We usually stay from Mid-May to Mid-Oct in N. CA for dredging. We support the local economy wherever we stay. And yes, we have never harmed a fish.

050211_Thayer_BaselineV

Mark Stopher
California Department of Fish and Game
601 Locust Street
Redding, CA 96001
Fax: (530) 225-2391 E-mail: dfgsuctiondredge@dfg.ca.gov

Dear Sir,

Please consider my following comments regarding the SEIR and Proposed Regulations for suction dredge mining in California:

SEIR Baseline is wrong: I take strong exception to the Department using an arbitrary and misleading baseline within the SEIR in an underhanded attempt to make the impacts from suction dredging appear greater than they really are, and in an attempt to marginalize the serious economic and social impacts to Americans which would result from your proposed regulations. You should use a proper baseline that is based upon existing dredge and small business activity under the 1994 regulations during the season before the moratorium was imposed.

Mercury is not a problem: Your SEIR relies unreasonably upon the unfounded conclusions of Charles Alpers' who has allowed his personal political agenda get in the way of real science. The SEIR does not give enough weight to the discovery by Rick Humphries Report of California Water Resources Control Board that normal gold dredges are effective at recovering at least 98% of the mercury from the bottom of California's waterways.

The SEIR does not acknowledge, based upon your own survey results, that suction dredgers have been removing over 7,000 ounces of mercury or more every year under the 1994 regulations from California's waterways. That amounts to 98,000 ounces during the 14 years we operated under the 1994 regulations! Adoption of the SEIR position would be fundamentally unreasonable in a context where the mercury is inevitably migrating downstream to areas where it is believed to be potentially harmful.

Since California State agencies are doing nothing to remove mercury from California's active waterways, it is grossly irresponsible to point the finger at suction dredgers who are the only ones that are removing the mercury, at no cost to the taxpayers!

Rather than reduce the amount of mercury which we are removing from the ecosystem, the responsible approach for State agencies would be to create a collection system in California which rewards dredge-miners for collecting and turning in mercury.

Identification requirement: The proposed regulations should allow visitors from other countries to use a foreign passport or driver's license as identification so they can apply for nonresident suction dredge permits. Otherwise, California will be discouraging the many visitors which we already receive that like to do their gold prospecting here.

DFG should not limit the number of suction dredging permits: There is no evidence presented in the SEIR that 14 years of dredging under the 1994 regulations ever harmed a single fish, much less threatened the viability of an entire species. What if I want to operate a dredge in some part of California where there would not be a deleterious impact? A limit on permits may prohibit me or someone else from using a suction dredge without a viable reason.

Allowing additional dredge permits after site inspection: In the event that DFG decides to impose (reasonable) limits in a blanket statewide permit program that will allow for most suction dredgers, I do not believe DFG has the authority to declare a wholesale prohibition to dredge mining in the other vast areas which exist on the public lands that would not be covered by the blanket permit. DFG has a site inspection mechanism allowing you to consider more individualized impacts in areas, and during time periods, when and where dredging would not be allowed in a statewide program.

Onsite inspections should be immediately signed off when approved: There should not be a delay in signing off on a site inspection in cases where DFG officials cannot identify a deleterious impact. There should be a time limit in the regulations in which the application will be approved or disapproved. Due process should be allowed if I desire to appeal an application which has been disapproved.

Prior existing rights on permit acquisition: There must be an allowance for prior existing rights on a limited permit program. Otherwise, dredge-miners who have already invested in property and equipment could potentially lose our prior existing right to work our mining claims or other mining opportunities (belonging to an association that provides access to mining property).

Statewide permits, if limited, should be transferable: Permits should be transferable if there is going to be a limit on the number allowed under a statewide program. Otherwise, miners will make the substantial investment into developing a viable mine and then not be able to transfer ownership to someone new who will be able to dredge it, therefore losing some or most of the value.

DFG should not further-limit the size of dredges under the statewide permitting program: I do not believe that DFG has the authority to step onto the public lands and impose a permit restriction upon the productive capacity of my dredge without also coming up with specific reasons why existing capacities under the 1994 regulations are creating a deleterious impact upon fish. Please leave nozzle restriction sizes as they were in the 1994 regulations.
The regulations should also allow a wear tolerance factor on nozzle restrictor rings. I suggest 3/8 of an inch (diameter) is reasonable.

Allowing larger-sized nozzles after site inspection: If a dredger wants to operate a dredge having a larger nozzle than is allowed under a statewide permitting scheme, the Department should allow the activity as long as no deleterious impact can be determined though a site inspection.

DFG should not further-limit the places where dredging is allowed: This proposal is just supported by your "precautionary approach." Except for those areas where you can demonstrate that a deleterious impact has been created under the existing regulations, please leave our seasons as they have been since 1994.

Gold miners should be afforded due process, and should be allowed to proceed in areas which are not allowed under a statewide permit, as long as a site inspection cannot turn up evidence of a deleterious impact.

Reduction of our existing dredging seasons is unreasonable: I do not see that the SEIR contains evidence of a deleterious impact upon fish to support the reduction of existing dredging seasons that are in the 1994 regulations. This proposal is only supported by your "precautionary approach." Except for those time periods where you can demonstrate that a deleterious impact has been created under the existing regulations, you leave our seasons as they have been since 1994.

The proposed 3-foot rule is unreasonable: The SEIR has not presented any real evidence that dredging within three feet of the streambank has ever harmed a single fish. This prohibition would prevent beginners, non-swimmers or children from starting closer to the shore where water is shallower and more safe. Prohibiting dredging within three feet of the edge of the river will eliminate a significant portion of the operational value (perhaps even all of it) on some dredging properties.

It would be more productive to provide better language describing what the "bank" is in relation to dredge mining. For example, is there a "bank" in relationship to a gravel bar out in the waterway that is partially out of the water? What about a bar alongside the waterway that is submerged during the spring, but emerges more and more out of the water as the dry season evolves? Existing language is not clear enough. The proper answer is to clear that up, rather than impose an additional buffer zone which reduces our mining opportunities.

Suction dredge regulations should not impose the requirement of Section 1600 Agreements: Fish & Game Section 5600 already allows a site inspection mechanism for the Department to determine if a dredging program is deleterious to fish. Therefore, also imposing a Section 1600 requirement upon dredgers who wish to mine at a time or location that is otherwise closed, or to use larger nozzle than is allowed under a statewide permit, when there is little or no chance the dredge project will create a substantial impact upon the bed or bank of the waterway, would be an unreasonable imposition upon dredge-miners. Nobody else in California is required to pursue a Section 1600 permit until their activity rises to the level of requiring one. It should not be any different for suction dredgers.

This also applies to the use of power winches, which provide the only safe and efficient means of progressing when some rocks are too heavy to move by hand, or they cannot be rolled over other rocks that are in the way. You should not impose a 1600 Agreement requirement upon a gold dredger unless the surface disturbance rises to the level which triggers Section 1600 of the Fish & Game Code.

Imposition of the 3/32-inch intake requirement on pumps is unreasonable: The 1994 regulations already prohibit dredge operation at times when fish may be too small to swim away from pump intakes as they are already being manufactured.

Most dredges today are being produced using 3/16th inch or 15/64th inch holes for the pump intakes. To avoid conflict, you should adopt something larger than the two hole sizes which are already being used on most dredges in California.

Allowance of permit locations must be more broad: Since existing regulations already set the times and places where dredging is not deleterious to fish, I do not see any practical reason to force dredge-miners to inform DFG exactly where they are dredging – and then hold them to the location unless the permit is amended.

Since I intend to prospect, I will not know the exact locations where I will be dredging at the time I apply for my permit. You should broaden the location requirement in your permit application to naming the waterways where I intend to work. This will allow me some flexibility to move around in search of gold without having to make an expensive trip to the closest Department license sales office to amend my permit.

The proposed dredge marking system is not workable: There is no practical way of attaching a sign to a small dredge! What does this have to do with preventing a deleterious impact upon fish?

If you must have an identification number on my dredge, you should eliminate the requirement of 3-inch number and allow the numbers to be marked either on the pontoons or the sluice box, but only if it is possible to do so. This would allow smaller numbers in the case of smaller dredges.

Fuel should be allowed within 100 feet of the waterway if kept within a water-tight container or a boat: I question your authority on placing any requirement upon suction dredgers in this matter, other than to prohibit the spillage of fuel. Millions of boaters all over California are allowed to keep fuel safely in their boats. Your proposed regualtions would prohibit suction dredgers from doing the very same thing!

There are plenty of effective ways to prevent fuel from leaking into the waterway without making a dredge-miner hike 100 feet up the embankment. At the very least, fuel can be placed inside of a boat, or inside a sealed catch tub of some kind up on the embankment to prevent leakage. These catch tubs are already routinely part of a dredge program to assist with cleanup of concentrates.

Disturbance of mussel beds: It is unreasonable to propose that every suction dredger must now do a survey before dredging to make certain that there is no place within 30 feet downriver where more than 40 muscles per square yard exist before dropping tailings! Some rivers are so inundated with muscles; this imposition would amount to a suction dredge prohibition in a large part of the waterway! And why, since there are so many? How does the protection of mussels from dredge-miners conform to the language of Section 5653? Please drop this silly mussel idea from final regulations.

Returning the site to the pre-mining grade to the greatest extent possible: Since it is impossible to move tailings and rocks upstream against a swift current, the requirement to fill in our holes and level off our tailings is unrealistic.

Ample evidence shows that salmon are less likely to place their redds in a heaped tailing pile, than they are on a pre-mining grade which is inundated with unstable gravel; so your proposal will actually create more harm than good! The dredge holes which I leave behind create cool water refuges where salmon and other fish hold up during the warm summer months. My piled cobbles create protected habitat where fingerlings can hide from predators. It would be better for the fish if we just allow Mother Nature to settle things out in the next storm event.

Dredge mining between one half hour after sunrise to sunset: Your authority is limited to preventing a deleterious impact upon fish. Please drop this from proposed regulations and leave this particular concern to local authorities where it belongs.

Thank you very much for giving careful consideration to my comments and suggestions!

Sincerely, Sybil Thayer 3700 S. Westport Ave #1850

4" or 5" dredge²

Sybil Thayer Sioux Falls, SD 57106 5/2/11

Name and Address Date

5" dredge Mike Thayer 3700 S. Westport Ave #1850

Sioux Falls, SD 57106 5/2/11

050211_Vogt

From:	"William Vogt"
To:	CDFG <dfgsuctiondredge@dfg.ca.gov>
CC:	
Date:	05/02/2011 12:47:15 PM
Subject:	Suction Dredge Program Draft SEIR Comments

To Whom It May Concern:

Attached is my comments to regulation 228(j)(3).

Bill Vogt

Suction Dredge Permitting Program
Draft Subsequent Environmental Impact Report (DSEIR)
Comment Letter

Submitted By:
Name: Bill Vogt
Mailing Address: 1430 Ebbetts Dr., Reno, NV, 89503
Telephone No.: 775-747-3145
Email: wvogt@sbcglobal.net

Proposed Regulation:

228(k)(3)

Under 228(k), restrictions on methods and operation there is:
"(3) No person may suction dredge within three feet of the lateral edge of the current water level, including at the edge of instream gravel bars or under any overhanging banks."

Comments:

If you search the DSEIR for either the expression "3 feet" or "three feet" you will find a total of 31 instances. If you then look at each of the instances you will find they breakdown accordingly:

2 instance are in the Executive Summary where the regulation is describe.
1 instance is in the Proposed Regulation.
1 instance is in Chapter 2 where the proposed regulations are also listed.
1 instance is in Chapter 4.1 under GEO-4 where the rule is cited a preventive measure.
8 instances are in Chapter 4.3 under BIO-WILD-4, BIO-HAB-1, BIO-FISH-3, BIO-FISH-10, BIO-WILD-2, BIO-WILD-3, BIO-PLANT-1, and BIO-PLANT-2 where the regulation is list as one of several that will "further minimize the potential impacts …".
1 instance is in Chapter 4.3 in table 4.3-1 under the column "General Rational for Proposed Regulations" for the foothill yellow-legged frog.
17 instances are in Chapter 4.3 in table 4.3-2 under the column "Determination Regarding Effects of Proposed Program" for 17 different species.

This detailed list has been presented to show that nowhere in the DSEIR is there any discussion on how this "3 foot" rule was established. A question that immediately comes to mind is why not 2 feet instead of 3 feet. Or for that matter why not 1 foot instead of 3 feet. The point is that the "3 feet" appears to be completely arbitrary.

A similar search done on the phrase "instream gravel bars" only brings up 4 instances. Two of the instances are in the Executive Summary and the other two are in the Proposed Regulations. There is no discussion anywhere in the DSEIR justifying a 3 foot restriction

around instream gravel bars. So again, this appears to be a completely arbitrary inclusion.

The problem with this regulation is clearly stated in Chapter 4.1, on page 4.1-24, lines 16-18 (the bold and underlining added for emphasis):

> "… regulations prohibit dredging within 3 feet of the existing water line, which would result in dredging being **prohibited in streams that are 6 feet or less across.**"

This regulation completely shuts down dredging to a large number of water bodies without any valid reason.

Recommendation:

Since absolutely no justification has been presented by the DSEIR for the establishment of a "3 feet" rule this proposed regulation should be eliminated. The prior regulation of not dredging into the bank should be retained but a better definition of what the bank is would help.

5/2/11 Sent via email @ 7:27 pm.

050211_Wetzel

Mark Stopher
Environmental Program Manager
California Department of Fish and Game
601 Locust Street
Redding, CA 96001

RE: Suction Dredge DSEIR

Dear Mark,

At the meeting in Sacramento, you said all questions proposed in our comments verbal or written will be answered. I have questions below and it will be interesting to see if you keep your promise and answer all of them.

At this time, I would like you to know that I am an expert on the location of the East Branch of the North Fork of the Feather River (EBNF) north of Twain and the lower end of Indian Creek below Indian Falls and the travertine rock quarry. I am an expert in this area because of the countless hours of time, over many days, months and years that I have spent down at the river and also in the river. I can say without a doubt that over the years that I have spent more time at the river than even a great majority of the locals. This qualifies my statements listed below on the EBNF Feather River north east of Twain and the lower end of Indian Creek below Indian Falls and the travertine rock quarry as expert testimony. Another fact that makes me an expert in frogs is that for 40 years I have lived within 100 feet of a pond and I know what frogs, tadpoles and frog egg masses look like and act like as I grew up catching them every summer.

Regarding the DSEIR for dredging, I strongly disagree with the following proposed restrictions:

1. The classification of many river systems is such that it severely restricts the dredging season or shuts them down to all dredging.
    a. There is no clear evidence to justify eliminating or severely restricting so many areas to dredging.
    b. It became apparent when reviewing the DSEIR classifications that instead of there being a scientific balanced approach to what classification each river system would get that the authors of the DSEIR decided the river classification based on exactly what they wanted the river to be classified at.
        1. It was shocking to see on the DSEIR that some sections of the rivers and some total rivers had the exact same species listed, but were inconsistently classified as A, C, D, E, F without any apparent alternative reason.
        2. **Why did the DFG inconsistently classify river systems that had the exact same species listed?**
        3. **What steps will be taken to rectify these inconsistencies?**
    c. This rule should default back to the current 1994 regulations.

2. It is completely unfair that dredgers are the only group suffering because the DFG considers the FYLF to be a state species of concern.
    a. Dredgers do not harm the frog.
    b. Studies show that DFG harms the frog each time they introduce fingerling trout into the river systems.
    c. Studies show that the frog is harmed by the use of pesticides.
        1. With the towns of Quincy, Meadow Valley, Crescent Mills, Greenville, Taylorsville, Genoese along with Antelope Dam which are all within the Indian Creek and Spanish

Creek and the EBNF Feather River drainage systems I am sure that pesticides are introduced into the rivers from these areas.

d. Dredgers do not stock the streams with fish nor do they use pesticides.
e. In the 14 years that I have dredged on the EBNF Feather River north east of Twain and the lower end of Indian Creek below Indian Falls and the travertine rock quarry. I have the following points for your consideration:
    1. There are large numbers of Crayfish in these river systems. These river systems are well known by locals as a place to catch Crayfish that they cook and eat. These Crayfish would decimate the FYLF, tadpoles and its eggs so there would be no chance of survival for the frog.
    2. I have never seen a FYLF, tadpoles or frog eggs in this area.
    3. I have never heard any of the locals mention that they have seen the FYLF nor has it ever been a topic of conversation.
f. In the 10 years that I have been taking the Quincy Newspaper, Feather River Bulletin, I have never read in the newspaper that there was any scientific study of the FYLF in this area.
g. Please refer to the following DFG FYLF Map (1995) that is from your own website and clearly shows NO recorded specimens of the FYLF being collect in this stretch of the river!

AmphibiaWeb Species Map: Rana boylii

h. How was it determined that this portion of the river was a habitat for the FYLF?
i. What scientific proof and scientific study has proven that there are FYLF in this area?
j. Why are fishermen, Indians and other recreationalist going to be allowed to continue engaging in their sports along the edge of the rivers (the exact area the foothill yellow legged frog lays their eggs), but dredgers will not be able to? Do you believe this outcome is fair?
k. Why was it determined the EBNF Feather River and tributaries would be classified as an E?
l. Why was it determined the North Fork Feather River would be classified as a D?

m. **Will you change the classification of the EBNF Feather River north of Twain and the lower end of Indian Creek below Indian Falls and the travertine rock quarry to a classification D?**
    1. There is enough evidence to change the classification to a D.

3. Regarding the classification E for the river systems, I am afraid for my life and my husbands! We are being put into harms way by the proposed season for dredging as most of it will be in winter.
    a. I am expected to get into an ice cold river and dredge up to January 31st.
        1. It will be too cold for me and I there are great chances that I will get hypothermia and pneumonia.
    b. During the winter, the rivers are running much higher and the current is much faster than in summer time.
        1. I will be subjected to a much greater chance of drowning.
    c. Why didn't the DSEIR give consideration to the health and well being of dredgers when they assigned the river classification D?

4. Taking away dredging has had negative affects on mental and physical health.
    a. This has affected my health by placing stress on my family, from an income standpoint, an enjoyment of life viewpoint, being out in nature doing something I really enjoy, along with the lack of physical exercise from not being able to dredge.
    b. Numerous people that attended the DSEIR meeting in Sacramento also showed these detrimental effects. I believe the DFG should give consideration to the mental and physical health of dredgers.
    c. **Did the DFG give any consideration to the mental and physical health of gold miners during the DSEIR process? Will the DFG give any consideration to this in the final proposal?**

5. The 4" dredge nozzle restriction is unnecessary as dredging is not harmful to fish.
    a. This should be broadened to include 6 & 8 inch nozzle size without any additional meetings with DFG.

6. There should not be a limit on the number of permits.
    a. Even if there is a limit set, it should be above 13,200, which is the approximate high number in the statistical average that the report specifies.
    b. The largest kill of fish in the country occurs by Fisherman. One good Fisherman kills more fish in one year than the entire dredging community is accused of.
        1. **Why is there a limit set when the number of fishing licenses sold is unlimited?**
    c. A concern for the dredging community is that with a specified limit number of dredge permits that high-financed left wing environmental extremist groups will buy up every available permit and thereby, no one in the dredging community will get one. They will buy them individually and then just hold the permits without using them and this will greatly restricting those who want make a living from dredging and do recreational dredging.
        1. **What steps will be taken to ensure this does not happen?**
    d. Last, but not least, if a final decision is made to set a specific number, California residents, mining claim owners and private landowners should have first priority on securing the permits.
        1. **What will be done to protect the rights of California residents, mining claim owners and private landowners if there is a limit to the number of dredge permits issued?**

7. Not being allowed to dredging within 3 feet of the water's edge would make it impossible to dredge in many small river systems and streams because they are less than 6 feet in diameter.

a. This requirement should be stricken from the DSEIR and the old rule (no dredging into the bank) be kept.

I attended the March 29th meeting in Sacramento where I asked for the interpretation of the following portion of the DSEIR "Feather River, North Fork (mainstream); Mainstream from Plumas-Butte County Line to the East Branch of North Fork Feather River." I had to go to 3 different assistants at the Public Hearing including a Fish and Game Warden for the Sierra County area and only Kevin Fisher was able to answer. I believe Kevin Fisher worked for the company that prepared the DSEIR and none of the other people I talked to could answer a pretty basic question for certain. I was specifically told by the Fish and Game Warden from Sierra County that Plumas County was not his area so he did not know. It highly concerns me that a Fish and Game Warden does not know enough about the program they are to enforce and it leads me to believe that the interpretation will be subjective to the individual and not an objective interpretation. I feel that each Fish and Game Warden will interpret the final EIR in their own individual ways and there will be inconsistencies through out the enforcement. **What steps will be taken to ensure a consistent, objective interpretation of the DSEIR will be made by ALL DFG employees? What steps will be taken to insure that inconsistencies with interpretation will not happen depending on where you are and which FGW you talk to?**

I agree with others that no "real science" has been done with this DSEIR. They studied fish, frogs, snakes, the things they eat, the manner in which they reproduce, the surrounding riparian habitat that supports all these activities. They then have made extrapolations about what a dredge "might" do to disrupt these support systems, thus destroying the fishery. What they have not done was to prove the theories by establishing controlled study areas. Remove the dredge, the fisherman, and all other activities. Study the fishery and it's support systems. Then introduce the dredge, study the manner in which the dredge is operated, and then study the effects of dredging in a real world interface. Remove the dredge, and study the system post dredging. Any 5th or 6th grade science student should have been able to come up with that simple study and suggest that it be done on various sizes and types of waterways around the state. The DSIER research group did not do any of this. They did not do a study of the effects of dredging on fisheries and we will not accept the manner in which they came to their conclusions. **When in the DSEIR process was a scientific study as outlined above done? Why wasn't a scientific study as outlined above done for the DSEIR? Why won't the DFG lobby for more funds so that they can do a DSEIR like the one listed above?**

My final questions for you are: **Did you witness first hand anyone suction dredging? How many of the individuals that prepared the DSEIR witnessed dredging first hand? Did you or any of the individuals that prepared the DSEIR actually spend time dredging? How many total hours did they and/or you spend watching dredging and if applicable spent dredging? How would you rate each individual first hand knowledge of suction dredging? Would you rate them as expert, intermediate or beginner in knowledge of first hand dredging? What criteria did you use to rate them as expert, intermediate or beginner? Do you think it is fair that individuals with very limited first hand knowledge of suction dredging are given the task of determining it's future?**

I look forward to viewing the responses to all of my questions and that the overly restrictive, inconsistent classifications of river systems are abolished in the final EIR. I am also hopeful that more reasonable choices for all of the other issues that I raise are implemented.

Regards,
Laurie Wetzel
Newcastle, CA 95658

Paul Coambs
1464 Madera Ave. #N177
Simi Valley, CA 93065

5/3/2011

Mr. Mark Stopher
California Department of Fish and Game
601 Locust St.
Redding, CA 96001

Comments Regarding: Suction Dredge Permitting Program
Draft Subsequent Environmental Impact Report
California Department of Fish and Game

Dear Mr. Mark Stopher,

When I read California's newly proposed suction dredge regulations, I immediately began to see red flags. My law enforcement background and sense of justice is sounding a red alert.

Although I'm not a suction dredge miner, I *am* a miner and these proposed regulations are just plain wrong — and unjust. As a former law enforcement officer, I easily recognize the threats contained in these proposed regulations to suction dredge miners specifically and to the public in general.

The Department of Fish and Game intends to impose on suction dredge miners a class of permit requirements and restrictions that it does not impose on hunters and fishermen. There are four notable areas of unique requirements:

1. a maximum of 4,000 suction permits are to be provided

2. dredging equipment must be itemized, "A list of all suction dredge equipment that will be used under the permit, including nozzle size, constrictor ring size (if needed), engine manufacturer and model number, and horsepower;"

3. a maximum of six dredging locations are allowed per license and a list must be provided with an exact geographical location for each site

4. an approximate date for dredging must be provided for each location

Historically, there has been no limit to the maximum number of suction dredge permits that can be issued. According to DFG, the previous number of annual permits issued is in the area of 3,000 or so.

The current plan to limit the maximum number of permits to 4,000 is unsupported by data indicating the necessity of the requirement. Whether or not it is an intended consequence by the DFG or not, the plan presents the possibility that environmental activists may purchase permits with the expressed purpose of locking out suction dredge miners from exercising their federal statutory rights to mine. Buying up most of the suction dredging permits is far cheaper for the environmental activists than filing lawsuits. The State is, therefore, aiding and abetting a radical environmental agenda.

There are only three dredging equipment specifications in the regulations:

1. the diameter of the suction nozzle;
2. the intake hose diameter;
3. and pump intake screen specifications.

Why is it necessary for the state to force the miner to disclose a list of all *unregulated* equipment used to include engine manufacturer, model number and horsepower? Changing any of the equipment without the onerous modification of the permit is impermissible and citable. Clearly, the listing of all equipment, for which there are no State permit requirements, is a *selective enforcement* tool for DFG law enforcement, a polite way to say *harassment*.

The requirements of location and dates reveal another State agenda, which will impede and make difficult the lawful activity of suction dredging.

The proposed regulations would make it unlawful to dredge anywhere other than the maximum six locations listed on the dredging permit. The limitation to number of dredging locations, without justification of supporting data, clearly limits the opportunities to suction dredge.

Why does the State need to know the whereabouts of suction dredging locations? And, why does the State need to know the "approximate" dates that each location is intended to be dredged? These requirements are clearly designed to assist law enforcement to easily locate a suction dredging operation.

Civil law enforcement operates in two modes, reactive and proactive.

Reactive enforcement is when law enforcement learns of a potential violation of law and responds to address the specific violation by specific violators.

Proactive enforcement is when law enforcement targets a class of suspected violators of law with specific actions. Unlike reactive enforcement, proactive enforcement presumes violations by a class of violator.

These regulations clearly announce that suction dredgers are a specific class of potential law violators that requires that law enforcement be provided the *proactive* tools to deal with the violators. Therein lays the rationale for the location and approximate date requirements for permitted suction dredging. These regulations provide no data to support a de facto assertion that suction dredgers are a specific classification of law violators justifying the specific proactive targeting of them by law enforcement.

Unintended consequences of the requirements of location and dates are even more ominous. DFG license data is public information and thus discoverable via a public records information request. The data will be extremely beneficial to anyone desiring to locate a dredging operation for purposes of robbery, theft or vandalism. In addition, it tells criminals when the suction dredger's residence may be vacant and more vulnerable for burglary and/or home invasion robbery.

Characterizing suction dredgers as potential criminals, these regulations provide law enforcement with specific and unique proactive tools to target the miners. By formulating unjustified regulations, the State is deliberately limiting freedoms and creating an environment ripe for the encouragement of law enforcement excesses. Incentivizing police abuse of citizens, whether intended or unintended, is a step forward on the road toward a police state.

Regards,

Paul Coambs

COUNTY OF EL DORADO

330 Fair Lane
Placerville, CA 95667
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SUZANNE ALLEN DE SANCHEZ
Clerk of the Board

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May 3, 2011

California Department of Fish and Game
Attn: Mark Stopher, Environmental Program Manager
601 Locust Street
Redding, CA 96001

Re: Suction Dredging Draft Subsequent Environmental Impact Report

Dear Mr. Stopher:

El Dorado County has a rich history of gold mining and has provided a viable and prosperous vocation for hundreds of thousands of miners, producing tens of millions of ounces of gold since its discovery in 1848. With the passage of SB 670 in August 2009 all suction dredging operations ceased in the State of California, further depressing the local economy. Equally concerning, is the California Department of Fish and Game (DFG) and their proposed rules and regulations with the recent release of the Draft Subsequent Environmental Impact Report (DSEIR) on suction dredging. The proposed rules and regulations will adversely affect thousands of jobs and diminish the value of the mineral estate of thousands of private property owners who hold title to land in California.

Clearly ignored in the DSEIR is the macroscopic effect of naturally occurring processes to our rivers and streams versus the microscopic effect of the few thousand miners who extract gold from these waterways (SNF Cooley 1995). It is well documented that the dredging industry has little effect on our waterways. In fact, while producing a culturally important and significant benefit to our economy, they contribute significantly to the cleaning of waste and toxic metals from the bottom of the river beds cost free to the taxpayers; which is an important fact to be considered.

One of the newly proposed regulations would prohibit dredging within three feet of the wetted edge of a stream and would impact mining on nearly every private or public small stream in California. This proposal affects a "Takings" of the only economically viable means to extract gold (suction dredging) from the mineral estate on private gold bearing properties containing a small stream. There is nothing in the DSEIR to substantiate the need for the addition of this rule and is a violation of our Constitution and property rights.

More specific to El Dorado County, the new regulations prohibit dredging in Weber Creek and Rock Creek, which have continually produced significant amounts of gold on private property and federal mining claims.

The complete prohibition of small-scale mining on these historically productive streams is not acceptable or scientifically substantiated in the DSEIR.

Another issue of great concern to those in El Dorado County is the proposed rule changes affecting mining on the Cosumnes River Watershed. Changes to seasonal restrictions already in place since 1994, should not be imposed without irrefutable, science based, peer-review studies supporting such changes. These proposed changes negatively impact the economic viability of many small-scale mining businesses on private property as well as Federal Mining Claims. The regulation, which only allows work between September 1 through January 31 annually, is effectively a complete prohibition of mining on affected streams. Mining becomes progressively more difficult due to extreme low water flows that occur by early fall, on the streams zoned E, that render equipment virtually inoperative. As well, rapidly cooling seasonal temperatures make it physically impossible to work in a wet environment while in the upper reaches of the Cosumnes River i.e.; Camp Creek and Middle Fork Cosumnes near Pi Pi Valley. Also, valuable equipment and lives will be put in peril by the ever-present threat of flash floods which occur often in the fall at these higher elevation streams. This questionable, proposed new zoning, which imposes a fall and winter "season of operation", is not acceptable, justified or practical. This unwarranted rule change is downright hazardous to physical lives as well as the economic well-being of the productive miners in El Dorado County.

Until the passage of SB 670, hundreds of ounces of gold were mined annually by professional dredgers from the South Fork American River (River) in El Dorado County. In 1994, DFG reduced the dredging from "Year Round" to a June 1 through October 15 annual season despite the repeated requests to provide a justifiable reason for this closure. There is a misconception that suction dredging has a negative effect on the aquatic life in the River, but this has never been proven. In fact, the uneven spiked releases from Chili Bar Dam between 250 Cubic Feet per Second (CFS) and 4,000 CFS results in a fluctuation on the River, and creates a severely compromised biological zone of over four feet in elevation, which has a severe negative affect on the aquatic and riparian life. Given this fact and the knowledge there are hundreds of thousands of additional recreational users, it is without merit that the dredging community be held responsible for negative effects to our River corridor and its habitats. Unless the DFG and the new DSEIR can produce objective, fact based reasons for seasonal or nozzle size restrictions of suction dredging on this environmentally compromised river, we recommend professional and recreational miners be allowed to resume their valuable work year round. Unjustified, arbitrary regulations are not acceptable.

As it stands, the DFG's currently proposed new rules and regulations appear to ignore scientific facts and documented independent peer reviewed studies that have been recognized and noted in the present and past EIR processes. The El Dorado County Board of Supervisors requests that all conclusions be objective and accurate and not based on conjecture, but reflect the actual scientific facts and peer reviewed studies.

Thank you for your consideration.

Sincerely,

Raymond J. Nutting, Chair
El Dorado County Board of Supervisors

Subject: Dredging
Date: Tuesday, May 3, 2011 2:29:18 PM PT
From: Hartzell, Charles C
To: mstopher@dfg.ca.gov

I am one of the owners of a corporate placer claim in Siskiyou County and I would like to put in some comments on your proposed new regulations; and I can't seem to find any more current information on how this process is progressing. I will note a few items in your proposed new regulations that I find particularly disturbing.

(3) No person may suction dredge within three feet of the lateral edge of the current water level, including at the edge of instream gravel bars or under any overhanging banks. Much of the creek on our claim has only 6 ft of wetted perimeter as it cascades down the canyon, so we can't dredge at all there, why?

(4) No person shall remove or damage streamside vegetation during suction dredge operations. This could be enforced in draconian ways by a gov't employee to mean if we bend a blade of grass we have damaged the streamside vegetation - this is ridculous any all know that some individuals that are against mining in any form will take the literal meaning of your regulations to the nth degree.

(5) No person shall cut, move or destabilize instream woody debris such as root wads, stumps or logs. The current restrictions against imbedded woody debris was sufficent enough, so now if there's a log, or branch a.k.a. woody debris laying in the creek, we can't move it? I've seen 50 lb cast iron grates moved 1/4 mile in one season on my little creek much of it boulder fields with very little drop in elevation. Every season there are new logs and limbs scattered along it that will not be there next year. Also, my claim starts 1/2 mile or more from the south fork of the Salmon river and there are no salmon that live and spawn in it. The trout, when they are there in the larger holes hover around the intake nozzle of my dredge along with the water puppies to pick up bugs when we turn over rocks.

(9) All fueling and servicing of dredging equipment must be done in a manner such that petroleum products and other substances are not leaked, spilled or placed where they may pass into the waters of the state. Most of us care more about our claims and the plants and animals that live there and we are as diligent as possible to keep our claims pristine that's a big reason why we are out there. Someone sitting at a desk or driving around a metropolitan area doesn't have a clue on what we do to clean up previous messes left by others and to maintain our claims as God created them.

(10) No fuel, lubricants or chemicals may be stored within 100 feet of the current water level. Where this is not feasible, a containment system must be in place beneath the fuel, lubricants or chemicals. Most of our claim is within a canyon and that's why it wasn't worked in the 70's and 80's or partially worked there is no way for me keep fuel 100 ft away from the area where we are working unless we were to pack the dredge 100's if not 1000's of feet away every time we were going to fill up the tanks - often twice a day.

(12) No person shall displace any material embedded on banks of rivers or streams. This would preclude doing any crevicing or moving rocks in and adjacent to the stream. It seems to me you are working very hard to exclude us from working our claims at all. In my honest opinion you aren't trying to set reasonable restrictions on mining to protect the environment you are trying to stop us from being able to mine at all.

Charles (Charlie) Hartzell
787 FA&D
425.266.0651

Subject: FW: Suction dredge program Draft SEIR Comments
Date: Tuesday, May 3, 2011 6:19:38 PM PT
From: MC Eureka
To: dfgsuctiondredge@dfg.ca.gov

From: MC Eureka [mailto:mc252@jafoods.com]
Sent: Tuesday, May 03, 2011 6:18 PM
To: ''dfgsuctiondredge@dfg.ca.gov'
Subject: FW: Suction dredge program Draft SEIR Comments

From: MC Eureka [mailto:mc252@jafoods.com]
Sent: Tuesday, May 03, 2011 6:16 PM
To: 'dfgsuctiondredge@drg.ca.gov'
Subject: Suction dredge program Draft SEIR Comments

To whom this may concern,
I am writing on behalf of all gold miners, claim owners and dredgers statewide. I have been dredging on the North Fork for years and always abided by the seasons and restrictions the state regulates. I have never even seen any Coho during the regulated season. I could tell you in all honesty that the dredging by myself and my fellow miners does not affect their population in any aspect. By spring you cannot even tell where any of us have been dredging. There is no proof that backs the closing of the New River, EFNF, and North Fork. Please go back to the old regulations that would allow the three month season for me and my fellow miners. There were no issues and everything was working fine for all involved.

Thank you,
Crystal Hickey
1432 L. ST.
Eureka, CA
95501
crystal012082@yahoo.com

Notice of Availability of a Draft Subsequent Environmental Impact Report for the Suction Dredge Permitting Program (SCH #2009112005)

NOTICE IS HEREBY GIVEN that a Draft Subsequent Environmental Impact Report (Draft SEIR) has been prepared by the California Department of Fish and Game (CDFG) for the Proposed Program described below, and is available for public review. The Draft SEIR addresses the potential environmental effects that could result from implementation of this Program. CDFG invites comments on the adequacy and completeness of the environmental analyses and mitigation measures described in the Draft SEIR. Note that pursuant to Fish and Game Code Section 711.4, CDFG is exempt from the environmental filing fee collected by County Clerks on behalf of CDFG.

PROJECT LOCATION: The scope of the Proposed Program is statewide. Suction dredging occurs in rivers, streams and lakes throughout the state of California where gold is present, and CDFG's draft suction dredge regulations identify areas throughout the state that would be open or closed to suction dredging. Most dredging takes place in streams draining the Sierra Nevada, Klamath Mountains, and San Gabriel Mountains. Suction dredging may also occur to a lesser extent in other parts of the state. Because suction dredging may occur throughout the state, it is possible that the activity could occur in a hazardous waste site or listed toxic site.

PROJECT DESCRIPTION AND ENVIRONMENTAL REVIEW: The Proposed Program, as analyzed in this Draft SEIR, is the issuance of permits and suction dredge activities conducted in compliance with these permits, consistent with CDFG's proposed amendments to the existing regulations governing suction dredge mining in California. The environmental assessment of the Program was developed in parallel with amendments to the previous regulations governing suction dredge mining throughout California. To most accurately reflect the environmental effects of the Program, the DSEIR includes an assessment of the suction dredge activities as well as the proposed amendments to the previous regulations.

The Draft SEIR evaluates the potential environmental impacts of the Proposed Program and four alternatives: a No Program Alternative (continuation of the existing moratorium); a 1994 Regulations Alternative (continuation of previous regulations in effect prior to the 2008 moratorium); a Water Quality Alternative (which would include additional Program restrictions for water bodies listed as impaired pursuant to the Clean Water Act Section 303(d) for sediment and mercury); and a Reduced Intensity Alternative (which would include greater restrictions on permit issuance and methods of operation to reduce the intensity of environmental effects).

The analysis found that significant environmental effects could occur as a result of the Proposed Program (and several of the Program alternatives), specifically in the areas of water quality and toxicology, noise, and cultural resources. However, as CDFG does not have the jurisdictional authority to mitigate impacts to these resources, such impacts have been identified as significant and unavoidable.

DFG Suction Dredge Permitting Program SEIR NOA (SCH#2005-09-2070)

PUBLIC REVIEW: The Draft SEIR and supporting documents are available on the CDFG Program website (http://www.dfg.ca.gov/suctiondredge) and upon request at 530-225-2275. Copies of the Draft SEIR are available to review at the following county libraries and CDFG offices:

- 601 Locust Street, Redding
- 1701 Nimbus Road, Suite A, Rancho Cordova
- 1807 13th Street, Suite 104, Office of Communications, Sacramento
- 7329 Silverado Trail, Napa
- 1234 E. Shaw Avenue, Fresno
- 4949 Viewridge Avenue, San Diego
- 4665 Lampson Avenue, Suite J, Los Alamitos
- 3602 Inland Empire Blvd, Suite C-220, Ontario
- 20 Lower Ragsdale Drive, Suite 100, Monterey
- County libraries (please see web page listed above for list of County libraries)

PUBLIC COMMENT: Written comments should be received during the public review period which begins on February 28, 2011 and ends at 5 p.m. on April 29, 2011. Comments must be postmarked or received by April 29, 2011. Please mail, email, or hand deliver comments to CDFG at: Suction Dredge Program Draft SEIR Comments, Department of Fish and Game, 601 Locust Street, Redding, CA 96001, Written comments may also be submitted by email: dfgsuctiondredge@dfg.ca.gov (Please include the subject line: Suction Dredge Program Draft SEIR Comments) or by going to the Program website at (http://www.dfg.ca.gov/suctiondredge). All comments received including names and addresses, will become part of the official public record.

PUBLIC HEARINGS: All interested persons are encouraged to attend the public hearings to present written and/or verbal comments. Five hearings will be held at the following locations and times:

Santa Clarita: Wednesday, March 23, 2011 at 5 p.m. at the Residence Inn by Marriott, 25320 The Old Road, Santa Clarita, CA 91381

Fresno: Thursday, March 24, 2011 at 5 p.m. at the CA Retired Teachers Association, 3930 East Saginaw Way, Fresno, CA 93726

Sacramento: Tuesday, March 29, 2011 at 5 p.m. at Cal EPA Headquarters Building, Byron Sher Room, 1001 – I Street, Sacramento, CA 95812

Yreka: Wednesday, March 30, 2011 at 5 p.m. at the Yreka Community Center, 810 North Oregon Street, Yreka, CA 96097

Redding: Thursday, March 31, 2011 at 5 p.m. at Shasta Senior Nutrition Program, 100 Mercy Oaks Drive, Redding, CA 96003

If you require reasonable accommodation or require this notice or the DSEIR in an alternate format, please contact the Suction Dredge Program at (530) 225-2275, or the California Relay (Telephone) Service for the deaf or hearing-impaired from TDD phones at 1-800-735-2929 or 711.

Marin Audubon Society

P.O. Box 599 | Mill Valley, CA 94942-0599 | marinaudubon.org

May 3, 2011

Mark Stopher,
California Department of Fish and Game
601 Locust Street
Redding, CA 946011

RE: COMMENTS ON Draft SEIR FOR Suction Dredge Mining Program

Dear Mr. Stopher:

The Marin Audubon Society appreciates the opportunity to comment on the Draft SEIR for a Suction Dredge Mining Program. According to the Draft SEIR, three impacts to aquatic resources would be significant and unavoidable. We believe this is an underestimate of the potential impacts of the project. Also, for many impacts, the assessment of less-than-significant is not supported by data provided in the accompanying discussion, and many recommended mitigation measures would be ineffective in reducing project impacts. These additional impacts would remain significant. Inadequacies of the DSEIR are discussed below.

The San Francisco Estuary has been devastated by mining activities. While the proposed suction dredging program may limit the size of equipment and place other restrictions, this program as proposed would still have the potential to cause significant, adverse impacts locally on streams and rivers and on many aquatic resources, including special status species. These numerous local impacts would add up to have significant cumulative adverse impacts to aquatic resources of the state. A program that would permit these impacts is not in the interest of the people of the state of California.

Avoidance
This DSEIR takes a programmatic overview approach. There is no evaluation of individual streams, nor is there sufficient information about how the amount of dredging allowed on each stream has been determined. The information considered in the analysis of some of the streams/rivers does not appear to have been either adequate or accurate (see discussion of individual streams below).

The preferred mitigation approach in CEQA is avoidance. More detailed information and analysis of the existing conditions and the potential impacts on each stream proposed to be open to suction dredging should be provided. This analysis should demonstrate that these streams are

devoid of special aquatic resources including endangered species, water or sediment quality problems so that there is no danger of adverse impacts. Information used for some of the streams is either in error or ill informed. The broad brush analysis provided in the document is not sufficient to ensure that impacts on local stream resources are avoided or minimized.

Inadequate Mitigation
CEQA requires that mitigation measures be effective and feasible. There is insufficient information provided to demonstrate that the recommended measures would be feasible or effective in mitigating the project's significant impacts.

In evaluating many of the impacts to biological resources as less-than significant, the SEIR relies almost completely on a number of regulations that are anticipated to be adopted. To rely on people complying with these regulations is unrealistic. Therefore, the mitigation measures cannot be relied upon to be effective. There is ample evidence in many locations and long periods of time of people failing to obey many obvious signs and defined regulations on public lands.

There is no discussion of the anticipated level of compliance based on past known or anticipated future compliance with Department codes and regulations. Nor is there a substantive discussion of the Departments ability to monitor and enforce new regulations, particularly considering the dire financial condition of the state. The Department does not have the funds to adequately monitor and enforce its current regulations on its own properties, much less adequately monitor dredging activities on streams and rivers, many of which are remote and difficult to access, throughout the state.

The only related discussion we could find is under **Specific Evaluations for Every Permit** alternative discussion which states that the Department would be "unable to implement such site-specific analyses within the current fee structure for permits and it is not authorized to increase such fees." For these reasons, this alternative was rejected, but the discussion goes on to state that "the option to conduct site-specific analysis is incorporated into the Proposed Program." Measures to ensure mitigations are adequately implemented cannot be optional. They must be feasible and there must be a commitment by a responsible party to implement them. There is no certainty that either the dredgers or the Department would or could ensure the regulations are complied with.

The evaluation of the feasibility of the proposed mitigation should include an analysis of the cost of the program and how the Department would even be able to implement it, particularly monitoring and enforcement. The SEIR reports that the fees charged for permits are fixed, however, the cost for each permit is not stated. Information from other sources (Center for Biological Diversity) has indicated that the fees are insufficient to support the program.

Insufficient funding will mean either that the mitigation is not effectively implemented, that the state's aquatic resources are at risk of being degraded or destroyed, or that the general public will

end up subsidizing the recreational activities of a very few people, some of whom are not even residents of California.

The DSEIR should be revised to include an analysis of the expected compliance by the relevant Department regulations and of the Department's ability to monitor and enforce these regulations to ensure these mitigations would be effective. The DSEIR analysis also should address the adequacy of the fees, what the fees would support, and would any parts of the program have to be subsidized by other public funds.

State law requires the preparation of a monitoring program that demonstrates that all required mitigation measures are implemented and by whom. Such a program should be prepared and presented for review in this DSEIR to enable public review.

Comments on specific sections of the SEIR

WATER QUALITY

The DSEIR admits that there are insufficient data about the effects of suction dredging on trace metal mobilization and on the location of trace metals in streams. Suspension, or resuspension of sediment plumes up to a mile are anticipated to occur. Program includes prohibitions that, it is claimed, will largely avoid and limit the potential disturbance of fine sediments that can result in higher levels of turbidity...." (P. 4.2-32)

Because, as previously discussed, the prohibitions will not be effective this approach cannot be considered adequate to reduce this potential impact to less-than-significant until the location of streams with mercury and trace metals and the impact of all of these metals is known.

The discussion claims that because turbidity and TSS are not bioaccumulative constituents, there is no concern about adverse impacts to wildlife and people. It is acknowledged, however, that the potential for localized, temporary and intermittent instream resuspension of sediments creating plumes that may exceed applicable Basin Plan objectives would occur, but this impact is still deemed less-than-significant. The DSEIR goes so far as to say that at their discretion individual RWQCBs or the SWRCB could develop a complimentary permitting program for suction dredging activity to further address compliance. It does not seem responsible for one state agency to adopt a program that risks resources and then calls on another agency to address the adverse impacts.

Fortunately, the DSEIR, based on the potential to contribute substantially to mercury loadings, methylmercury formation downstream, and bioaccumulation in aquatic organisms downstream, recognizes mercury impacts to be significant and unmitigateable.

BIOLOGICAL RESOURCES

We strongly disagree with assessment that potential impacts to the California clapper rail California black rail, and San Pablo song sparrow would be less-than-significant. The list of special status species in the San Francisco Estuary and the discussion of these species and has some errors.

The California clapper rail is an endangered species that resides only in the tidal salt and brackish marshes of the San Francisco Estuary. The table incorrectly states that they are dependent on pickleweed marshes. While the tidal marshes on which they depend have lots of pickleweed, the rails themselves are tied to the deeper channels of the marshes that are colonized by cordgrass, *Spartina foliosa*. While the rails do forage in adjacent mudflats, they are almost entirely dependent on tidal marshes for foraging, nesting and cover from predators.

The current population of California clapper rails is estimated to be between 700 and 800 individuals. With such low numbers, this population is indeed at risk of extinction, and any potential impact should be avoided.

Black rail also inhabit San Francisco and San Pablo Bay tidal marshes. Although they tend to favor brackish tidal marshes, they are not only in fresh water marshes as indicated in the DSEIR. Both black rail and San Pablo song sparrow are at risk if this program is approved to include the San Francisco Estuary.

Impact BIO-FISH-7 Effects on Benthic Organisms
This discussion recognizes that effects of suction dredging on some invertebrates (long-lived macro- invertebrates) are not well documented and research has found that growth and development of aquatic organisms can be significantly reduced by increases of fine sediment, sand and gravel that support interstital algae, bacteria and diatoms that are important prey resources. While the effect of increased sedimentation may be temporary, it can still have adverse impacts on benthic invertebrate abundance. Even so-called temporary impacts of up to one year can have significant impacts on aquatic communities. Benthic communities constitute the base of food chain and impacts lasting one year can result in significant species mortality.

Mitigation proposed are regulations that would allow suctions dredging in certain streams at certain times of the year. These regulations are intended to allow stream recovery and to further minimize impacts and include: requiring dredgers to provide location information, limitations on equipment size, prohibitions on removal or damage of streamside vegetation, destroying in-stream habitat including pools and riffles, and prohibitions on cutting or removal of woody debris. As noted above, permitees cannot be relied upon to abide by restrictions, and it appears to us that some of them may be impossible to abide by. How can dredgers even enter streams without damaging streamside vegetation?

Rocks and gravel in streambeds support benthic communities. Gravel and small rock habitat are directly impacted with suction dredging. This impact should be considered significant.

BIO - FISH Removal of Instream Habitat
This impact is also evaluated as less than significant. Again mitigations to minimize instream habitat impacts is also identified as regulations that would minimize impacts to instream habitat features: prohibiting use of motorized equipment to move bolders or logs, cutting, removal or destabilization of woody debris, and leveling tailings. We doubt that dredging even be conducted without doing these activities. This impact should be evaluated as significant.

BIO_FISH 10 Destabilization of Streambanks
Mitigations proposed are regulations requiring location information, include prohibition on removal of streamside vegetation. As noted above, we don't see how it would be possible to enter streams with dredging equipment without damaging or removing streamside vegetation and stream banks. This impact should be considered significant.

BIO-Plant 1 Special Status Plant Species and their Habitat
This mitigation would prohibit the removal of streamside vegetation, requires equipment to be cleaned of mud and plant and animal material before accessing riparian areas. As noted above, we don't see how a dredger could enter the stream without removing or damaging streamside vegetation. Adequately cleaning equipment of mud, plant and animal material is a tedious task that we doubt most dredgers would take the necessary care to carry out. Therefore, this impact cannot be considered less-than-significant individually.

Particularly when considered together, these impacts have the potential to significantly destroy vegetation along the streambanks, destabilize the streambanks themselves, and destroy instream habitat, invertebrates. Taken together these potential impacts would be significant.

Analyses of the Suitability of Creeks:
There should be an analysis of the suitability of all of the creeks proposed to be opened to suction dredging. Three creeks/streams rivers are proposed to be open to suction dredging in Marin County (D) from July 31 to January 31. Significant adverse impacts to aquatic resources would result. Each of these creeks should be removed for the reasons stated:

The analysis below of three creeks we know well in Marin County reveals that they are unsuitable for inclusion in a suction dredging program. The fact their suitability for inclusion in the program appears to have not been adequately analyzed, leads us to question the accuracy adequacy of the analyzes that have allowed for all creeks to be approved for dredging. A more complete analysis of all creeks on which suction dredging would be allowed should be provided.

San Clemente Creek - This creek is a small creek, no less than two miles long, in the town of Corte Madera. Less than one mile is subject to tidal action. The DSEIR states that no streams within Ecological Reserves would be open to suction dredging, but apparently the fact the northern bank of the tidal portion of this creek forms the boundary of Corte Madera Ecological Reserve boundary was not recognized. In addition, San Clemente Creek is known habitat for the endangered California Clapper Rail which has been seen along the banks of the tidal stretch over

many years. Further, both the tidal and the non-tidal stretches of this creek meander along and through residential developments, which would be adversely impacted by the dredging activities, particularly noise. For these reasons, San Clement Creek should be removed from the program.

Gallinas Creek - This creek is about four miles in length; the lower reaches are tidal and support the largest endangered California Clapper Rail population in San Pablo Bay. Much of the upstream section in residential areas as well as Open Space lands owned by the Marin County Open Space District. In addition, steelhead spawn in the creek.

San Rafael Creek - This small creek is highly urbanized, banks are almost completely bounded by houses and industrial, and commercial uses. Marin Audubon Society owns a 20-acre tidal marsh at its mouth that supports several pair of Clapper Rails. There is no portion of this creek that would not be impacted by noise, sediment and/or pollutants. This is an inappropriate creek for suction dredging.

Clapper Rail Impacts

Because of the precariously low populations of endangered Clapper Rail, it is imperative that all creeks that they inhabit be removed from the list of approved creeks for suction dredging. Although we are not as familiar with other creeks in the Bay Area, we expect that many or most provide habitat for clapper rail within the tidal reaches. Any amount of sediment coverage of their invertebrate prey (even for a short period of time), any increase in mercury levels, noise, human presence must be considered a significant impact.

At the very minimum, the program must identify and eliminate from consideration all streams that support habitat for endangered or special status plant, fish, and other wildlife species.

SUMMARY

The proposed suction dredging program has the significant potential to adversely impact many California streams, their water quality and the fish and wildlife they support. The benefits would accrue to only a few at the expense of the state's natural resources and all of the people of the state. Not only is this SEIR being prepared at significant expense to California citizens, but the program itself would not only cost the state to administer but would cost in degraded resources as well. Unless additional information is presented in the final SEIR to address all of these problems, we cannot see any redeeming reason why any other alternative should be chosen except the No Project Alterative.

Thank you for considering our questions and comments. We look forward to reviewing the final document.

Sincerely,

Phil Peterson

Phil Peterson, Chair
Conservation Committee

5-3-11

JAMES MOIR
93 CASCADE RD.
W. HENRIETTA, NY 14586

Mark Stopher
California Department of Fish and Game
601 Locust Street
Redding, CA 96001
Fax: (530) 225-2391 E-mail: dfgsuctiondredge@dfg.ca.gov

Dear Sir,

Please consider my following comments regarding the SEIR and Proposed Regulations for suction dredge mining in California:

SEIR Baseline is wrong: I take strong exception to the Department using an arbitrary and misleading baseline within the SEIR in an underhanded attempt to make the impacts from suction dredging appear greater than they really are, and in an attempt to marginalize the serious economic and social impacts to Americans which would result from your proposed regulations. You should use a proper baseline that is based upon existing dredge and small business activity under the 1994 regulations during the season before the moratorium was imposed.

Mercury is not a problem: Your SEIR relies unreasonably upon the unfounded conclusions of Charles Alpers' who has allowed his personal political agenda get in the way of real science. The SEIR does not give enough weight to the discovery by Rick Humphries Report of California Water Resources Control Board that normal gold dredges are effective at recovering at least 98% of the mercury from the bottom of California's waterways.

The SEIR does not acknowledge, based upon your own survey results, that suction dredgers have been removing over 7,000 ounces of mercury or more every year under the 1994 regulations from California's waterways. That amounts to 98,000 ounces during the 14 years we operated under the 1994 regulations! Adoption of the SEIR position would be fundamentally unreasonable in a context where the mercury is inevitably migrating downstream to areas where it is believed to be potentially harmful.

Since California State agencies are doing nothing to remove mercury from California's active waterways, it is grossly irresponsible to point the finger at suction dredgers who are the only ones that are removing the mercury, at no cost to the taxpayers!

Rather than reduce the amount of mercury which we are removing from the ecosystem, the responsible approach for State agencies would be to create a collection system in California which rewards dredge-miners for collecting and turning in mercury.

Identification requirement: The proposed regulations should allow visitors from other countries to use a foreign passport or driver's license as identification so they can apply for nonresident suction dredge permits. Otherwise, California will be discouraging the many visitors which we already receive that like to do their gold prospecting here.

DFG should not limit the number of suction dredging permits: There is no evidence presented in the SEIR that 14 years of dredging under the 1994 regulations ever harmed a single fish, much less threatened the viability of an entire species. What if I want to operate a dredge in some part of California where there would not be a deleterious impact? A limit on permits may prohibit me or someone else from using a suction dredge without a viable reason.

Allowing additional dredge permits after site inspection: In the event that DFG decides to impose (reasonable) limits in a blanket statewide permit program that will allow for most suction dredgers, I do not believe DFG has the authority to declare a wholesale prohibition to dredge mining in the other vast areas which exist on the public lands that would not be covered by the blanket permit. DFG has a site inspection mechanism allowing you to consider more individualized impacts in areas, and during time periods, when and where dredging would not be allowed in a statewide program.

Onsite inspections should be immediately signed off when approved: There should not be a delay in signing off on a site inspection in cases where DFG officials cannot identify a deleterious impact. There should be a time limit in the regulations in which the application will be approved or disapproved. Due process should be allowed if I desire to appeal an application which has been disapproved.

Prior existing rights on permit acquisition: There must be an allowance for prior existing rights on a limited permit program. Otherwise, dredge-miners who have already invested in property and equipment could potentially lose our prior existing right to work our mining claims or other mining opportunities (belonging to an association that provides access to mining property).

Statewide permits, if limited, should be transferable: Permits should be transferable if there is going to be a limit on the number allowed under a statewide program. Otherwise, miners will make the substantial investment into developing a viable mine and then not be able to transfer ownership to someone new who will be able to dredge it, therefore losing some or most of the value.

DFG should not further-limit the size of dredges under the statewide permitting program: I do not believe that DFG has the authority to step onto the public lands and impose a permit restriction upon the productive capacity of my dredge without also coming up with specific reasons why existing capacities under the 1994 regulations are creating a deleterious impact upon fish. Please leave nozzle restriction sizes as they were in the 1994 regulations.
The regulations should also allow a wear tolerance factor on nozzle restrictor rings. I suggest 3/8 of an inch (diameter) is reasonable.

Allowing larger-sized nozzles after site inspection: If a dredger wants to operate a dredge having a larger nozzle than is allowed under a statewide permitting scheme, the Department should allow the activity as long as no deleterious impact can be determined though a site inspection.

DFG should not further-limit the places where dredging is allowed: This proposal is just supported by your "precautionary approach." Except for those areas where you can demonstrate that a deleterious impact has been created under the existing regulations, please leave our seasons as they have been since 1994.

Gold miners should be afforded due process, and should be allowed to proceed in areas which are not allowed under a statewide permit, as long as a site inspection cannot turn up evidence of a deleterious impact.

Reduction of our existing dredging seasons is unreasonable: I do not see that the SEIR contains evidence of a deleterious impact upon fish to support the reduction of existing dredging seasons that are in the 1994 regulations. This proposal is only supported by your "precautionary approach." Except for those time periods where you can demonstrate that a deleterious impact has been created under the existing regulations, you leave our seasons as they have been since 1994.

The proposed 3-foot rule is unreasonable: The SEIR has not presented any real evidence that dredging within three feet of the streambank has ever harmed a single fish. This prohibition would prevent beginners, non-swimmers or children from starting closer to the shore where water is shallower and more safe. Prohibiting dredging within three feet of the edge of the river will eliminate a significant portion of the operational value (perhaps even all of it) on some dredging properties.

It would be more productive to provide better language describing what the "bank" is in relation to dredge mining. For example, is there a "bank" in relationship to a gravel bar out in the waterway that is partially out of the water? What about a bar alongside the waterway that is submerged during the spring, but emerges more and more out of the water as the dry season evolves? Existing language is not clear enough. The proper answer is to clear that up, rather than impose an additional buffer zone which reduces our mining opportunities.

Suction dredge regulations should not impose the requirement of Section 1600 Agreements: Fish & Game Section 5600 already allows a site inspection mechanism for the Department to determine if a dredging program is deleterious to fish. Therefore, also imposing a Section 1600 requirement upon dredgers who wish to mine at a time or location that is otherwise closed, or to use larger nozzle than is allowed under a statewide permit, when there is little or no chance the dredge project will create a substantial impact upon the bed or bank of the waterway, would be an unreasonable imposition upon dredge-miners. Nobody else in California is required to pursue a Section 1600 permit until their activity rises to the level of requiring one. It should not be any different for suction dredgers.

This also applies to the use of power winches, which provide the only safe and efficient means of progressing when some rocks are too heavy to move by hand, or they cannot be rolled over other rocks that are in the way. You should not impose a 1600 Agreement requirement upon a gold dredger unless the surface disturbance rises to the level which triggers Section 1600 of the Fish & Game Code.

Imposition of the 3/32-inch intake requirement on pumps is unreasonable: The 1994 regulations already prohibit dredge operation at times when fish may be too small to swim away from pump intakes as they are already being manufactured.

Most dredges today are being produced using $3/16^{th}$ inch or $15/64^{th}$ inch holes for the pump intakes. To avoid conflict, you should adopt something larger than the two hole sizes which are already being used on most dredges in California.

Allowance of permit locations must be more broad: Since existing regulations already set the times and places where dredging is not deleterious to fish, I do not see any practical reason to force dredge-miners to inform DFG exactly where they are dredging – and then hold them to the location unless the permit is amended.

Since I intend to prospect, I will not know the exact locations where I will be dredging at the time I apply for my permit. You should broaden the location requirement in your permit application to naming the waterways where I intend to work. This will allow me some flexibility to move around in search of gold without having to make an expensive trip to the closest Department license sales office to amend my permit.

The proposed dredge marking system is not workable: There is no practical way of attaching a sign to a small dredge! What does this have to do with preventing a deleterious impact upon fish?

If you must have an identification number on my dredge, you should eliminate the requirement of 3-inch number and allow the numbers to be marked either on the pontoons or the sluice box, but only if it is possible to do so. This would allow smaller numbers in the case of smaller dredges.

Fuel should be allowed within 100 feet of the waterway if kept within a water-tight container or a boat: I question your authority on placing any requirement upon suction dredgers in this matter, other than to prohibit the spillage of fuel. Millions of boaters all over California are allowed to keep fuel safely in their boats. Your proposed regualtions would prohibit suction dredgers from doing the very same thing!

There are plenty of effective ways to prevent fuel from leaking into the waterway without making a dredge-miner hike 100 feet up the embankment. At the very least, fuel can be placed inside of a boat, or inside a sealed catch tub of some kind up on the embankment to prevent leakage. These catch tubs are already routinely part of a dredge program to assist with cleanup of concentrates.

Disturbance of mussel beds: It is unreasonable to propose that every suction dredger must now do a survey before dredging to make certain that there is no place within 30 feet downriver where more than 40 muscles per square yard exist before dropping tailings! Some rivers are so inundated with muscles; this imposition would amount to a suction dredge prohibition in a large part of the waterway! And why, since there are so many? How does the protection of mussels from dredge-miners conform to the language of Section 5653? Please drop this silly mussel idea from final regulations.

Returning the site to the pre-mining grade to the greatest extent possible: Since it is impossible to move tailings and rocks upstream against a swift current, the requirement to fill in our holes and level off our tailings is unrealistic.

.

Ample evidence shows that salmon are less likely to place their redds in a heaped tailing pile, than they are on a pre-mining grade which is inundated with unstable gravel; so your proposal will actually create more harm than good! The dredge holes which I leave behind create cool water refuges where salmon and other fish hold up during the warm summer months. My piled cobbles create protected habitat where fingerlings can hide from predators. It would be better for the fish if we just allow Mother Nature to settle things out in the next storm event.

Dredge mining between one half hour after sunrise to sunset: Your authority is limited to preventing a deleterious impact upon fish. Please drop this from proposed regulations and leave this particular concern to local authorities where it belongs.

Thank you very much for giving careful consideration to my comments and suggestions!

Sincerely,

JAMES G. MOIR James G. Moir 5-3-11

Name and Address Date

State of California—The Resources Agency
DEPARTMENT OF FISH AND GAME

2005 SUCTION DREDGE PERMIT APPLICAT

TO OPERATE VACUUM OR SUCTION DREDGE

Change Se

601 LOC
REDDIN

VALID JANUARY
(*Subject to seasonal restrict

DEPT. OF FISH & GAME
601 LOCUST STREET
REDDING, CA 96001
Phone: (530)225-2300

Trx# 130245 Reg: 002 07/27/05 08:24
Cashier: 2 Clerk: 19

NRES SUCTN DRED 149.50

FEES: **RESIDENT—$38.00** (No inspection required) **NONRESIDENT—$**
RESIDENT—$156.50 (Additional if inspection required) **NONRESIDENT—$**

☐ **YES, I QUALIFY FOR AN ASSISTANT SUCTION DREDGE PERMIT (NO ADDITIONAL FEE)**
(Disabled applicants must apply and pay fees for resident or nonresident permit)
SEE INSTRUCTIONS ON REVERSE. TYPE OR PRINT CLEARLY.

FIRST NAME	M.I.	LAST NAME
JAMES	G	MOIR

MAILING ADDRESS: 93 CASCADE RD.

CITY	STATE	ZIP CODE
WEST HENRIETTA	NY	14586

DRIVER'S LICENSE NUMBER OR DMV I.D. NUMBER	SEX	HAIR COLOR	EYE COLOR
NY 296 535 313	☒ MALE ☐ FEMALE	BRN	BRN

I HAVE RESIDED IN CALIFORNIA CONTINUOUSLY FOR THE LAST SIX MONTHS ☐ YES ☒ NO

("Resident" means any person who has resided continuously in the State of California for six months or more immediately prior to the date of his/her applica a license or permit, or any person on active military duty with the Armed Forces of the United States or auxiliary branch thereof, or any person enrolled in t Corps established pursuant to Section 2883 of Title 29 of the United State Code. (Fish & G. Code, § 70.)

TYPE OF OPERATION *(Check one):* ☒ GOLD MINING ☐ SAND & GRAVEL ☐ OTHER *(Explain)*

SIZE OF AREA TO BE DREDGED
SMALL SAMPLE HOLES, AS I ONLY HAVE 3 WEEKS TO VISIT

TYPE OF EQUIPMENT

NAME AND MODEL NUMBER	NAME AND MODEL NUMBER	NAME AND MODEL NUMBER
HOME MADE		
NOZZLE SIZE 5"	NOZZLE SIZE	NOZZLE SIZE
HORSEPOWER 11 HONDA	HORSEPOWER	HORSEPOWER
POWER SOURCE GAS	POWER SOURCE	POWER SOURCE

When a permit stamp has been affixed below, the applicant is authorized to operate a vacuum or suction dredge in accordance with Sections 228 and 228 14, of the California Code of Regulations. Nothing in this permit shall authorize the permittee to trespass or use a dredge in waters passing over private lands the permission of the landowner. The listing of waters open to dredging does not mean that such waters are open to the public. The permittee shall com all applicable federal, state, and local laws. Suction or vacuum dredges shall not be used where dredging is prohibited by such laws.

I hereby certify that I have read the provisions of California Fish and Game Code Section 5653 and Sections 228 and 228.5, Title 14, of the California Regulations (see reverse side), and that I understand and agree to be bound by all the terms and restrictions set forth in this permit and in the above provisions. I hereby certify that all information contained on this application, and/or submitted to meet the requirements for issuance of this permit, is t correct. I understand that in the event this information is found to be untrue or incorrect, the permit issued will be invalid and must be surrendered purchased, and that I may be subject to criminal prosecution. I understand the Department of Fish and Game may suspend or revoke this permit purs Section 228(c), Title 14, of the California Code of Regulations.

SIGNATURE	DATE
X James G. Moir	7-10-20

FOR DEPARTMENT OF FISH AND GAME USE ONLY

ISSUED BY	DFG OFFICE	CASH REGISTER TRANSACTION #	DATA ENTRY
Linda Wicks	Reg 1 Rdg	130245	9/26/05

2005 RESIDENT DREDGE STAMP	2005 CALIFORNIA NONRESIDENT STANDARD SUCTION DREDGE PERMIT	ASSISTANT SUCTION DREDGE PERMIT	2005 INSPECTION	2005 DUPLICATE
No.	$149.50		No.	No.
Date Issued	400267-02	Date Issued	Date Issued	Date Issued
Invalid after December 31, 2005	Invalid after December 31, 2005 Date Issued 7/27	Invalid after December 31, 2005	Invalid after December 31, 2005	Invalid after December 31, 2005

Recd 7/6/05 DD

County of Placer
Board of Supervisors

175 FULWEILER AVENUE
AUBURN, CALIFORNIA 95603
530/889-4010 • FAX: 530/889-4009
PLACER CO. TOLL FREE # 800-488-4308

JACK DURAN
District 1
ROBERT M. WEYGANDT
District 2
JIM HOLMES
District 3
KIRK UHLER
District 4
JENNIFER MONTGOMERY
District 5

May 3, 2011

Mark Stopher
California Department of Fish and Game
601 Locust St.
Redding, CA 96001

RE: Placer County Concerns: California Code of Regulations, Sections 228 and 228.5 Suction Dredge Mining

Dear Mr. Stopher,

The Placer County Board of Supervisors values the abundant natural resources that Placer County is home to, and desires to encourage their continued use. Placer County is located in the heart of California's Gold Country, and gold mining has been a part of Placer County for over 160 years. The Placer County Board of Supervisors believes that gold mining will continue to be an important part of Placer County into the foreseeable future. California Code of Regulations, Title 14, Division 1, Subdivision 1, Chapter 8, Sections 228 and 228.5, as proposed, would allow suction dredge mining to once again occur in Placer County with certain restrictions.

The Placer County Board of Supervisors has several concerns with the proposed regulations:

The proposed regulations do not specify any restrictions or requirements regarding suction dredge mining on rivers designated by the federal or state governments as "wild and scenic". Suction dredge mining, including the process of removing stream-bed material down to bedrock, is not compatible with the stated purpose of the California Wild and Scenic Rivers Act, which states that wild and scenic rivers are, "certain rivers which possess extraordinary scenic, recreational, fishery, or wildlife values" and that these rivers, "shall be preserved in their free-flowing state, together with their immediate environments, for the benefit and enjoyment of the people of the state."

The North Fork of the American River, from its source to the Iowa Hill Bridge, which is located entirely within Placer County, is designated to be "wild and scenic" by the California Wild and Scenic Rivers Act. This portion of the North Fork of the American River is an excellent example of the type of pristine waterway that is recognized as worthy of conservation by both the federal and state statues.

The current regulations prohibit suction dredge mining within the wild and scenic portion of the North Fork of the American River. The proposed regulations would allow dredging within the wild and scenic portion of the North Fork of the American River. We ask that you revise the proposed regulations to continue the prohibition of suction dredge mining on wild and scenic rivers.

We also ask that you consider prohibiting the use of eight-inch suction dredge nozzles. Placer County's portion of the American River is specifically identified in the proposed regulations as an area where eight-inch suction dredge nozzles would be allowed. The type of operation that is typically associated with the use of eight-inch nozzles is of a much larger scale, involving more people, equipment, and disturbance, as compared to suction dredge mining operations which utilized smaller equipment.

The proposed regulations, and associated Draft Environmental Impact Report, do not appear to account for the impact of suction dredge mining on the release of mercury into the environment. Recent United States Geological Survey studies indicate that suction dredge mining can contribute to the amount of inactive anaerobic mercury that is transformed into methyl mercury, and become available in the environment. The California State Water Quality Control Board is currently addressing Total Maximum Daily Load issues with mercury in the Middle Fork of the American River in Placer County. We ask that you take the issue of methyl mercury into consideration prior to adopting the new suction dredge mining regulations.

Lastly, we request that you review the entire body of proposed suction dredge mining regulations, and make appropriate changes necessary to improve clarity and consistency. There are a number of instances where county by county restrictions are contradictory, confusing, or inaccurate regarding the descriptions and restrictions on specific waterways. One example of this would be the Bear River, which forms a portion of the boundary between Placer and Nevada Counties. Even though the Bear River is equally a part of both counties, it is only specifically mentioned in the regulations for Nevada County. Another example is the restrictions on the Rubicon River, which forms a portion of the boundary between Placer and El Dorado Counties. The regulations for both counties seem to imply that the Rubicon River enters exclusively into El Dorado County at a certain point, when in fact, the Rubicon River flows exclusively within Placer County from Hell Hole Reservoir to the point where it becomes the boundary between both counties. There are many other similar examples that need to be addressed as well.

The Placer County Board of Supervisors would like to reiterate our support for continued opportunities for mineral resource utilization within Placer County, but respectfully request that you consider our comments respective to the specific concerns we have identified.

Sincerely,

COUNTY OF PLACER

Robert Weygandt, Chairman
Placer County Board of Supervisors

CC: Placer County Board of Supervisors
Thomas M. Miller, CEO
Joshua Huntsinger, Agricultural Commissioner
Peterson Consulting

Before the Board of Supervisors
County of Placer, State of California

In the matter of:
A RESOLUTION AUTHORIZING THE CHAIRMAN OF THE BOARD OF SUPERVISORS TO SIGN A LETTER RECOMMENDING PROPOSED CHANGES TO CALIFORNIA CODE OF REGULATIONS, TITLE 14, DIVISION 1 SUBDIVISION 1, CHAPTER 8, SECTION 228 TO THE CALIFORNIA DEPARTMENT OF FISH AND GAME.

Resol. No.: 2011-109

Ord. No.:_____

First Reading:_____

The following RESOLUTION **was duly passed by the Board of Supervisors of the County of Placer at a regular meeting held** May 3, 2011, **by the following vote on roll call:**

Ayes: DURAN, HOLMES, UHLER, MONTGOMERY, WEYGANDT

Noes: NONE

Absent: NONE

Signed and approved by me after its passage.

Chair, Board of Supervisors

Attest:
Clerk of said Board

BE IT HEREBY RESOLVED BY THE BOARD OF SUPERVISORS OF THE COUNTY OF PLACER, STATE OF CALIFORNIA, that this Board authorizes and directs the Chairman of the Board of Supervisors to sign a letter to the California Department of Fish and Game recommending that Proposed Changes to California Code of Regulations, Title 14, Division 1, Subdivision 1, Chapter 8, Section 228, include a general prohibition of all suction dredge mining on all rivers designated by the State and/or federal government as wild and scenic.

THE FOREGOING INSTRUMENT IS A CORRECT COPY OF THE ORIGINAL ON FILE IN THIS OFFICE ATTEST

ANN HOLMAN
Clerk of the Board of Supervisors, County of Placer, State of California

Deputy Clerk

BOARD OF SUPERVISORS

May 03, 2011

Mark Stopher
California Department of Fish and Game
601 Locust St.
Redding, CA 96001

Dear Mark Stopher,

In response to the Suction Dredge Permitting Program and the Draft Subsequent Environmental Impact Report (DEIR) released in February 2011, please consider the following comments and consider addressing them before implementing any new regulations with the proposed new program for suction dredge mining:

1. PUBLIC MEETING WITH DF&G REQUESTED

The counties of Plumas and Sierra have the largest California Resident Permit Holders for suction dredging according to the DEIR (Table 3-3, Chapter 3, pg 12). The Feather River and Yuba River are also the most visited suction dredge mining areas in the state. In 2008, Sierra County had 115 permits holders and Plumas County had 112 permit holders. Our counties are where the most suction dredge activity takes place in the state of California and yet no public meeting was held in either county by the DF&G. Therefore, Plumas County request a joint public meeting to be held with the citizens of both Plumas and Sierra Counties for additional input before the proposed regulations are to be approved. The meetings that the DF&G have held so far have been at least three hours away, mostly in winter, and in mostly urban areas. We request a joint meeting in our rural, historic mining counties of Plumas and Sierra with the DF&G on the proposed suction dredge mining regulations.

2. ONE SIZE FITS ALL APPROACH

The approach taken to address suction dredge mining in California is a one size fits all and does not take into consideration the specifics of each county in terms of environments, species habitat, recreation opportunities, and rural economics. The moratorium was put in place in July 2009 in response to lawsuit filed by a Klamath tribe (Karuk Tribe of California et, al .v California Department of Fish and Game – Superior Court of Alameda County – RGO52115971) addressing harm to the coho salmon in the Klamath, Scott, & Salmon River watersheds. Plumas County does not have coho salmon in its rivers and streams and should have been reviewed at for its own specifics to address concerns and not given the "blanket approach" by DF&G to the whole state of California when it was ruled in Alameda Superior Court in 2006 that "mitigation measure to protect coho salmon & other special status fish species in the Klamath, Scott, and Salmon Rivers were the findings of the lawsuit. The DEIR focuses on the "potential impacts" to the environment and "that the operation (suction dredge mining) will not be deleterious to fish", without sufficiently providing specific evidence on how past suction dredge mining practices have been "deleterious to fish" in Plumas County.

3. IMPACT TO RURAL COMMUNITIES

The impact on rural economics has not been sufficiently addressed by the DEIR. Since 2009, when the moratorium was put in place, according to the Plumas County Clerk-Recorder, the County of Plumas has lost $21,878.00 in revenues with the recording fees obtained by the filings of mining claims, the 2008 figures report that $23,290.00 in mining claim recording revenues were collected that year compared to $12,922.00 in 2009, and $11,761.00 in 2010. The impact of the loss of tourism dollars that come into our county with mining activities has not been sufficiently addressed by the DEIR. The impact on those miners who find gold to supplement their income has not been sufficiently researched and addressed in the DEIR. Gold mining is a small business activity as well as a recreational hobby in Plumas County and the effects of the moratorium have already shown a significant impact to the rural economy in the actual loss of revenue to the county general fund.

4. MERCURY ISSUE

The "significant and unavoidable impact" of mercury re-suspension and discharge is disputed by DF&G own survey results in 2008, that showed that 56% of CA permit holders and 60 % of Non-Resident permit holders removed mercury while suction dredge mining. There is a potential to make this a win/win situation for all Californians, if the DF&G would work with suction dredge miners to encourage and or (require) the removal of mercury and proper disposal from California waterways and help in the vast cleanup of mercury that needs to be done. That problem solving issue hasn't been fully addressed in the DEIR.

5. REFUND OF 2009 SUCTION DREDGE PERMITS COLLECTED DURING MORATORIUM

DF&G collected $250,000.00 in fees for 4,000 permits in 2009. These monies were never refunded for non-use of permits due to the 2009 moratorium on suction dredge mining. In 2008 Plumas County had the second highest California resident permit holders, there were no refunds issued to these permit holders in our county. We request that permit fees be refunded by the DF&G to the permit holders of 2009 who paid for a permit they could not use due to the moratorium.

6. PROPOSED ALLOWABLE TIME OF SUCTION DREDGING.

In Plumas County, the snowfall can begin as early as the month of October. In 2010, we had significant snowfall that began the end of November and basically continued till April 2011, such extreme conditions limit access to mining claims, not to mention the dangers of freezing water to suction dredge operators. The proposed change of months of suction dredge mining from July to September to October to January of the year needs to have more realistic feasibility research conducted for the safety and well being of the permit holders in response to hazardous and unsafe weather conditions to engage in suction dredge mining.

7. ACTUAL "ON THE GROUND" RESEARCH FOR DEIR

On the ground research during "actual suction dredging" has not been done according to the DEIR. The Public Advisory Committee (PAC) had knowledgeable people with on the ground knowledge, but it wasn't clear what "on the ground" research actually took place during actual suction dredge mining activities. In July 2009 a moratorium was put in place banning suction dredge mining, thus no actual "on the ground data" with respect to suction dredge mining was conducted to verify "potential impacts" that are claimed in the DEIR. A new baseline was adopted in the DEIR which assumes "no suction dredge mining in CA, when in fact it is hard to ignore the baseline established from the many previous years of suction dredge (since 1960's) mining that was allowed and the duty of the DF&G to include those years in establishing a "true baseline" in the DEIR to measure potential environmental impacts. The DEIR states that "more severe environmental impacts that may be occurring not previously addressed in the 1994 EIR", leaves a doubt on whether the statement "may be occurring" is properly supported with actual evidence.

8. POTENTIAL ENVIRONMENTAL IMPACTS OF OTHER WATERWAY USERS

The environmental impacts of other waterway users for "potential" and "actual" impacts have not been significantly addressed in the DEIR. Disturbances of sediment, fish habitat, etc, of waterways by users who fish, hunt, swim, kayak, camp, hike, horseback ride, canoe, tube, bike ride, etc, have not been sufficiently addressed in water disturbance comparably to dredge mining activities and the claimed "potential" environmental impacts with water disturbance in regards to water quality, deleterious to fish, noise, archaeological resources, etc. To single out one recreational hobby against others requires more justification from the DF&G.

In conclusion, we appreciate your efforts in addressing the suction dredge mining program in California for potential, significant, and unavoidable impacts to the environment. The new proposed program will impose substantial regulations to the existing regulations that were previously adopted in 1994.

As the DF&G addresses the proposed program objectives which include: complying with the December 2006 Court Order, amend existing regulations, to ensure that suction dredge mining will not be deleterious to fish, implement with existing fee structure, fulfill DF&G's mission to conserve, protect, and manage California's diverse fish, wildlife, and plant resources and habitats, fulfill the obligation to conserve, protect, and manage fish, wildlife, native plants, and habitats for sustainable populations and ensure the development of the regulations considers economic costs, practical considerations for implementation, and technological capabilities existing at the time of implementation, we ask that you take into consideration our comments, as we represent a diverse population of people in our county and would like to achieve the best balance to fit the many interests represented with the most thorough evidence and research to support any new regulations proposed on suction dredge mining by the California Department of Fish and Game.

Sincerely,

Lori Simpson

Lori Simpson, Chair
Plumas County Board of Supervisors

Cc: The Honorable Ted Gaines, State Senator
The Honorable Dan Logue, State Assemblyman
Sierra County Board of Supervisors

SIERRA COUNTY

Board of Supervisors
P.O. Drawer D
Downieville, California 95936
Telephone (530) 289-3295
Fax (530) 289-2830

3 May 2011

Mr. Mark Stopher
Environmental Program Manager
California Department of Fish and Game
601 Locust Sheet
Redding, CA 96001

Subject: Draft Subsequent Environmental Impact Report

Dear Mr. Stopher:

The Sierra County Board of Supervisors has completed its review of the proposed "Draft Subsequent Environmental Impact Report (SEIR) for the Suction Dredge Permitting Program" in California. This review included two (2) publicly noticed Board of Supervisor meetings and one (1) publicly noticed town hall meeting within the community of Downieville.

First and foremost, the Board of Supervisors expresses its deepest concerns over the public outreach program and effort undertaken by the Department of Fish and Game to understand the impacts of the December 2006 court order; the impacts of implementing the ban on suction dredging brought about in SB 670 effective August 6, 2009; and, the impacts that will be caused by implementation of the proposed suction dredge rules that serve to amend the 1994 regulations and impose further restrictions on suction dredging operations. The public meetings conducted by the Department of Fish and Game were held in urban regions which are far-removed from the counties and communities that will receive the burden and impacts of the proposed regulations. Rather than Fresno or Sacramento, conducting a public meeting in Downieville or Quincy, located in the heart of the motherlode and possessing a deep and rich cultural history based in the gold mining industry, would have produced a more accurate and realistic understanding of the impacts that the proposed regulations will have on the population and economy of the region.

The Board of Supervisors offers the following comments with respect to the draft subsequent environmental impact report:

1. We find the dredging seasons proposed for most Sierra County waterways as draconian and lacking scientific rationale. The approach proposed in the regulations fails to provide specific scientific evidence that resulted in the seasonal classification of streams in Sierra County, and this broad-brushed aproach appears

to be based on a general "species restriction" that implements a one-size-fits-all approach. This fails on its face to take into consideration the specific habitats, local environmental conditions, and other factors. The SEIR provides only superficial evidence and fails to provide the scientific evidence and the burden of proof to support the proposed classification of streams. The premise is flawed at best. As just one example, several streams are classified by elevation, void of any scientific data or findings of yellow legged frog existence and the resultant dredging season is proposed as September 1 through January 31. Now consider the high elevations, extreme weather conditions, access restrictions, and the time of year and you have the perfect recipe for a de facto closing of most of the tributaries involved.

2. We question the need for capping the number of statewide permits at 4,000. This is an arbitrary number and the document fails to show a legitimate justification for such a limit. This decision is not based on scientific findings and is an arbitrary and capricious decision. We would also suggest that such a limit could effectively impact this industry by allowing non-mining interests to purchase and hold permits with no intent of ever dredging. This arbitrary limit appears to be in direct contradiction to the rights afforded under federal law for mineral discovery and development. The number of permits issued in the 1980's and 1990's was over 10,000 from information we have obtained and this severely reduced number is arbitrary at best and creates significant social and economic impacts to the County and region.

3. We question the need for many of the specific restrictions otherwise placed on the dredges and operations themselves (four inch intake nozzles, three foot dredging rules, screen size restrictions, winching permits, gas cans). In each instance, we question the overall need and science behind the decisions made. As just one example, the 3/32 inch screen on intakes is unreasonable and there is no evidence presented in the SEIR of proximate cause that suction dredging has ever entrained fish or aquatic life and the diameter of the hole would constantly clog with debris rendering the small suction dredge inefficient and inoperable.

4. The Forest Service-Pacific Southwest Region under the signature of the Regional Forester by letter dated December 4, 2009 to the Department of Fish and Game responded to a "request for comment" issued by the Department on October 26, 2009 (Notice of Preparation) and expressed opinions as to the impacts of suction dredging on the Tahoe National Forest. With all due respect to the Regional Forester, we strongly challenge the information he has provided concluding that State Highway 49 in Sierra County has reached "full parking capacity". There is no evidence to support this conclusion and for the Department to rely upon this "opinion" is inappropriate. The National Forest is currently engaged in a corridor management analysis and NEPA document to manage corridor occupancy but to suggest "full capacity" has been reached is inaccurate. The Tahoe National Forest is an agency that no longer has staff assigned on a daily basis within western Sierra County and the information they provided only highlights their misunderstanding of reality in western Sierra County . Further, the suggestion is also made that the campsite use by dredging interests causes an impact to recreational camping. This is categorically false as campsites used by dredging interests are authorized under

individual permit issued by the Tahoe National Forest for locations outside of recognized campgrounds. These dredgers are prohibited from occupying a campsite in an organized camground for more than 14 days and by virtue of the Forest Service permit are therefore authorized to camp. There is no impact to recreation from these individual campsites authorized by the Forest Service otherwise, why would the agency issue them in the first place?

5. **The SEIR fails to indentify that the Department or its consultants have ever conducted or participated in the conducting/monitoring of dredging operations to understand and quantify the potential impacts of dredging. This creates a significant credibility issue for any stated findings or conclusions.**
6. **The proposed "three foot rule" prohibits dredging three feet from either bank of a stream and for those jurisdictions that possess numerous small streams that have historically been allowed to be dredged, this new rule is a de facto closure of all small streams less than six (6) feet across. There is no scientific data to support this regulation and in the absence of such data, the conclusion and proposed regulation is arbitrary.**
7. **The SEIR fails to provide any accurate understanding of impacts to the County social and economic structure. Dredging is not simply a recreational pursuit. While recreational mining is a viable recreational pursuit similar to rafting, off-highway and over-the-snow access, fishing, and so forth, it is also a very viable component of the County economy. Dredging is a livelihood in Sierra County and a sole source of income for many individuals and families. It is a valid resource industry that not only represents the culture and heritage of the gold country region but is a significant economic indicator in the County. In Sierra County alone, there are over 1500 mining claims on the unsecured property assessment roll valued at 9.6 million dollars and contributing a significant property tax payment to the County. This condition coupled with the commerce created by these claims (local purchases, fuel purchases, food and restaurant use, purchases of supplies, perishables, and other needs, medical attention, school children attending schools, home owners and/or renters, volunteer firemen, and so many other interactions) provides that the use is a significant socio-economic contributor to a community and an economy that has experienced a downturn in the wake of a decimated timber industry, and is trying to survive. The potential loss or reduction in recording fees, in transient occupancy tax, in mineral claim sales and development, on taxable property, and in local commerce is not accurately stated nor shown anywhere in the SEIR. The SEIR should show this economic contribution to the local economy. It fails to recognize this condition and belittles the significance of the economic contribution that suction dredging provides to the State of California, to the County of Sierra, and to the local economy.**
8. **Site visits directed under the Fish and Game Code require the interaction of Departmental Game Wardens for routine, follow-up, and enforcement visits to a dredging site. We have a very fundamental concern that the expectation for existing wardens to increase their respective activities as a result of the regulations outlined in the SEIR to include multiple site visits to a dredging site is both unrealistic and far exceeds the resources of the limited number of Wardens in the field today. The County embraces a process that is administered through site visits from Departmental Game Wardens as this assures flexibility, adaptability, and**

recognition of a wide range of local conditions adapted to a wide range of dredging practices; but to legislate the proposed set of regulations as a one-size-fits-all process and to remove the flexibility and interpretation that a Warden can make in the field is self-defeating.

Sierra County is a County of 3,200 persons, one of just three California Counties that has lost population as counted in the recent 2010 census. When one takes a look at the overall environment health of the County and human impact on that environment, it is one of those rare special places in California that has had minimal impact by human behavior. With a great decrease in what was Sierra County's traditional economies of logging and mining over the last thirty years, our local economy struggles just to survive with the limited tourism industry that remains along with an agricultural economy on its eastern side.

There is little doubt to this Board that all human behavior has some impact on the environment. When we look at that minimal interaction within the boundaries of Sierra County, your proposed restrictions to what was once a surviving industry (both professional and recreational), is frustrating to say the least. While Sierra County and her businesses will immeasurably be harmed by the implementation of these proposed restrictions (as it has been by the outright ban of dredging for the last 18 months), one need not look far to be frustrated by far bigger impacts to the environment, impacts that are left in place and left unchecked by California's over-reaching environmental protection laws. Whether it be a four lane transcontinental highway bisecting the Sierra, or any number of multi-story concrete dams harnessing public waterways and blocking the natural spawning fisheries, those impacts remain unchecked while a reactionary public policy "plays" with the relatively minor impacts of minimal suction dredging in one of California's most rural regions.

We would seek to have the Department look at the activity of suction dredging not in a perfect world, but the real world in which all Californians live. Using the standards that you propose for suction dredging, both for those wishing either to make a living from it or just wishing to enjoy the activity as a recreational hobby, we would be curious to know just how many other daily pursuits of Californians would be curtailed ....interstate highways, transcontinental aircraft, or the daily commute of the masses in the greater Los Angeles, San Diego, and San Francisco bay area.

Sincerely,

SIERRA COUNTY
BOARD OF SUPERVISORS

LEE ADAMS
CHAIRMAN OF THE BOARD

Mark Stopher
California Department of Fish and Game
601 Locust Street
Redding, CA 96001 dfgsuctiondredge@dfg.ca.gov

03 May 2011

RE: Comments regarding SEIR and Proposed Regulations for suction dredge mining in California in Favor of Maintaining Current 1994

Dear Sir:

Thank you for allowing us the opportunity to comment on the California Department of Fish & Game's (DFG) Suction Dredge Permitting Program Subsequent Environmental Impact Report (SEIR) and Proposed Regulations.

I, Claudia Wise, and Joseph Greene are retired U.S. EPA Scientists and invited members of the CDFG SEIR Public Advisory Committee. During the PAC meetings we presented two science based PowerPoint presentations to the committee "**Selenium Antagonism to Mercury, Does Methylmercury Cause Significant Harm to Fish or Human Health?"** and "**Turbidity and the Effect of Scale".**

Claudia Wise is a retired Physical Scientist previously employed at the U. S. Environmental Protection Agency, Corvallis Environmental Research Laboratory, Corvallis, OR. I have 29 years experience in chemical and biological instrumentation methods. I spent 8 years with the Western Fish Toxicology Station coauthoring journal articles dealing with bioaccumulation in Invertebrates and Fish exposed to chemical toxiciants. I have contributed to many projects and coauthored numerous journal articles for the Watershed Ecology, Terrestrial, Ecotoxicology and Freshwater Branches where I researched toxicity in soil and the effects of toxicants on plant growth. At the time of my retirement, I was with the Watershed Ecology Stable Isotope Research Facility. I am a recipient of the United States Environmental Protection Agency Bronze Medal for Commendable Service.

Joseph Greene has over 30 years of national and international professional experience including consulting, research, and teaching for industry and government regulatory agencies. Activities included project management, contract administration, experimental design, preparation of research reports and technical documents**,** laboratory supervision, statistical analysis of data, computer simulation, development and application of biological methods, and performance of algal growth potential and aquatic and terrestrial toxicity tests.

Consulting experience included assessment of nutrient pollution in freshwater canals and rivers, assessment of heavy metals toxicity from mining activities and paint stripping, investigation of toxicity and bioaccumulation in soils at military facilities, evaluation of water soluble and soil toxicants at Superfund sites, and assessment of algal toxicity from textile dyes.

Research activities included establishment of an ecotoxicology laboratory, development of a biological-chemical-physical protocol for measuring potential toxicity of construction materials, development of internationally standardized test methods (aquatic algae, aquatic macroinvertebrate, terrestrial plant and terrestrial invertebrate), chairman of testing committees for ASTM and Standard Methods, platform chairman of several international symposiums, workshops, and congresses, and invited speaker to numerous national and international professional scientific meetings.

Teaching experience included a number of short courses and workshops on performance of algal growth potential and interpretation of results across the nation, a workshop on environmental analysis techniques in Europe, a workshop on complex problems with point and non-point sources of water contamination for the US Department of the Interior, and an environmental engineering graduate seminar on toxicity testing for environmental engineering applications.

Government agencies experience included project management, experimental design, hands-on research, data analysis, and report writing.

Since retirement both of us have participated, as a team, to defend the rights of small scale suction dredging using science to establish the "Less Than Significant effects of the practice. Joseph Greene primarily investigated biological effects and Claudia Wise investigated water quality effects. Post USEPA experience includes a Preliminary Klamath River Water Quality Survey examining surface water temperatures.

According to the DFG Suction Dredge Permitting Program SEIR NOA (SCH #2005-09-2070) regarding the Notice of Availability of a DSEIR for Suction Dredge Permitting Program (SCH#2009112005), "The Draft SEIR evaluates the potential environmental impacts of the proposed program and four alternatives:

> No Program alternative….;
>
> 1994 Regulations alternative…;
>
> Water Quality alternative (which would include additional program restrictions for water bodies listed as impaired pursuant to the Clean Water Act (CWA) section 303(d) for sediment and mercury); and,
>
> Reduced intensity alternative (which would include greater restrictions on permit issuance and methods of operation to reduce the intensity of environmental effects).

It should be noted that the directive of the court was to identify any suction dredge issues that were detrimental to fish yet the CADFG paid the contractors to spend an inordinate amount of time extrapolating possible situations that were never a part of the court order. If any of these additional findings were to be enforced they could keep small scale suction dredgers from plying their trade and earning income.

During the court proceedings, which ordered the completion of this SEIR, the attorneys for the CDFG told the court that they had scientific information that small-scale suction dredging might be harmful to fish. It is fact that during discovery by the agents of the miners the CDFG attorneys refused to provide the scientific evidence they claimed was in their possession. Therefore, under court order, CDFG is spending a large amount of tax dollars to find scientific data that dredging harmed fish….data the State claimed to have in its possession prior to the court ordering the SEIR study be performed. And yet, the contents of the SEIR illustrate that the effects of suction dredging on fish, in every instance, is *"Less than Significant"*.

The SEIR results clearly illustrate that the State never possessed any additional scientific evidence they claimed would prove small-scale suction dredging was detrimental, in any way, to fish or wildlife beyond the data already analyzed in the 1994 EIR. The public's money could certainly have been used more productively, in a cash strapped State, than having it used to try and destroy an economic sector of a State already in financial trouble. The basis for the entire SEIR process was founded upon a lie presented by the State's attorneys.

The conclusions for the effects of suction dredging on fish are as follows and are the same as those found in the 1994 EIR and support the positions that the miners have always argued:

- *Impact BIO-FISH-1:* ***Direct Effects on Spawning Fish and their Habitat*** ***(Less than Significant)***
- *Impact BIO-FISH-2:* ***Direct Entrainment, Displacement or Burial of Eggs, Larvae and Mollusks*** ***(Less than Significant)***
- *Impact BIO-FISH-3:* ***Effects on Early Life Stage Development*** ***(Less than Significant)***
- *Impact BIO-FISH-4:* ***Direct Entrainment of Juvenile or Adult Fish in a Suction Dredge*** ***(Less than Significant)***
- *Impact BIO-FISH-5:* ***Behavioral Effects on Juvenile or Adults*** ***(Less than Significant)***
- *Impact BIO-FISH-6:* ***Effects on Movement/Migration*** ***(Less than Significant)***
- *Impact BIO-FISH-7:* ***Effects on the Benthic Community/Prey Base*** ***(Less than Significant)***
- *Impact BIO-FISH-8:* ***Creation and Alteration of Pools and other Thermal Refugia*** ***(Less than Significant)***

  It is generally accepted that most of the pools made by small scale suction dredges last only until the following winter high water flows arrive. In the meantime they serve the fish as resting areas and safe locations from predation. The pools may or may not intersect cold ground water or hyporheic subsurface flows. This fact does not negate or makes the pools less beneficial to the survival of salmonids. The pools still serve as resting and protective locations between thermal refugia, that are generally located at the mouths of confluent streams that could be located some miles away.

We disagree with the Less Than Significant conclusion and would recommend that it be changed from Less than Significant to ***Beneficial.***

Dredge holes 3 feet or deeper are considered adequate refugia for fish. Excavating pools could substantially increase their depth and increase cool groundwater inflow. This could reduce pool temperature (Harvey and Lisle 1998). If pools were excavated to a depth greater than three feet, salmonid pool habitat could be improved. In addition, if excavated pools reduce pool temperatures, they could provide important coldwater habitats for salmonids living in streams with elevated temperatures (SNF, 2001).

- *Impact BIO-FISH-9:* ***Destabilization/Removal of Instream Habitat Elements (e.g., Coarse Woody Debris, Boulders, Riffles)*** ***(Less than Significant);***
- *Impact BIO-FISH-10:* ***Destabilization of the Stream bank*** ***(Less than Significant);***
- *Impact BIO-FISH-11:* ***Effects on Habitat and Flow Rates Through Dewatering, Damming or Diversions*** ***(Less than Signigicant)***.

We understand that the SEIR is using a 4-inch intake nozzle size limit to establish these "Less than Significant" conclusions. However, the published science does not support their projected nozzle size limitation. The small-scale suction dredge study in Fortymile River, Alaska was performed using 8- and 10-inch dredges. Prussian, et. al. (1999) concluded that, "suction dredge mining clearly reduces macroinvertebrate densities, diversity, BOM, and periphyton immediately below dredge activity regardless of the background conditions, though these effects are local and short lived."

The test results for the Chatanika River and Resurrection Creek, Alaska studies reflected the seasonal impacts from the use of small-scale suction dredges that had nozzle sizes ranging from 2- to 6-inches. The Chatanika River and Resurrection Creek sites, "represent the best examples of concentrated mining activity we could find and should be considered "*worst-case*" scenarios because both streams receive considerable mining activity and have relatively well-defined downstream boundaries. Together with the results of other studies, we suggest that the impacts by small-scale dredging activity are primarily contained within mined areas and persist for about one month after the mining season." This is clearly the definition of "Less than Significant".

Since harm to fish is no longer the issue, according to the findings in the SEIR, we will address the issues that were identified as "significant and unavoidable". They are:

Impact WQ-4. ***Effects of Mercury Resuspension and Discharge from Suction Dredging (Significant and Unavoidable);***

Impact WQ-5. ***Effects of Resuspension and Discharge of Other Trace Metals from Suction Dredging (Significant and Unavoidable);***

Impact CUM-8. ***Cumulative Impacts of Resuspension and Discharge of Other Trace Metals from Suction Dredging*** ***(Less than Significant);***

If these subject areas were important enough to investigate, and expend public funds, they should be analyzed in the proper light that peer-reviewed scientific analytical standards demands. It is stated in the notice of availability that "The analysis found that significant environmental effects **could** occur as a result of the proposed program (and several of the program alternatives), specifically in the areas of water quality, and toxicology, noise, and cultural resources. *Although CDFG does not have the jurisdictional authority to mitigate impacts to these resources*, they were, nevertheless, identified as significant and unavoidable."

In Chapter 4.2, WATER QUALITY AND TOXICOLOGY of the DSEIR the first issue of significant and unavoidable impact is "Impact WQ-4. **Effects of Mercury Resuspension and Discharge from Suction Dredging** (Significant and Unavoidable)".

You have provided no direct dredging evidence to support this! You state, "Few dredge studies are available regarding how small scale suction dredging specifically affects mercury. However two important, high quality studies present results indicating less than significant effects.

A cumulative study using an 8 and 10-inch dredge (actually operating in a flowing river) commissioned by the USEPA (1999) produced values of dissolved mercury that were actually greater upstream of the dredge, suggesting that any effect of the dredge was likely within the range of natural variation. The operator reported observing deposits of liquid mercury within the sediments he was working. This is the most relevant piece of published scientific evidence, addressing dredging at intensity beyond that typically experienced in California, with real world interceptions of occasional mercury deposits. The draft fails entirely to explain how any other information undermines the conclusions of this study.

Humphrey (2005) demonstrated that at least 98% of the mercury was retained in the sluice box of the dredge. The fact remains that most suction dredgers do not find mercury hotspot's. Most dredgers report seeing only occasional drops of mercury or amalgamated gold…if any. The highly infrequent nature of mercury interceptions confirms the lack of significance.

Humphreys (2005) and Marvin-DiPasquale (2009) made an attempt to quantify effects of small scale suction dredging on mercury. Their work has added bits of information to the database of known mercury hotspots. However, their work added very little information to the known effects that suction dredges may have on mercury in the "normal" environment. Later attempts to quantify the effects of dredging on mercury (Fleck 2011) were unsuccessful even when:

- They skewed the results by intentionally establishing a study directed at the worst case, most contaminated, location in the State of California; and,
- Attempted, using data from a non-dredge study, to draw statewide conclusions "calculating" the movement of greater quantities of mercury from one 8-inch dredge than is moved in an entire year by natural flood conditions.

According to Fleck (2011), "*It is important to note that the results presented in this publication were not developed using a full-scale dredge operation*." As a matter of fact, other than for the 3 inch dredge portion of the study, no dredge was used!!! The procedure is categorically not a scientifically acceptable or environmentally realistic calculation of results to be scaled-up

quantitatively to reflect what would occur from the outflow of a "real" dredging operation. Fleck further hedged, "*The results of the test should be evaluated as valuable information regarding the proof of concept [of site remediation] rather than a quantitative evaluation of the effects of suction dredging on water and sediment in the South Yuba River*." (Fleck 2011).

The first significant failure of this project was not returning the funding to the California State agencies when it was determined USGS would not be allow the use of small-scale suction dredges in the river to perform the suction dredge study. Following that decision the main scope of the project was manipulated to provide pre-conceived answers to the questions the State agencies were seeking. These actions have the appearance that the only goal of forcing these data was to provide grounds for the State agencies to control the waters of California by closing areas or placing strict requirements in areas used by suction gold dredgers. All of this would be based on non-peer reviewed grey literature science like the Humphrey (2005) and Fleck (2011) studies. A legitimate scientifically designed study would have a hypothesis that would have been formulated to find the best information based on data, from actual small-scale suction dredge operations. Fleck (2011), makes it clear when he states, "*the scope of the study was modified to accommodate concerns by the State Water Resources Control Board and California Regional Water Quality Control Board, Central Valley Region*". These concerns could have been laid to rest simply by moving the test site to a more natural segment of the river system rather than staying in the chosen location of a site known to contain the greatest concentration of mercury in California

Fleck (2011, page 5) stated, "*The revised project scope replaced the planned full-scale suction-dredge test with study elements 2 and 3, which focused on a more complete assessment of sediment composition and Hg contamination and speciation as a function of grain size, as well as current and historical sources of contamination at the SYR-HC confluence site. The information generated in this study could have been valuable in determining the potential for Hg transport due to dredge activities through* ***simulation*** *(emphases added) calculations*."

Fleck (2011) further described his concern for human health stating that, "*Ultimately, the importance of the results of this study relate to whether the Hg in the sediment has a negative effect. Potential for a negative effect is closely related to the transport of sediment into the water column where it may become a threat to local users or be transported downstream*." Presenting these concerns does not make them true especially without adding a study element regarding the bioavailability of released mercury, in the presence of naturally occurring selenium, to cause harm. Therefore, we remain without an answer to the question of what negative effects may be generated from any of the sources of mercury contamination on exposed organisms. Once one has the knowledge that mercury and selenium interact antagonistically it is scientifically unacceptable to comment only on the mercury data without consideration of the selenium data that can demonstrate the total elimination of mercury toxicity

The Fleck (2011) study does further disservice to legitimate science by presenting information calculated on data not collected during the study. He stated, "*Unfortunately, the rate at which sediment was moved during the dredge test was not quantified during this study, therefore this evaluation is based on qualitative observation only*." Flow rates from a dredge are site specific and ***cannot*** be substituted for industry flow rates that are used to sell dredges. Knowing this

Fleck (2011} concludes "***These estimates are, like the previous analysis, dependent on numerous assumptions and estimates and thus possess a high degree of uncertainty***."

On the very same project, when a three inch dredge was used, the researchers found no significant level of mercury flowing out of the sluice box. Results of the three inch dredge study are listed below:

- Concentrations of particulate total mercury increased in a similar manner as total suspended solids, with concentrations during the suction dredging two times the pre-dredging concentration and three to four times the concentration of the samples collected the following day.
- Concentrations of filtered total mercury in the South Yuba River during the dredge test were similar to those in the field blanks (i.e., field control samples).
- Dredging appeared to have ***no major effect*** on particulate methylmercury concentrations in the South Yuba River during the dredge operations.

Results from this three inch dredge study are the closest data presented in this report that reflect the effects of an honest dredge study. However, these results are of insufficient quality or sample quantity to allow for a conclusion that particulate total mercury will float indefinitely down a waterway as Fleck's (2011) conclusion suggests. In fact, there are peer-reviewed journal articles that provide the necessary data to show this is not the case.

USEPA commissioned a study on the impact of suction dredging on water quality, benthic habitat, and biota in the Fortymile River, Resurrection Creek, and Chatanika River, Alaska (Royer, 1999). The results showed that although total copper increased approximately 5-fold and zinc approximately 9-fold at the transect immediately downstream of the dredge, relative to the concentrations measured upstream of the dredge, both metals concentrations declined to near upstream values by 80 m downstream of the dredge.

It was suggested the pattern observed for total copper and zinc concentration is similar to that for turbidity and total filterable solids. The metals were in particulate form, or associated with other sediment particles. The results yielded a similar effect to what Fleck (2011) found regarding particulate total mercury in the South Yuba Humbug creek confluence. However, the Alaskan data provided a totally different outcome than Fleck leads us to believe resulted from his study that did not use a suction dredge to develop the data.

The Fortymile River suction dredge study, using 8 inch and 10 inch suction dredges, measured the distance the metals associated with the sediment particles moved in the water column before settling back to the bottom of the river. The sediment particles did not float indefinitely as Fleck leads us to believe. Zinc at 7.10 g/cm^3 and copper at 8.92 g/cm^3 have significantly lower densities than mercury at 13.55 g/cm^3. Zinc and copper average slightly more than half the weight of mercury. Yet those elements only floated 80 meters. The only reasonable inference, absent real data to the contrary, is that Hg, which has almost twice the weight of copper or zinc, would, as gravity dictates; sink to the river bottom in a shorter or, at least, no greater distance downstream.

What value is there to the public interest when a federal agency, such as USGS, forms the hypothesis of a worst case scenario regarding small-scale suction dredging based on a study performed without using a suction dredge? A project where no suction dredge measurements were taken will never be a substitute for honest factual data. No one should be allowed to force results from an ill conceived project on the citizens of California as scientific truth.

In the California Department of Fish and Game, February 28, 2011 proposed suction dredge regulations the definition of a suction dredge is as follows:

Suction dredging. For purposes of Section 228 and 228.5, the use of vacuum or suction dredge equipment (i.e. suction dredging) is defined as the use of a motorized suction system to vacuum material from the bottom of a river, stream or lake and to return all or some portion of that material to the same river, stream or lake for the extraction of minerals. A person is suction dredging as defined when all of the following components are operating together:

A) A vacuum hose operating through the venturi effect which vacuums sediment in the river, stream or lake; and,
B) A motorized pump; and,
C) A sluice box.

Below are photographs of the Fleck (2011) mercury hotspot "suction dredge" and the one hole from which the sample was collected. This single tub of water is what is being used in the SEIR to define mercury contamination from all suction dredges working the waters of California.

And for those unfamiliar with suction dredging the following photograph will reveal that the dredge floats on the water and is intended to vacuum the overburden from the river or creek bottom. The vacuumed material, (i.e., clay, sand, rocks,) pass through a sluice box that captures the heavy materials (i.e., gold, lead, platinum, mercury) while returning the other materials back to the receiving water.

It states in the SEIR that "The effects of Hg contamination from historic mining activities in California are being extensively studied and there is substantial literature regarding Hg fate and transport. However, *there are very few published studies specifically addressing the effects of suction dredging on Hg fate and transport processes.* Since the time the literature review (Appendix D) was prepared, *USGS scientists and Hg experts provided CDFG with preliminary results of their recent research in the Yuba River "which is specifically focused on assessing the potential discharge of elemental Hg and Hg enriched suspended sediment* ***from suction dredging activities****. This new information and data from USGS was used in formulating the approach to this assessment of the Program.*" The statement is followed by the following diagram.

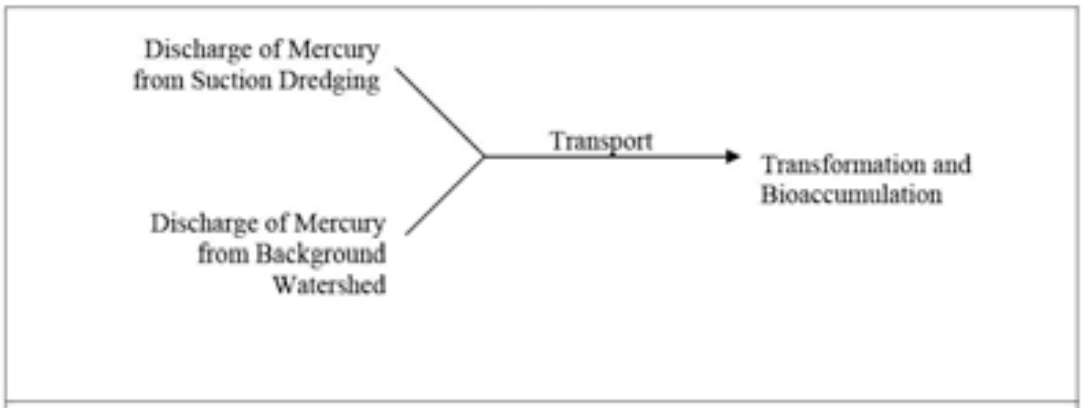


FIGURE 4.2-3. CONCEPTUAL MODEL FOR THE MERCURY IMPACT ASSESSMENT

The statement highlighted in red is factually false and is grounds for dismissing any results from this model. We have no criticism of the modeling approach itself as that is outside of our area of expertise. However, anyone that has worked in science and with modelers understands that the quality of the results is predicated upon the quality and accuracy of the input. There is a term for a model that has used bad or questionable data. It is "garbage in, garbage out". This comment does not reflect on the individual providing the model but, only on the quality of information he is provided. If you were to look at the diagram of the conceptual model it is very clear the element "Discharge of mercury from suction dredging", as defined by the above description from the USGS, is entirely dishonest. Furthermore, we must point out that there is not a control sample from the test site itself. Our understanding is that just one hole was flooded and sucked out using a closed circuit device repeatedly recirculating the water (not a dredge) and historical chemistry for the Yuba River was used as the control data. Not scientifically acceptable!

To prove our point we have only to go back to the statement, "*USGS scientists and Hg experts provided CDFG with preliminary results of their recent research in the Yuba River which is specifically focused on assessing the potential discharge of elemental Hg and Hg enriched suspended sediment from suction dredging activities."* This statement is false. The California State Water Board denied the researchers the right to use an eight-inch suction dredge in the river as the study had planned to do. Therefore, Dave McCracken, the mining consultant, was asked to determine where he believed might be the most contaminated sites for sampling. He did so. A hole was hand dug out on a gravel bar down to the water table. A closed circuit system was then used to suck the fluid and streambed material from the hole into a large container. The

same water was circulated from the hole, into the container and back into the hole, over and over again for about an hour. (A second hole was also hand dug from bedrock outside of the active river (having been exposed to oxygen for potentially many years) just downstream from the most contaminated site.

It was these holes and test procedures that resulted in the measured concentration of the mercury being called dredge discharge. From this description it is clear a real suction dredge was not used to provide the results in the study and the materials did not represent the typical river overburden that had been undergoing natural cleaning from years of flushing winter floods. In fact it is stated that, "discharge of Hg from suction dredging was based primarily on field characterization of Hg contaminated sediments (Fleck et al., 2011). Background watershed mercury loading estimates were utilized to compare to suction dredge discharge estimates (Alpers, et al., in prep). There you have it in their words. Study results were based on contaminated sediments outside the river, or from highly-re-circulated water not representative of ordinary dredging in the river and "background watershed mercury loading estimates were utilized" for the control, rather than precise comparative measures in this area known to have atypically high mercury contamination..

Furthermore, the entire discussion in the draft is written as mercury were a highly toxic, irreversible toxin that everyone should be deathly afraid of. This view is totally biased and slanted. It was bad enough to create a model based only on possibility of worst case factors influencing bioaccumulation, but worse still to not incorporate bioavailability considerations of Hg toxicity into the models assessment management evaluation. We do not see any discussion to the vast collection of published peer reviewed articles that support selenium's antagonism to mercury and the resultant detoxification. This data should also be included in any discussion or model which is attempting to fairly represent any toxic effects to fish, wildlife, aquatic organisms and the environment in general

*Examiner Columnist Ron Arnold wrote "*Where does a regulatory agency run by political appointees find scientists willing to claim their subjective opinion is science? The FWS gets most of its science from U.S. Geological Survey biologists working in a closed loop: FWS gets science from **USGS**, USGS gets funded by FWS - which assures predetermined outcomes and no dissent. Interesting money trail, so where's Congress and the media?" We believe the information reflected in the Fleck, et al (2011) report should be viewed with this same skepticism. The dredge output conclusions calculated by re-circulating water through a hand dug hole, in the most highly mercury contaminated area known to the State of California, is the poorest excuse for science we have observed in our combined 60+ years of scientific research.

Intentionally seeking out and targeting site samples from areas containing known extreme levels of mercury contamination, rather than applying a scientific approach of random sampling, and using these data to draw conclusions that affect a whole State's suction dredge industry is unacceptable. Even worse, the study observations were extrapolated to represent a real stream environment where, it is claimed, mercury would float indefinitely. While panning gold concentrates miners frequently see gold floating on the water until the surface tension is broken. But, overburden and oxygenated water flowing off the end of a sluice box submerges and mixes

below the water surface. This turbulent action breaks the surface tension and the dense materials settle out in a short distance.

January 2010, EPA reported that "since suction dredge mining creates turbidity in the stream it is likely this action increases oxygenation of the waters and therefore, methylation of inorganic mercury would be less likely to occur in these habitats." No quantitative evidence is presented concerning the degree of oxygenation, or whether it has any appreciable effect on general, downstream levels relevant to methylation processes. Determinations of significance require more than theorizing as to possible effects.

As one would expect the results of the USGS study (Fleck 2011) using the 3-inch dredge showed only a slight increase in particulate total mercury present in the water column immediately downstream of the suction dredge. Data indicating that an increase of particulate total mercury does not equate to an increased concentration or change in speciation to the more toxic form methylmercury.

It is important in dealing with science to occasionally step back and ask yourself 'So what?' It's necessary as a scientist to not try to push the data and your resulting conclusion into a pre-conceived notion of what your initial theory was. The push to smear suction dredging with the presented information raises the question of whether we are dealing with scientists or activists working for the USGS. Let me quickly show you what a dredge study should look like.

In the following illustration, from the Fortymile River study in Alaska, you can see the dredge location in the river. There are two control sampling sites upstream of the dredge and several transects with multiple sites crossing the entire river. That is a true example of scientists performing high quality, subject specific research.

Figure 2. Results of turbidity survey behind an operating 10-inch suction dredge (site #1 on fig. 1). All numbers shown are in NTU, or nephelometric turbidity units; the standard unit of turbidity. The right bank of the river is off the edge of the figure. The approximate shape of the plume is shown in gray. Note that the figure is exaggerated 5x horizontally, so the plume is actually much narrower than it appears in the figure. To comply with State regulations, dredges may not increase the turbidity of the river by more than 5 NTU, 500 feet behind the dredge.

In the presentation to the CDFG PAC Claudia shared numerous peer-reviewed journal articles that prove selenium's chemical antagonism to mercury, and other mercury species such as methylmercury, cause no significant harm to fish or human health. These published peer reviewed articles leave no doubt that toxicity from mercury contamination in historic mining basins is ***(Less than Significant)***.

There is no doubt that methylmercury may cause harm under the right circumstances. An example of this occurred in Minimata, Japan where inhabitants were exposed to 27 tons of mercury waste dumped in the bay but, with no corresponding shift in selenium levels. However, there has been a large body of (peer reviewed) evidence published that demonstrates that supplemental dietary selenium moderates or counteracts mercury toxicity. Mercury exposures that might otherwise produce toxic effects are counteracted by selenium, particularly when the Se:Hg molar ratios approach or exceed 1." Selenium has a high affinity to bind with mercury thereby blocking it from binding to other substances, such as brain tissue. The bond formed is irreversible. "All higher animal life forms require selenium-dependent enzymes to protect their brains against oxidative damage (Peterson 2009)". As early as 1967 Parizeik found that high exposures Se and Hg can each be individually toxic, but evidence supports the observations that co-occurring Se and Hg antagonistically reduce each other's toxic effects.

In 1978, scientists from Sweden were reporting that "mercury is accompanied by selenium in all investigated species of mammals, birds, and fish," adding that it "seems likely that selenium will exert its protective action against mercury toxicity in the marine environment" (Beijer 1978). Building onto the list of species known to be protected by selenium's bond with mercury and the toxic effects of methylmercury, a group of Greenland scientists in 2000, published the results of mercury and selenium tests performed on the muscles and organs of healthy fish, shellfish, birds, seals, whales, and polar bears. They found that, "selenium was present in a substantial surplus compared to mercury in all animal groups and tissues" (Dietz 2000)

Not only ocean species but freshwater species are found to also be protected. Researchers at Laurentian University in Ontario, Canada reported that selenium deposits, from metal smelters into lake water, greatly decreased the absorption of mercury by microorganisms, insects, and small fish. Suggesting a strong antagonistic effect of selenium on mercury assimilation (Yu-Wei 2001). Peterson's group (2009) collected 468 fish representing 40 species from 130 sites across 12 western states. Samples were analyzed for whole body selenium and mercury concentrations. The fish samples were evaluated relative to a wildlife protective mercury threshold of 0.1 ug Hg/g wet weight, and the current tissue based methylmercury water quality criteria for the protection of humans of 0.3 ug Hg/g wet weight and presumed protective against mercury toxicity where the Se:Hg molar ratios are greater than 1. The study included data from samples collected in California which, in all cases, contained proportions of mercury to selenium that were adequate to protect fish, wildlife and human health. Results showed 97.5% of the freshwater fish in the survey had sufficient selenium to protect them and their consumers against mercury toxicity. The California results were 100% protective.

Peterson's (2009) research supports Ralston's (2005) findings stating that "Mercury toxicity only occurs in populations exposed to foods containing disproportionate quantities of mercury relative to selenium." Also supporting this finding inadvertently, the California Office of Environmental Health Hazard Assessment website has no evidence of any one in California that has died from mercury poisoning from eating sports fish… despite mercury warnings they have issued.

"Methylmercury exposure to wildlife, and to humans through fish consumption, has driven the concern for aquatic mercury toxicity. However, the methylmercury present in fish tissue might not be as toxic as has been feared. Recent structural analysis determined that fish tissue methylmercury most closely resembles methylmercury cysteine (MeHg[Cys]) (*or chemically related species*) which contains linear two-coordinate mercury with methyl and cysteine sulfur donors. MeHg[Cys] is far less toxic to organisms than the methylmercury chloride (MeHgCl) that is commonly used in mercury toxicity studies." (Harris 2003).

The best science suggests that the tiny amounts of mercury in fish aren't harmful at all. A recent twelve-year study conducted in the Seychelles Islands (in the Indian Ocean) found *no negative health effects* from dietary exposure to mercury through heavy fish consumption. On average, people in the Seychelles Islands eat between 12 and 14 fish meals every week, and the mercury levels measured from the island natives are approximately ten times higher than those measured in the United States. Yet none of the studied Seychelles natives suffered any ill effects from mercury in fish, and they received the significant health benefits of fish consumption

Forty years of research illustrates the conclusion, from hundreds of journal articles, that demonstrate mercury is not a threat to the environment or human health if the molar ratio of selenium:mercury meets the defined criteria. In California there are adequate supplies of selenium to support the criteria. Results of these studies support the fact that methylmercury is not deleterious to fish and wildlife or aquatic organisms.

We disagree with the Significant and unavoidable conclusion, because of the lack of factual scientific basis that would support this conclusion. We would recommend that it be changed from Significant and unavoidable to ***(Less than Significant)*** until the full body of science is evaluated.

Impact CUM-7. Cumulative Impacts of Mercury Resuspension and Discharge from Suction Dredging (Significant and Unavoidable)

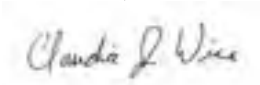
Cumulative Impacts are no different in this regard as Impact WQ-4. The many factors associated with bioavailability such as total hardness, dissolved organic carbon, pH, alkalinity, sulfate reducing bacteria, anaerobic conditions, etc. need to be present for methylation and bioaccumulation in the food chain. Even if the conditions for methylation are met, if selenium to

mercury has, at least, a 1:1 molar ratio all the mercury will bind with selenium creating an irreversible bond cancelling any potential toxic effects of mercury. Furthermore, since this opinion appears to rely heavily on the purported "scientific" results provided by the USGS dredge study they are totally worthless and should not be used for the aforementioned reasons.

We disagree with the Significant and unavoidable conclusion, because of the lack of factual scientific basis that would support this conclusion. We would recommend that it be changed from Significant and unavoidable to ***(Less than Significant)*** until the full body of science is studied.

Sincerely,

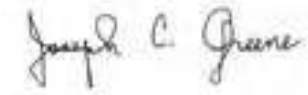
Claudia J, Wise



Physical Scientist, U.S. Environmental Protection Agency [RETIRED]

and

Joseph C, Greene



Research Biologist, U.S. Environmental Protection Agency [RETIRED]

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