

CALIFORNIA LEGISLATURE

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May 10, 2011

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Mr. John McCamman
Acting Director
California Department of Fish and Game
1416 Ninth Street
Sacramento, CA 95818

DFG
DIRECTOR'S OFFICE

Re: Proposed Suction Dredge Mining Regulations

Dear Director McCamman:

We write to express our concern about the suction dredge mining regulations proposed by the California Department of Fish and Game (CDFG). Please consider these comments in response to CDFG's draft Subsequent Environmental Impact Report and proposed regulations.

The proposed regulations will affect numerous rivers and streams in many of our districts; the recreational use of these waterways by our constituents, as well as the quality of water in rivers and streams that provide local drinking water supplies. There are a number of problems with the overall regulatory program and the proposed regulations that must be rectified before they become final. These include:

Vague and Confusing – The proposed regulations are vague, confusing, inconsistent, and contradictory in many areas and for several rivers and streams. For these reasons, it will be difficult, if not impossible, for the public to comply with the regulations. The new regulations must be easy for the public to understand.

Closed Waters Now Open – Many streams and rivers, such as designated Wild Trout waters, previously closed under the 1994 regulations would be reopened to suction dredge mining under the new regulations, with little or no reasoning provided to justify the changes. Waters previously closed in the 1994 regulations should remain closed, unless river or stream-specific justification is provided.

Mercury Pollution – Scientific studies show that suction dredging mobilizes toxic mercury, to the point that the dredge discharges are hazardous. This poses a serious human health hazard and significant impacts on fish and wildlife. These impacts are acknowledged in the draft EIR, but yet the proposed regulations make no attempt to close mercury-impaired rivers or rivers and streams that feed into mercury-impaired water supply reservoirs. The regulations must consider closing to suction

dredging mercury-impaired rivers and or waterways that feed into mercury-impaired reservoirs.

Significant and Unavoidable Impacts – CDFG identifies several significant and unavoidable impacts caused by the regulations, including mercury and trace metals discharge from suction dredging, adverse impacts on riparian-dependent perching birds, statewide impacts on historical and Native American cultural resources, and potential violations of local noise ordinances. Alarming, no mitigation is proposed for these significant impacts because CDFG claims it has no jurisdiction to regulate or mitigate them. In its permitting program, and pursuant to its public trust responsibilities for wildlife resources, CDFG has the obligation to either avoid or mitigate impacts (by denying permits if needed) to all public resources.

Critical Habitat – Many rivers and streams that provide critical habitat for threatened and endangered fish and wildlife species will be open to suction dredging under the new regulations, possibly further endangering these species and degrading their habitat. All rivers and streams designated as critical habitat for threatened and endangered species should be closed to dredging.

Deleterious to Fish – CDFG is defining the term “deleterious to fish” so broadly that adverse impacts to fish at the community or population level is required before CDFG will limit permits. CDFG should follow the original 1961 legislative intent establishing suction dredge mining regulations, which was to ensure that any “damage” to fish must be “minimal”, including avoiding disturbing eggs and fish food organisms, and stirring up silt. In supporting the 1961 legislation establishing regulations, CDFG promised that suction dredging permitted under the regulations “will be safe for fish life.”

Parks and Other Special Areas – The regulations require CDFG to issue suction dredge permits for many rivers and streams in areas where such use is typically prohibited by other local, state, and federal agencies, regulations, and law. As currently written, the regulations require the issuance of CDFG mining permits in State and National Parks, designated Wild Trout Streams, California and National Wild & Scenic Rivers, and other areas that are often off-limits to such use. CDFG’s proposed regulations should prohibit suction dredge mining in areas where other local, state, and federal agencies, regulations, and laws prohibit such use.

Mega-Dredges – The regulations permit the use of 4 inch dredges, except CDFG may grant discretionary permits to allow the use of commercial-size 8 inch dredges on some of California’s most resource sensitive and recreationally popular rivers, including the American, Cosumnes, Feather, Klamath, Merced, Mokelumne, Scott, Trinity, and Yuba. Many of these rivers are also important local and statewide water supply sources. No criteria are provided in the proposed regulations as to why and under what circumstances these mega-dredges will be allowed. The new regulations should limit suction dredge size to 4 inches.

Multiple Dredges - A disturbing trend in suction dredge mining is the use of relatively short segments of rivers by multiple dredges, either as a mining "club" or through leasing arrangements with single mining claim owners. This trend greatly increases the number of dredges working a short segment of river, with a corresponding significant increase in cumulative impacts. The regulations fail to address this trend and should be written in a way to discourage this kind of intensive use in confined areas.

Cost - The suction dredge permit program is a money-loser. In 2009, permit fees only brought in \$267,000, but it costs CDFG at least \$1.25 million annually to administer the program. At a time when the state suffers from a severe deficit, CDFG can ill-afford to re-start a permit program that depends on diverting funds from other programs (such as fishing and hunting license fees) or the General Fund to cover its basic operation costs. Suction dredge permit fees should be raised to cover the full costs of the program, including maintaining sufficient wardens in the field to ensure compliance. Although the permit fees are set in statute, Fish and Game Code Section 713 (f) requires CDFG to analyze fees to ensure the appropriate fee is charged, and make recommendations to the Legislature that fees be adjusted as appropriate. It makes sense to do this now while suction dredge mining is still suspended in California.

Since DFG will be requiring permittees to provide information on the locations that they plan to dredge in, the regulations ought to provide for monitoring of sites where dredging occurs and subsequent review of the data collected.

The proposed regulations must be revised to address these serious concerns. Unless CDFG can fully mitigate all significant environmental impacts then CDFG needs to adopt the "no program alternative." Thank you for your consideration.

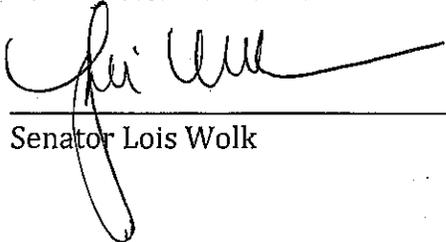
Sincerely,



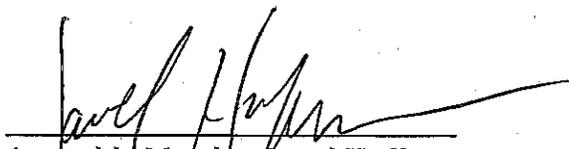
Senator Fran Pavley



Senator Noreen Evans



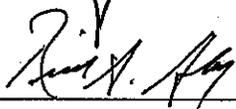
Senator Lois Wolk



Assembly Member Jared Huffman



Assembly Member Wesley Chesbro



Assembly Member Richard Gordon

cc: Secretary John Laird, Natural Resources Agency



May 10, 2011

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

Re: California Trout, Trout Unlimited, and the Northern California Council of Federation of Fly Fishers Comments on Draft SEIR Suction Dredge Permitting Program

Dear Mr. Stopher:

California Trout (CalTrout), Trout Unlimited (TU) and the Northern California Council of Federation of Fly Fishers (NCCFF) provide the following comments on the Department of Fish and Game's Draft Subsequent Environmental Impact Report (DSEIR).

We appreciate the Department of Fish and Game's (Department or CDFG) effort to comply with Senate Bill 670 and update suction dredge regulations. However, we believe the DSEIR falls short in providing the necessary protections for California waters and will hasten the decline of already tenuous trout, steelhead and salmon populations. The DSEIR identifies a number of significant and unmitigated environmental impacts that must be addressed. Further, the suction dredge program fee structure is not self-sustaining. The result has been—and will continue to be according to the DSEIR—that California's anglers and the general public subsidize a program that is damaging to our waterways, fish, and the health of our rivers.

Senate Bill (SB) 670 was signed into law in 2009 and imposed an immediate moratorium on suction dredge mining until the Department of Fish and Game completed a court ordered environmental review. For our organizations, we would like to express two core principles as you continue the review process: **For the moratorium to be lifted:**

(1) Existing regulations and any new regulations must fully mitigate all identified significant environmental impacts; and,

2) A fee structure must be developed that fully covers the costs of the suction dredge program.

BACKGROUND

CalTrout, TU, and NCCFFF members use and enjoy the rivers of California. Together our groups represent anglers and their pursuit of fishing for California's diverse trout, steelhead and salmon. Angling stimulates local economies and is an important driver of local economies in many rural areas.

California Trout's mission is to protect and restore wild trout, steelhead and salmon and their waters throughout California. California Trout is supported by approximately 7,500 members and approximately 60 affiliate organizations representing approximately another 10,000 members. California Trout is headquartered in San Francisco and operates 5 field offices throughout the state.

Trout Unlimited (TU) is the nation's oldest and largest coldwater fisheries conservation organization. TU is a non-profit corporation organized under the laws of the state of Michigan. Its national office is in Arlington, Virginia, and it maintains California offices in Berkeley, Salinas, Fort Bragg, and Truckee, California. TU has more than 140,000 members nationwide, and is dedicated to protecting, conserving, and restoring North America's trout and salmon resources. In California alone, TU has more than 10,000 members.

The Northern California Council, Federation of Fly Fishers represents fly fishers from Fresno north to the Oregon Border, and northern Nevada. We have 32 member fly fishing clubs, with a membership of over 7,000. The NCCFFF is focused on promoting the sport of fly fishing through education and conservation of our California fisheries and their habitats. Of primary importance is protecting and enhancing our fisheries for future generations to enjoy.

The current state of California's trout, steelhead and salmon is bad and worsening. Suction dredge mining impacts only exacerbate that declining trend, and those impacts must be considered in the context of the current status of our state's fisheries. The diversity of salmonids (trout, steelhead, and salmon) in California is truly remarkable. Our state is the southern end of the range of all anadromous (ocean-going) trout and salmon species. It is also home to many distinctive inland forms of these fish, such as three golden trout subspecies of the southern Sierra Nevada. California's dynamic and varied geology, climate, and size, as well as proximity to the nutrient-rich California current just offshore, all contribute to this amazing diversity of coldwater fish.

The sobering fact is, if present trends continue, 65% of California's salmonids will be gone within the next 100 years, and maybe sooner. There are 13 different kinds of steelhead and salmon in California that may be gone by the year 2100.¹ Coho salmon and southern steelhead

¹ SOS Report: California's Native Fish Crisis *SOS: California's Native Fish Report* by Dr. Peter Moyle, Dr. Josh Isreal, and Sabra Purdy, UC Davis Watershed Center. Report Commissioned by California Trout. 2008. Available at www.caltrout.org

are the most at-risk, where returning adult numbers in some watersheds are in the single digits. Seven of California's nine resident trout species are in trouble, mostly because they are endemic to a few streams in small isolated areas, where they are vulnerable to hybridization with introduced species as well as to impacts from grazing, old logging roads, and other factors.

The "fish don't lie." And, what they tell us is that they are not doing well. In his expert report on suction dredging, Dr. Peter Moyle states "in my professional opinion, suction dredging should only be allowed in areas where it can be demonstrated there will no immediate or cumulative impact on the anadromous fishes. It should be assumed there is harm, unless it can be proven otherwise."²

Below we highlight specific comments on the DSEIR. We also incorporate by reference the comprehensive comments submitted by the Karuk tribe and the Foothill Anglers Coalition.

SPECIFIC COMMENTS

Comment 1: The issuance of suction dredge permits must be considered on a stream-by-stream *and* a permit-by-permit basis.

The DSEIR assumes a statewide approach to the issuance of suction dredge permits. This approach does not take into account the many site specific and stream specific variables to adequately determine impacts of the action (*see e.g.*, comment 3 regarding the McCloud River). We believe the issuance of 1600 streambank alteration permits is a better model, where each permit is subject to CEQA with site specific, negotiated terms and conditions.

We concur with the Karuk Tribe and others that compliance with Fish and Game Code §§ 5653, 5653.9 as well as the California Environmental Quality Act (CEQA) require: (1) the adoption of regulations that comply with CEQA and (2) a determination upon the issuance of each permit that the permitted activity will not cause deleterious impacts to fish. In addition, the Department's regulations must clearly state that the Department has the right to revoke, suspend, or refuse to renew a permit should it discover evidence showing that deleterious impacts are occurring, or will occur to fish.

Comment 2: Proper definition of *deleterious effects*

The definition of '*deleterious effects*' is of critical importance in this review because Fish & Game Code Section 5653 provides that "If the department determines, pursuant to the regulations adopted pursuant to Section 5653.9, that the operation will not be deleterious to fish, it shall issue a permit to the applicant." Suction dredge mining has deleterious effects on trout, steelhead and salmon according to declarations by Department officials Banky Curtis and Neil

² Peter Moyle, Expert Report before Superior Court of California, Alameda County, RG0521197.

Manji filed in connection with the 2005 lawsuit filed by the Karuk Indian tribe³. In the declaration filed by (at the time) DFG Deputy Director Banky Curtis:

*“The Department believes suction dredge mining under the existing regulations in the Klamath, Scott and Salmon River watersheds is resulting in deleterious impacts on coho salmon (*Oncorhynchus kisutch*), a species currently protected by the California Endangered Species Act (“CESA”) (Fish & G. code, Sec. 2050 et seq.). Because of this, the Department also believes its current suction dredge permitting program is not in compliance with California Fish and Game Code section 5653, subdivision (b), and section 5653.9.”*

In the accompanying October 2, 2006 declaration filed by Neil Manji, then the Fisheries Branch Chief for DFG, Mr. Manji stated:

“...based on a review of the scientific literature, data available to the Department, and my experience as a fishery biologist, it is my professional opinion, as the Fisheries Branch Chief for the Department that suction dredge mining under the existing regulations in the Klamath, Scott and Salmon River watersheds is having deleterious effects on coho salmon, a species currently protected by the California Endangered Species Act.”

The Department’s prior and irrefutable recognition of deleterious effects underscores the importance of properly defining the term now.

Generally, CDFG concludes in the DSEIR that an effect which is deleterious to Fish, for purposes of section 5653, is one which manifests at the community or population level and persists for longer than one reproductive or migration cycle. This approach is inconsistent with the legislative history of section 5653. The history establishes that, in enacting section 5653, the Legislature was focused principally on protecting specific fish species from suction dredging during particularly vulnerable times of those species’ spawning life cycle. The Department’s proposed approach in the DSEIR conflates impacts up to the population level, which would “under-protect” fish by casting the impact net at the population level.

We believe this definition of ‘deleterious’ is inconsistent with how it has been applied historically to section 5653. Fortunately, the Friends of the North Fork documented the legislative history of section 5653 and specifically how ‘deleterious effects’ was interpreted. We summarize below.

- In 1961, “deleterious to fish” found its way into the first California statute regulating suction dredge mining, Fish and Game Code Section 5653, in Assembly Bill 1459 (Arnold). In his letter to the governor requesting a signature on the bill, Assemblyman Arnold used terms like “damage” and “disturb”. He said dredging should be done so as not to cause anything other than “minimal damage” to fish, from which he specifically

³ Karuk Tribe of California, et.al. v. Department of Fish and Game, Superior Court Ct. Alameda County Case No. RG 05 211597.

excluded disturbing eggs, disturbing fish food organisms and stirring up silt to cause an “aesthetic problem” and cover eggs.

- The intent was clear. Any “damage” from dredging activities must be “minimal.” Clearly, the author’s view was that disturbing eggs, disturbing fish food organisms and stirring up silt to cause an "aesthetic problem" and cover eggs is more than minimal, and thus is “deleterious” to fish.
- In an analysis of AB 1459 provided to members of the Legislature in 1961, the Legislative Analyst’s Office said that, under the bill, “the department must then determine whether the operation will be safe for fish life and if so it will issue a permit to the applicant.” So, in that view of the intent of “not deleterious to fish,” legislators were informed that it meant the activity is “safe for fish life.”
- In a letter to the Governor requesting his signature on AB 1459, the Department of Fish and Game said, “The department shall issue a permit if it is judged that no damage will occur to fish, aquatic life, and the aquatic environment.” So in information on which the Governor based his decision to sign AB 1459 into law, “not deleterious to fish” meant “no damage” to “fish, aquatic life and the aquatic environment.”
- In the handful of bills since 1961 affecting this section, no legislation has ever used a term other than “deleterious to fish” nor offered any other interpretation of its meaning. Thus, we are left with the actual history which assigns “minimal” or “no” damage to fish as the criteria for determinations as to whether there is a “deleterious” effect.

The above accounts clearly indicate the Department’s interpretation of the meaning of ‘deleterious’ in the DSEIR is unsupported. We concur with Karuk et al. that the following language be included in the Fish and Game Code:

A vacuum or suction dredge operation and activities associated with its operation are deleterious to fish, mollusks, crustaceans, invertebrates, or amphibians if either (1) it deposits, alters, scours or re-suspends any substance or material in the river, stream or lake that has a harmful effect on any life stage of “fish” or (2) alters the behavior of “fish” so as to have a harmful effect or (3) results in the modification or alteration of instream or riparian habitats in a way that has a harmful effect on the ability of “fish” to successfully feed, reproduce or evade predators.

Comment 3: All Department of Fish and Game designated Heritage Wild Trout Waters should be closed to suction dredging.

The California Fish and Game Commission (Commission) established the Trout and Steelhead Conservation Management Act in 1977 thereby codifying into law the Wild Trout Program. In doing so, the Commission essentially recognized the importance of high quality habitat for the maintenance of wild trout populations. the Policy states: “All necessary actions, consistent with state law, shall be taken to prevent adverse impact by land or water development projects affecting designated Wild Trout Waters.”

There are over 40 designated Heritage and Wild Trout waters, representing the most pristine and popular trout and steelhead angling destinations in the state. There is absolutely no question that this state's anglers love and care deeply about the future of these designated waters. We highlight the need to close all Heritage and Wild Trout waters by making the case for one—the McCloud River.

The entire McCloud River watershed should be closed to suction dredge mining. We base this recommendation on 1) the protection afforded by the Public Resources Code for the McCloud as a state Wild and Scenic River, 2) the designation by the Fish and Game Commission of the McCloud River as a Wild Trout Water, 3) the status of the river as one of the state's most popular angling destinations, 4) the presence of rare McCloud River redband trout, a state Species of Special Concern, and 5) the identification of the McCloud River by the National Marine Fisheries Service (NMFS) for the reintroduction of winter-run Chinook and spring-run Chinook salmon, both federally-designated endangered species.

The McCloud River has protection equal to state Wild and Scenic River status through Public Resources Code Section 5093.5-5093.70. This protection directs '[a]ll state agencies exercising power under any other provision of law with respect to the protection and restoration of fishery resources shall continue to exercise those power in a manner to protect and enhance the fishery....[.] Suction dredge mining activities would clearly conflict with the state legislature's statement that the 'continued management of river resources in their existing natural condition represents the best way to protect the unique fishery of the McCloud River.'

⁴

The DSEIR recommends closing the McCloud River from the southern boundary of section 36, T38N, R3W (the bottom of The Nature Conservancy Property) upstream to McCloud Dam. We strongly support this closure. This section of the river is a designated Wild Trout water by the Department of Fish and Game and is one of the most popular fly fishing destinations in California. Incorrectly, the reason stated in the DSEIR for closing this section of the McCloud River is the protection of redband trout, yet McCloud redband trout only occur in tributaries to the Upper McCloud River above McCloud Reservoir. Redband trout are a California Species of Special Concern. To adequately protect the redband trout, suction dredge mining should be banned in the entire upper watershed of the McCloud River above McCloud Reservoir. We embrace the logic in the DSEIR of protecting red band; however, we propose applying that logic to the facts and extending the ban to the entire upper watershed.

Moreover, in June 2009, NMFS issued a final biological opinion on the Bureau of Reclamation's operations of Shasta Dam. As a result, NMFS issued a Reasonable and Prudent Alternative (RPA) requiring the Bureau to pass listed winter-run Chinook salmon, spring-run Chinook salmon and steelhead above Shasta Dam. The McCloud River and the Upper Sacramento River are the two rivers targeted for reintroduction above Shasta Dam. The Department should close

⁴ Wild and Scenic River Chapter, Public Resources Code, Sections 5093.50-5093.70.

both of these waters to suction dredge mining to limit potential impacts to these endangered species given the potential event of reintroduction, which, if it occurs, would undoubtedly force the cessation of dredge mining anyway.

As the McCloud River focus indicates, California's Heritage and Wild Trout waters are recognized as important areas for the preservation of clean, cold water and the fish indicator species that they harbor. The importance and value of the 39 other designated waters in addition to the McCloud establishes sufficient grounds for the Department to ban suction dredge mining from them.

Comment 4: User fees do not cover the costs of the Departments suction dredge permitting program.

California's budget crisis could not be more severe. State agencies are searching for ways to cut programs and save costs. The suction dredge mining permitting program is subsidized by the California taxpayers due to the costs of running the program outweighing the revenue generated by fees. Legislative analysis of SB 670 in 2009 highlight the funding discrepancy; the suction dredge permit program costs DFG about \$1.3 million to operate compared to annual estimates of \$375,000 of revenue. We do not see how the program is budgetarily justifiable given the declining status of trout, steelhead and salmon, their importance culturally and economically, and the current fiscal crisis of California.

DFG has acknowledged in previous years that the current fees for suction dredge mining permits are inadequate to cover the full costs of the program. Under the new proposed regulations these shortfalls would continue at an estimated \$1.5 million per year. In the past, some or all of these subsidies have come from the Fish and Game Preservation Fund—a budget that is primarily built by fishing and hunting license sales. This money should be used to protect and restore economically valuable fisheries, not subsidize their destruction. The checkbooks and bank accounts of this state's hunters and anglers should not be used to underwrite a program that harms the very species we pay licenses to fish.

The moratorium on suction dredge mining as mandated by SB 670 must not be lifted until the Department can develop a fee structure that will fully cover all program costs.

Comment 5: Suction dredge mining should be closed in streams that meet one of the following criteria:

1. All river segments with historical gold mining activities in which mercury was utilized;
2. River segments listed as impaired under 303(d) of the Clean Water Act due to turbidity, water temperature, sediment, or mercury;
3. All river or stream segments designated as components of the National Wild and Scenic Rivers System or deemed eligible for protection by federal agencies. Federal rivers are to

be managed to protect their specific outstandingly remarkable scenic, recreation, historical/cultural, fish/wildlife, ecological, geological, and other values. In addition, water quality on federally protected rivers must meet or exceed federal criteria or federally approved state standards for aesthetics, fish and wildlife propagation, and primary contact recreation⁵

4. All rivers protected pursuant to provisions of the California Wild and Scenic Rivers Act (Chapter 1.4 (commencing with Section 5093.50) of Division 5 of the Public Resources Code). DFG has a responsibility in its permitting process to protect the free flowing character and extraordinary values of state designated rivers;⁶
5. All river or stream segments designated by the Fish and Game Commission as Wild Trout Waters or Heritage Trout Waters, or deemed suitable for designation pursuant to Section 1727 of the Fish and Game Code;
6. All river segments that provide critical, potential, and historical habitat for federally or state listed threatened species or endangered species, "Special Animals" (e.g. species at risk, special status species, species of special concern) and candidate/proposed species);
7. Rivers in Key Watersheds as identified by the Northwest Forest Plan;
8. All stretches of rivers in which miners' off-river activities (hauling supplies, camping, taking dredges on or off river, refueling, emptying sluices, sorting concentrates, etc.) will likely cause negative impacts to the immediate environment because it results in activities such as trampling of sensitive or culturally significant plants, impacts to cultural resources; fuel spillages, or handling of hazardous materials.

Comment 6: Mercury

We refer you to the comments on mercury in the Karuk, et al. comments, Comment # 6. We fully support this comment and its associated recommendations.

We also refer you to the Foothills Anglers Coalition comments, pages 17-18 in which they reference to SDEIR, p4.2-14, LL31-32, describing the pathway of methylmercury into wildlife and human consumption of Hg contaminated fish. Hence, any action, like suction dredging, that increases the exposure and intake of methyl-mercury in fish species should not be allowed.

CONCLUSION

CalTrout, TU and FFF appreciate the Department's efforts to address the mandates of SB 670. At this time, however, we believe the proposed regulation changes in the DSEIR fall short of fully mitigating for the impacts of suction dredge mining on California's trout, steelhead and

⁵ Public Resources Code, Chapter 1.4 (commencing with Section 5093.50) of Division 5.

⁶ Public Resources Code Section 5093.61.

salmon. Sadly, in fact, in many regards, these proposed regulations – in 2011 – are worse for fish than the 1994 regulations on suction dredge mining. Further, we believe a fee structure must be implemented that fully covers the costs of the program. California’s anglers, hunters and taxpayers should not be required to subsidize the suction dredge program.

Sincerely,



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DSEIR COMMENT ON SUCTION DREDGING

comment on classification changes on the trinity river tributaries from july 1 –september 30 seasons to complete closure-classified A

reasoning on dseir coho habitant

alternative keep the same seasons as in previous years

SUPPORT APRIL 3, 2011 THE TRINITY RIVER GUIDES ASSOICATION APPEALED TO THE PACIFIC FISHERIES MANAGEMENT COUNCIL AND THE NATIONAL MARINE FISHERIES SERVICE FOR **A COHO SALMON SEASON ON THE TRINITY AND KLAMATH RIVERS**. THE REASONING BEHIND THE APPEAL IS THE HATCHERY RELEASES 500,000 YOUNG COHO EACH YEAR. THE NUMBER OF RETURNS EACH SEASON RANGE FROM 3800 TO 18, 000. IT ONLY TAKES A RETURN OF 1000 COHO FOR THE HATCHERY TO OBTAIN ENOUGH EGGS TO MEET ANNUAL RELEASE OF HALF A MILLON COHO.

IT IS EVIDENT TO ME THAT THESE PROFESSIONALS WHO ARE ON THE TRINITY RIVER FOR MONTHS EACH YEAR, HAVE MORE KNOWLEDGE THAN THOSE INDIVIDUALS AT THE “CENTER FOR BIOLOGICAL DIVERSITY” AND OTHER CONTROL ENVIORNMENTAL GROUPS WHO HAVE WRITTEN THIS DSEIR FOR THE DFG.

A CURRENT FISH BIOLOGIST FOR THE SHASTA-TRINITY NATIONAL FOREST ALSO FEELS THAT THERE ARE MORE THAN ENOUGH COHO FISH IN THE NORTH FORK AND EAST FORK OF THE TRINITY RIVER TO SUPPORT DREDGING.

IT IS EVIDENT THRU MY DISCUSSIONS WITH INDIVIDUALS ON THE RIVER AND “FISH COUNTERS” THAT THERE IS NO SCARCITY OF COHO FISH AND THAT THE CLOSURES OF THESE STREAMS ARE UNCALLED FOR BUT MERELY AN EASY ACCOMPLISHMENT BY INDIVIDUALS WITH NO FIELD EXPERIENCE, NO QUESTIONS ASKED OF DREDGER-MINERS AND NOTHING BUT SPECULATION.

I ASK THAT THE FINAL DRAFT REFLECT THE PRESENT OR A CURRENT STUDY ON COHO FISH THAT SHOWS THAT SUCTION DREDGING IS DELETERIOUS TO THESE FISH OR THE RETURN OF THESE FISH TO THE TRINITY RIVER OR THE TRIBUTARIES OF THE TRINITY WHERE THESE CLOSURES ARE PROPOSED.



DEPARTMENT OF PARKS AND RECREATION
Gold Fields District
7806 Folsom Auburn Road
Folsom, CA 95630

Ruth Coleman, Director

May 10, 2011

California Department of Fish and Game
Attn: Mark Stopher
Suction Dredge Program Draft SEIR Comments
61 Locust Street
Redding, CA 96001

Dear Mr. Stopher,

The purpose of this letter is to express the comments and concerns of the Gold Fields District of California State Parks regarding the proposed Suction Dredge Permitting Program and the Draft Subsequent Environmental Impact Report (DSEIR). The Gold Fields District manages several park units where suction dredging has occurred in the past or potentially could occur in the future. This includes Auburn State Recreation Area (SRA), Folsom Lake State Recreation Area and Marshall Gold Discovery State Historic Park (SHP).

Prior to the current moratorium on suction dredging, within the Gold Fields District suction dredging was only permitted within Auburn State Recreation Area (Auburn SRA), and within Auburn SRA this activity was limited to specific areas and further restricted beyond the provisions of the California Department Fish and Game (CDFG) dredging permit regulations. Suction dredging has never been permitted within Marshall Gold Discovery SHP (South Fork American River) or Folsom Lake SRA (North Fork American River from just downstream of Auburn Dam site to high pool of Folsom Reservoir and a short stretch of the South Fork of the American River above the Salmon Falls Bridge).

The mission of California State Parks is to provide for the health, inspiration and education of the people of California by preserving the State's extraordinary biodiversity, protecting natural and cultural resources, and creating opportunities for high quality outdoor recreation. As a recreational or commercial activity, suction dredging is inconsistent with California State Parks regulations and policies. The California Public Resources Code (PRC 5001.65) prohibits the commercial exploitation of resources in units within the State Park system, but allows taking mineral specimens for recreational purposes from state beaches, state recreation areas or state vehicular recreation areas upon prior approval of the Director of California State Parks. The California Code of Regulations (CCR) further defines the type of rock and mineral collection permitted within state park units.

Rock hounding is defined in CCR 4301(v):

“...the recreational gathering of stones and minerals found occurring naturally on the undisturbed surface of the land, including panning for gold in the natural water-washed gravel of streams.”

The allowable activities and limitations of rock hounding are further described in CCR 4611. This includes the following provisions:

-Rocks or mineral specimens gathered within a unit may not be sold or used commercially for the production of profit.

-Tools, except goldpans to be used in gold panning, may not be used in rockhounding within a unit.

-In state recreation areas rockhounding may not be practiced in areas designated for swimming or for boat launching.

-Panning for gold is considered to be "rockhounding" as the term is applied in the Department. The goldpan is the only exception permitted to the exclusion of tools from rockhounding in a unit as provided in Section 4610.5. Muddy water from panning operations must not be visible more than 20 feet from the panning operation.

Geologic features are protected within state park units under CCR 4307:

“No person shall destroy, disturb, mutilate, or remove earth, sand gravel, oil, minerals, rocks paleontological features, or features of caves.”

The proposed amendments to the Suction Dredging regulations in the California Code of Regulations (Title 14, Division 1, Chapter 8, section 228 and 228.5) retain the provision that dredging permittees must comply with other applicable federal, State, or local laws or ordinances. Our presumption is that this includes California States Parks' prohibition of this activity in most of our park units and our ability to further restrict this activity, beyond the limitations in the proposed CDFG regulations, within Auburn SRA consistent with the regulations regarding recreational mineral collection in the California Code of Regulations, Title 14, Division 3.

Prior to the current moratorium, California State Parks prohibited dredging on the North Fork of the American from Folsom Lake to the Foresthill Bridge. State Parks has also prohibited dredging on the Middle Fork from the Confluence to Louisiana Bar which is approximately one half mile upstream from the Confluence. The above areas are heavily used by swimmers and waders. The new proposed regulations would permit suction dredging on the North Fork of the American River from Folsom Lake to the confluence with the Middle Fork from June 1 through September 30. This is inconsistent with State Park rules and regulations. Additionally, dredging has never been permitted within Folsom Lake SRA or Marshall Gold Discovery State Historic Park. If and when the new CDFG suction dredge permitting regulations are finalized, State Parks will continue the current prohibition on suction dredging at Folsom Lake SRA and Marshall Gold Discovery SHP and the area specific restrictions at Auburn SRA.

State Parks requests that the areas where dredging has been prohibited in the past prior to the moratorium, are identified as Class A (no dredging permitted at anytime) in the proposed regulations. This would include the following reaches:

- South Fork American River from Folsom Reservoir to the eastern extent of the Folsom Lake SRA boundary;
- South Fork of the American River adjacent to Marshall Gold Discovery SHP;
- North Fork American River from Folsom Reservoir to the Foresthill Bridge;
- Middle Fork American River from confluence with North Fork American River to Louisiana Bar.

Suction dredging has also been prohibited at the whitewater boating put-ins and take-outs on both the North and Middle Forks of the American River. The exclusion of suction dredging within these areas is consistent with CCR 4611 which prohibits recreation mineral collection in areas designated for swimming and boat launching. State Parks requests that CDFG incorporate these closed areas into the information provided to suction dredge permittees in order to avoid conflicts when permittees come to our park units and are unaware of the additional specific prohibitions and area restrictions.

In addition to our concerns about the need for consistency between California State Parks and CDFG, the Gold Fields District also has concerns about the potential impacts of suction dredging on various resources and the lack of site specific analysis of the potential impacts of issuing suction dredge permits, including:

- impacts to water quality, including turbidity and the mobilization of mercury;
- impacts fish and other aquatic species, including foothill yellow-legged frog which inhabit the North Fork of the American River and tributaries of the Middle Fork of the American;
- impacts to historic and archaeological resources which can only be determined through site specific analysis;
- conflicts with other recreation activities, including fishing and whitewater boating;
- the impacts of illegal campsites established by dredge operators including issues with human waste;
- the cost to and ability of land managers such as California State Parks to effectively enforce dredging regulations and to manage this activity. The proposed regulations have many limitations and restrictions including type and size of equipment, dredging activities permitted or restricted (such as high banking) and varying seasons of use. The DSEIR relies on these limitations and restrictions in making determinations on the level of impacts to various resources. State Parks does not have the staffing and resources to adequately enforce these regulations and to ensure that permittees adhere to the appropriate practices.

The DSEIR identified a number of significant and unavoidable impacts of the proposed program including: mercury resuspension, impacts to wildlife species and habitat, turbidity, noise impacts, impacts to archaeological and historic resources. Given the number of significant impacts to resources, the Gold Fields District believes that CDFG should consider other alternatives, including the Water Quality Alternative, the Reduced Intensity Alternative or the No Program Alternative – each of which would reduce or eliminate many of these significant impacts. Another option for CDFG to consider, given the inconsistency of suction dredging and the regulations regarding the State Park System in the California Code of Regulations, is to identify all the reaches of streams or rivers that pass through or are adjacent to state park units as Class A, no dredging permitted at anytime.

Lastly, California State Parks obtains Streambed Alteration Agreements from CDFG for projects which may affect streams, lakes or riparian areas. The California Department of Fish and Game places many project specific conditions on these projects, such as the construction of small bridges over seasonal streams, which have far fewer direct impacts on streambeds and water quality than suction dredging. Prevention of siltation and preventing or minimizing turbidity is an area of emphasis in these Streambed Alteration Agreement requirements. Given that suction dredging directly impacts the streambed and causes turbidity, it is difficult to understand how CDFG proposes to broadly permit suction dredging (limitations notwithstanding) without site specific analysis of the impacts, when on the other hand CDFG is so particular in requiring project specific conditions, analysis and site visits in issuing Streambed Alteration Agreements for small construction projects which do not directly impact a streambed. The level of site specific analysis and pollution prevention requirements in these two permit programs seems inconsistent.

If you have questions or concerns about this letter please contact Gold Fields District Planner Jim Micheaels at (916) 988-0513.

Sincerely,



Scott Nakaji
Gold Fields District Superintendent

SUCTION DREDGE PERMITTING PROGRAM
Draft Subsequent Environmental Impact Report (DSEIR)
Comment Form

Name:	Fred B. Christie
Mailing Address:	P.O. Box 593, Rio Linda, Ca. 95673
Telephone No. (optional):	916-991-3316
Email (optional):	

Comments/Issues:	To E.P.A.
<p>I am a recreational gold panner with 2 claims. B.L.M. has more than enough Buckets & haws to keep the Forest and Streams from being miss used, and they check it out, and when Buck gets into catch that some one doesn't put it back. They send me a letter to go and check it up, and if I am NOT there it will be used by undesirable with NO CONCERN FOR Forest & Streams.</p> <p>"When I show up they leave"</p> <p align="right">Fred B. Christie</p>	

Please use additional sheets if necessary.

SUBMIT WRITTEN COMMENTS (POSTMARKED BY 05/10/11) TO:

Mail: Mark Stopher
California Department of Fish and Game
601 Locust Street
Redding, CA 96001

Email: dfgsuctiondredge@dfg.ca.gov

Fax: (530) 225-2391

SUCTION DREDGE PERMITTING PROGRAM
Draft Subsequent Environmental Impact Report (DSEIR)
Comment Form

Name:	Tony Church
Mailing Address:	2621 Prescott Rd #19
	Modesto Ca
Telephone No. (optional):	209-238 9
Email (optional):	Tonychurch@aol.com

Comments/Issues:

We don't hurt the fish or the sturgeon
AND WE CLEAN UP AFTER OURSELVES

Tony Church

Please use additional sheets if necessary.

SUBMIT WRITTEN COMMENTS (POSTMARKED BY 05/10/11) TO:

Mail: Mark Stopher
California Department of Fish and Game
601 Locust Street
Redding, CA 96001

Email: dfgsuctiondredge@dfg.ca.gov

Fax: (530) 225-2391

Subject: Re: Fish & Game's newly proposed regulations & draft environmental review

Date: Tuesday, May 10, 2011 2:20:53 PM PT

From: Carol Crenshaw

To: Mstopher@dfg.ca.gov

Mark,

Stop miners from sucking.

Fish and Game's newly proposed regulations and draft environmental review fall short of what we and our fish need:

- New regs fail to protect the public from mercury reintroduced into the water column by dredging
- new regs put ESA listed such as Coho salmon in harm's way
- new regs create hazards for swimmers by allowing miners to leave deep hidden pits in the bottoms of rivers frequented by hikers and swimmers
- new regs do nothing to protect cultural sites!

Please do more!

Carol Crenshaw

Folsom, CA

Subject: Comment on Suction Dredge Mining DSEIR

Date: Tuesday, May 10, 2011 4:48:17 PM PT

From: Alan Crockett

To: mstopher@dfg.ca.gov

Dear Mark,

SI have lived and worked in the Happy Camp area for the last 15 years. During this time I have been employed by the U.S. Forest Service as a temporary seasonal fisheries technician. I live on family property 8.5 miles up Elk Creek, the town of Happy Camp's primary municipal water supply. Over the years I have observed many dredging operations both while out on fisheries related creek surveys and while living at my house.

Of the hundreds of dredging operations I have seen there have been many that were obviously dangerous to aquatic life and/or destructive to recreational enjoyment of the area's creeks.

The following are just a few of the negative impacts I have actually witnessed.

- Gasoline spills.

- Turbid water that runs for over 1 mile downstream of a dredge.

- Riparian tree cutting and undermined banks.

- Large scale disturbance of the creek bed and spawning gravel.

- Highly unstable dredge holes with dangerous boulders precariously balanced on edges.

- Garbage and broken dredge equipment scattered around dredge sites.

Several years ago I was out on a fall chinook spawning survey for the U.S. Forest Service. The creek was covered in fallen leaves and we were looking for spawning salmon and redds.

While walking through the creek around a pool I fell into and twisted my knee in an old dredge hole that was hidden by the leaves. While my knee has since healed somewhat, I had to go to an orthopedic specialist and spent many pain filled months hobbling around.

Many of the dredge operations I have seen have no interest or incentive to attempt to return the disturbed area to anything resembling its original condition. Thereby degrading the creeks for recreational enjoyment

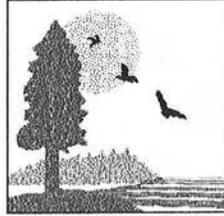
From all the scientific studies I have read and from these personal experiences traversing area creeks, it seems obvious that the state of California should continue the ban on dredging in the creeks and rivers indefinitely.

Please consider these comments and observations in your decision.

Thank you,

Alan Crockett
8500 Elk Creek RD
P.O. Box 11
Happy Camp, CA 96039

CALIFORNIA STATE LANDS COMMISSION
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202



CURTIS L. FOSSUM, *Executive Officer*
(916) 574-1800 FAX (916) 574-1810
California Relay Service From TDD Phone 1-800-735-2929
from Voice Phone 1-800-735-2922

Contact Phone: (916) 574-1890
Contact FAX: (916) 574-1885

May 10, 2011

File Ref: SCH #2009112005

Mark Stopher
Department of Fish and Game
601 Locust Street
Redding, CA 96001

Subject: Draft Subsequent Environmental Impact Report (DSEIR) for the Suction Dredge Permitting Program

Dear Mr. Stopher:

The California State Lands Commission (CSLC) staff has reviewed the subject DSEIR for the statewide Suction Dredge Permitting Program (Project), which is being prepared by the California Department of Fish and Game (DFG). DFG, as the agency granted with the authority to issue suction dredge permits in California (Fish & G. Code, § 5653), is the lead agency under the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] § 21000 et seq.). The CSLC has prepared these comments as a trustee and potentially responsible agency because of its trust responsibility for projects that could directly or indirectly affect sovereign lands, their accompanying Public Trust resources or uses, and the public easement in navigable waters.

Although the CSLC acknowledges the limits of DFG's regulatory authority, pursuant to Fish and Game Code section 5653 et seq., over the extent of any suction dredge permit program requirements, staff remains concerned by the number of impacts identified in the DSEIR as "significant and unavoidable." While the issues of greatest importance to the CSLC, detailed below, are beyond DFG's statutory mandate in this particular case, the CSLC asks that its comments be considered in any discussions on the value of calling for modified or broadened authority under Fish & Game Code section 5653.

CSLC Jurisdiction and Public Trust Lands

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of the State for statewide Public Trust purposes, which include waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tide line, except for fill or artificial accretion. On navigable non-tidal waterways, the State holds fee ownership of the bed landward to the ordinary low water mark (OLWM) and a Public Trust easement landward to the ordinary high water mark (OHWM). Such

boundaries may not be readily apparent from present day site inspections. These State sovereign property interests are under the jurisdiction of the CSLC. The CSLC also has leasing jurisdiction, subject to certain conditions, over mineral extraction from state property owned and managed by other state agencies (PRC § 6890, subd. (b)).

Shortly after becoming a State, California was also granted Sections 16 and 36 (2 square miles), or lands in lieu thereof, out of each township (36 square miles) then held by the federal government. The lands, classified as "School Lands," were given to the State to help support public education. While many of the School Lands were sold off over the years, the State retains an interest in approximately 1.3 million acres of fee owned and split estate lands, mostly desert and forest lands. The State's school lands and lieu lands are also under the jurisdiction of the Commission. Since 1938, the State has reserved back one hundred percent (100%) of the mineral interest in these lands when they are sold, resulting in a split estate. Thus, there can be instances in which the State has an interest, either solely mineral or both surface and mineral, in the bed of a non-navigable waterway on a school land parcel that is subject to the State's permitting and leasing authority.

Under Division 6 of the California Public Resources Code, the CSLC reserves the right to require a lease or permit for the use of any lands under its jurisdiction, as well as negotiate royalties for mineral resources extracted from lands, including those lands subject to the proposed suction dredging permit program area. CSLC staff will continue to consult with DFG to further understand the scope of the proposed Project and its effects on lands under the CSLC's jurisdiction.

Project Description

In response to a 2006 Court Order arising from a May 2005 challenge (*Karuk Tribe of California et al. v. California Department of Fish and Game*) to DFG's previous suction dredge permitting program, the Project, as described in the DSEIR, consists of the proposed amendments to the regulatory provisions in the California Code of Regulations governing the permitting of suction dredge mining throughout California, as well as suction dredging activities conducted consistent with those amendments. For the purposes of the Project, a person is using suction dredge equipment when operating a vacuum hose, a motorized pump and a sluice box together for the purpose of vacuuming aggregate from a river, stream or lake. The proposed Project would apply to suction dredge activities in any river, lake or stream of California.

DFG proposes to implement the Project to meet its objectives and needs as follows:

- Comply with the December 2006 Court Order;
- Promulgate amendments to CDFG's previous regulations as necessary to effectively implement Fish and Game Code section 5653 and other applicable legal authorities to ensure that suction dredge mining will not be deleterious to fish;

- Develop a program that is implementable within the existing permitting program fee structure;
- Fulfill DFG's mission of managing California's diverse fish, wildlife, and plant resources, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public;
- Ensure that the development of the regulations considers economic costs, practical considerations for implementation, and technological capabilities existing at the time of implementation; and
- Fulfill DFG's obligation to conserve, protect, and manage fish, wildlife, native plants, and habitats necessary for biologically sustainable populations of those species and as a trustee agency for fish and wildlife resources pursuant to Fish and Game Code section 1802.

CSLC staff understands that the Project would regulate the following elements of suction dredge mining through its annual permit:

- Equipment specifications (i.e., nozzle size, hose size, and pump intake screens);
- Method of operation;
- Seasonal and year-round closures for various water bodies; and
- Maximum number of permits to be issued annually.

The DSEIR identifies the Reduced Intensity Alternative, which would limit the locations open to dredging and place further restrictions on equipment, locations, and the number of permits issued as compared to the previous program, as the Environmentally Superior Alternative.

Environmental Review

The CSLC requests that DFG consider the following comments on the Project's DSEIR.

General Comments

1. From surveys of permitted suction dredgers who operated before the placement of a 2009 moratorium, DFG identified the California bodies of water that likely experience the heaviest suction dredging activity (Appendix F of the DSEIR); the beds of the lower reaches of many of these, including the South Yuba, Feather, American, Klamath, Merced and Stanislaus Rivers, as well as Suisun Bay, are sovereign lands under CSLC's jurisdiction.

Because the previous permitting program did not require permittees to submit locational information for dredging activities to DFG, it is not possible to know the intensity or number of annual suction dredging occurrences on sovereign or school lands under the jurisdiction of the CSLC. From Geographical Information Systems (GIS) data produced from the results of DFG's voluntary survey of dredgers permitted under the previous program, it appears that at least some suction dredging takes place on State lands. Direct, unauthorized use, alteration

or exploitation of public lands is of obvious interest to the CSLC; however, given the findings of the DSEIR's analysis of fluvial transport of mercury (Hg) and other heavy metals downstream from dredging, even activities upstream of the CSLC's jurisdiction, permitted under DFG's proposed program, may affect State lands and future projects located thereon. Impact-specific concerns are explained below.

2. On April 22, 2010, the Central Valley Regional Water Quality Control Board (RWQCB) identified the CSLC as both a State agency that manages open water areas in the Sacramento-San Joaquin Delta Estuary and a nonpoint source discharger of methylmercury (Resolution No. R5-2010-0043), because subsurface lands under the CSLC's jurisdiction are impacted by mercury from legacy mining activities dating back to California's Gold Rush. Pursuant to a RWQCB Total Maximum Daily Load (TMDL), the RWQCB is requiring the CSLC, the Department of Water Resources, and the Central Valley Flood Protection Board to secure adequate resources to fund studies to identify potential methylmercury control methods in the Delta and to participate in an Exposure Reduction Program. The goal of the studies is to evaluate existing control methods and evaluate options to reduce methylmercury in open waters under jurisdiction of the CSLC. Consequently, any action taken by the DFG that results in continued Hg and methylmercury moving from upstream areas to the Sacramento-San Joaquin Delta Estuary may affect the CSLC's efforts to comply with the RWQCB TMDL.

Water Quality and Toxicology

3. **Impacts WQ-4, WQ-5, CUM-7:** After a careful and extensive review of the DSEIR's discussion of the potential dredging impacts resulting from the eluting of chemical compounds, including total Hg, CSLC believes the DFG did a very thorough and comprehensive examination of these issues and impacts. The DSEIR identified several impacts which were significant and unavoidable after mitigation, which will require Statements of Overriding Consideration (SOCs) before approval of the document. These impacts are not surprising, given the potential locations of dredging, the history of gold exploration in many of the State's streams and tributaries, and the natural geologic composition of the water bodies.

The DSEIR notes that permitted suction dredging under the proposed requirements may transfer heavy metals from deeper or sheltered sediment upstream onto State sovereign lands downstream, potentially affecting future uses of or projects on lands held in trust for Californians. The case study cited in the DSEIR of Hg transport from suction dredging on the South Yuba River upriver of Englebright Lake estimated that 60% of smaller Hg particles (<63µm, those more prone to methylation and subsequent bioaccumulation) stirred up by dredging, traveled at least downriver of Englebright Dam and, eventually, as far as the Delta (DSEIR, pp. 4.2-41). The bed of much of the river between

Englebright Dam and the Delta, as well as much of the Delta itself, on which these particles would settle, is sovereign.

Beyond the apparent problem of effectively permitting the deposition of pollutants on public lands, further buildup of Hg and other heavy metals on CSLC-managed riverbeds and bays may occur as a result of the Project; such impacts, which are beyond whatever occurred under DFG's previous permit program, may constrain future CSLC actions in the interest of the State. These settled particles, both in the lower South Yuba River and, presumably, other major rivers such as the American, Feather, and Klamath, become a liability or responsibility for projects which may be implemented by the CSLC or others on sovereign land. Future efforts to enhance and support Public Trust uses, including but not limited to navigation, recreation, access, habitat restoration and invasive species management, would potentially have to mitigate for disturbance of Hg and other metallic particles originating from upstream suction dredging. Such impacts and mitigation could add substantial costs or controversy to future projects that benefit Californians, their enjoyment of public lands and waterways, and the habitat values of these areas.

The CSLC asks that DFG coordinate with the State Water Resources Control Board (SWRCB) and the RWQCBs when issuing permits to ensure that suction dredge activities also comply with sections 401 and 402 of the Clean Water Act. As the DSEIR concludes, DFG's amended regulations are likely not sufficient to adequately limit suction dredging's contributions to Hg loading, increased methylation of disturbed Hg, and bioaccumulation of methylmercury in certain California waters; however, these agencies, with regulatory authority that DFG lacks, may mitigate these impacts to safer levels than the Project would alone. Involving these agencies both now and when issuing permits will save duplication of effort and increase the likelihood that the SWRCB and RWQCBs will step in where DFG cannot.

Also, in its evaluations of Water Quality Impacts WQ-4 and -5, the EIR cites the scarcity of information on Hg and other trace metal "hot spots" as an obstacle to a more feasible and adequate mitigation program. DFG should support and track further efforts to identify these areas to better inform any future amendments to the regulation.

Cultural Resources

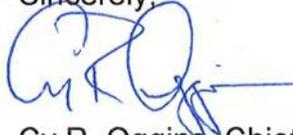
4. **Impacts CUL-1, CUL-2:** In Section 4.5, the DSEIR mentions that Best Management Practices (BMPs) to identify or avoid historically or culturally significant resources will be included in the BMPs informational packet to be provided to permittees. Because the CSLC, as correctly noted in the DSEIR, has jurisdiction over shipwrecks in California waterways, as well as ownership over cultural resources located on State sovereign lands, staff requests the opportunity to review the cultural resources information in such a packet and, if

deemed appropriate, add CSLC contact information to the BMPs before the packet is produced and distributed.

Thank you for the opportunity to comment on the DSEIR for the Project. As a trustee and, potentially, responsible agency, the CSLC will need to rely on the Final SEIR for the issuance of any mineral or surface lease as specified above and, therefore, we request that you consider our comments prior to adoption of the SEIR.

Please contact Mary Hays, Public Land Manager, at 916-574-1812 or by email at Mary.Hays@slc.ca.gov, for information concerning our surface leasing requirements. For inquiries about mineral leasing, please contact Greg Pelka, Senior Mineral Resources Engineer, at (562) 590-5227 or at Greg.Pelka@slc.ca.gov. For questions concerning the environmental review, please contact Sarah Sugar, Environmental Scientist, at (916) 574-2274 or by e-mail at Sarah.Sugar@slc.ca.gov.

Sincerely,



Cy R. Oggins, Chief
Division of Environmental Planning
and Management

cc: Office of Planning and Research
M. Hays, CSLC
C. Huitt, CSLC
G. Pelka, CSLC
S. Sugar, CSLC

Sydney L. Brown
Senior Engineering Geologist
Natural Resources Division
CA Dept. of Parks and Recreation
P. O. Box 942896
Sacramento, CA 94296-0001

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

May 10, 2011

Re: Proposed Suction Dredge Regulation Draft

These comments are being sent by me an individual, and as a member of the GPAA, and 3 other Gold Prospecting organizations and as a person that has worked in the field of water and water pollution control for over 40 years.

After having read letters, and researched reports on the state web site, and using a little common sense, I find it hard to accept the Draft Suction Dredge Regulation as written based on a lack of factual evidence to justify the draft regulation, as written. After reading NOAA(*National Oceanic and Atmospheric Administration*) reports about low salmon runs on the west coast and California streams, are due to warmer Pacific Ocean temperatures and warmer temperatures in California stream, not suction dredging. This year, 2011, with cold water running in our streams and record snow packs salmon have returned to California. The small footprint created by suction dredgers is insignificant to what natural processes can do to river banks and stream beds. What Suction Dredgers can do on a small scale is clean up the rivers and streams.

The Draft Suction Dredge Regulation treat all dredges exactly the same when it comes to operating requirements, no matter what the size of the Dredge and requires extensive name plate information. Why?

The number of permits to be issued is much less than in the past. At one time reports indicate there were approximately 12,000 Dredgers in the state. From what I read the permit is assigned to an individual not the dredge; as each individual, that handles the nozzle must be permitted. If this is the case the process would discourage a tourist trade of individuals that might want to vacation in California and enjoy the adventure of Gold Dredging or it would limit the available permits to seasonal Dredgers? Fishing allows short term permits for those that might want to go on a fishing trip but do not fish all season. Why should there not be a system in place for individuals that want to Suction Dredge?

Suction Dredging has the best chance of cleaning up our rivers and streams of trash and mercury. It's well know that as stream flows increase mercury movement increases, but little has been said about the movement of mercury as waters experience natural turnovers due

to thermal inversion changes in the winter and spring, as the warmer waters rise from stream bottoms and colder water sinks carrying the bottom sediments to the top. These turnovers and mercury movements are only mitigated by mercury removal from the streams. The best chance we have of cleaning up our streams is Suction Dredging which in its un-improved form takes out 98% of the mercury. Suction Dredging is the only economical way to improve fish habitat by removing trash and mercury and providing deep holes for fish to rest during their migrations.

The amount of money small miners spend is proportional to the gold they find and the best way to find placer gold is to dredge. We need to return to a common sense approach to Suction Dredging as was the case before the ban. California needs the revenue and many small towns have suffered because of the ban. Many small scale miners make their income or supplement their income from small scale mining. I met one prospector this year that had sold gold to pay for medical expenses. Let's put Gold back in the Golden State.

Robert Cutting 5/10/11
Robert Cutting
AS Water & Waste water Technology
Credentialed Water and Related Subject Community College Instructor
rfcutting@comcast.net

*180 CARLISLE WAY
Benicia CA
94510*



May 10, 2011

Mark Stopher
CA Department of Fish & Game
601 Locust Street
Redding, CA 96001

111 New Montgomery St., Ste 600
San Francisco, CA 94105
(415) 369-9160
www.cleanwater.org/ca

Re: Comments on Draft Suction Dredge Mining SEIR

Dear Mr. Stopher,

I am writing on behalf of Clean Water Action and our 85,000 California members to express our deep concern about the Department of Fish and Game's (DFG) draft Supplemental Environmental Impact Review (SEIR) of suction dredge mining and the limited regulatory options the Department is contemplating. Clean Water Action's interest in this issue is due to our mission to protect our precious water resources. It is also a result of our long involvement in efforts by the State's water boards to address water quality violations due to mercury and other contaminant levels in our waters. Perhaps most importantly, as an organization committed to Environmental Justice, we are extremely concerned about the impacts of increased levels of methylmercury resulting from suction dredge mining on the health and safety of low income communities and communities of color who consume high levels of fish from contaminated waters out of economic need and/or cultural tradition.

To summarize our concerns, we respectfully submit that the SEIR and DFG's "preferred alternative" draft regulations will confound regional water boards' efforts to address methylmercury in our watersheds and perpetuate Clean Water Act violations. They will further put human health and safety at continued - and perhaps even greater - risk due to increased exposure to mercury in locally caught fish, endanger wildlife, contradict tribal and other regulatory authority, and harm the integrity of our waterways and ecosystems. DFG's narrow interpretation of its regulatory authority will require duplicative regulatory efforts to prevent the harm done by suction dredge mining practices, wasting resources at a time when the State is struggling economically. In the end, these draft regulations will perpetuate a practice enjoyed by a minority of private interests at great cost to the majority of Californians and the environment.

Limited interpretation of authority ignores greater impacts on public health and the environment

The SEIR substantiates serious environmental harm that suction dredge mining practices cause including, but not limited to:

- Resuspension of mercury, posing the threat of increased methylation and bioavailability of this dangerous neurotoxin.
- Destructive impacts on wildlife species and habitat.
- Release of other trace metals into watersheds.
- Increased turbidity

Despite these impacts and the associated threat to human health that can result, DFG's regulations will allow continued suction dredging because the Department sees its authority, and thus responsibility, as limited to avoiding deleterious impacts to fish. We contend this is not only an indefensible disregard of the destruction and threat caused by suction dredge mining, but is also a misinterpretation of California law. DFG invokes Fish and Game Code Section 5653 established by AB 1459 (Arnold) to explain its reasoning to limit its authority, despite the fact that in 1961 the Department took a broader view of their authority under the law. Instead, they interpreted the law in such a way that they would only issue dredge mining permits if there would be no damage "to fish, aquatic life, and the aquatic environment" (DFG letter to the Governor supporting AB 1459, emphasis added).

The proposed regulations do not simply maintain the status quo of environmental harm by continuing to allow historical levels of suction dredge mining. They will, in fact, exacerbate an already egregious situation by opening up previously closed waters to dredging. The proposed regulations will also continue to permit the use of eight inch hoses, despite the SEIR's expressed conclusion that dredge hoses should be limited to four inches.

Reliance on voluntary Best Management Practices

DFG intends to give miners a brochure with a list of best management practices (BMPs) to reduce significant impacts. We object to this approach because 1) our experience is that voluntary efforts rarely result in full participation and thus fall short of mitigating harm, and 2) these BMPs are not comprehensive, ignoring such issues as how to address mercury encountered by miners.

High costs in a time of economic trouble

Based on DFG's own estimates, costs to administer and enforce a suction dredge permit program are expected to far outweigh revenues from permit and onsite inspection fees by hundreds of thousands of dollars. In addition, the State Water Resources Control Board (the State Board) will have to develop a second permitting program, with another costly CEQA review, and with its own unknown administrative and enforcement costs. Such fiscal irresponsibility, especially considering the current budget crisis, is an example of poor government as well as poor environmental stewardship.

In addition to the costs directly related to administering suction dredge mining permits, it must be noted that the mercury contamination problem in California's waters and fish, including in San Francisco Bay, the Delta, Clear Lake, and innumerable tributaries flowing from the Sierras and south of the Bay, is both immense and costly. Clean Water Action has been involved in the development of three mercury and methylmercury TMDLs (total maximum daily loads) by the San Francisco Bay and Central Valley Regional Boards¹. These have been multi-year efforts, requiring thousands of hours of Regional Board staff, consultant, local government, and other stakeholder time, costing taxpayers hundreds of thousands of dollars. Because of the extent of the mercury contamination due to legacy mining activities, implementation of plans to remediate these waters will take many decades and continue to cost California vast sums of money. The financial problem can be expected to worsen as the Regional Boards fulfill their legal obligations by developing additional TMDLs for the tributaries listed on the 303 (d) list that have yet to be addressed. Consequently, allowing a practice that stirs up mercury and enhances the potential for methylation and bioaccumulation up the food chain is indefensible both from an environmental health point of view and for financial reasons.

¹ The San Francisco Bay and Guadalupe mercury TMDLs and Delta methylmercury TMDL



Disregard of impacts on subsistence fishers

It is perhaps the environmental health impacts of suction dredge mining that is of most concern to Clean Water Action's members. It is something that we believe all of our government agencies, including DFG, must consider in their policies. The reality is that the Office of Environmental Health Hazard Assessment has issued fish consumption warnings and advisories for many of California's waters, most notably because of mercury. Despite these warnings, evidence has been growing that significant populations in the Bay Delta and other contaminated regions fish in mercury laden waters and consume fish at higher rates than is safe. While reasons vary and include simple recreation and ignorance of the advisories, significant numbers of families depend on locally caught fish for basic sustenance, often out of economic need. In other cases, such as with some of our Asian, African American, and tribal communities, fishing has deep cultural and even spiritual meaning. In either case, many Californians do not have a choice about fishing. Consequently, it is imperative that all feasible action is taken to limit the bioavailability of mercury over the decades that clean-up activities are implemented.

The State Board has recognized the need to protect subsistence fishers. In 2005, thanks largely to Clean Water Action's advocacy, the State Board mandated that the San Francisco Bay and Central Valley Regional Boards include discharger and agency requirements to develop exposure reduction strategies for subsistence fishing communities in their Bay and Delta mercury TMDLs [Resolution 2005-0600]. While this was a positive move, it must be noted that the most cost effective and health protective way to protect such vulnerable populations will be to address the mercury itself, and prevent methylation to the degree possible. Continuing, and even expanding suction dredge mining, with no consideration of its role in increasing methylmercury loads puts DFG in the unintended position of adding to the pollution burden borne by lower income communities and communities of color, and of interfering with the state's ability to return our waters to their beneficial uses.

According to its website, "The Department of Fish and Game maintains native fish, wildlife, plant species and natural communities for their intrinsic and ecological value and their benefits to people". Unfortunately, the SEIR is not consistent with this mission. It needs to be redrafted so that it will protect all of California's fish, wildlife, water quality, and the health of our human populations. **At minimum, the Department should adopt the most environmentally protective alternatives – either the no project, the reduced intensity, or the water quality alternative instead of the "proposed regulations". The reduced intensity and the water quality alternatives are both more protective of the environment and human health than the proposed regulations.** Anything less represents a misuse of public resources and abuses the public's trust that their interests are being served in the face of pressure from special interests.

Please be assured that while we are frankly critical of the SEIR and draft regulations in this letter, Clean Water Action's intention is to inform the development of the environmentally sound program that DFG no doubt desires as well. We thank you for this opportunity to comment on the SEIR and for your consideration of our views.

Sincerely,

A handwritten signature in cursive script that reads "Andria Ventura".

Andria Ventura
Program Manager

1010 Vermont Avenue NW, Suite 1100, Washington, DC 20005-4918
Phone 202.895.0420 | Fax 202.895.0438 | cwa@cleanwater.org
www.cleanwateraction.org

SUCTION DREDGE PERMITTING PROGRAM

Public Comments

Mark Stopher
Environmental Program Manager
601 Locust Street
Redding, CA 96001

Dan Diederich
2011 Christian Valley Rd.
Auburn, CA 95602
530-878-1052
djd.24.660@att.net

Greetings Mark,

My comments will focus on the *Use Classification* (pg 17, Ln 8, 24, 25) assigned to The North Fork American River, Placer County, the waters included in the description of this area (pg 45, Ln 2), as well as my observations and opinions about the proposed changes to the existing rules.

The North Fork American River, its main stem and all tributaries from the North Fork Dam (NFD) upstream approximately forty miles to Big Valley Canyon are designated as Class G.

Beginning at fourteen miles upstream from NFD at the Iowa Hill Bridge, the river is designated as Wild and Scenic which prohibits dredging altogether and has been so designated for over thirty years. Therefore, in my opinion, the area above the Iowa Hill Bridge up to Big Valley Canyon should not be included in the regulation.

I have a good deal of experience with the North Fork, spending many weeks each year dredging, sniping, floating, snorkeling, hiking, and fishing virtually the entire length of it. I'm familiar with all it has to offer. Given my experiences over the years and having spent as much time below the water line as above it, I'm compelled to question the proposed class G designation for this river. By reducing the annual days available for dredging from approximately 140 to 30 strikes me as excessive and unnecessary.

It seems the main concerns are those regarding redistribution and flowering of *mercury*, the *Foothill Yellow-Legged Frog*, and the resident population of *Rainbow Trout*.

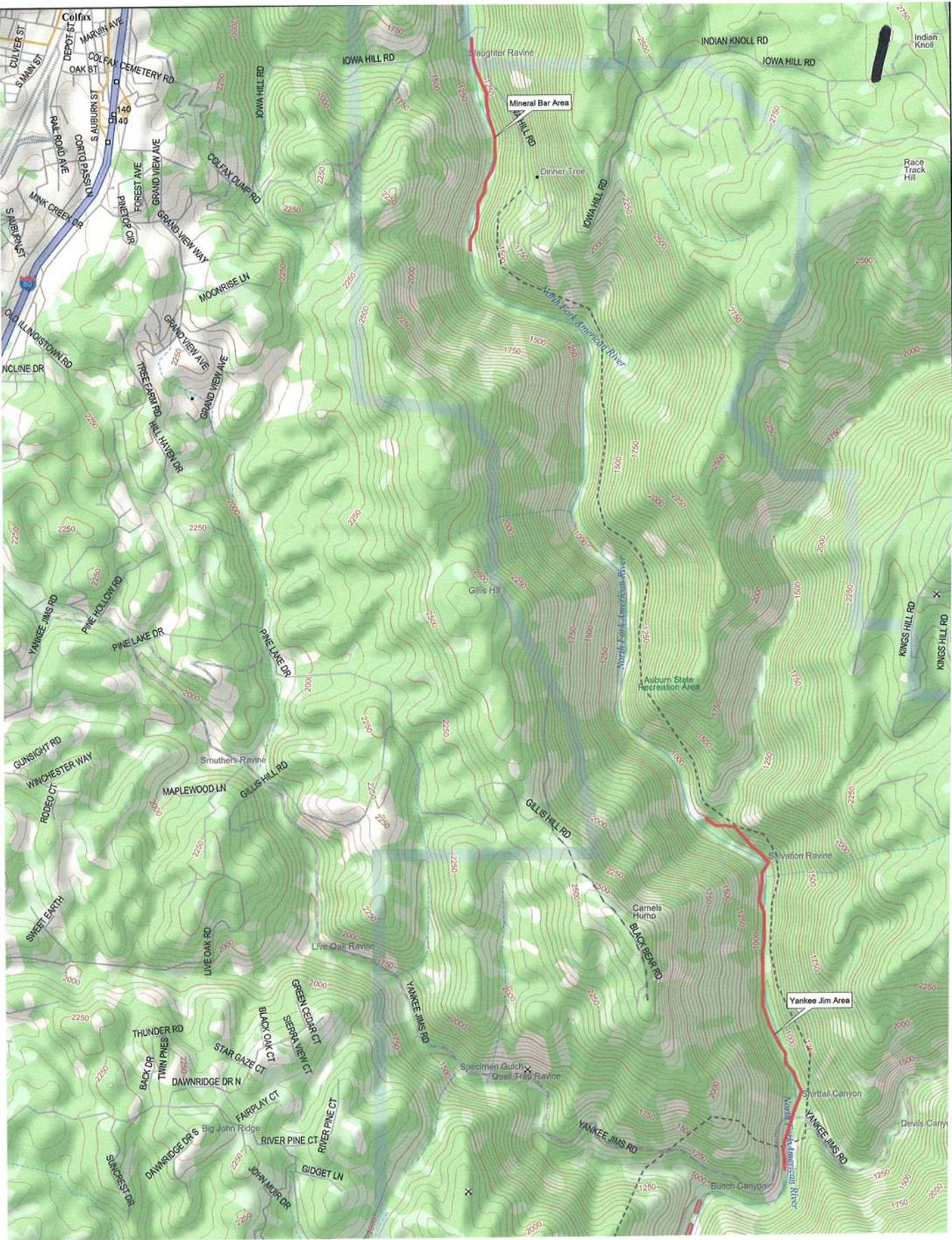
From Upper Lake Clementine upstream to the Iowa Hill Bridge, a fourteen mile section of river, there are exactly six points of access to the river by vehicle. Two of these are private and only accessible by the property owners.

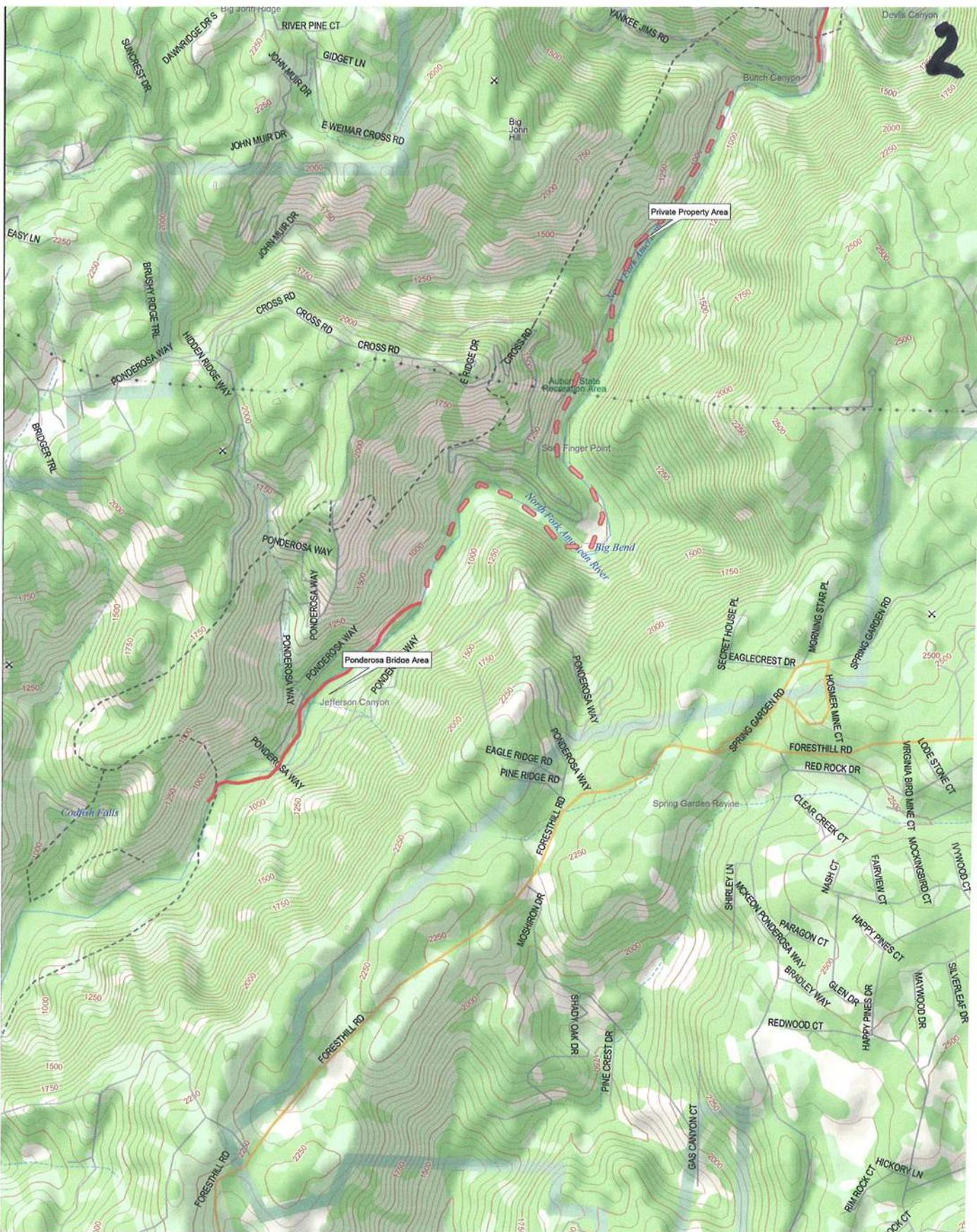
Attachments

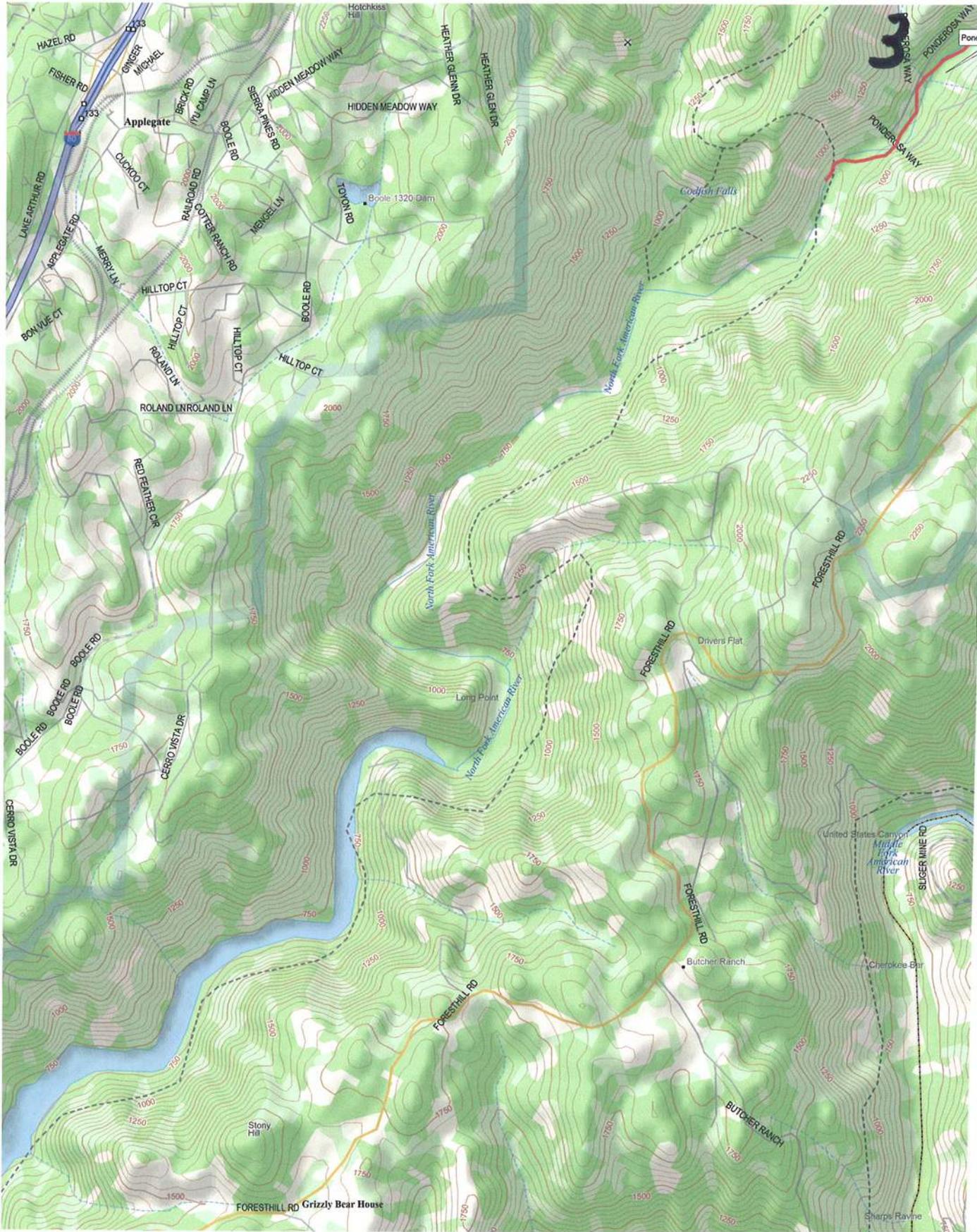
Areas most likely to see dredge activity delineated by solid and broken red lines.

- 1. Upper section showing Mineral Bar and Yankee Jim areas.
- 2. Middle section showing Private Property and Ponderosa Bridge areas.
- 3. Lower section showing Ponderosa area and remainder of river to Upper Clementine.

Those areas outside of red lines historically are too remote for operations of any significance.







SUCTION DREDGE PERMITTING PROGRAM

Draft Subsequent Environmental Impact Report (DSEIR)

Comment Form

Name: <u>DAVID DORNBIER</u>
Mailing Address: <u>PO 732 PLYMOUTH CA 95669</u>
Telephone No. (optional):
Email (optional):

Comments/Issues: THE state of Calif. could of saved a lot of money on this Environmental Impact Report. By requiring all dredgers to buy a fishing license. Then the dredger has a license to kill fish.

Why is there a maximum number of permits available each year? (There is no limit to number of rafters or fishermen.) If 18,000 permits were issued in 1980 when gold was \$9000 oz you can expect the same or more ^{permits} now because gold is \$1500 oz. What will prevent a group of anti dredgers buying up all permits to control this recreation?

The N. Fork Cosumnes River where I own property had an eight inch restriction and open all year. I understand the new regulation allows a max of 4" and can only operate from July to Nov. The water flows during this ^{time} are minimum which will not allow dredging in some areas because of 3' rules. Also 80% of river bottom can not be accessible to a dredge during low water. There are no salmon on this river. Yet DFG will significantly reduce dredging. I pray to God DFG will release this bear report and issue a DSEIR that is fair and honest.

SUBMIT WRITTEN COMMENTS (POSTMARKED BY 05/10/11) TO: Thank you Dad.

Mail: Mark Stopher
California Department of Fish and Game
601 Locust Street
Redding, CA 96001

Email: dfgsuctiondredge@dfg.ca.gov

Fax: (530) 225-2391

Questions? Please call us at (530) 225-2275 • More information: www.dfg.ca.gov/suctiondredge

Subject: Suction Dredge Mining DSEIR
Date: Tuesday, May 10, 2011 3:31:17 PM PT
From: David Doty
To: mstopher@dfg.ca.gov

Dear Mark,

I write this letter to state my concerns about suction dredging. I live in the Klamath River watershed that supports critical habitat for anadromous fish species. Some of these populations are endangered. Any activity that has the potential for further disrupting these fish populations should be banned. To date there is not clear evidence on the positive or negative effects of suction dredging. However, due to the very nature of the activity, if dredging is allowed in spawning grounds or even potential spawning grounds, this is bound to have a negative impact on fish populations. Another issue with this activity is that high water temperatures are known to negatively impact fish migration and on the Klamath has been linked to severe fish kills. Water running through a suction dredge is heated. Other negative effects of this practice include, pollution from the motors and people littering - we find more mining related trash in the river than any other trash during our annual river cleanups.

As with other practices that directly impact the environment, gold mining can be done in a more eco-friendly manner. Please maintain the ban on suction dredging. It would be a sad thing to allow a practice that has a detrimental effect on critical endangered species.

Thank you for considering my concerns.

Truly,

David Doty

David Doty
PO Box 7
Happy Camp, CA 96039

Subject: DSEIR - Public Hearing

Date: Tuesday, May 10, 2011 8:36:40 AM PT

From: Carolyn and Herb Duerr

To: Stopher Mark

This letter is about the process not directly about the DSEIR itself.

Your public hearing in Yreka was a joke. Your "Suction Dredge Update" for March 2011 invited us to attend and present written and/or verbal comments. However, when we arrived and the meeting got underway, we were presented with your "Meeting Ground Rules" on which bullet point #6 informed us that we were allotted only three (3) minutes each.

It would have been appropriate for you to tell us about this "time limit" in your Update, so that we could have been prepared for this short opportunity to speak.

This to me is not giving the public a proper opportunity to make a point.

I plan to submit on the DSEIR separately but want to be on record with my opinion of you "public hearing". Even our local Supervisors were held to the three minute time limit. To me and many others at the meeting it meant that you were really not interested in listening to the public.

Sincerely,

Carolyn L. Duerr

P.O. Box 176

Etna, CA 96027

Telephone: (530) 467-3264

Claim Owner & Dredger

Subject: COMMENTS DSEIR

Date: Tuesday, May 10, 2011 10:46:44 PM PT

From: Carolyn and Herb Duerr

To: Stopher Mark

Dear Sir,

These are my written comments on the Draft Subsequent Environmental Impact Report. I have used your written proposals to clarify which parts of your EIR I am referring to, your written statements are in black and my comments are in red.

After the "Public Hearing" in Yreka, CA I have little confidence that my comments will make any difference to the final outcome because I feel that the hearing and the comment period are strictly to fulfill your obligation. You, meaning CDFG, have already decided on the new regulations and will proceed no matter what our comments are.

Executive Summary

Program Objectives and Need

41 The objectives of the Program are as follows:

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February 2011

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1 Comply with the December 2006 Court Order;

2 Promulgate amendments to CDFG's previous regulations as necessary to

3 effectively implement Fish and Game Code section 5653 through 5653.9 and

4 other applicable legal authorities to ensure that suction dredge mining will not

5 be deleterious to fish; **Key words here are will not! Where in your studies was it proven that suction dredging has been deleterious to fish?**

6 Develop a program that is implementable within the existing fee structure

7 established by statute for the CDFG's suction dredge permitting program, as well

8 as the existing fee structure established by the CDFG pursuant to Fish and Game

9 Code section 1600 et seq.;

This is a means to increase the amount of money you can charge a suction dredger. Code section 1602 will have to be revamped to include control on nozzle size and use of a motorized winch.

10 Fulfill CDFG's mission of managing California's diverse fish, wildlife, and plant

11 resources, and the habitats upon which they depend, for their ecological values

12 and for their use and enjoyment by the public;

It appears to me that dredgers are part of the public.

13 Ensure that the development of the regulations considers economic costs,

I saw no information gathered as to the economic impact the moratorium on suction dredging has had on the businesses in Siskiyou County. Where are the surveys of the effect on the local markets, hardware stores, restaurants etc. ?

14 practical considerations for implementation, and technological capabilities

15 existing at the time of implementation; and

16 Fulfill the CDFG's obligation to conserve, protect, and manage fish, wildlife,

17 native plants, and habitats necessary for biologically sustainable populations of

18 those species and as a trustee agency for fish and wildlife resources pursuant to

19 Fish and Game Code section 1802.

Activities Requiring Additional Notification under Fish and Game Code Section

16 **1602**

17 Some methods of suction dredging, or activities performed to facilitate suction dredging,
18 require notification to CDFG as specified in Fish and Game Code section 1602, subdivision
19 (a)(1). Note that in these cases, both a valid suction dredge permit and notification and
20 compliance with Fish and Game Code section 1602, subdivision (a) are required. These
21 activities include any of the following:

22 Use of motorized winches or other motorized equipment for the movement of
23 instream boulders or wood to facilitate suction dredge activities;

What is the justification for this? Moving boulders or wood by hand winch to facilitate suction dredge activities is no different than motorized winches other than the fact that with a motorized winch, one can minimize injury to the streambed and injury to the dredger from undercutting boulders because DFG will not allow the use of motorized winches.

24 Temporary or permanent flow diversions, impoundments, or dams constructed
25 for the purposes of facilitating suction dredge activities;

26 Suction dredging within lakes or reservoirs; and

27 Use of a dredge with an intake nozzle greater than 4 inches in diameter.

This is taking our right to use the dredges we have had for years plus it makes serious mining impossible. Those of us who are serious dredges will use site appropriate dredges. In areas where there is little overburden, a 4 inch dredge is adequate to the job but where you need to move more overburden restriction to this small nozzle size will severely inhibit our ability to move the overburden from deeper areas. On certain rivers and in certain areas, a 4 inch nozzle is not capable of working at the depth of the river.

28 **2.2.2 Definition of “Deleterious to Fish”**

29 In developing the proposed amendments to the previous regulations CDFG considered what
30 types and under what circumstances suction dredging activities may be deleterious to fish,
31 as that term is used in the authorizing statute. This is guided by, among other things, the
32 definition of “fish” set forth in the Fish and Game Code. Section 45 of the Code defines fish
33 to mean wild fish, mollusks, crustaceans, invertebrates, or amphibians, including any part,
34 spawn, or ova thereof. For the purposes of this chapter, the word “fish” when written as
35 *Fish* refers to the definition set forth in the Fish and Game Code. References to fin fish are
36 written without italics and in appropriate grammatical context.

37 Against this backdrop and as highlighted below, CDFG believes section 5653 is intended to
38 assure that the individual and cumulative impacts of permitted suction dredge operations
39 do not substantially affect any species of fish as defined by Fish and Game Code section 45.

California Department of Fish and the
Game

2. Program Description
Suction Dredge Permitting Program
Draft Subsequent Environmental Impact Report
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This approach is consistent with 1 existing State policy to maintain sustainable populations of
2 fish and wildlife resources. (See, e.g., Fish & G. Code, §§ 1700, subd. (a), 1801, subd. (a).)

CDFG has made little or no effort to control the number of fish taken in gill

nets in the Siskiyou and Trinity Areas. Supposedly the Native Americans in this area have the right to take fish for sustenance but since they are self-regulating, no CDFG personnel ever check to find out how many fish are caught and sold to local residents (non-native) and to restaurants etc.

Before you can blame the decline in fish numbers on dredgers you must first look to off shore fishermen and the gill netting of fish along the river. I know of no dredger who harvests fish for their personal consumption or for sale to others. In fact we have dredged along the Salmon River for more than 40 years and have never taken a fish nor caused any harm to a fish.

3 Generally, CDFG concludes that an effect which is deleterious to *Fish*, for purposes of section
4 5653, is one which manifests at the community or population level and persists for longer
5 than one reproductive or migration cycle. The approach is also consistent with the
6 legislative history of section 5653. The history establishes that, in enacting section 5653,
7 the Legislature was focused principally on protecting specific fish species from suction
8 dredging during particularly vulnerable times of those species' spawning life cycle.

17 **TABLE 2-3. SUCTION DREDGE USE CLASSIFICATIONS ASSIGNED TO STREAMS WITHIN THE STATE**
Class Open Dates

- A No dredging permitted at any time
- B Open to dredging from July 1 through August 31
- C Open to dredging from June 1 through September 30
- D Open to dredging from July 1 through January 31
- E Open to dredging from September 1 through January 31
- F Open to dredging from July 1 through September 30
- G Open to dredging from September 1 through September 30
- H Open to dredging throughout the year

17 **PROPOSED AMENDMENTS TO REGULATIONS**

18

19 **[February 25, 2011]**

20

15 (b) Special Suction Dredge Permits.

16 (1) Submission of Written Plan. Any person may apply for a
17 special suction dredge permit to operate a suction dredge with a
18 nozzle larger than prescribed in subsections 228(e)(1), 228.5(c)
19 or 228.5(d) by submitting a written plan detailing the proposed
20 operation.

This requirement of submitting a written plan detailing the proposed operation is ridiculous. We plan to dredge our mining claims and preform the prescribed Assessment work for filing with the County and the Bureau of Land Management under the Federal Mining Laws. For the life of me I cannot understand the need for a 1602 permit as we are not requesting a Stream

Alteration Permit and a 6 inch dredge is not heavy equipment. These are necessary tools for us to get the job done in the time frame designated by CDFG. We put up with your changing the nozzle size on the Salmon River because at the time there were only two 8 inch dredges in our area and were told that it would be useless to try to get grandfathered in for the 8 inch dredge but a four inch nozzle size is unacceptable. Federal Law says that we are to be prudent miners and we have been. Tying our hands by limiting the equipment we need to use to be a prudent miner is far and away discrimination. We do not tell a farmer or fireman what equipment he may or may not use. We assume that they will use the equipment necessary to get the job done.

29 (2) A list of up to six locations where the permit applicant
30 plans to suction dredge. Location information shall include **ARE WE ALLOWED
ONLY SIX LOCATIONS PER DREDGE PERMIT?**

31 either:

32 (A) County, river or stream or lake name, township, range,
33 section, quarter section, base, and meridian; or

1 (B) Approximate centerpoint of the location using latitude
2 and longitude.

3 For each location the California Active Mining Claim number, if
4 applicable, and approximate dates of proposed dredging shall be
5 listed.

As a claim owner and private property owner we need to perform our assessment work on each and every claim we own and we will dredge from opening day until the last day of dredge season. We cannot give specific dates in advance because this is determined by water flow and weather. We may have help and that too will determine when and where we will dredge. Also we need to locate the minerals we intend to recover and possibly move several times to locate the concentration of gold. Plus since we have more than one claim we may need to work 20 different spots to locate gold and to perform our Assessment Work.

6 (3) A list of all suction dredge equipment that will be used
7 under the permit, including nozzle size, constrictor ring size
8 (if needed), engine manufacturer and model number, and
9 horsepower. ?

Does this "LIST" mean that we must list all possible equipment we might use including spare engines and pumps just in case we have a mechanical breakdown and need to change an engine or pump of some other part? We have dredged for 40+ years and the amount of equipment accumulated over that period of time is significant. We have many spare parts so that we will not have significant down time while fixing equipment.

10

11 (d) Permit Amendment. Applicants may amend suction dredge permits at a
12 Department license sales office, at no additional cost, by submitting
13 an amendment form providing the Department with their permit number
14 and modifications or additions to the information specified in the
15 original application.

This amendment process would in no way be at “no additional cost” since the nearest “sales office” to us is in Redding which is over three hours from you location in Sawyers Bar plus the loss of time waiting for CDFG’s approval of any modification and being unable to work until such approval comes thru especially if an onsite inspection is required.

16

17 (e) Permits Requiring an On-site Inspection. Where an on-site
18 inspection is required, a permit, or amended permit, is not valid
19 until the permittee has contacted the appropriate Department Regional
20 Office to arrange an inspection, the inspection has been completed and
21 the Department has provided written approval of the proposed suction
22 dredging.

On-site inspections are never free or timely. How many additional people do you plan to make available for this process? At what cost to the dredger?

23

24 (f) Permits Requiring Notification Pursuant to Section 1602 of the
25 Fish and Game Code. Where a notification is required pursuant to these
26 regulations, a permit, or amended permit, is not valid until the
27 permittee has in their possession documentation of compliance with
28 Fish and Game Code section 1602, subdivision (a), for the proposed
29 suction dredging, including a copy of their notification to the
30 Department; any response to the notification by the Department
31 pursuant to Fish and Game Code Section 1602, subdivision(a)(4)(A)(i);
32 and a Streambed Alteration Agreement if required.

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February 2011

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1 (g) Number of Permits. The Department shall issue a maximum of 4,000
2 permits annually, on a first-come, first-serve basis. Any permits
3 issued in 2011 will apply toward the limitation of 4,000 permits for
4 2012.

Limiting the number of dredge permits to a maximum of 4,000 annually on a first come, first serve basis is prejudicial treatment as there is no limit to hunting and fishing licenses although CDFG makes laws regulating these sports. By setting a limit of 4,000 maximum you are saying those of us who own mining claims and private property could potentially be unable to get a dredge permit. There are certain groups who could apply for and receive dredge permits with no intention to dredge but for the soul purpose of denying honest miners from receiving permits. Also claim owners, property owners and persons having prior dredge permits should be given priority for permits. There should be no limit on dredge permits.

I understand that CDFG is attempting to control the number of dredges but a regulation regarding large concentrations of dredges in one area would be more appropriate. We understand that having large numbers of dredges within a 20 acre claim could have an impact on the area. It probably would not be deleterious to fish but it could affect other people who live in the area.

We have claims that take in approximately 3 ½ miles of river and will often set up one or more dredges to be able to work and prospect different spots depending on weather and water conditions. We may move the dredges many times over the course of dredge season depending on what we find and where

but we control the number of dredges on our claims to keep from disturbing neighbors and friends who might have visitors and want to avoid our operations or swim on our claims since there are some nice swimming holes on the sites.

(E) Suction dredge intake nozzles up to eight inches in 10 diameter may be permitted at the Department's discretion in 11 accordance with Section 228 subdivision(j)(1)(A) only on 12 the following rivers:

13 (1) American (Placer, Nevada, and El Dorado counties)

14 (2) Cosumnes (Sacramento, Amador and El Dorado 15 counties)

16 (3) Feather (Butte, Plumas, and Yuba counties)

17 (4) Klamath (Del Norte, Humboldt and Siskiyou 18 counties)

19 (5) Merced (Mariposa and Merced counties)

20 (6) Mokelumne (Amador, Calaveras and San Joaquin 21 counties)

22 (7) Scott (Siskiyou County) **WH Y ALLOW 8 INCH DREDGES ON THE SCOTT AND NOT ON THE SALMON (SISKIYOU COUNTY).**

23 (8) Trinity (Trinity and Humboldt counties); and

24 (9) Yuba (Sierra and Yuba counties)

IN YOUR DESCRIPTION OF DREGE CLASSIFICATIONS YOU LIST BOTH JACKASS GULCH & JESSUPS GULCH AS CLASS A FOR "THERMAL REFUGIA" BUT THERE IS NO POOL FOR REFUGIA AT THE MOUTH OF JESSUPS CREEK. If we were to dredge at the mouth of the creek where it joins the Salmon River that would create the desired Refugia. We have claims that include these areas and have first-hand knowledge that these are not used by fish. In fact it would be desirable for CDFG to request that we dredge these areas to create the desired pool.

I do not have first-hand knowledge of other creeks and gulches but I would like to see the data used to determine which areas are considered Refugia.

Also, your three foot from the bank rule will either cause claim owners to break the rules or to abandon their claims. There are many claims that would have only two or three feet of dredgeable area if this rule is left in place. I feel this would be a "takings" and claim owners should be compensated for this. In the previous regulations we were allowed to dredge to the high water mark of the river. This was subject to some interpretation but was workable.

In conclusion I would like to say that we have dredged and mined along the Salmon River in Siskiyou County for more than 40 years. We started before CDFG started permitting dredgers and setting up the "Rules & Regulations" and we don't appreciate having a Beaucroatic Agency implying that we are in need of regulation to prevent us from harming our environment. As claim owners, private property owners, claim owners and tax payers we have the same rights to pursue our happiness as every other citizen.

Sincerely,
Carolyn L. Duerr
Claim Owner, & Private Property Owner, and Tax Payer
Plus Dredgers Wife
PO Box 176

Subject: SUCTION DREDGE PROGRAM DRAFT SEIR COMMENTS

Date: Tuesday, May 10, 2011 7:15:36 PM PT

From: Alex Duerr

To: dfgsuctiondredge@dfg.ca.gov

My family and I own private property that the Salmon River runs through along with 2 ½ miles of claims.

I strongly object to your declaration of refugios at Jessups and Jackass Creeks. The 500 foot radius would negate the use of ½ of the private property which is suitable only for mining and nothing else. Thus between the two creeks we would lose 2,500 feet of valuable dredging ground. To me that is unnecessary and also a private property takings. A 50 foot radius at Jackass should be enough and Jessups being completely on private property has no pool of water for fish to hold up in and should therefore be eliminated from the list of refugios.

For safety reasons I am also against your prohibition of power winches. CDFG may get blamed for miner's injuries or even deaths due to falling rocks.

I'm against the 4" dredge rule as that small a dredge is totally inefficient and in essence it is a toy. The Salmon River should stay a 6" river or revert back to 8". Otherwise our 5, 6, & 8 inch dredges will be worthless.

I am also against limiting the annual number of permits. How will I know whether or not I will be able to dredge on my family's private property or claims and how will I plan our annual vacations to the Salmon River?

I hope CDFG won't kowtow to the Klamath Indians and the radical environmentalists and will preserve gold miner's rights.

Max Duerr

4703 Venti Lane

Santa Rosa, CA 95409-3461

Gold Pan California

1021 Detroit Avenue, Concord, CA 94518
(925) 825-GOLD (4653) www.goldpancalifornia.com

Mark Stopher

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

10 May 2011

RE: Comments regarding SEIR and Proposed Regulations for suction dredge mining in California

Dear Sir:

Thank you for taking the time necessary to read and fully consider the following comments on the California Department of Fish & Game's (DFG) Suction Dredge Permitting Program Subsequent Environmental Impact Report (SEIR) and Proposed Regulations.

These comments are being submitted by me, Mike Dunn, and my wife Rachel Dunn. Rachel was a co-author of the September 2009 report titled "The Economic Impact of Suction Dredging in California", and was an invited participant of the 2010 CDF&G SEIR PAC (Public Advisory Committee). Thus, our comments are being made personally by Mike and Rachel Dunn, and professionally, by Rachel Dunn (PAC member and business leader), Mike Dunn (Underwater gold mining specialist and business leader).

I personally have been operating dredges in California since 1986, and prior to that, since 1978 in Oregon. I own a retail gold mining supply shop, Gold Pan California, and also own Superlative Equipment Co, a gold mining equipment manufacturing company. In addition to my personal work in California, I have consulted on numerous dredge projects in California, and in Cambodia and Sierra Leone, Africa. I have testified at the California State Capitol about the practice of suction dredging in California. I am also of American Indian heritage, which I embrace and respect. My direct experience over the past 33 years provides me with a qualified viewpoint in reviewing your current Proposed Program.

In my lifetime, I have purchased more than 7 Federal gold mining claims, and in CA I've paid taxes annually on them since 1986. My current mining claims are located on the Feather River and on Indian Creek. Additionally, I maintain Memberships in 3 separate

gold mining clubs in CA, which affords me numerous waterways and territories in which to prospect and test mining equipment.

I had looked forward to the EIR being finally conducted, and putting closure on the question “Is suction dredging deleterious to fish”? Having said that, I am less than pleased, no, disgusted, with the outcome of the Proposed Program on numerous levels.

The Dept of F&G has spent in the neighborhood of 1.5 million dollars to conduct a scientific answer to this question, yet the end product is theoretical posturing of a curious nature.

No Dredge Mining Expert

It is painfully evident to me, the reader, that the Department did not have a dredging expert on staff, nor did they hire, sub-contract or even seek the advice of a dredging expert when conducting the EIR. **Why not?** *PAC Note: During the PAC meetings we (miners) offered our insight, our property, our equipment, experience – even offered to take you to our properties in CA & OR so you could observe firsthand equipment and suction dredging –yet NONE of us were communicated with to assist!*

At the end of the last PAC meeting we were lead to believe there would be additional communication with us: “The Draft will be released in August. It will be a thick document. I expect to have robust conversations, input before then. There will be 5 public meetings N to S CA. Final will be out May 2011. I have a strong interest in staying on schedule. I have good project management skills & good delivery of difficult projects. I expect to have conversations with all of you in the future. Your input has been very appreciated. You have been heard.” **None of the miners were contacted since then. I would like to know if anyone else in the room, other than the miners, were communicated with to help develop the SEIR?**

Old Technology Used As Baseline For Theories

Part of your theoretical calculations were made based on old dredging equipment specs with 40-yr old “crash-box” technology instead of using the modern “jet-flare” technology.

Why?

If you had been consulting a dredging expert, you would have found out that the equipment technology had been modernized nearly 12 years ago, to the new jet flare design, intentionally to slow down the water. Alpers’ theory about mercury violently crashing through a header box and flouring doesn’t have any credibility here. Using a mutually known object such as a car; imagine the difference between a car traveling 60mph down a freeway, versus the same car traveling down a freeway at 60mph *and then crashing into a wall, then continuing on its course.* **Would you expect a different outcome to the car?** I do, and the most casual of observers would as well. As such, Alpers’ initial assumptions about dredging equipment (inputs) were wrong, so his assumptions about dredging consequences (outputs) are wrong.

PAC Note: We voiced this old equipment concern during the meetings, in addition, we pointed out that the old technology was on the Home page of the DF&G website, on the front cover of the 2009 DSEIR, and on all the handouts we received at the PAC. Apparently, this correction was not taken seriously in the PAC meetings, nor afterwards.

Returning the site restriction is Impractical to Implement

Again, if you had consulted a dredging expert, or had observed dredging personally, you would understand that this restriction is IMPOSSIBLE to accomplish. Note one of the 6.2.1 Program Objectives,

“The Program was developed to achieve the following objectives:

*Ensure that the development of the regulations consider economic costs, **practical considerations for implementation**, and technological capabilities existing at the time of implementation.*

This restriction has nothing to do with being ‘less deleterious to fish’, and in fact, our dredge pools are beneficial to fish.

Winching

This is a safety tool and the restriction is biased only towards miners working underwater. The dredger does not know he needs a winch until he is underwater and has exposed a rock, or rocks, that are too dangerous to leave in place. The idea of stopping work to go request a 1600 Agreement is proof of your total lack of the working conditions of underwater dredging. The river works like a conveyor belt, constantly moving rocks, sand and gravel. When you leave your working hole, it begins to fill up with materials coming downstream. Winching rocks underwater is not deleterious to fish, but NOT being able to winch rocks underwater is deleterious to miners! This restriction must be abandoned. *PAC Note: This issue was discussed in the PAC meeting and the miners discussed it being a safety issue, while mining foes talked about ruining tree bark. This was another instance of a perceived issue being good for the BMP handbook idea.*

3’ rule

According to Who? When? Why? 2 million fishermen’s feet intentionally walk back and forth on the banks, 12 months out of the year, yet I am prohibited from working 3’ on both sides, no matter where the water is or what time of year it is. How is this zone interpreted? Today the water is 16’ wide, and by end of month it’ll be 8’ wide with a gravel bar in the middle. How is this moving zone less deleterious to fish? Using 1980 numbers as an example, what do 12,000 seasonal dredgers harm that 2,000,000 annual fishermen do not?

4000 permit limit is outrageous and baseless

What would happen to the fish if 4001 licenses were sold? Or 5000, or 10,000? What if every other license sold was to a beginner? What if I dredge 3 months with my license and my friend dredges 2 weeks with his?

This restriction could not be any more baseless if you tried (unless you further limited their issuance to a certain race or religion maybe)!!

You **do not** have any scientific basis to restrict dredging to the issuance of 4000 permits. You can not calculate my activity against 3999 other miners, all of us having different places, times, equipment and experience, in this giant State having more than 170,000 linear miles of dredging area! Remember, you didn't hire a dredging expert, so your numbers are built on faulty assumptions to start with! **Would 4001 permits be deleterious to fish?** In the past 12,000 were sold. What happened then?

Numbers on dredge

The dredger is being licensed, not the dredge. If an infraction is committed, the miner will go to court, not the dredge. Our license and paperwork has always been available to any Ranger. If one of my engines blows up and I replace it with another, how is this more or less deleterious to fish than the first engine was? Or if my compressor gives out and I replace it, how does this change the impact to any fish? Does putting numbers on our dredges make them less deleterious to fish? As the Department is aware, anti-mining activists already do fly-overs and take pictures of us as we dredge. What is to stop them from enhancing their attack on us by making false citizens complaints using our dredge numbers they spotted from the air? This type of negative activity has already happened, so precedence has been set. Placing dredge numbers on our dredges will foster more harm, not good. And most assuredly, the lack of dredge numbers won't make the dredge more deleterious to fish.

6 location limit

What makes a 7th location deleterious to fish? What happens if I stay at 1 location – does that mean I've reduced my impact to the State waters by 83%? What happens if I use a 2" dredge in Northern CA instead of a 4" dredge? Does that mean with another miner using a 6" dredge in Southern CA that our combined impact would be net equal to the State waters?

Prospecting by its very nature is transitory; you choose where you start, in part, based on the weather and the water, and move according to where the gold is or is not. It is a death blow to saddle a miner with this useless restriction, meanwhile delivering no beneficial gain to the public. The Proposed Program offers a solution to simply go into your nearest DF&G office to update your locations if you want to go to more than 6 locations. **Tell me this: Is driving into town, changing paperwork, possibly spending the night in a hotel, then returning to camp less deleterious to fish?**

PAC Note: This was another issue brought up by mining foes wanting to know how to pinpoint a responsible party in case they damage something. We discussed how other States get data on mining activity, and used the State of Oregon's annual form which is completed at the end of the season.

Mercury and other

Let's talk about mercury and lead! **Every** dredger captures lead fishing weights and lead shot, plus other types of trash in his sluice box. Some dredgers also capture mercury.

This SEIR fully omitted the benefits of suction dredgers taking these elements out of our waterways. No one else takes these out of our waters, yet the dredgers do it for free, and this obvious benefit is curiously omitted from the study. **Why?**

Humphries report acknowledges that suction dredges capture 98% of the mercury they encounter (this, even using the old-style crash box style dredge!), yet there is NO mention of this good public benefit in the SEIR. **Why not? Who decided to forgo or eliminate this information from this study?**

Further comments about Mercury

I am not a scientist, but I am a common sense type of individual. Here are some issues I have problems with, and would like the Department's clarification:

PAC Note: In March 2010, PAC members were briefed that the DFG was going to be relying on information from a study currently being done by Charles Alpers, and since the report was not finished yet, nor peer reviewed, they could not give us a copy of the report. Alpers made a power point presentation and I took 58 pages of notes, this being the case. (Charles Alpers report was published January 2011). In between this time, it was discovered that the root water samples in Alpers report had come from a mercury treatability project (see Dave McCracken attachment). Next, it was discovered that Alpers was a chief consultant, together with Carrie Monohan from the Sierra Fund, on the NID Combie Reservoir project, where they propose using a cutter head dredge to remove approx 100kg of mercury over a 3-5 yr period, (dredging 7-7, 6 days a week, not including Federal holidays).

*I see a huge conflict of interest and problem with the very same anti-mining foes being the cheerleaders for a dredging project using larger equipment than I can use, working virtually non-stop for 3-5 years versus my very limited annual season. If Alpers bottom line conclusions towards suction dredge mining causes mercury harm, then his participation and support of the massive cutterhead suction dredging NID project should immediately disqualify his participation in the DF&G SEIR for major conflict of interest! Further, and more confounding, is that the DF&G would build the entire SEIR around a "SCIENTIFIC REPORT BEING CONDUCTED" that was not even finalized until a year later!! **Tell me, how is this scientifically acceptable?***

Thank you for your time.
Mike and Rachel Dunn

Attached:

Letter to Mark Stopher dated 6 March 2010 from Dave McCracken
Mark Stopher
Acting Regional Manager

California Department of Fish and Game
601 Locust Street
Redding, CA 96001

6 March 2010

Dear Mr. Stopher:

I understand that a presentation was made at the most recent suction dredge PAC meeting concerning a mercury clean-up pilot project that I personally was involved with on the South Fork of the Yuba River, Malakoff Diggins, Humbug during 2007 and the fall of 2008. As I am at somewhat of a disadvantage of not being able to study any final findings concerning that project, and it sounds to me like some of the results are being taken out of the proper context, please allow me to go on record in the ongoing suction dredge CEQA process with a factual basis concerning the project:

I was first contacted about the project on 23 August 2008 by Matthew Wetter of Tetra Tech EM Inc., which is an environmental services engineering company based at 10860 Gold Center Drive, Suite 200 | Rancho Cordova, CA 95670 | www.tetratech.com. Mr. Wetter e-mailed me that Tetra Tech was "working with Dave Lawler at the BLM on a mercury removal treatability study, " and was interested in contracting the services of my company, Pro-Mack Mining, to provide underwater excavation (dredging work) for the project. Mr. Wetter asked me to provide a bid for our services. Tetra Tech also provided the following information:

"Contract Officer Representative (COR)

: David Lawler is the designated Contracting Officer Representative (COR) for the project. Mr. Lawler is located in the California State Office. Mr. Lawler can be contacted at Bureau of Land Management, CASO, Attn: Dave Lawler (CA-920), 2800 Cottage Way Ste. W-1834, Sacramento, CA 95825-1886, Cell phone: (916) 425-3740"

In order to gain a better understanding of the project and make a proper bid, I followed up in a telephone conversation with Mr. David Lawler. In turn, Mr. Lawler sent me the following explanation:

BPS Project Title: HUMBUG CK-SOUTH YUBA PILOT MERCURY CLEANUP PROJECT

***BPS Project Number : (#
36234)***

Description:

The Humbug Creek Project site is located at the confluence of the South Yuba River and Humbug Creek on unpatented BLM administered land within the North Bloomfield Mining District. Project proposes to remove a mercury "hot spot" consisting of several hundred pounds of elemental mercury contained within the Humbug Creek Delta, located at the confluence of Humbug Creek and South Fork Yuba River. Thousands of pounds of elemental mercury were lost from historic placer gold sluice box systems at the North Bloomfield Hydraulic gold mining

operations during the 1850's-1880's period. Significant amounts of elemental and amalgamated mercury were than deposited within a hydraulic tailings dam at the confluence of Humbug Creek and South Fork Yuba River. The tailings dam has subsequently been destroyed during a series of 100+ year flood events on the South Yuba, allowing mercury contaminated sediment to discharge seasonally downstream. BLM manages 7 miles of contiguous watershed on the South Yuba from 1/2 mile upstream from Humbug Creek to Purdon Crossing. This site represents an excellent pilot - mercury "hot spot" removal project, since significant watershed impacts have occurred to the BLM-managed portion immediately downstream from the hydraulic mine. Project proposes to use modified suction dredge equipment - combined with conventional placer gold recovery equipment/technology to recover large quantities of elemental mercury without undue degradation or impacts to the watershed.

Geographic Description:

T.17N, R.9E.,S.14, ,MDBM, NEVADA CO., CALIFORNIA (SOUTH YUBA RIVER WATERSHED)

Benefits

: The Humbug Creek Delta site is one of the known elemental mercury "hot spots" known in the Sierra Nevada region with elevated mercury levels in water and sediment. Removal of high concentrations of elemental mercury contained in mercury-contaminated stream and river sediments at this site will eliminate a pollution "point source of discharge" of hazardous materials under the Clean Water Act and reduce downstream discharge within the South Yuba River watershed. The California State Water Control Board and other regulatory agencies require that BLM mandate significant reductions in mercury loads from its managed lands within the Sacramento River watershed - Bay Delta region, under its existing basin plan.

Feasibility:

This site is one of BLM's emerging priority AML 1010 sites for pilot cleanup. Project implementation will include use of modified suction dredge equipment - combined with a conventional placer gold recovery equipment and technology to recover large quantities of elemental mercury without undue significant degradation or impact to the watershed. During FY99-03, USGS technical specialists have previously collected water, sediment, and biota samples from selected sites within this watershed. During FY06, USGS technical specialists and watershed stakeholders (e.g. Trout Unlimited, SYRCL) will coordinate on pre-remediation sampling of water, sediment, and biota at this specific site. BLM coordinators and contractor(s) will also compile all required CERCLA and NEPA-related environmental documents. Testing of pilot mercury removal methods will also occur. During FY07, BLM coordinators and contractor(s) will undertake pilot cleanup of fluvial bedload areas containing elemental mercury concentrations. During FY08-09, post-remediation monitoring will be undertaken to assess the watershed benefits of mercury "hot spot" removal.

Support:

There is widespread support from interagency Federal partners (USFS, ACE, EPA), State Partners (DOC AMLU, CWQCB, RWQCB, CA Fish&Game, Public Health), County Partners (Dept. Env'tl Health) and various watershed stakeholders (Trout Unlimited, NCRCD, SYRCL, Yuba Watershed Institute). Trout Unlimited has been working on AML partnerships efforts in Utah (American Fork) - subsequent remediation actions have effectively reduced toxic metal

source loading to downstream watershed environments. Trout Unlimited volunteers can potentially assist with collecting additional macroinvertebrates and fish from the project site for bioassessment purposes. The California State Water Resources Control Board (CA-SWRB) is highly interested in removal of elemental mercury "hot spots" in priority watersheds. The South Yuba is a 303(d) listed impaired water body for mercury. The SWRCB will to match funds with BLM on this cleanup project.

Project Objectives:

To develop portable suction dredging equipment that will effectively recover elemental mercury from submerged sediments.

Subsequently, Pro-Mack's involvement in the project (hereafter referred to as "BLM project") was contracted by Tetra Tech. This evolved into several site visits and a trial run during the fall of 2007, using a standard 3-inch Keene dredge. The trial run was mainly to work out how we would do the project during 2008 using an 8-inch dredge.

During one of the site visits, I had a personal opportunity to engage in a substantial discussion with Mr. Charlie Alpers, USGS Research Chemist, who I understand is a leading authority on the subject of mercury. Mr. Alpers was directly involved with this BLM project. As I am an expert in heavy metals recovery, I found Mr. Alpers very interesting. During our conversation, Mr. Alpers instructed me on several points which he believed were important in context to the BLM project objective to determine if normal suction dredges can properly be used to recover mercury from established mercury waste sites. Here are a few of the points Mr. Alpers made (according to my understanding, in my own words):

- 1) The nature of mercury as an element allows it to break down into such small particles (perhaps smaller than particles), that they can become permanently suspended in water. Mr. Alpers described this as "colloidal." This, similar to the salt in sea water.
- 2) Through different kinds of physical and biological activity, elemental mercury can be transformed into different forms and migrate away from the original location (point source).
- 3) Mr. Alpers and the other USGS scientists involved in the BLM project made it abundantly clear that science has shown that very small particles of mercury have a strong attraction to very, very small particles of light sediment.
- 4) Mr Alpers told me that modern science now has the equipment to measure the presence of mercury in nearly every substance known to man. He told me mercury is present nearly everywhere. He said the instruments at his disposal would detect mercury in any of the soils or riverbeds in California.

In view of these revelations from Mr. Alpers, it seemed clear to me without going any further that standard suction dredges could not be used to remove 100% of the mercury from established mercury waste sites. Standard suction dredges (use of gravity separation recovery systems) will be effective at removing all or most of the elemental mercury down to a certain size fraction. Pro-Mack (and Keene Engineering) has developed advanced gravity recovery systems on suction

dredges that will recover elemental mercury effectively down to any size fraction within the visible range.

But when you start getting down to capturing colloidal (mercury which has become part of the water), or capturing extremely fine sediments with mercury attached to them, it is clear that gravity separation alone (such as the Nelson Concentrator) is not the answer for 100% results.

Please keep in mind that this explanation is in context to the BLM Project Objective, which was to determine whether or not standard suction dredges can be used to effectively recover the mercury from an established mercury waste site located at the bottom of a flowing waterway.

Sometime during the summer of 2008, the California Water Quality Control Board made a formal objection to BLM and USGS. In view of the 98% recovery results (of mercury from an established mercury waste site in another location) by Mr. Humphreys using a 4-inch dredge, the Water Board did not want us to use an 8-inch dredge at the confluence of the South Yuba River and Humbug Creek. While I was not privy to all the communications involved, I was informed by Mr. Wetter that the potential of a 2% loss of mercury into the water column might be considered a water quality violation by the State of California.

Consequently, BLM formally revised the purpose of the project to the following (please see attached *Revised Scope of Work for agreement between the USGS and the BLM* which is dated June 27, 2008):

Purpose:

Because dredge operators have collected and recovered large amounts of Hg from the South Yuba River near Humbug Creek, the BLM wishes to remove and recover these Hg-contaminated sediments, thus removing a potential environmental hazard from the ecosystem. However, it is unknown what impact the removal process will have in the immediate vicinity of the dredge operation or downstream. The BLM initially proposed to remove the Hg from the confluence using a suction dredge. Although suction dredging has been shown to recover as much as 98% of the mercury from contaminated river sediments, qualitative evidence suggests that the dredging may, through “flouring” of the Hg during the suction dredging, actually enhance Hg transport and reactivity and ultimately increase Hg uptake in downstream biota (Humphreys, 2005). Before suction dredging, or any other removal technique can be used, the hotspot will need to be characterized to determine the potential impact of the removal on downstream environments.

Since dredging within the active waterway was no longer going to be part of the project, another site visit was scheduled so that we could locate a place(es) to take samples outside of the active waterway. Matt Wetter may have a record of who participated in that visit to the site. I was there, along with several participants from the USGS. We found a gravel bar out in the S. Yuba River that was located near the confluence of Humbug Creek. We also found some dry riverbed just downstream from Humbug Creek. As dredging was not going to be allowed, these were

pretty-much the only two remaining options to obtain samples. We decided to sample the gravel bar (located out in the river) first, and then follow with the riverbed gravels alongside the river.

As I had originally bid the project to provide an 8-inch dredge, and we were not going to be able to use that, Matt Wetter asked me if there was some other type of gear that Pro-Mack could provide to assist with the project. So my Pro-Mack team went to work in our shop to create a suction excavation system that would contain all of the material, using recirculated water, so that there would be zero discharge back into the active waterway. This system used the same principle as a normal dredge to create suction at the nozzle. But this was different because water and excavated material were pumped into a holding tank, and the water was then pumped out of the holding tank to provide suction to the nozzle. We were using the same water over and over again within a closed system to create our suction-power at the nozzle (please see attached images).

Because Mr. Alpers voiced concern about colloidal mercury, and very small particles of mercury that attach themselves to sediment, Pro-Mack devised a suction recovery system that would capture 100% of the sediment, along with 100% of the water used in the excavation process. I ran this idea by the BLM project team in a phone conference, and the participants (USGS, BLM, Tetra Tech) expressed interest and encouragement. My understanding is that BLM (Dave Lawler) ran the idea by the Water Board and they decided to send Rick Humphreys out to observe our project. He was present when we operated Pro-Mack's self-contained suction system; and Mr. Humphreys, along with everyone else present, agreed that we made no discharge into the river using our self contained suction system.

To my knowledge, this is the only system -concept in existence that will provide 100% recovery of hazardous materials in all forms from waste sites (mercury or otherwise), either above or below the water.

Here follow some very important observations which should not be ignored:

- 1) The gravel we were excavating from the bar out in the South Yuba River were above the river during late fall flows. They will be underwater during winter flows, or at least during storm events. This was mostly loose gravel. It was not a hard-packed streambed; it was not compacted or armored. This means that those gravels likely get swept downstream during storm events; especially large storm events. Therefore, any mercury recovery we obtained within our closed system is the same mercury that will be washed down the river system during storm events. Since our excavation was small in comparison to the whole area of the South Yuba that is identified as a waste site, it is reasonable to assume that huge volumes of mercury are moving downstream during storm events.
- 2) This was just a trial run of a closed circuit suction excavation system to determine if it would work. It was only the first phase on a small scale. Tetra Tech, BLM and USGS agreed to analyse samples of the collected water to see if our closed system will recover and concentrate mercury; specifically the very fine mercury that they are so concerned about. Since it was just a beginning-test, I don't believe that anyone kept close track of

the volume of gravel that we excavated. More importantly, we did not measure how many times the same water was recirculated to excavate the waste materials.

While I have not seen the test results on our recirculated water, I understand that Mr. Alpers stated in the recent PAC meeting that the mercury levels were very high. This is good. It means our system worked very well to recover and concentrate the small particles of mercury from the waste site which Mr Alpers and other scientists are concerned about; particles so fine in size that no gravity system alone can be expected to provide adequate recovery if 100% results are desired.

Note: Before using our closed suction system, after carefully sanitizing the tank (with a solution which USGS brought along specifically for that purpose), we carefully filled it with water from the South Yuba River. I am certain that the USGS team captured and analyzed water samples from the South Yuba to create a baseline. Therefore, any increase in mercury in the water from our closed system will be mercury that we recovered and concentrated from the waste material at the site. The higher the concentration of mercury within our closed system, the more mercury we removed from the environment!

3) In a closed system such as this, the longer we operate it in the waste site, the more times the very same water is exposed to the waste, and the more concentrated the mercury will become in the water. We ran the system for perhaps two hours or longer. The pump we used produces 350 gallons per minute. This means the water was recirculated through the waste material more than 100 times. I understand that during the PAC meeting, Mr. Alpers reported that suspended sediment and mercury was present in the water from our closed test seven days afterwards. That is exactly what you would expect to see with recirculated water that was used 100+ times to excavate mercury-contaminated material!

4) Very important: While anti-mining activists are sure to try, the results of this test (concentration of mercury in the water used within our closed system) cannot be correlated or compared to normal suction dredging in California's waterways. Here is why:

A) First of all, we were doing the project in an established mercury hot spot. Please read David Lawler's BPS Project description above. This site is so contaminated, the California Water Board refused to allow BLM and USGS to operate a suction dredge there for the BLM project. Even while we were conducting our tests, Rich Humphreys was swimming around the area with mask and snorkel and finding visible mercury on the bedrock. We were panning mercury from the bedrock just upstream from where we performed this testing. This place is loaded with mercury contamination!

It would be grossly unfair to compare the average stretch of California waterway to this established waste site where "*Thousands of pounds of elemental mercury were lost from historic placer gold sluice box systems*" (BPS Project description).

B) To my knowledge, California's average waterways have not been quantified as to the amount of mercury which exists in them. If present at all, the amount of mercury is sure to vary from one location to the next. According to Mr. Alpers, some level of mercury can be located anywhere (everywhere). **Therefore, for the purpose of dredge regulation, we should be concerned with hazardous levels of mercury.** We should not be comparing normal suction dredge activity to an isolated extreme condition! **For the purpose of dredge regulation, it would be highly indefensible to use the results of a toxic cleanup test as a baseline average for all waterways in California!**

C) The water from our closed system that was recirculated through mercury waste at least 100 times cannot be compared to the water discharge from a normal dredging system in an average waterway. Our closed system exposed the same water over and over to pre-established mercury waste (continuous exposure for hours). The water flowing through a normal dredge will have been exposed to gravel only once (for several seconds), likely in a location which does not contain hazardous levels of mercury in the first place. Any attempt to compare normal dredging conditions with a concentrated solution used to clean up a heavily contaminated site would be completely lacking in intellectual integrity.

D) Our closed system design appears to have confirmed Mr Alper's (and the California Water Board's) concerns about potential losses of fine particles of mercury if standard suction dredges are used to clean up established mercury waste sites. **That is, if California's policy is to proceed with mercury recovery only if 100% results can be obtained.**

We could argue over whether or not the dredge system is causing flouring, or if the mercury is already present there in a form that is too small to recover using gravity methods. But it doesn't really matter. If our closed system concentrated suspended mercury in the water, it seems reasonable that recovery systems (used in established waste sites) must be developed that contain all of the water which is used during the excavation and gravity separation process. Then the water will need to be treated.

E) Because the mercury that is not removed from active river systems is sure to migrate downstream, and we have already developed the prototype of a closed excavation system, I would encourage the various State and federal agencies to continue the important work which BLM and USGS has been doing in this area. I would be pleased to participate, as long as the process is intended to clean up California's waterways, rather than put suction dredgers out of business.

F) Anyone who would attempt to use the important results we have obtained in a very serious waste site to reflect upon conditions in a normal dredging setting is probably more motivated by political gain, than in cleaning up California's waterways.

The truth is that suction dredging is the only workable way of discovering where the mercury hot spots are located in California's waterways. According to the BLM BPS Project description above, it was suction dredgers who discovered the waste site at the South Yuba River and Humbug Creek. And it will require suction dredges (modified into

closed systems) to remove the contamination. Mercury that is not removed will haunt California for the foreseeable future.

This very same scenario could be playing out in other locations. Suction dredgers are the solution to this problem. Shutting them down because mercury is proven to exist within isolated locations would be counterproductive. This is because mother nature will just keep pounding that mercury down into more-broadly distributed, smaller and smaller particles while we do absolutely nothing about it.

5) Most important:

Based upon all of the results we obtained in this BLM project, along with all of the concerns expressed by BLM, USGS, DFG, California tribes and environmental organizations, there may be some serious problems with the Nevada Irrigation District's (NID) plan to clear toxic Gold Rush mercury from Combie Reservoir (they also intend to use a suction dredge).

According to the press release at

<http://www.theunion.com/article/20100227/NEWS/100229808/1066&ParentProfile=1053>:

*"NID had Canadian firm Pegasus Earth Sensing Corp. demonstrate the system last fall and managed to extract **six grams of mercury per ton** of sediment dredged from the bottom of the reservoir. NID routinely dredges the reservoir to extract silt and keep water capacity as high as possible for customers."*

*"Pegasus designed their **centrifuge** to extract gold from ancient river rock, but company officials found it did a better job of trapping mercury, according to Monohan."*

A centrifuge is a gravity separation device. And while very effective at concentrating heavy metal particles down to a certain size, it will not be effective at recovering the colloidal mercury which Mr. Alpers is concerned about. Even worse, a centrifuge is designed specifically to discharge (as tailings) the very fine particles of light sediment which USGS scientists are so concerned about (because micro-particles of mercury attach to them).

Perhaps the largest concern should be that all of the colloidal mercury and fine sediment which is stirred up in the water during the excavation process ("*NID routinely dredges the reservoir to extract silt and keep water capacity as high as possible for customers.*") will most certainly be creating a water quality violation of huge proportions -- for all the reasons which are being expressed by PAC participants in the suction dredge CEQA process. The NID Project description on line shows a diagram of the planned dredge system. More than just a suction dredge, **the NID dredge will employ a cutter head at the nozzle** (see <http://evereadymarineservices.com/downloads/Eveready%20Marine%20Services%204.pdf>). A cutter head is a powerful grinding machine that is designed to break up solids and force oversized material out of the way. A cutter head will create enormous disturbance down in the contaminated sediments. Consequently, some substantial portion of the disturbed water and light sediments within the contaminated material will be greatly disturbed, pushed out of the way and not be sucked up as dredged material.

Reading more about the NID project at

http://www2.newsvirginian.com/wnv/news/local/article/old_technology_new_solution/42961/961/

*"Tim Crough, assistant general manager with the Nevada Irrigation District, who is overseeing the project, said the district wants to remove the mercury **in its elemental stage**, where it is less harmful." He said, "Knelson Concentrators' mercury-removal process combines traditional dredging technology with a "spin" process, using the company's Knelson Mercury Recovery Concentrator, to separate and remove the mercury from the sediment and out of the water. **"If we can remove 95 percent of it, which the Knelson Concentrator is expected to do, we can free up that much of the river system from having the contamination of methyl mercury,"** Crough said.*

<http://www.sacbee.com/2009/03/24/1723627/nevada-irrigation-district-plans.html>:

*"Tim Crough, the district's assistant general manager, said the Combie project would combine dredging with a centrifuge process to "spin" the mercury out of water extracted from the lake. **"It's a pretty novel approach,"** said Charles Alpers, a research chemist with the U.S. Geological Survey in Sacramento **and a consultant for the project."***

*"The elemental mercury that would be removed, according to Ryan Jones, a Knelson Concentrators representative, is relatively simple to recover and inexpensive when using the company's device. **"The important thing is to get the elemental mercury out of the material** so that it can't convert to methyl mercury," ' Jones said."*

The press release goes on to say: **"The consultant (Carrie Monohan) is also on the staff of the Sierra Fund in Nevada City, which has been educating Californians about the mountain range's toxic mining past in recent years."**

At <http://www.conawayranch.com/content/mercury-rising>

"Elizabeth "Izzy" Martin, CEO of the Sierra Fund

, is quoted as saying **"The state's rules are forcing Sacramento into that mode. They're a hundred miles down from the problem and trying to filter it out. Sacramento would very much like to come up here and clean up the mercury because they think it will probably be cheaper to clean up four hundred pounds of mercury up here than it will be to filter out two pounds of mercury down there."**

While I personally would not disagree with these statements, there appears to be two different standards being applied here. The Water Board is objecting to normal suction dredges because Rick Humphries measured a 2% loss of mercury from a standard 4-inch dredge. Mr. Alpers and the Sierra Fund are objecting to normal suction dredges because of the potential of not recovering colloidal mercury and extremely fine particles of mercury that have evolved out of the elemental stage and attach themselves to fine sediments which can remain suspended in water for long periods of time.

Yet both Mr Alpers and the Sierra Fund are directly involved as consultants in this NID project which is only targeting 95% of the elemental mercury. How can this be?

DFG can do the math on six grams of mercury per ton of sediment. There is no doubt that this should be classed as a mercury hot spot, hazardous waste site. That amount of mercury will exceed the average amount of mercury in California's rivers by thousands or millions of times. Yet the Sierra Fund, who is working so hard to put suction dredgers out of business in sections of California waterways where hazardous levels of mercury are not even present, is completely ignoring the science which has been developed in the BLM project, the very science which they are now attempting to use against suction dredgers.

All you need to do is look at Charles Alper's data on the amount of mercury in the water that we concentrated in Pro-Mack's closed tank system, and you will know that the NID project and Sierra Fund are stirring up the very same kind of contaminated water and sediments at the bottom of the Combie Reservoir with the use of a cutter head device (powerful grinding machine) -- **which is a source of drinking water for Californians.**

Mr. Alpers and the Sierra Fund cannot have it both ways. If it is beneficial for NID (at a cost of \$8+ million) to recover 95% of the elemental mercury from an established waste site within a drinking water supply, while stirring up and spreading around particles of mercury which are too small to recover, then it is also beneficial to have suction dredgers recovering 98% of any mercury they happen to encounter while assisting the State to locate new hot spots (at no cost to the State or federal governments).

The CEQA process is designed to flush out real problems using the best available science. There is supposed to be integrity in the process. If you are allowing gravity separation equipment to process mercury from a mercury hot spot inside of a reservoir, then you certainly cannot object to gravity concentration technology being used by suction dredgers in areas which are not known to contain any hazardous levels of mercury.

I hope this helps place Mr. Alper's test results in a more balanced perspective, and would be pleased to provide more information upon request.

Sincerely,

Dave McCracken