

Frequently Asked Questions

WATER BOARD ACTIONS TO PROTECT WATER QUALITY FROM IMPACTS DUE TO SUCTION DREDGE MINING DISCHARGES

1. *What is suction dredge mining?*

California Water Code section 13172.5.(a) defines suction dredge mining as:

"the use of a mechanized or motorized system for removing or assisting in the removal of, or the processing of, material from the bed, bank, or channel of a river, stream, or lake in order to recover minerals."

Suction dredge mining, as addressed in this Fact Sheet, does not encompass non-motorized and non-mechanized recreational mining activities, including non-motorized and non-mechanized panning for gold.

2. *Do I need Water Board approval to operate a suction dredge in California?*

Yes. Legislation approved in 2015 (Senate Bill 637), amended the California Water Code and Fish and Game Code and prohibits a miner from conducting suction dredge mining without approval (in the form of a permit or documentation that a permit is not required) from the State Water Resources Control Board or a Regional Water Quality Control Board (collectively Water Boards). Water Board approval is needed prior to the California Department of Fish and Wildlife issuance of a permit authorizing a miner to suction dredge mine within the State of California.

THE PUBLIC PROCESS

3. *What steps has the Water Board taken to obtain public input on how suction dredge mining should be regulated to protect water quality in California?*

Starting in 2017, the Water Boards began public discussions with stakeholders and California Native American Tribal interests regarding potential Water Board actions to protect water quality from suction dredge mining activities. Water Board staff conducted public workshops in San Bernardino, Fresno, Redding, Sacramento, and Orleans. During the workshops, miners, nongovernmental organization representatives, Tribal representatives, and members of the public provided oral and written feedback regarding potential actions the Water Boards should consider for future regulatory actions to address water quality impacts from suction dredge mining.

Subsequently, State Water Board staff continued to meet individually with miners, nongovernmental organization representatives, and Tribal representatives to further understand corresponding concerns. As a result, State Water Board staff developed a draft statewide General NPDES¹ Permit for Discharges from Activities from Suction Dredge Mining that considers preliminary stakeholder and interested party input.

4. *What are the next steps? How can I be involved in the further development of the proposed statewide permit?*

The State Water Board issued a draft statewide NPDES Permit for Discharges from Activities from Suction Dredge Mining for a 45-day public comment period. The 45-day public comment period provides stakeholders, interested parties and members of the public the opportunity to provide the State Water Board written comments for consideration during the on-going permit development process. Public comments are due to the State Water Board by 12:00 noon on **June 29, 2020**.²

On **May 28, 2020**, from 1:00 p.m. to 4:00 p.m., State Water Board staff will conduct a public workshop through an online Zoom meeting platform. Staff will explain the elements of the proposed draft permit and answer questions from the public about the draft permit and the ongoing permit development process. You are invited to participate in the online Zoom meeting. No later than May 25, 2020, information for participating in the Public Staff Workshop will be distributed via the email notification list described below and posted on the [State Water Board Suction Dredge Mining webpage](https://www.waterboards.ca.gov/water_issues/programs/npdes/suction_dredge_mining.html): (https://www.waterboards.ca.gov/water_issues/programs/npdes/suction_dredge_mining.html).

Furthermore, on **June 17, 2020**, starting at 9:30 a.m., the State Water Board will hold a public hearing to receive oral comments from stakeholders and interested parties regarding the proposed draft permit and the Water Boards' regulatory approach. Information for how you can participate in the public hearing and provide oral comments directly to the State Water Board members will be available through the forthcoming agenda for the June 17, 2020 Board meeting at the following link: [June Board Meeting link](https://www.waterboards.ca.gov/board_info/calendar/) (https://www.waterboards.ca.gov/board_info/calendar/).

The State Water Board will consider all oral comments received at the public hearing (above) and all timely written comments submitted during the public comment period. The State Water Board may direct staff to revise the draft General Permit based on timely comments received and direction from the Board members and to prepare a final draft General Permit.

¹ National Pollutant Discharge Elimination System permits regulate discharges to waters of the United States in accordance with the federal Clean Water Act and the California Water Code. The United States Environmental Protection Agency delegates the issuance, administration and enforcement of NPDES permits in California to the California Water Boards.

² Public comments must be submitted to the State Water Board per instructions provided in the Public Notice that can be found in the [State Water Board Suction Dredge Mining webpage](https://www.waterboards.ca.gov/water_issues/programs/npdes/suction_dredge_mining.html): (https://www.waterboards.ca.gov/water_issues/programs/npdes/suction_dredge_mining.html).

Staff will present the final draft General Permit to the State Water Board, for consideration of adoption, at a future publicly noticed State Water Board meeting.

To receive notice of future public workshops and other communications from the Water Boards regarding the regulation of suction dredge mining, you may subscribe to an email notification list by following the link below, choosing the Water Quality list, and selecting "Suction Dredge Mining". [State Water Board email subscription webpage](http://www.waterboards.ca.gov/resources/email_subscriptions/swrcb_subscribe.shtml) (http://www.waterboards.ca.gov/resources/email_subscriptions/swrcb_subscribe.shtml)

THE PROPOSED DRAFT GENERAL PERMIT

5. *What type of mining activities does the Draft General Permit propose to allow?*

The draft statewide General NPDES Permit proposes to regulate discharges from motorized and mechanized suction dredge mining activities that take place in a surface water body. The draft General Permit provides regulatory coverage for individual miners and allows suction dredge mining in specific watersheds and water bodies.

Staff created preliminary maps to serve as attachments to the draft General Permit. The maps identify the watersheds in which suction dredge mining is proposed to be allowed. The maps are preliminary; more detailed geographical information system (GIS) maps with higher resolution will be developed as necessary.

6. *Where does the Draft General Permit propose to prohibit suction dredge mining?*

The draft General Permit prohibits discharges from suction dredge mining in watersheds that contain water bodies:

- Listed on the federal Clean Water Act section 303(d) as impaired for toxic metals,
- Where available data indicates detected mercury concentrations above a water quality objective, and the determination of impairment is pending,
- Subject to a Regional Water Quality Control Board Basin Plan discharge prohibition,
- Located in areas of historic gold mining activity, and
- Subject to a year-round prohibition per Department of Fish and Wildlife regulations.

Staff created preliminary maps to serve as attachments to the draft General Permit. The maps identify the watersheds in which suction dredge mining is proposed to be prohibited. The maps are preliminary; more detailed geographical information system (GIS) maps with higher resolution will be developed as necessary.

7. *What types of mining activities are not covered by the Draft General Permit?*

The draft General Permit does not propose to regulate discharges from mining activities that take place outside of a surface water body. Discharges from mining activities that take place outside of a water body may require a different type permit or no permit at all. The draft General Permit identifies general mining conditions in which an NPDES permit or another type of permit may not be needed due to there being no impact to waters of the State. A Regional Water Quality Control Board will make a site-specific and mining activity-specific determination on whether mining activities outside the scope of the statewide General Permit will need a different permit.

8. *How does the Draft General Permit differ from a typical NPDES Permit?*

The draft General Permit:

- Requires a miner to conduct visual monitoring in place of analytical water quality sampling;
- Requires a miner to implement best management practices that minimize water quality impacts from mining activities in place of compliance with specific numeric effluent limitations;
- Requires a miner to provide a 30-day advance email notification to the appropriate Native American Tribal representatives prior to mining, for protection of cultural beneficial uses.
- Minimizes the standard permitting fees to a one-time permit application fee, omitting the standard annual fee. (The current permit application and annual fees is \$2,268).

THE PROPOSED PERMITTING APPLICATION PROCESS**9. *When can I get a permit from the Water Boards to operate a suction dredge?***

Miners cannot obtain a permit to operate a suction dredge until the State Water Board adopts the General Permit. The draft General Permit is not an official permit allowing a miner to conduct suction dredge mining activities in California. The State Water Board will consider all public comments prior to considering adoption of the General Permit at a future Board meeting. If the State Water Board adopts a statewide General Permit, a miner may submit an application to acquire permit coverage to mine in allowed water bodies in accordance with the requirements of the Permit. After acquiring General Permit coverage (or other Regional Water Board permits or documentation that a permit is not required), a miner must acquire a suction dredge mining permit from the Department of Fish and Wildlife prior to mining.

10. *How do I acquire a permit from the Department of Fish and Wildlife?*

The California Department of Fish and Wildlife is the primary permitting authority for this activity. Further information regarding Department of Fish and Wildlife permitting is located

on the following website:

[California Department of Fish and Wildlife Suction Dredge Mining Webpage](https://www.wildlife.ca.gov/Licensing/Suction-Dredge-Permits)
(<https://www.wildlife.ca.gov/Licensing/Suction-Dredge-Permits>)

11. How do I apply for the statewide General Permit after State Water Board adoption of a draft permit?

To apply for coverage under a statewide General Permit, an applicant is required to submit a complete application package in accordance with the requirements in the General Permit. A complete application package includes:

- Completed application forms, including a description and location of the proposed activities that result in a discharge to a water of the United States,
- An application filing fee, and
- Other information as specified in the adopted General Permit.

12. What are the permit fees?

Water Board fee are specified in the California Code of Regulations, Title 23, Division 3, Chapter 9, Section 2200, Article 1, titled Waste Discharge Reports and Requirements,

[Annual Fee Schedules](#)

([https://govt.westlaw.com/calregs/Document/IEEE14760D45A11DEA95CA4428EC25FA0?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=\(sc.Default\)](https://govt.westlaw.com/calregs/Document/IEEE14760D45A11DEA95CA4428EC25FA0?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=(sc.Default)))

13. Can I start mining once I acquire a Water Board permit?

No. Prior to suction dredge mining, a miner must acquire approval from the Water Boards (a permit or documentation that a permit is not required) and the Department of Fish and Wildlife. The current State of California suction dredge mining prohibition remains in effect until the Water Boards complete an approval action for specifically allowed suction dredge mining activities and the California Department of Fish and Wildlife completes its legislatively-mandated tasks and resumes the issuance of suction dredge mining permits.

WATER QUALITY PROTECTION PERTAINING TO SUCTION DREDGE MINING

14. What are the potential water quality impacts from suction dredge mining?

Water Board staff evaluated available information on potential water quality impacts from suction dredge mining, and concludes:

- The effects of suction dredge mining on turbidity and suspended sediment concentrations are not limited to the area immediately downstream of suction dredge mining.
- Fine particles in sediment in historic gold mining regions have been shown to contain at least an order of magnitude higher concentration of mercury than larger size fractions

and potentially travel to downstream environments.

- In-water suction dredge mining activities resuspend and remobilize trace metals, including mercury, that were previously bound to sediment in the water body beds and banks.
- Remobilized mercury that was previously bound to water body bed sediment can potentially be converted to methyl mercury and bio-accumulate up the food chain; this is of concern to biota and human health through fish and shellfish consumption.
- Mercury is known to exist in areas of historic gold mining and downstream of historic gold mines.
- Dissolved, flocculated, liquid, and fine particle-bound mercury may be transported long distances to environments favorable to methylation.
- Other metals that may be mobilized from the water body beds and banks, and into the water column during suction dredge mining include arsenic, copper, silver, zinc, lead, chromium, nickel, antimony, cadmium, and selenium.
- The physical disturbance of water body beds from suction dredge mining may increase erosion, sediment loading and hydromodification of water bodies during wet weather high-intensity rain events.

15. *What potential water quality impacts from suction dredge mining does the Water Board consider when making a regulatory decision?*

The main water quality concerns with in-water suction dredge mining are the disturbance and remobilization of fine sediment and metals already present in the water body. Specifically, as specified in California Senate Bill 637 and in response to un-mitigated impacts identified in the California Department of Fish and Wildlife's *Suction Dredge Permitting Program Subsequent Environmental Impact Report* (certified on March 16, 2012), the Water Boards must consider the following water quality impacts from discharges due to suction dredge mining activities:

- Mercury loading to downstream reaches of surface water bodies affected by the use of vacuum or suction dredge equipment;
- Methylmercury formation in water bodies;
- Bioaccumulation of mercury in aquatic organisms;
- Resuspension and discharge of other trace metals;
- Increased turbidity and the discharge total suspended sediment;

The Water Boards may also address the following potential impacts to protect water quality from suction dredge mining activities:

- Environmental effects of dredge site development including site access and encampments;
- Response and notification requirements for fuel and chemical spills;

- Notification requirements when mercury hotspots (i.e., places where large amounts of mercury are concentrated) are identified; and
- Management and disposal requirements for recovered mercury, lead, etc.

16. What authority does the Water Board have to prohibit activities to protect water quality?

California Senate Bill 637 (2015) amended the Water Code to allow the Water Boards to specify any conditions or areas where the discharge of waste or other adverse impacts on beneficial uses of the waters of the state from the use of vacuum or suction dredge equipment are prohibited in order to protect water quality from potential impacts associated with suction dredge mining. In addition, Senate Bill 637 amended the Water Code to allow the Water Boards to prohibit any particular use of, or methods of using, vacuum or suction dredge equipment, or any portion thereof, for the extraction of minerals that the Water Boards determine generally cause or contribute to an exceedance of applicable water quality objectives or unreasonably impact beneficial uses as a result of suction dredge mining activity.

The Water Boards may consider specific prohibitions to address potential water quality impacts including:

- Prohibiting suction dredge mining where existing high concentrations or measures of mercury, sediment, turbidity, and/or trace metals impair the water body and impact its beneficial uses, such as prohibiting suction dredge mining:
 - In any part of water bodies with segments not meeting water quality objectives;
 - A specified distance above segments of water bodies not meeting water quality objectives; or
 - In segments or upstream of segments of water bodies not meeting water quality objectives.
- Prohibiting suction dredge mining a specified distance upstream of drinking water system intakes;
- Prohibiting suction dredge mining a specified distance from California Native American Tribal land boundaries; and/or
- Prohibiting dredge mining in waters with elevated fish or aquatic invertebrate tissue mercury levels.

-last updated May 13, 2020