History Repeats Itself: The "Rush" for Metallic Minerals in California by Leah Gardner

With the skyrocketing prices of gold, silver, iron, and other metallic minerals, combined with new, more efficient mining technologies, California is seeing a great deal of renewed interest in mining for these valuable commodities. Perhaps it's not the frantic pace of the '49er days, but Lead Agencies are being flooded with inquiries into the requirements to carry out gold exploration as well as to re-open historic mines or permit new mining operations. From the Oregon border to the "Mother Lode" region to the Mojave Desert, OMR is reviewing reclamation plans from operators in search of profits mining precious and industrial metals. For today's miners, SMARA has replaced the Colt .45 as the law of the land.

Ghost towns coming back to life

Some of California's historic mining districts, complete with their once bustling "ghost towns", may be coming back to life and California may be on the verge of a new version of the "Gold Rush". As new projects are permitted in these areas, many of the legacy features of abandoned mines – such as dangerous shafts and toxic wastes - will be remediated in the context of modern environmental laws, regulatory requirements, and conditions of approval, while other features of historical value will be preserved. Here are a few projects that OMR is aware of that are currently in some stage of the permitting process:

Calico (San Bernardino County) – In 1881, four prospectors opened the the Silver King Mine, which ranked as California's largest silver producer in the mid-1880s. During the peak of silver production during 1883 to 1885, Calico had over 500 mines. Calico Ghost Town is now a San Bernardino County Park well worth a visit to get a glimpse of the past. Several companies are looking with renewed interest at permitting silver mining in the Calico Mountains that form the backdrop to the town.

Darwin Mine (Inyo County) – The Darwin Mine has been recently permitted for a return to active underground mining of lead, silver, tungsten, and zinc. Darwin's peak population in the late 1870s was 5,000 people and the mine produced intermittently from 1874 up unitl1952.

Cerro Gordo (Inyo County) - The remnants of the once-thriving mining town of Cerro Gordo looks down on Owens Valley and the east side of the Sierra mountains from 9,000 feet high in the Inyo Range. From this abandoned town, reached by eight miles of a steep, winding dirt road, flowed as much as \$17,000,000 in silver, lead, and zinc

during the 1860s and '70s. The ore was shipped across now-dry Owens Lake. Permitting is currently underway for exploratory drilling for gold and silver.

Bodie (Mono County) – Bodie State Park is the best-preserved California gold-mining ghost town and once had a population of nearly 10,000 people. The town is named for Waterman S. Bodey who discovered small amounts of gold in hills north of Mono Lake in 1859. The glory days of the gold and silver boom here lasted from 1877-1884, and by 1888, the Bodie district had yielded more than \$18 million from its rich deposits. Currently, gold exploration is being carried out in the nearby Bodie Hills.

Iron Age Mine (San Bernardino County) –The Iron Age Mine is an abandoned iron mine located in the old Dale Mining District in the Pinto Mountains east of Twenty-nine Palms. The mine operated from the 1930's to the 1960's and the metal was very important to the WWII effort. U.S. Iron recently confirmed the company's plans to reopen the mine, taking advantage of technological advances that allow for the use of fine iron ore in the making of steel. They plan to clean up some of the tailings and waste, using a giant magnet to lift iron ore tailings out of the soil, before doing any additional excavating.

The Idaho-Maryland Mine (Nevada County) - The Idaho-Maryland Mining Corporation, a subsidiary of Emgold, is in the process of permitting the reopening of the historic Idaho-Maryland Mine, once California's second largest underground gold mine producing about 2.4 million ounces of gold from 1861 until 1956. With the City of Grass Valley as the Lead Agency, a Draft Environmental Impact Report (DEIR) was completed in 2008 to reopen the mine and a revised DEIR and Permit Application are expected to be distributed early next year.

Carr Mine (Butte County) – This historic gold mine is re-opening, located at 6,500 feet in the Northern Sierra in what was known as the Kimshew Mining District. The Carr Mine was in continuous operation from the late 1800s until 1980.

New Mines and Re-activation or Expansion of Existing Mines

Triple-Duty Mine (Siskiyou County) – The Mitigated Negative Declaration, Use Permit and Reclamation Plan were approved by the Siskiyou County Planning Commission for this brand new gold mine in February of 2010.

Briggs Mine Expansion (Inyo County) – From 1996 to 2004, Briggs has been producing gold by heap leaching and has produced over 550,000 ounces of gold since production commenced. Capacity has recently been doubled with expansion to the leach pad and leach irrigation systems and carbon tower construction. The mine is poised to reactivate mining, expanding into a new pit area as a result of their ongoing exploratory drilling program as well as going back into one of the previously backfilled pits.

Soledad Mountain Mine (Kern County) - The first recorded mining activity in the Mojave Mining District occurred in 1894 and gold was produced from a number of mines until 1942. The Golden Queen Mining Company presented the results of an updated feasibility study and economic analysis for its Soledad Mountain Project this past April for plans to develop a gold-silver, open pit, heap leach operation on its property, located just outside the town of Mojave. The new Reclamation Plan is undergoing revisions before the mine can go back into full-scale operation.

SMARA Requirements for Mining Metallic Minerals

SMARA applies to any disturbance exceeding 1 acre or 1,000 cubic yards of material, so most exploratory drilling programs and surface working associated with underground mining still require a reclamation plan, in addition to all other surface mining operations. Any disturbance prior to 1976 that is not newly disturbed is exempt from SMARA. However, as soon as new mining or mining-related disturbance occurs, even on historic waste piles, SMARA is triggered and a reclamation plan is required. Open pit metallic mines are required to follow the backfilling regulations per CCR section 3704.1: "Performance Standards for Backfilling Excavations and Recontouring Lands Disturbed by Open Pit Surface Mining Operations for Metallic Minerals." When in doubt, give OMR a call or send us your project application material for review.

While there are many good books on California's mining history, one particularly good source of geographically specific information is "Bulletin 193 - Gold Districts of California" by William Clark, available from the California Geological Survey (CGS) website at:

http://redirect.conservation.ca.gov/CGS/information/publications/database/Publications index.asp



Mining history comes to life in Calico Ghost Town, once a colorful mining camp and now a San Bernardino County Park. Photo by Leah Gardner



Inside the American Hotel in Cerro Gordo, built in 1871 high in the Inyo Mountains. Photo by Leah Gardner



The Briggs Mine, located at the base of the Panamint Mountains in Inyo County, is poised to expand and reactivate gold mining.