

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT (Lindsay Whalin)
MEETING DATE: March 11, 2020

ITEM: 9

SUBJECT: **Abandoned Mine Program and Mercury Mine Investigation and Cleanup Strategy**– Status Report

DISCUSSION: Historical mineral extraction unquestionably contributed to the prosperity of the United States; however, the unfortunate legacy is often environmental and health hazards, including metal(loid) contamination of State waters. There are tens of thousands of mines in California and 52 confirmed abandoned mines in the San Francisco Bay region. This Item will include a presentation on the Groundwater Protection Division staff's progress prioritizing, investigating, and remediating these sites.

Thirteen Region 2 Water Board mines have been or are currently being investigated or remediated and several others are under investigation. In 2016/17, the remaining mines were ranked by their potential impact to water quality based on a desktop analysis using data on mines and hydrology available in published reports, the internet, and through virtual site inspections via Google Earth and Maps. Eight ranked as high priority due to evidence that wastes are discharging to surface waters connected to waterbodies impaired by mine-related constituents of concern and five of these are overseen by our TMDL staff. Another seven mines were ranked as medium priority because they lacked hydrologic connection to impaired waterbodies, contained a smaller volume of waste, and/or there was no evidence of erosion of mine waste piles. The remaining mines were deemed low priority.

Based upon this mine threat prioritization process, we have chosen to focus the majority of our limited resources on the 3 highest ranked mines not under TMDL oversight. The 3 sites are highly ranked due to the fact that they are erosive mercury mines that drain to mercury impaired waterbodies. Mercury has the potential to biogeochemically transform to the more toxic, bioaccumulative organic species methylmercury. Several studies find that mines are a significant source of mercury to downstream waters, including reservoirs and the San Francisco Bay. The prevalence of mercury-impaired water bodies in our state (228) and region (49) is consistent with studies associating higher fish mercury concentrations in watersheds with a greater history of mining. The Item's presentation will include the results of our screening inspections and plan for initiating investigations and cleanup using the latest science and technology. Some of these new methods were recently synthesized and published in Science of the Total Environment by Water Board staff with several other authors.

**RECOMMEN-
DATION:**

This report is presented for information purposes only – no action is needed.