

ATTACHMENT A

SPECIFIC STATE WATER BOARD COMMENTS

Page #, Line #

ES-6, 30 **If DFG does not select the No Program Alternative, we recommend restricting nozzle diameter to 2 inches.**

Reason: From a water quality perspective, the smaller the volume of dredged material, the better. Manufacturer's specifications (Keene, 2010) indicate that a suction dredge equipped with a 2 inch diameter nozzle can vacuum sediment at a rates up to 1.5 cubic yards per hour, while a dredge equipped with a 4 inch diameter nozzle can vacuum sediment over three times as fast (5 cubic yards per hour). Therefore, restricting suction dredge nozzles to 2 inches or less would result in less disruption of stream sediment compared to dredges equipped with larger diameter nozzles.

ES-7, 25 **If DFG does not select the No Program Alternative, we recommend changing "Reasonable care shall be used to avoid dredging in silt and clay materials, the disturbance of which would significantly increase in turbidity" to "Dredging in silt and clay materials is prohibited."**

Reason: The United States Geological Survey (USGS) studies cited in the SEIR indicate that dredging silt and clay materials will result in both substantial increases in turbidity, and, in mercury-contaminated water bodies, discharges of mercury-contaminated sediment. We are extremely concerned about such discharges, especially since suction dredgers tend to seek out buried, in-stream clay pan layers because they are rich in gold.^{1,2}

ES-8, 3 **If DFG does not select the No Program Alternative, we recommend changing "All fueling and servicing of dredging equipment must not result in leaks, spills or otherwise release into a watercourse or where the product may enter waters of the state" to "All fueling and servicing of dredging equipment shall not result in leaks, spills or otherwise release into a watercourse or where the product may enter waters of the state. All dredge engines shall be equipped with fuel spill catching skirts; dredging engines without fuel catching skirts are prohibited."**

Reason: Refueling a dredge while it is in the water without spilling fuel is a major challenge, considering that stream currents, poor footing and the bobbing of a floating dredge would all create conditions conducive to spilling fuel. Thus,

¹ New 49ers Mining Club web site <www.goldgold.com>

² The in-stream portion of the USGS study...

requiring that the dredge engines have spill catchment is warranted. In addition, the regulations should specify requirements for proper disposal of any spilled fuel.

Replace “minimize” with “reduce” at the following locations (page #, line #).

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|---------------|---------------|---------------|---------------|
| ES-8, 36 | Ch 4.3-36, 37 | Ch 4.3-50, 18 | Ch 4.4-1, 33 |
| ES-12, 35 | Ch 4.3-37, 7 | Ch 4.3-52, 11 | Ch 4.5-13 |
| Ch 3-3, 13 | Ch 4.3-39, 36 | Ch 4.3-52, 32 | Ch 4.6-13, 15 |
| Ch 4.3-19, 34 | Ch 4.3-41, 24 | Ch 4.3-53, 4 | Ch 4.7-3, 14 |
| Ch 4.3-24, 37 | Ch 4.3-41, 33 | Ch 4.3-53, 40 | Ch 4.10-5, 4 |
| Ch 4.3-25, 2 | Ch 4.3-44, 35 | Ch 4.3-54, 2 | Ch 5-28, 13 |
| Ch 4.3-28, 12 | Ch 4.3-48, 2 | Ch 4.3-54, 11 | Ch 5-28, 14 |
| Ch 4.3-28, 27 | Ch 4.3-49, 6 | Ch 4.3-54, 37 | Ch 5-29, 16 |
| Ch 4.3-30, 44 | Ch 4.3-49, 9 | Ch 4.3-55, 8 | Ch 5-30, 40 |
| Ch 4.3-32, 33 | Ch 4.3-49, 12 | Ch 4.3-56, 17 | Ch 6-7, 13 |
| Ch 4.3-33, 6 | Ch 4.3-49, 15 | Ch 4.3-57, 41 | Ch 6-13, 1 |
| Ch 4.3-34, 7 | Ch 4.3-50, 12 | Ch 4.3-58, 20 | |
| Ch 4.3-34, 11 | Ch 4.3-50, 15 | Ch 4.3-59, 16 | |

Reason: “Minimize” means to reduce to a minimum and means the least quantity assignable, admissible, or possible. “Reduce,” on the other hand means to diminish in size, amount, extent, or number. We consider reduce to be the more accurate term.

In comparing the baseline condition of “no dredging” to the proposed program, neither “minimize”, nor “reduce” are appropriate terms. “Reduce” is a barely acceptable word choice when the proposed Program is compared to the 1994 program, because the proposed Program would allow more annual permits than the average issued over the last 10 years of the 1994 program (3,650), and it would rely on only slightly more stringent best management practices (BMPs). “Reduce” is an acceptable word choice when comparing both the “Environmentally Protective Alternative” and the “Water Quality Alternative” to the 1994 Program. However, when compared to current no dredging conditions, all the alternatives except for the “No Program Alternative” would increase rather than reduce the impacts.

ES-12, 6 **Insert “Other states have addressed mercury remobilization. Oregon prohibits suction dredging in streams listed as impaired for mercury or other toxics. Wyoming’s program contains the following prohibition: ‘due to mercury in stream sediment from historical mining operations, no mining activities are allowed in Rock and Willow Creeks in the upper Sweetwater River drainage.’”**

Reason: Providing examples of how other states have dealt with mercury will allow comparison with DFG's proposal.

ES-14, 22 **Delete “Although the regulations under the Proposed Program would reduce the potential for flouring and reduce the potential incremental contribution of the suction dredge discharges to the significant cumulative impact”. Replace with “Mercury discharges would continue under the Proposed Program.”**

Reason: The SEIR does not contain or refer to any evidence that any of the proposed methods of operation, BMPs, and nozzle size restriction would reduce elemental mercury flouring.

ES-16, 24-44 (and corresponding full discussion) If DFG does not select the No Program Alternative and instead selects the Water Quality Alternative, this alternative should be revised to include additional areas with known mercury contamination.

Reason: The Water Quality Alternative is described solely in terms of water bodies listed for mercury or sediments. However, we are aware of widespread mercury-contamination of sediments in areas whose water bodies have not yet been listed for mercury. Listing under Section 303(d) of the Clean Water Act is an arduous and lengthy procedure at best. The procedure is even more arduous for mercury, since the listing process currently depends on relatively expensive and time-consuming fish tissue sampling and analysis. As indicated in the draft SEIR, significant mercury discharges can be expected if dredging is allowed in the areas where mercury occurs, regardless of whether the areas have been formally listed. Therefore, a true "Water Quality Alternative" would include an approach like that used by Wyoming, that would address all areas with mercury-contamination in sediments rather than only those that have been listed for mercury.

ES-17, 23 **Change “chosen” to “identify”.**

Reason: The change makes the sentence correct with respect to the CEQA requirement as stated in Cal. Code of Regulation, title 14, Section 15126.6(e)(2).

Ch 2-7 **If DFG does not select the No Program Alternative, we recommend that the use of the terms “permittee” and “no person” be clarified.**

The proposed regulations use the terms “permittee” and “no person” interchangeably, and that may cause confusion. For example the proposed regulation on page 2-21, line 14 states, “No person shall import any earthen material into a stream, river, or lake.” DFG's regulations should clarify that this prohibition pertains to all persons engaged in activities related to suction

dredging, whether the person actually has a permit or is merely assisting another person who actually has a permit. However, DFG's regulations obviously cannot apply to all persons regardless of whether they have any connection to suction dredging activities.

Ch 2-10, 15 If DFG does not select the No Program Alternative, we recommend specifying a maximum horsepower (Hp) rating (for example, 5 Hp).

Reason: As stated above, from a water quality perspective, the smaller the volume of sediment dredged, the better. We would expect that, all other things being equal, the greater the horsepower of the engine, the more volume could be dredged. DFG's basis for not including a horsepower restriction appears to be suction dredgers' claims that engine horsepower has little effect on dredge performance compared to nozzle size. However, the SEIR does not include any test results or any other evidence to back up the claim. In contrast, manufacturer's information (Keene 2010 catalog) suggests that a 1 horsepower increase equates to a 5.5% increase in "performance" (presumably volume capacity).

Ch 2-21, 16: see discussion above under ES-8, 3.

Ch 2-22, 1: see discussion above under ES-7, 25.

Ch 3-4, 32 Recommend deleting lines 32 to 43 and replace with "The volume of sediment moved by a suction dredge is based on nozzle size and engine horsepower (as well as operator-dependent factors such as operating time). According to manufacturer's catalogs (e.g., Keene, 2010), dredges with small diameter nozzles (e.g., 2 inches and less) and low horsepower engines (e.g., 5 horsepower and less) have less sediment-excavating capacity than dredges equipped with large diameter nozzles and high horsepower engines."

Reason: See Reason above for Ch 2-10, 15.

Ch 3-5, 1 Comment – The statement implies that DFG's reason for selecting a 4 inch maximum diameter nozzle is based on its popularity among dredgers as opposed to its technical merits for protecting fish.

Ch 4.2-1, 13 Change "waste" to "pollutants."

Reason – The Clean Water Act regulates the discharge of pollutants not waste.

Ch 4.2-18, 27 Comment – Wading bird poisonings by lead shot that lands in marshes and carrion eater poisonings by eating animals that have been killed by lead shot are documented. However, we are not aware of any documentation of bird poisonings by ingesting lead buried under feet of steam sediment,

presumably because birds are not physically able to get at lead buried by stream sediment. Lead that suction dredgers recover while dredging may be deeply buried and thus, be beyond the reach of waterfowl. Consequently, the main beneficiaries appears to be the dredgers, who cast diving weights from lead they recover or sell it as scrap. Unfortunately, if they melt lead to cast weights in their camps, they release lead fumes unless, as seems unlikely, they use a fume hood.

Recommend that lines 27-29 be deleted.

Ch 4.2-28, 18 **Insert after “limited.”: “However, any such discharge would require a permit under the applicable federal and/or state water quality laws.”**

Reason: The public should be made aware that other permits, such as a Water Board NPDES permit, may be necessary.

Ch 4.2-28, 20 **Delete – “Because dredging activities are largely conducted on a seasonal, temporary, and intermittent basis in California, any water quality degradation that may occur is expected to be infrequent and dispersed and thus not cause substantial or long-term degradation of water quality.”**

Reason: The language is speculative, since the SEIR does not provide information that supports this assertion.

Ch 4.2-33, 1: see above under Ch 4.2-28, 20.

Ch 4.4-11, 23 **Delete – “However, since the total number of suction dredgers state wide is small and the number of violations anticipated to be even smaller, such effects would not constitute a significant impact.”**

Reason: First, the statement is speculative. Second, the impact of hazardous material violations by suction dredgers should not be presented as a statewide average. The suction dredge survey (Appendix F) found that suction dredging is concentrated in 18 rural counties (and Los Angeles) with the highest levels in occurring in Sierra, Plumas, and Siskiyou Counties. Using a 20% violation rate (assuming that DFG conducted regular inspections) for 4,000 permit holders under the program, there would be 800 violations, or 44 violations on average for each of the 18 rural counties where suction dredging is concentrated. Based on staff’s first-hand observations of suction dredgers’ camps in the past, costly hazardous materials cleanups would likely be needed where these violations occur. The cost of such cleanups could be significant to both the rural counties and the federal land management agencies and thus, the impact should be viewed as significant.

Ch 5-29, 23 **Remove** – **“Additionally, implementation of the regulations under the program related to nozzle size restrictions may reduce the potential for flouring and reduce the potential incremental contribution of the suction dredge discharges to the significant cumulative impact.”**

Reason: The statement is speculative because the SEIR does not present any evidence that suction dredges have been tested systematically to determine whether nozzle diameter and engine horsepower affect mercury flouring.

Appendix E, Comparison of Suction Dredge Mining Regulations in the United States

For the Wyoming entry under “Water body restrictions”, please change “Yes, based on numerous factors” to “Yes, based on numerous factors including the presence of mercury in stream sediment from historical mining operations.”