
Who’s Responsible?
Can It Be Fixed?

Mining's Legacy Hits Home
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By Ann Katzenbach

It’s been over a month since two streams in the Patagonia Mountains that feed into Harshaw and Sonoita Creeks were found to be flowing with orange water, but so far there are no clear answers as to the origin of the leaks, what metals and chemicals are in them or what can be done to mitigate the flows. Many agencies have become involved in assessing the problem, including the Arizona Department of Environmental Quality (ADEQ), the U.S. Forest Service (USFS), Arizona State Parks (ASP), U.S. Geological Survey (USGS), Environmental Protection Agency (EPA), and the University of Arizona (U of A).

Heavy rains in September apparently flooded old tunnels in the Lead Queen and Trench Camp mines. Experts familiar with the mountains and mines say there could be some aluminum, iron, manganese, sulfur, lead, silicon, copper, or cadmium in the stream, but definitive results are still pending. Floyd Gray of USGS collected the water samples that are being evaluated. He was quoted by the Arizona Republic as saying when he saw the contaminated streams, “... everybody’s freaked. We’ve never seen it like this anywhere in the mountain.”

ADEQ works closely with a trust that was set up in 2009 as a result of a lawsuit brought against Asarco, the mining company that once owned the Trench Mine here--as well as mines and smelters all over the United States. That trust oversees approximately 18 sites in 11 states, and it has paid out settlements of $70 million or more. The Salero Mine (in the Santa Ritas) and Trench Camp Mines were allotted a combined sum of about $3 million for cleanup.

ADEQ and EPA have been concerned about surface and groundwater pollution at the Trench Camp Mine for awhile. In the 1990s, Asarco created an artificial wetlands to treat the water that discharges from the mine. ADEQ thinks that wetlands overflowed in September, but that other factors are also at play--so they can’t be sure what the source of contamination really is.

According to Wendy Russell, spokesperson for Patagonia Area Regional Alliance (PARA), when the first observers came from Tucson, they all could clearly see the source of the leaking orange water, and were in agreement that it was coming from both the Trench Camp tailing piles and the artificial wetlands. She says she isn’t sure why ADEQ is now saying it is uncertain about the source.

The USFS is also awaiting the results of Gray’s tests. They are responsible for the other source of contamination, the Lead Queen Mine. Unlike ADEQ--who can go to the Asarco trust--the Forest Service has no money in their budget to deal with mine clean ups. There are abandoned mines all over Forest Service land in Arizona that were there before the federal agency existed. These mines are like time bombs because none of them was closed with care. Walk almost anywhere in the Coronado National Forest and you will see signs warning of open mine tunnels and shafts. When contamination occurs at the level of this recent event, the USFS has to apply for funding to mitigate the hazard. According to Heidi Schewel, District Ranger in Sierra Vista, they have received $150,000 in emergency funds and a group of geologist, hydrologists and engineers will evaluate more mines in the upper Harshaw area. From these surveys, they will develop a mitigation plan.

Although a determination has not yet been made as to the water samples submitted by Floyd Gray, recent tests of Patagonia’s drinking water show it to be safe to drink. As for Patagonia Lake, Robert Casavant, Natural Resource-Science Manager for Arizona State Parks says “Fish and lake waters are sampled regularly at the state park. At this time, ASP is not aware of any direct impact that affects its resource management and/or public safety missions at the lake.”

Dr. Peter Reinthal, a professor at the U of A, has been studying Humboldt, Alum, and Harshaw Creek’s water, plant and animal life for some years. He was slightly less definite, saying that he worries about the effect of mining on all the waterways in the region, not just from contaminated water but also from mine tailings dust that gets into the air. His studies have shown that Alum Creek has a pH of (continued on page 4).
Sierra Vista District Ranger Mark Ruggiero signed a Decision Memorandum (DM) for the Sunnyside exploratory mineral drilling proposal by Canadian mining company, Regal Resources, granting the drilling project approval with a Categorical Exclusion designation.

A Categorical Exclusion project is considered to not have significant impacts. It's a category that is exempted from the National Environmental Policy Act (NEPA) requirements to prepare an Environmental Assessment or Environmental Impact Statement, both of which would analyze potential impacts of a proposal.

The Sunnyside mineral drilling project is located on the Coronado National Forest in Humboldt Canyon in the Patagonia Mountains, roughly six miles south of Patagonia. The project is also located within federally protected critical habitat for jaguar and Mexican spotted owl. The DM declares that the drilling project “may affect, not likely to adversely affect” threatened or endangered jaguars, Mexican spotted owls, ocelots, and lesser Long-nosed bats.

The Patagonia Area Resource Alliance has expressed concern about the potential effects that the Sunnyside drilling project would have on the Town of Patagonia municipal supply Watershed. The DM states, “If project water is purchased from a supplier within the Harshaw Creek watershed or upper Sonoyta Creek, the Town of Patagonia municipal supply may be affected.” Furthermore, “quantitative scientific studies have not been performed by the Forest Service regarding the water supply for the project and the possible effects to the town.” The DM concludes, “Since the location of the water supply is unknown, the water supply of the Town of Patagonia may be totally unaffected as the supply source may be drawn from an entirely different groundwater basin.”

There is no objection or appeals procedure offered by the Forest Service for Categorical Exclusion decisions. They are final. After accepting the conditions required by the Decision Memo and posting a reclamation bond, the Sunnyside drilling project will be allowed to begin in Humboldt Canyon. A start date has yet to be set.