

**Central Valley Water Board Comments on the CA Department of Fish and Game
Suction Dredge Comments and Attachment
28 February 2012**

Staff from the Central Valley Water Board provides the following comments on the California Department of Fish and Game (CDFG) proposed regulations for suction dredge mining, dated Feb 17, 2012. These comments are based solely on the proposed regulations; a staff report or CEQA document supporting the February 2012 proposed regulations or changes to the earlier versions of the regulations was not provided for public review and comment. In April 2011, Central Valley Water Board staff provided comments on a supplemental EIR, and those comments are hereby included as part of these written comments (please see attachment). Without the benefit of a staff report to provide background and rationale for the changes since the 2011 proposed regulation, the following comments are strictly on the new proposed text.

Mercury and sediment discharges from suction dredge mining activities continue to be a priority water quality issue for the Board. Dredging will be allowed in waters listed as impaired for mercury. Suction dredges discharge fine particulate mercury, which can increase the water-column mercury load in these waters, and can increase mercury loads and methylmercury production in downstream rivers and reservoirs. Suction dredging can release a significant amount of mercury that might have been buried under channel sediments.

The proposed regulations allow the discharge of fine sediment particles, which can lead to increased turbidity. The proposed regulations have added the requirement that "Reasonable care shall be used to avoid dredging silt and clay materials that would result in a significant increase in turbidity." The proposed regulations do not define what steps are needed to meet the 'reasonable care' standard. How does CDFG plan to enforce this requirement?

The proposed regulations allow year round dredging in lakes and reservoirs. This is a concern because many lakes and reservoirs in the Central Valley are on the federal Clean Water Act section 303d list due to elevated levels of mercury in fish. Lakes and reservoirs provide conditions that can lead to enhanced mercury methylation, and increasing inorganic mercury loads to the lakes and reservoirs is likely to increase methylmercury levels. The proposed regulations have removed the requirements that the Regional Water Quality Control Boards need to approve dredging activities in a lake or reservoir. However, waste discharge requirements, NPDES permits, and/or water quality certifications from a regional water board may be required to dredge in lakes.

The only application information needed for the newly proposed regulation is identification and contact information of the person applying for the permit. There is no requirement for the applicant to describe dredging location, type of equipment, schedule, how much dredging is planned, etc. How does CDFG propose to enforce the permit if they do not know where the suction dredgers are mining? The proposed regulations describe on-site inspections; however, other than for dredging in lakes, the regulations do not indicate when or at which sites an on-site inspection would be required.

The proposed regulations refer to “Permits Requiring Notification Pursuant to Section 1602 of the Fish and Game Code. Where a notification is required pursuant to these regulations, a permit, or amended permit, is not valid until the permittee has in their possession...” How would a suction dredge miner know when or where a Section 1602 permit is needed?

While the maximum number of permits decreases from 4000 to 1500, suction dredges with up to 8-inch intake nozzles could be allowed in some mercury-contaminated rivers, such as the American, Feather, and Yuba. Additional requirements and best management practices should be required in rivers where mercury was used for gold production.

The public Notice says “The proposed regulations, also now as revised, are intended for purposes of CEQA to avoid and substantially lessen to the extent feasible any significant impacts with suction dredging that may be authorized by CDFG. Compared to the proposed regulations as originally noticed, the revisions provide more efficient permit management, account for further evaluation of species distributions and life histories, and make related adjustments to the proposed regulations to ensure that authorized suction dredging is not deleterious to fish.” In addition, the regulations have the finding “Pursuant to that authority, the Department finds that suction dredging subject to and consistent with the requirements of Sections 228 and 228.5 will not be deleterious to fish.” We do not agree that disturbance of fish habitat, increased turbidity, and mercury releases does not have an impact to downstream fish and wildlife, and humans that consume those fish. The newly proposed regulations weaken the 2011 version by removing a section that required CDFG to make individual findings that the project would not have deleterious effect to fish if special permit conditions were prescribed to protect fish resources.

**Attachment- Central Valley Water Board Comments on the CA Department of Fish
and Game Suction Dredge SEIR
28 April 2011**

Major Comment:

The SEIR does not contain adequate justification to support selection of the Proposed Program instead of the No Program Alternative. The SEIR recognizes impacts to water quality from suction dredging as significant and unavoidable. The No Program Alternative would continue the prohibition on instream suction dredging in California. This alternative would avoid all of the significant and unavoidable effects of the Proposed Program and is considered environmentally superior. The No Program option is the most protective of water quality. It is not clear from the document why CDFG did not select the No Program Alternative.

Other Comments:

If the No Program Alternative is not selected, the final SEIR should fully describe the mitigation programs to avoid or mitigate significant and unavoidable impacts. The draft SEIR describes mitigation actions that could possibly make impacts on water quality related to turbidity, mercury, and resuspension of trace metals less than significant. Mitigation actions that result in removal of mercury from stream environments should be considered in this SEIR. If mitigation actions would render the water quality impacts to be less than significant, then the mitigation programs should be fully developed under the proposed regulatory program. The Proposed Program must comply with the Clean Water Act and the Porter Cologne Water Quality Control Act. If the Proposed Program with mitigation programs does not adequately protect water quality under these Acts, it will be inadequate.

Impact WQ-3: Effects of Turbidity / TSS Discharges

The SEIR finds that turbidity and suspended sediment discharges from suction dredging operations to be less than significant. We have concerns with this finding for the following reasons:

1. The finding is based on regional sediment load conditions and doesn't recognize stream conditions in the northern Sierra and Klamath mining areas. Streams in these areas have fine grained sediment which, when discharged by suction dredging, can violate Basin Plan objectives. We have received public complaints about sediment discharges from suction dredges in these areas.
2. Suction dredging and associated rock and bank disturbance have the potential to promote channel migration and/or incisement which leads to accelerated erosion and increased sediment loads. Ongoing restoration projects to address accelerated erosion on Central Valley Region streams, and implemented with public funds, could be impacted by suction dredging.

For the above reasons, and the lack of effective mitigation for suction dredges working in finer grained sediments, we request this finding be changed to significant and unavoidable.

Impact WQ-4: Effects of Mercury Resuspension and Discharge - Significant and unavoidable

The recognition in the draft SEIR of the potential significant and unavoidable impacts of mercury during suction dredging underscores the need to minimize mercury impacts with a mitigation plan should the Proposed Program be selected. The presence of mercury has impaired the beneficial uses, specifically safe consumption of fish by humans and wildlife species, of many waters that may be subject to suction dredging. Suction dredging brings previously buried mercury into the water column, thus contributing to the impairment of the beneficial uses. The SEIR states, "any impact of suction dredging on Hg loading and MeHg concentrations in downstream environments might further exacerbate the existing Hg impairments."

The report states that to reduce impacts of mercury, "potential mitigation includes closures or restrictions on suction dredging in areas impaired for Hg, or further restrictions on nozzle size, number of permits, and hours/days spent dredging. However, such closures are not within CDFG's jurisdiction to implement since they are not believed to be necessary to avoid deleterious effects to fish, and are therefore considered infeasible. No other feasible mitigation measures exist. Therefore, this impact would be significant and unavoidable." CDFG does not propose to close suction dredging areas with elevated mercury levels. Wildlife and humans consuming fish and other biota are impacted by mercury resuspended during dredging. CDFG has an obligation to protect and manage wildlife other than fish immediately in the dredging area. Even though mercury levels in the local fish may not be elevated enough to be deleterious, bioconcentration of mercury by organisms feeding on the fish could be significant.

Impact Analysis of Proposed Program on Water Quality and Toxicology- Other Pollutants

The SEIR should evaluate the significance of all local impacts and provide mitigation measures. The SEIR indicates many ancillary activities associated with suction dredging would have a less-than-significant impact on water quality. This finding appears to be based on comparisons of impacts of specific activities on a statewide level, i.e., the activities are widely dispersed and only impacts a small portion of the state as a whole. However, on a local level in the area near the suction dredging sites, the impacts could be significant. For example, a fuel spill or human waste from an undeveloped campsite could have local, but significant effects.

Impact Analysis of Proposed Program on Hazards and Hazardous Materials

In addition to the significant water quality concerns, mercury creates problems arising from accumulation and storage by dredgers and potential inhalation during "cooking" mercury-gold amalgam. Suction dredgers recover mercury with gold. Fate of that mercury includes reuse in sluice boxes, storage by dredgers in unsecured places, release to the air and inhalation by miners during gold refining, and according to information cited in the draft SEIR, illegal disposal. The draft SEIR states that dredgers' handling, storage and transport of mercury is a less than significant effect on human health. However, for human and environmental health reasons, mercury captured during suction dredging must be prevented from being released again to water or air. If the Proposed Program is implemented, we recommend that CDFG coordinate with State and Regional Water Boards, Department of Toxic Substances Control, and other appropriate state and local agencies to develop and implement a mercury collection program for mercury collected during suction dredging activities.

Best Management Practice Pamphlet

CDFG is proposing to create a “Best Management Practices” (BMP) pamphlet. The BMP pamphlet will give limited guidance to limit environmental impacts over which CDFG does not have jurisdiction. Only if CDFG can enforce compliance with best management practices should environmental impacts be considered less than significant with incorporation of mitigation measures in the form of BMPs. Use of best management practices should be a permit requirement and be enforceable.

Alternatives Evaluation

Please include text explaining why the Proposed Program was selected instead of the other alternatives that were evaluated. Table 6-1 provides a summary of the impacts of each of the alternatives compared to the Proposed Program. In the draft SEIR, however, we could not find justification for selection of the Proposed Program. This explanation is particularly important because the No Program, Water Quality, and Reduced Intensity Alternatives would cause fewer adverse environmental effects in comparison with the Proposed Program.

Table 4.2-2

References in Table 4.2-2 to human health criteria from OEHHA (2001) should be removed. OEHHA’s 2008 Advisory Tissue Levels and Fish Contaminant Goals report provides revised contaminant levels calculated with and without assumptions that there are health benefits from eating fish. OEHHA also revised all of its advisories in 2009 to issue advice for sensitive and other populations using different reference doses. To show the range of advice thresholds, the table could include OEHHA’s advisory tissue level and fish contaminant goal based on one fish meal/week (32 g/day) and/or the advice levels for the two different populations.