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GOVERNOR

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SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

MAR 11 2013

Mr. Charlton H. Bonham, Director
Department of Fish and Wildlife
1416 Ninth Street, 12th Floor
Sacramento, CA 95814

Dear Mr. Bonham:

Thank you for the opportunity to share our concerns and recommendations on behalf of the State Water Resources Control Board (State Water Board). The State Water Board and our sister agencies, the regional water quality control boards, are tasked with the protection, control, and utilization of all waters of the state. Through our delegated authority set forth in the Porter-Cologne Water Quality Act (Wat. Code, § 13000 et seq.) and the federal Clean Water Act (33 U.S.C. § 1251, et seq.), the State Water Board may regulate any activity or factor which may affect water quality. As such, below are the State Water Board's recommendations for the Legislature on how to fully mitigate all identified significant environmental impacts from recreational suction dredge mining as identified in the Department of Fish and Wildlife's (Department) Final Subsequent Environmental Impact Report (FSEIR).

Based on the water quality impacts of recreational suction dredging, we recommend that the existing moratorium be continued indefinitely, or that this activity be permanently prohibited. Given the current scientific understanding of this activity's impacts, this is the only and the most cost-effective method to fully mitigate all significant water quality impacts. The FSEIR identifies two significant and unavoidable water quality impacts: mercury resuspension and discharge, and effects from resuspension and discharge of other trace metals (e.g., copper, lead, zinc, cadmium, chromium, arsenic).

The resuspension and discharge of mercury is a potent neurotoxin that is harmful to both humans and wildlife. Mercury builds up in the bodies of fish that live in waters with even small amounts of mercury; and in the bodies of humans who eat contaminated fish. Because much of our state's in-stream mercury is a result of historic gold mining activities, recreational suction dredging activities specifically target these locations and resuspend mercury from many known and unknown "hotspots."

Recreational suction dredging as a whole has a disproportionately greater effect on mercury resuspension when compared to other natural events or human activities. Suction dredging operators often target deep sediments, resulting in the mobilization of mercury that may not be mobilized by typical winter high-flow events. This leads to substantially increased mercury

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loading in the downstream water body. According to the peer-reviewed findings in the FSEIR, a single 4-inch dredge could discharge up to 10 percent of an entire watershed's mercury loading during a dry year. Additionally, recreational suction dredging occurs in the summer months when water temperatures are higher and oxygen levels are lower. These conditions are conducive to increased rates of methylation of mercury; the process by which elemental mercury binds with organic molecules and becomes more readily absorbed by living tissue and significantly more toxic to humans and wildlife.

Recreational suction dredging also has the significant effect of resuspending and discharging sediment containing mercury and other trace metals. Many of these other trace metals are detrimental to aquatic life and are regulated under the California Toxics Rule (CTR), as is mercury. The toxicity of resuspended metals is determined, in part, by the aquatic pH value in which the metals occur. Metals in waters with a low aquatic pH value are more toxic than metals in waters with a higher pH value. Historic copper, lead, and silver mines are located throughout the Sierra Nevada and Klamath-Trinity Mountains. These locales are also the sites associated with many acid mine draining issues; i.e., locations with low aquatic pH values. Dredging at these locales has the potential to increase the level of one or more trace metals in a water body such that they exceed the levels allowed under the CTR.

As stated above, the indefinite continuation of the existing moratorium is the State Water Board's recommendation and is the only option that fully mitigates all environmental impacts. However, within the State Water Board's existing authority, the Board can adopt one or more general orders regulating the discharges associated with recreational suction dredging. The general order(s) could prohibit the activity in any water body impaired for mercury, sediment, or any trace metal, along with its tributaries.

This option raises a number of concerns. First, while such a prohibition will likely encompass many of the waters containing mercury and other trace metal hotspots; it will not account for those hotspots that are unknown. To fully account for such hotspots, the State Water Board would need to conduct a lengthy, resource-intensive inventory of all water bodies within the state. Also, any general order would not fulfill the Legislature's mandate to "fully mitigate all identified significant environmental impacts" as set forth in Fish and Game Code section 5653.1. Lastly, any such general order is likely to require a significant amount of State Water Board resources to develop the order; execute and enforce the terms of the order; and, defend the order from inevitable legal challenges. In essence from the State Water Board's perspective, this option would create a new and unfunded regulatory program.

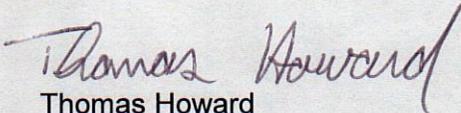
Regardless of what action the Legislature takes pursuant to the Department's report, we respectfully request that any action taken provide clear authority and sufficient resources to fulfill the Legislature's directive. Any authority and accompanying resources should provide for robust scientific research, implementation, and enforcement by the Department and/or any sister agencies deemed necessary by the Legislature. Additionally, any action taken should provide flexibility for the regulatory agency to adapt to the ever-evolving nature of the activity and our understanding of the environmental conditions and scientific understanding behind recreational suction dredging activities.

For example, it has come to the State Water Board's attention that the suction dredging community is conducting dredging activities without the use of a sluice box. Absent the use of a sluice box, their activities are not considered "suction dredging" pursuant to the Department's regulations (see Cal. Code Regs., tit. 14, § 228, subd. (a)(1).) Unfortunately, whether or not a sluice box is used, the detrimental effect on water quality, and subsequently humans and

aquatic life, remains the same. This is an example of the evolving nature of the activity. In order to adapt under the current regulatory scheme, the Department needs to undertake a cumbersome rulemaking proceeding subject to the requirements of the California Environmental Quality Act, the Administrative Procedures Act, and involve the Office of Administrative Law. Alternatively, the Legislature could consider a statutory amendment to block this or other attempts to circumvent environmental regulation of this activity.

Again, the State Water Board thanks you for the opportunity to share our concerns and recommendations. If you have any questions, please contact Deputy Director, Elizabeth Haven at (916) 341-5457 or Liz.Haven@waterboards.ca.gov

Sincerely,



Thomas Howard
Executive Director

cc: Michael A.M. Lauffer, Esq. **[via email only]**
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