

## APPENDIX K: Private Citizen Comments (N - R)

**From:** Nick Oman <anick2@earthlink.net>  
**To:** <dfgsuctiondredge@dfg.ca.gov>  
**Date:** 11/23/2009 9:21 PM  
**Subject:** suction dredging

About twenty years ago C.D.F.and G. did a little study on my mining claim. The river bed of my claim is like  
>most river beds, boulder bound with hard pact gravels. With the input of the biologist I put the gravel in  
one pile, the cobbles in another  
>pile. They asked me to use a spill-proof gas container and NOT to pan my mining concentrates back into  
the river. The next spring we went to the river and found the winter high water had made a loose gravel bar,  
perfect for fish spawn, the cobbles turned into perfect habitat  
>for the little fish. The dredge hole turned into a deep cold water pool, 12 degrees colder than surface  
water. By not panning my mining  
>concentrates back into the river I was able to remove over 12.5 oz of lead fish weights and old bullets plus  
a car battery. I have continued to dredge in a environmentally friendly way since,I feel that dredging could  
become an effective tool to help fish habitat, if done the correct way and it is just as healthy for the river as  
roto-tilling your garden.

**From:** pat keene <pat@keeneeng.com>  
**To:** <mstopher@dfg.ca.gov>  
**Date:** 12/3/2009 6:02 PM  
**Subject:** FW: Pat  
**Attachments:** dredge yardage Sheet1.pdf

Dear Mark Stopher,

I would first like to say that I appreciate your unbiased views and hope can work together with you and the department to get dredging open again.

As per our discussion at the Fresno scoping meeting about average yardages and capabilities of suction dredges. We have spent much time to give you realistic figures based on river conditions. These are good figures that we can all work with. I am sure if you check with any dredgers you will find that these formulas are true and correct. We made to different charts to represent both rocky type areas such as the Yuba River and large gravel bars as found on the Klammath River. Please feel free to ca me if you have any questions.

Sincerely,

Patrick Keene

Keene Engineering

## Dredge Study

Typical California type conditions. Such as River Gravel on the Klamath River

All test are based on a 1 to 1 flow ratio. Hose length not to exceed 20 feet or less material will be moved.

Dredge Size hose Diameter	Engine horse power	Water flow GPM through the Suction hose	Total water discharge through Sluice	Average % of solids in slurry	Gallons of solids per minute	Cubic feet of solids per minute	Cubic feet of solids per hour	Cubic yard of solids per hour
2 inch	2.5 hp	40	80	1.5	0.6	0.08	4.93	0.18
2.5 inch	3.5 hp	50	100	1.5	0.75	0.10	6.17	0.23
3 inch	4 hp	100	200	1.5	1.5	0.21	12.33	0.46
4 inch	6 hp	150	300	1.5	2.25	0.31	18.50	0.69
5 inch	9 hp	300	600	1.5	4.5	0.62	36.99	1.37
6 inch	14 hp	350	700	1.5	5.25	0.72	43.16	1.60
8 inch	46 hp	750	1500	1.5	11.25	1.54	92.48	3.43
10 inch	95 hp	1600	3200	1.5	24	3.29	197.28	7.31

Typical California type conditions. Such as dredging on the North fork of Yuba River

All test are based on a 1 to 1 flow ratio. Hose length not to exceed 20 feet or less material will be moved.

Dredge Size hose Diameter	Engine horse power	Water flow GPM through the Suction hose	Total water discharge through Sluice	Average % of solids in slurry	Gallons of solids per minute	Cubic feet of solids per minute	Cubic feet of solids per hour	Cubic yard of solids per hour
2 inch	2.5 hp	40	80	1	0.4	0.05	3.29	0.12
2.5 inch	3.5 hp	50	100	1	0.5	0.07	4.11	0.15
3 inch	4 hp	100	200	1	1	0.14	8.22	0.30
4 inch	6 hp	150	300	1	1.5	0.21	12.33	0.46
5 inch	9 hp	300	600	1	3	0.41	24.66	0.91
6 inch	14 hp	350	700	1	3.5	0.48	28.77	1.07
8 inch	46 hp	750	1500	1	7.5	1.03	61.65	2.28
10 inch	95 hp	1600	3200	1	16	2.19	131.52	4.87

Nov. 13, 2009

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

Re: Suction Dredge Permit Program

Dear Mr. Stopher,

We bought a gold claim a couple years ago in Plumas County on Spanish Creek. We were unable to come down last year because of the costs of gasoline.

On July 13, 2009 we sent a check for out of state dredge permit in the amount of \$185.25. On July 21, 2009 you issued a Nonresident Suction Dredge Permit. When we received the permit we went out the first weekend in August and purchased a new 3" dredge costing around \$3,000.00.

Our son lives in Placerville and called us after we purchased the dredge and said that he had heard something about the governor halting dredging in all of California. We went online and looked at the information and discovered that the governor the 1<sup>st</sup> of July issued a cease and desist the Fish & Game Dept. of issuing any dredge permits. Why is it that you still issued us a permit on July 21, 2009 and kept our money of \$185.25.

We had taken a week vacation and had reservations in a RV campground in Quincy, CA for that week in September. We were not only out \$185.25 but we would not have purchased a new dredge at that time if we had only known, but nothing was said when the 2009 California Nonresident Suction Dredge Permit was issued and sent to us. We went anyway and looked in Spanish Creek and tried to work on it in vain because we needed a dredge and also never saw any little fish in it.

The environmentalists are ruining our country. People are loosing their jobs and homes and our hungry because it seems to be that fish, birds, animals, etc. and more important than people. What is wrong with our country. We drove on Highway 5 in California and saw orchards and grape vines either dead or dying because of the lack of water. These owners worked hard all these years and spent lots of money building up these orchards and grapevines and must be sick seeing them dying. We were sick looking at them. People have lost their jobs. No wonder your state is in bad condition.

Our country is in a sad state of affairs. Instead of helping our people with jobs and food for our country, we let these orchards die. How is that right? We, the people need to stand up and fight for our rights. Let these people have their water to keep their orchards going so that they can feed the people of our land. We need to feed our people and quit depending on these other countries.

You should be reimbursing us our check for the out of state dredge as it was issued after the governor said not to. That was wrong.

The people in charge of our states and country need to start thinking about the people and what they are doing to them.

Sincerely,  
Very unhappy in Washington,

*Marsha Boyd*

Paul & Marsha Boyd  
121 Union Avenue SE  
Renton, WA 98059



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

# 2009 STANDARD SUCTION DREDGE PERMIT APPLICATION

TO OPERATE VACUUM OR SUCTION DREDGE

VALID JANUARY 1, 2009 THROUGH DECEMBER 31, 2009\*

(If issued after January 1, valid on date issued.)

(\*Subject to seasonal restrictions in Section 228.5, Title 14, of the California Code of Regulations)

FEES: RESIDENT—\$47.00 (No inspection required)

NONRESIDENT—\$185.25 (No inspection required)

RESIDENT—\$194.00 (Additional if inspection required)

NONRESIDENT—\$222.00 (Additional if inspection required)

YES, I QUALIFY FOR AN ASSISTANT SUCTION DREDGE PERMIT (NO ADDITIONAL FEE)

(Disabled applicants must apply and pay fees for resident or nonresident permit)

SEE INSTRUCTIONS ON REVERSE. TYPE OR PRINT CLEARLY.

FIRST NAME <i>Paul</i>	MI <i>E.</i>	LAST NAME <i>Boyd</i>	DAY TELEPHONE (Voluntary) <i>(425) 444-9442</i>	
MAILING ADDRESS <i>121 Union Ave. S.E.</i>			DATE OF BIRTH <i>02/07/1943</i>	
CITY <i>Renton</i>	STATE <i>WA</i>	ZIP CODE <i>98059</i>	HEIGHT <i>6'</i>	WEIGHT <i>260 lbs</i>
DRIVER'S LICENSE OR DMV ID NUMBER/STATE		SEX <input checked="" type="checkbox"/> MALE <input type="checkbox"/> FEMALE	HAIR COLOR <i>Gray</i>	EYE COLOR <i>Blue</i>

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

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

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

SIZE OF AREA TO BE DREDGED (Feet, yards, etc.) *1/4 acre*

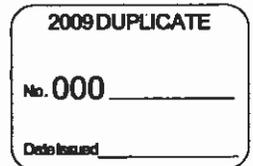
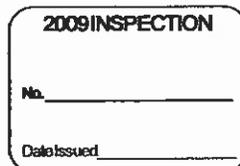
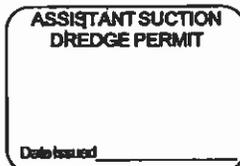
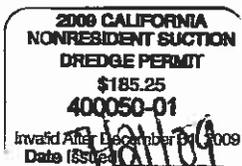
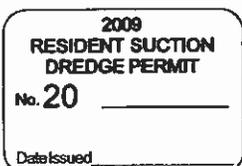
TYPE OF EQUIPMENT		
NAME AND MODEL NUMBER	NAME AND MODEL NUMBER	NAME AND MODEL NUMBER
<i>hugget</i>		
NOZZLE SIZE <i>3"</i>	NOZZLE SIZE	NOZZLE SIZE
HORSEPOWER <i>6.5</i>	HORSEPOWER	HORSEPOWER
POWER SOURCE <i>gasoline Engine</i>	POWER SOURCE	POWER SOURCE

When a permit stamp has been affixed below, the applicant is authorized to operate a vacuum or suction dredge in accordance with Sections 228 and 228.5, Title 14, of the California Code of Regulations. Nothing in this permit shall authorize the permittee to trespass or use a dredge in waters passing over private lands without the permission of the landowner. The listing of waters open to dredging does not mean that such waters are open to the public. The permittee shall comply with all applicable federal, state, and local laws. Suction or vacuum dredges shall not be used where dredging is prohibited by such laws.

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

SIGNATURE *X Paul E Boyd* DATE *7-13-09*

FOR DEPARTMENT OF FISH AND GAME USE ONLY			
ISSUED BY <i>WA</i>	DFG OFFICE <i>CRB</i>	CASH REGISTER TRANSACTION# <i>489679</i>	DATE ENTRY <i>7/21/09</i>



NOV 17-09

Dear Mark Stopher,

We are in our 80's + are devastated about not being able to dredge.

We have had our claim in Downsville since 1992 and have a 4 inch + 8 inch dredge. My son does the dredging + my husband the winching.

We do not have Salmon on the North Yuba River so I do not know why we can no longer dredge.

We clean the river of mercury + the debris that careless people drop there.

The fish are spared (the trout) a slow death because we make deep holes for them to continue to live + in stirring up the water, we give the fish food that sat at the bottom of the river untreated.

→

II

You should see how the fish wait to be fed these tidbits!

We pay taxes on this claim + paid good money to purchase this plot of land in 1992.

What if people just walk away from these claims, who then would pay the <sup>PROPERTY</sup> taxes, it will be people like you + your neighbor, that's who.

We also pay to get our dredge permit, now whose going to pay this, no one that's who!

We also pay at the Court House to show our assessment work + now no one gets that money. Then we pay the Dept of Forestry when we send in our assessment Xeroxed paper. Now the Dept.

of Forestry is out that money. The town of Downieville is small, they depend on the miners. The grocery store will suffer, The County will

III

suffer, the gas stations will suffer + the restaurants will suffer.

I think this is a big mistake for everyone that owns a claim & I'm hoping things can get back to what it was in the past.

Sincerely  
Mrs Paul Klemenok



Mr. & Mrs. Paul Klemenok, Jr.  
2920A Eastman Ln.  
Petaluma, CA 94952

**From:** "Phil DeRiemer" <phil@adventurekayaking.com>  
**To:** <dfgsuctiondredge@dfg.ca.gov>  
**Date:** 11/30/2009 6:43 PM  
**Subject:** Suction dredging

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

November 30th, 2009

Dear Mr. Stopher,

I am writing to add my voice to the number of people that are opposed to suction mining. I am not a biologist, nor a hydrologist so I have no hard facts to fall back on other than personal experience. I have been a river runner for close to thirty years. My local river, the South Fork of the American allowed suction dredging up until the recent ban. I have paddled extensively on the California Salmon, Klamath and Trinity rivers where suction dredging has been highly evident in the past. The materials displacement, sediment plumes, overall effect of water quality and noise are obvious to anyone observing suction dredging. Today's mining laws are long overdue for an overhaul and suction dredging is a worthy place to start.

Sincerely,

Phil DeRiemer  
P.O. Box 559  
Lotus, CA. 95651

**From:** "PROSPECTORS DEPOT" <pbdesert@prospectorsdepot.com>  
**To:** <dfgsuctiondredge@dfg.ca.gov>  
**Date:** 11/5/2009 6:47 AM  
**Subject:** SUCTION DREDGE ISSUE

Dear Mr. Stopher:

I have owned and operated a small mining supply company in a remote location of the lower Mojave Desert for now 5 years. I sell metal detectors, dry washers, dredges and the accessories which accompany this equipment. Annually I sell approximately \$60,000.00 worth of Keene Engineering dredges & equipment to the California public. This income provides a necessary stimulation to the local economy and helps employ people who were previously out of work. This moratorium is hurting my business and many others by dragging into the fall months. Many of my customers were making a living in this rough economy by harvesting small amounts of gold with the use of the Keene Dredges. At a time in California's history when the issue is income for the state it seems like rotten timing to simply smother a thriving industry with such a devastating blow! It is greatly diminishing the tax revenue from these sales! California is trying to put good companies and people out of business with no credible environmental proof before hand. Logic would clearly state that an investigation into the environmental issues should have taken place long before the moratorium was ever initiated  
Would you not agree?

Let's pull the plug on these petty politics and put California's Mining Industry back to work before good businesses close their doors under the guise of unsubstantiated speculation.

Regards,

Philip Bonafede, CEO  
North & South American Minelab Sales  
Prospectors Depot International Mining, Inc.  
Keene Engineering Authorized Dealer  
63125 Red Horse Run  
Joshua Tree CA 92252  
760.366.3333  
866.366.8511  
info@prospectorsdepot.com  
www.prospectorsdepot.com  
[http://stores.shop.ebay.com/prospectors-depot\\_\\_W0QQ\\_armrsZ1](http://stores.shop.ebay.com/prospectors-depot__W0QQ_armrsZ1)  
www.minelab.com

ATT: MARK STOPHER

R. FLAIM

(1)

WRITTEN RESPONSE

I FIND THE PROJECT DESCRIPTIONS TO BE ADEQUATE AND INFORMATIVE, ESPECIALLY THE DEFINITIONS OF FISH AND SUCTION DREDGE (MECHANIZED) ARE UNDERSTOOD AND SUFFICIENTLY DEPICTED. THE USE OF "DELETIOUS TO FISH" STANDS AS PRESENT AND/OR LONG TERM PHYSICAL HARM TO FISH RESULTING IN TERMINATION.

I ATTENDED THE SCOPING MEETING AND FOUND IT TO BE VERY USEFUL. I HAVE BEEN A MINER IN CALIFORNIA SINCE 1976.

I CURRENTLY OWN PLACER CLAIMS IN THE REDDING AREA. SUCTION DREDGING HAS BEEN PREDOMINATELY MY TYPE OF PLACER GOLD RECOVERY.

I ENJOY DISCOVERING GOLD IN CLEAR CR. MY GRANDCHILDREN HELP US DREDGE. MY WIFE HAS A DISABILITY AND ENJOYS THE GRANDCHILDREN AS HER FAVORITE ASSISTANTS. THE CURRENT REGULATIONS FOR SUCTION DREDGE MINING ARE UNDERSTOOD BY ALL OF MY FAMILY MEMBERS.

WE ENJOY OPENING WEEKEND TOGETHER, AS DREDGING CREATES A SWIMMING HOLE BY CAMP TO ENJOY ALL SEASON. THE BOYS OFTEN ENJOY FISHING THE CREEK.

THE FISH WE SEE INCLUDE; BROOK TROUT (RAINBOW-GERMAN SPOTTED); A WHITE FISH (OF SMALL MOUTH); VARIOUS FROGS; A SMALL RECLUSIVE SUCKER FISH THAT PAUSES AND BLENDS IN TO THE BOTTOM; SEMI-AQUATIC SALAMANDERS (WATER DOGSNEETS); AQUATIC SALAMANDERS (MUD PUPPY-BIGGER REDISH BROWN/GREY UP TO 12" INCHES) THAT SEEM TO VANISH OR HIDE; A LITTLE WORM/BUG

ATT: MARK STOPHER

R. FLAIM

(1)

WRITTEN RESPONSE

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THE FISH WE SEE INCLUDE; BROOK TROUT (RAINBOW-GERMAN SPOTTED); A WHITE FISH (1/2 SMALL MOUTH); VARIOUS FROGS; A SMALL RECLUSIVE SUCKER FISH THAT PAUSES AND BLENDS IN TO THE BOTTOM; SEMI-AQUATIC SALAMANDERS (WATER DOGS NEWTS); AQUATIC SALAMANDERS (MUD PUPPY-BIGGER REDISH BROWN/GREY UP TO 12" INCHES) THAT SEEM TO VANISH OR HIDE; A LITTLE WORM/BUG

(2)

## WRITTEN RESPONSE

THAT MAKES A CAÇON OUT OF SAND  
 PEBBLES (APROX. 1" LONG) THAT I BELIEVE BECOMES A FLY;  
 SNAILS; SLUGS BOTH IN & OUT OF THE CREEK;  
 TINY WATER SNAILS WITH A SPIRAL SHELL (APROX.  
 1 CM), THERE IS AN ABSENCE OF FRESH WATER CLAM,  
 CRAYFISH & WATER SNAKES. (PLEASE EXUSE THE  
 CRUDE DESCRIPTIONS AS I DONT KNOW THE  
 NAMES OF THESE FISH.) THERE ARE COUMLES  
 OTHER ANIMALS, REPTILES & BIRDS FROM  
 LIZARDS TO BEARS THAT WE HAVE SEEN TO  
 WHILE UNDER WATER OPERATING MY  
 DREDGE I HAVE OBSERVED AQUATIC LIFE.  
 I HAVE WATCHED THE SMALL TROUT STAY IN  
 THE CURRENT UNDER THE SUCTION DREDGE.  
 AS THE WATER EXITS THE SLUICE BOX I  
 WATCH THE TROUT JET SIDE TO SIDE  
 FEEDING ON THE OVERBURDEN I AM MOVING.  
 THE FIRST TIME I SUCKED UP A SMALL  
 (3" INCH) BOTTOM SUCKER FISH I PANICKED, SHUT  
 OFF THE DREDGE, AND FOUND IT HAPPILY  
 HIDING WITH THE GRAVEL IN MY SLUICE BOX  
 RELIEVED, I RESTARTED THE WATER FLOW  
 AND WITH A NUDDGE THE FISH SWAM BACK  
 DOWN INTO THE CREEK. I SEE THIS  
 TYPE OF FISH IN EVERY DREDGED HOLE  
 I CREATE ON CLEAR CREEK. IT IS GAME-  
 LIKE FOR THE FISH ALWAYS TRIES TO  
 REMAIN MOTION LESS UNTIL THE LAST  
 POSSIBLE INSTANT AS I APPROACH. IT HAS  
 DEFINATELY MASTERED BLENDING IN. IT  
 IS MY UNDER WATER OBSERVANCE THAT THESE  
 TYPES OF FISH BENEFIT BY FEEDING IN  
 THE SEDIMENT THAT IS MOVED.

(3)

## WRITTEN RESPONSE

I HAVE RECOVERED SMALL AMOUNTS OF QUICKSILVER WHILE DREDGING. MY ESTIMATE IS APPROXIMATELY 2 GRAINS PER YD. OF GRAVEL. HOWEVER, I HAVE MINED 30' LN. FT. OF CREEK WITHOUT RECOVERING ANY, WHILE MOVING APPROXIMATELY 4 YDS OF OVER BURDEN. IT IS BY FAR JUST A SPECK COMPARED TO THE GOLD RECOVERED WITH IT.

IT SHOULD BE NOTED THAT WHILE THE MANUFACTURES SPECIFICATIONS REGARDING VOLUME OF YARDS OF GRAVEL PER HOUR OF OPERATION IS A BASELINE FOR THE PROJECT, I OFTEN SLOW THE INTAKE OF GRAVEL AT THE NOZEL OF MY SUCTION DREDGE TO WATCH FOR A FLASH OF "COLOR" (GOLD). THIS DISCOVERY MOMENT DURING RECOVERY IS MISSED WHEN OPERATING AT MAXIMUM CAPACITY. I ENJOY MOVING A LITTLE GRAVEL THEN PICKING UP/OUT THE GOLD I SEE. THERE SHOULD ALSO BE CONSIDERATION TO THE AMOUNT OF ROCK THAT IS HAND MOVED. IT TAKES CONSIDERABLE TIME TO MOVE ALL MATERIAL TO LARGE FOR THE INTAKE NOZEL. GENERALLY THE MINING HOLES I HAVE CREATED ARE REFILLED WITH SEASONAL HIGH-WATER FLOWS. I MOVE TWO TO FIVE YARDS OF MATERIAL PER 3 DAY MINING TRIP. I AVERAGE FOUR TRIPS PER SUCTION DREDGE SEASON.

R. FLAIM

(4)

WRITTEN RESPONSE

I HAVE ALWAYS FOUND AQUATIC LIFE TO BE PRESENT WHEN I MINE. SINCE 1977 I HAVE MINED IN THE UPPER SACRAMENTO; ALLEGHENY CR.; TRINITY RIVER; CLEAR CR.; JERUSALEM CREEK; YUBA RIVER; AND VARIOUS SMALL TRIBUTARIES. I HAVE ALWAYS CAMPED OUT, DEVELOPING CAMPSITES ON FEDERAL LANDS TO ENJOY. I DO MY BEST TO LEAVE THE AREA AS I FOUND IT FOR OTHERS TO ENJOY.

Thanks

R. Flaim

Rebecca S. Moore  
P O Box 484  
Cloverdale CA 95425

Nov. 13, 2009

Mark Stopher  
CA Dept of Fish & Game  
601 Locust St  
Redding CA 96001

Re: Suction dredging

Dear Mr. Stopher:

Our family has been involved in suction dredging on the Trinity River for the past 1-1/2 years for a total of approximately 30 hours of actual dredge time. It is done for recreational purposes a few weekends each year, and provides quality outdoor, enjoyable, activity for our families.

My husband is an avid fisherman and has been all his life. We are very cognizant of complying with all of the rules and regulations, pay close attention to the results of our activities and have never noticed anything detrimental to the river as a result of our dredging operation.

One of the reasons cited in opposition of dredging was the destruction of eels in the system. We have seen several small eels as well as a variety of bugs go through the dredge without harm and all are placed back into the water. It must be remembered that these creatures are subjected only to fast moving water.

The moratorium does have a detrimental affect on our State. Whether dredging is done as a way of living or for recreational purposes, we, the people involved in dredging, may no longer travel, purchase fuel for our vehicles and dredges, stay in motels, eat meals out, purchase supplies, maintain and repair equipment, spend money on related recreation such as fishing, hiking, biking etc. The money taken out of circulation affects hundreds of small California businesses and, in turn, this affects the State of California through fewer tax dollars.

None of want to be detrimental to our rivers and streams and we want to continue to enjoy and use them. It seems that the most balanced solution would be to remove the moratorium, since the restrictions prior to the moratorium were sufficient, and do a study with the dredges in operation. California can get permit fees and tax dollars, businesses can survive, people can enjoy the outdoor recreation, and the study can continue. *Everyone wins.*

Yours very truly



Rebecca S. Moore

**From:** Reeve Kahabka <az19lund@yahoo.com>  
**To:** <dfgsuctiondredge@dfg.ca.gov>  
**Date:** 11/6/2009 5:59 AM  
**Subject:** Suction dredging inCalifornia

Dear sirs:

I started dredging 4 years ago in northern California and in that time I have seen a large increase in the number of fish that come around the nozzle to grab the nutrients that float up. I dredge in the same area so I believe it is a true comparison to what was there before I started dredging, as there is clean sand for the fish to lay their eggs. I spend about \$2300 for the ten days that I'm there. It is truly a trip my wife and I look forward to each year not only for the dredging but the area is beautiful and the people are great. Please don't take this away permanently.  
Sincerely

Reeve Kahabka

**From:** Reggie Gould <gould@gouldeng.com>  
**To:** <dfgsuctiondredge@dfg.ca.gov>  
**Date:** 11/17/2009 12:26 PM  
**Subject:** reggie Gould

> Mark Stopher  
> California Dept. of Fish & Game  
>

> Reggie Gould  
> PO Box 406  
> Garden Valley, CA 95633  
>

> Mark,  
> I have read the report produced by Joseph C. Greene "Suction Dredge  
> Mining". It was sent to the State Water Resources Control board  
> Division of Water quality June 6, 2007 but I guess our civic leaders  
> that are supposed to represent us forgot to read.  
> The report is about as comprehensive as it could be addressing the  
> Dredging issue.  
> The two opening statements under the heading "Geographical Scale of  
> Small Suction Dredging" sum's up the whole report.  
> All through the report various studies by the Dept. of fish & Game are  
> quoted of the very small impact as low as 0.1% of dredging on the  
> impact on the quality of water, turbidity.  
> The environmentalists opposing dredging are doing so without any sort  
> of facts to back up their claims.  
> The studies have been done all they have to do is read them.  
> Most of them are confusing huge hydraulic mining in the past with  
> small scale suction dredging that has less then 0.1% impact on the fish.  
> It is unfortunate that a handful of liberal legislators could impose  
> their liberal viewpoints on a recreational hobby and shut it down.  
> In a democracy the will of the people is supposed to prevail but in  
> this case a few have enacted a law supported by a handful of liberal  
> self-serving environmentalists.  
> It is my hope that this grave injustice will be overturned.  
>  
> Thank You,  
> R. J. Gould

**From:** "Ric Costales" <rcostales@co.siskiyou.ca.us>  
**To:** <dfgsuctiondredge@dfg.ca.gov>  
**Date:** 12/3/2009 3:04 PM  
**Subject:** Suction Dredge Scoping Comments  
**Attachments:** Suction Dredging Scoping Comment Pkg.pdf

Mark:

Attached please find pdf version of my comments on the suction dredging SEIR. Hard copy in the mail. Thanks!

Ric Costales

Natural Resource Policy Specialist

County of Siskiyou

PO Box 750

201 4th St.

Yreka, CA 96097-0750

Phone: (530) 842-8012

FAX: (530) 842-8013

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# COUNTY OF SISKIYOU

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## COUNTY ADMINISTRATIVE OFFICE

Ric Costales, Natural Resource Policy Specialist

P.O. Box 750 • 201 Fourth Street, Yreka, CA 96097

Phone: (530) 842-8012, Fax Number: (530) 842-8013

Email: rcostales@co.siskiyou.ca.us

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

RE: Suction Dredging Scoping related to SB 670

December 3, 2009

Dear Mark:

As we have discussed on two occasions, I am very concerned about the baseline that is being used to assess significance of impact of suction dredging in the DFG's proposed Subsequent Environmental Impact Report (SEIR). As we have both agreed, different outcomes for potentially required mitigation can definitely hinge upon whether an impact is measured against previously permitted suction dredging or against the background of no dredging which the Department has adopted as the baseline.

We have also both agreed that it is critical to get people back to work as soon as possible. Litigation certainly has the potential to prolong the cessation of suction dredging beyond all reason. I sympathize with the Department's feeling that the best way to avoid potential litigation is to follow the most conservative course, as well as the course mandated by CEQA, and use the conditions that were in existence at the time the Notice of Preparation was filed (i.e. "no dredging").

However, the lawsuit currently on file by the mining interests has a very reasonable likelihood of resulting in a decision that mining was unlawfully halted. If this turns out to be the case, I would think this would set the SEIR process back to square one, thus defeating the Department's goal of getting allowable suction dredging operations back to work as soon as possible. It seems a prudent course to avoid having to start the process over would be to simultaneously assess suction dredging against both possible baselines. It doesn't seem that this is an excessively expensive "hedge" against the costly risk of having to start over.

As you are well aware, the coordination between federal and state agencies and Siskiyou County has long been a sore point with the Board of Supervisors. Siskiyou County has formally requested the DFG to coordinate whenever it engages in activities that may affect the County (see attached Resolution 08-153 and mailing list) thus asserting its right under numerous state statutes cited within the Resolution. While there is certainly much confusion about what constitutes coordination, a lawsuit filed and won by California Attorney General Brown (California Resources Agency vs USDA, Case3:08-cv-03884-MHP), albeit dealing with federal statutes, sheds light on this relationship. "Coordination" is distinct from the labor- and technically-intensive "cooperating agency" status with which it is commonly confused. Rather, the burden is on the agency to generally strive to achieve the greatest possible level of consistency with local laws and policy with regard to whatever action or "project" it is contemplating. It is hoped that in the process of developing the SEIR, the Department will fulfill the intentions of the coordination mandate. I would be happy to provide you with any ordinances, policies, general plan elements, letters, etc., that would be of assistance to you in coordinating with local government.

As part of the policies of Siskiyou County, we have adopted the Siskiyou County Comprehensive Land and Resource Management Plan (SCCLRMP) which is designed to assist both federal (NEPA) and state (CEQA) processes in coordinating with the County. A somewhat readable OCR version is available at

<http://library.ceres.ca.gov/docs/data/1600/1646/HYPEROCR/hyperocr.html>

While I realize the CEQA process does not mandate a socio-economic assessment, but rather that it is included as part of the rule-making process, the SCCLRMP mandates that a socio-economic analysis be conducted as part of the environmental review. The rationale is that such socio-economic affects as may be visited upon the human environment by a project may have the potential to affect the natural environment. Again, it is hoped that DFG coordination with the County will render the SEIR consistent with this critical County policy.

Finally, since the topic of socio-economics is a good segue and particularly since the same SEIR contractor is doing the socio-economic work, at the scoping meeting the other night in Redding, the contractor offered a draft of the socio-economic survey for miners. They are not the only ones suffering the brunt of the infringement on miners' rights. Businesses in river communities are also being affected substantially and they likewise need to be surveyed.

Thank you for your consideration.

Sincerely,



Ric Costales, Natural Resource Policy Specialist  
County of Siskiyou

RESOLUTION OF THE BOARD OF SUPERVISORS  
OF THE COUNTY OF SISKIYOU ASSERTING LEGAL  
STANDING AND FORMALLY REQUESTING  
COORDINATION WITH ALL FEDERAL AND STATE AGENCIES  
MAINTAINING JURISDICTION OVER LANDS AND/OR  
RESOURCES LOCATED IN SISKIYOU COUNTY

WHEREAS, Siskiyou County is a public unit of local government and a five member elected Board of Supervisors serves as its chief governing authority; and,

WHEREAS, the Siskiyou County Board of Supervisors is charged with supervising and protecting the tax base of the County and establishing comprehensive land use plans (including, but not limited to, the General Plan) outlining present and future authorized uses for all lands and resources situated within the County; and,

WHEREAS, Siskiyou County is engaged in the land use planning process for future land uses to serve the welfare of all the citizens of Siskiyou County; and,

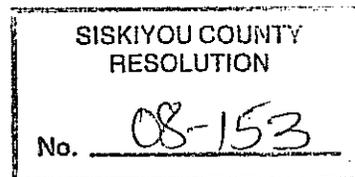
WHEREAS, approximately sixty-eight percent (68%) of lands in Siskiyou County are publicly owned, managed, and/or regulated by various federal and state agencies; and,

WHEREAS, the citizens of Siskiyou County historically earn their livelihood from activities reliant upon natural resources and land which produces natural resources is critical to the economy of Siskiyou County; and,

WHEREAS, the economic base and stability of Siskiyou County is largely dependent upon commercial and business activities operated on federally and state owned, managed, and/or regulated lands that include, but are not limited to, recreation, tourism, timber harvesting, mining, livestock grazing, and other commercial pursuits; and,

WHEREAS, Siskiyou County desires to assure that federal and state agencies shall inform the Board of Supervisors of all ending or proposed actions affecting local communities and citizens within Siskiyou County and coordinate with the Board of Supervisors in the planning and implementation of those actions; and,

WHEREAS, coordination of planning and management actions is mandated by federal laws governing land management, including the Federal Land Policy and Management Act, 43 USC § 1701, and 43 USC § 1712, regarding the coordinate status of a county engaging in the land use planning process, and requires that the "Secretary of



the Interior [Secretary] shall . . . coordinate the land use inventory, planning and management activities . . . with the land use planning and management programs of other federal departments and agencies and of the state and local governments within which the lands are located"; and,

WHEREAS, the coordination requirements of Section 1712 provide for special involvement by government officials who are engaged in the land use planning process; and,

WHEREAS, Section 1712 sets forth the nature of the coordination required with planning efforts by government officials and subsection (f) of Section 1712 sets forth an additional requirement that the Secretary "shall allow an opportunity for public involvement" (including local government without limiting the coordination requirement of Section 1712 allowing land or resource management or regulatory agencies to simply lump local government in with special interest groups of citizens or members of the public in general); and,

WHEREAS, Section 1712 also provides that the "Secretary shall . . . assist in resolving, to the extent practical, inconsistencies between federal and non-federal government plans" and gives preference to those counties which are engaging in the planning process over the general public, special interest groups of citizens, and even counties not engaging in a land use planning program; and,

WHEREAS, the requirement that the Secretary "coordinate" land use inventory, planning, and management activities with local governments, requires the assisting in resolving inconsistencies to mean that the resolution process takes place during the planning cycle instead of at the end of the planning cycle when the draft federal plan or proposed action is released for public review; and,

WHEREAS, Section 1712 further requires that the "Secretary shall . . . provide for meaningful public involvement of state and local government officials . . . in the development of land use programs, land use regulations, and land use decisions for public lands"; and, when read in light of the "coordinate" requirement of Section 1712, reasonably contemplates "meaningful involvement" as referring to ongoing consultations and involvement throughout the planning cycle, not merely at the end of the planning cycle; and,

WHEREAS, Section 1712 further provides that the Secretary must assure that the federal agency's land use plan be "consistent with state and local plans" to the maximum extent possible under federal law and the purposes of the Federal Land Policy and Management Act and distinguishes local government officials from members of the general

public or special interest groups of citizens; and,

WHEREAS, the Environmental Protection Agency, charged with administration and implementation of the National Environmental Policy Act (NEPA), has issued regulations which require that federal agencies consider the economic impact of their actions and plans on local government such as Siskiyou County; and,

WHEREAS, NEPA requires federal agencies to consider the impact of their actions on the customs of the people as shown by their beliefs, social forms, and "material traits," it reasonably follows that NEPA requires federal agencies to consider the impact of their actions on the rural, land and resource-oriented citizens of Siskiyou County who depend on the "material traits" including recreation, tourism, timber harvesting, mining, livestock grazing, and other commercial pursuits for their economic livelihoods; and,

WHEREAS, NEPA requires federal agencies to consider the impact of their actions on the customs, beliefs, and social forms, as well as the "material traits" of the people; and,

WHEREAS, it is reasonable to interpret NEPA as requiring federal agencies to consider the impacts of their actions on those traditional and historical and economic practices, including commercial and business activities, which are performed or operated on federally and state managed lands (including, but not limited to, recreation, tourism, timber harvesting, mining, livestock grazing, and other commercial pursuits); and,

WHEREAS, 42 USC § 4331 places upon federal agencies the "continuing responsibility . . . to use all practical means, consistent with other considerations of national policy to . . . preserve important historic, culture, and natural aspects of our national heritage"; and,

WHEREAS, Webster's New Collegiate Dictionary (at 227, 1975) defines "culture" as "customary beliefs, social forms, and material traits of a group; the integrated pattern of human behavior passed to succeeding generations"; and,

WHEREAS, In 16 USC § 1604, the National Forest Management Act, requires the Forest Service to coordinate its planning processes with local government units such as Siskiyou County; and,

WHEREAS, federal agencies implementing the Endangered Species Act, the Clean Water Act, the Clean Air Act, and the Outdoor Recreation Coordination Act (16 USC § 4601-1(c) and (d)) are required by Congress to consider local plans and to coordinate and cooperate directly with plans of local government such as Siskiyou County; and,

WHEREAS, the coordinating provisions referred to in the resolution require the Secretary of the Interior to work directly with local government to resolve water resource issues and with regard to recreation uses of the federal lands, and,

WHEREAS, the regulations issued by the federal agencies in this resolution are consistent with statutory requirements of coordination and direct cooperation and provide implementation processes for such coordination and direction consideration and communication; and,

WHEREAS, the California Constitution has recognized Siskiyou County's authority to exercise its local, police and sanitary powers, and the California Legislature has recognized and mandated exercise of certain of those powers in specific statutes; and,

WHEREAS, the California Legislature has mandated in Government Code Section 65300 that each county shall prepare a comprehensive plan, and stated legislative intent in Section 65300.9 that the county planning shall be coordinated with federal and state program activities, and has mandated in Section 65103 that county local plans and programs must be coordinated with plans and programs of other agencies; and,

WHEREAS, the California Legislature has stated its intent in Section 65070 that preparation of state and regional transportation plans be performed in a cooperative process involving local government; and,

WHEREAS, the California Legislature has mandated in Section 65040 that the State Office of Planning and Research shall "coordinate, in conjunction with . . . local agencies with regard to matters relating to the environmental quality of the state"; and,

WHEREAS, in Water Code §§ 8125-8129, the California Legislature has placed planning for non-navigable streams within the authority of county supervisors, and since such planning activities must be coordinated with natural resource planning processes of federal and state agencies; and,

WHEREAS, in Streets and Highways Code §§ 940-941.2, the California Legislature has placed the general supervision, management, and control of county roads and highways - including closing such roads (Section 901) and removing and preventing encroachment of such roads and highways, and since planning and actions with regard to such roads by any federal or state agency must be coordinated with the county; and,

WHEREAS, in Public Resources Code § 5099.3, the California Legislature has mandated coordination by the state with Siskiyou County since it is a county "having interest in the planning, development, and maintenance of outdoor recreation resources

and facilities,"

NOW, THEREFORE, BE IT RESOLVED that the Siskiyou County Board of Supervisors does hereby assert legal standing and formally requests coordination status with all federal and state agencies maintaining jurisdiction over lands and/or resources located within Siskiyou County.

BE IT FURTHER RESOLVED that the Clerk of the Board shall cause a copy of this Resolution to be transmitted annually to local, regional, state, and/or national offices of all federal and state agencies maintaining jurisdiction of lands and/or resources located within Siskiyou County and to all federal and state elected representatives serving Siskiyou County.

BE IT FURTHER RESOLVED that the Clerk of the Board of Supervisors is authorized and hereby directed to publish a copy of this Resolution in the Siskiyou Daily News, a newspaper of general circulation printed and published in Siskiyou County, California.

PASSED AND ADOPTED this 12th day of August, 2008, by the following vote:

AYES: Supervisors Overman, Erickson, Armstrong, Kobseff and Cook

NOES: NONE

ABSENT: NONE

ABSTAIN: NONE



---

Chair, Board of Supervisors  
W.R. Overman

ATTEST:

COLLEEN SETZER, CLERK  
Board of Supervisors

By 

Deputy

**Agencies federal:**

Bureau of Reclamation - Klamath Falls  
Christine Karas, Acting Area Manager  
6600 Washburn Way,  
Klamath Falls, Oregon 97603

Klamath National Forest  
Patricia A. Grantham, Forest Supervisor  
1312 Fairlane Road  
Yreka, CA 96097-9549

Six Rivers National Forest  
Tyrone Kelley, Forest Supervisor  
1330 Bayshore Way  
Eureka, CA 95501

Modoc National Forest  
Stanley G. Sylva, Forest Supervisor  
800 West 12th Street  
Alturas, California 96101

USDA Service Center  
Shasta-Trinity National Forest  
3644 Avtech Parkway  
Redding, CA 96002

Rogue River-Siskiyou National Forest  
Scott Conroy, Forest Supervisor  
3040 Biddle Road  
Medford, OR 97504

Bureau of Land Management – Redding  
355 Hemsted Drive  
Redding, CA 96002

Bureau of Land Management  
Medford Office  
3040 Biddle Road  
Medford, OR 97504

Bureau of Land Management Ashland \*\*\*\*

Bureau of Land Management  
2950 Riverside Drive  
Susanville, CA 96130

US Fish and Wildlife Yreka  
1829 S Oregon St  
Yreka, CA 96097

US Fish and Wildlife  
Klamath Basin National Wildlife Refuges  
4009 Hill Road  
Tulelake, CA 96134

NOA Fisheries – \*\*\*  
NOAA Office of Program Planning and Integration  
1315 East West Highway  
Silver Spring, MD 20910

US Army Corps of Engineers, Sacramento District  
Colonel Thomas C. Chapman, District Engineer  
1325 J Street  
Sacramento, CA 95814

National Park Service - Pacific West Region  
Regional Director, Jon Jarvis  
One Jackson Center  
1111 Jackson Street, Suite 700  
Oakland, CA 94607

National Grasslands in Butte Valley –  
US Forest Service, RGE  
1400 Independence Ave., SW, Mailstop Code: 1103  
Washington DC 20250-1103

US EPA Region 9  
75 Hawthorne Street  
San Francisco, CA, 94105

Bureau of Indian Affairs Redding  
US Indian Affairs Bureau  
1900 Churn Creek Rd  
Redding, CA 96002

Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20426

USGS Fort Collins, CO  
Central Region US Geological Survey  
Box 25046 Denver Federal Center  
Denver, CO 80225

Western Region US Geological Survey  
345 Middlefield Road  
Menlo Park, CA 94025

USDA NRCS, Yreka  
USDA, NRCS, Deputy Chief for Programs  
14th and Independence Ave., SW., Room 5109-S  
Washington, DC 20250

Pacific Fishery Management Council  
7700 NE Ambassador Place, Suite 101  
Portland, OR 97220-1384

NMFS Southwest Region  
501 West Ocean Blvd.  
Long Beach CA 90802-4213

## **STATE Agencies**

California Board of Forestry  
State Board of Forestry and Fire Protection  
P.O. BOX 944246  
Sacramento, CA 94244-2460

CalFire  
Cal Fire State Headquarters  
PO Box 944246  
Sacramento, CA 94244-2460

CA Dept. of Fish and Game Sacramento, Redding, Yreka, Butte Valley Wildlife, Shasta  
Valley Wildlife  
DFG Headquarters  
1416 9th Street  
Sacramento, CA 95814

Main Office  
601 Locust Street  
Redding, CA 96001

State Resources Agency Resources Agency  
1416 Ninth Street, Suite 1311  
Sacramento, CA 95814

California State Lands Commission  
Sacramento Office  
1001 Howe Ave, Ste. 100, South  
Sacramento, CA 95825-8202

Cal EPA  
1001 'I' Street  
P.O. Box 2815  
Sacramento, CA  
95812-2815

CARB California Air Resources Board  
1001 "I" Street  
P.O. Box 2815  
Sacramento, CA 95812

Dept. of Water Resources Sacto.,  
Department of Water Resources  
P.O. Box 942836  
Sacramento, CA 94236

Redding (no listing in Redding)

State Water Resources Control Board, Sacto.  
1001 'I' Street  
P.O. Box 100  
Sacramento, CA 95812-0100

North Coast Regional Water Quality Control Board  
5550 Skylane Boulevard, Suite A  
Santa Rosa, CA 95403

State Mining and Geology Board  
Office of Mine Reclamation  
801 K Street, MS 09-06  
Sacramento, CA 95814

California Biodiversity Council  
c/o CAL FIRE FRAP  
PO Box 944246  
Sacramento, CA 94244

California Coastal Commission  
Headquarters Office  
45 Fremont Street, Suite 2000  
San Francisco, CA 94105-2219

North Coast District Office  
Bob Merrill, District Manager  
710 E Street, Suite 200  
Eureka, CA 95501

Caltrans  
P.O. Box 942873  
Sacramento, CA 94273-0001  
District 2  
P.O. Box 496073  
Redding, CA 96049-6073

Dept. of Conservation  
DOC Headquarters  
801 'K' Street, MS 24-01  
Sacramento, CA 95814

California Fish and Game Commission  
1416 Ninth Street  
P.O. Box 944209  
Sacramento, CA 94244-2090

California Department of Parks and Recreation  
Office of Historic Preservation  
P.O. Box 942896  
Sacramento, CA 94296-0001

Dept. of Pesticide Regulation  
1001 I Street  
P.O. Box 4015  
Sacramento, CA 95812-4015

California Energy Commission  
Media and Public Communications Office  
1516 Ninth Street, MS-29  
Sacramento, CA 95814-5512

Central Valley Regional Water Quality Control Board  
Sacramento Main Office  
11020 Sun Center Drive #200  
Rancho Cordova, CA 95670-6114

Redding Branch Office  
415 Knollcrest Drive, Suite 100  
Redding, CA 96002

US Attorney McGregor Scott  
United States Attorney's Office  
501 'I' Street, Suite 10-100  
Sacramento, CA 95814

CA Governor Arnold Schwarzenegger  
State Capitol Building  
Sacramento, CA 95814

OR Governor Ted Kulongoski  
160 State Capitol  
900 Court Street  
Salem, Oregon 97301-4047

US Department of Interior  
1849 C Street, NW  
Washington DC 20240

US Department of Agriculture  
1400 Independence Ave., SW  
Washington, DC 20250

Oregon Water Resources Department  
725 Summer Street NE, Suite A  
Salem, OR 97301

Senator Dianne Feinstein  
United States Senate  
331 Hart Senate Office Building  
Washington, D.C. 20510

One Post Street, Suite 2450  
San Francisco, CA 94104

US Senator Barbara Boxer  
1700 Montgomery Street, Ste. 240  
San Francisco, CA 94111

501 'I' Street  
Sacramento, CA 95814

Congressman Wally Herger  
2268 Rayburn House Office Building  
Washington, DC 20515

410 Hemsted Drive, Suite 115  
Redding, CA 96002

Congressman Mike Thompson  
WASHINGTON, DC OFFICE  
231 Cannon Office Building  
Washington, DC 20515

HUMBOLDT DISTRICT OFFICE  
317 3rd Street, Suite 1  
Eureka, CA 95501

State Senator Sam Aanestad  
State Capitol, Room 2054  
Sacramento, CA 95814

2400 Washington Ave # 301B  
Redding, CA 96001

Assemblyman Doug LaMalfa  
State Capitol, Room 4164  
P.O. Box 942849  
Sacramento, CA 94249-0002

Redding District Office  
2865 Churn Creek Rd, Suite B  
Redding, CA 96002

Klamath County Oregon  
Klamath County Board of Commissioners  
305 Main Street  
Klamath Falls, OR 97601

Trinity County CA  
Trinity County Board of Supervisors  
PO Box 1613  
Weaverville, CA 96093

Humboldt County CA  
Humboldt County Board of Supervisors  
825 Fifth Street, Room 111  
Eureka, CA 95501

Del Norte County CA  
Administration  
981 H Street, Suite 210  
Crescent City, CA 95531

Del Norte County Board of Supervisors  
981 H Street, Suite 200  
Crescent City, CA 95531

Herald & News  
P.O. Box 788  
Klamath Falls, Ore. 97601

Siskiyou Daily News  
PO Box 129  
Yreka CA 96097

Pioneer Press  
PO Box 400  
Fort Jones, CA 96032

Southern Siskiyou News  
PO Box 127  
Mt. Shasta CA 96067

**From:** wendy drake <wendysventures@yahoo.com>  
**To:** <dfgsuctiondredge@dfg.ca.gov>  
**Date:** 11/9/2009 9:25 AM

It is absolutely ridiculous to say that suction dredging is harmful to the fish. There have been many studies showing that it cleans gravels to improve fish habitat. The studies go on and on. As usual there are always a few who abuse the system. There are enough laws already on the books to deal with abuse. That goes for both sides of the argument. There is nothing wrong with dredging in a responsible manner. It is another personal right that is being taken away from the American people! Please reinstate suction dredging

Rich Velasquez  
Junction City, Ca 96048

12/1/09.

Dear Mark,

I am writing you to encourage a speedy SEIR. Since the environment hasn't changed since the last Study. This whole thing is over the Kerk's controlling the Rivers. I own claims on Hayfork Creek.

This scenario could happen in Colorado if the Tribe lived here.

The deer and Elk populations are down across the state. The coalition decides that the SKI AREAS are letting the upper slopes become packed from skiing activities. The baby grass can't come up in the spring time, to feed the young Deer & Elk.

The Coalition files suit preventing the National Forest to Issue any permits to any ski area, till a new E.I.R. is completed.

This is as Stupid as the problems in California have become.

I'm spending my money in Idaho & Oregon this year.

Sincerely,  
Richard Kelly

970-260-0326.

Untitled

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

RE: Suction Dredge Permit Program - Can Logic Trump Science?

When can Logic trump Science? Whenever science cannot provide answers to the most basic and logical questions.

I have been a dredger in CA for over 20 years. I have abided every new law as it was adopted. I intend to abide by any new law adopted in this process. But there comes a time when pure logic should lead the intellect to the proper perspective. I fear that the overzealousness of the anti-dredging groups has now gone beyond logic. Let me explain.

Decline of salmon and other fisheries:

The DFG's own 2009 'decision' to open a limited season for the improved salmon populations before dredging was even shut down in CA (SB 670) logically implies that dredging was not the cause of the problem. But rather, the annual slaughter of these fish by commercial, Indian, and individual fishermen was the cause.

New spawning beds produced by dredgers help the re-population of fisheries. Much like mother nature in her annual high water and random floods do, by creating new loose gravel beds. Why would anyone want to discourage dredgers from helping fish spawn?

I've heard the argument that the tailing piles are unstable. Well, so are natural gravel bed formations, until they are washed down by subsequent winter flooding that stabilizes them.

Mercury is a natural element:

Free mercury occurs in nature and is put into the air by coal fired power plants in the thousands of tons every year. The government in its wisdom has ordered that all incandescent bulbs be replaced with compact florescent lights (with mercury in them) by 2014. They actually are forcing Americans to bring toxic mercury into their homes.

In 20 years of dredging I have never encountered free mercury in my dredge. Only the occasional flake with mercury well stuck to it (since they have an affinity for each other).

I suspect each year I encounter no more mercury stuck to gold than what you might find in 5-6 CFLs. The difference is, I am removing the mercury from a river and water supply, and the government is adding tons of it to landfills and the water supply by act of law. So who is causing damage to the environment?

Methylated mercury occurs naturally:

Does mercury sucked into a dredge get methylated? If it does, how much is produced?

Modern dredges with a flare (vs crash box) design can catch a speck of gold so small you can barely see it with the naked eye? If it can do this it can also catch extremely small amounts of mercury. It does this because there is so little turbulence in the operation.

Mercury is thus nearly completely recovered from the river. Rather than being a hazard, dredging is actually a win win for the environment. The study that showed methylated mercury in the water downstream of a dredge surely did not test the water 1 mile, 2 miles or 10 miles downstream. If they had, do you think that they could detect any change from normal background levels for that stream? There is an EPA standard for safe mercury levels in water and fish etc. Does dredging create/surpass this? Consider that every decade or two mother nature produces a record flood that

Untitled

churns up the entire bottom of a river or stream with massive material movement, which must easily produce a million times or more the amount of methylated mercury than gold dredging might have over that decade or two. Thus, of what significance is this issue?

I could go on and on. But I think you understand my point.

I only request that you let logical answers trump the science being offered when the science does not address the bigger and more appropriate questions.

Thank You

*Richard Haynes*  
STATE OF CALIFORNIA  
Retired PEACE OFFICER  
BAKERSFIELD, CA  
93313

**From:** Richard Parker <deeanrich@att.net>  
**To:** <dfgsuctiondredge@dfg.ca.gov>  
**Date:** 11/17/2009 2:51 PM

I feel like i got the shaft again. There is no sence in shunting down all dreging. On some of the coastal streams and rivers i understand. And the size of some of the nozzel,4 inch and under is recreational, and it is proven we do more good than bad. We do more to clean up rivers that any one else. Plus to charge for a permit than say you cant finish the season. This is just wrong. There is just a few tree hugers with a lot of money trying to stop anyone from havinng fun. Plus its against the federal law. We need to open some of the rivers , and limit the size of the dredges even as small as a three inch. That way you limit the big bad boys and let us enjoy the rivers with every one else.

Richard parker

A law abiding person and a tax payer

**From:** Richard Rockwell <raghorn@wildblue.net>  
**To:** <DFGSuctionDredge@DFG.ca.gov>  
**Date:** 11/5/2009 10:48 PM  
**Subject:** Support Permanent Ban on Suction Dredging

Dear CA Department of Fish & Game Staff,

I'm writing this e-mail to ask that a permanent ban on suction dredging be applied to all anadromous salmonid fisheries in the State of California. Anadromous salmonid fisheries in California have been in steady decline now for decades. As fisheries scientists and managers we have been able to point to a variety of reasons for these declines for many years. However, due to legal and political responsibilities placed upon us by our society to address all stakeholders in our fisheries' natural resources, we consistently fail to enact the substantial measures necessary to make the changes required to stop and reverse the decline of anadromous salmonids in The Golden State. One such activity potentially adding to declines in the successful spawning of wild salmon and steelhead in our anadromous fisheries is suction dredging still allowed by the DFG in rivers populated by remnant populations of chinook and coho salmon. Yet unlike some other resource uses in our lotic fisheries, like water allocation and use, it is an activity that is entirely within the DFG's power to regulate.

In my opinion, as long as chinook and coho runs are in decline in this state it is highly inappropriate to allow the continuation of any in-river dredging in anadromous fisheries where their populations struggle. Living along the Trinity River in Trinity County, I have the opportunity to regularly witness DFG permitted dredging operations along many reaches of this river that harbor prime salmon and steelhead holding, staging and spawning waters. Since the timing of anadromous salmonids running up the Trinity and other rivers can vary from year to year due to ocean influences, drought and other weather influences, and fluctuations in dam releases, current seasons established by the DFG for dredging are nowhere near stringent or flexible enough to keep these activities from altering streambeds while threatened fish are in-river to stage and spawn. Since these regulations cannot practically be altered on an annual or monthly basis to address annual or monthly fluctuations in the timing of salmon and steelhead runs, such regulations will \*always\* be inadequate to protect

staging and spawning wild salmonid populations, and their resultant eggs, alevin, and fry, from negative impacts by suction dredging.

Therefore, I propose that all suction dredging in anadromous lotic fisheries in California be permanently banned until such time that our salmon and steelhead fisheries, through other substantial management changes to come, be well on the road to recovery to pre-determined goals approaching historic population levels. The use of suction dredges in anadromous fisheries, at current dangerously low salmon population levels, is no more appropriate than the use of hydraulic monitors in anadromous drainages in the late 1800's before laws were passed to remove their negative impacts on watersheds and their lotic ecosystems. Sadly for those whose livelihoods along the Trinity and other rivers have been supplemented by it, suction dredging at this stage of California's statehood is an outdated and inappropriate practice in light of the fragile state of the Golden State's anadromous salmonid fisheries.

Thank you for your consideration.

Most sincerely,

Richard W. Rockwell, Ph.D.  
Retired Aquatic Ecologist and Ecotoxicologist  
Junction City, CA

**From:** Richard Rockwell <raghorn@wildblue.net>  
**To:** <DFGSuctionDredge@dfg.ca.gov>  
**Date:** 11/5/2009 10:58 PM  
**Subject:** Support Permanent Ban on Suction Dredging (CORRECTED COPY)

Dear CA Department of Fish & Game Staff,

I'm writing this e-mail to ask that a permanent ban on suction dredging be applied to all anadromous salmonid fisheries in the State of California. Anadromous salmonid fisheries in California have been in steady decline for decades now. As fisheries scientists and managers we have been able to point to a variety of reasons for these declines for many years. However, due to legal and political responsibilities placed upon us by our society to address all stakeholders in our fisheries' natural resources, we consistently fail to enact the substantial measures necessary to make the changes required to stop and reverse the decline of anadromous salmonids in The Golden State. One such activity potentially

adding to declines in the successful spawning of wild salmon and steelhead in our anadromous fisheries is suction dredging still allowed by the DFG in rivers populated by remnant populations of chinook and coho salmon. Yet unlike some other resource uses in our lotic fisheries, like water allocation and use, it is an activity that is entirely within the DFG's power to regulate.

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state of the Golden State's anadromous salmonid fisheries.

Thank you for your consideration.

Most sincerely,

Richard W. Rockwell, Ph.D.  
Retired Aquatic Ecologist and Ecotoxicologist  
Junction City, CA

**From:** "Wetzel" <wetzel36@infostations.com>  
**To:** <dfgsuctiondredge@dfg.ca.gov>  
**Date:** 11/11/2009 8:46 PM  
**Subject:** Suction Dredging

My wife and I are suction dredge miners and we have dredged the Feather River in Northeastern California for the last 10 years. We certainly have enjoyed the beautiful canyon and we spend our summers looking for golden flakes and nuggets in this beautiful area of California. We are very upset that it is now against the law in California to suction dredge our valid Federal Mining Claims on the Feather River and that our federal right to mine for gold has been taken away.

In the 10 years we have been dredging, we have removed countless pounds of lead, metals(see below), and plastic bottles/bags etc., that are harmful to fish and our environment. We have seen first hand the massive amounts of trash and garbage thrown into the waterways by others. Not only are we sure to clean up after ourselves before leaving our claims, but we always clean up after others too.

Other relevant points to consider are:

- \* Just as fishermen, rafters, hunters, horsemen, recreationalists, OHV's and outdoors people have a right to enjoy the outdoors so should suction dredgers and this proposal will possibly strip this right away.
- \* Suction dredgers do not kill fish, their eggs or any other animals in the waterway.
- \* Dredgers do not destroy the bank of the waterways and stay inside the rivers.
- \* Our mining claims are right next to a highway and on the other side of the canyon is the railroad tracks so the trains, cars, trucks, semi trucks, RV's etc., already make noise.
- \* There is a very small population of dredgers at about 3,500 per year so the environmental impact, noise generated and time in the water is extremely small and the overhead to DFG to monitor them is minimal.
- \* No consideration is being given to the fact there are existing dams without fish ladders on most of the river systems so the Salmon are already stopped way down river.
- \* Dredgers are already regulated by the DFG through the permit process and we are further regulated on nozzle size, seasons and rivers/areas that we can go into.
- \* The 1872 Mining Law protects miner's rights to use the most proficient manner to process minerals from their Federal Mining Claims and when the claim is a water claim then dredging is the most efficient manner.

Thank you,

Richard and Laurie Wetzel

1250 Castle Creek Ranch Road

Newcastle, Ca 95658



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

My wife and I are suction dredge miners and we have dredged the Feather River in Northeastern California for the last 10 years. We certainly have enjoyed the beautiful canyon and we spend our summers looking for golden flakes and nuggets in this beautiful area of California. We are very upset that it is now against the law in California to suction dredge our valid Federal Mining Claims on the Feather River and that our federal right to mine for gold has been taken away.

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Other relevant points to consider are:

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Thank you,

Richard and Laurie Wetzel  
1250 Castle Creek Ranch Road  
Newcastle, Ca 95658

**From:** <Rdozier1@aol.com>  
**To:** <dfgsuctiondredge@dfg.ca.gov>  
**Date:** 11/11/2009 9:19 AM  
**Subject:** My input on the EIR.

I will not be able to attend the meeting in West Sac, so I wanted to let you know my opinion of this subject.

I am all for the EIR, but, and that's a big "but". The EIR has to do with dredging in rivers that have spawning salmon in them. Somehow, DFG has decided to include every river in the state, regardless of the fact they have salmon running in them or not.

This is way out of scope. The EIR should focus on only those rivers that have salmon runs on them.

And to further point out the waste of this Idea of including all rivers, the output of a dredge, will not change, from river to river. You could do the EIR in one location, and apply that data to all the other rivers in the state. There is no need to look at all the rivers! This is a waste of time and money.

I request that the ban be lifted on those rivers that do not have salmon runs on them, while this EIR is being conducted as they are not involved with this issue at all.

And, one final thought. Seeing as This whole EIR mess is a result of the lawsuit filed by the Karuk Indian Tribe, based on the supposed damage done to spawning salmon, It would seem prudent to ban any activity, that damages the salmon run, until it is clear that the activity in question is not doing harm, therefore I feel it is imperative to stop the wholesale slaughter of migrating salmon, by the mass netting done by the Indians.

If anything harms the salmon runs, it is CLEAR that their activity is harming the salmon runs much more than the supposed damage done by a dredge. And you don't need a EIR to figure that one out.

This whole issue needs to be handled in an even handed manner, where EVERYONE, is prohibited from harming the salmon, not just picking out the weak, small groups like dredgers, and letting the others run wild.

Since

rely,

Rick Dozier

7771 West Ranch Lane

Vacaville, CA 95688

707 628 3541

12/01/2009

Rick Eddy

5477 Russell Hollow Rd.

Pilot Hill, CA 95664

(530) 823-8658

[redy2ctsp@aol.com](mailto:redy2ctsp@aol.com)

### Comments

- Section I, Pages 30-31

I see no real significant impact on the aesthetics. There is only one dredge for every 2,500 miles of rivers and streams in the entire state.

- Section III, Air Quality

How can 3,000 dredges throughout the state possibly exceed emissions that exceed quantitative thresholds for ozone precursors with all of the millions of cars and trucks on the road?

- Section IV, A, B, C, D

I see no substantial adverse effect on these issues.                      dredgers cannot work wetlands without proper flow of water.

- Section IV, Page 39, Spawning Habitat

The statement (Dredge tailings may offer attractive yet potentially less stable material for spawning than natural gravels.) should be removed from the EIR. Why? At this time DFG is putting gravel in the American River at Hazel Ave. below the bridge hatchery to promote spawning beds for salmon. This gravel is not as good as natural gravel. Tailings from dredging gets reworked every season and replaced by high water runoff. Besides which the reduced survival due to scouring is insignificant.

- Section IV, Page 41-42, Behavioral effects

The impact of noise on the fish is insubstantial compared to hundreds of boaters going down the river and yelling and slapping their oars on the water.

- Section IV, Page 42, 3<sup>rd</sup> Paragraph

Suction dredging dislocates and can kill aquatic insects. Yes, maybe but the fish will be there to eat them. Once again it is just one little area on a big river. It's not like the fish have to go clear to the next state to find another bug to eat. Insect recovery is rapid.

- Section IV, Page 58

Paragraph 1: Impacts due to dredging banks.

It is not legal, we do not do this

Paragraph 2: Removing trees should be illegal and undermining banks. My suggestion regarding fuel spills is to put drip pans under engines with highly absorbent material inside and use approved spill proof gas cans.

- Section V, Page 61, Disturbing human remains.

Please explain this.

Shipwrecks:

There should be a law that states any found shipwreck is monitored and a joint effort with an archeologist.

- Section VIII, Page 72, Paragraph 2, Floured Mercury

What is floured mercury? Gold suction dredging does not break up mercury and pass it through the sluice box. Mercury is concentrated into riffles.

Paragraph 3:

Discharges from dredges are less than 1%. Every time it floods mercury is stirred up one million times more than suction dredging ever will. There is a thousand times more mercury coming out of the Sacramento sewer plant into the river exceeding the regulatory standards.

- Section VIII, Page 74, Paragraph 3

This is confusing. Do resulting conditions still meet standards?

- Section XIII, A, Page 82

Fire protection: Suction dredges can be used to put out a fire.

Page 86: Rafters are in conflict with dredgers. They only have to put up with the noise for about 90 seconds when they go by. On the South Fork of the American River, we had about 60 percent of the rafting guides stopping at our dredge to show their clients our gold and operation as part of the river experience. We all go along just fine. Regarding the fishermen; if they would fish right behind the dredge it would greatly improve their fishing success. Let's relive conflicts between designated uses.

- Section XVIII, Page 91, A

Does the project have the potential to degrade or substantially reduce the habitat of fish and wildlife? No, it has not and there is still no scientific evidence as of yet. Currently, the endangered species are suction dredgers.

- Question: If the fluctuation flows on the South Fork of the American River are causing a poor spawning environment for trout, then why did D.F.G. close it for winter spawning?

*Rich Coley*

NOV 22 2009  
PO Box 382  
Sierra City, Ca. 96125  
Robert Hammett

Dear Sirs,

I'm Replying To Moratorium on  
Dredging

For Twenty years I've been dredge  
mining and never killed any Fish  
Fisherman Kill Fish, nor have ~~damanded~~  
Any Stream or River. Damaged

As A miner I Respect all laws  
and I Respect the land & water  
I keep a clean area no trash  
while Dredging we are removing  
lead Mercury glass steel and  
trash From waterways & <sup>Fish line</sup> land

By Bagging it up & Taking it out.  
Dredging is regulated and is  
environmentally friendly also 1872  
mining laws give us the right to mine

If it wasn't you would have shut it down  
long ago.

Respectfully

Robert Hammett

**From:** Robert Lyss <roblyss@hotmail.com>  
**To:** <dfgsuctiondredge@dfg.ca.gov>  
**Date:** 12/3/2009 3:01 PM  
**Subject:** Public Comment on Suction Dredge Mining

I am writing as a member of the public in my opposition to the practice of Suction Dredge Mining, and in support of a permanent moratorium on the practice.

My family owns land on one of the affected waterways in the Sierras. Despite the area's long-time mining history, the ownership of this landscape has changed dramatically over the years. It is now largely residential, with landowners using our local river for recreation, fishing, etc.

Suction dredging of this waterway affects water quality for miles downstream, creates a hazardous environment for traversing the river due to large levels of silt, and affects nearby homeowners with noise pollution from the dredger's engine or engines.

The Dredge Miners in this particular area are rarely (if at all) owners of this river-front property area. Suction Dredge Mining is essentially a hobbyist activity today, and considering the major negative impacts this practice imposes on the actual landowners of the area, I would like to see it stopped permanently.

---

Windows Live Hotmail gives you a free,exclusive gift.  
[http://www.microsoft.com/windows/windowslive/hotmail\\_b11/hotmail\\_b11.aspx?ocid=PID23879::T:WLMTAGL:ON:WL:en-ww:WM\\_IMHM\\_7:092009](http://www.microsoft.com/windows/windowslive/hotmail_b11/hotmail_b11.aspx?ocid=PID23879::T:WLMTAGL:ON:WL:en-ww:WM_IMHM_7:092009)

**SUCTION DREDGE PERMITTING PROGRAM**  
**Subsequent EIR - CEQA Scoping Comment Form**

Name:	Robert W Stumbo
Mailing Address:	2245 Coyote Creek Rd.
	Wolf Creek, Oregon - 97497
Telephone No. (optional):	541-866-2514
Email (optional):	

**Comments/Issues:**

Here are the results of some studies done by very credible people with their sources. I hope this information will help you in your decision. I would also like to tell you that I think what you are doing is a violation of Federal law and by engaging in this activity you are becoming conspirators in the violation.

Please use additional sheets if necessary.

**SUBMIT WRITTEN COMMENTS (POSTMARKED BY 12/03/09) TO:**

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

**Email:** dfgsuctiondredge@dfg.ca.gov

**Website:** www.dfg.ca.gov/suctiondredge

*Questions? Please call us at (530) 225-2275*

WHEREAS, Joseph C. Greene, a retired Research Biologist from the United States Environmental Protection Agency stated in a letter dated June 6, 2007, to the California State Water Resource Control Board that suction dredging moves a miniscule amount of in-stream material such as sand, gravel and silt compared to any high water event in a given year and has little if any negative effects on our rivers and streams; and

State Water Resources Control Board  
Division of Water Quality  
P.O. Box 100  
Sacramento, California 95812-0100  
Fax: 916-341-5620  
email: commentletters@waterboards.ca.gov

June 6, 2007

Subject: SUCTION DREDGE MINING

Dear Board Members,

Thank you for allowing me this opportunity to comment on the water quality aspects of small-scale suction dredge mining.

As I have searched the scientific literature for studies on the effects of small-scale suction dredge mining on the environment I have learned that the preponderance of the published research studies have been directed towards assessment of its effect on the biology of the streams and rivers. In nearly every instance the results have concluded that the effects were less than significant.

In water quality terms some studies have discussed turbidity, water temperature, and suspension of heavy metals into the overlying water. I will focus my water quality comments on these three areas. But first I would like to put this issue in to perspective.

#### GEOGRAPHICAL SCALE OF SMALL-SCALE SUCTION DREDGING

It has been observed that environmentalists opposing suction dredging use data gleaned from reports that studied effects of environmental perturbations that are occurring on a system-wide basis. For example, they would characterize the affects of turbidity from a suction dredge as if it would impact downstream organisms in a manner that system-wide high water flow events might. This approach is entirely inconsistent with the way in which suction dredges operate or generally impact their downstream environment.

The California Department of Fish and Game (1997) described typical dredging activities as follows' "An individual suction dredge operation affects a relatively small portion of a stream or river. A recreational suction dredger (representing 90-percent of all dredgers) may spend a total of four to eight hours per day in the water dredging an area of 1 to 10 square meters. The average number of hours is 5.6 hours per day. The remaining time is spent working on equipment and processing dredged material. The area or length of river or streambed worked by a single suction dredger, as compared to total river length, is relatively small compared to the total available area."

In the Oregon Siskiyou National Forest Dredge Study, Chapter 4, Environmental Consequences, some perspective is given to small-scale mining. "The average claim size is 20 acres. The total acreage of all analyzed claims related to the total acres of watershed is about 0.2 percent. The average stream width reflected in the analysis is about 20 feet or

less and the average mining claim is 1320 feet in length. The percentage of land area within riparian zones on the Siskiyou National Forest occupied by mining claims is estimated to be only *0.1 percent*." The report goes on to say, "Over the past 10 years, approximately 200 suction dredge operators per season operate on the Siskiyou National Forest" (SNF, 2001).

6  
A report from the U.S. Forest Service, Siskiyou National Forest (Cooley, 1995) answered the frequently asked question, "How much material is moved by annual mining suction dredge activities and how much does this figure compare with the natural movement of such materials by surface erosion and mass movement?" The answer was that suction dredges moved a total of 2,413 cubic yards for the season. Cooley (1995) used the most conservative values and estimated that the Siskiyou National Forest would move 331,000 cubic yards of material each year from natural causes. Compared to the 2413 (in-stream) cubic yards re-located by suction mining operations the movement rate by suction dredge mining would equal *about 0.7% of natural rates*.

It has been suggested that a single operating suction dredge may not pose a problem but the operation of multiple dredges would produce a cumulative effect that could cause harm to aquatic organisms. However, "No additive effects were detected on the Yuba River from 40 active dredges on a 6.8 mile (11 km) stretch. The area most impacted was from the dredge to about 98 feet (30 meters) downstream, for most turbidity and settleable solids (Harvey, B.C., K. McCleneghan, J.D. Linn, and C.L. Langley, 1982). In another study, "Six small dredges (<6 inch dredge nozzle) on a 1.2 mile (2 km) stretch had no additive effect (Harvey, B.C., 1986). *Water quality was typically temporally and spatially restricted to the time and immediate vicinity of the dredge* (North, P.A., 1993).

A report on the water quality cumulative effects of placer mining on the Chugach National Forest, Alaska found that, "The results from water quality sampling do not indicate any strong cumulative effects from multiple placer mining operations within the sampled drainages." "Several suction dredges probably operated simultaneously on the same drainage, but did not affect water quality as evidenced by above and below water sample results. *In the recreational mining area of Resurrection Creek, five and six dredges would be operating and not produce any water quality changes* (Huber and Blanchet, 1992).

The California Department of Fish and Game stated in its Draft Environmental Impact Report that "Department regulations do not currently limit dredger densities but the activity itself is somewhat self-regulating. Suction dredge operators must space themselves apart from each other to avoid working in the turbidity plume of the next operator working upstream. *Suction Dredging requires relatively clear water to successfully harvest gold*" (CDFG, 1997).

Management of the Fortymile River region (a beautiful, wild and scenic river in the remote part of east-central Alaska) and its resources is complex due to the many diverse land-use options. Small-scale, family-owned gold mining has been active on the Fortymile since the "gold rush" days of the late 1880's. However, in 1980, the Fortymile River and many of its tributaries received Wild and Scenic River status. Because of this status, mining along the river must compete with recreational usage such as rafting, canoeing, and fishing.

A press release from the U. S. Geological Survey stated, in part, the following, "The water quality of the Fortymile River—a beautiful, ...has not been adversely impacted by gold placer mining operations according to an integrated study underway by the U.S. Geological Survey and the Alaska Department of Natural Resources.

Violation of mining discharge regulations would close down the small-scale mining operations. No data existed before this study to establish if the mining was degrading the water quality. However, even with the absence of data, environmental groups were active to close down mining on the river citing unsubstantiated possible discharge violations.

This study has found no violations to date to substantiate closure of the small-scale mining operations. The result is a continuance of a way of life on the last American frontier." (U.S. Geological Survey October 27, 1998). I have no doubt that this is the real issue currently facing small-scale gold suction dredgers in California.

Suction dredges do not add pollution to the aquatic environment. They merely re-suspend and re-locate the bottom materials (overburden) within the river or stream.

I hope this scientific research information I have provided will be helpful in your efforts regarding suction dredge mining and water quality. I thank you for this opportunity to submit this data.

Respectfully Yours,

Joseph C. Greene  
Research Biologist, U S. EPA Retired

#### LITERATURE CITED

- CDFG, 1997. draft Environmental Impact Report: Adoption of Amended Regulations for Suction Dredge Mining. State of California, The Resource Agency, Department of Fish and Game
- Cooley, M.F. 1995. Forest Service yardage Estimate. U.S. Department of Agriculture, U S Forest Service, Siskiyou National Forest, Grants Pass, Oregon.

WHEREAS, on August 20, 2009, in a letter by Claudia Wise, a retired physical scientist/chemist with the United States Environmental Protection Agency, refers to the California State Water Board's Water Quality Division report (Humphreys, 2005), which indicates that suction gold dredging effectively removes at least 98% of the measured mercury processed through the dredge, and suggests it is right to look to the suction dredge community for help in locating hotspots and removing mercury from the river systems; and

### **Truths about Dredging and effects on Fish Habitat**

TIME \@ "MMMM d, yyyy" August 20, 2009

The Honorable Governor Arnold Schwarzenegger

State Capitol Building  
Sacramento, CA 95814

Fax: 916-558-3160

Dear Governor Schwarzenegger,

### **PLEASE VETO BILL SB670 (anti-suction dredging legislation)**

My name is Claudia Wise; I retired in 2006 after 32 years of civil service with the U.S. EPA as a physical scientist/chemist. I have been a member of many scientific projects over the years starting my federal career in the Fish Toxicology arena and ending it with the Salmon Restoration division. I have worked on projects ranging from urban fish populations and fish avoidance testing to eelgrass habitat and global climate change. I have been and remain to be a strong proponent of protecting the environment.

On October 11, 2007 in regards to AB 1032 I wrote to you regarding another attempt by the legislature to get around a court order and unnecessarily put a large group of miners and businesses out of work with no scientific evidence to support their claims.

Dozens of peer-reviewed journal articles some commissioned by the USEPA, USGS, CDFG, Corp of Engineers, and many more from universities support suction dredging as having *de minimis* effects or no significant effect on the environment they are used in. Nothing has changed in peer-reviewed literature since that time to change this fact.

Suction dredge mining has little impact on the areas fish and biota. In relation to natural occurrences suction dredge mining is insignificant. To put the impact of suction dredge mining into perspective it was calculated that suction dredge mining disturbs only 0.7% of the sediment that is moved naturally in a year. The Siskiyou National Forest (SNF), where this study occurred, is a very prominent mining area in California.

According to the U. S. Forest Service, SNF, "There are 1,092,302 acres on the Siskiyou National Forest. Using a factor of 0.33 cubic yards per acre per year times 1,092,302 acres will produce a very conservative estimate that 331,000 cubic yards of material move each year from natural causes compared to the 2413 cubic yards that was moved by suction dredge mining operations in 1995. This would be a movement rate by suction dredge mining that equals about 0.7% of natural rates." (Cooley 1995).

California Department of Fish and Game already regulates the miners out of the waterways during important life events for the Salmon. That includes during spawning season when redds are present.

It is well known that suction dredging causes little or no environmental harm to fish and biota what many overlook are the many benefits that dredging provides such as increased spawning gravels, dredge made refugia, and yes, mercury remediation to name a few.

Suction dredging breaks up cemented riverbeds providing fish with loose gravel for future spawning grounds in areas fish presently are not able to use for spawning. Between 1996 and 1998, Quihillalt (1999) found 4% of redds where located on or within 1000 m of dredge tailings. He theorized that dredge tailings may be attractive sites for redd construction because tailings are often located near riffle crests where fish frequently spawn, and they provide loose, appropriately sized substrate. However, embryos in tailings may suffer high mortality during years of high river flows (1998) and be of no concern during years of low river flows (1996 & 1997).

During a later survey on the Klamath River during 2002 only one redd was observed on suction dredge tailings. Recreational suction dredge mining was present throughout the survey from the Highway I-5 Bridge to Happy Camp (Schuyler and Magneson. 2006).

Even with scouring effects to redds reported in scientific literature this gravel provides areas to spawn that would not otherwise be available to them. Any added benefit to increasing salmon productivity, using suction dredging, is a benefit to fish numbers. Even during years of high mortality due to high flow events if only a few of the embryos survive that may be more than would be expected without the benefit of added spawning gravels provide by the tailings.

I have been involved in temperature surveys on the Klamath River in California in regards to suction dredge activity and existing conditions of refugia. We have found natural refugia to be no better in many cases to that of dredge made refugia.

Dredge holes can provide a holding place for fish as they pass up the waterway on their migration path to and from the ocean providing a place to get out of the faster currents to rest. Some of these dredge holes may also be cooler due to ground water seepage if the holes are deep enough. This leads to development of additional areas of needed refugia.

Another Benefit the suction dredge community could provide the state with is mercury remediation. In talking with miners, the majority typically do not run into large pools or hot spots of mercury. However, their concerns for the environment is the same as other citizens. Miners have shown the willingness to hand over collected mercury to a collection facility if such a facility exists. The California State Water Board's Water Quality Division report (Humphreys, 2005) suggested the idea of paying the miner's for their efforts would help facilitate this plan. Collection facilities have been provided in the past with great response.

The California Water Board has spent a lot of time and money on mercury remediation projects with limited success, though in 2001 EPA Region 9 located in San Francisco, California did collect mercury from miners very effectively. Collections of mercury has been happening in Oregon and Washington through the states respective Division's of Ecology and with even greater success at miner's rallies.

Even though EPA Region 9 has ended this program and removed it's existence from the website EPA, Region 9 had a mercury "milk run" in 2000. Agency personnel were able to collect 230 pounds of mercury from miners and local dentists. The total amount of mercury collected was equivalent to the mercury load in 47 years worth of wastewater discharge from the city of Sacramento's sewage treatment plant or the mercury in a million mercury thermometers. (US EPA, 2001.)

Over the past four years, the Resources Coalition and other small-scale miners associations in Washington have turned in 127 pounds of mercury and eight pounds of lead for safe disposal with the help from the Washington Department of Ecology. Ecology staff attended miners' rallies in Oroville and Monroe, explaining the state's program for proper disposal of lead and mercury. (ENS 2007).

The mining community of today is, in my opinion, the only group that is in a position with the technology to help with the removal of lead and mercury at a very economical price to the public. Any residual mercury remaining after dredging is that much less to worry about residing in our Nations waterways.

In reviewing Humphrey's (2005) comments regarding possible problems associated with collecting mercury via suction dredging methods, it is right to look to the suction dredge community for help locating hotspots and removing mercury from the river systems. In my opinion the data provided in the report by Humphrey's (2005) did not demonstrate any clear conclusions that would prohibit the State from allowing this activity. On the contrary, in the discussion of results it was stated that a suction dredge in the American River was able to collect 98 percent of the measured mercury processed through the dredge. The amount of mercury collected may have been higher if the investigators had been using a dredge with the modern jet flare design. Even 98 percent is a huge plus for the environment and it would be irresponsible to not allow mercury to be removed from the rivers and streams whenever it is found.

In Humphreys report (2005), the author expressed concern for the loss of a small portion (2%) of the mercury from the back end of the sluice box. In the conclusions it was stated that the amount lost constituted a concentration more than ten times higher than that needed to classify it as hazardous waste. Yet 98 percent of the mercury was now secured and the process did not add any mercury to the system that was not already present. The small fraction lost, because of its density, would relocate back onto the river floor buried in the sediment close to where it was removed while dredging.

Mercury is continuously moved every winter in high storm events. Since the cessation of hydraulic mining, accumulated sediment from hydraulic placer mining has been

3 of 6

transported to the Sacramento–San Joaquin Delta and San Francisco Bay by sustained remobilization (James, 1991). Providing a program to collect mercury from miners would aid the Water Board's mission of reducing mercury contamination in the deltas and bays where mercury methylation is a large concern.

In the test described by Humphreys (2005) a small portion of floured mercury was collected in the sediments as it escaped the sluice box. This mercury whether floured before it entered the sluice box, or not, would still be in elemental form. Regardless of surface area it would be no more toxic than the other 98 percent that was suggested to be left in place.

Aside from grossly polluted environments, mercury is normally a problem only where the rate of natural formation of methyl mercury from inorganic mercury is greater than the reverse reaction. Methyl mercury is the only form of mercury that accumulates appreciably in macroinvertebrates and fish. Environments that are known to favor the production of methyl mercury include certain types of wetlands, dilute low-pH lakes in the Northeast and North central United States, parts of the Florida Everglades, newly flooded reservoirs, and coastal wetlands, particularly along the Gulf of Mexico, Atlantic Ocean, and San Francisco Bay (USGS 2000).

If not collected the mercury is guaranteed to end up farther down stream, and eventually in the delta or the bay, where methylation is a real environmental problem. In my opinion it would be a highly irresponsible management practice to leave a large portion of mercury in the rivers and streams because of unrealistic concerns for the lesser amount moving only a short distance away from an operating dredge. Most likely if floured the movement of fine mercury would extend no farther than 50-feet off the end of the sluice box. That would relate to the distance a turbidity plume might extend downstream from a small-scale suction dredge.

However, if the mercury was left in place the next storm event would surely move it downstream closer to, and eventually into, the bay and delta. In fact, according to Humphrey's study in 2005 mercury was seen moving down stream and re-deposited on bedrock already dredge cleaned. The important fact here is mercury was flowing down stream in a suction dredge free zone during lower river flows than what take place under high winter river conditions.

It is most important to reduce the total amount of mercury in the streams and rivers and its transport downstream into the bays and deltas. This is defined as a part of Total Maximum Daily Load ("TMDL") goals.

We know for certain that mercury is transported downstream throughout the winter season during high water events. Therefore, anytime there is the possibility for the removal of mercury by miners it should be undertaken and supported.

You justifiably vetoed that last bill because it was unnecessary and suction dredge mining is already regulated by the Department of Fish and Game. But here we are again....

There was no reason, last year, to sign AB1032 into law and there is no reason to sign Bill 670 into law this year. I respectfully ask that you not add further to the problems related to increased government regulation where none is warranted. Please allow California Fish and Game to do their job. They are already regulating suction dredging adequately to protect fish. The court has ordered California Department of Fish and Game to prove suction dredging creates significant harm before changing the mining regulations.

I respectfully ask that you VETO bill 670.

Sincerely,

Claudia Wise

34519 Riverside Dr SW

Albany, Oregon 97321

541-990-7009

#### **REFERENCES**

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Environments Where Methyl mercury is a Problem.**



# Quality Assurance Project Plan

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## Effects of Small-Scale Gold Dredging on Metals Concentrations in the Similkameen River

by  
Art Johnson

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Environmental Assessment Program  
Olympia, Washington 98504-7710

July 2004

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# Quality Assurance Project Plan

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## Effects of Small-Scale Gold Dredging on Metals Concentrations in the Similkameen River

July 2004

**303(d) listings addressed in this study:**  
Similkameen River (WA-49-1030) – Arsenic

Ecology EIM number: AJOH0045

### Approvals

Approved by:	6-25-04
Mark Peterschmidt, Client, Central Regional Office	Date
Approved by:	6-30-04
Jeff Lewis, Unit Supervisor, Central Regional Office	Date
Approved by:	6-25-04
Tom Tebb, Section Manager, Central Regional Office	Date
Approved by:	6-24-04
Art Johnson, Principal Investigator, Watershed Ecology Section	Date
Approved by:	6-24-04
Dale Norton, Unit Supervisor, Nonpoint Studies Unit	Date
Approved by:	6-24-04
Will Kendra, Section Manager, Watershed Ecology Section	Date
Approved by:	6-25-04
Stuart Magoon, Director, Manchester Environmental Laboratory	Date
Approved by:	6-30-04
Cliff Kirchmer, Ecology Quality Assurance Officer	Date

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## **Abstract**

A plan is described for obtaining metals and ancillary water quality data on the impact of small-scale gold dredges operating on the Similkameen River, a tributary to the Okanogan River in North Central Washington State. The metals of interest are arsenic, copper, lead, and zinc. Approximately 70 samples of dredge effluents, the dredge plume, and ambient river water will be collected. Clean sampling techniques and low-level analytical methods will be used.

## Background

The Similkameen River is located in North Central Washington (Figure 1). During the public comment period on the Similkameen River Arsenic TMDL (Peterschmidt and Edmond, 2004), concerns were raised by the community and the Colville Confederated Tribe regarding the potential impact of small-scale gold dredging on arsenic concentrations in the river. An earlier laboratory simulation conducted by the Washington State Department of Ecology (Ecology) had concluded that metals concentrations would be rapidly diluted downstream of a dredge (Johnson, 1999). The applicability of these data to field conditions was called into question.

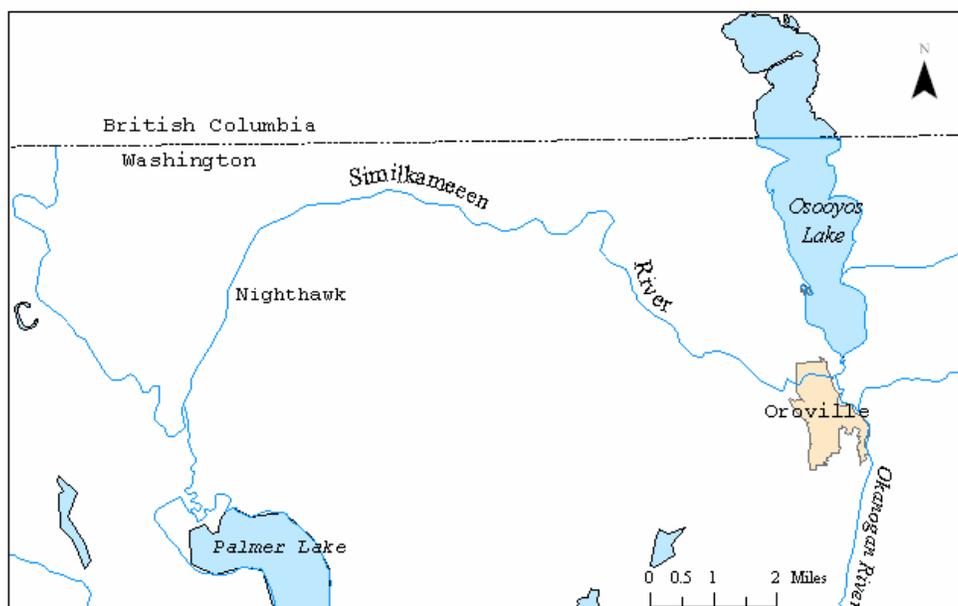


Figure 1. The Similkameen River

Dredging activities have been traditionally allowed on the Similkameen under mineral prospecting leases from the Washington State Department of Natural Resources (DNR). It is hard to quantify the amount of dredging activity that goes on. The Ecology Central Regional Office (CRO) has observed 20 or more rigs along the river at one time, although only a few of them were in operation (Mark Peterschmidt, Personal Communication). There are no restrictions on where dredging can be done.

The Department of Fish and Wildlife (WDFW) is the lead agency regulating small-scale mining and prospecting. Their *Gold and Fish* pamphlet constitutes the Hydraulic Project Approval permit that small-scale prospectors and miners must comply with when conducting activities covered in the pamphlet. Exceptions to the pamphlet, authorization for other mining and prospecting activities, or use of other equipment types than authorized by the *Gold and Fish* pamphlet can be granted through issuance of a written Hydraulic Project Approval. Among other regulations in the *Gold and Fish* pamphlet, WDFW requires a minimum 200-foot

separation between dredges. The role of Ecology in this activity is to administer water quality standards to prevent interferences with, or harm to, beneficial uses of the river.

A typical, commercially available dredge is pictured in Figure 2 (<http://www.keeneengineering.com/pamphlets/howdredge.html>). The pictured dredge likely has a 4" diameter intake nozzle. These are the maximum allowed under authority of the *Gold and Fish* pamphlet and are typically used by small-scale prospectors and miners. Larger dredges can and have been permitted on the Similkameen River, and are typically used by miners operating on a commercial basis.



Figure 2. A Typical Gold Dredge

Except for arsenic, the level of chemical contamination (both metals and organics) in Similkameen River sediments is relatively low (Johnson and Plotnikoff, 2000; Colville Confederated Tribe, Unpublished Data). Arsenic concentrations generally range from 10-50 mg/Kg\* (Figure 3). Samples in the vicinity of Nighthawk and Oroville have exceeded a recently proposed Washington State sediment quality guideline of 20 mg/Kg for protection of aquatic life (Avocet Consulting, 2003). Most Washington rivers and streams have less than 10 mg/Kg arsenic in the sediments.

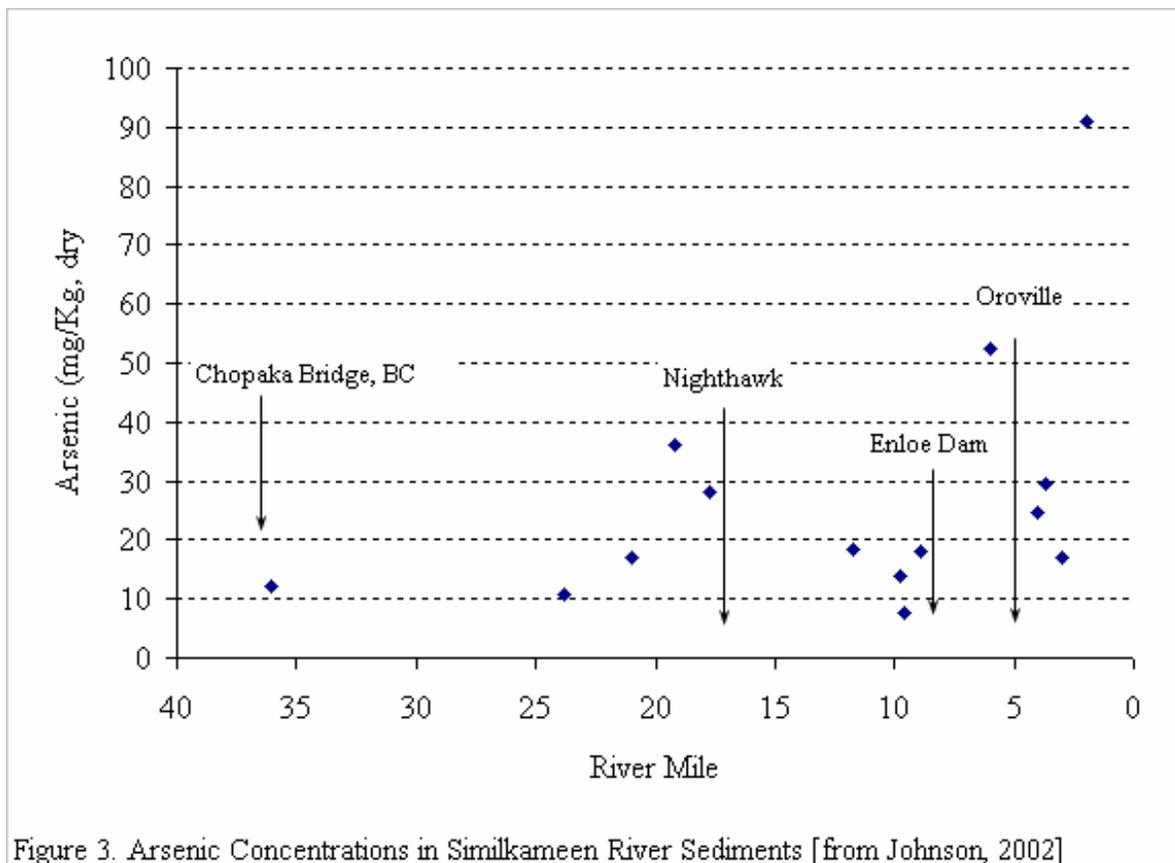


Figure 3. Arsenic Concentrations in Similkameen River Sediments [from Johnson, 2002]

Arsenic is also elevated in the Similkameen water column, with concentrations of 1.0 – 5.0 ug/L\*\* typically being encountered (Johnson, 2002). The technical study conducted for the arsenic TMDL concluded that the major source of arsenic was tailings from historical mining activity in British Columbia (Johnson, 2002). Resuspension of contaminated sediments was identified as a potentially important source of arsenic to the water column. The arsenic concentrations in the Similkameen River exceed the federal human health criteria of 0.018 and 0.14 ug/L but are well within the state aquatic life criteria of 190 and 360 ug/L (see Table 1). The human health criteria are based on a one-in-one million excess cancer risk from consuming fish and water or fish only.

\* parts per million

\*\* parts per billion

In the absence of dredging, arsenic has previously been shown to increase slightly going downstream from Nighthawk to Oroville (Figure 4). The Palmer Lake outlet at r.m. 19.5 is a major source of arsenic to the lower river.

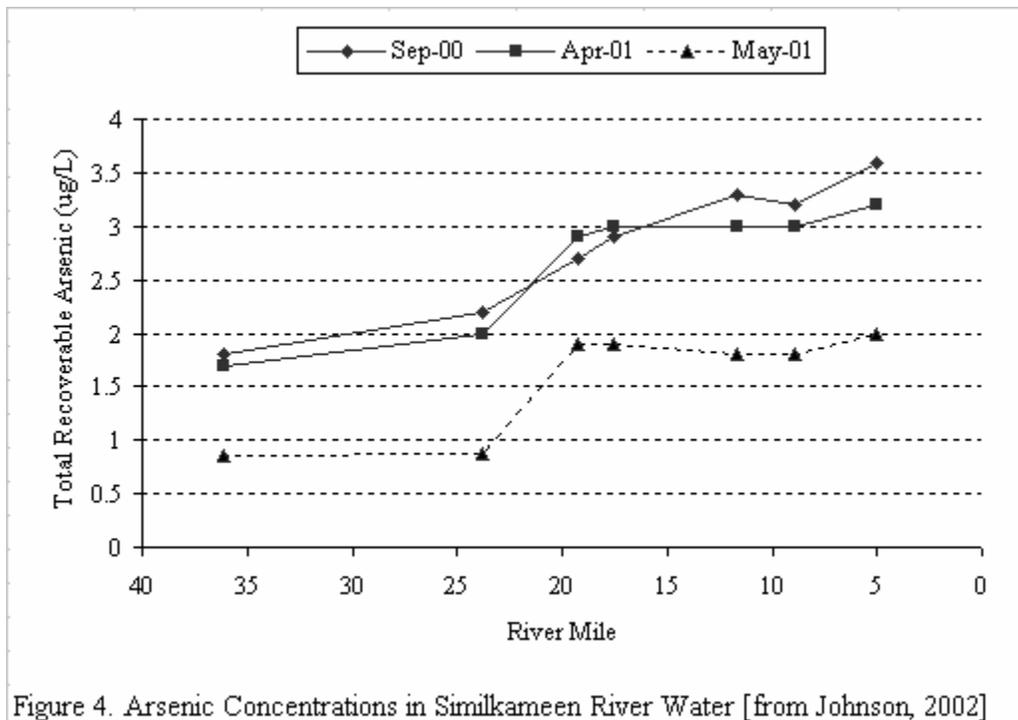


Figure 4. Arsenic Concentrations in Similkameen River Water [from Johnson, 2002]

The previously mentioned dredging simulation study conducted by Ecology involved mixing predetermined amounts of river water and sediment to approximate a dredged material slurry (the Elutriate Test Described in Plumb (1981)). After shaking for 30-minutes, the supernatant from the mixture was allowed to settle, and then filtered and analyzed. The samples used in the test were obtained near Eagle Rock (r.m. 11.7) and just above Enloe Dam (r.m. 8.9), areas where dredging was either underway or planned. Arsenic concentrations were 14-18 mg/Kg in the bulk sediments and 3.9 ug/L in the river water.

Results of the simulation showed that arsenic, copper, lead, and zinc were the metals of primary interest. Arsenic concentrations in the elutriate were 5-10 times higher than the river water used for the test. Copper and lead exceeded aquatic life criteria by factors of 2-4. Zinc approached half its aquatic life criteria values. (There are no human health criteria for copper, lead, or zinc equivalent to the arsenic human health criteria.) A point source dilution model applied to these data suggested that at least a five-fold dilution would occur immediately downstream of a dredge during low flow conditions. It was concluded that water quality concerns were probably negligible for metals, at least with respect to individual dredges.

This coming August 18-21, the Resources Coalition will hold a rally on the Similkameen River (<http://www.inlinks.net/def2003.html>). The rally is being organized to allow the public to meet, participate, and learn about small-scale mining and prospecting by participating in these activities with miners. Representatives from regulatory agencies have been invited to attend. There is a current proposal to use up to three dredges with 8" diameter intake nozzles to operate closer than 200' from each other during the rally.

## Project Description

In response to community and tribal concerns, Ecology concluded that a field study should be conducted to obtain water samples in the vicinity of small-scale dredges operating on the Similkameen River. The objectives of the study will be to determine if dredging: 1) exacerbates current exceedances of the human health standard for arsenic or 2) results in violations of the aquatic life standards for arsenic, copper, lead, or zinc.

Ecology will use these data to make an initial determination as to whether dredging activities are likely to cause a violation of water quality standards under the conditions observed. Results of the field study will be provided to regulatory agencies and the public. Given the variability inherent in a gold dredging operation and limited number of samples being collected for this study, the results should not be considered conclusive.

Three types of samples will be collected for the study: dredge effluents, dredge plumes, and ambient river water. Effluents will be sampled from fifteen dredges operating in different parts of the river. The turbidity plume downstream of three of the dredges will be sampled at selected distances to gauge the downstream extent of the impacted area. Finally, samples will be collected upstream of where the dredges are working to determine background concentrations for the metals of interest.

Clean sampling techniques and low-level analytical methods will be used to analyze arsenic, copper, lead, and zinc. Turbidity, total suspended solids (TSS), hardness, and pH will also be measured. Flow data will be obtained from the U.S. Geological Survey and Ecology gauging stations at Nighthawk and Oroville, respectively.

Field work will be conducted during July-September, 2004. The study will be conducted by the Ecology Environmental Assessment (EA) Program with field assistance provided by CRO. The samples will be analyzed by the Ecology Manchester Environmental Laboratory.

# Organization, Schedule, and Cost Estimate

## Organization

EAP Project Lead	Art Johnson, EAP (360-407-6766)
CRO Client/Field Assistance	Mark Peterschmidt (509-454-7843)
EAP Toxics Studies Unit Supervisor	Dale Norton (360-407-6765)
Manchester Environmental Laboratory Director	Stuart Magoon (360-871-8801)
Manchester Laboratory Inorganics Unit Supervisor	Dean Momohara (360-871-8808)
Ecology Quality Assurance Officer	Cliff Kirchmer (360-407-6455)
Ecology Environmental Information Management System (EIM) data entry	– Carolyn Lee

## Schedule

July-September, 2004	Field work conducted and samples submitted to laboratory.
November 2004	Laboratory analyses completed and data reported to project lead.
February 2005	Draft report completed.
March 2005	EIM data entry completed.
March 2005	Final report completed.

## Cost Estimate

The laboratory cost for this project is estimated at \$11,000 (50% discounted price at Manchester Laboratory; true cost is 2X).

## Quality Objectives

The applicable water quality criteria for metals are shown in Table 1. For hardness-dependent criteria (copper, lead, and zinc) the lowest value recorded for the Similkameen River at Oroville was used to calculate the criterion ([http://www.ecy.wa.gov/programs/eap/flow/shu\\_main.html](http://www.ecy.wa.gov/programs/eap/flow/shu_main.html)). Criteria concentrations increase with increasing hardness.

Table 1. Applicable Water Quality Criteria for Metals (ug/L)

	Aquatic Life Criteria*		Human Health Criteria**	
			Fish + Water	Fish
	Acute	Chronic	Consumption	Consumption
Arsenic	360	190	0.018	0.14
Copper	7.7	5.5	--	--
Lead	25	0.99	--	--
Zinc	56	51	--	--

\*dissolved metals at 43 mg/L hardness

\*\*inorganic arsenic

The Class A turbidity criterion (173-201A WAC) also applies in this case and states that “Turbidity shall not exceed 5 NTU over background turbidity when the background turbidity is 50 NTU or less, or have more than a 10 percent increase in turbidity when the background is more than 50 NTU.”

A performance based approach was followed for defining measurement quality objectives (MQOs) for this project (Table 2). The MQOs are Manchester Laboratory’s acceptance and reporting limits for the analyses selected.

Table 2. Measurement Quality Objectives

Parameter	Check Standards/ LCS (recovery)	Duplicate Samples (RPD*)	Matrix Spikes (recovery)	Matrix Spike Duplicates (RPD)	Required Reporting Limits
Arsenic	85-115%	20%	75-125%	20%	0.1 ug/L
Copper	85-115%	20%	75-125%	20%	0.1 ug/L
Lead	85-115%	20%	75-125%	20%	0.02 ug/L
Zinc	85-115%	20%	75-125%	20%	0.5 ug/L
Hardness	85-115%	20%	75-125%	20%	1 mg/L
TSS	80-120%	20%	N/A	N/A	1 mg/L
Turbidity	80-120%	20%	N/A	N/A	0.5 NTU

\*RPD = relative percent difference

Reporting limits this low are needed to quantify background metals concentrations in the Similkameen River. The metals reporting limits for this project are lower than the aquatic life criteria by more than an order of magnitude and should, therefore, easily suffice for identifying exceedances of metals standards. Because the Similkameen already substantially exceeds the human health criteria for arsenic, compliance is not a reporting limit issue. The 0.5 NTU reporting limit for turbidity is an order of magnitude below 5 NTU, sufficiently low to assess violations of the criterion.

## Design of Field Study

The field study will occur during July through September, 2004. Monthly average river flow during this period ranges from 3,029 cfs (July) to 600 cfs (September).

Three field trips are planned. The first samples will be collected soon after the mineral prospecting work window through the *Gold and Fish* pamphlet opens on July 1. The second sample set will be collected during the Resources Coalition rally in August. A third set of samples will be collected during September low flow. CRO is coordinating the field work with rally organizers, participating miners, and WDFW.

## Dredge Effluents

Dredging primarily occurs from a few miles above Nighthawk down to Oroville near the mouth of the river (see Figure 1). To the extent possible, the locations sampled will be selected to give results that represent this entire reach. Likely access points are r.m. 19, 14.5-16, 11.8, 9-10.5, and 4-5.5 (Mark Peterschmidt, CRO, Personal Communication). CRO is seeking permission to obtain samples from dredges that plan to operate in these areas. The discharges from up to 15 dredges will be sampled, ideally three from each access point.

A single sample will be collected from each dredge at the point the discharge leaves the sluice box. For dredge operations where the plume is being sampled (see below) three effluent samples will be collected.

The effluent samples will be collected by filling a one-liter sample bottle in quarter-volume increments over a five-minute period, in an effort to obtain a representative time-dependent composite. The sample will be allowed to settle for 45 minutes and then ½ liter decanted into sample containers. This will remove sand and other large particles that would normally settle out of the water column. A settling time of 45 minutes was selected based on the settleable solids analysis in EPA Method 160.5.

The effluent samples will be analyzed for total recoverable arsenic, copper, lead, and zinc. By statute, a total recoverable analysis is required for metals point sources to account for the total amount being discharged to a waterbody.

Effluent flow rates will be estimated from the water velocity and dimensions of the sluice box, and pump specifications. These results, along with measurements of stream depth and velocity, channel width, river flow, and ambient metals partitioning, will be used in a point source dilution model to estimate water quality impacts under various dredging scenarios.

## Dredge Plumes

The plumes from three dredges operating in under varying river flows--one each in July, August, and September--will be sampled to gauge the downstream extent of the impacted area. Three samples each will be collected at 10, 50, and 200 ft. below the dredge, staggered over

approximately a one-hour period. The dredge effluent will be sampled at the same time. A single sample will also be collected immediately upstream of the dredge suction hose for comparison with the plume. A marked poly line with a float at the far end will be attached to the back of the dredge to locate the downstream sampling points.

The upstream and plume samples will be analyzed for total recoverable arsenic; dissolved copper, lead, and zinc; TSS; turbidity; and hardness. Arsenic is being analyzed as total recoverable for comparison to the human health standards, which are based on inorganic arsenic. Most of the arsenic in the Similkameen River water is in inorganic form (Johnson, 2002). Measuring inorganic arsenic directly would be more expensive. Total recoverable arsenic can reasonably be compared to the dissolved aquatic life criteria, since they are little different from the total recoverable criteria on which they are based. Copper, lead, and zinc are being analyzed as dissolved for comparison with the aquatic life standards.

## **Ambient River**

Additional samples will be collected in the Similkameen River near Nighthawk to measure background concentrations for the metals and other parameters of interest. These samples will be collected in the early morning to ensure that no dredges are operating upstream.

Three samples will be collected for each field trip and analyzed for total recoverable and dissolved arsenic, copper, lead and zinc; and also for turbidity, hardness, and pH. In addition to setting background conditions, the data will be used to determine how these metals apportion between particulate and dissolved fractions, information needed in the point source model mentioned above.

## **Number of Samples**

The number and type of samples to be collected for this project are summarized in Table 3.

Table 3. Summary of Samples to be Collected

Sample Type	No. of Sites	Samples per Site	Subtotal	Analyses
Dredge Effluent	15	1-3	21	TR As, Cu, Pb, Zn
Dredge Plume	3	10	30	TR As; Diss Cu, Pb, Zn; TSS; turb.; hard.
Ambient River	1	9	9	TR As; Diss Cu, Pb, Zn; TSS; turb.; hard.
" "	1	9	9	TR Cu, Pb, Zn
Filter Blanks	3	1	3	Diss As, Cu, Pb, Zn
		Total =	72	

TR = total recoverable

Diss = dissolved

## Sampling Methods

Table 4 lists the sample size, container, preservation, and holding time for each study parameter. Sample containers will be obtained from Manchester Laboratory.

Table 4. Sample Containers, Preservation, and Holding Times for Water Samples

Parameter	Minimum Quantity Required	Container	Preservative*	Holding Time
Metals	250 mL	500 mL Teflon bottle	HNO <sub>3</sub> to pH<2, 4°C	6 months
Hardness	100 mL	125 mL poly bottle	H <sub>2</sub> SO <sub>4</sub> to pH<2, 4°C	6 months
TSS	1,000 mL	1,000 mL poly bottle	Cool to 4°C	7 days
Turbidity	100 mL	500 mL poly bottle	Cool to 4°C	48 hours

\*dissolved metals to be field filtered (0.45 micron)

Metals sampling procedures will follow the guidance in EPA Method 1669 *Sampling Ambient Water for Trace Metals at EPA Water Quality Levels*. All samples will be taken as simple grabs or grab composites.

Metals samples will be collected directly into pre-cleaned 500 mL (plume and ambient samples) or 1 L (effluent samples) Teflon bottles. The effluent samples will be allowed to settle and be decanted as previously described. Samples for dissolved metals will be filtered in the field through a pre-cleaned 0.45 um Nalgene filter unit (#450-0045, type S). The filtrate will be transferred to a new pre-cleaned 500 mL Teflon bottle. The whole water and filtered water samples will be preserved to pH <2 with sub-boiled 1:1 nitric acid, carried in small Teflon vials. Teflon sample bottles, Nalgene filters, and Teflon acid vials will be cleaned by Manchester, as described in Kammin et al. (1995), and sealed in plastic bags. Non-talc nitrile gloves will be worn by personnel filtering the samples. Filtering will be done in a glove box constructed of a PVC frame and polyethylene cover. pH will be measured with an Orion meter.

Field activities will be recorded in a bound notebook of waterproof paper. A hand-held GPS will be used to record sampling locations. All samples will be placed in polyethylene bags and held on ice for transport to Ecology Headquarters. All samples will be kept in a secure cooler and transported to Manchester Laboratory within one-to-two days of collection. Chain-of-custody procedures (Manchester Environmental Laboratory, 2003) will be followed.

## Measurement Methods

Table 5 shows the number of samples, expected range of results, and analytical methods for this project. Metals will be analyzed by ICP/MS (EPA Method 200.8). Hardness will be analyzed by ICP (EPA Method 200.7), with Standard Methods 2340B algorithm used for the hardness calculation.

Table 5. Laboratory Procedures

Analyte	Sample Matrix	Number of Samples	Expected Range of Results	Sample Prep Method	Analytical Method
Arsenic	whole water	60*	0.2- 500 ug/L	HNO <sub>3</sub> /HCl digest	EPA 200.8
Copper	whole water	27*	0.5 - 500 ug/L	HNO <sub>3</sub> /HCl digest	EPA 200.8
Lead	whole water	27*	<0.02 - 500 ug/L	HNO <sub>3</sub> /HCl digest	EPA 200.8
Zinc	whole water	27*	<0.3 - 500 ug/L	HNO <sub>3</sub> /HCl digest	EPA 200.8
Copper	filtered water	38**	0.5 - 50 ug/L	analyze directly	EPA 200.8
Lead	filtered water	38**	<0.02 - 10 ug/L	analyze directly	EPA 200.8
Zinc	filtered water	38**	<0.3 - 100 ug/L	analyze directly	EPA 200.8
Hardness	whole water	36	75 - 125 mg/L	N/A	EPA 200.7
TSS	whole water	36	1 - 200 mg/L	N/A	EPA 160.2
Turbidity	whole water	36	1 - 100 NTU	N/A	EPA 180.1

\*analyzed as total recoverable

\*\*analyzed as dissolved

## Quality Control

Field and laboratory QC samples to be analyzed for this project are shown in Table 6.

Table 6. QC Samples, Types, and Frequency (a batch is 20 unknowns)

Parameter	Field QC		Laboratory QC		
	Filter Blanks	Check Standards/ LCS	Method Blanks	Analytical Duplicates	Matrix Spikes
Metals	2	2/batch	1/batch	1/batch	2/batch
Hardness	N/A	1/batch	1/batch	1/batch	2/batch
TSS	N/A	1/batch	1/batch	1/batch	N/A
Turbidity	N/A	1/batch	1/batch	1/batch	N/A

### Field Quality Control

One filter blank will be analyzed for each field trip to detect contamination arising from sample containers, the filtration procedure, preservative, or sample handling. The filter blanks will be prepared using the deionized water-filled Teflon bottles that Manchester provides for metals samples. For preparing the blanks, a bottle will be opened and filtered in the field, using the same procedure as for the river water samples. The filtrate will be transferred to a new bottle, after rinsing with a small amount of same filtrate, and acidified.

Field blanks will be prepared for metals only.

### Analytical Quality Control

Laboratory QC samples will include check standards/laboratory control samples, method blanks, analytical duplicates, matrix spikes, and matrix spike duplicates, as indicated in Table 6.

Three metals samples will be analyzed in duplicate to provide estimates of analytical variability. The samples will be selected in the field as representing anticipated high, medium, and low metals concentrations. Samples for duplicate analysis will be identified on the sample tags and the chain-of-custody form. Duplicates for the conventional analyses will be selected by Manchester, following their standard practice.

The laboratory control samples (LCS) for the metals analysis will include SLRS-4 (Riverine Water Reference Material for Trace Metals, National Research Council Canada) or equivalent. SLRS-4 is certified for the low metals concentrations typical of ambient rivers and streams. Manchester will also prepare a spiked blank for the metals analysis. It will be spiked at 10-15 ppb. Manchester's data report will include the metals concentrations measured in the LCS samples and their names, sources, and certified values, in addition to the percent recovery data normally reported.

Manchester's analysis of SLRS-4 indicates it may be biased high for arsenic (Dean Momohara, Manchester Laboratory, Personal Communication). If the same discrepancy is observed for this project, Manchester's need not qualify the arsenic data.

## Data Verification and Validation

The field notes will be verified by reviewing this information prior to leaving each sampling site.

Manchester will verify the laboratory data by examining their results for errors or omissions and examination of the QC results for compliance with acceptance criteria. Reviewers use EPA 540/R-94-013, U.S. *EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, February 1994*. Their findings will be documented in a case narrative.

The data package will be validated by the project lead who will use professional judgment to determine whether the procedures in the methods, SOPs, and Quality Assurance (QA) Project Plan were followed. Once the data have been verified and validated, the project lead will examine the data to determine if the MQOs have been met.

## Data Analysis

The field and laboratory data will be entered into Excel spreadsheets. Hardness results will be used to calculate the water quality criteria corresponding to each sample, using the Ecology spreadsheet tsdcal11.xls ( <http://www.ecy.wa.gov/programs/eap/pwspread/pwspread.html>), and exceedances identified.

The dredge plumes will be characterized with respect to downstream extent and exceedances of standards. A point source model (pwspread.xls <http://www.ecy.wa.gov/programs/eap/pwspread/pwspread.html>) will be used to characterize dilution. EPA's SMPTOX3 program (<http://epa.gov/ceampubl/swater/smptox3/index.htm>) will be used to simulate the effects of different numbers and locations of dredges on metals concentrations in the river.

On, or before, March 2004, the project lead will prepare a draft report of findings. The report will include:

- maps of the study area showing sampling sites
- descriptions of field and laboratory methods
- a list of the dates, locations, and sizes of the dredges sampled
- discussion of data quality and the significance of any problems encountered in the analyses
- summary tables of the field and laboratory data
- results from the data analysis
- conclusions and recommendations with respect to the potential for small-scale gold dredging to exceed state water quality standards within the Similkameen River

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with additions by Steve Herschbach of Alaska Mining & Diving Supply

## **I. INTRODUCTION**

Listed below is a number of quotes from studies that have been done over the years, please keep in mind that some were done on large 50 + cubic yard per hour placer mining operations, others were done on a variety of suction dredges, and some were done in a laboratory environment. All were done by well respected and educated people only a few of which have had any practical experience with placer mining/prospecting. The quotes listed in this document were taken word for word out of the documents written by the scholars named above each quote.

A. By: Paul J. Badali - 1988

"Several federal and state laws charge various governmental agencies to provide for the protection of these habitats. Our nation's technology based society has an ever increasing need for mineral resources, gold included. An ever growing number of people enjoy Recreational Gold Dredging as a hobby. Suction dredge operators working valid federal mining claims have a constitutional right under the 1872 mining laws to recover the valuable minerals present in the substrate. Private property owners and holders of state minerals leases also have rights to recover gold and other minerals present in streams and rivers. How can the country's need for natural resources, the individual's right or desire to mine, and need to protect the environment all be realized and satisfied?"

## **II. ENTRAINMENT**

A. By: Phillip A. North - 1993

"While adult fish did not show a sensitivity to entrainment it is unlikely that they would be sucked into a dredge in the first place. They have the ability to avoid entrainment in a suction dredge by moving to a safer location. All of the investigators who examined the impacts of suction dredges on adult fish concluded that this life stage was not acutely affected (Harvey 1986, Hassler et al. 1986, Summer and Hassler 1992). Harvey (1986) found this to be the case for rainbow trout on streams he studied in California."

## **III. FEED AND FISH**

A. By Dr. Henry Baldwin Ward

"most significant is a possible relation of fine silt to the food of young fish. It has been shown that the presence of finely divided suspensoids of natural origin may be of advantage to the microbiota which constitutes the foundation element in the food supply of water. Studies on aquatic biology conducted by the Wisconsin Survey demonstrated that colloidal organic particles collect on carbon and sand grains to build a culture medium for aquatic bacteria".

B. By: Thomas J. Hassler, William L. Somer, Gary R. Stern - 1986

"During diving surveys, we observed Salmon gairdneri congregating and selectively feeding on benthic invertebrates displaced by dredging."

"Suction dredge mining at levels observed in Canyon Creek probably did not impact steelhead feeding. The mining did not significantly reduce the abundance of aquatic invertebrates (only species composition locally) and steelhead fed opportunistically. In fact , juvenile steelhead were observed feeding on invertebrates that had been entrained in and dislodged by dredge. Thomas (1985) observed cutthroat trout feeding on dislodged invertebrates in the dredge outfall. "However, weight of juvenile steelhead from Canyon Creek was greater than weight from other areas and production (kg/ha) was as good or better than in other areas (table 41)." "Ecological differences between Canyon Creek and BEF were also important in determining colonization of samplers. Overall, the impacts of suction dredge mining to benthic invertebrates at the study site were minimal."

C. From: Robert Lewis, Pollution Bioanalyst III - 1962

"Benthos survival is noted in Table 2. Insects with internal extrusions were listed as mortalities. The mortality figure of 7.4 percent may be extreme because of confinement in the sack. Many caddis larvae were still attached to rocks after passing through the dredge. All insects except those with extrusions appeared lively and unharmed."

"To determine stream distance necessary for insects to settle back to the bottom, a net was placed 15 feet and 25 feet downstream from the outflow. After five minutes at the former distance, Trichoptera, Coleoptera and Diptera were prevalent in the net. Only one Plecoptera was noted. At 25 feet downstream only few insects were caught in the net after five minutes. Underwater inspection with a faceplate indicated that all insects settled within 40 feet. The approximate flow throughout this distance varied from 1 ft./sec. down to 0.5 ft./sec."

D. By: Phillip A. North - 1993

"If recolonization is slow the cumulative impacts of suction dredge mining could be significant over a period of seasons. However, in all of the studies on suction dredges that investigated this question the disturbed stream reach was relatively short (on the order of a few tens of meters) and recolonization proved to be rapid. Griffith and Andrews (1981) found that the dredged site was "substantially recolonized" after 38 days. The abundance within orders of invertebrates were the same before and after dredging and "key" taxa were also the same. Harvey (1986) found that recolonization was complete in terms of numbers of insects within 45 days of dredging. Thomas (1985) sampled the site 30 days after dredging and found, again, that colonization was "substantially complete" for most groups. The number of invertebrates colonizing the artificial substrates used by Somer and Hassler (1992) did not increase after the first sampling at two weeks. None of these investigators sampled their study site earlier than the reported time of recolonization. Recolonization may have occurred sooner than the time reported."

E. By: The U.S. Environmental Protection Agency - 2001

"The results from Resurrection Creek indicated that there was no difference in the macroinvertebrate community between the mining area and the locations downstream of the mining area in terms of macroinvertebrate density and taxa richness. The sampling was done 35 days after mining had been completed for the season and shows a rapid recovery of the mined areas."

#### **IV. FLUSHING FLOWS**

A. By: Gary R. Stern - 1988

"The autumn, winter and spring peak flows of WY 1985 Canyon Creek were adequate to disperse dredge tailing piles and fill in dredge holes. Less than 9% of the holes and tailings from 1984 mining were visible at the start of the 1985 dredge season. Only two sites from 1984 had clear remnants of holes and tailings in 1985. Both of these were far from the stream's thalweg. At a few sites large cobbles and boulders piled along the shore remained visible one year later. Thomas (1985) reported that piles of cobbles remained along the shore one year later at Gold Creek, Montana, but holes and instream tailings had vanished. Harvey et al. (1982) found virtually no evidence of dredge mining the following year in the American River, California. Most streams with mobile beds and good annual flushing flows should be able to remove the instream pocket and pile creations of small suction dredges, although regulated streams with controlled flows may not."

## **V. SEDIMENT**

A. By: Dr. Henry Baldwin Ward

"All of these tests show .That the amount of colloidal material in the water of the Rouge River and its tributaries below the point at which the run-off of placer mine workings has been added to the stream is to small to produce on the bottom a "blanket" which might affect adversely young fish eggs in the nests if present, or the fish food in the water." "Even below the points at which tributaries entered from areas in which placer mining had gone on at earlier months in the year, no change from normal conditions were observed. The pools sheltered migrating fish; they were also seen in the stream below the dams, and a normal supply of fish food was found at various points visited."

*These studies were done on commercial placer mining!*

"The supplementary report of Mr. A. M. Swartley, who aided me in the part of the survey made in September, 1937, is of value in giving the views of a careful and experienced geologist. He confirmed fully statements I had reached in my preliminary report as to the physical conditions found in the Rogue River drainage, and especially the small amount of clay and other material on shores and stream bottoms, in backwaters and otherwise in our examination of the river and its tributaries. He discussed fully the methods of rock disintegration and the transportation and ultimate character of the materials produced. He emphasized the fact that mining debris "is chemically inert, makes no oxygen demand on the stream and therefore takes away from the flowing water nothing which the fish require. This is equally true of this material whether placed in transit by nature or by man since (the products) are alike in nature, come from the same sources and are only being accelerated by man in their journey to the sea." Further he stated:" All these materials entering the streams, whether by natural or human activity, whether coarse or fine, whether traveling on the bottom, in suspension or solution ,are almost altogether inert, suffer little change on their way to the sea, and having reached the end point of chemical change do not rob the water of oxygen which the fish demand, or add to the water toxic agents injurious to fish (fish food or other forms of life)."

## **VI. EFFECTS OF SILT ON FISH**

A. By: Dr. Henry Baldwin Ward

"I have seen among these Alaska rivers in which salmon run and spawn some so heavily loaded with mud that one could not trace the body of an adult salmon ascending the river even when the dorsal fin cut the surface of the water. Yet the fish examined on the spawning grounds just before and just after death showed that the gills had suffered no injuries on the way though the body had met with conspicuous external damage through violent contact with sharp rocks at rapids or falls or along the shore. The examination was made in connection with the study on the cause of death after spawning and all organs were closely inspected. The gills were reported as apparently in perfect condition. Although the object of the investigation was not to determine the effect on the gills of silt loaded waters, still, if any evident injury had been present, it would have been noted. The journey up the Copper and its tributary was long and strenuous; the chance for damage to the salmon from muddy water was certainly large if any damage could be wrought by such conditions, and yet none was observed. Many other similar cases could be cited from printed as well as published records."

"Despite their far greater sensitiveness to changes in environment and susceptibility to injury, the young salmon lived heartily in a concentration of sediment which was at its minimum (760 ppm) twice as much as the maximum recorded at Agness (see Table II ). Indeed the average amount of turbidity in Griffin's experiments was ten times the average recorded at Agness. Those who think that normal erosion products will prove injurious to such fish should examine carefully the records in these tables."

## **VII. EFFECT ON SPAWNING GROUNDS**

A. By: Dr. Henry Baldwin Ward

"Normally the fish cover the eggs by a layer of sand or fine gravel; the fresh water carrying oxygen easily penetrates this cover and the young wriggle out after the eggs hatch. A thin, broken layer such as I have already described would not interfere with the permeation of fresh water with oxygen and the development of such eggs as might be present. But I am clear that this is not a true spawning area. As Mr. Joseph Wharton said in an admirable paper on the salmon of the Rogue River, "It is the ambition of all these species of anadromous fish to ascend the river to the highest point attainable before making their spawning beds, seeking the waters that are purest and coldest." This statement is absolutely correct; In difficult streams or when held behind man-made barriers, these fish struggle to the end to make their way upstream and will sacrifice life rather than accept spawning

areas in the lower reaches of the river. The urge which drives them on is the basis for the safety of the race. For the straggler or the weakling who may find the achievement of headwaters impossible, an enforced spawning in the lower river is of no significance; the river level varies too widely and its current at full flood is too fierce. Eggs deposited at high water will be exposed and die when the water falls; or if the spawning occurs at a lower water level, the next flood waters will bury the eggs or sweep them away. The suddenness, the violence and the irregularity of the changes in water level of the Rogue are conspicuous in the records of every year."

B. By: Thomas J. Hassler, William L. Somer, Gary R. Stern

"Dredge tailings are often referred to as good salmonid spawning substrate. In the Trinity River, chinook salmon have been observed spawning in the tailing piles of suction dredges ( E. Miller pers. comm. ). Steelhead in Idaho streams have been reported to spawn in gravels recently disturbed by human activities ( Orcutt et al. 1968 ). In the American River , Prokopovich and Nitzberg ( 1982 ) have shown salmon spawning gravels have mostly originated from old placer mining operations."

"Anadromous salmonids held and spawned in Canyon Creek in close proximity to suction dredge activity. During the 1984-1985 spawning season, fall-run chinook salmon, coho salmon and steelhead spawned in areas actively dredged during the 1984 dredge season (fig.). In August 1985, spring-run chinook salmon and summer-run steelhead were holding near areas where suction dredges were being operated (fig. 23). During the 1985 spawning season, fall and spring-run chinook salmon spawned in areas actively dredged during the 1985 dredge season (fig. 24)."

C. By: Gary R. Stern - 1988

"Suction dredge mining did not appear to influence the locations of adult anadromous salmonid summer-holding areas. One spring-run chinook salmon was observed 50 m below an operating dredge and a summer-run steelhead was seen at the upper end of a 30 m-long pool while a dredge was operating at the lower end. Seven other adult salmonids were observed within 250 m of an active dredge operation and none appeared to be disturbed by mining activities. During a 1980 diving survey by Freese (1980), an adult spring-run chinook salmon was observed holding at the bottom of an abandoned dredge hole in Canyon Creek and other adult salmonids were found in close proximity to active dredges. No relation between holding areas of

spring/summer-run fish and suction dredge mining operations was apparent during this study or in 1980 (L. Freese pers. comm.)."

## **VIII. CHANGES IN THE STREAM BED**

A. By : Dr. Henry Baldwin Ward

"To be sure no one can think rightly of the stream itself as a constant environment. On the contrary it is undergoing continual change. The amount and location of winter's snowfall, the volume and time of seasonal rains, the duration and precise period of regional droughts, and other climatic variations produce variations in water level, in bank erosion, in growth of grasses, underbrush and trees in the drainage basin; thus sudden and often extreme changes in contours of the banks and surrounding country add sediments of different types to its waters and modify the conditions under which the fish it harbors are forced to live." Number one on the list of things that change the shape of the stream bed are DAMS!"

B. By: Thomas J. Hassler, William L. Somer, Gary R. Stern - 1986

"However during the suction dredge mining process, a new pool area is created by the cone shaped dredge hole. Dace, suckers and juvenile steelhead were observed feeding and resting in Canyon Creek dredge holes. Freese ( 1980 ) observed a small spring-run chinook salmon holding in a dredge-created pool on Canyon Creek".

"The majority of suction dredge operators in canyon creek did not work long periods or disturb large areas of the stream. Dredging impacts upon the channel geomorphology were confined to the area dredged and the area immediately down stream."

"Winter and spring flushing flows filled in dredge holes and dispersed tailing piles." "Coho salmon and steelhead juveniles appeared to rear normally in the creek and were observed using dredge holes in the summer. Steelhead juveniles received the greatest exposure to dredging activity as they rear in Canyon Creek up to three years, but their feeding, growth and production did not seem to be impacted at the current level of dredge activity."

C. By: Somer and Hassler - 1992

"The effects of the two dredges on aquatic insects varied with taxa and were site specific. Dredging dislodged insects, and we observed young coho salmon and steelhead feeding on them. The stream underwent major but localized changes. Dredge hole were excavated to a depth of 2 m, and substrate was altered to bedrock and large cobbles-probably

a poor habitat for colonization. However, the effects of dredging (at the operating level during the study) on insects and habitat were minor compared with those of bed-load movement due to large stream flows during storms and from snowmelt."

D. By: Gary R. Stern - 1988

"Lewis (1962) was the first to investigate the effects of the portable suction gold dredge on the aquatic habitat of fish and benthic invertebrates. He operated a 12.7 cm aperture dredge in Clear Creek, Shasta County, California and found that dredging could improve the intergravel environment for both fish eggs and benthos if the stream was mined in a uniform manner."

"If dredge mining regulations were expounded upon and miners were made aware of the instream habitat needs of salmonids, the most serious impacts of suction dredge mining could be reduced. Suction dredgers may even be able to enhance certain areas of the channel for rearing and spawning fish, if some of the limiting factors of a reach of stream are identified (ie. cover, woody debris, low velocity refuges, clean gravels). In Canyon Creek, current CDFG suction dredge regulations eliminate conflicts with salmonid spawning, incubation, and fry emergence by restricting mining to summer months. The 15.24 cm maximum aperture size for dredges is appropriate since stream substrate is large, but larger apertures may be too disruptive in the small channel."

E. By: Robert Lewis, Pollution Bioanalyst III

Results of Gold Suction Dredge Investigation;

"Table 1 lists stand pipe results. The site average indicates an improvement from dredging of 1 p.p.m. in DO and a threefold improvement in permeability and velocity. As indicated above, dredged sand settled within 12 feet of the sluice outflow. This occurrence tends to somewhat nullify removal of sediment, but dredged areas are definitely relieved of compaction. As a gross measure, the standpipe was much easier to drive in the dredged area. As evidenced by photographs the gravel appears much cleaner after dredging. Weighing all factors, dredging can improve the gravel environment for both fish eggs and aquatic insects, especially if the operator mined uniformly in one direction as opposed to a pocket and pile method."

F. By: Phillip A. North - 1993

"The four studies that I reviewed from journals subject to peer review consistently found that when certain limitations are placed on suction dredge activity the impacts on the stream ecosystem are local and of short duration."

G. By: Bret C. Harvey - 1986

"Fish and invertebrates displayed considerable adaptability to dredging, probably because the streams naturally have substantial seasonal and annual fluctuations (Moyle et al. 1982). These fluctuations, in the form of flushing winter flows, can greatly reduce the long term impact of dredging. Even during the relatively mild winter of 1980/81, high flows still filled the hole created by dredging on NFAR with a sand and gravel mixture and eliminated all sand from the main stream. After the high flows in winter and spring of 1981/82, no substrate changes caused by dredging in the previous summer were evident on Butte Creek. Saunders and Smith (1965) observed a quick recovery in the trout population after scouring of a heavily silted stream, which, along with the quick temporal recovery of stream insects seen in this study, implies that suction dredging effects could be short-lived on streams where high seasonal flows occur."

## **IX. TEMPERATURE**

A. By: Thomas J. Hassler, William L. Somer, Gary R. Stern - 1986

"and dredge mining had little, if any, impact on water temperature."

## **X. TURBIDITY**

A. By: Dr. L. E. Giiffin

"When the test ended on Dec. 30, it was found that a much larger proportion of the fish in the sediment -containing trough had survived (56%) than in the clear water trough (10%). There was no noticeable difference in the color of the surviving fish in the two troughs, and the fish which had lived in the muddy water were as large as the survivors from the clear-water trough."

"The results of the experiments indicate that young trout and salmon are not directly injured by living for considerable periods of time in water which carries so much soil sediment that it is made extremely muddy and opaque. They also indicate that cutthroat trout and salmon fingerlings can feed and grow apparently well in very muddy water."

B. By: Dr. Henry Baldwin Ward

"In contrast with all these the experiments of Dr. Griffin have shown that young fish live well up to 30 days in good water mixed with an amount of natural soil materials from two to three times as large as the extreme load of the materials contributed to the Rogue River by maximum conditions produced by placer mining."

"All the evidence that has been obtained justifies the conclusion that no present-day contributions of materials produced by bank erosion differ in character or exceed in amount those added periodically by purely natural processes in past times. Splendid runs of salmon and steelhead were established and maintained under truly natural conditions which certainly were on occasion more extreme and violent before man ever came into the picture than they are today. Furthermore, there is good reason to believe that placer mining run-off was larger in amount and more continuous in the early years of that industry when for a time at least greater areas were followed than are employed today."

*This study was done to study the effects of large scale placer mining operations!*

## **XI. WATER QUALITY**

A. By: Thomas J. Hassler, William L. Somer, Gary R. Stern

Water quality was impacted only during the actual operation of a suction dredge. Since a full day of mining by most Canyon Creek operators included only 2 to 4 hours of dredge running time, water quality was impacted for a short time.

B. By: Gary R. Stern - 1988

"Turbidity plumes below suction dredges are often markedly visible due to extremely low ambient turbidity levels in mountain streams. The extent of the plume depends on the grain size and volume of the material passing through the dredge. Horizons of silt-laden substrate were disturbed at all dredge sites in Canyon Creek and created highly visible turbidity plumes. "

**"Although distinct to even the most casual observer, dredge plumes in Canyon Creek were probably of little direct consequence to fish and invertebrates.** Suspended sediment concentrations of 20,000 to 100,000 mg/l which impact fish feeding and respiration (Cordone and Kelly 1961) greatly exceed the highest level of 274 mg/l measured in Canyon Creek. In general, dredge turbidity plumes were highly localized and occurred during midday which is not a peak feeding

period for steelhead (Moyle 1976). Laboratory studies by Sigler et al. (1984) found that steelhead and coho salmon preferred to stay in channels with clear water, and turbidities as little as 25 NTU's caused a reduction in fish growth. **In contrast to Sigler's results, young steelhead in Canyon Creek appeared to seek out dredge turbidity plumes to feed upon dislodged invertebrates even though clear flowing water was available nearby."**

C. By: Phillip A. North - 1993

"Most water quality studies of the effects of suction gold dredges on streams have focused on turbidity and suspended sediments. These studies have, with some exceptions, largely found that water quality is impacted for a distance downstream of the dredge ranging from a few meters to 30 meters."

"However, Huber and Blanchet (1992) found no evidence of cumulative impacts of mining on water quality in streams of the Chugach National Forest in Alaska. They monitored streams in the Forest over a period of three years and found no noticeable impact to water quality associated with suction dredges. **All of the studies that I surveyed came to the same conclusion: suction gold dredging had localized and short term impacts.** Caveats must be taken into account when coming to this conclusion:

All of these studies, except one involved small dredges, 6 inches or less. The one study that involved a larger dredge reported only a small amount of data. Five water samples were taken 500 feet below a six inch dredge and one sample was taken 500 feet below an 11 inch dredge."

D. By: The U.S. Environmental Protection Agency - 2001

"In the 1997 permit, EPA defined a small suction dredge as those with nozzles less than or equal to four inches. EPA is proposing to redefine the small suction dredge range as less than or equal to six inches. Information provided in EPA's suction dredge study and the United States Geological Survey (USGS) study support the conclusion that there are local but short term effects on both water quality and macroinvertebrate communities in the mining areas. On the Fortymile River, dredges larger than those proposed under this GP showed that turbidity was reduced to background levels within 250 feet. It is expected that small dredges would have even less impact on the downstream receiving water quality."

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The quotes listed in this document were taken word for word out of the documents written by the scholars named above each quote.

This information was compiled with the intent to inform and educate, so the true facts can be a part of the process in the rule/regulation making pertaining to small scale placer mineral/metal mining and prospecting in our rivers and streams.

**With special thanks to the Washington Alliance of Miners and Prospectors and Jerry Hobbs.**

**Frank Ames - Spring 1995**

**Note on DR. HENRY BALDWIN WARD**

Dr. Henry Baldwin Ward was born into a family of highly regarded scientists. His father, Richard Halsted Ward, was a noted Microscopist who made many advances and inventions in his field. His Aunt, Anna Lydia Ward, in 1886, traveled farther North than, up to that date, any other American woman. Her study of the Eskimos in Northern Labrador formed the basis of an illustrated lecture tour that she gave throughout the country. She was also the author of a number of books on poetry and prose. With this kind of background it is no wonder that Henry himself became a scientist of great renown. Today, the highest award given in the field of parasitology is the "[Henry Baldwin Ward](#)" medal. Henry may also be thought of as one of America's first conservationists.

The following biography is a reprint from "The Dictionary of American Biography," Supplement Three, 1941-1945; pages 802-803; Charles Scribner's Sons, Inc. New York, 1973; Edward T. Jones, Editor.

WARD, HENRY BALDWIN (Mar. 4, 1865-Nov. 30, 1945), zoologist and parasitologist, was born in Troy, N. Y., one of four children and the older of the two sons of Richard Halsted Ward, physician and microscopist, and Charlotte Allen (Baldwin) Ward. Both parents were natives of Bloomfield, N. J. Henry B. Ward attended the public schools of Troy and Williams College (his father's alma mater), from which he graduated, A. B., in 1885. After three years of teaching science in the Troy high school, he went to Europe in 1888 for graduate study in zoology, and for two years attended the universities of Göttingen, Freiburg, and Leipzig, spending the vacation periods at the marine laboratories of Naples, Ville-Franche-sur-Mer, and Helgoland. He was particularly influenced by Prof. Rudolph Leuckart of Leipzig, an authority on the invertebrates and founder of the celebrated laboratory of parasitology. At Leipzig, Ward conceived the ambition to found a similar laboratory in the United States. Upon his return in 1890, he entered the graduate school of Harvard University, where he received the Ph. D. degree in 1892, with a dissertation on the marine nematomorph *Nectomnema agile*, Verrill, a species he had observed at Naples.

Ward was appointed instructor in zoology at the University of Michigan in 1892 but moved after a year to the University of Nebraska, at first

as associate professor, from 1896 as professor. While at Nebraska he published a series of papers on the parasites of man and discovered the presence in the United States of the human lung fluke, *Paragonimus*. He played a major role in developing a two-year premedical course and in 1902 became the first dean of the University of Nebraska College of Medicine, newly established at Lincoln in affiliation with the Omaha Medical College. In 1909, however, plans were made to move the Lincoln unit to the Omaha campus. When it became clear that, because of rivalries between the two medical faculties, Ward would not be retained as dean after the move, he resigned.

That fall he went to the University of Illinois as head of the department of zoology, a position he was to occupy with distinction until his retirement in 1933. In addition to teaching zoology at the undergraduate level, he established one of the first research laboratories in the United States to offer graduate work in parasitology. The large number of students who received the Ph. D. under his supervision later made significant contributions to the growth of this science. To provide an outlet for publishing the results of such research, he inaugurated in 1914, with the assistance of his colleagues Stephen A. Forbes and William Trelease, the series of Illinois Biological Monographs. That same year he also founded the *Journal of Parasitology*, the first American publication devoted to the field; he continued to edit the journal until 1932, when he presented it to the American Society of Parasitologists to become its official organ.

Ward's research reflected in part his love of the outdoors. He early began biological research on the Great Lakes, at first for the Michigan Fish Commission. For many years, beginning in 1906, he conducted summer field investigations of the Alaska and Pacific salmon. Besides his papers on parasites, which dealt with such subjects as parasites of the human eye, the relations of animal parasites to disease, and the spread of fish tapeworm, he was the co-author, with George Chandler Whipple, of *Fresh-Water Biology* (1918), long a standard work. An active member of the Izaak Walton League of America, of which he was president, 1928-30, and of the National Wild Life Federation, Ward was deeply concerned with national problems of wildlife conservation and the pollution of streams.

Ward belonged to a large number of scientific societies and was a leader of many, including the American Microscopical Society (president, 1905), the American Society of Zoologists (president 1912-1914), and the American Society of Parasitologists, of which he was the first president when it was founded in 1925. He contributed

significantly to the development of the American Association for the Advancement of Science, as the secretary of Section F (zoology) in 1900, general secretary (1902), vice-president (1905), and permanent secretary (1933-37); and the scientific honor society, Sigma Xi, as secretary (1904-1921) and president (1922-23). Ward was influential also in university affairs. At Illinois he worked closely with President Edmund J. James; articulate and well-spoken, he was particularly effective on faculty committees. He received honorary doctorates from the universities of Cincinnati (1920), Oregon (1932), and Nebraska (1945) and from Williams College (1921).

Ward was a handsome, vigorous man, somewhat above average height. Aristocratic, autocratic, ambitious, and enthusiastic, he demanded excellence of himself and of others. On Sept. 11, 1894, he married Harriet Cecilia Blair of Chicago, who was teaching at the music school of the University of Nebraska. They had two daughters, Cecilia Blair and Charlotte Baldwin. Ward was a member of the Presbyterian Church. He died in Urbana, Ill., of a heart attack in his eighty-first year, and was buried there in Mount Hope Cemetery. Sometimes called the "Father of American Parasitology," he was to America what Leuckart had been to Germany.

**From:** "Ron Kliewer" <kliwer1@verizon.net>  
**To:** <dfgsuctiondredge@dfg.ca.gov>, "Ron Kliewer" <kliwer1@verizon.net>  
**Date:** 12/3/2009 9:12 PM  
**Subject:** dredging studies/comments for dredge study scoping period

Comments for consideration in the Suction Dredging SEIR:

By Ron Kliewer, U.S. Taxpayer, 35 year prospector, dredger, contributing author for ICMJ Mining Journal.

Dear Mr. Stopher,

I appreciate the fact you held 3 public hearings on this matter instead of only the required one meeting and took the time to talk to me individually in Fresno. It was beneficial in the fact I learned you did not know some basic things about mining (like what miner's moss is) and I didn't know other basic things like how environmentalists define terms (like invertebrates are fish, too). Open communication is helpful for all concerned.

As you may recall, I showed you some lead and mercury coated gold I had recovered with my dredge from the Salmon River several years ago. We discussed the pros and cons of what benefits dredging may have on the removal of mercury from the active waterways. You stated that a study had been done showing that dredging does remove 98% of the mercury that is dredged up, but that the 2% that is lost back into the river is floured so as to render it more dangerous to the environment than if all of it was left on the bottom of the river. I did some research and found the report to which I believe you were referring to. The report also declared the quantity of the mercury that was not captured by the dredge as being above the level that would be considered hazardous waste. The sampling and subsequent report was done by Rick Humphreys (Division of Water Quality, CA Water Boards) and some others in July, 2003. After reviewing the Staff Report prepared by Mr. Humphreys, here are my conclusions and suggestions:

First of all, the test was done on a mercury "hotspot" which is non- typical of the majority of the many miles of streams and rivers. Most reaches of the waterways don't have nearly as high of mercury levels as the location in the North Fork of the American River downstream from the historic Sutter's mill that was tested.

Second, the 4 inch Keene dredge used in the test did not employ the use of miner's moss in the recovery system. It only had a layer of carpet under the metal riffles in the sluice box. This set up will not collect the ultra fine values of gold and mercury present in the streambed sediments.

Here is what I am proposing:

Do more dredge tests to study mercury recovery levels utilizing miner's moss in the recovery system, testing not only in a mercury hot spot, but in an average reach of a river. In the study, also experiment with various recovery systems to see if 100% or very near 100% mercury recovery is achievable i.e. flared sluice box, over-under sluice, etc. Some claim 100% recovery has already been achieved with miner's moss in the sluice.

I remember you stating that no river testing of dredging would be done for this SEIR due to the SB-670 law that the Governor signed into law. However, the regulations that may be promulgated from the findings of this process and ultimately the final SEIR, will most definitely be utilizing incomplete data if this additional field study is not performed. I think a variance should be obtained to allow one or two dredges to be put in the water for research purposes. I suppose it could be done in Oregon or Washington that have not outlawed dredging, but would be better right here in CA, on the same mercury hotspot and several other sample locations. I am willing to volunteer my time and dredge equipment for this study. We should be able to come up with the sediment samples for laboratory testing in a day or two of dredging at each location.

I don't think the SEIR will be complete without performing this very critical step in evaluating and coming to a logical, educated decision. This makes a lot more sense than just talking about past tests, studies, experiences, etc., then speculating on what rules to apply to suction dredging. Think what could be accomplished in environmental cleanup if improved recovery systems were mandatory in all dredges (like spark arrestors on engines are now, etc). Imagine how much mercury, lead and other metals that could be cleaned out of the state's waterways at little or no cost to the state if dredges are allowed to keep exercising their right to mine in California.

This video shows what has been happening in WA state in regards to miners recovering mercury from the rivers:  
<http://www.goldrushu.com/Washington-Miners-Awarded-for-Removing-Mercury.html>

-Ron Kliewer, December 2, 2009

----- Original Message -----

From: Ron Kliewer  
To: dfgsuctiondredge@dfg.ca.gov  
Sent: Saturday, November 28, 2009 10:41 PM  
Subject: Mark Stopher/ dredging studies

Hello Mark,

Thank you for taking the time to meet with the public on this important issue. I, as you, drove well over 300 miles the other day to the meeting

in Fresno. Please find attached the studies I told you about that related to dredging in other western states. I hope the information is helpful for you in your research. I will have some more to send you before the deadline on Dec.3.

Ron Kliewer  
www.goldrushu.com

**From:** "Ron Kliewer" <kliewer1@verizon.net>  
**To:** <dfgsuctiondredge@dfg.ca.gov>  
**Date:** 12/2/2009 7:15 PM  
**Subject:** Suction Dredging Comments for SEIR Scoping  
**Attachments:** Comments for consideration in the Suction Dredging SEIR.docx

Attention Mark Stopher:  
Please see attachment for comments. Thanks.  
-Ron Kliewer

Comments for consideration in the Suction Dredging SEIR:

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-Ron Kliewer, December 2, 2009

**From:** "Ron Kliewer" <kliwer1@verizon.net>  
**To:** <dfgsuctiondredge@dfg.ca.gov>  
**Date:** 11/28/2009 10:41 PM  
**Subject:** Mark Stopher/ dredging studies  
**Attachments:** JOHNSON, 2004, Effects of Small-Scale Gold Dredging on Metals Concentration  
sin the Similkameen Ri.pdf; WASHINGTON ALLIANCE OF MINERS AND  
PROSPECTORS,,  
Excerpts From Suction DredgeStudies.pdf

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Ron Kliewer  
[www.goldrushu.com](http://www.goldrushu.com)

**From:** "Roy J. Johnson" <royjohn@pacbell.net>  
**To:** <dfgsuctiondredge@dfg.ca.gov>  
**Date:** 12/3/2009 11:48 AM  
**Subject:** Dredge Info.  
**Attachments:** Joseph-Greene-suction-gold-dredge-study.doc; 1986.htm

Hi

This is some very good info on Dredging and I'm assuming you have already looked at this info in depth. If you have not please spend some time with it if you will. Thank You

Roy J. Johnson

State Water Resources Control Board  
Division of Water Quality  
P.O. Box 100  
Sacramento, California 95812-0100  
Fax: 916-341-5620  
email: [commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov)

June 6, 2007

Subject: **SUCTION DREDGE MINING**

Dear Board Members,

Thank you for allowing me this opportunity to comment on the water quality aspects of small-scale suction dredge mining.

As I have searched the scientific literature for studies on the effects of small-scale suction dredge mining on the environment I have learned that the preponderance of the published research studies have been directed towards assessment of its effect on the biology of the streams and rivers. In nearly every instance the results have concluded that the effects were less than significant.

In water quality terms some studies have discussed turbidity, water temperature, and suspension of heavy metals into the overlying water. I will focus my water quality comments on these three areas. But first I would like to put this issue in to perspective.

### **GEOGRAPHICAL SCALE OF SMALL-SCALE SUCTION DREDGING**

It has been observed that environmentalists opposing suction dredging use data gleaned from reports that studied effects of environmental perturbations that are occurring on a system-wide basis. For example, they would characterize the affects of turbidity from a suction dredge as if it would impact downstream organisms in a manner that system-wide high water flow events might. This approach is entirely inconsistent with the way in which suction dredges operate or generally impact their downstream environment.

The California Department of Fish and Game (1997) described typical dredging activities as follows' "An individual suction dredge operation **affects a relatively small portion of a stream or river**. A recreational suction dredger (representing 90-percent of all dredgers) may spend a total of four to eight hours per day in the water dredging an area of 1 to 10 square meters. The average number of hours is 5.6 hours per day. The remaining time is spent working on equipment and processing dredged material. The area or length of river or streambed worked by a single suction dredger, as compared to total river length, is relatively small compared to the total available area."

In the Oregon Siskiyou National Forest Dredge Study, Chapter 4, Environmental Consequences, some perspective is given to small-scale mining. "The average claim size is 20 acres. The total acreage of all analyzed claims related to the total acres of watershed is about **0.2 percent**. The average stream width reflected in the analysis is about 20 feet or

less and the average mining claim is 1320 feet in length. The percentage of land area within riparian zones on the Siskiyou National Forest occupied by mining claims is estimated to be only **0.1 percent.**” The report goes on to say, “Over the past 10 years, approximately 200 suction dredge operators per season operate on the Siskiyou National Forest” (SNF, 2001).

A report from the U.S. Forest Service, Siskiyou National Forest (Cooley, 1995) answered the frequently asked question, “How much material is moved by annual mining suction dredge activities and how much does this figure compare with the natural movement of such materials by surface erosion and mass movement?” The answer was that suction dredges moved a total of 2,413 cubic yards for the season. Cooley (1995) used the most conservative values and estimated that the Siskiyou National Forest would move 331,000 cubic yards of material each year from natural causes. Compared to the 2413 (in-stream) cubic yards re-located by suction mining operations the **movement rate by suction dredge mining would equal about 0.7% of natural rates.**

It has been suggested that a single operating suction dredge may not pose a problem but the operation of multiple dredges would produce a cumulative effect that could cause harm to aquatic organisms. However, “No additive effects were detected on the Yuba River from 40 active dredges on a 6.8 mile (11 km) stretch. The area most impacted was from the dredge to about 98 feet (30 meters) downstream, for most turbidity and settleable solids (Harvey, B.C., K. McCleneghan, J.D. Linn, and C.L. Langley, 1982). In another study, “Six small dredges (<6 inch dredge nozzle) on a 1.2 mile (2 km) stretch had no additive effect (Harvey, B.C., 1986). *Water quality was typically temporally and spatially restricted to the time and immediate vicinity of the dredge* (North, P.A., 1993).

A report on the water quality cumulative effects of placer mining on the Chugach National Forest, Alaska found that, “The results from water quality sampling do not indicate any strong cumulative effects from multiple placer mining operations within the sampled drainages.” “Several suction dredges probably operated simultaneously on the same drainage, but did not affect water quality as evidenced by above and below water sample results. *In the recreational mining area of Resurrection Creek, five and six dredges would be operating and not produce any water quality changes* (Huber and Blanchet, 1992).

The California Department of Fish and Game stated in its Draft Environmental Impact Report that “Department regulations do not currently limit dredger densities but the activity itself is somewhat self-regulating. Suction dredge operators must space themselves apart from each other to avoid working in the turbidity plume of the next operator working upstream. *Suction Dredging requires relatively clear water to successfully harvest gold*“ (CDFG, 1997).

## ELEVATED TURBIDITY AND SUSPENDED

*Suction dredging causes less than significant effects to water quality.* The impacts include increased turbidity levels caused by re-suspended streambed sediment and pollution caused by spilling of gas and oil used to operate suction dredges (CDFG, 1997).

“Suction dredges, powered by internal combustion engines of various sizes, operate while floating on the surface of streams and rivers. As such, oil and gas may leak or spill onto the water’s surface. *There have not been any observed or reported cases of harm to plant or wildlife as a result of oil or gas spills associated with suction dredging*” (CDFG, 1997).

The impact of turbidities on water quality caused by suction dredging can vary considerably depending on many factors. Factors which appear to influence the degree and impact of turbidity include the amount and type of fines (fine sediment) in the substrate, the size and number of suction dredges relative to stream flow and reach of stream, and background turbidities (CDFG, 1997).

Because of low ambient levels of turbidity on Butte Creek and the North Fork American River, California, Harvey (1986) easily observed increases of 4 to 5 NTU from suction dredging. Turbidity plumes created by suction dredging in Big East Fork Creek were visible in Canyon Creek 403 feet (123 meters) downstream from the dredges (Somer and Hassler, 1992).

In contrast, Thomas (1985), using a dredge with a 2.5-inch diameter nozzle on Gold Creek, Montana, found that suspended sediment levels returned to ambient levels 100 feet below the dredge. Gold Creek is a relatively undisturbed third order stream with flows of 14 cubic feet per second. A turbidity tail from a 5-inch (12.7 cm) dredge on Clear Creek, California was observable for only 200 feet downstream. Water velocity at the site was about 1 foot per second (Lewis, 1962).

Turbidity below a 2.5 inch suction dredge in two Idaho streams was nearly undetectable even though fine sediment, less than 0.5 mm in diameter, made up 13 to 18 percent, by weight, of substrate in the two streams (Griffith and Andrews, 1981).

"During a dredging test carried out by the California Department of Fish and Game on the north fork of American River, it was concluded that turbidity was greatest immediately downstream, returning to ambient levels within 100 feet. Referring to 52 dredges studied, Harvey (1982) stated "...generally rapid recovery to control levels in both turbidity and settleable solids occurred below dredging activity."

Hassler (1986) noted "...during dredging, suspended sediment and turbidity were high immediately below the dredge, but diminished rapidly within distance downstream." He measured 20.5 NTU 4 meters below a 5-inch dredge that dropped off to 3.4 NTU 49 meters below the dredge. Turbidity from a 4-inch dredge dropped from 5.6 NTU 4 meters below to 2.9 NTU 49 meters below with 0.9 NTU above. He further noted "...water

quality was impacted only during the actual operation of the dredge...since a full day of mining by most Canyon Creek operators included only 2 to 4 hours of dredge running time, water quality was impacted for a short time." Also "...the water quality of Canyon Creek was very good and only affected by suction dredging near the dredge when it was operated."

The US Geological Survey and the Alaska Department of Natural Resources conducted a survey into dredging on Alaska's Fortymile River, which is a river designated as a wild and scenic corridor. The study stated, "One dredge had a 10-inch diameter intake hose and was working relatively fine sediment on a smooth but fast section of the river. The other dredge had an 8-inch intake and was working coarser sediments in a shallower reach of the river. State regulations require that suction dredges may not increase the turbidity of the river by more than 5 nephelometric turbidity units (NTU), 500 feet (=150m) downstream. In both cases, the dredges were well within compliance with this regulation."

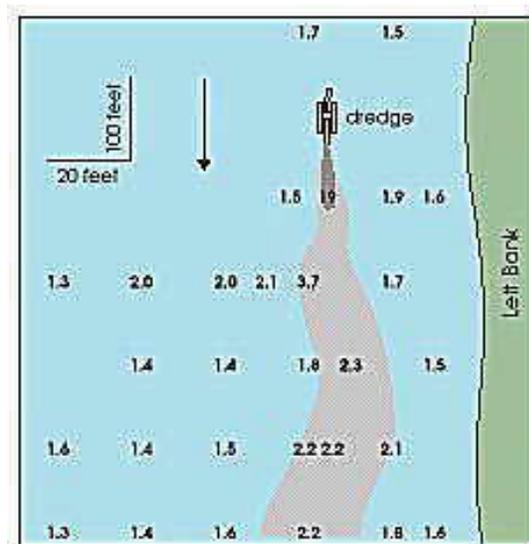


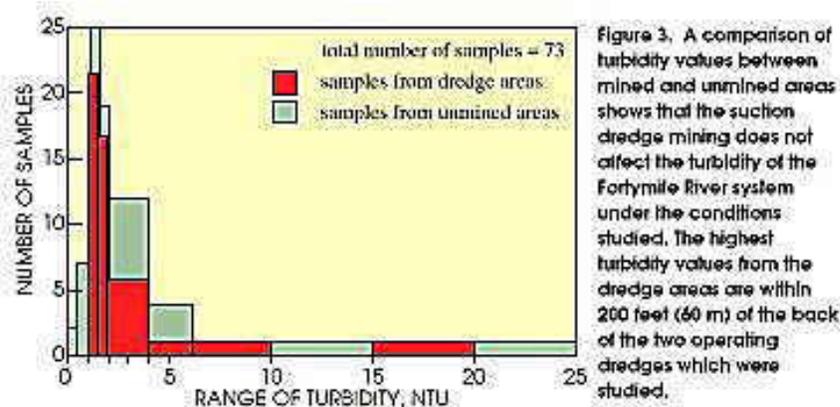
Figure 2. Results of turbidity survey behind an operating 10-inch suction dredge (site #1 on fig. 1). All numbers shown are in NTU, or nephelometric turbidity units; the standard unit of turbidity. The right bank of the river is off the edge of the figure. The approximate shape of the plume is shown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

<http://www.akmining.com/mine/usgs1.htm>

Samples were collected on a grid extending downstream from the dredges as they were operating and compared to measurements made upstream of the dredges. One dredge had a 10-inch diameter intake hose and was working relatively fine sediments on a smooth but fast section of the river. The results of the turbidity survey for the 10-inch dredge are shown on figure 2. Turbidity values behind the 8-inch dredge were lower, because the smaller intake was moving less sediment material, and because the coarser sediments being worked by the 8-inch dredge settled more rapidly

The turbidity values found in the dredge studies fall within the range of turbidity values found for currently mined areas of the Fortymile River and many of its un-mined tributaries. Figure 3 shows the ranges of turbidity values observed along the horizontal axis, and the number of samples that fall within each of those ranges. For example, 25 samples had turbidity between 1.0 and 1.5 NTU, 22 of which were in a dredged area. The

highest turbidity value was from an un-mined tributary to Uhler Creek; the lowest from a number of different tributaries to the North Fork. As seen on the figure, there is no appreciable difference in the distribution of turbidity values between mined and un-mined areas.



<http://www.akmining.com/mine/usgs1.htm>

In American studies, average turbidity levels have been shown to be between 5 and 15 NTU 5 meters below dredges. But even the maximum turbidity level measured in a clay pocket (51 NTU) fell below 10 NTU within 45 meters. Turbidity increases, from even large dredges on moderate sized streams, have shown to be fairly low, usually 25 NTU or less, and to return to background within 30 meters. The impact is localized and short lived; indicating minimum impact on moderate and larger waterways.

Within any waterway, sediment is primarily carried in suspension during periods of rainfall and high flow. This is an important point, as it indicates that a dredging operation has less, or at least no greater effect on sediment mobilization and mobility than a rain storm."

All of these research studies have concluded that only a local significant effect occurs, with it decreasing rapidly downstream. The studies have been wide spread, having been undertaken in Alaska, Idaho, California, Montana and Oregon.

The science supports *de minimus* status for  $\leq 6$ -inch suction dredges. Turbidity is *de minimus* according to the U.S. Army Corps of Engineers.

"Effects from elevated levels of turbidity and suspended sediment normally associated with *suction dredging as regulated in the past in California appear to be less than significant with regard to impacts to fish and other river resources* because of the level of turbidity created and the short distance downstream of a suction dredge where turbidity levels return to normal" (CDFG, 1997).

Furthermore, individuals that have not, in fact, operated suction dredges may not realize that it is a self-limiting operation. The dredge operator must be able to see his work area to operate safely and manage the intake of the dredge nozzle. *If high levels of turbidity*

*were to flood the dredger's work area and render him "blind" he would have to move the operation to another location.*

### **INCREASING WATER TEMPERATURE**

Responsible suction dredge miners do not dredge stream banks (it is illegal). Dredging occurs only in the wetted perimeter of the stream. Therefore, it is unlikely suction dredging will cause a loss of cover adjacent to the stream.

Solar radiation is the single most important energy source for the heating of streams during daytime conditions. The loss or removal of riparian vegetation can increase solar radiation input to a stream increasing stream temperature. ***Suction dredge operations are confined to the existing stream channel and do not affect riparian vegetation or stream shade*** (SNF, 2001).

Suction dredging could alter pool dimensions through excavation, deposition of tailings, or by triggering adjustments in channel morphology. Excavating pools could substantially increase their depth and increase cool groundwater inflow. This could reduce pool temperature. If pools were excavated to a depth greater than three feet, salmonid pool habitat could be improved. In addition, ***if excavated pools reduce pool temperatures, they could provide important coldwater habitats for salmonids living in streams with elevated temperatures*** (SNF, 2001).

Dredge mining had little, if any, impact on water temperature (Hassler, T.J., W.L. Somer and G.R. Stern, 1986). In addition, the Oregon Siskiyou Dredge Study states, ***"There is no evidence that suction dredging affects stream temperature"*** (SNF, 2001).

Increases in sediment loading to a stream can result in the stream aggrading causing the width of the stream to increase. This width increase can increase the surface area of the water resulting in higher solar radiation absorption and increased stream temperatures. ***Suction dredge operations are again confined to the existing stream channel and do not affect stream width*** (SNF, 2001).

Stream temperature can also increase from increasing the stream's width to depth ratio. The suction dredge operation creates piles in the stream channel as the miner digs down into the streambed. The stream flow may split and flow around the pile decreasing or increasing the wetted surface for a few feet. However, within the stream reach that the miner is working in, the change is so minor that the overall wetted surface area can be assumed to be the same so the total solar radiation absorption remains unchanged. ***Suction Dredging results in no measurable increase in stream temperature*** (SNF, 2001).

"Small streams with low flows may be significantly affected by suction dredging, particularly when dredged by larger dredges (Larger than 6 inches) (Stern, 1988). However, the California Department of Fish and Game concluded, "current regulations restrict the maximum nozzle size to 6 inches on most rivers and streams which, in

*conjunction with riparian habitat protective measures, results in a less than significant impact to channel morphology” (CDFG, 1997).*

## WATER CHEMISTRY

Concern has been raised that small-scale dredge operations may increase the metal load of the surface waters. Whereas dredge operations do re-suspend the bottom sediment, the magnitude of this disturbance on stream metal loading was unknown. It was unknown what affect the dredge operations may have on the transport and redistribution of metals—some of which (for example, arsenic, copper, and zinc) have environmental importance.

The U.S. Geological Survey and the Alaska Department of Natural Resources cooperated in a project, on Fortymile River, to provide scientific data to address these questions. This river is designated a Wild and Scenic Corridor by the Alaska National Interest Lands Conservation Act. Current users of the river include placer mine operators, as well as boaters and rafters. Along the North Fork Fortymile River, and just below its confluence with the South Fork, mining is limited to a few small suction dredges which, combined, produce as much as a few hundred ounces of gold per year. In this area, some potential environmental concerns have been raised associated with the mining activities, including increased turbidity of the river water; adverse impact on the overall chemical quality of the river water; and potential additions of specific toxic elements, such as arsenic, to the river during mining operations.

Field measurements were made for pH, turbidity, electrical conductivity (a measure of the total dissolved concentrations of mineral salts), and stream discharge for the Fortymile River and many of its tributaries. Samples were collected at the same time for chemical analyses, including trace-metal analyses

Water-quality samples were collected at three points 200 feet behind each of the two operating suction dredges. One sample was collected on either side of the plume, and one in the center of the plume. The samples were passed through a filter with a nominal pore size of 0.45 micrometers and acidified to a pH less than about 2. Results are shown in the following table. Samples 1A, 1C, 2A, and 2C are from either side of the plume behind dredges 1 and 2, respectively. Samples 1B and 2B are from the center of each plume. All concentrations given are in micrograms per liter, except pH, which is expressed in standard units.

The data show similar water-quality values for samples collected within and on either side of the dredge plumes. Further, the values shown in the table are roughly equal to or lower than the regional average concentrations for each dissolved metal, based on the analyses of 25 samples collected throughout the area. Therefore, ***suction dredging appears to have no measurable effect on the chemistry of the Fortymile River*** within this study area. We have observed greater variations in the natural stream chemistry in the region than in the dredge areas (Wanty, R.B., B. Wang, and J. Vohden. 1997).

		Side 1	Dredge 1	Side 2		Side 1	Dredge 2	Side 2
		1A	1B	1C		2A	2B	2C
pH		7.7	7.6	7.8		7.0	7.5	7.5
Arsenic		0.3	0.3	0.3		0.3	0.3	0.3
Iron		110.	110.	110.		100	97	100
Chromium		2	2	3		3	3	3
Cadmium	all less than 0.02 micrograms per liter							
Cobalt		0.07	0.07	0.06		0.06	0.05	0.05
Zinc		0.8	0.6	0.8		1.0	1.0	1.0
Lead	all less than 0.05 micrograms per liter							

A final report from an EPA contract for analysis of the effects on mining in the Fortymile River, Alaska stated, “This report describes the results of our research during 1997 and 1998 into the effects of commercial suction dredging on the water quality, habitat, and biota of the Fortymile River.... The focus of our work on the Fortymile in 1997 was on an 8-inch suction dredge (Site 1), located on the mainstem... At Site 1, dredge operation had no discernable effect on alkalinity, hardness, or specific conductance of water in the Fortymile. Of the factors we measured, the primary effects of suction dredging on water chemistry of the Fortymile River were increased turbidity, total filterable solids, and copper and zinc concentrations downstream of the dredge. These variables returned to upstream levels within 80-160 m downstream of the dredge. The results from this sampling revealed a relatively intense, but localized, decline in water clarity during the time the dredge was operating” (Prussian, A.M., T.V. Royer and G.W. Minshall, 1999).

“The data collected for this study help establish regional background geochemical values for the waters in the Fortymile River system. As seen in the chemical and turbidity data **any variations in water quality due to the suction dredging activity fall within the natural variations in water quality**” (Prussian, A.M., T.V. Royer and G.W. Minshall, 1999).

### [REMOVAL OF MERCURY FROM THE ENVIRONMENT](#)

Looking for gold in California streams and rivers is a recreational activity for thousands of state residents. As these miners remove sediments, sands, and gravel from streams and former mine sites to separate out the gold, they are also removing mercury. This mercury

is the remnant of millions of pounds of pure mercury that was added to sluice boxes used by historic mining operations between 1850 and 1890. Modern day small-scale gold suction dredgers do not use mercury to recover gold during the operation of the dredge. Therefore, any gold that would be found in their possession would be that which was extracted from the stream or river they are working.

Taking mercury out of streams benefits the environment. Efforts to collect mercury from recreational gold miners in the past, however, have been stymied due to perceived regulatory barriers. Disposal of mercury is normally subject to all regulations applicable to hazardous waste.

In 2000, EPA and California's Division of Toxic Substance Control worked in concert with other State and local agencies to find the regulatory flexibility needed to collect mercury in a simple and effective manner. In August and September, 2000 the first mercury "milk runs" collected 230 pounds of mercury. A Nevada County household waste collection event held in September 2000 collected about 10 pounds of mercury. The total amount of mercury collected was equivalent to the mercury load in 47 years worth of wastewater discharge from the city of Sacramento's sewage treatment plant or the mercury in a million mercury thermometers. This successful pilot program demonstrates how recreational gold miners and government agencies can work together to protect the environment (US EPA, 2001).

Mercury occurs in several different geochemical forms, including elemental mercury, ionic (or oxidized) mercury, and a suite of organic forms, the most important of which is methylmercury. Methylmercury is the form most readily incorporated into biological tissues and is most toxic to humans. The process of mercury removal by suction dredging does not contaminate the environment because small-scale suction dredging removes elemental mercury. Removal of elemental mercury before it can be converted, by bacteria, to methylmercury is a very important component of environmental and human health protection provided as a secondary benefit of suction dredging..

### **THE REAL ISSUE**

The issue of localized conflict with suction dredgers and other outdoor recreational activities can be put into a more reasonable perspective using the data provided at the beginning of this report. For example, the total acreage of all analyzed claims related to the total acres of watershed is about *0.2 percent*. The percentage of land area within riparian zones on the Siskiyou National Forest occupied by mining claims is estimated to be only *0.1 percent*." The report goes on to say, "Over the past 10 years, approximately 200 suction dredge operators per season operate on the Siskiyou National Forest (SNF, 2001).

The issue against suction dredge operations in the streams of the United States appears to be less an issue of environmental protection and more of an issue of certain organized individuals and groups being unwilling to share the outdoors with others without like interests.

Management of the Fortymile River region (a beautiful, wild and scenic river in the remote part of east-central Alaska) and its resources is complex due to the many diverse land-use options. Small-scale, family-owned gold mining has been active on the Fortymile since the "gold rush" days of the late 1880's. However, in 1980, the Fortymile River and many of its tributaries received Wild and Scenic River status. Because of this status, mining along the river must compete with recreational usage such as rafting, canoeing, and fishing.

A press release from the U. S. Geological Survey stated, in part, the following, "The water quality of the Fortymile River-a beautiful, ...has not been adversely impacted by gold placer mining operations according to an integrated study underway by the U.S. Geological Survey and the Alaska Department of Natural Resources.

Violation of mining discharge regulations would close down the small-scale mining operations. No data existed before this study to establish if the mining was degrading the water quality. **However, even with the absence of data, environmental groups were active to close down mining on the river citing unsubstantiated possible discharge violations.**

This study has found no violations to date to substantiate closure of the small-scale mining operations. The result is a continuance of a way of life on the last American frontier." (U.S. Geological Survey October 27, 1998). I have no doubt that this is the real issue currently facing small-scale gold suction dredgers in California.

Suction dredges do not add pollution to the aquatic environment. They merely re-suspend and re-locate the bottom materials (overburden) within the river or stream.

I hope this scientific research information I have provided will be helpful in your efforts regarding suction dredge mining and water quality. I thank you for this opportunity to submit this data.

Respectfully Yours,

Joseph C. Greene  
Research Biologist, U.S. EPA **Retired**

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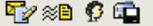
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11-16-09, 06:45 AM (MDT)

**"CALIFORNIA SUCTION DREDGE BAN SB 670"**

California politicians blunder

It is absolutely established that a valid unpatented placer mining claim is in fact a Statutory Federal Grant of "private property" derived from 30 U.S.C. § 21-54. All unpatented placer mining claims situated in California are on federally owned lands, under jurisdiction of the USFS, or BLM. Otherwise none would exist, as federal land is the only place an unpatented mining claim can be initiated, and held.

As long as the Federal government retains title, the federal interest in providing free access to its own land in order to promote mining is sufficient to preempt any state law that fundamentally bans such use. Thus under standard preemption analysis any state legislation, or regulation that conflicts with this overriding federal purpose, must fail.

Under the Supremacy Clause, any state law that conflicts with a federal law is preempted. *Gibbons v. Ogden*, 22 U.S. 1 (1824). Any state legislation which frustrates the full effectiveness of federal law is rendered invalid by the Supremacy Clause" regardless of the underlying purpose of its enactors, *Perez v. Campbell*, 402 U.S. 637, 651-52, 91 S.Ct. 1704, 29 L.Ed.2d 233 (1971)

A conflict exists if a party cannot comply with both state law and federal law. In addition, even in the absence of a direct conflict between state and federal law, a conflict exists if the state law is an obstacle to the accomplishment and execution of the full purposes and objectives of Congress. *Crosby v. Nat'l Foreign Trade Council*, 530 U.S. 363, 372-73 (2000).

In determining whether a state law is a sufficient obstacle, the courts examine the federal statute as a whole and identify its purpose and intended effects and then determine the impact of the challenged law on congressional intent. State law can be pre-empted in either of two general ways. If Congress evidences an intent to occupy a given field, any state law falling within that field is pre-empted.

If Congress has not entirely displaced state regulation over the matter in question, state law is still pre-empted to the extent it actually conflicts with federal law, that is, when it is impossible to comply with both state and federal law, or where the state law stands as an obstacle to the accomplishment of the full purposes and objectives of Congress. *California Coastal Comm'n v. Granite Rock Co.*, 480 U.S. 572, 581 (1987)

An 1998 8th Circuit Court of Appeals case revolving around near identical prohibitions on unpatented mining claims, wherein holders brought suit claiming that federal mining laws preempted ordinance prohibiting issuance of any new or amended permits for surface metal mining within area which included federal lands. Private landowner intervened to defend the ordinance.

The United States District Court for the District of South Dakota, Richard H. Battey, Chief Judge, 977 F. Supp. 1396, granted summary judgment for plaintiffs and enjoined the ordinance. Intervener appealed.

The Court of Appeals, Hansen, Circuit Judge, held that: (1) preemption claim was ripe, and (2) Federal Mining Act preempted ordinance. Affirmed; *South Dakota Mining Association Inc v. Lawrence County*, 155 F.3d 1005

The only locatable mineral on the majority of unpatented placer claims held under federal law is placer gold. Which is naturally concentrated in stream or river bed gravels, and usually no where else in worthwhile amounts. The only economically viable means to profitably recover placer gold in stream or river gravel is by "suction dredging".

Accordingly, suction dredging is the "Highest & Best Use" of placer mining claims. As a matter of fact, it is only viable use, as no other mining method is practical, economical, or profitable.

When the only viable use of an unpatented placer mining claim is by suction dredging, arbitrarily prohibiting that use (even temporarily) effects a complete "taking" of all economic benefit the owner could derive from it, for the duration of the ban.

The Fifth Amendment to the United States Constitution, made applicable to state and local governments by the Fourteenth Amendment, prohibits the government from taking private property for public use without just compensation.

The California Constitution provides, "Private property may be taken or damaged for public use only when just compensation ... has first been paid to, or into court for, the owner." (Cal. Const., art. I, § 19.)

It is well established that just compensation... is the full value of the property taken at the time of the taking, plus interest from the date of taking. United States v. Blankinship, 9 Cir., 1976, 543 F.2d 1272, 1275.

Without doubt, S.B. 670 capriciously deprives thousands of families of their legitimate livelihood, and caused an immediate gross compensatory "taking" of valid existing rights, and compensable private property interests of considerable magnitude.

Neither the USFS, or BLM will enforce this state law, given that that federal statutes, and regulations preempt this suction dredging ban on unpatented placer mining claims situated on federal lands under their control in California. That clearly should give public notice the federal courts will most certainly, and quickly take the same position the USFS/BLM has.

The Treasury of the State of California will ultimately be held liable to pay compensable damages to all those effected, accruing from August 6th 2009 forward. Until at least the illegal ban on suction dredging unpatented placer mining claims is lifted, or if necessary overturned by appropriate federal court action.

Plainly, Senator Wiggins who introduced this Bill, all the legislature that voted for it, and even the Governor failed to have S.B. 670 analyzed for critical federal preemption flaws, or significant "takings" liabilities it would create.

It would seem astute on the part of the California legislature to limit state financial liabilities here by swiftly correcting this law, to effect only a suction dredging ban on fee simple lands in California, which federal law may not preempt.

If not corrected quickly, state coffers will needlessly expend precious funds in paying attorney fees, and costs attempting to delay the inevitable overruling of S.B. 670 illegal provisions in federal court. Involved compensatory damages could well approach \$50,000,000 annually. If ignored, those applicable damages will certainly compound over time with interest, costs and attorney fees applied.

California politicians should ponder that the 3,200 other current California suction dredge permit holders, and approximately 21,000 other similarly situated owners of unpatented placer mining claims on federal lands in California will justifiably require compensation for their loss's S.B 670 directly caused them.

Once all affected are joined in a class action, which will most certainly prevail. Who do these politicians think will be billed for that compensation? Without question, it will most certainly be the treasury of the state of California.

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"Under the mining laws a person has a statutory right, consistent with Departmental regulations, to go upon the open (unappropriated and unreserved) Federal lands for the purpose of mineral prospecting, exploration, development, extraction and other uses reasonably incident thereto." (See 30 U.S.C. § 21-54, 43 C.F.R. § 3809.3-3, 0-6).

Federal mining claims are "private property" Freese v. United States, 639 F.2d 754, 757, 226 Ct.Cl. 252 cert. denied, 454 U.S. 827, 102 S.Ct. 119, 70 L.Ed.2d 103 (1981); Oil Shale Corp. v. Morton, 370 F. Supp. 108, 124 (D.Colo. 1973).

This possessory interest entitles the claimant to "the right to extract all minerals from the claim without paying royalties to the United States." Swanson v. Babbitt, 3 F.3d 1348, 1350 (9th Cir. 1993).

16 U.S.C. § 481, Use of Waters: All waters within boundaries of national forests may be used for domestic, mining, milling, or irrigation purposes under the laws of the state wherein such national forests are situated or under the laws of the United States and the rules and regulations established thereunder.

"Uncompensated divestment" of a valid unpatented mining claim would violate the Constitution. Freese v. United States, 639 F.2d 754, 757, 226 Ct.Cl. 252, cert. denied, 454 U.S. 827, 102 S.Ct. 119, 70 L.Ed. 2d 103 (1981).

Even though title to the fee estate remains in the United States, these unpatented mining claims are themselves property protected by the Fifth Amendment against uncompensated takings. See Best v. Humboldt Placer Mining Co., 371 U.S. 334 (1963); cf. Forbes v. Gracey, 94 U.S. 762, 766 (1876); U.S.C.A. Const. Amend. 5; North American Transportation & Trading Co. v. U.S., 1918, 53 Ct.Cl. 424, affirmed 40 S.Ct. 518, 253 U.S. 330; United States v. Locke, 471 U.S. 84, 107, 105 S.Ct. 1785, 1799, 85 L.Ed. 2d 64 (1985); Freese v. United States, 639 F.2d 754, 757, 226 Ct.Cl. 252, cert. denied, 454 U.S. 827, 102 S.Ct. 119, 70 L.Ed. 2d 103 (1981); Rybachek v. United States, 23 Cl.Ct. 222 (1991).

A valid location, though unpatented, is a grant in the nature of an estate in fee and if such an estate is taken by the United States, just compensation must be made. See U.S.C.A. Const. Amend. 5, North American Transportation & Trading Co. v. U.S., 1918, 53 Ct.Cl. 424, affirmed 40 S.Ct. 518, 253 U.S. 330

Such an interest may be asserted against the United States as well as against third parties (see Best v. Humboldt Placer Mining Co., 371 U.S. 334, 336 (1963); Gwillim v. Donnellan, 115 U.S. 45, 50 (1885)) and may not be taken from the claimant by the United States without due compensation. See United States v. North American Transportation & Trading Co., 253 U.S. 330 (1920); cf. Best v. Humboldt Placer Mining Co.

For further information on federal preemption law, the internet link below gives a basic explanation.

[http://en.wikipedia...eral\\_preemption](http://en.wikipedia...eral_preemption)

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                      - [RE: CALIFORNIA SUCTION DREDGE BAN SB 670, OLD GOLD MINER](#), 11-21-09, 02:32 AM, (52)
                      - [RE: CALIFORNIA SUCTION DREDGE BAN SB 670, OLD GOLD MINER](#), 11-21-09, 06:14 AM, (53)
                      - [RE: CALIFORNIA SUCTION DREDGE BAN SB 670, russau](#), 11-21-09, 06:21 AM, (54)
                      - [RE: CALIFORNIA SUCTION DREDGE BAN SB 670, OLD GOLD MINER](#), 11-21-09, 06:57 AM, (55)
            - [RE: CALIFORNIA SUCTION DREDGE BAN SB 670, Goldfinds](#), 11-22-09, 02:18 PM, (56)

- o [RE: CALIFORNIA SUCTION DREDGE BAN SB 670, El Dorado](#), 11-22-09, 04:39 PM, (57)
  - [RE: CALIFORNIA SUCTION DREDGE BAN SB 670, OLD GOLD MINER](#), 11-22-09, 08:01 PM, (58)

**OLD GOLD MINER**

Member since 11-15-09  
81 posts

11-16-09, 06:49 AM (MDT)



**1. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**

In response to [message #0](#)

Apply common sense:

Environmental zealots claim that small scale suction dredging to recover placer gold is harmful to, and kills indigenous fish.

Fact: Numerous unbiased scientific studies on the subject clearly show the effects of small scale suction dredging has a "de minimis" impact, meaning no discernable, or extremely minimal effect on fisheries.

<http://www.icmj.com/...redge-study.pdf>

Fact: Prior to the passage of SB 670 (which illegally bans all suction dredging state wide) suction dredging throughout California was strictly prohibited in waterways during fish spawning seasons, to further minimize any possible negative impact.

Environmental zealots who sponsored SB 670 used biased propaganda (rather than sound scientific evidence) to gain support for SB 670 from California sports fisherman. Who threw consider political weight behind SB 670.

: REALITY CHECK:

> sports fishing KILLS fish <

California politicians appear to believe that its perfectly proper for approximately 3 million California fishermen to kill fish as a leisure sport. Assuming each fishermen catches a few, the fish kill in California waterways directly attributable to sports fishing alone amounts to many millions annually.

: MORE REALITY CHECK:

> Hydroelectric dams throughout California are known to KILL fish<

> Draw downs of water flow for agricultural irrigation is known to kill fish<

> Runoff from agricultural fertilizers & pesticides is known to kill fish<

> Commercial fishing kills fish<

> Industrial pollution is know to kill fish<

The aforesaid are primary causes of fish habitat degradation & fish kills, amongst the many other factors known to kill fish

Not one single fish has ever been known to have been killed attributable to the 3, 200 California suction dredge permit holders

To BAN all suction dredging in California to determine it's effect on indigenous fish is ludicrous, capricious

& illogical

Numerous credible unbiased scientific studies of the effects of small scale suction dredge gold mining have been performed by various state & federal agencies in the last three decades, throughout Alaska & the western United States.

Rather than Ban suction dredging in California for an indeterminate amount of time, to perform an independent environmental study report, at great cost.

If the California DF&G were competent?

They could easily, and quickly compile those credible reports from all applicable state & federal agencies. Then draw fair unbiased scientific conclusions from them. Which, without doubt would show suction dredging has a "de minimis" impact, legally meaning no discernable, or extremely minimal effect on fisheries.

To perform an independent lengthy environmental study, at considerable taxpayer expense. When numerous credible studies of the same subject already exist.

Is a clear unequivocal illogical WASTE of taxpayers funds.

Moreover, the ban on suction dredging SB 670 implements will without doubt, be rapidly be overturned in Federal court. Because such law is plainly preempted by statutory federal law.

Again, in attempting to defend illogical, and illegal state actions, politicians of California will most certainly compound their errors, and waste more taxpayer dollars.

[http://www.swrcb.ca...om\\_chambers.pdf](http://www.swrcb.ca...om_chambers.pdf)

<http://www.akmining...ine/fsyards.htm>

[http://www.recminer...onal\\_mining.htm](http://www.recminer...onal_mining.htm)

<http://afsjournals.o...DO%3E2.0.CO%3B2>

<http://afsjournals.o...ournalCode=fima>

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**OLD GOLD MINER**

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11-16-09, 06:51 AM (MDT)



## 2. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"

In response to [message #1](#)

### THE FACTS OF THE MATTER:

Almost all suction dredging for gold in California takes place on unpatented placer mining claims initiated under the general mining laws of the United States.

"Under the mining laws a person has a statutory right, consistent with Departmental regulations, to go upon the open (unappropriated and unreserved) Federal lands for the purpose of mineral prospecting, exploration, development, extraction and other uses reasonably incident thereto." (See 30 U.S.C. § 21-54, 43 C.F.R. § 3809.3-3, 0-6).

In law, the word "claim" in connection with the phrase "mining claim" perfected with a valid mineral discovery, represents a federally recognized right in real property. The Supreme Court has established that a mining "claim" is not a claim in the ordinary sense of the word a mere assertion of a right, but rather, is a property interest, which is itself real property in every sense, and not merely an assertion of a right to a property.

Once established, a valid unpatented placer mining claim gives the owner the right (not a mere privilege) to extract the valuable mineral therein, because plainly the valuable mineral there clearly belongs to him, as the owner. Certainly, that right is subject to reasonable regulation by applicable state law. But, not "unreasonable" state regulation that would abrogate everything the owner owns.

To initiate a valid unpatented placer mining claim is not a quick, easy or inexpensive task. It requires considerable investment in research, time, travel expense, labor, exploration, staking & cost about \$200 in initial county & BLM filing fees. That all under the prerequisite that the person can find federal land that contains valuable mineral, is not withdrawn from mineral entry, and is not covered by any prior placer claim. All in all, valid placer claims are a rare, and valuable. Simply because good ones to stake & file are very difficult to find.

If a person cannot find one to stake & file themselves, they often buy one. The purchase price ranging from a few thousand dollars, to tens of thousands of dollars, sometimes even more. Once a person owns a valid placer claim, it is subject to state property tax, and annual BLM title maintenance fees usually amounting to around \$225 a year. All this is based on reasonable investment based expectations, that the owner will recover his cost, and expenses by extracting valuable mineral, usually placer gold from his mining claim.

The majority of placer gold found in this era is usually concentrated in active stream, or river bed alluvial gravels, most often on or near bedrock. Simply because almost all dry bench or higher elevation gravels from ancient stream or river gravels were mined out long ago. The most efficient economical means to recover placer gold in worthwhile amounts is plainly by suction type dredging.

Small relatively portable suction dredges that one person, or two can operate range in cost from approximately \$2,000 to \$20,000 dollars each. A trailer is required to haul a suction dredge, as well as a suitable vehicle to pull that trailer. Additional gold recovery equipment is usually required, which adds considerable costs

Access points to isolated dredging sites often require 4 wheel drive vehicles to get to. Which is usually not a normal family type vehicle used every day. Given the brushed in old unmaintained roads, and rugged terrain these vehicles usually have to traverse to get to worthwhile suction dredging sites could, or would damage a normal street vehicle, not strictly dedicated to mining purposes.

Total investment by California suction dredge miners, to placer mine can range from a few thousand dollars, to near \$100,000 each. Dependent on the cost of the mining claim, and equipment required to effectively & profitably mine it. By no means can an investment of that magnitude be considered recreational.

The incentive to find, initiate or purchase a mining claim to suction dredge is to recover placer gold in profitable amounts. The same "for profit" motive as any business has. Those who do, also enjoy

the outdoor setting, labor and comradely involved. It's hard work that sometimes pays little, or with perseverance & dedication, can pay a lot.

Teaching my children, and now my grandchildren to prospect, and pan for gold, is one of the great pleasures of my life. Unearthing placer gold that has been buried for millions of years, your eyes the first to see it, your hands to touch it, is a wonder by itself. It takes a certain type of man, to appreciate such rare things. Thank God, men of that quality & caliber still exist.

The bottom line here is this.

Unpatented placer mining claim owners;

1. Own exclusive mining rights to mine their own property.
2. The law allows those same owners the right to use the most efficient means to do that.
3. Suction dredging is most often the means of choice, as being the most practical.
4. Suction dredging has the most negligible effect on the environment.
5. A total ban on suction dredging for any indefinite period is not lawful.
6. CA DF&G is already in contempt to court, for not completing the EIS study.
7. Once a challenge is filed in federal court, the ban will be overturned.
8. The state of California almost certainly will be held liable for compensatory damages.

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### OLD GOLD MINER

Member since 11-15-09

81 posts

11-16-09, 06:55 AM (MDT)



### 3. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"

In response to [message #2](#)

<http://www.dfg.ca.gov...4/TitlePage.pdf>

#### 3.6.6 SUCTION DREDGING

Suction-dredge placer miners extract gold from the river gravels by sucking the gold-bearing gravels through a nozzle (typically 6 to 8 inches in diameter) into floating dredges, pumping the gravel and water mixture across a settling table where the gold concentrates by gravity, and then discharging the gravel and water back into the river. Both the pump and the sluice box are usually mounted on a floating platform, often positioned over the work area by ropes or cables secured to trees or rocks.

The portion of stream bottom dredged ranges from a few small excavations to the entire wetted area in a section of the stream. Larger suction dredges have the capacity to process as much as several cubic yards of gravel from the river bottom at one time.

An annual permit from the Department (Title 14 California Code of Regulations , §228) and, in some circumstances, a Lake and Streambed Alteration Agreement (FGC §1600) is required to engage in this activity. Dredging activities in freshwater environments can have a variety of direct impacts on the environment, including impacts on aquatic and riparian organisms (Griffith and Andrews 1981; Thomas 1985; Harvey 1986) and channel stability. Impacts can also result from the potential release of hazardous materials such as mercury into aquatic and terrestrial environments. However, there are no studies that document such dredging-related impacts on coho salmon or their habitat within the range of coho salmon. The restrictions currently imposed by regulations on this activity are designed to eliminate the potential for impacts to coho salmon by restricting suction dredging actions to locations and times when such activities should not impact the species.

DF&G 2004 report above is WRONG, in that 6 to 8 inch suction dredges are NOT typical.

Typical for placer gold mining is 3, 4 or 5 inch suction dredges.

It is also WRONG, in that there are numerous studies available.

For instance:

<http://www.nwfsc.noa...s/tm24/tm24.htm>

Take note: Existing studies show suction dredging has a negligible impact, so small there is no mention of suction dredging in the study above.

Now, it gets comical, CA DF&G states:

"The restrictions currently imposed by regulations on this activity are designed to eliminate the potential for impacts to coho salmon by restricting suction dredging actions to locations and times when such activities should not impact the species."

If the potential impact is already eliminated.  
Why would a EIS need to be performed?

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**OLD GOLD MINER**

Member since 11-15-09  
81 posts

11-16-09, 06:58 AM (MDT)



**4. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**

In response to [message #3](#)

Listed below is a number of quotes from studies that have been done over the years, please keep in mind that some were done on large 50 + cubic yard per hour placer mining operations, others were done on a variety of suction dredges, and some were done in a laboratory environment. All were done by well respected and educated people only a few of which have had any practical experience with placer mining/prospecting. The quotes listed in this document were taken word for word out of the documents written by the scholars named above each quote.

A. By: Paul J. Badali - 1988

"Several federal and state laws charge various governmental agencies to provide for the protection of these habitats. Our nation's technology based society has an ever increasing need for mineral resources, gold included. An ever growing number of people enjoy Recreational Gold Dredging as a hobby. Suction dredge operators working valid federal mining claims have a constitutional right under the 1872 mining laws to recover the valuable minerals present in the substrate. Private property owners and holders of state minerals leases also have rights to recover gold and other minerals present in streams and rivers. How can the country's need for natural resources, the individual's right or desire to mine, and need to protect the environment all be realized and satisfied?"

II. ENTRAINMENT

A. By: Phillip A. North - 1993

"While adult fish did not show a sensitivity to entrainment it is unlikely that they would be sucked into a dredge in the first place. They have the ability to avoid entrainment in a suction dredge by moving to a safer location. All of the investigators who examined the impacts of suction dredges on adult fish concluded that this life stage was not acutely affected (Harvey 1986, Hassler et al. 1986, Summer and Hassler 1992). Harvey (1986) found this to be the case for rainbow trout on streams he studied in California."

III. FEED AND FISH

A. By Dr. Henry Baldwin Ward

"most significant is a possible relation of fine silt to the food of young fish. It has been shown that the presence of finely divided suspensoids of natural origin may be of advantage to the microbiota which constitutes the foundation element in the food supply of water. Studies on aquatic biology

conducted by the Wisconsin Survey demonstrated that colloidal organic particles collect on carbon and sand grains to build a culture medium for aquatic bacteria".

B. By: Thomas J. Hassler, William L. Somer, Gary R. Stern - 1986

"During diving surveys, we observed Salmon gairdneri congregating and selectively feeding on benthic invertebrates displaced by dredging."

"Suction dredge mining at levels observed in Canyon Creek probably did not impact steelhead feeding. The mining did not significantly reduce the abundance of aquatic invertebrates (only species composition locally) and steelhead fed opportunistically. In fact, juvenile steelhead were observed feeding on invertebrates that had been entrained in and dislodged by dredge. Thomas (1985) observed cutthroat trout feeding on dislodged invertebrates in the dredge outfall. "However, weight of juvenile steelhead from Canyon Creek was greater than weight from other areas and production (kg/ha) was as good or better than in other areas (table 41)." "Ecological differences between Canyon Creek and BEF were also important in determining colonization of samplers. Overall, the impacts of suction dredge mining to benthic invertebrates at the study site were minimal."

C. From: Robert Lewis, Pollution Bioanalyst III - 1962

"Benthos survival is noted in Table 2. Insects with internal extrusions were listed as mortalities. The mortality figure of 7.4 percent may be extreme because of confinement in the sack. Many caddis larvae were still attached to rocks after passing through the dredge. All insects except those with extrusions appeared lively and unharmed."

"To determine stream distance necessary for insects to settle back to the bottom, a net was placed 15 feet and 25 feet downstream from the outflow. After five minutes at the former distance, Trichoptera, Coleoptera and Diptera were prevalent in the net. Only one Plecoptera was noted. At 25 feet downstream only few insects were caught in the net after five minutes. Underwater inspection with a faceplate indicated that all insects settled within 40 feet. The approximate flow throughout this distance varied from 1 ft./sec. down to 0.5 ft./sec."

D. By: Phillip A. North - 1993

"If recolonization is slow the cumulative impacts of suction dredge mining could be significant over a period of seasons. However, in all of the studies on suction dredges that investigated this question the disturbed stream reach was relatively short (on the order of a few tens of meters) and recolonization proved to be rapid. Griffith and Andrews (1981) found that the dredged site was "substantially recolonized" after 38 days. The abundance within orders of invertebrates were the same before and after dredging and "key" taxa were also the same. Harvey (1986) found that recolonization was complete in terms of numbers of insects within 45 days of dredging. Thomas (1985) sampled the site 30 days after dredging and found, again, that colonization was "substantially complete" for most groups. The number of invertebrates colonizing the artificial substrates used by Somer and Hassler (1992) did not increase after the first sampling at two weeks. None of these investigators sampled their study site earlier than the reported time of recolonization. Recolonization may have occurred sooner than the time reported."

E. By: The U.S. Environmental Protection Agency - 2001

"The results from Resurrection Creek indicated that there was no difference in the macroinvertebrate community between the mining area and the locations downstream of the mining area in terms of macroinvertebrate density and taxa richness. The sampling was done 35 days after mining had been completed for the season and shows a rapid recovery of the mined areas."

#### IV. FLUSHING FLOWS

A. By: Gary R. Stern - 1988

"The autumn, winter and spring peak flows of WY 1985 Canyon Creek were adequate to disperse dredge tailing piles and fill in dredge holes. Less than 9% of the holes and tailings from 1984 mining

were visible at the start of the 1985 dredge season. Only two sites from 1984 had clear remnants of holes and tailings in 1985. Both of these were far from the stream's thalweg. At a few sites large cobbles and boulders piled along the shore remained visible one year later. Thomas (1985) reported that piles of cobbles remained along the shore one year later at Gold Creek, Montana, but holes and instream tailings had vanished. Harvey et al. (1982) found virtually no evidence of dredge mining the following year in the American River, California. Most streams with mobile beds and good annual flushing flows should be able to remove the instream pocket and pile creations of small suction dredges, although regulated streams with controlled flows may not."

## V. SEDIMENT

A. By: Dr. Henry Baldwin Ward

"All of these tests show .That the amount of colloidal material in the water of the Rouge River and its tributaries below the point at which the run-off of placer mine workings has been added to the stream is to small to produce on the bottom a "blanket" which might affect adversely young fish eggs in the nests if present, or the fish food in the water." "Even below the points at which tributaries entered from areas in which placer mining had gone on at earlier months in the year, no change from normal conditions were observed. The pools sheltered migrating fish; they were also seen in the stream below the dams, and a normal supply of fish food was found at various points visited."

These studies were done on commercial placer mining!

"The supplementary report of Mr. A. M. Swartley, who aided me in the part of the survey made in September, 1937, is of value in giving the views of a careful and experienced geologist. He confirmed fully statements I had reached in my preliminary report as to the physical conditions found in the Rogue River drainage, and especially the small amount of clay and other material on shores and stream bottoms, in backwaters and otherwise in our examination of the river and its tributaries. He discussed fully the methods of rock disintegration and the transportation and ultimate character of the materials produced. He emphasized the fact that mining debris "is chemically inert, makes no oxygen demand on the stream and therefore takes away from the flowing water nothing which the fish require. This is equally true of this material whether placed in transit by nature or by man since (the products) are alike in nature, come from the same sources and are only being accelerated by man in their journey to the sea." Further he stated:" All these materials entering the streams, whether by natural or human activity, whether coarse or fine, whether traveling on the bottom, in suspension or solution ,are almost altogether inert, suffer little change on their way to the sea, and having reached the end point of chemical change do not rob the water of oxygen which the fish demand, or add to the water toxic agents injurious to fish (fish food or other forms of life)."

## VI. EFFECTS OF SILT ON FISH

A. By: Dr. Henry Baldwin Ward

"I have seen among these Alaska rivers in which salmon run and spawn some so heavily loaded with mud that one could not trace the body of an adult salmon ascending the river even when the dorsal fin cut the surface of the water. Yet the fish examined on the spawning grounds just before and just after death showed that the gills had suffered no injuries on the way though the body had met with conspicuous external damage through violent contact with sharp rocks at rapids or falls or along the shore. The examination was made in connection with the study on the cause of death after spawning and all organs were closely inspected. The gills were reported as apparently in perfect condition. Although the object of the investigation was not to determine the effect on the gills of silt loaded waters, still, if any evident injury had been present, it would have been noted. The journey up the Copper and its tributary was long and strenuous; the chance for damage to the salmon from muddy water was certainly large if any damage could be wrought by such conditions, and yet none was observed. Many other similar cases could be cited from printed as well as published records."

"Despite their far greater sensitiveness to changes in environment and susceptibility to injury, the young salmon lived heartily in a concentration of sediment which was at its minimum (760 ppm) twice as much as the maximum recorded at Agness (see Table II ). Indeed the average amount of turbidity in Griffin's experiments was ten times the average recorded at Agness. Those who think that normal erosion products will prove injurious to such fish should examine carefully the records in these tables."

## VII. EFFECT ON SPAWNING GROUNDS

A. By: Dr. Henry Baldwin Ward

"Normally the fish cover the eggs by a layer of sand or fine gravel; the fresh water carrying oxygen easily penetrates this cover and the young wriggle out after the eggs hatch. A thin, broken layer such as I have already described would not interfere with the permeation of fresh water with oxygen and the development of such eggs as might be present. But I am clear that this is not a true spawning area. As Mr. Joseph Wharton said in an admirable paper on the salmon of the Rogue River, "It is the ambition of all these species of anadromous fish to ascend the river to the highest point attainable before making their spawning beds, seeking the waters that are purest and coldest." This statement is absolutely correct; In difficult streams or when held behind man-made barriers, these fish struggle to the end to make their way upstream and will sacrifice life rather than accept spawning areas in the lower reaches of the river. The urge which drives them on is the basis for the safety of the race. For the straggler or the weakling who may find the achievement of headwaters impossible, an enforced spawning in the lower river is of no significance; the river level varies too widely and its current at full flood is too fierce. Eggs deposited at high water will be exposed and die when the water falls; or if the spawning occurs at a lower water level, the next flood waters will bury the eggs or sweep them away. The suddenness, the violence and the irregularity of the changes in water level of the Rogue are conspicuous in the records of every year."

B. By: Thomas J. Hassler, William L. Somer, Gary R. Stern

"Dredge tailings are often referred to as good salmonid spawning substrate. In the Trinity River, chinook salmon have been observed spawning in the tailing piles of suction dredges ( E. Miller pers. comm. ). Steelhead in Idaho streams have been reported to spawn in gravels recently disturbed by human activities ( Orcutt et al. 1968 ). In the American River , Prokopovich and Nitzberg ( 1982 ) have shown salmon spawning gravels have mostly originated from old placer mining operations."

"Anadromous salmonids held and spawned in Canyon Creek in close proximity to suction dredge activity. During the 1984-1985 spawning season, fall-run chinook salmon, coho salmon and steelhead spawned in areas actively dredged during the 1984 dredge season (fig.). In August 1985, spring-run chinook salmon and summer-run steelhead were holding near areas where suction dredges were being operated (fig. 23). During the 1985 spawning season, fall and spring-run chinook salmon spawned in areas actively dredged during the 1985 dredge season (fig. 24)."

C. By: Gary R. Stern - 1988

"Suction dredge mining did not appear to influence the locations of adult anadromous salmonid summer-holding areas. One spring-run chinook salmon was observed 50 m below an operating dredge and a summer-run steelhead was seen at the upper end of a 30 m-long pool while a dredge was operating at the lower end. Seven other adult salmonids were observed within 250 m of an active dredge operation and none appeared to be disturbed by mining activities. During a 1980 diving survey by Freese (1980), an adult spring-run chinook salmon was observed holding at the bottom of an abandoned dredge hole in Canyon Creek and other adult salmonids were found in close proximity to active dredges. No relation between holding areas of spring/summer-run fish and suction dredge mining operations was apparent during this study or in 1980 (L. Freese pers. comm.)."

## VIII. CHANGES IN THE STREAM BED

A. By : Dr. Henry Baldwin Ward

"To be sure no one can think rightly of the stream itself as a constant environment. On the contrary it is undergoing continual change. The amount and location of winter's snowfall, the volume and time of seasonal rains, the duration and precise period of regional droughts, and other climatic variations produce variations in water level, in bank erosion, in growth of grasses, underbrush and trees in the drainage basin; thus sudden and often extreme changes in contours of the banks and surrounding country add sediments of different types to its waters and modify the conditions under which the fish it harbors are forced to live." Number one on the list of things that change the shape of the stream bed are DAMS!"

B. By: Thomas J. Hassler, William L. Somer, Gary R. Stern - 1986

"However during the suction dredge mining process, a new pool area is created by the cone shaped dredge hole. Dace, suckers and juvenile steelhead were observed feeding and resting in Canyon Creek dredge holes. Freese ( 1980 ) observed a small spring-run chinook salmon holding in a dredge-created pool on Canyon Creek".

"The majority of suction dredge operators in canyon creek did not work long periods or disturb large areas of the streambed. Dredging impacts upon the channel geomorphology were confined to the area dredged and the area immediately down stream."

"Winter and spring flushing flows filled in dredge holes and dispersed tailing piles." "Coho salmon and steelhead juveniles appeared to rear normally in the creek and were observed using dredge holes in the summer. Steelhead juveniles received the greatest exposure to dredging activity as they rear in Canyon Creek up to three years, but their feeding, growth and production did not seem to be impacted at the current level of dredge activity."

C. By: Somer and Hassler - 1992

"The effects of the two dredges on aquatic insects varied with taxa and were site specific. Dredging dislodged insects, and we observed young coho salmon and steelhead feeding on them. The stream underwent major but localized changes. Dredge hole were excavated to a depth of 2 m, and substrate was altered to bedrock and large cobbles-probably a poor habitat for colonization. However, the effects of dredging (at the operating level during the study) on insects and habitat were minor compared with those of bed-load movement due to large stream flows during storms and from snowmelt."

D. By: Gary R. Stern - 1988

"Lewis (1962) was the first to investigate the effects of the portable suction gold dredge on the aquatic habitat of fish and benthic invertebrates. He operated a 12.7 cm aperture dredge in Clear Creek, Shasta County, California and found that dredging could improve the intergravel environment for both fish eggs and benthos if the stream was mined in a uniform manner."

"If dredge mining regulations were expounded upon and miners were made aware of the instream habitat needs of salmonids, the most serious impacts of suction dredge mining could be reduced. Suction dredgers may even be able to enhance certain areas of the channel for rearing and spawning fish, if some of the limiting factors of a reach of stream are identified (ie. cover, woody debris, low velocity refuges, clean gravels). In Canyon Creek, current CDFG suction dredge regulations eliminate conflicts with salmonid spawning, incubation, and fry emergence by restricting mining to summer months. The 15.24 cm maximum aperture size for dredges is appropriate since stream substrate is large, but larger apertures may be too disruptive in the small channel."

E. By: Robert Lewis, Pollution Bioanalyst III

Results of Gold Suction Dredge Investigation;

"Table 1 lists stand pipe results. The site average indicates an improvement from dredging of 1 p.p.m. in DO and a threefold improvement in permeability and velocity. As indicated above, dredged sand settled within 12 feet of the sluice outflow. This occurrence tends to somewhat nullify removal of sediment, but dredged areas are definitely relieved of compaction. As a gross measure, the standpipe was much easier to drive in the dredged area. As evidenced by photographs the gravel appears much cleaner after dredging. Weighing all factors, dredging can improve the gravel environment for both fish eggs and aquatic insects, especially if the operator mined uniformly in one direction as opposed to a pocket and pile method."

F. By: Phillip A. North - 1993

"The four studies that I reviewed from journals subject to peer review consistently found that when

certain limitations are placed on suction dredge activity the impacts on the stream ecosystem are local and of short duration."

G. By: Bret C. Harvey - 1986

"Fish and invertebrates displayed considerable adaptability to dredging, probably because the streams naturally have substantial seasonal and annual fluctuations (Moyle et al. 1982). These fluctuations, in the form of flushing winter flows, can greatly reduce the long term impact of dredging. Even during the relatively mild winter of 1980/81, high flows still filled the hole created by dredging on NFAR with a sand and gravel mixture and eliminated all sand from the main stream. After the high flows in winter and spring of 1981/82, no substrate changes caused by dredging in the previous summer were evident on Butte Creek. Saunders and Smith (1965) observed a quick recovery in the trout population after scouring of a heavily silted stream, which, along with the quick temporal recovery of stream insects seen in this study, implies that suction dredging effects could be short-lived on streams where high seasonal flows occur."

#### IX. TEMPERATURE

A. By: Thomas J. Hassler, William L. Somer, Gary R. Stern - 1986

"and dredge mining had little, if any, impact on water temperature."

#### X. TURBIDITY

A. By: Dr. L. E. Giffin

"When the test ended on Dec. 30, it was found that a much larger proportion of the fish in the sediment-containing trough had survived (56%) than in the clear water trough (10%). There was no noticeable difference in the color of the surviving fish in the two troughs, and the fish which had lived in the muddy water were as large as the survivors from the clear-water trough."

"The results of the experiments indicate that young trout and salmon are not directly injured by living for considerable periods of time in water which carries so much soil sediment that it is made extremely muddy and opaque. They also indicate that cutthroat trout and salmon fingerlings can feed and grow apparently well in very muddy water."

B. By: Dr. Henry Baldwin Ward

"In contrast with all these the experiments of Dr. Griffin have shown that young fish live well up to 30 days in good water mixed with an amount of natural soil materials from two to three times as large as the extreme load of the materials contributed to the Rogue River by maximum conditions produced by placer mining."

"All the evidence that has been obtained justifies the conclusion that no present-day contributions of materials produced by bank erosion differ in character or exceed in amount those added periodically by purely natural processes in past times. Splendid runs of salmon and steelhead were established and maintained under truly natural conditions which certainly were on occasion more extreme and violent before man ever came into the picture than they are today. Furthermore, there is good reason to believe that placer mining run-off was larger in amount and more continuous in the early years of that industry when for a time at least greater areas were followed than are employed today."

This study was done to study the effects of large scale placer mining operations!

#### XI. WATER QUALITY

A. By: Thomas J. Hassler, William L. Somer, Gary R. Stern

Water quality was impacted only during the actual operation of a suction dredge. Since a full day of mining by most Canyon Creek operators included only 2 to 4 hours of dredge running time, water

quality was impacted for a short time.

B. By: Gary R. Stern - 1988

"Turbidity plumes below suction dredges are often markedly visible due to extremely low ambient turbidity levels in mountain streams. The extent of the plume depends on the grain size and volume of the material passing through the dredge. Horizons of silt-laden substrate were disturbed at all dredge sites in Canyon Creek and created highly visible turbidity plumes. "

"Although distinct to even the most casual observer, dredge plumes in Canyon Creek were probably of little direct consequence to fish and invertebrates. Suspended sediment concentrations of 20,000 to 100,000 mg/l which impact fish feeding and respiration (Cordone and Kelly 1961) greatly exceed the highest level of 274 mg/l measured in Canyon Creek. In general, dredge turbidity plumes were highly localized and occurred during midday which is not a peak feeding period for steelhead (Moyle 1976). Laboratory studies by Sigler et al. (1984) found that steelhead and coho salmon preferred to stay in channels with clear water, and turbidities as little as 25 NTU's caused a reduction in fish growth. In contrast to Sigler's results, young steelhead in Canyon Creek appeared to seek out dredge turbidity plumes to feed upon dislodged invertebrates even though clear flowing water was available nearby."

C. By: Phillip A. North - 1993

"Most water quality studies of the effects of suction gold dredges on streams have focused on turbidity and suspended sediments. These studies have, with some exceptions, largely found that water quality is impacted for a distance downstream of the dredge ranging from a few meters to 30 meters."

"However, Huber and Blanchet (1992) found no evidence of cumulative impacts of mining on water quality in streams of the Chugach National Forest in Alaska. They monitored streams in the Forest over a period of three years and found no noticeable impact to water quality associated with suction dredges. All of the studies that I surveyed came to the same conclusion: suction gold dredging had localized and short term impacts. Caveats must be taken into account when coming to this conclusion:

All of these studies, except one involved small dredges, 6 inches or less. The one study that involved a larger dredge reported only a small amount of data. Five water samples were taken 500 feet below a six inch dredge and one sample was taken 500 feet below an 11 inch dredge."

D. By: The U.S. Environmental Protection Agency - 2001

"In the 1997 permit, EPA defined a small suction dredge as those with nozzles less than or equal to four inches. EPA is proposing to redefine the small suction dredge range as less than or equal to six inches. Information provided in EPA's suction dredge study and the United States Geological Survey (USGS) study support the conclusion that there are local but short term effects on both water quality and macroinvertebrate communities in the mining areas. On the Fortymile River, dredges larger than those proposed under this GP showed that turbidity was reduced to background levels within 250 feet. It is expected that small dredges would have even less impact on the downstream receiving water quality."

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This information was compiled with the intent to inform and educate, so the true facts can be a part of the process in the rule/regulation making pertaining to small scale placer mineral/metal mining and prospecting in our rivers and streams.

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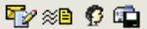
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**OLD GOLD MINER**

Member since 11-15-09  
81 posts

11-16-09, 07:01 AM (MDT)



**5. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**

In response to [message #4](#)

A GOOD READ ON THE EFFECTS OF SUCTION DREDGING

~~~~~

State Water Resources Control Board  
Division of Water Quality  
P.O. Box 100  
Sacramento, California 95812-0100  
Fax: 916-341-5620  
email: [commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov)  
June 6, 2007  
Subject: SUCTION DREDGE MINING

Dear Board Members,

Thank you for allowing me this opportunity to comment on the water quality aspects of small-scale suction dredge mining.

As I have searched the scientific literature for studies on the effects of small-scale suction dredge mining on the environment I have learned that the preponderance of the published research studies have been directed towards assessment of its effect on the biology of the streams and rivers. In nearly every instance the results have concluded that the effects were less than significant.

In water quality terms some studies have discussed turbidity, water temperature, and suspension of heavy metals into the overlying water. I will focus my water quality comments on these three areas. But first I would like to put this issue in to perspective.

#### GEOGRAPHICAL SCALE OF SMALL-SCALE SUCTION DREDGING

It has been observed that environmentalists opposing suction dredging use data gleaned from reports that studied effects of environmental perturbations that are occurring on a system-wide basis. For example, they would characterize the affects of turbidity from a suction dredge as if it would impact downstream organisms in a manner that system-wide high water flow events might. This approach is entirely inconsistent with the way in which suction dredges operate or generally impact their downstream environment.

The California Department of Fish and Game (1997) described typical dredging activities as follows/ "An individual suction dredge operation affects a relatively small portion of a stream or river. A recreational suction dredger (representing 90-percent of all dredgers) may spend a total of four to eight hours per day in the water dredging an area of 1 to 10 square meters. The average number of hours is 5.6 hours per day. The remaining time is spent working on equipment and processing dredged material. The area or length of river or streambed worked by a single suction dredger, as compared to total river length, is relatively small compared to the total available area."

In the Oregon Siskiyou National Forest Dredge Study, Chapter 4, Environmental Consequences, some perspective is given to small-scale mining. "The average claim size is 20 acres. The total acreage of all analyzed claims related to the total acres of watershed is about 0.2 percent. The average stream width reflected in the analysis is about 20 feet or less and the average mining claim is 1320 feet in length. The percentage of land area within riparian zones on the Siskiyou National Forest occupied by mining claims is estimated to be only 0.1 percent." The report goes on to say, "Over the past 10 years, approximately 200 suction dredge operators per season operate on the Siskiyou National Forest" (SNF, 2001).

A report from the U.S. Forest Service, Siskiyou National Forest (Cooley, 1995) answered the frequently asked question, "How much material is moved by annual mining suction dredge activities and how much does this figure compare with the natural movement of such materials by surface erosion and mass movement?" The answer was that suction dredges moved a total of 2,413 cubic yards for the season. Cooley (1995) used the most conservative values and estimated that the Siskiyou National Forest would move 331,000 cubic yards of material each year from natural causes. Compared to the 2413 (in-stream) cubic yards re-located by suction mining operations the movement rate by suction dredge mining would equal about 0.7% of natural rates.

It has been suggested that a single operating suction dredge may not pose a problem but the operation of multiple dredges would produce a cumulative effect that could cause harm to aquatic organisms. However, "No additive effects were detected on the Yuba River from 40 active dredges on a 6.8 mile (11 km) stretch. The area most impacted was from the dredge to about 98 feet (30 meters) downstream, for most turbidity and settleable solids (Harvey, B.C., K. McCleneghan, J.D. Linn, and C.L. Langley, 1982). In another study, "Six small dredges (<6 inch dredge nozzle) on a 1.2 mile (2 km) stretch had no additive effect (Harvey, B.C., 1986). Water quality was typically temporally and spatially restricted to the time and immediate vicinity of the dredge (North, P.A., 1993).

A report on the water quality cumulative effects of placer mining on the Chugach National Forest, Alaska found that, "The results from water quality sampling do not indicate any strong cumulative

effects from multiple placer mining operations within the sampled drainages." "Several suction dredges probably operated simultaneously on the same drainage, but did not affect water quality as evidenced by above and below water sample results. In the recreational mining area of Resurrection Creek, five and six dredges would be operating and not produce any water quality changes (Huber and Blanchet, 1992).

The California Department of Fish and Game stated in its Draft Environmental Impact Report that "Department regulations do not currently limit dredger densities but the activity itself is somewhat self-regulating. Suction dredge operators must space themselves apart from each other to avoid working in the turbidity plume of the next operator working upstream. Suction Dredging requires relatively clear water to successfully harvest gold" (CDFG, 1997).

#### ELEVATED TURBIDITY AND SUSPENDED

Suction dredging causes less than significant effects to water quality. The impacts include increased turbidity levels caused by re-suspended streambed sediment and pollution caused by spilling of gas and oil used to operate suction dredges (CDFG, 1997).

"Suction dredges, powered by internal combustion engines of various sizes, operate while floating on the surface of streams and rivers. As such, oil and gas may leak or spill onto the water's surface. There have not been any observed or reported cases of harm to plant or wildlife as a result of oil or gas spills associated with suction dredging" (CDFG, 1997).

The impact of turbidities on water quality caused by suction dredging can vary considerably depending on many factors. Factors which appear to influence the degree and impact of turbidity include the amount and type of fines (fine sediment) in the substrate, the size and number of suction dredges relative to stream flow and reach of stream, and background turbidities (CDFG, 1997).

Because of low ambient levels of turbidity on Butte Creek and the North Fork American River, California, Harvey (1986) easily observed increases of 4 to 5 NTU from suction dredging. Turbidity plumes created by suction dredging in Big East Fork Creek were visible in Canyon Creek 403 feet (123 meters) downstream from the dredges (Somers and Hassler, 1992).

In contrast, Thomas (1985), using a dredge with a 2.5-inch diameter nozzle on Gold Creek, Montana, found that suspended sediment levels returned to ambient levels 100 feet below the dredge. Gold Creek is a relatively undisturbed third order stream with flows of 14 cubic feet per second. A turbidity tail from a 5-inch (12.7 cm) dredge on Clear Creek, California was observable for only 200 feet downstream. Water velocity at the site was about 1 foot per second (Lewis, 1962).

Turbidity below a 2.5 inch suction dredge in two Idaho streams was nearly undetectable even though fine sediment, less than 0.5 mm in diameter, made up 13 to 18 percent, by weight, of substrate in the two streams (Griffith and Andrews, 1981).

"During a dredging test carried out by the California Department of Fish and Game on the north fork of American River, it was concluded that turbidity was greatest immediately downstream, returning to ambient levels within 100 feet. Referring to 52 dredges studied, Harvey (1982) stated "...generally rapid recovery to control levels in both turbidity and settleable solids occurred below dredging activity."

Hassler (1986) noted "...during dredging, suspended sediment and turbidity were high immediately below the dredge, but diminished rapidly within distance downstream." He measured 20.5 NTU 4 meters below a 5-inch dredge that dropped off to 3.4 NTU 49 meters below the dredge. Turbidity from a 4-inch dredge dropped from 5.6 NTU 4 meters below to 2.9 NTU 49 meters below with 0.9 NTU above. He further noted "...water quality was impacted only during the actual operation of the dredge...since a full day of mining by most Canyon Creek operators included only 2 to 4 hours of dredge running time, water quality was impacted for a short time." Also "...the water quality of Canyon Creek was very good and only affected by suction dredging near the dredge when it was operated."

The US Geological Survey and the Alaska Department of Natural Resources conducted a survey into dredging on Alaska's Fortymile River, which is a river designated as a wild and scenic corridor. The

study stated, "One dredge had a 10-inch diameter intake hose and was working relatively fine sediment on a smooth but fast section of the river. The other dredge had an 8-inch intake and was working coarser sediments in a shallower reach of the river. State regulations require that suction dredges may not increase the turbidity of the river by more than 5 nephelometric turbidity units (NTU), 500 feet (=150m) downstream. In both cases, the dredges were well within compliance with this regulation."

<http://www.akmining.com/mine/usgs1.htm>

Samples were collected on a grid extending downstream from the dredges as they were operating and compared to measurements made upstream of the dredges. One dredge had a 10-inch diameter intake hose and was working relatively fine sediments on a smooth but fast section of the river. The results of the turbidity survey for the 10-inch dredge are shown on figure 2. Turbidity values behind the 8-inch dredge were lower, because the smaller intake was moving less sediment material, and because the coarser sediments being worked by the 8-inch dredge settled more rapidly

The turbidity values found in the dredge studies fall within the range of turbidity values found for currently mined areas of the Fortymile River and many of its un-mined tributaries. Figure 3 shows the ranges of turbidity values observed along the horizontal axis, and the number of samples that fall within each of those ranges. For example, 25 samples had turbidity between 1.0 and 1.5 NTU, 22 of which were in a dredged area. The highest turbidity value was from an un-mined tributary to Uhler Creek; the lowest from a number of different tributaries to the North Fork. As seen on the figure, there is no appreciable difference in the distribution of turbidity values between mined and un-mined areas.

<http://www.akmining.com/mine/usgs1.htm>

In American studies, average turbidity levels have been shown to be between 5 and 15 NTU 5 meters below dredges. But even the maximum turbidity level measured in a clay pocket (51 NTU) fell below 10 NTU within 45 meters. Turbidity increases, from even large dredges on moderate sized streams, have shown to be fairly low, usually 25 NTU or less, and to return to background within 30 meters. The impact is localized and short lived; indicating minimum impact on moderate and larger waterways.

Within any waterway, sediment is primarily carried in suspension during periods of rainfall and high flow. This is an important point, as it indicates that a dredging operation has less, or at least no greater effect on sediment mobilization and mobility than a rain storm."

All of these research studies have concluded that only a local significant effect occurs, with it decreasing rapidly downstream. The studies have been wide spread, having been undertaken in Alaska, Idaho, California, Montana and Oregon.

The science supports de minimus status for < 6-inch suction dredges. Turbidity is de minimus according to the U.S. Army Corps of Engineers.

"Effects from elevated levels of turbidity and suspended sediment normally associated with suction dredging as regulated in the past in California appear to be less than significant with regard to impacts to fish and other river resources because of the level of turbidity created and the short distance downstream of a suction dredge where turbidity levels return to normal" (CDFG, 1997).

Furthermore, individuals that have not, in fact, operated suction dredges may not realize that it is a self-limiting operation. The dredge operator must be able to see his work area to operate safely and manage the intake of the dredge nozzle. If high levels of turbidity were to flood the dredger's work area and render him "blind" he would have to move the operation to another location.

#### INCREASING WATER TEMPERATURE

Responsible suction dredge miners do not dredge stream banks (it is illegal). Dredging occurs only in the wetted perimeter of the stream. Therefore, it is unlikely suction dredging will cause a loss of cover adjacent to the stream.

Solar radiation is the single most important energy source for the heating of streams during

daytime conditions. The loss or removal of riparian vegetation can increase solar radiation input to a stream increasing stream temperature. Suction dredge operations are confined to the existing stream channel and do not affect riparian vegetation or stream shade (SNF, 2001).

Suction dredging could alter pool dimensions through excavation, deposition of tailings, or by triggering adjustments in channel morphology. Excavating pools could substantially increase their depth and increase cool groundwater inflow. This could reduce pool temperature. If pools were excavated to a depth greater than three feet, salmonid pool habitat could be improved. In addition, if excavated pools reduce pool temperatures, they could provide important coldwater habitats for salmonids living in streams with elevated temperatures (SNF, 2001).

Dredge mining had little, if any, impact on water temperature (Hassler, T.J., W.L. Somer and G.R. Stern, 1986). In addition, the Oregon Siskiyou Dredge Study states, "There is no evidence that suction dredging affects stream temperature" (SNF, 2001).

Increases in sediment loading to a stream can result in the stream aggrading causing the width of the stream to increase. This width increase can increase the surface area of the water resulting in higher solar radiation absorption and increased stream temperatures. Suction dredge operations are again confined to the existing stream channel and do not affect stream width (SNF, 2001).

Stream temperature can also increase from increasing the stream's width to depth ratio. The suction dredge operation creates piles in the stream channel as the miner digs down into the streambed. The stream flow may split and flow around the pile decreasing or increasing the wetted surface for a few feet. However, within the stream reach that the miner is working in, the change is so minor that the overall wetted surface area can be assumed to be the same so the total solar radiation absorption remains unchanged. Suction Dredging results in no measurable increase in stream temperature (SNF, 2001).

"Small streams with low flows may be significantly affected by suction dredging, particularly when dredged by larger dredges (Larger than 6 inches) (Stern, 1988). However, the California Department of Fish and Game concluded, "current regulations restrict the maximum nozzle size to 6 inches on most rivers and streams which, in conjunction with riparian habitat protective measures, results in a less than significant impact to channel morphology" (CDFG, 1997).

#### WATER CHEMISTRY

Concern has been raised that small-scale dredge operations may increase the metal load of the surface waters. Whereas dredge operations do re-suspend the bottom sediment, the magnitude of this disturbance on stream metal loading was unknown. It was unknown what affect the dredge operations may have on the transport and redistribution of metals—some of which (for example, arsenic, copper, and zinc) have environmental importance.

The U.S. Geological Survey and the Alaska Department of Natural Resources cooperated in a project, on Fortymile River, to provide scientific data to address these questions. This river is designated a Wild and Scenic Corridor by the Alaska National Interest Lands Conservation Act. Current users of the river include placer mine operators, as well as boaters and rafters. Along the North Fork Fortymile River, and just below its confluence with the South Fork, mining is limited to a few small suction dredges which, combined, produce as much as a few hundred ounces of gold per year. In this area, some potential environmental concerns have been raised associated with the mining activities, including increased turbidity of the river water; adverse impact on the overall chemical quality of the river water; and potential additions of specific toxic elements, such as arsenic, to the river during mining operations.

Field measurements were made for pH, turbidity, electrical conductivity (a measure of the total dissolved concentrations of mineral salts), and stream discharge for the Fortymile River and many of its tributaries. Samples were collected at the same time for chemical analyses, including trace-metal analyses

Water-quality samples were collected at three points 200 feet behind each of the two operating suction dredges. One sample was collected on either side of the plume, and one in the center of the plume. The samples were passed through a filter with a nominal pore size of 0.45 micrometers and acidified to a pH less than about 2. Results are shown in the following table. Samples 1A, 1C, 2A, and 2C are from either side of the plume behind dredges 1 and 2, respectively. Samples 1B and 2B are from the center of each plume. All concentrations given are in micrograms per liter, except pH, which is

expressed in standard units.

The data show similar water-quality values for samples collected within and on either side of the dredge plumes. Further, the values shown in the table are roughly equal to or lower than the regional average concentrations for each dissolved metal, based on the analyses of 25 samples collected throughout the area. Therefore, suction dredging appears to have no measurable effect on the chemistry of the Fortymile River within this study area. We have observed greater variations in the natural stream chemistry in the region than in the dredge areas (Wanty, R.B., B. Wang, and J. Vohden. 1997).

Side 1 Dredge 1 Side 2 Side 1 Dredge 2 Side 2

1A 1B 1C 2A 2B 2C

pH 7.7 7.6 7.8 7.0 7.5 7.5

Arsenic 0.3 0.3 0.3 0.3 0.3 0.3

Iron 110. 110. 110. 100 97 100

Chromium 2 2 3 3 3 3

Cadmium all less than 0.02 micrograms per liter

Cobalt 0.07 0.07 0.06 0.06 0.05 0.05

Zinc 0.8 0.6 0.8 1.0 1.0 1.0

Lead all less than 0.05 micrograms per liter

A final report from an EPA contract for analysis of the effects on mining in the Fortymile River, Alaska stated, "This report describes the results of our research during 1997 and 1998 into the effects of commercial suction dredging on the water quality, habitat, and biota of the Fortymile River.... The focus of our work on the Fortymile in 1997 was on an 8-inch suction dredge (Site 1), located on the mainstem... At Site 1, dredge operation had no discernable effect on alkalinity, hardness, or specific conductance of water in the Fortymile. Of the factors we measured, the primary effects of suction dredging on water chemistry of the Fortymile River were increased turbidity, total filterable solids, and copper and zinc concentrations downstream of the dredge. These variables returned to upstream levels within 80-160 m downstream of the dredge. The results from this sampling revealed a relatively intense, but localized, decline in water clarity during the time the dredge was operating" (Prussian, A.M., T.V. Royer and G.W. Minshall, 1999).

"The data collected for this study help establish regional background geochemical values for the waters in the Fortymile River system. As seen in the chemical and turbidity data any variations in water quality due to the suction dredging activity fall within the natural variations in water quality" (Prussian, A.M., T.V. Royer and G.W. Minshall, 1999).

#### REMOVAL OF MERCURY FROM THE ENVIRONMENT

Looking for gold in California streams and rivers is a recreational activity for thousands of state residents. As these miners remove sediments, sands, and gravel from streams and former mine sites to separate out the gold, they are also removing mercury. This mercury is the remnant of millions of pounds of pure mercury that was added to sluice boxes used by historic mining operations between 1850 and 1890. Modern day small-scale gold suction dredgers do not use mercury to recover gold during the operation of the dredge. Therefore, any gold that would be found in their possession would be that which was extracted from the stream or river they are working.

Taking mercury out of streams benefits the environment. Efforts to collect mercury from recreational gold miners in the past, however, have been stymied due to perceived regulatory barriers. Disposal of mercury is normally subject to all regulations applicable to hazardous waste.

In 2000, EPA and California's Division of Toxic Substance Control worked in concert with other State and local agencies to find the regulatory flexibility needed to collect mercury in a simple and effective manner. In August and September, 2000 the first mercury "milk runs" collected 230 pounds of mercury. A Nevada County household waste collection event held in September 2000 collected about 10 pounds of mercury. The total amount of mercury collected was equivalent to the mercury load in 47 years worth of wastewater discharge from the city of Sacramento's sewage treatment plant or the mercury in a million mercury thermometers. This successful pilot program demonstrates how recreational gold miners and government agencies can work together to protect the environment (US EPA, 2001).

Mercury occurs in several different geochemical forms, including elemental mercury, ionic (or oxidized) mercury, and a suite of organic forms, the most important of which is methylmercury. Methylmercury is the form most readily incorporated into biological tissues and is most toxic to humans. The process of mercury removal by suction dredging does not contaminate the environment because small-scale suction dredging removes elemental mercury. Removal of elemental mercury before it can be converted, by bacteria, to methylmercury is a very important component of environmental and human health protection provided as a secondary benefit of suction dredging..

#### THE REAL ISSUE

The issue of localized conflict with suction dredgers and other outdoor recreational activities can be put into a more reasonable perspective using the data provided at the beginning of this report. For example, the total acreage of all analyzed claims related to the total acres of watershed is about 0.2 percent. The percentage of land area within riparian zones on the Siskiyou National Forest occupied by mining claims is estimated to be only 0.1 percent." The report goes on to say, "Over the past 10 years, approximately 200 suction dredge operators per season operate on the Siskiyou National Forest (SNF, 2001).

The issue against suction dredge operations in the streams of the United States appears to be less an issue of environmental protection and more of an issue of certain organized individuals and groups being unwilling to share the outdoors with others without like interests.

Management of the Fortymile River region (a beautiful, wild and scenic river in the remote part of east-central Alaska) and its resources is complex due to the many diverse land-use options. Small-scale, family-owned gold mining has been active on the Fortymile since the "gold rush" days of the late 1880's. However, in 1980, the Fortymile River and many of its tributaries received Wild and Scenic River status. Because of this status, mining along the river must compete with recreational usage such as rafting, canoeing, and fishing.

A press release from the U. S. Geological Survey stated, in part, the following, "The water quality of the Fortymile River-a beautiful, ...has not been adversely impacted by gold placer mining operations according to an integrated study underway by the U.S. Geological Survey and the Alaska Department of Natural Resources.

Violation of mining discharge regulations would close down the small-scale mining operations. No data existed before this study to establish if the mining was degrading the water quality. However, even with the absence of data, environmental groups were active to close down mining on the river citing unsubstantiated possible discharge violations.

This study has found no violations to date to substantiate closure of the small-scale mining operations. The result is a continuance of a way of life on the last American frontier." (U.S. Geological Survey October 27, 1998). I have no doubt that this is the real issue currently facing small-scale gold suction dredgers in California.

Suction dredges do not add pollution to the aquatic environment. They merely re -suspend and re-locate the bottom materials (overburden) within the river or stream.

I hope this scientific research information I have provided will be helpful in your efforts regarding suction dredge mining and water quality. I thank you for this opportunity to submit this data.

Respectfully Yours,

Joseph C. Greene  
Research Biologist, U.S. EPA Retired

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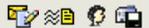
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#### 6. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"

In response to [message #5](#)

Economic Impact of Suction Gold Dredging in California is Over \$52 Million Per Year

by Scott Harn

Editor/Publisher

ICMJ's Prospecting and Mining Journal

#### The Surveys

An Environmental Impact Report on suction gold dredging was completed by the State of California in 1994. As part of this process, the State sent out two survey questionnaires. The first questionnaire was sent to over 4,000 individuals. Nearly 2,000 were returned completed. The surveys covered dredge locations, annual spending activity, amount invested in dredging equipment, nozzle size and related questions. The second survey was sent to county Boards of Supervisors, Chambers of Commerce and mining businesses to determine the importance of suction gold dredging on local economies. A sample of 1,257 of the individual surveys was used by the State to complete a statistical analysis.

### The Results

"Suction dredging is an activity that requires a substantial investment." It was determined that each suction dredger spent approximately \$9,250 per year on expenses related to suction dredging in 1994. This included motels, camp fees, food, gas, oil, equipment maintenance and repairs related to suction dredging. Suction gold dredgers are currently spending approximately \$13,249 each per year when adjusted for inflation.

The expenditures cited above did not include the cost of the suction dredge and related equipment, which the survey found was approximately \$6,000 in 1994, or \$8,594 adjusted for inflation.

In 2008, 3,523 suction gold dredging permits were issued in California. Adjusted for inflation, the economic impact of suction gold dredging in 2008 was \$46.68 million. If only one-fifth of permitted suction gold dredgers purchased a dredge during the year, another \$6.06 million would have to be added to the above figures, making the total economic impact \$52.74 million per year.

### Conclusion

Suction dredge miners contribute substantially to the economy of California.

(Note: This estimate does not reflect the value of the recovered gold nor the expenditures of those who may be assisting or accompanying the miner, which could substantially increase the economic impact of suction dredge mining in the State.)

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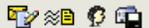
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### 7. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"

In response to [message #6](#)

#### CALIFORNIA ADMISSION TO Union

Act for the Admission of California Into the Union

Volume 9

Statutes at Large

Page 452

Whereas, the people of California have presented a constitution and asked admission into the Union, which constitution was submitted to Congress by the President of the United States, by message date February thirteenth, eighteen hundred and fifty, and which, on due examination, is found to be republican in its form of government:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress Assembled, That the State of California shall be one, and is hereby declared to be one, of the United States of America, and admitted into the Union on an equal footing with the original States in all respects whatever.

Sec. 2. And be it further enacted, That until the representatives in Congress shall be apportioned according to an actual enumeration of the inhabitants of the United States, the State of California shall be entitled to two representatives in Congress.

Sec. 3. And be it further enacted, That the said State of California is admitted into the Union upon the express condition that the people of said State, through their legislature or otherwise, shall never interfere with the primary disposal of the public lands within its limits, and shall pass no law and do no act whereby the title of the United States to, and right to dispose of, the same shall be impaired or questioned;

and that they shall never lay any tax or assessment of any description whatsoever upon the public domain of the United States, and in no case shall non-resident proprietors, who are citizens of the United States, be taxed higher than residents;

and that all the navigable waters within the said State shall be common highways, and forever free, as well to the inhabitants of said State as to the citizens of the United States, without any tax, impost, or duty therefor.

Provided, That nothing herein contained shall be construed as recognizing or rejecting the propositions tendered by the people of California as articles of compact in the ordinance adopted by the convention which formed the constitution of that State.  
Approved, September 9, 1850.

THIS IS THE IMPORTANT PART

>shall never interfere with the primary disposal of the public lands within its limits, and shall pass no law and do no act whereby the title of the United States to, and right to dispose of, the same shall be impaired or questioned<

The General Mining Law is a land disposal law.

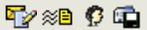
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**8. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**

In response to [message #7](#)

SB 670, unpatented placer mining claims & claim owners valid existing rights

"This Constitution and the laws of the United States which shall be made in pursuance thereof...shall be the supreme law of the land; and the judges in every state shall be bound thereby, anything in the Constitution or laws of any state to the contrary notwithstanding." Supremacy Clause, Article VI U. S. Constitution

"The Congress shall have power to dispose of and make all needful Rules and Regulations respecting...property belonging to the United States." "Property Clause", Article IV, Section 3, U. S. Constitution

California was admitted to the Union, upon the following infeasible condition:

Sec. 3. And be it further enacted, That the said State of California is admitted into the Union upon the express condition that the people of said State, through their legislature or otherwise, shall never interfere with the primary disposal of the public lands within its limits, and shall pass no law and do no act whereby the title of the United States to, and right to dispose of, the same shall be impaired or questioned;...and that all the navigable waters within the said State shall be common highways, and forever free, as well to the inhabitants of said State as to the citizens of the United States, without any tax, impost, or duty therefor. Act for the Admission of California Into the Union, Volume 9, Statutes at Large, Page 452

The General Mining Law of 1872, is a clear unequivocal federal grant towards disposal of federal

public domain lands, containing valuable minerals, open to such entry. Absolutely guaranteeing the grantee's the right to mine applicable valuable minerals they own, under reasonable regulation.

The legislature of California accepted this express provision in 1850, thus as long as the Federal government retains title, the federal interest in providing free access to its own land in order to promote mining is sufficient to preempt any state law that fundamentally bans such use. Accordingly under standard preemption analysis any state legislation, or subsequent regulation that conflicts with this overriding federal purpose, must fail.

The purpose of the Mining Act is to encourage mining on federal lands. *United States v. Weiss*, 642 F.2d 296, 299 (9th Cir.1981) (*Weiss*); see also *United States v. Goldfield Deep Mines Co.*, 644 F.2d 1307, 1309 (9th Cir.1981), cert. denied, 455 U.S. 907, 102 S.Ct. 1252, 71 L.Ed.2d 445 (1982).

Unpatented mining claims are self-initiated rights granted under the General Mining Law. Congress exercised that discretion in granting those rights under the law. (30 U.S.C.A. § 23, 27-28; 43 U.S.C.A. § 1744; *Cole v. Ralph*, 252 U.S. 286, 296 (1920).)

In ordinary English, a "claim " is merely a demand for something, or an assertion of a right where the right has not been established. The phrase "mining claim" therefore probably connotes to most laymen an unsupported assertion or demand from which no legal rights can be inferred. But that is emphatically not so, as follows;

In law, the word "claim" in connection with the phrase "mining claim" represents a federally recognized right in real property. The Supreme Court has established that a mining "claim" is not a claim in the ordinary sense of the word--a mere assertion of a right--but rather is a property interest, which is itself real property in every sense, and not merely an assertion of a right to property. *Benson Mining & Smelting Co. v. Alta Mining & Smelting Co.*, 145 U.S.428 (1892)

Locators' rights of possession and enjoyment. The locators of all mining locations ... situated on the public domain, their heirs and assigns, ... so long as they comply with the laws of the United States, and with State, territorial, and local regulations not in conflict with the laws of the United States governing their possessory title, shall have the exclusive right of possession and enjoyment of all the surface included within the lines of their locations". (for mining purposes)30 USC § 26.

Once the requirements of the General Mining Law have been met, the right granted by the statute is a real and private property interest. *Freese v. United States*, 639 F.2d 754, 757, 226 Ct.Cl. 252 cert. denied, 454 U.S. 827, 102 S.Ct. 119, 70 L.Ed.2d 103 (1981); *Oil Shale Corp. v. Morton*, 370 F.Supp. 108, 124 (D.Colo. 1973).

Valid unpatented mining claims are "property in the fullest sense of that term." (*Wilbur v. United States ex rel. Krushnic*, 280 U.S. 306, 316 (1930).) Which entitles the owner "the right to extract all minerals from the claim without paying royalties to the United States." *Swanson v. Babbitt*, 3 F.3d 1348. Further entitling the holder to "the right to a flow of income from production of the claim." (*United States v. Locke*, 471 U.S. 84, 104 - 105 (1985).)

Even though title to the fee estate remains in the United States, these unpatented mining claims are themselves property protected by the Fifth Amendment against uncompensated takings. See *Best v. Humboldt Placer Mining Co.*, 371 U.S. 334 (1963); cf. *Forbes v. Gracey*, 94 U.S. 762, 766 (1876); U.S.C. A.Const. Amend. 5; *North American Transportation & Trading Co. v. U.S.*, 1918, 53 Ct.Cl. 424, affirmed 40 S.Ct. 518, 253 U.S. 330; *United States v. Locke*, 471 U.S. 84, 107, 105 S.Ct. 1785, 1799, 85 L.Ed. 2d 64 (1985); *Freese v. United States*, 639 F.2d 754, 757, 226 Ct.Cl. 252, cert. denied, 454 U.S. 827, 102 S. Ct. 119, 70 L.Ed. 2d 103 (1981); *Rybachek v. United States*, 23 Cl.Ct. 222 (1991).

Prospecting, locating and developing of mineral resources in the national forests may not be prohibited nor so unreasonably circumscribed as to amount to a prohibition. *Weiss*, 642 F.2d at 299,United States Court of Appeals, Ninth Circuit,(1980).

California law recognizes water rights by ownership of riparian land, appropriation, or prescription. Cal. Water Code § 2501. In *re Water of Hallett Creek Stream Sys.*, 749 P.2d 324 (Cal. 1988), cert. denied sub nom. *California v. United States*, 488 U.S. 824 (1988). The California Supreme Court ruled that

the federal government, as owner of nearly half the land in the state, held riparian water rights on the lands it set aside for particular federal purposes, but that the extent of rights were determined with reference to the interests of other water users. *Id.* at 327.

National forests "...are not parks set aside for nonuse, but have been established for economic reasons". 30 Cong.Rec. 966 (1897) (Cong. McRae)." *United States v. New Mexico*, 438 U.S. 696, 708, 98 S.Ct. 3012, 3018, 57 L.Ed.2d 1052 (1978).

Even the Forest Service is limited in the amount of regulation it may impose as a condition of mining in national forests because of the federal policy to encourage mining on federal lands. See *Weiss*, 642 F.2d at 299; see also 30 U.S.C. Sec. 21a; 36 C.F.R. Sec. 228.5(a).

To allow a second tier of permit authority to be exercised by the states would undermine the Forest Service's ability to keep the applicable environmental requirements within the range of reasonableness. See *Weiss*, 642 F.2d at 299; 36 C.F.R. Sec. 228.5(a). Current federal law allows the states to establish environmental standards that the Forest Service will apply in exercising its permit authority. See *id.* Sec. 228.8. But by reserving final permit authority in the Forest Service, see *id.* Secs. 228.4-.5, it also affords the Forest Service the power necessary to promote the federal purpose of maintaining the reasonableness of the overall regulatory mix. See 30 U.S.C. Sec. 21a; 36 C.F.R. Sec. 228.5(a).

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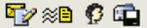
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#### 9. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"

In response to [message #8](#)

Title 14. California Code of Regulations  
Chapter 3. Guidelines for Implementation of the California Environmental Quality Act  
Article 19. Categorical Exemptions

##### 15300. Categorical Exemptions

Section 21084 of the Public Resources Code requires these Guidelines to include a list of classes of projects which have been determined not to have a significant effect on the environment and which shall, therefore, be exempt from the provisions of CEQA. In response to that mandate, the Secretary for Resources has found that the following classes of projects listed in this article do not have a significant effect on the environment, and they are declared to be categorically exempt from the requirement for the preparation of environmental documents. Note: Authority cited: Section 21083, Public Resources Code; Reference: Section 21084, Public Resources Code.

##### 15300.1. Relation to Ministerial Projects

Section 21080 of the Public Resources Code exempts from the application of CEQA those projects over which public agencies exercise only ministerial authority. Since ministerial projects are already exempt, categorical exemptions should be applied only where a project is not ministerial under a public agency's statutes and ordinances.

CA DF&G themselves held that issuance of a dredging permits, is MINISTERIAL

##### 15304. Minor Alterations to Land

Class 4 consists of minor public or private alterations in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees except for forestry or agricultural purposes.

Suction dredge fits inside this exemption.

##### 15330. Minor Actions to Prevent, Minimize, Stabilize, Mitigate or Eliminate the Release or Threat of Release of Hazardous Waste or Hazardous Substances.

Class 30 consists of any minor cleanup actions taken to prevent, minimize, stabilize, mitigate, or eliminate the release or threat of release of a hazardous waste or substance which are small or

medium removal actions costing \$1 million or less.

Suction dredging fits here also, as it certainly removes toxic mercury & lead

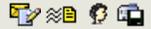
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**10. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**

In response to [message #9](#)

Owners of valid unpatented placer claims under 30 USC 21-54, hold a statutory "grant" from the federal government, to mine federally authorized mining claims, subject to existing federal regulations at 36 CFR 228 et. seq., & 43 CFR 3809 et. seq.

Certainly, the state may also regulate that use. But, state regulation cannot be unreasonable, nor so onerous as to effect a total prohibition of mining, or prohibit any standardized mining methods, such as suction dredging. To hold otherwise arbitrarily obliterates what a valid "mining claim" is, the owners private property rights, and federal law providing for their existence, and use.

The basic authority for Forest Service management of the surface resources on mining claims is 16 U.S. C. 551, which provides: The Secretary of Agriculture . . . may make such rules and regulations and establish such service as will insure the objects of such reservations, namely, to regulate their occupancy and use and to preserve the forests thereon from destruction . . . There is a statutory right for persons to prospect and mine on National Forest System land open to mineral exploration, but such persons must comply with the rules and regulations covering the National Forests (16 U.S.C. 478). The relevant regulations are primarily set forth in 36 CFR Part 228, Subpart A, et. seq.

The regulations at 36 CFR Part 228, Subpart A shall be administered in a fair, reasonable, and consistent manner and not as a means of inhibiting or interfering with legitimate, well-planned mineral operations. The regulations at 36 CFR Part 228, Subpart A apply to all unpatented mill sites, tunnel sites, and mining claims, including those not subject to 30 U.S.C. 612, and to activities, primarily prospecting, which may be conducted under the mining laws but not on claims.

The statutory right of the public to prospect, develop, and mine valuable minerals shall be fully honored and protected. Onsite disturbance would be considered significant if natural recovery, to a condition of no higher standard than existed before the operation, would not be expected to take place within a reasonable period of time The determination of what is significant can come only from a fair, reasonable, and consistent evaluation of proposed operations on a case-by-case basis. .

These regulations do not allow the Forest Service or BLM to deny entry or preempt the miners' statutory right granted under the 1872 Mining Law.

Given that fact, clearly, any state law, such as SB 670 cannot prohibit mining via suction dredging on a valid federally protected unpatented placer claim.

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**11. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**

In response to [message #10](#)

Overview of small-scale suction dredging, applicable law & associated property rights.

Gold is found in drainages as alluvial placers where the gold is concentrated in present stream or river channels. To form placer deposits, gold is eroded from its host rock upslope, and upstream and carried downstream by the action of the water. The particles range in size from "flour" gold, to small flakes, wheat or rice grain sized nuggets, and much larger nuggets, sometimes weighing an ounce, or more.

The distance gold particles move depends on the size and shape of the particle and on the energy of the stream. Gold is picked up where currents are fast and deposited when stream velocity slows. One typical area where stream velocity decreases is where the stream enters a pool. Other areas include the inside curve of bends, where the flow is slower than in the main channel and outside bend. Water also slows in eddies on the downstream sides of obstructions in the stream, such as rocks, vegetation, logs, or bedrock outcrops.

As one of the densest materials transported by any stream velocity, gold is among the first to drop out when a stream slows and energy diminishes. Unless the gold is picked up again, it often sifts down to a hardpan layer or to bedrock by the action of gravity. Miners have long recognized how and where gold is likely to be concentrated and have operated accordingly.

All gold bearing streams in California were historically placer mined to various degree's, and many continue to give up gold to miners today. Placer gold is normally recovered by miners who use small-scale suction dredges, primarily on unpatented placer mining claims, they own, lease or have permission to dredge on.

Unpatented placer claims on public domain lands, open to mineral entry (some - not all National Forests & BLM lands) are initiated, and held by mining claimants under the General Mining Laws (30 U.S.C. § 21-54). Corresponding regulations to protect the environment from undue, or unnecessary degradation that may be caused by mining are found at 36 CFR 228 et. seq., & 43 CFR 3809 et. Seq.

These federal mining regulations are lengthy, complex, and stringent. Federal law mandates these regulations shall be administered in a fair, reasonable, and consistent manner and not as a means of inhibiting or interfering with legitimate, well-planned mineral operations. These regulations do not allow the Forest Service or BLM to deny entry or preempt valid mining claim owners statutory rights, or private property interests granted under the General Mining Laws.

Dredges typically use gasoline-powered pumps to create suction in a flexible pipe, generally up to 5 inches in diameter. The suction pulls stream sediment, gravel, small rocks, and other overburden materials from the stream bottom, along with any gold. All this material is routed through the header box and onto a sluice box.

The sluice box channels the water and other material over a series of riffles that serve to create pockets of slow water immediately behind each riffle - the heavier material, including any gold, settles behind the riffles and the rest ejects directly back into the stream. The entire system (e.g., gasoline-powered engine, pump, and sluice box) is mounted on a floating platform that is anchored or tethered near the work area.

Operators try to open, and maintain a hole open down to bedrock in which to work. As the operator advances upstream, cobbles and rocks too large to be vacuumed up through the nozzle and suction hose are pried loose and placed to the edge or back of the hole while smaller material is pumped through the sluice box and - except for gold and other heavy materials, such as lead sinkers, mercury that may settle out behind riffles - is immediately discharged out of the sluice box and back into the stream.

Some dredges are equipped with air compressors that provide air to "divers" so they can remain under

water while examining and suction-dredging deeper holes. In extreme cold water, some dredges are even equipped with water heating devices, that recirculate warm water through a divers wet suit, to ward off hypothermia, in extreme cold water conditions. A rule of thumb is that up to one foot of overburden can be worked economically for each inch of dredge-hose-nozzle diameter.

Small-scale suction dredge operators generally prospect or explore and mine only a relatively short distance each mining season, from less than 10 feet of stream up to a maximum of perhaps 200 feet. Significant lengths of almost all gold bearing drainages in California have experienced some form of past placer mining.

Suction dredge operators search for areas that were overlooked or avoided by past miners. Many suction dredge operators have found gold in previously mined areas by meticulously exploring cracks and crevices in bedrock. The amount of material worked by small-scale suction dredgers varies widely, from less than a cubic yard per day up to 5 or possibly more yards per day, dependent on overburden characteristics, and dredge nozzle size.

In areas of large substrate, more time and effort is spent by the operator moving small boulders and cobbles larger than the nozzle diameter out of the work area. Consequently, in larger substrate less material is processed through the dredge. The opposite is true for dredging in substrate that is predominantly smaller than the dredge nozzle diameter.

Miners typically move their dredges into the stream at the beginning of the their endeavor, and do not remove their dredge until the last day of operations. There is not repeated loading or unloading of the dredges. Some miners, only dredge during week ends, holidays, or vacation periods. Others, dredge more often, to supplement other income sources. Some dredge full time, as their primary livelihood, and sole source of income.

While suction dredge is often described as a "hobby", or "recreational". In the vast majority of instances, primarily where miners own unpatented mining claims, that is emphatically not so. Initiation of a valid placer claim is, to say the least a difficult, often a lengthy, time consuming, expensive process. In-so-far as, almost every inch of all open to entry placer gold bearing, streams, creeks, or rivers in California are already covered with one of the 25,000 pre-existing active unpatented mining claims in California.

The investment to find, initiate, acquire, or purchase a productive unpatented placer claim, as well as a suction dredge, trailer to haul it, and all other gear required to profitably suction dredge can run from as little as \$3,000, to as much as \$50,000. Because valid unpatented placer mining claims, are in fact, "real property", they are subject to California property tax, as well as annual BLM maintenance fee's. Which, if not perfectly maintained, subject any unpatented mining claim to forfeiture, by operation of federal law.

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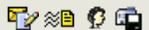
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#### **12. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**

In response to [message #11](#)

In ordinary English, a "claim " is merely a demand for something, or an assertion of a right where the right has not been established. The phrase "mining claim" therefore probably connotes to most laymen an unsupported assertion or demand from which no legal rights can be inferred. But that is emphatically not so. In law, the word "claim" in connection with the phrase "mining claim" represents a federally recognized right in real property. The Supreme Court has established that a mining "claim" is not a claim in the ordinary sense of the word--a mere assertion of a right--but rather is a property interest, which is itself real property in every sense, and not merely an assertion of a right to property. *Benson Mining & Smelting Co. v. Alta Mining & Smelting Co.*, 145 U.S.428 (1892)

Even though title to the fee estate remains in the United States, these unpatented mining claims are themselves property protected by the Fifth Amendment against uncompensated takings. See *Best v. Humboldt Placer Mining Co.*, 371 U.S. 334 (1963); cf. *Forbes v. Gracey*, 94 U.S. 762, 766 (1876); U.S.C. A.Const. Amend. 5; *North American Transportation & Trading Co. v. U.S.*, 1918, 53 Ct.Cl. 424, affirmed 40 S.Ct. 518, 253 U.S. 330; *United States v. Locke*, 471 U.S. 84, 107, 105 S.Ct. 1785, 1799, 85 L.Ed. 2d 64 (1985); *Freese v. United States*, 639 F.2d 754, 757, 226 Ct.Cl. 252, cert. denied, 454 U.S. 827, 102 S. Ct. 119, 70 L.Ed. 2d 103 (1981); *Rybachek v. United States*, 23 Cl.Ct. 222 (1991).

The taxability of unpatented mining claims was established more than a century ago by the California Supreme Court, in the case of *the State of California v. Moore* 12 Cal. 56 (1859), which stated in part: "The interest of the occupant of a mining claim is property, and, under the Constitution, it is in the power of the Legislature to tax such property."

Section 104(b ) of the California Revenue and Taxation Code defines real property in part as "All mines, minerals, and quarries in the land, and all rights and privileges appertaining thereto." The term "land" is defined in Property Tax Rule 121 in relevant part as "the possession of, claim to, ownership of, or right to possession of land; mines, quarries, and unextracted mineral products. All real property not exempt or immune from taxation is subject to property tax.

The terms "mineral rights" and "mining rights" as described in Section 607.5 include the right to enter in or upon the land for the exploration, development, and production of minerals including oil, gas, and other hydrocarbons.

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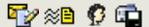
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#### OLD GOLD MINER

Member since 11-15-09

81 posts

11-16-09, 07:52 AM (MDT)



#### 13. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"

In response to [message #12](#)

Clearly, owners of valid unpatented placer mining claims have both a federal statutory grant, as well as correlative riparian ownership of a share of the water naturally flowing through their mineral estate. Which permits them to put that water to beneficial use for mining purposes. Suction dredging to recover placer gold concentrated in river, or streambed auriferous gravels is plainly a beneficial use of water.

Beneficial use of free flowing water through a valid placer mining claim requires no permits or licenses, so long as the water use is reasonable, not significantly impounded, diverted away, or wasted. The right to use that water is a property right and can be protected against infringement in the same manner as any other property right; i.e., by appropriate court action.

Existing water law, historical use, and practice, as well as common sense provide that with any beneficial use of water, that use may degrade the quality of the water so used. Otherwise, any use of water would be impractical. As all consumption, irrigation, agricultural, municipal, or industrial use of water, most certainly involves a relative degree of degradation to that waters quality. If otherwise, the simple act of washing dishes, or clothing, watering your lawn, bathing, or flushing a toilet, would be unlawful.

Furthermore an individual grantee, or owner of a "beneficial use" of water flowing through his own property, or mineral estate requires no Endangered Species Act (ESA) "incidental take" permit. To take

is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." 16 U.S.C. § 1532. " Incidental take" means the action involved is incidental to, and not the purpose of, an otherwise lawful activity. "harm" is defined as "an act which actually kills or injures wildlife." 50 C.F.R. § 17.3.

If an ESA "take" permit, incidental or otherwise were required for beneficial water use. Every person, or family using water from any watershed, or drainage in California containing ESA listed fish, would be required to have such a permit, as their use certainly degrades water put to that use. Ponder also that, 3 million California sports fisherman require no ESA "take" permit, yet their sole purpose is to capture, and kill fish.

Proponents of SB 670 argue that suction dredge gold mining in California \*harms\* ESA listed fish, and their corresponding habitat. Because ESA regulation further explains that "such act may include significant habitat modification where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering."

Obviously, suction dredge gold mining in California water affects both water quality, and ESA listed fish habitat. Just, as all other beneficial water uses do, in one way or another. The California legislature, and SB 670 proponents ignore under pre-SB 670 dredging regulation, all suction dredge gold mining was clearly prohibited in all places, and at all times when and where suction dredging could have possible deleterious effects on salmon, their spawning habitat, and throughout times when eggs, or egg sack fry are maturing in spawning gravels.

Secondly, a large body of authoritative peer reviewed scientific studies of well regulated suction dredging gold mining with dredge orifices under six inches, individual, or cumulative effects are so minimal, negligible, fleeting that they are De Minimis, meaning unworthy of serious legal consideration, or consequence.

The state of California holds all water under the Public Trust Doctrine. Thus, all people can use water naturally flowing through federal public domain lands, such as national forests for drinking, cooking, bathing, swimming, rafting, boating, sports fishing, etc. However, those water uses are "implied" rights of use.

Whereas, the framers of SB 670, and the California legislature ignore, valid unpatented placer claim owners, have 1st; an express statutory grant, 2nd; riparian water rights & 3rd; a vested private property right to put that same free flowing water to beneficial use for mining purposes. Which gives all valid placer claim owners in California a higher priority, corresponding private property rights, and a protected legal interest far above all other incidental users of free flowing water within national forests, and/or BLM lands.

To emphasize that fact, all federal preservation type land withdrawals, such as the Wilderness Act, National Recreation Area Act, the Wild & Scenic Rivers Act, Federal Land Management Policy Act, ad infinitum, contain express provisions, that each, and every land withdrawal so made under their auspices, is subject to "Valid Existing Rights".

Which absolutely includes water use, and mining rights pertinent to valid preexisting unpatented mining claims situated within such land withdrawals. To do otherwise would abridge Constitutional protections for "taking" private property, without just compensation first being paid to such owners.

Given these unequivocal facts, SB 670 provisions indefinitely prohibiting suction dredge gold mining in California is an unconscionable, unfair, discriminatory, prohibitive, unfounded law, that any competent federal court will swiftly overturn.

**OLD GOLD MINER**

Member since 11-15-09

81 posts

**14. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #13](#)

Public Scoping Meeting for input on possible changes to DFG's Suction Dredge Program  
5:00 p.m.  
November 17, 2009  
City of West Sacramento Galleria  
1110 West Capitol Ave.  
West Sacramento, CA 95691

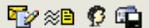
Public Scoping Meeting for input on possible changes to DFG's Suction Dredge Program  
5:00 pm  
November 18, 2009  
Shasta Senior Nutrition Program Center  
100 Mercy Oaks Drive  
Redding, CA 96003

Public Scoping Meeting for input on possible changes to DFG's Suction Dredge Program  
5:00 p.m. November 16, 2009  
California Retired Teachers Association Building  
3930 E. Saginaw Way  
Fresno, CA 93726

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Member since 11-15-09

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**15. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #14](#)

CA DF&G CODE  
5653. (a) The use of any vacuum or suction dredge equipment by any person in any river, stream, or lake of this state is prohibited, except as authorized under a permit issued to that person by the department in compliance with the regulations adopted pursuant to Section 5653.9.

The word "person" would seem to be all inclusive, unless otherwise provided for by statute, and subsequent regulation derived from that statute.

Which, in the case CA DF&G is specifically as follows:

5653.8. For purposes of Sections 5653 and 5653.3, "person" does not include a partnership, corporation, or other type of association.

Valid unpatented placer mining claim owners act in "association" with Federal Mining Law. Accepting that federal "grant" to explore for, find, initiate ownership of, and mine at their own risk, and expense applicable valuable minerals situated on or within federal lands, open to such mineral entry. In fact, any valid unpatented placer mining claim is made in "partnership" with the federal government, under grant provided for within the Federal Mining Laws, 30 U.S.C. § 21-54.

In any instance where more than one person, acting in "association" with another person, or more than one other person, to dredge on a federal unpatented placer mining claim is a "partnership". Any valid unpatented placer mining claim owned by more than one individual is a form of "partnership" amongst all co-owners.

In fact, any valid placer claim, with more than 1 locator, or over 20 acres in size, requiring more than one locator is an "association" placer claim, as provided for by both federal, and state law. Furthermore, valid unpatented placer claims may be owned by "corporations".

Which, is all inclusive, as every valid unpatented placer mining claim in California, is initiated, and held in partnership, and association with governing federal law.

Thus, by California's own explicit statutory restriction, direct provision, and unambiguous regulation, CA DF&G has no implied, nor express authority to govern, or regulate suction dredge use on valid unpatented placer mining claims, situated on federal public domain lands. Particularly, where partnerships, associations, or corporations dredge on those mining claims. So long as those operators act in full compliance with governing federal law, and regulation.

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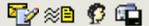
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### OLD GOLD MINER

Member since 11-15-09

81 posts

11-16-09, 07:58 AM (MDT)



#### 16. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"

In response to [message #15](#)

What becomes plain to anyone knowledgeable in the area of federal lands, and mining law, in reading, and trying to respond to this initial study report.

Is that DFG themselves & the company that they contracted to compile, and perform the EIR, lack a basic understanding of fundamental law, and facts governing federal public domain & mining on it.

##### FACT 1.

The vast majority of all suction dredge gold mining in California takes place on federal public domain lands.

##### FACT 2.

The vast majority of those same federal lands, are open to mineral entry under federal mining laws & where gold exists are held under mining claims.

##### FACT 3.

Mining on federal lands, is encouraged by federal policy directive & governed by federal law & regulation.

##### FACT 4.

Once a valid mining claim is established, it grants the owner various protected private property rights.

FACT 5. State law, and regulation cannot prohibit what federal law encourages, and allows.

What we have here is a state agency who's primary responsibility is to regulate California's fish & game as follows:

##### CA F&G CODE Section 200

200. There is hereby delegated to the commission the power to regulate the taking or possession of birds, mammals, fish, amphibia, and reptiles to the extent and in the manner prescribed in this article.

201. Nothing in this article confers upon the commission any power to regulate any natural resources or commercial or other activity connected therewith, except as specifically provided.

For reasons only the California legislature can explain, they allocated CA DF&G authority to regulate the issuance of small scale suction dredge mining permits.

CA DF&G Section 201 provisions creates a conundrum, because valuable minerals are a "natural resource", and mining is both "commercial" & "activity" connected to it.

Regardless of the obvious conflict there, because the California legislature specifically provided CA DF&G

with authority to regulate the issuance of mining permits, the public, and mining claim owners in California are forced to comply with it.

In the last decade approximately 3,200 suction dredge mining permits were issued in California by CA DF&G annually, under existing regulations that were comprehensive, relatively fair, and workable by all involved.

In the interim, a series of law suits were brought, primarily instigated by the Karuk indian tribe of California to protect what they assert to be their indigenous salmon fishery. Ignoring the fact, they have no reservation, nor protected fishing rights, over that of any other California citizen.

In one litigation, a state court ordered a CEQA study for the Klamath, Scott & Salmon rivers. In another, the state court ordered CA DF&G to halt the issuance of suction dredge permits, until CA DF&G complied with a mix of the two court orders. CA DF&G did not comply, under the premise issuing those permits is "ministerial, giving then no discretion to do otherwise.

Given the obvious conundrum there, the issue is then further complicated by the California legislature, without an Attorney Generals legal opinion, whether or not SB 670 is legal. The legislature pass's SB 670, which prohibits all suction dredging state wide until both state court orders are complied with, a state wide CEQA study is performed, and any new suction dredging regulations, if needed, are implemented.

In so far as the right to mine, on federal lands, on unpatented mining claims, is a federally protected private property right. Public Lands for People, et., al., immediately filed a lawsuit against the state of California, against numerous unlawful provisions of SB 670.

In the same span of time, CA DF&G spends \$1.5 million dollars hiring a "water quality" evaluation firm, to commence the state wide CEQA study. The firm presents CA DF&G with an "Initial Study" report that is fundamentally flawed, because neither CA DF&G or the firm have expertise, nor experience with federal land law, federal mining law, and associated private property rights conferred to owners of unpatented mining claims, where the vast majority of suction dredge gold mining takes place in California.

Furthermore, public meetings are scheduled by mandate of the California Administrative Procedures Act, in Fresno on the 16th, Sacramento on the 17th, Redding Ca., on the 18th of November. Where the public may submit "comments". On, or before November 24th, the California state Attorney Generals Office (AG) will submit its answer to the federal lawsuit against the illegal provisions of SB 670.

Depending on admissions, or denials in that AG answer, it is possible the court may issue an injunction, halting any or all aspects of the process, until the matter is decided on the merits of briefs alone. Or, possibly the federal court process plays out in a trial, leaving a jury to decide the matter.

Here we have a California Indian tribe, without any protected fishing rights, suing to protect, the rights they don't have.

Sport fishing associations supporting the Indian tribes litigation to protect fish, so they can catch, and kill them.

The state courts fumbling the matter, ignoring the private property rights, unpatented mining claim owners do have.

The CA DF&G doing flip flips whether or not the issuance of suction dredge permits is "ministerial" or not. Meaning, they either have no discretion, and must issue them, or discretion to not issue them.

The legislature finding SB 670 has no or negligible economic impact. When in fact the economic impact toll may reach \$100 million dollars annually.

The legislature passing SB 670, premised on "findings" that will be made at some future date, which is laughable.

The legislature passing SB 670, as emergency legislation, where no emergency exists, which is unconscionable.

A state agency that does in fact regulate mining, which exempts permitting on mining of less than 1000 yards of material, on less than one acre.  
Which pales in comparison to what suction dredging can do on any one site.

Public hearings going on, the results of which will certainly effect the private property rights of as many as 60,000 individual owners of unpatented mining claims in California, without any notice to them.

A state agency that has very little expertise in what it regulates, hiring a private firm, that clearly has no expertise in much of what it is being paid \$1.5 million dollars to do.

A "temporary" ban on all suction dredge gold mining in California, that is "indefinite".

Private property being illegally taken, without just compensation being paid.  
Not from one, but thousands of mining claim owners.

All in all here, we have an ever expanding comedy of bureaucratic bumbling.  
The end of which is not yet in sight.  
Apparently, this is a perfect example of California "governance" at it's finest.

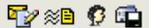
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#### OLD GOLD MINER

Member since 11-15-09  
81 posts

11-16-09, 08:00 AM (MDT)



#### 17. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"

In response to [message #16](#)

CDFG has no statutory authority over "mineral resources" within California.  
No one can rationally refute that "mining claims" involve "mineral resources", and their extraction.  
No one can credibly refute the majority of all suction dredge gold mining in California takes place on mining claims.

The protection of mineral resources in California is the responsibility of the following agencies.  
Which either have statutory authority or are Responsible Agencies under CEQA:

1. California Department of Conservation is the primary agency with regard to mineral resource protection.  
The Department is charged with conserving earth resources (Public Resources Code Sections 600-690)
2. State Mining and Geology Board, which develops policy direction regarding the development and conservation of mineral resources and reclamation of mined lands.

CDFG lacks statutory authority over California's "mineral resources".  
Which negates their ability to make rulings governing, permitting, or prohibiting their extraction.

Furthermore, the site, or legal description of a CEQA project must be accurately identified within an EIR.

Given, this EIR is "statewide".

It is therefore incumbent on the lead agency to identify with certain specificity each individual site,  
all individual property, including each unpatented mining claim it may effect or involve with the EIR.

A CEQA project cannot be a "one size fits all" within an EIR.  
Plainly, the environment of one individual site, will differ significantly from all others.  
Consequently, what may be a significant impact at one site, may be of no or negligible impact in another.  
Any purported CEQA study that utilizes a "one size fits all" methodology is therefore fundamentally flawed.

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81 posts

11-16-09, 08:01 AM (MDT)

**18. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #17](#)

Public Resources Code, Section 21002.1 (a) states that:

"The purpose of an environmental impact report is to identify the significant effects of a project on the environment, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided."

If potential environmental impacts are identified, the agency is then required to analyze what is necessary to mitigate them and/or select feasible alternatives.

With regard to "suction dredge gold mining", within unpatented mining claims, there are no feasible "alternatives", other than seasonal , or permanent closures. Either of which, would effect regulatory "takings" of private property interests held by all affected unpatented mining claim owners.

Any seasonal restriction that closes a given area (where unpatented mining claim are situated), for example ten (10) months of the year, "takes" the owners property right for that ten (10) month period, effecting an annual "temporary" "taking" of very significant duration.

Temporary "takings" of private property of this nature would generally be considered "compensable", as they "take" all economic benefit for a significant period of time.

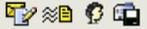
Permanent closures of any area where an unpatented mining claim is situated, would effect a complete "taking" of all economic benefit a mining claim owner has. As he owns nothing more than the right to mine his property.

Generally, "economic impacts" need not be included within a "CEQA" study. As economic impacts are not potential, or actual physical changes to the environment. Here however, when temporary, or permanent closures of given area's are utilized to "mitigate" or "avoid" significant effects to the environment attributed to suction dredging, economic impact is relevant to measure the significance of an environmental impact.

The U.S. Supreme Court has unequivocally determined "unpatented mining claims" are private property, subject to Constitutional protection from "taking", without compensation. Given that fact, this CEQA study must include an economic analysis, on its effects, as they pertain to "suction dredge gold mining" on mining claims. In-so-far as this CEQA study result take's" hundreds of millions, if not a billions of dollars in compensable private property rights belonging to affected mining claim owners.

Considering the magnitude of dollar amounts involved, of compensable `taking" implications of this specific CEQA study, as they pertain to affected mining claims state wide. When dollar amounts are used as a measure, compared to near negligible, negligible, direct, or cumulative environmental effects. Anyone with the ability to perform simple subtraction, when one value is subtracted from the other, clearly proves suction dredge gold mining environmental effects are De Minimis.

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**OLD GOLD MINER**Member since 11-15-09  
81 posts**19. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #18](#)

Well thought out, and carefully crafted legislation results in sound law, and subsequent regulations that are rarely ever challenged, and almost never overturned. Simply because they are meticulously legal in all aspects, from the very start. If, or when judicial review of well founded law, or regulation is initiated, judges generally have an simple task in finding the facts of the matter, governing law, and making correct expeditious judgment.

Profoundly, SB 670 is not such legislation, nor are the regulations resulting from it. In fact, the premise behind SB 670, its "findings", and need to be passed as an "urgency" measure are all fundamentally flawed. Hence, all provisions, and resulting regulations of SB 670, once in effect were immediately challenged as being contrary to, and/or abrogating a very extensive list of governing constitutional, federal, and state laws.

At the forefront of that federal court legal challenge, in-so-far as historically suction dredge gold mining is a completely legal business occupation. That sadly matters not, as 670 immediately prohibited all suction dredge gold mining, state wide for an unascertainable indefinite period of time, based on multiple court ordered CDFG, CEQA and APA governed contingencies that, any one of which, several, or all may never actually occur.

CDFG has began the process, but it face numerous uncertainties. The first of which is, if the federal court challenge of SB 670 results in the court expeditiously granting immediate injunctive relief to the plaintiffs, of one sort, or another. Which has profound merit, in that SB 670 prohibitions capriciously caused, and will continue to cause thousands of affected parties, and mining claim owners in California unjustifiable hardship, loss of occupation, livelihood, income, and constitutionally protected private property rights. As an effected party, at times, it is difficult to remain civil when expressing my thoughts about the matter.

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81 posts**20. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #19](#)

The reality here is that the sporadic operation of one single small scale suction dredge in all of California's waterways, would almost certainly not trigger CEQA. Here, via legislation, the issuance of 3,200 small scale suction dredge permits has. Simply because, whether well founded, justified or not, the legislature, and Governor made it so.

Consequently, it is the cumulative impact of 3,200 suction dredge sporadic seasonal operations scattered state wide that must be determined. Rather than the impact of one, in one specific place. How can it be possible, without performing 3,200 CEQA studies of suction dredges operating where, and when they previously could. Given that each place where small scale suction dredges operate has differing site specific environmental factors.

As a very brief example, for instance:

1. Some waterways have consistent high volume water flow rates, some do not.
2. Some waterways contain relatively cold water, while others are relatively warm.

3. Some waterways have high natural turbidity, some do not.
4. Some waterways are polluted with all sorts of noxious waste, some are not.
5. Some waterways are perennial, some are not.
6. Some waterways contain ESA listed fish, others do not.
7. Some waterways are relatively scenic, or pristine, others are not.
8. Some waterways see a high amount of recreational use, others do not.
9. Some waterways have coarse substrates, others do not.
10. Some waterways are heavily forested, others are not.
11. Some waterways are heavily fished, others are not.
12. Some waterways contain appreciable mercury, others do not.

That is just a few of the thousands of site specific differences that could be listed.

Given the magnitude of site specific environmental differences.  
Which are widely dispersed over more than 100 million square acres.  
Which contain more than 211,500 miles of streams, rivers, and waterways of every sort.  
Any one of which may be susceptible to seasonal, or sporadic suction dredge gold mining by any number of differing sized, or horse power range suction dredges.

Regardless of size or horsepower, it is apparent there would be only one single suction dredge per 31,250 square acres.  
Or about one suction dredge operating per 70 waterway miles in California.  
Certainly, some area's are prone to higher suction dredge concentrations, than others.  
Never the less, suction dredging is sporadic, seasonal, performed weather permitting, widely dispersed, and the effects are so fleeting.  
It is extremely difficult, and often impossible to identify suction dredge sites the following year.

By law, CEQA studies are site specific.  
If not, for instance one CEQA study covering any individual building construction site, would fit all others state wide.  
Which, is not the case, nor allowed by CEQA.  
How then is it legally possible that the California legislature can mandate CDFG perform a statewide CEQA study.  
To cover literally millions of potential individual suction dredge gold mining sites.  
All of which differ, then draw conclusions supportable by clear substantiation, material fact, a preponderance of evidence, or even fair argument.

CEQA mandates, "one shoe does not fit all", yet CDFG attempts it here

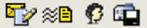
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**OLD GOLD MINER**

Member since 11-15-09

81 posts

**21. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #20](#)

A CEQA process is neither legitimate, or legal.  
If the property owners are not given timely legal "notice" of the "project", involving their property.

Two of the basic purposes of CEQA are to inform governmental decision-makers and the public about the potential significant effects, if any, of a proposed project and to provide opportunities for other agencies and the public to review and comment on draft environmental documents. The latter is crucial to the effectiveness of the former.

Depending upon the characteristics of a project and its potential for significant environmental effects, CEQA review may pursue one of three basic directions: (1) an exemption (statutory or categorical); (2) a negative declaration (including a mitigated negative declaration); or (3) an environmental impact report (EIR). Requirements for review, comment, and notice vary according to the complexity of the environmental review.

The state of California by passage of SB 670 mandated the issuance of small scale suction dredge gold mining permits is a "project" subject to CEQA requirements. In doing so, the state of California automatically made all active suction dredge gold mining permit holders "proponents" of this CEQA "project".

SB 670 provisions also placed all patented, and unpatented mining claim owners in California, who at any time may apply for a small scale suction dredge gold mining "permit". To be in the position of CEQA "project proponents". As, most certainly they own affected private property, and would defend those property rights, to protect them for their own their own benefit, and use. Just as any other private property owner would.

CDFG sent individual written "Notice" by US mail to all holders of active suction dredge permits, such permits were cancelled, no provision for refunds exist, and no future permits will be issued until such time as the various other stringent requirements of SB 670 are met.

However, CDFG did not give written "Notice" to all affected individual mining claim owners in California, SB 670 automatically made "project proponents". The CEQA process is normally triggered by a person, entity or agency applying for a "permit" to do something that may have a significant adverse effect on California's environment. If that is found to be the case, and the proposed project is not covered by any CEQA "exemptions". The CEQA process is triggered, and proceeds.

That whole CEQA body of law, regulation, and agenda is based on the premise, that a person, or entity having made an application for a permit, certainly has knowledge, and constructive notice of the process, as the applicant, or applicants themselves initiated it.

In this case, that is absolutely not so. Because all prospective applicants (i., e., all mining claim owners in California) who's private property rights will certainly be profoundly affected by this CEQA project, neither have, or were given "notice" of them being arbitrarily placed in the position of CEQA project applicants, or proponents.

In effect, what we have here is an adjudicative land use decision process, without the land, or property rights owners (i., e., mining claim owners) being legally informed, or given actual notice of the adjudication of crucial matters intensely affecting each of them, and all of their individual private property rights combined.

Under those factual conditions, without actual notice to all effected fee simple property and mining claim owners, the whole of the CEQA, APA process is fundamentally flawed from the beginning. For instance, CDFG scheduled three public "scoping" meetings the 16th, 17th & 18th of November, 2009, so that involved parties could submit questions, and/or comments on the process. Written comments on the process will not be entertained, if not submitted by December 3, 2009.

(LINK <http://www.dfg.ca.gov.../2009110201.asp> )

In that CDFG gave no actual written notice to all affected patented, or unpatented "mining claim owners", statewide throughout California. Them lacking such notice of the process, scoping meetings, and comment submission deadline periods compounds the critical flaws being made here, one after the other by the state of California, and the lead agency (CDFG).

These critical administrative and procedural errors here, one after another, fatally "taint" the complete CEQA process regarding small scale suction dredge gold mining permits. To the degree each error, or cumulative multiple errors make the process more, and more subject to a whole series of "judicial" challenges. One, any, or all of which will certainly be brought by affected parties, in order to protect their private property rights.

The point being here, CDFG, and the company they paid \$1.5 million dollars to made the initial crucial error of omitting the fact, the bulk of all small scale suction dredge gold mining throughout California takes place on "mining claims".

Then, compounds that error, by lacking an understanding, or ignoring all the "private property rights" mining claim owners have. Then, continues to compound their errors, by failing to give legal notice to all mining claim owners involved, of these administrative proceedings critically affecting their constitutionally protected private property rights.

Plainly, there are separate factual private property right issues involving tens of thousands of mining claims in California that, must be accepted and acted upon here.

Which would require restructuring and rewriting sections of the initial study report entirely distinct from those addressing potential enviromental issues.

Once done, and with legal notice given to all involved, including mining claim owners, new scoping meetings, and comment periods would be required. No one involved wants to suffer through this tedious expensive process twice. As such, it is incumbant on the lead agency to do it properly, the first time. Sadly, in this instance, I fear CDFG has pulled a few CEQA & APA triggers, far to soon. The prudent thing to have done, CDFG lacking a CA Attorney Generals legal opinion regarding legality issues, would have been to wait for the CA AG answer to the pending PLP lawsuit. As it will clarify the states legal position here, with regards to all involved mining claims, and associated private property rights those owners have.

Anyone thinking that all mining claim owners in California will stand idly by, doing nothing, while the state perpetrates an illegal regulatory "taking" of their property. Which deprives the owners of all of their property's utility and value. Unlawfully denying them of every benefit of the private property they own. Here, the California legislature, and CDFG is grossly mistaken, as doing so is a constitutionally forbidden de facto taking without compensation. Which mining claim owners throughout California will never allow.

If the state of California wish's to honestly "take" our property, to retain as a place where campers, swimmers, boaters, fishermen, casual recreational users, indian tribes and environmentalists can revel in the glory of it all, without small scale suction dredge gold mining happening there. The state must simply pay for what they take. Plain as that. ....

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**OLD GOLD MINER**

Member since 11-15-09

81 posts

**22. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #21](#)

When old gold miners have a hunch something of value is buried deep somewhere, they have the natural ingrained tenacity to keep digging, until they either go bust, drop dead, or find it. In reviewing this CEQA initial study report, and preparing written comments for submittal. I notice something, so obscure anyone but a seasoned old prospector would probably not take notice of, or take the time to inspect. Nor, for that matter make the effort to ferret out its worth, if any.

Now, imagine an old gold miner, hunched over a prospect hole, he had laboriously dug into for days on end.

Suddenly, he stands, inspects something in his hand, and shouts.....Eureka! I found it!

Then, does quick little jig, places his find, in his poke, and sets off towards the nearest town at a fast pace, chuckling to himself, as he goes.

Reality is, that's not the actual scene. But, the circumstance is the same. Follow along, if you wish.

---

Page. 28 & 29  
Notice of Preparation / Initial Study  
Project No. 09.005

The environmental factors checked below would potentially be affected by this project (i.e., the project would involve at least one impact that is a "Potentially Significant Impact"), as indicated by the checklist on the following pages.

**CHECK LIST**

Aesthetics (checked)  
Air Quality (checked)  
Biological Resources (checked)  
Cultural Resources (checked)  
Hazards and Hazardous Materials (checked)  
Hydrology/Water Quality (checked)  
Noise (checked)  
Recreation (checked)  
Mandatory Findings of Significance (checked)  
Mineral Resources (NOT CHECKED)  
Signed, John McCamman, Chief Deputy Director 10/26/09

---

The Chief Deputy Director of CDFG has made a knowingly deliberate, and utterly false official written statement here, by not checking the "Mineral Recourse" checklist box in this official CEQA initial study report. The consequence, of which might not seem readily apparent, nor even significant. However, I assure you, it is strikingly significant in several differing aspects involved here.

It is common knowledge, and utterly indisputable that gold, platinum, and other associated extremely valuable minerals are certainly "Mineral Resources".

It is common knowledge, and utterly indisputable that these valuable mineral resources certainly exist as placer deposits, within waterways throughout California.

It is common knowledge, and utterly indisputable that "suction dredging" is a widespread modern efficient small scale mining method throughout California.  
Clearly, that is what triggered this CEQA study.

It is common knowledge, and utterly indisputable that small scale suction dredging is usually profitable. Otherwise, no prudent person would invest in a suction dredge, nor spend time performing arduous labor to do it.

It is common knowledge, and utterly indisputable that relatively significant amounts of gold, and other valuable minerals are recovered by small scale suction dredging annually in California.

Given this indisputable series of facts. It is not possible by any stretch of imagination, or reality. That the Chief Deputy Director of CDFG, the very state agency that regulates all suction dredge permitting statewide throughout California, could assert small scale "suction dredging" does not involve, nor have a potentially significant impact on "Mineral Resources" within California.

Doing so, clearly and profoundly impugns the Chief Deputy Directors professional credibility, as well as destroys the reliability and total integrity of the very CEQA study, he now directs. Why the head of public agency would make a deliberate false statement in an official state document, is by itself incredulous. So, giving him the benefit of doubt, that is sane, there must be some other devious factor behind him doing it.

Impart, I gather no one caught this in the 1994 CEQA study, nor to date. If that is fact, then, I would assume the thinking in the present day high circles of CDFG is;

We got away with it once back then. No one ever caught on. Lets just do it again, here.

WRONG ANSWER

The reason that check list box is not checked, involves both CEQA & Surface Mining and Reclamation Act (SMARA) provisions.

The CEQA provisions impart are:

California Environmental Quality Act (CEQA) Guidelines Appendix G states that a project would have a significant impact on mineral resources if it would:

- a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- b. Result in the loss of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

(note, USFS & BLM lands -open to mineral entry- are all covered with federal land use plans that provide for both mining claims & mining on them)

SMARA provisions provide for a mineral lands inventory process termed classification-designation. The California Division of Mines and Geology, and the State Mining and Geology Board are responsible for administering this process and have statutory authority over it.

Areas are classified on the basis of geologic factors, without regard to existing land use and land ownership. The areas are categorized into four Mineral Resource Zones (MRZs).

The primary goal of the mineral land classification is to ensure that the mineral potential of the land is recognized by government decision-makers and considered before making land use decisions that could preclude mining.

CGS's Special Publication 51 provides the guidance for MRZ identification; the criteria for establishing the zones are based on four general categories:

MRZ-1 applies to areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.

MRZ-2 applies to areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.

MRZ-3 applies to areas containing mineral deposits, the significance of which cannot be evaluated.

MRZ-4 applies to areas where available information is inadequate for assignment to any other zone.

Of the four categories, lands classified as MRZ-2 are of the greatest importance.

Such areas are underlain by demonstrated mineral resources where geologic data indicate significant measured or indicated resources are present. MRZ-2 areas designated by the Mining and Geology Board as "regionally significant" are incorporated by regulation into Title 14, Division 2 of the California Code of Regulations.

Such designations require that a lead agency's land use decisions involving designated areas be made in accordance with its mineral resource management policies, and that it consider the importance of the mineral resource to the region or the state as a whole, not just to the lead agency's jurisdiction.

SMARA provisions also exempt from permitting "prospecting for, or the extraction of, minerals for commercial purposes where the removal of overburden or mineral product totals less than 1,000 cubic yards in any one location, and the total surface area disturbed is less than one acre". Public Resources Code § 2714 (d)

Given that provisions of CEQA mandate SMARA application in a CEQA project, if "Mineral Resources" are involved. Another set of governing standards must be included within this CEQA process, otherwise it is fundamentally flawed from the onset, and any result, or determination made within it is illegitimate, and contrary to law.

The reason, CDFG intentionally omitted "Mineral Resources" is that whatever the outcome, when SMARA is included. SMARA determinations & law, would conflict with the purpose, and intent of CDFG's findings. The end result being SMARA says you can, CDFG determinations, and any resulting regulations says you cannot.

Which would be arbitrary, capricious, an abuse of discretion or otherwise not in accordance with law, any way it might appear in CEQA documents.

Obviously, CDFG must have an Attorney General's legal opinion to clarify how they can proceed here. Because, once they have written notice, or accept verbal or written comment regarding SMARA & facts pointed out here. They cannot deny actual or constructive notice of it. And, cannot proceed without inclusion of SMARA. This is, of course assuming they intend to proceed on sound legal footing.

If any public funds are expended, for costs involved in public meetings, or any proceeding, or study, that is not based on sound legal footing, and at any later date, any such meeting, proceeding or study is required by law to be repeated in full conformity with all applicable law. Duplicate spending to cover what should have been done right, the first time, is a total waste. For which someone must be held responsible. I would not want to be that person.

I'm not familiar with the California criminal code.  
But, assume it has similar provisions to Federal Code, such as:

18 U.S.C. § 1001 : US Code - Section 1001: Statements or entries generally

(a) Except as otherwise provided in this section, whoever, in any matter within the jurisdiction of the executive, legislative, or judicial branch of the Government of the United States,

knowingly and willfully -

(1) falsifies, conceals, or covers up by any trick, scheme, or device a material fact;

(2) makes any materially false, fictitious, or fraudulent statement or representation; or

(3) makes or uses any false writing or document knowing the same to contain any materially false, fictitious, or fraudulent statement or entry; shall be fined under this title, imprisoned not more than 5 years.

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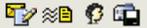
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**OLD GOLD MINER**

Member since 11-15-09

81 posts

11-16-09, 08:09 AM (MDT)

**23. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**

In response to [message #22](#)

The dangers of dredging on California rivers

Saturday, March 07, 2009

By Patricia Wiggins/In the Napa Valley Register

Some environmental problems are abstract, affecting places far away and species rarely seen. Others are as close as our supper plates.

The crash of salmon in California affects us all. This once-abundant fish, famed for huge king salmon in numbers so great they crowded our rivers, is now teetering at the edge of extinction.

These are not just trophy and sport fish. They form the backbone of California ecosystems, tribal cultures, local economies, a commercial fishing industry and a once-plentiful, wonderful food. Most Californians would mourn the loss of salmon, and rightly so.

This will likely be the second year in a row with no commercial or sport ocean salmon season. This is not an anomaly — it is the sad result of a long-term trend that government and the public have been unable to stop. And, as last year's no-catch season demonstrates, a blanket ban on fishing will not, by itself, reverse that trend.

Salmon have borne the brunt of development in California. With every major dam, they lose habitat. With every ounce of polluted runoff from farm or city, they lose water quality. With every quart pumped from once free-flowing rivers, they lose water. In-stream pumps trap juveniles against screens; invasive species steal habitat and eat young fish; wildland roads dump sediment into streams; and hatchery management practices are incapable of replacing natural spawning. Add to this the natural — and human-induced — changes wrought on climate, the ocean and streambeds, and the salmon face one tough uphill swim.

One pernicious practice affecting water quality and the beds of streams is motorized in-stream gold mining. Gasoline-powered engines on suction dredges on pontoons or rafts are used by people to scoop up riverbeds in order to find grains of gold in Northern California streams. Sediment from suction-mining covers emerging salmon in stream gravel. The suction alone, in the deep, cool parts of wild streams, kills young fish.

Statewide, there are about 3,000 miners operating in places like the Klamath, Scott and Shasta watersheds who buy permits from the California Department of Fish and Game. Resident permits cost about \$50. Combined with non-resident permit sales, they generate from \$150,000 to \$200,000 annually for a program which costs DFG more than \$1.25 million each year to enforce.

In contrast, California fishermen buy 2.4 million fishing licenses each year. The sport-fishing industry supports a total of 43,000 jobs paying \$1.3 billion in wages and salaries annually. Fishing equipment sales total more than \$2.4 billion per year. And salmon, highly susceptible to the impacts from suction dredges, are traditionally the most important fish to Northern California commercial fishermen and native tribes.

Yet late last month, the DFG rejected a petition to restrict mining in areas most important to fish.

The department director seemed more swayed by a partisan letter from the Siskiyou County Board of Supervisors in support of the miners than ecological realities. In contrast to overwhelming evidence,

the board stated that there is no emergency.

DFG's action — or rather, the department's shameful lack of action — is unconscionable. Environmental choices should be based on fact, as well as on fair evaluation of economic realities. Gold mining is a recreational activity. Many commercial fishermen, along with sellers of fishing equipment and others in a multi-million-dollar industry, deserve equal if not greater consideration. DFG has already admitted publicly that the regulatory status quo is harming fish like the coho salmon.

DFG officials have a responsibility to protect our state's fishery resources, the livelihoods of our fishermen and women, and the supply of local seafood for our tables. And if they don't fulfill that responsibility, the state legislature, along with other concerned individuals and organizations, must hold them accountable.

Accordingly, I have introduced legislation to ban suction-dredge mining in California. While some miners will denounce a ban as infringing upon their "freedom," no human beings should be "free" to hasten the elimination of these magnificent fish. And millions of other Californians — including fishing families, recreational fishermen and salmon consumers — have an interest to protect, too.

We are, hopefully, at a turning point on the path of survival for California's salmon. There is an agreement in principle to remove dams on the Klamath River. There is reconsideration of delta pumping and water management. There are broad efforts to bring back the coho, with many people gritting their teeth to cooperate with a broad range of restrictions, starting with fishermen.

It is time for miners to give up their self-interest, to give these fish a moment to recover. And it's high time for the DFG to go from protecting miners to protecting fish — for all Californians.

(State Senator Patricia Wiggins, D-Santa Rosa, chairs the Joint Legislative Committee on Fisheries & Aquaculture. She represents California's 2nd District, which includes Napa County.)

---

Wiggins article above demonstrates how utterly misinformed she actually is about the facts, and legalities involved with both salmon, and small scale suction dredge gold mining in California.

From the prospective of "legalities", Wiggins is either ignorant of, or irrationally ignores "private property" law, and all the protections the US Constitution, California's Constitution, and federal & state law provide for it. The vast majority of small scale suction dredge gold mining in California takes place on "mining claims". Apparently Wiggins has no comprehension of what mining claims are, nor the "private property" rights such owners have.

Factually, valid mining claims are a form of private property, which are fully protected by the US & California Constitution, and all other law, that protects any other form of private property. Mining claim owners "own" the valuable minerals, such as gold within them. Thus, mining claim owners are entitled to extract gold, on their property, subject only to reasonable regulation. The same as any other property owner has the right to utilize his property, for his own economic benefit.

Wiggins is also ignorant of, or absurdly ignores critical facts about, salmon, and the salmon fishery in general. California law provides sports and commercial fisherman the "mere privilege" to catch & kill fish. The California Department of Fish & Game can modify, suspend, or revoke that license, for good reason, or cause at any time. As a fishing license is neither a "contract", or "private property" right of any sort. Conversely, a valid mining claim is private property, and the proprietor owns the valuable mineral in it, as well as the right to extract it.

Wiggins contends "...California fishermen buy 2.4 million fishing licenses each year. The sport-fishing industry supports a total of 43,000 jobs paying \$1.3 billion in wages and salaries annually. Fishing equipment sales total more than \$2.4 billion per year..."

That rational is absurd, in-so-far as she ignores, those 2.4 million fishing licenses, 43,000 jobs, and \$1.3 billion in annual fishing equipment sales all exist for the sole purpose of killing fish, not protecting them.

Apparently, Wiggins believes that because more people are involved, and more money is spent annually in California to kill fish. That those same fish should be protected from far fewer people who don't spend as much money, and never intentionally harm, or kill fish. That reasoning is plainly illogical.

What has happened here, is Wiggins was foolishly hood-winked into believing all the distorted, biased, misinformation that the anti-suction dredge lobby flooded both California, and her with. Wiggins in utter contravention of her duty, as a legislator, failed to ascertain the true facts of the matter, and thoughtlessly threw her support behind them.

Then, Wiggins without full knowledge of the facts, or even comprehension of governing law, or the Constitutionally protected private property rights involved, threw together badly written legislation creating SB 670. With Wiggins espousing the need for, and the good it would do, she convinced a majority of her fellow legislators, and the governor to pass SB 670, as law.

Which immediately implemented a statewide ban on all suction dredge gold mining, as an "urgency" measure, when no urgency, or emergency existed to support doing so. Within days of passage (August 6th, 2009), SB 670 was profoundly challenged in a federal court action, by Public Lands for People, suction dredge manufactures, and affected private citizens. Even to a laymen, SB 670 is obviously in direct contravention of various United States, and California Constitutional provisions protecting private property, as well as a long list of other associated laws.

I certainly applaud, and support good faith legitimate efforts to protect the environment, and fisheries in California. However, SB 670 is so illegitimate, erroneous, arbitrary, without basis in fact, or law. There is no doubt it will be soundly overturned in federal court, the sooner, the better.

Once that occurs, I would hope Wiggins, all legislators who voted for SB 670, and the Governor, who signed it into law, take full responsibility for all the damage, loss, cost, waste, hardship and harm SB 670 caused to all those it so unfairly, unlawfully, and badly damaged. In her article, Wiggins used the words "shameful" - "unconscionable" - "pernicious". Once SB 670 is overturned, I would hope Wiggins fully realizes those words apply to her. ....

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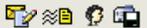
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#### OLD GOLD MINER

Member since 11-15-09

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11-16-09, 08:44 AM (MDT)



#### 24. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"

In response to [message #23](#)

LAST EDITED ON 11-16-09 AT 08:49 AM (MDT)

<http://www.courthousenews.com/2009/09/16/SuctionMining.pdf>

LINK TO PLP v. SB 670 LAWSUIT FOR ANYONE WHO CARES TO READ IT.

ENJOY, it's a WINNER

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**OLD GOLD MINER**

Member since 11-15-09

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**25. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #24](#)

Two of the basic purposes of CEQA are to inform governmental decision-makers and the public about the potential significant effects, if any, of a proposed project and to provide opportunities for other agencies and the public to review and comment on draft environmental documents. The latter is crucial to the effectiveness of the former.

Depending upon the characteristics of a project and its potential for significant environmental effects, CEQA review may pursue one of three basic directions: (1) an exemption (statutory or categorical); (2) a negative declaration (including a mitigated negative declaration); or (3) an environmental impact report (EIR). Requirements for review, comment, and notice vary according to the complexity of the environmental review.

The state of California by passage of SB 670 mandated the issuance of small scale suction dredge gold mining permits is a "project" subject to CEQA requirements. In doing so, the state of California automatically made all active suction dredge gold mining permit holders "proponents" of this CEQA "project".

SB 670 provisions also placed all patented, and unpatented mining claim owners in California, who at any time may apply for a small scale suction dredge gold mining "permit". To be in the position of CEQA "project proponents". As, most certainly they own affected private property, and would defend those property rights, to protect them for their own their own benefit, and use. Just as any other private property owner would.

CDFG sent individual written "Notice" by US mail to all holders of active suction dredge permits, such permits were cancelled, no provision for refunds exist, and no future permits will be issued until such time as the various other stringent requirements of SB 670 are met.

However, CDFG did not give written "Notice" to all affected individual mining claim owners in California, SB 670 automatically made "project proponents". The CEQA process is normally triggered by a person, entity or agency applying for a "permit" to do something that may have a significant adverse effect on California's environment. If that is found to be the case, and the proposed project is not covered by any CEQA "exemptions". The CEQA process is triggered, and proceeds.

That whole CEQA body of law, regulation, and agenda is based on the premise, that a person, or entity having made an application for a permit, certainly has knowledge, and constructive notice of the process, as the applicant, or applicants themselves initiated it.

In this case, that is absolutely not so. Because all prospective applicants (i., e., all mining claim owners in California) who's private property rights will certainly be profoundly affected by this CEQA project, neither have, or were given "notice" of them being arbitrarily placed in the position of CEQA project applicants, or proponents.

In effect, what we have here is an adjudicative land use decision process, without the land, or property rights owners (i., e., mining claim owners) being legally informed, or given actual notice of the adjudication of crucial matters intensely affecting each of them, and all of their individual private property rights combined.

Under those factual conditions, without actual notice to all effected fee simple property and mining claim owners, the whole of the CEQA, APA process is fundamentally flawed from the beginning. For instance, CDFG scheduled three public "scoping" meetings the 16th, 17th & 18th of November, 2009, so that involved parties could submit questions, and/or comments on the process. Written comments on the process will not be entertained, if not submitted by December 3, 2009.

(LINK <http://www.dfg.ca.gov/news/news09/2009110201.asp> )

In that CDFG gave no actual written notice to all affected patented, or unpatented "mining claim owners", statewide throughout California. Them lacking such notice of the process, scoping meetings, and comment submission deadline periods compounds the critical flaws being made here, one after the other by the state of California, and the lead agency (CDFG).

These critical administrative and procedural errors here, one after another, fatally "taint" the complete CEQA process regarding small scale suction dredge gold mining permits. To the degree each error, or cumulative multiple errors make the process more, and more subject to a whole series of "judicial" challenges. One, any, or all of which will certainly be brought by affected parties, in order to protect their private property rights.

The point being here, CDFG, and the company they paid \$1.5 million dollars to made the initial crucial error of omitting the fact, the bulk of all small scale suction dredge gold mining throughout California takes place on "mining claims".

Then, compounds that error, by lacking an understanding, or ignoring all the "private property rights" mining claim owners have. Then, continues to compound their errors, by failing to give legal notice to all mining claim owners involved, of these administrative proceedings critically affecting their constitutionally protected private property rights.

Anyone thinking that all mining claim owners in California will stand idly by, doing nothing, while the state perpetrates an illegal regulatory "taking" of their property. Which deprives the owners of all of their property's utility and value. Unlawfully denying them of every benefit of every private property they own. Here, the California legislature, and CDFG is grossly mistaken, as doing so is a constitutionally forbidden de facto taking without compensation. Which mining claim owners throughout California will never allow.

If the state of California wish's to honestly "take" our property, to retain as a place where campers, swimmers, boaters, fishermen, casual recreational users, indian tribes and environmentalists can revel in the glory of it all, without small scale suction dredge gold mining happening there. The state must simply pay for what they take. Plain as that.

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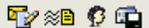
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#### OLD GOLD MINER

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11-16-09, 09:27 AM (MDT)



#### 26. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"

In response to [message #25](#)

CEQA § 21082.2. SIGNIFICANT EFFECT ON ENVIRONMENT;  
DETERMINATION;  
ENVIRONMENTAL IMPACT REPORT PREPARATION

(a) The lead agency shall determine whether a project may have a significant effect on the environment based on substantial evidence in light of the whole record.

(b) The existence of public controversy over the environmental effects of a project shall not require preparation of an environmental impact report if there is no substantial evidence in light of the whole record before the lead agency that the project may have a significant effect on the environment.

(c) Argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly inaccurate or erroneous, or evidence of social or economic impacts which do not contribute to, or are not caused by, physical impacts on the environment, is not substantial evidence. Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts.

(d) If there is substantial evidence, in light of the whole record before the lead agency, that a project may have a significant effect on the environment, an environmental impact report shall be prepared.

(e) Statements in an environmental impact report and comments with respect to an environmental impact report shall not be deemed determinative of whether the project may have a significant effect on the environment.

CEQA requires that decisions be informed and balanced. It must not be subverted into an instrument for the oppression and delay of social, economic, or recreational development or advancement. (Laurel Heights Improvement Assoc. v. Regents of U.C. (1993) 6 Cal.4th 1112 and Citizens of Goleta Valley v. Board of Supervisors (1990) 52 Cal.3d 553)

The purpose of CEQA is not to generate paper, but to compel government at all levels to make decisions with environmental consequences in mind. (Bozung v. LAFCO (1975) 13 Cal.3d 263).

The lead agency must consider the whole of an action, not simply its constituent parts, when determining whether it will have a significant environmental effect. (Citizens Assoc. For Sensible Development of Bishop Area v. County of Inyo (1985) 172 Cal.App.3d 151)

CEQA does not require technical perfection in an EIR, but rather adequacy, completeness, and a good-faith effort at full disclosure. A court does not pass upon the correctness of an EIR's environmental conclusions, but only determines if the EIR is sufficient as an informational document. (Kings County Farm Bureau v. City of Hanford (1990) 221 Cal.App.3d 692)

#### 15384. SUBSTANTIAL EVIDENCE

(a) "Substantial evidence" as used in these guidelines means enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached. Whether a fair argument can be made that the project may have a significant effect on the environment is to be determined by examining the whole record before the lead agency. Argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly erroneous or inaccurate, or evidence of social or economic impacts which do not contribute to or are not caused by physical impacts on the environment does not constitute substantial evidence.

(b) Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts.

#### § 21166. SUBSEQUENT OR SUPPLEMENTAL IMPACT REPORT; CONDITIONS

When an environmental impact report has been prepared for a project pursuant to this division, no subsequent or supplemental environmental impact report shall be required by the lead agency or by any responsible agency, unless one or more of the following events occurs:

(a) Substantial changes are proposed in the project which will require major revisions of the environmental impact report.

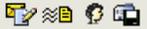
(b) Substantial changes occur with respect to the circumstances under which the project is being undertaken which will require major revisions in the environmental impact report.

(c) New information, which was not known and could not have been known at the time the environmental impact report was certified as complete, becomes available.

**OLD GOLD MINER**

Member since 11-15-09

81 posts

**27. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #26](#)**DRAFT:**

Initial Study  
Suction dredge Permitting Program  
Subsequent Environmental Impact Report  
November 2009

**COMMENTS:**

Because this initial study is fundamentally flawed, a preface is necessary to establish why, how and where those fundamental flaws exist within it. The preface is also necessary to establish the true circumstance, applicable governing law, and facts. So the authors, and those responsible for the complication of this initial study can gain a clear understanding, and rational why it is fundamentally flawed.

**PREFACE:**

This Initial Study (IS) is fundamentally, and egregiously flawed from the beginning to end. In-so-far as the authors, from the onset are either ignorant of, ignore, or intentionally omit principle statutory law, facts, and circumstance directly applicable to the majority of all "suction dredge" gold mining that takes place in California.

This IS in totality is premised on multiple fundamental errors of fact, much of which are to one degree, or another out of context, distorted, lacks proportionality, is disingenuous, biased, or erroneous.

This IS contains intentional unlawful omissions of material facts. In-so-far as the CEQA check list incredulously omits that verifiable "Mineral Resources" in California will not be significantly affected. That is manifestly untrue.

In fact, this CEQA study will certainly have a significant affect on California's Mineral Recourses, and by CEQA guidelines, "Mineral Resource" must be included. If not, this CEQA study is fatally flawed from the beginning.

This IS also takes the position that; suction dredging is often "\*\*\*recreational\*\*\*" (5.1); and while suction dredging can take place almost anywhere in California, much of it takes place "\*\*\*on private lands, or unpatented claims owned by mining clubs\*\*\*"(5.5.8).

This information is not factual.

Factually, all valid unpatented placer mining claims are real property, in every sense of the word, and taxed as such, in California. When owners of valid unpatented placer mining claims choose to utilize a suction dredge to mine placer gold on their property. That use is not "recreational". It is premised on prudent investment based expectation to profit, just as any occupation, or small business has.

A valid mining claim provides the claim owner an exclusive possessory interest in the claim, a form of property that may be sold, transferred, or inherited without infringing the paramount title of the United States. The claim owner has the full legal right to access, explore, develop, utilized riparian water, mine, beneficiate and sell all valuable minerals recovered. Which, certainly includes ownership of the flow of income, and profit derived from these mining endeavors.

Patented mining claims grant the owner complete fee simple title to everything within the property. Valid unpatented mining claims grant the owner, the vested right to use any, or all surface as is necessary to develop, mine, beneficiate ore, including the use of water, and timber for mining purposes. These

rights are provided for by nondiscretionary statutory existing federal law. All have been tested to the Supreme Court level, withstanding challenges for well over a century. Applicable governing statutes, law, regulation and citations are attached as an addendum.

Presently, there are about twenty four thousand, eight hundred (28,800) registered active unpatented mining claims of record throughout California. Of those there are about ten thousand, five hundred (10,500) registered active unpatented "placer" claims. Suction dredging takes place on both unpatented lode & placer claims, where lode claims also contain auriferous gravels in streams or river within them. There are thousands of patented (fee simple) mining claims throughout California.

The vast majority of all suction dredging in California takes place on, and within unpatented mining claims. The bulk of the remainder takes place on patented (fee simple) mining claims. Only a miniscule percentage of suction dredging takes place on other fee simple types of private property. Mining clubs own only a tiny fraction of all existing unpatented mining claims of record in California. Consequently while mining clubs are receive both notoriety, and publicity, the majority of suction dredging in California takes place on unpatented placer claims owned by individuals.

All unpatented mining claims are situated on federal public domain lands, otherwise none would exist, as applicable federal land is the only place they may be initiated, held and worked. All are stringently regulated by applicable federal statutes, policy directives, and regulation's respectively found at 36 CFR 228, Et. Seq., & 43 CFR 3809, Et., Seq.

Under that federal authority, the U.S. Forest Service (USFS), and Bureau of Land Management (BLM) completely regulate every possible aspect of notice, access, permitting, occupancy, bonding, mining, and reclamation on all unpatented mining claim use nation wide. Explicit federal policy directly encourages mining on public domain lands. USFS & BLM are fully cognizant that private citizens have a statutory right, not a mere privilege to enter applicable federal public domain lands to explore for, locate, claim, develop, extract, and beneficiate pertinent valuable minerals so situated.

The standard of mining impacts provided for by federal regulation is to minimize all unnecessary or undue degradation. In doing so, the federal government fully recognizes that common sense, practicality, and reality mandates some degree of environmental degradation will occur in mining on public domain lands. Just as some degree of environmental degradation occurs in every other aspect of all land use practice nation wide. Otherwise, the modern infrastructure of all American civilization could not exist, nor sustain itself, as it historically has.

Certainly, the state of California is free to reasonably regulate all mining, including suction dredging within its boundaries. However, state agencies must rationally recognize the realities involved in such use of federal lands situated with California. That reality is, some degradation will occur, otherwise, for all practical purposes all mining would be impossible. State regulations must recognize that fact. Then, implement reasonable, practical regulation to minimize all unnecessary, or undue degradation to the environment, just as the federal government has.

If a state agency is unable, fails to, or ignores "reality", they clearly lack a basis of sound judgment to formulate practical, suitable, and fair regulation of anything. As resulting regulations could, and likely would be impractical, leading to confusion, consternation, and protracted costly litigation to clarify such arbitrary, or capricious regulation. None of which is in the regulating agency, or publics best interest.

Furthermore, the state here, either is not cognizant of, or intentionally ignores several unequivocal constraints it is bound by. Article VI, Section 2, of the U.S. Constitution provides that the "... Constitution, and the Laws of the United States ... shall be the supreme Law of the Land."

Explicitly, the State of California was admitted into the Union upon the express condition that the people of said State, through their legislature or otherwise, shall never interfere with the primary disposal of the public lands within its limits, and shall pass no law and do no act whereby the title of the United States to, and right to dispose of, the same shall be impaired or questioned.

Forty five percent (45%) of California is federal public domain. All unpatented mining claims are situated on those lands. The vast majority of all suction dredging takes place on those same lands. Most certainly the General Mining Law (30 USC 21-54), is both a statutory public domain land, and mineral disposal law. As such, the state of California is clearly barred from interfering, impairing, or even questioning

federal public domain land, and mineral (contained therein) disposal laws.

Again, certainly, the state of California can reasonably regulate mining. But such state regulation cannot conflict with, impair, abridge, or arbitrarily prohibit mining on federal public domain lands. The federal government established the General Mining Laws, pertaining to federal public domain. One cannot assert the General Mining Laws do not fully occupy the field, when in fact federal law established it. Thus, any state law in conflict with federal law is preempted.

The Fifth Amendment to the United States Constitution, made applicable to state and local governments by the Fourteenth Amendment, prohibits the government from taking private property for public use without just compensation. The California Constitution provides, "Private property may be taken or damaged for public use only when just compensation ... has first been paid to, or into court for, the owner." (Cal. Const., art. I, § 19.)

Today, suction dredge gold mining is the only practical productive mechanized means by which any ordinary citizen can profitably recover small scale placer gold deposits. Which are situated in gravels within California waterways traversing though unpatented placers mining claims, initiated, and held for that purpose.

Consequently, any arbitrary state regulation prohibiting suction dredge mining within unpatented mining claims constitutes an unlawful compensable "taking" of every possible economic benefit a mining claim proprietor owns. For, he owns nothing else, but the right to mine what is his, within his private property

END PREFACE:

COMMENTS:

Individual Page By Page, and Section Number Comments, with a rational of each, and, where applicable including governing statutory, regulatory, or case law citation.

1.

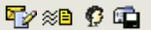
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11-16-09, 02:17 PM (MDT)



#### 28. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"

In response to [message #27](#)

Here are some critical points that should be addressed to CDFG on this CEQA study:

CEQA studies are site specific. As each individual site where an environmental impact may occur that triggers a CEQA study has differing environmental factors. There were approximately 3,500 suction dredge permits issued in California in 2009. Which would equate to 3,500 individual sites, based on permits issued.

However, there are 10,500 active unpatented placer mining claims situated on public domain lands in California. All of which would be potential suction dredging sites. There are also about 20,000 active unpatented lode claims in California, any of which could become subject to suction dredge gold mining.

There are about 100,000 patented fee simple mining claims in California. All of which are subject to suction dredging. There are millions of acres of fee simple private property adjoining California waterways, subject to potential suction dredging. There are millions of acres of federal public domain in California, subject to suction dredging.

The point being, considering any 1 single suction dredging site may effect 400 feet of California

waterway. Without doubt, there are at the very least 1 million potential individual possible suction dredge gold mining sites in California. If a figure of 10% is considered a "representative" sample of suction dredging sites?

That would require "operating" a small scale suction dredge in at least 100,000 individual sites, for at least an 8 hour work day at each site. In order to gather a fair representative sample of small scale suction dredging environmental effects in California.

Otherwise, it is literally impossible to collect a scientifically sound, or reliable data base, by which to determine the cumulative environmental effects of small scale suction dredging statewide. Furthermore, it would require rechecking each individual site, the following year, and the year after that. In order to determine, if any visual evidence of each site remains, and record what evidence remains, if any.

Furthermore, as most of those suction dredge sites are on unpatented, or patented fee simple mining claims. As well as other private property throughout California. It would require CDFG to have explicit written permission from each owner to dredge on each site. Otherwise, CDFG dredging tests for this CEQA study would be in violation of California "trespass" laws. Not to mention, perpetrate a "theft" of the any valuable mineral, CDFG recovers, or takes from any mining claim, or other private property.

Frankly, if CDFG recovers no placer "gold" in this study. It is impossible for then to rationally, or credibly assert they performed a fair, or representative suction dredge gold mining study at all.

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11-16-09, 10:31 PM (MDT)



#### 29. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"

In response to [message #28](#)





This California bucket line dredge moved more material in a single day, than 3500 small scale suction dredges do in a year.

Prolific salmon runs continued, even after many of these bucket line dredges operated for decades in many California rivers.

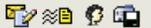
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11-18-09, 05:54 AM (MDT)



### 30. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"

In response to [message #29](#)

Another intentional omission of material fact & FALSE statement in the initial study report CEQA check list.

The "Land Use / Planning" box is not checked.

45% of California is Federal public domain lands.  
Much of which is open to mineral entry under the Federal mining laws.  
Much of which is held by mining claims.  
Where most small scale suction dredging takes place.

All USFS & BLM lands are under one form or another of Federal "Land Use / Planning" .  
Which encourage, provided for & allow mining on Federal lands.

Consequently, under CEQA regulations, this study must take that into consideration.  
If not, it is fundamentally & fatally flawed.

Another critical "kink" for the DFG guys to consider.

The lead agency in a CEQA study "MUST" consult with pertinent agencies having statutory authority over land where the "project" takes place. Since 45% of California is Federal public domain, mostly administered under jurisdiction of the USFS & BLM.

DFG better start formal consultation with them.

If not, that's another fatal error in this CEQA process.

LOL, USFS & BLM will inform DFG, mineral extraction on a valid mining claim is a statutory right of the owner. DFG wants to ignore that fact. They cannot, if they "consult" with USFS & BLM.

Another critical "kink" for the DFG guys to consider.

DFG takes the position, "economic" impact need not be considered in this CEQA study.

WRONG ANSWER

CEQA law makes it mandatory they do.

Read it yourself.

---

CEQA Title 14. Natural Resources  
 Division 6. Resources Agency  
 Chapter 3. Guidelines for Implementation of the California Environmental Quality Act  
 Article 7. EIR Process  
 § 15093. Statement of Overriding Considerations.  
 (a) CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a proposal project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable."

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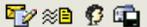
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11-18-09, 08:53 AM (MDT)



**31. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**

In response to [message #30](#)

GOOD info on Suction dredging effects

<http://www.icmj.com/UserFiles/file/recent-news/Joseph-Greene-suction-gold-dredge-study.doc>

[http://www.goldgold.com/legal/Declaration\\_of\\_Claudia\\_Wise.pdf](http://www.goldgold.com/legal/Declaration_of_Claudia_Wise.pdf)

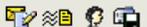
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11-18-09, 09:00 AM (MDT)



**32. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #31](#)

The Official Minerals Policy of the United States of America

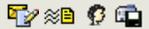
United States Code  
 TITLE 30  
 MINERAL LANDS AND MINING  
 CHAPTER 2 - MINERAL LANDS AND REGULATIONS IN GENERAL

Sec. 21a. National mining and minerals policy; "minerals" defined; execution of policy under other authorized programs

The Congress declares that it is the continuing policy of the Federal Government in the national interest to foster and encourage private enterprise in (1) the development of economically sound and stable domestic mining, minerals, metal and mineral reclamation industries, (2) the orderly and economic development of domestic mineral resources, reserves, and reclamation of metals and minerals to help assure satisfaction of industrial, security and environmental needs, (3) mining, mineral, and metallurgical research, including the use and recycling of scrap to promote the wise and efficient use of our natural and reclaimable mineral resources, and (4) the study and development of methods for the disposal, control, and reclamation of mineral waste products, and the reclamation of mined land, so as to lessen any adverse impact of mineral extraction and processing upon the physical environment that may result from mining or mineral activities. For the purpose of this section "minerals" shall include all minerals and mineral fuels including oil, gas, coal, oil shale and uranium. It shall be the responsibility of the Secretary of the Interior to carry out this policy when exercising his authority under such programs as may be authorized by law other than this section.

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11-18-09, 09:03 AM (MDT)

**33. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #32](#)

PUBLISHED BY THE WASHINGTON ALLIANCE OF MINERS AND PROSPECTORS  
 with additions by Steve Herschbach of Alaska Mining & Diving Supply  
 I. INTRODUCTION

Listed below is a number of quotes from studies that have been done over the years, please keep in mind that some were done on large 50 + cubic yard per hour placer mining operations, others were done on a variety of suction dredges, and some were done in a laboratory environment. All were done by well respected and educated people only a few of which have had any practical experience with placer mining/prospecting. The quotes listed in this document were taken word for word out of the documents written by the scholars named above each quote.

A. By: Paul J. Badali - 1988

"Several federal and state laws charge various governmental agencies to provide for the protection of these habitats. Our nation's technology based society has an ever increasing need for mineral resources, gold included. An ever growing number of people enjoy Recreational Gold Dredging as a hobby. Suction dredge operators working valid federal mining claims have a constitutional right under the 1872 mining laws to recover the valuable minerals present in the substrate. Private property owners and holders of state minerals leases also have rights to recover gold and other minerals present in streams and rivers. How can the country's need for natural resources, the individual's right or desire to mine, and need to protect the environment all be realized and satisfied?"

II. ENTRAINMENT

A. By: Phillip A. North - 1993

"While adult fish did not show a sensitivity to entrainment it is unlikely that they would be sucked into a dredge in the first place. They have the ability to avoid entrainment in a suction dredge by moving to a safer location. All of the investigators who examined the impacts of suction dredges on adult fish concluded that this life stage was not acutely affected (Harvey 1986, Hassler et al. 1986, Summer and Hassler 1992). Harvey (1986) found this to be the case for rainbow trout on streams he studied in California."

### III. FEED AND FISH

A. By Dr. Henry Baldwin Ward

"most significant is a possible relation of fine silt to the food of young fish. It has been shown that the presence of finely divided suspensoids of natural origin may be of advantage to the microbiota which constitutes the foundation element in the food supply of water. Studies on aquatic biology conducted by the Wisconsin Survey demonstrated that colloidal organic particles collect on carbon and sand grains to build a culture medium for aquatic bacteria".

B. By: Thomas J. Hassler, William L. Somer, Gary R. Stern - 1986

"During diving surveys, we observed Salmon gairdneri congregating and selectively feeding on benthic invertebrates displaced by dredging."

"Suction dredge mining at levels observed in Canyon Creek probably did not impact steelhead feeding. The mining did not significantly reduce the abundance of aquatic invertebrates (only species composition locally) and steelhead fed opportunistically. In fact , juvenile steelhead were observed feeding on invertebrates that had been entrained in and dislodged by dredge. Thomas (1985) observed cutthroat trout feeding on dislodged invertebrates in the dredge outfall. "However, weight of juvenile steelhead from Canyon Creek was greater than weight from other areas and production (kg/ha) was as good or better than in other areas (table 41)." "Ecological differences between Canyon Creek and BEF were also important in determining colonization of samplers. Overall, the impacts of suction dredge mining to benthic invertebrates at the study site were minimal."

C. From: Robert Lewis, Pollution Bioanalyst III - 1962

"Benthos survival is noted in Table 2. Insects with internal extrusions were listed as mortalities. The morality figure of 7.4 percent may be extreme because of confinement in the sack. Many caddis larvae were still attached to rocks after passing through the dredge. All insects except those with extrusions appeared lively and unharmed."

"To determine stream distance necessary for insects to settle back to the bottom, a net was placed 15 feet and 25 feet downstream from the outflow. After five minutes at the former distance, Trichoptera, Coleoptera and Diptera were prevalent in the net. Only one Plecoptera was noted. At 25 feet downstream only few insects were caught in the net after five minutes. Underwater inspection with a faceplate indicated that all insects settled within 40 feet. The approximate flow throughout this distance varied from 1 ft./sec. down to 0.5 ft./sec."

D. By: Phillip A. North - 1993

"If recolonization is slow the cumulative impacts of suction dredge mining could be significant over a period of seasons. However, in all of the studies on suction dredges that investigated this question the disturbed stream reach was relatively short (on the order of a few tens of meters) and recolonization proved to be rapid. Griffith and Andrews (1981) found that the dredged site was "substantially recolonized" after 38 days. The abundance within orders of invertebrates were the same before and after dredging and "key" taxa were also the same. Harvey (1986) found that recolonization was complete in terms of numbers of insects within 45 days of dredging. Thomas (1985) sampled the site 30 days after dredging and found, again, that colonization was "substantially complete" for most groups. The number of invertebrates colonizing the artificial substrates used by Somer and Hassler (1992) did

not increase after the first sampling at two weeks. None of these investigators sampled their study site earlier than the reported time of recolonization. Recolonization may have occurred sooner than the time reported."

E. By: The U.S. Environmental Protection Agency - 2001

"The results from Resurrection Creek indicated that there was no difference in the macroinvertebrate community between the mining area and the locations downstream of the mining area in terms of macroinvertebrate density and taxa richness. The sampling was done 35 days after mining had been completed for the season and shows a rapid recovery of the mined areas."

#### IV. FLUSHING FLOWS

A. By: Gary R. Stern - 1988

"The autumn, winter and spring peak flows of WY 1985 Canyon Creek were adequate to disperse dredge tailing piles and fill in dredge holes. Less than 9% of the holes and tailings from 1984 mining were visible at the start of the 1985 dredge season. Only two sites from 1984 had clear remnants of holes and tailings in 1985. Both of these were far from the stream's thalweg. At a few sites large cobbles and boulders piled along the shore remained visible one year later. Thomas (1985) reported that piles of cobbles remained along the shore one year later at Gold Creek, Montana, but holes and instream tailings had vanished. Harvey et al. (1982) found virtually no evidence of dredge mining the following year in the American River, California. Most streams with mobile beds and good annual flushing flows should be able to remove the instream pocket and pile creations of small suction dredges, although regulated streams with controlled flows may not."

#### V. SEDIMENT

A. By: Dr. Henry Baldwin Ward

"All of these tests show .That the amount of colloidal material in the water of the Rouge River and its tributaries below the point at which the run-off of placer mine workings has been added to the stream is too small to produce on the bottom a "blanket" which might affect adversely young fish eggs in the nests if present, or the fish food in the water." "Even below the points at which tributaries entered from areas in which placer mining had gone on at earlier months in the year, no change from normal conditions were observed. The pools sheltered migrating fish; they were also seen in the stream below the dams, and a normal supply of fish food was found at various points visited."

These studies were done on commercial placer mining!

"The supplementary report of Mr. A. M. Swartley, who aided me in the part of the survey made in September, 1937, is of value in giving the views of a careful and experienced geologist. He confirmed fully statements I had reached in my preliminary report as to the physical conditions found in the Rogue River drainage, and especially the small amount of clay and other material on shores and stream bottoms, in backwaters and otherwise in our examination of the river and its tributaries. He discussed fully the methods of rock disintegration and the transportation and ultimate character of the materials produced. He emphasized the fact that mining debris "is chemically inert, makes no oxygen demand on the stream and therefore takes away from the flowing water nothing which the fish require. This is equally true of this material whether placed in transit by nature or by man since (the products) are alike in nature, come from the same sources and are only being accelerated by man in their journey to the sea." Further he stated: " All these materials entering the streams, whether by natural or human activity, whether coarse or fine, whether traveling on the bottom, in suspension or solution ,are almost altogether inert, suffer little change on their way to the sea, and having reached the end point of chemical change do not rob the water of oxygen which the fish demand, or add to the water toxic agents injurious to fish (fish food or other forms of life)."

#### VI. EFFECTS OF SILT ON FISH

A. By: Dr. Henry Baldwin Ward

"I have seen among these Alaska rivers in which salmon run and spawn some so heavily loaded with mud that one could not trace the body of an adult salmon ascending the river even when the dorsal fin cut the surface of the water. Yet the fish examined on the spawning grounds just before and just after death showed that the gills had suffered no injuries on the way though the body had met with conspicuous external damage through violent contact with sharp rocks at rapids or falls or along the shore. The examination was made in connection with the study on the cause of death after spawning and all organs were closely inspected. The gills were reported as apparently in perfect condition. Although the object of the investigation was not to determine the effect on the gills of silt loaded waters, still, if any evident injury had been present, it would have been noted. The journey up the Copper and its tributary was long and strenuous; the chance for damage to the salmon from muddy water was certainly large if any damage could be wrought by such conditions, and yet none was observed. Many other similar cases could be cited from printed as well as published records."

"Despite their far greater sensitiveness to changes in environment and susceptibility to injury, the young salmon lived heartily in a concentration of sediment which was at its minimum (760 ppm) twice as much as the maximum recorded at Agness (see Table II ). Indeed the average amount of turbidity in Griffin's experiments was ten times the average recorded at Agness. Those who think that normal erosion products will prove injurious to such fish should examine carefully the records in these tables."

## VII. EFFECT ON SPAWNING GROUNDS

A. By: Dr. Henry Baldwin Ward

"Normally the fish cover the eggs by a layer of sand or fine gravel; the fresh water carrying oxygen easily penetrates this cover and the young wriggle out after the eggs hatch. A thin, broken layer such as I have already described would not interfere with the permeation of fresh water with oxygen and the development of such eggs as might be present. But I am clear that this is not a true spawning area. As Mr. Joseph Wharton said in an admirable paper on the salmon of the Rogue River, "It is the ambition of all these species of anadromous fish to ascend the river to the highest point attainable before making their spawning beds, seeking the waters that are purest and coldest." This statement is absolutely correct; In difficult streams or when held behind man-made barriers, these fish struggle to the end to make their way upstream and will sacrifice life rather than accept spawning areas in the lower reaches of the river. The urge which drives them on is the basis for the safety of the race. For the straggler or the weakling who may find the achievement of headwaters impossible, an enforced spawning in the lower river is of no significance; the river level varies too widely and its current at full flood is too fierce. Eggs deposited at high water will be exposed and die when the water falls; or if the spawning occurs at a lower water level, the next flood waters will bury the eggs or sweep them away. The suddenness, the violence and the irregularity of the changes in water level of the Rogue are conspicuous in the records of every year."

B. By: Thomas J. Hassler, William L. Somer, Gary R. Stern

"Dredge tailings are often referred to as good salmonid spawning substrate. In the Trinity River, chinook salmon have been observed spawning in the tailing piles of suction dredges ( E. Miller pers. comm. ). Steelhead in Idaho streams have been reported to spawn in gravels recently disturbed by human activities ( Orcutt et al. 1968 ). In the American River , Prokopovich and Nitzberg ( 1982 ) have shown salmon spawning gravels have mostly originated from old placer mining operations."

"Anadromous salmonids held and spawned in Canyon Creek in close proximity to suction dredge activity. During the 1984-1985 spawning season, fall-run chinook salmon, coho salmon and steelhead spawned in areas actively dredged during the 1984 dredge season (fig.). In August 1985, spring-run chinook salmon and summer-run steelhead were holding near areas where suction dredges were being operated (fig. 23). During the 1985 spawning season, fall and spring-run chinook salmon spawned in areas actively dredged during the 1985 dredge season (fig. 24)."

C. By: Gary R. Stern - 1988

"Suction dredge mining did not appear to influence the locations of adult anadromous salmonid summer-holding areas. One spring-run chinook salmon was observed 50 m below an operating dredge and a summer-run steelhead was seen at the upper end of a 30 m-long pool while a dredge was operating at the lower end. Seven other adult salmonids were observed within 250 m of an active dredge operation and none appeared to be disturbed by mining activities. During a 1980 diving survey by Freese (1980),

an adult spring-run chinook salmon was observed holding at the bottom of an abandoned dredge hole in Canyon Creek and other adult salmonids were found in close proximity to active dredges. No relation between holding areas of spring/summer-run fish and suction dredge mining operations was apparent during this study or in 1980 (L. Freese pers. comm.)."

#### VIII. CHANGES IN THE STREAM BED

A. By : Dr. Henry Baldwin Ward

"To be sure no one can think rightly of the stream itself as a constant environment. On the contrary it is undergoing continual change. The amount and location of winter's snowfall, the volume and time of seasonal rains, the duration and precise period of regional droughts, and other climatic variations produce variations in water level, in bank erosion, in growth of grasses, underbrush and trees in the drainage basin; thus sudden and often extreme changes in contours of the banks and surrounding country add sediments of different types to its waters and modify the conditions under which the fish it harbors are forced to live." Number one on the list of things that change the shape of the stream bed are DAMS!"

B. By: Thomas J. Hassler, William L. Somer, Gary R. Stern - 1986

"However during the suction dredge mining process, a new pool area is created by the cone shaped dredge hole. Dace, suckers and juvenile steelhead were observed feeding and resting in Canyon Creek dredge holes. Freese ( 1980 ) observed a small spring-run chinook salmon holding in a dredge-created pool on Canyon Creek".

"The majority of suction dredge operators in canyon creek did not work long periods or disturb large areas of the streambed. Dredging impacts upon the channel geomorphology were confined to the area dredged and the area immediately down stream."

"Winter and spring flushing flows filled in dredge holes and dispersed tailing piles." "Coho salmon and steelhead juveniles appeared to rear normally in the creek and were observed using dredge holes in the summer. Steelhead juveniles received the greatest exposure to dredging activity as they rear in Canyon Creek up to three years, but their feeding, growth and production did not seem to be impacted at the current level of dredge activity."

C. By: Somer and Hassler - 1992

"The effects of the two dredges on aquatic insects varied with taxa and were site specific. Dredging dislodged insects, and we observed young coho salmon and steelhead feeding on them. The stream underwent major but localized changes. Dredge hole were excavated to a depth of 2 m, and substrate was altered to bedrock and large cobbles-probably a poor habitat for colonization. However, the effects of dredging (at the operating level during the study) on insects and habitat were minor compared with those of bed-load movement due to large stream flows during storms and from snowmelt."

D. By: Gary R. Stern - 1988

"Lewis (1962) was the first to investigate the effects of the portable suction gold dredge on the aquatic habitat of fish and benthic invertebrates. He operated a 12.7 cm aperture dredge in Clear Creek, Shasta County, California and found that dredging could improve the intergravel environment for both fish eggs and benthos if the stream was mined in a uniform manner."

"If dredge mining regulations were expounded upon and miners were made aware of the instream habitat needs of salmonids, the most serious impacts of suction dredge mining could be reduced. Suction dredgers may even be able to enhance certain areas of the channel for rearing and spawning fish, if some of the limiting factors of a reach of stream are identified (ie. cover, woody debris, low velocity refuges, clean gravels). In Canyon Creek, current CDFG suction dredge regulations eliminate conflicts with salmonid spawning, incubation, and fry emergence by restricting mining to summer months. The 15.24 cm maximum aperture size for dredges is appropriate since stream substrate is large, but larger apertures may be too disruptive in the small channel."

E. By: Robert Lewis, Pollution Bioanalyst III

Results of Gold Suction Dredge Investigation;

"Table 1 lists stand pipe results. The site average indicates an improvement from dredging of 1 p.p.m. in DO and a threefold improvement in permeability and velocity. As indicated above, dredged sand settled within 12 feet of the sluice outflow. This occurrence tends to somewhat nullify removal of sediment, but dredged areas are definitely relieved of compaction. As a gross measure, the standpipe was much easier to drive in the dredged area. As evidenced by photographs the gravel appears much cleaner after dredging. Weighing all factors, dredging can improve the gravel environment for both fish eggs and aquatic insects, especially if the operator mined uniformly in one direction as opposed to a pocket and pile method."

F. By: Phillip A. North - 1993

"The four studies that I reviewed from journals subject to peer review consistently found that when certain limitations are placed on suction dredge activity the impacts on the stream ecosystem are local and of short duration."

G. By: Bret C. Harvey - 1986

"Fish and invertebrates displayed considerable adaptability to dredging, probably because the streams naturally have substantial seasonal and annual fluctuations (Moyle et al. 1982). These fluctuations, in the form of flushing winter flows, can greatly reduce the long term impact of dredging. Even during the relatively mild winter of 1980/81, high flows still filled the hole created by dredging on NFAR with a sand and gravel mixture and eliminated all sand from the main streambed. After the high flows in winter and spring of 1981/82, no substrate changes caused by dredging in the previous summer were evident on Butte Creek. Saunders and Smith (1965) observed a quick recovery in the trout population after scouring of a heavily silted stream, which, along with the quick temporal recovery of stream insects seen in this study, implies that suction dredging effects could be short-lived on streams where high seasonal flows occur."

#### IX. TEMPERATURE

A. By: Thomas J. Hassler, William L. Somer, Gary R. Stern - 1986

"and dredge mining had little, if any, impact on water temperature."

#### X. TURBIDITY

A. By: Dr. L. E. Giiffin

"When the test ended on Dec. 30, it was found that a much larger proportion of the fish in the sediment-containing trough had survived (56%) than in the clear water trough (10%). There was no noticeable difference in the color of the surviving fish in the two troughs, and the fish which had lived in the muddy water were as large as the survivors from the clear-water trough."

"The results of the experiments indicate that young trout and salmon are not directly injured by living for considerable periods of time in water which carries so much soil sediment that it is made extremely muddy and opaque. They also indicate that cutthroat trout and salmon fingerlings can feed and grow apparently well in very muddy water."

B. By: Dr. Henry Baldwin Ward

"In contrast with all these the experiments of Dr. Griffin have shown that young fish live well up to 30 days in good water mixed with an amount of natural soil materials from two to three times as large as the extreme load of the materials contributed to the Rogue River by maximum conditions produced by placer mining."

"All the evidence that has been obtained justifies the conclusion that no present-day contributions of materials produced by bank erosion differ in character or exceed in amount those added periodically by purely natural processes in past times. Splendid runs of salmon and steelhead were established and maintained under truly natural conditions which certainly were on occasion more extreme and violent before man ever came into the picture than they are today. Furthermore, there is good reason to believe that placer mining run-off was larger in amount and more continuous in the early years of that industry when for a time at least greater areas were followed than are employed today."

This study was done to study the effects of large scale placer mining operations!

#### XI. WATER QUALITY

A. By: Thomas J. Hassler, William L. Somer, Gary R. Stern

Water quality was impacted only during the actual operation of a suction dredge. Since a full day of mining by most Canyon Creek operators included only 2 to 4 hours of dredge running time, water quality was impacted for a short time.

B. By: Gary R. Stern - 1988

"Turbidity plumes below suction dredges are often markedly visible due to extremely low ambient turbidity levels in mountain streams. The extent of the plume depends on the grain size and volume of the material passing through the dredge. Horizons of silt-laden substrate were disturbed at all dredge sites in Canyon Creek and created highly visible turbidity plumes. "

"Although distinct to even the most casual observer, dredge plumes in Canyon Creek were probably of little direct consequence to fish and invertebrates. Suspended sediment concentrations of 20,000 to 100,000 mg/l which impact fish feeding and respiration (Cordone and Kelly 1961) greatly exceed the highest level of 274 mg/l measured in Canyon Creek. In general, dredge turbidity plumes were highly localized and occurred during midday which is not a peak feeding period for steelhead (Moyle 1976). Laboratory studies by Sigler et al. (1984) found that steelhead and coho salmon preferred to stay in channels with clear water, and turbidities as little as 25 NTU's caused a reduction in fish growth. In contrast to Sigler's results, young steelhead in Canyon Creek appeared to seek out dredge turbidity plumes to feed upon dislodged invertebrates even though clear flowing water was available nearby."

C. By: Phillip A. North - 1993

"Most water quality studies of the effects of suction gold dredges on streams have focused on turbidity and suspended sediments. These studies have, with some exceptions, largely found that water quality is impacted for a distance downstream of the dredge ranging from a few meters to 30 meters."

"However, Huber and Blanchet (1992) found no evidence of cumulative impacts of mining on water quality in streams of the Chugach National Forest in Alaska. They monitored streams in the Forest over a period of three years and found no noticeable impact to water quality associated with suction dredges. All of the studies that I surveyed came to the same conclusion: suction gold dredging had localized and short term impacts. Caveats must be taken into account when coming to this conclusion:

All of these studies, except one involved small dredges, 6 inches or less. The one study that involved a larger dredge reported only a small amount of data. Five water samples were taken 500 feet below a six inch dredge and one sample was taken 500 feet below an 11 inch dredge."

D. By: The U.S. Environmental Protection Agency - 2001

"In the 1997 permit, EPA defined a small suction dredge as those with nozzles less than or equal to four inches. EPA is proposing to redefine the small suction dredge range as less than or equal to six inches. Information provided in EPA's suction dredge study and the United States Geological Survey (USGS) study support the conclusion that there are local but short term effects on both water quality and macroinvertebrate communities in the mining areas. On the Fortymile River, dredges larger than those proposed under this GP showed that turbidity was reduced to background levels within 250 feet. It is expected that small dredges would have even less impact on the downstream receiving water quality."

## XII. REFERENCES

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Harvey, Bret C., 1986, Effects of suction dredging on fish and invertebrates in two California streams. North American Journal of Fisheries Management 6:401-409.

Hassler, Thomas J., Somer, William L., Stern, Gary R., 1986, Impacts of Suction Dredge Mining on Anadramous Fish, Invertebrates and Habitat in Canyon Creek, California. California Cooperative Fishery Research Unit, U.S. Fish and Wildlife Service, Humbolt State University, Cooperative Agreement No. 14-16-0009-1547, Work Order No. 2, Final Report.

Huber, C. and D. Blanchet, 1992, Water quality cumulative effects of placer mining on the Chugach National Forest, Kenai Peninsula, 1988-1990. U.S. Forest Service, Chugach National Forest, Alaska Region. 74 pages.

Lewis, Robert Pollution Bioanalyst III, 1962, Results of Gold Suction Dredge Investigation. Memorandum of September 17, 1962. California Department of Fish and Game. Sacramento, California, 7 pp.

North, Phillip A., 1993, A Review of the Regulations and Literature Regarding the Environmental Impacts of Suction Gold Dredges. U.S. Environmental Protection Agency, Region 10, Alaska Operations Office.

Somer, W. L., and Hassler, T. J., 1992, Effects of suction-dredge gold mining on benthic invertebrates in Northern California Stream. North American Journal of Fisheries Management 12:244-252.

Stern, Gary R., 1988, Effects of suction dredge mining on anadramous salmonid habitat in Canyon Creek, Trinity County, California. M. S. Thesis, Humbolt State University, Arcata, California, 80 pp.

U.S. Environmental Protection Agency, 2001, Fact Sheet NPDES Permit AKG-37-5000, U.S. Environmental Protection Agency, Region 10, Alaska Operations Office, 16 pp.

The quotes listed in this document were taken word for word out of the documents written by the scholars named above each quote.

This information was compiled with the intent to inform and educate, so the true facts can be a part of the process in the rule/regulation making pertaining to small scale placer mineral/metal mining and prospecting in our rivers and streams.

With special thanks to the Washington Alliance of Miners and Prospectors and Jerry Hobbs.

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### OLD GOLD MINER

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11-18-09, 09:12 AM (MDT)



**34. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**

In response to [message #33](#)

In 1993 the U.S. Army Corps of Engineers (Corps) and U.S. Environmental Protection Agency (EPA) were subject to a court decision that forced them to issue new rules regarding suction dredging in Alaska.

A challenge to this decision resulted in a new decision in May 1999 that the Corps, at least, was not required to regulate suction dredging in most cases. Unfortunately, the same decision states that because of another court decision, *Rybachek v. EPA*, 904 F.2d 1276 (9th Cir. 1990) resuspension of materials by placer miners as part of gold extraction operations is an "addition of a pollutant" under the CWA (Clean Water Act) subject to EPA's regulatory authority.

The final result of all this legal action is that the Corps issued General Permit 88-02P for Alaska that covers most suction dredge activities automatically

The main reason this SPECIAL PUBLIC NOTICE 94-10 is presented here is to show the Corps finding of de minimis (i.e., inconsequential) effects on aquatic resources for suction dredges with nozzle openings of 4 inches or less.

This is an official recognition of what suction dredgers have long claimed; that below a certain size, the effects of suction dredging are so small and so short-term as to not warrant the regulations being imposed in many cases. The U.S. Environmental Protection Agency (EPA), in particular, has ignored this concept, although numerous studies, including the EPA's own 1999 study of suction dredging, repeatedly and consistently support the Corps finding de minimis effects. The reports consistently find no actual impact of consequence on the environment, and so almost always fall back to the position that "potential for impact exists".

However, showing potential for harm, and showing that actual harm exists are two different things, and the studies to date have not shown any actual effect on the environment by suction dredging except for those that are short-term and localized in nature.

Current regulatory efforts are proceeding despite this lack of evidence showing that harm to the environment is taking place. The regulatory agencies should be consistently and continually challenged by the dredging community to produce sound, scientific evidence that support their proposed regulations. To regulate against a "potential for harm", where none has been shown to exist, is unjustifiable and must be challenged.

Public Notice  
US Army Corps of Engineers

Alaska District Regulatory Branch  
Post Office Box 898  
Anchorage, Alaska 99506-0898

Date: 13 SEPTEMBER 1994  
Identification No.: SPN 9410  
In reply refer to above Identification Number

SPECIAL PUBLIC NOTICE 94-10

APPLICATION OF THE "EXCAVATION RULE" TO RECREATIONAL PLACER MINING ACTIVITIES IN ALASKA FOR THE PURPOSE OF THE CORPS' SECTION 404 REGULATORY PROGRAM

Changes to regulations of the U.S. Army Corps of Engineers (Corps) and U.S. Environmental Protection Agency published August 25, 1993, in the FEDERAL REGISTER (FR) at 58 FR 45008 are affecting regulation of recreational placer mining activities in Alaska. The new regulations, referred to as the "excavation rule" became effective on September 24, 1993, and were described in a joint Alaska District Corps the United States and Environmental Protection Agency, Region X, Special Public Notice (93-15) dated September 17, 1993.

The Department of the Army (DA) exerts regulatory jurisdiction over waters of the United States, which includes wetlands, pursuant to Section 404 of the Clean Water Act. For regulatory purposes, the Corps defines waters of the United States as those waters below the high tide line of any tidal water body (ocean, estuary, etc.), and those waters below the ordinary high water mark of non-tidal water bodies (creeks, rivers, ponds, lakes, etc.). Wetlands are defined as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. The law requires that any individual or entity that proposes to discharge dredged and/or fill material into or excavate material from wetlands or other waters of the United States must obtain a DA permit (sometimes called "404 permits") prior to conducting the work. Under the new regulations, this means that recreational placer mining by means of suction dredging, hand mining, or other excavation in non-navigable waters now requires DA authorization.

The preamble for the new regulations stated that some excavation activities may generally (except in extraordinary situations) have de minimis (i.e., inconsequential) effects on aquatic resources including their associated functions and values and therefore would not degrade or destroy waters of the United States and would not be regulated.

The Alaska District Corps has reviewed recreational placer mining using suction dredges and hand mining (pick and shovel, panning, etc.) activities in light of the new "excavation rule" and has determined, except in extraordinary circumstances, that recreational suction dredge mining using an intake nozzle size equal to or less than 4 inches and hand mining in waters of the United States would have de minimis effects on the aquatic environment, provided the State of Alaska Department of Fish and Game requirements for fish-bearing waters are met. Therefore, these activities, as described above, will generally not be regulated by the Corps and no permit is required. However, the Alaska District Corps retains the discretion to require authorization on a case-by-case basis. (emphasis added)

The fact that no authorization or permit is required from the Corps for recreational placer mining, as described above, does not relieve any miner from the necessity to obtain any other permits or authorizations required by other entities. Consequently, the Alaska Department of Fish and Game and any applicable land management agency (Bureau of Land Management, National Park Service, U.S. Forest Service, Alaska Department of Natural Resources, etc.) should be contacted prior to conducting recreational placer mining to identify any possible requirements or restrictions on mining activities.

#### OPERATION OF LARGER SUCTION DREDGES

Operation of suction dredges with an intake nozzle size greater than 4 inches generally has more than de minimis effects on the aquatic environment and therefore requires authorization from the Corps under Section 404 of the Clean Water Act. At the current time, an individual DA permit is required for these activities, unless the mining is "ongoing" and a request for the operation to be grandfathered was received by August 25, 1994 (as described in the excavation rule published on August 25, 1993)

GRANDFATHER PROVISION OF THE "EXCAVATION RULE". Section 404 authorization is not required for discharges of dredged material associated with ditching, channelization, or other excavation activities in waters of the United States, including wetlands, where such discharges were not previously regulated and where such activities had commenced or were under contract to commence prior to August 25, 1993, and where such activities were completed before August 25, 1994. The Corps retains the authority to grant, on a case-by-case basis, an extension of this 12-month grandfather provision subject to the following conditions:

1. The excavation activity is of the type that occurs on an "ongoing" basis, either periodic or continuously (e.g., mining operations);
2. The discharger had submitted to the Corps, within the 12-month period between August 25, 1993, and August 25, 1994, an individual permit application seeking a Section 404 authorization for such excavation activity; and
3. In no event can the grandfather provision be extended beyond August 25, 1996.

**\*\*Note:** The deadline for filing an extension for an operation under the grandfather provision of the excavation rule was August 25, 1994. All rights under the grandfather provision were forfeited if an application was not submitted by that date. The Alaska District Corps has accepted the 1994 State of Alaska Annual Placer Mining Applications (APMAs) on file for the purpose of reserving grandfathering rights in accordance with the excavation rule. Any placer miner conducting excavation activities that have not been determined to have de minimis effects, as described above, must contact us at the address below and specify in writing those excavation activities in the 1994 APMA that they wish to continue as an "ongoing" operation. Interested parties should contact us by March 31, 1995, if they intend to do so.

As stated, currently all suction dredge operations, with an intake nozzle diameter greater than 4 inches, that do not qualify for or have forfeited their grandfather rights, require Corps authorization before proceeding. The Alaska District is in the process of modifying its placer mining general permit (GP 88-02M) to include suction dredge mining operations. At this time, we have not determined if there will be a size limitation to suction dredges that would be covered under the modified placer mining general permit. However, the Corps anticipates that many suction dredge mining operations may qualify for the modified general permit. A Special Public Notice advertising and requesting comments on the proposed placer mining general permit (GP 88-02M) changes will be issued in the near future.

#### FOR FURTHER INFORMATION

Additional information may be obtained by contacting the Corps at (907) 753-2712, or toll-free in Alaska at (800) 478-2712, or at the following address:

U.S. Army Corps of Engineers  
Alaska District Regulatory Branch  
Post Office Box 898  
Anchorage, Alaska 99506-0898

BY AUTHORITY OF THE SECRETARY OF THE ARMY:

Date: 13 Sep 94

Peter A. Topp  
Colonel, Corps of Engineers  
District Engineer

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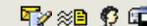
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#### OLD GOLD MINER

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11-18-09, 09:23 AM (MDT)



#### 35. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"

In response to [message #34](#)

Most rivers and streams flood on a regular basis. During floods, impacts similar to those caused by suction dredges occur on a vastly wider scale. It is now believed that the regular movement of sediment in a stream is vital to it's health, much as forest fires have come to be seen as a vital part of the life-cycle of a forest. The life in and around a stream or river not only is not hurt by irregular turbidity and rechannelization effects, it has evolved to need these events to occur periodically for the environment to remain healthy. A major threat to the health of many streams is now seen to be the construction of dams. Many of these dams were originally built to help control flooding. Now it is seen that this has actually led to damage to the ecosystems of these streams. This new research sheds new light on suction dredging, and reveals that the movement of sediments in a stream not only does no harm, but is beneficial to the stream. The following website explores this new area of investigation.

<http://walrus.wr.usgs.gov/grandcan/flood.html>

**OLD GOLD MINER**

Member since 11-15-09

81 posts

11-18-09, 09:31 AM (MDT)

**36. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #34](#)

United States Department of Agriculture  
Forest Service  
Siskiyou National Forest  
200 NE Greenfield Road  
Grants Pass, OR 97526-0242  
Reply to: 2800  
Date: October 16, 1995

Subject: A comparison of stream materials moved by mining suction dredge operations to the natural sediment yield rates

To: The Record

A question that has frequently been asked is how much material is moved by annual mining suction dredge activities on the Siskiyou National Forest and how does this figure compare with the natural movement of such materials by surface erosion and mass movement? At the conclusion of the 1995 summer suction dredge season, the responsible minerals personnel on each Ranger District of the Siskiyou National Forest were asked to make a quantitative estimate of the number of cubic yards of material that was moved over the season by suction dredge operations. The estimates were based on on-the-ground observations carried out over the summer. Quantities of moved material ranged from 23 to 1920 cubic yards per district with a Forest total of 2413 cubic yards for the season.

Three documents were examined to determine a reasonable estimate of natural sediment yield rates. A published 1985 study by Michael P. Ainaranthus et al entitled "Logging and Forest Roads Related to Increased Debris Slides in Southwestern Oregon" found that natural erosion rates for debris slides in the Klamath Mountains of southwest Oregon averaged about 0.5 cubic yards per acre per year. This same study found that erosion rates on roads and landings were 100 times those on undisturbed areas, while erosion on harvested areas was seven times that of undisturbed areas. In another study (unpublished) done in 1988 by Jon Vanderheyden et al entitled "Siskiyou National Forest Silver Fire Recovery Process Paper", surface and channel erosion rates were estimated and then an estimate of total natural erosion rates was made by summing a debris slide rate with surface and channel rates. The debris slide rate was developed for the Siskiyou National Forest from an inventory that examined landslide activity between 1956 - 1976 on 137,000 acres of the Forest. This 1985 study estimated that baseline sediment yield (total natural erosion rate) in the Silver Creek basin averaged about 14.2 tons per acre per decade. For the Indigo Creek basin sediment yield averaged 8.0 tons per acre per decade. Putting these figures on an annual basis and using a generally accepted average of 1.5 tons per cubic yard of material would produce sediment yields of 0.95 and 0.53 cubic yards per acre per year for Silver and Indigo Creeks respectively. The Siskiyou National Forest Land and Resource Management Plan of 1989 estimated that the average natural sediment yield rate for the Forest from both mass movement and surface erosion was 0.5 tons per acre per year. This figure equals about 0.33 cubic yards per acre per year and is the most conservative of the natural sediment yield figures found in the literature readily available.

There are 1,092,302 acres on the Siskiyou Natural Forest. Using a factor of 0.33 cubic yards per acre per year times 1,092,302 acres will produce a very conservative estimate that 331,000 cubic yards of material move each year from natural causes compared to the 2413 cubic yards that was moved by suction dredge mining operations in 1995 on the Siskiyou. This would be a movement rate by suction dredge mining that equals about 0.7% of natural rates.

/s/ Michael F. Cooley  
MICHAEL F. COOLEY  
Recreation, Lands and Minerals Staff Officer, Siskiyou National Forest

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11-19-09, 06:50 AM (MDT)

**37. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #36](#)

man thats a lot of information!

russau

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unregistered user

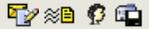
11-19-09, 11:10 AM (MDT)

**38. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #37](#)

This is great information and should be read by all. I am not sure where old miner came from but do know that he is very knowledgable and will certainly aid in this battle with teh DFG.

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11-19-09, 01:21 PM (MDT)

**39. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #38](#)**CEQA CHECKLIST**

Land use planning NOT CHECKED

45% of California is federal public domain.  
All of which is under USFS / BLM land use plans  
All of which encourages mining, and allow it under USFS & BLM Reg's.

CEQA § 15086. Consultation Concerning Draft EIR.

(a) The lead agency shall consult with and request comments on the draft EIR from:

- (1) Responsible agencies,
- (2) Trustee agencies with resources affected by the project, and
- (3) Any other state, federal, and local agencies which have jurisdiction by law with respect to the project or which exercise authority over resources which may be affected by the project, including water agencies consulted pursuant to section 15083.5.
- (4) Any city or county which borders on a city or county within which the project is located.

USFS & BLM exercise authority over mineral resources where almost all small scale suction dredging takes place.

CEQA § 15086 (a) "shall" = Mandatory

Any CEQA "consultation" with USFS/BLM to say the least, will be interesting.

USFS/BLM will inform them "Under the mining laws a person has a statutory right, consistent with Departmental regulations, to go upon the open (unappropriated and unreserved) Federal lands for the purpose of mineral prospecting, exploration, development, extraction and other uses reasonably incident thereto." (See 30 U.S.C. § 21-54, 43 C.F.R. § 3809.3-3, 0-6).

CEQA § 15086(4) Any city or county which borders on a city or county within which the project is located.

Go Ahead, DFG consult with El dorado County.

Below is El dorado Counties stance re: SB 670

10-06-2009 El dorado County, California, Board of Supervisors passed a resolution urging the California State Legislature and Governor Arnold Schwarzenegger to rescind or amend SB670, a bill that banned suction dredging in California waterways.

Resolution: <http://www.co.el-dorado.ca.us/bos/wwwroot/attachments/6a4d4486-d831-4508-bd94-be91a14d2f1c.pdf>

Agenda item with supporting documentation: <http://www.co.el-dorado.ca.us/bos/wwwroot/detailreport/matter.aspx?key=10883>

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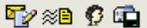
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**OLD GOLD MINER**

Member since 11-15-09

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11-20-09, 00:01 AM (MDT)



**40. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**

In response to [message #39](#)

LETS GET SOME FACTS:

<http://www.thefirstamendment.org/publicrecordsact.pdf>

California Department of Fish & Game  
DFG Headquarters  
1416 9th Street, Sacramento, CA 95814

Dear Sir, or Madame;

Pursuant the California Public Records Act ( §§ 6250 - 6276.48), I respectfully request legible copies of any "contract" and/or any/all documents pertinent to the specific terms, conditions, performance, responsibilities, and payments to Horizon Water and Environmental, LLC as it pertains to the California Environmental Quality Act (CEQA) study, as mandated by SB 670 that firm is performing for your agency.

Please advise me in advance if applicable copy fee's will exceed one hundred dollars (\$100).

I look forward to your response, within ten (10) days.

Sincerely,

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**OLD GOLD MINER**

Member since 11-15-09

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**41. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #40](#)

The legislative Act SB 670 covers suction dredge gold mining "in any river, stream, or lake of this state".

The clear intent, and unambiguous language of the Act specifically covers "in-stream" suction dredging activities only.

DFG's regulatory authority pursuant to DFG Code section 5653 et seq., pertains to the use of vacuum and suction dredge equipment in California for "in-stream" mining.

Related provisions of the DFG Code underscore that exact point.

Recently enacted DFG Code section 5653.1 covers the use of suction dredge equipment for in-stream mining.

The critical word in both the SB 670 law, and subsequent CDFG regulation is "in-stream".

In-stream clearly means in the waters of a stream, river or lake in California.

In effect, anything outside the water, not in-stream in waters of California, on dry land is beyond the scope of both SB 670 law, and subsequent DFG regulations.

Given that explicit statutory, and regulatory limitation pertinent to suction dredge gold mining in California.

DFG has no legal authority to regulate anything about suction dredge gold mining, not in-stream, or otherwise outside waterways in California.

The legal consequence of that is that DFG has no authority to let a contract to any firm to perform a California Environmental Quality Act (CEQA) environmental study, or report concerning anything not in-stream, in any stream, river, or lake in California.

Consequently, the SB 670 CEQA initial study report performed by Horizon Water & Environment greatly exceeds the boundaries of "in-stream" environmental impact. As the initial study report, by both statutory law, and DFG regulation is expressly limited to in-stream environmental effects.

Thus, all matters within the initial study report relating to:

- "Accessing the Site" (5.5.2)
- "Delivering Equipment" (5.5.3)
- Dry land "Processing of Material" (5.5.7)
- "Encampments" (5.5.10)
- Dry land "Aesthetics"
- Dry land "Air Quality"
- Dry land "Biological Resources"
- Dry land "Cultural Recourses"
- Dry land "Geology & Soils"
- Dry land "Hazardous Materials"
- Dry land "Noise"
- Dry land "Public Services"
- Dry land "Recreation"

Are all outside the scope of in-stream environmental impacts this initial study report is allowed to contain.

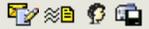
While SB 670 authorized this CEQA study.

No SB 670 statutory provisions, or DFG regulations exist to authorize the inclusion of any environmental effect anywhere other than "in-stream", in California waterways.

**OLD GOLD MINER**

Member since 11-15-09

81 posts

**42. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #41](#)

CDFG MUST act according to law, when making "regulation" in California.

CDFG vigorously attempts to circumvent any need or requirement of the law that mandates Federal Mining Law & Economic impacts be considered, or included in this SB 670 CEQA study.

However, APA law governing "regulation" any state agency makes requires they do.

Below is just a tiny part of APA law.

NONE of which CDFG has complied with.

On that basis alone, any CDFG regulation not in compliance with APA.

Is arbitrary, capricious & not according to law.

We have a "unique" situation here. CEQA was never intended to be a tool to implement statewide REGULATION of any small business, or investment based economic endeavor, by private individuals, such as "small scale suction dredge gold mining".

A CEQA "Project" is "Site Specific". In this instance the legislature in passing SB 670 made the "Project" statewide. And, mandated implementation of NEW STATE REGULATION to cover it.

That being FACT.

CDFG must implement APA procedure, into the process, beside CEQA.

They have not, nor appear to intend to.

That is contrary to California APA law.

CDFG must comply with APA law, or repeat the process, to do so.

Doing this wrong, the first time, then having to repeat it to correct initial fatal flaws.

Is a WASTE of taxpayer funds.

For which someone must be held responsible.

I would NOT want to be that man.

---

The Administrative Procedure Act (APA) establishes rulemaking procedures and standards for state agencies in California. The requirements set forth in the APA are designed to provide the public with a meaningful opportunity to participate in the adoption of state regulations and to ensure that regulations are clear, necessary and legally valid. The APA is found in the California Government Code, section 11340 et seq. State regulations must also be adopted in compliance with regulations adopted by OAL (see California Code of Regulations, Title 1, sections 1-280).

11342.510. Unless the provision or context otherwise requires, the definitions in this article govern the construction of this chapter.

11342.520. "Agency" means state agency.

11342.535. "Cost impact" means the amount of reasonable range of direct costs, or a description of the type and extent of direct costs, that a representative private person or business necessarily incurs in reasonable compliance with the proposed action.

11342.580. "Plain English" means language that satisfies the standard of clarity provided in Section 11349.

11342.590. "Prescriptive standard" means a regulation that specifies the sole means of compliance with a performance standard by specific actions, measurements, or other quantifiable means.

11342.595. "Proposed action" means the regulatory action, notice of which is submitted to the office for publication in the California Regulatory Notice Register.

11342.600. "Regulation" means every rule, regulation, order, or standard of general application or the amendment, supplement, or revision of any rule, regulation, order, or standard adopted by any state agency to implement, interpret, or make specific the law enforced or administered by it, or to govern its procedure.

11342.610. (a) "Small business" means a business activity in agriculture, general construction, special trade construction, retail trade, wholesale trade, services, transportation and warehousing, manufacturing, generation and transmission of electric power, or a health care facility, unless excluded in subdivision (b), that is both of the following:

- (1) Independently owned and operated.
- (2) Not dominant in its field of operation.

11346.2. Every agency subject to this chapter shall prepare, submit to the office with the notice of the proposed action as described in Section 11346.5, and make available to the public upon request, all of the following:

(a) A copy of the express terms of the proposed regulation.

(1) The agency shall draft the regulation in plain, straightforward language, avoiding technical terms as much as possible, and using a coherent and easily readable style. The agency shall draft the regulation in plain English.

(2) The agency shall include a notation following the express terms of each California Code of Regulations section, listing the specific statutes or other provisions of law authorizing the adoption of the regulation and listing the specific statutes or other provisions of law being implemented, interpreted, or made specific by that section in the California Code of Regulations.

(3) The agency shall use underline or italics to indicate additions to, and strikeout to indicate deletions from, the California Code of Regulations.

(b) An initial statement of reasons for proposing the adoption, amendment, or repeal of a regulation. This statement of reasons shall include, but not be limited to, all of the following:

(1) A statement of the specific purpose of each adoption, amendment, or repeal and the rationale for the determination by the agency that each adoption, amendment, or repeal is reasonably necessary to carry out the purpose for which it is proposed. Where the adoption or amendment of a regulation would mandate the use of specific technologies or equipment, a statement of the reasons why the agency believes these mandates or prescriptive standards are required.

(2) An identification of each technical, theoretical, and empirical study, report, or similar document, if any, upon which the agency relies in proposing the adoption, amendment, or repeal of a regulation.

(3) (A) A description of reasonable alternatives to the regulation and the agency's reasons for rejecting those alternatives. In the case of a regulation that would mandate the use of specific technologies or equipment or prescribe specific actions or procedures, the imposition of performance standards shall be considered as an alternative.

(B) A description of reasonable alternatives to the regulation that would lessen any adverse impact on small business and the agency's reasons for rejecting those alternatives.

(C) Notwithstanding subparagraph (A) or (B), an agency is not required to artificially construct alternatives, describe unreasonable alternatives, or justify why it has not described alternatives.

(4) Facts, evidence, documents, testimony, or other evidence on which the agency relies to support an initial determination that the action will not have a significant adverse economic impact on business.

(5) A department, board, or commission within the Environmental Protection Agency, the Resources Agency, or the Office of the State Fire Marshal shall describe its efforts, in connection with a proposed rulemaking action, to avoid unnecessary duplication or conflicts with federal regulations contained in the Code of Federal Regulations addressing the same issues. These agencies may adopt regulations different from federal regulations contained in the Code of Federal Regulations addressing the same issues upon a finding of one or more of the following justifications:

(A) The differing state regulations are authorized by law.

(B) The cost of differing state regulations is justified by the benefit to human health, public safety, public welfare, or the environment.

(c) A state agency that adopts or amends a regulation mandated by federal law or regulations, the provisions of which are identical to a previously adopted or amended federal regulation, shall be deemed to have complied with subdivision (b) if a statement to the effect that a federally mandated regulation or amendment to a regulation is being proposed, together with a citation to where an explanation of the provisions of the regulation can be found, is included in the notice of proposed adoption or amendment prepared pursuant to Section 11346.5. However, the agency shall comply fully with this chapter with respect to any provisions in the regulation that the agency proposes to adopt or amend that are different from the corresponding provisions of the federal regulation.

11346.3. (a) State agencies proposing to adopt, amend, or repeal any administrative regulation shall assess the potential for adverse economic impact on California business enterprises and individuals, avoiding the imposition of unnecessary or unreasonable regulations or reporting, recordkeeping, or compliance requirements. For purposes of this subdivision, assessing the potential for adverse economic impact shall require agencies, when proposing to adopt, amend, or repeal a regulation, to adhere to the following requirements, to the extent that these requirements do not conflict with other state or federal laws:

(1) The proposed adoption, amendment, or repeal of a regulation shall be based on adequate information concerning the need for, and consequences of, proposed governmental action.

(2) The state agency, prior to submitting a proposal to adopt, amend, or repeal a regulation to the office, shall consider the proposal's impact on business, with consideration of industries affected including the ability of California businesses to compete with businesses in other states. For purposes of evaluating the impact on the ability of California businesses to compete with businesses in other states, an agency shall consider, but not be limited to, information supplied by interested parties. It is not the intent of this section to impose additional criteria on agencies, above that which exists in current law, in assessing adverse economic impact on California business enterprises, but only to assure that the assessment is made early in the process of initiation and development of a proposed adoption, amendment, or repeal of a regulation.

11346.5. (a) The notice of proposed adoption, amendment, or repeal of a regulation shall include the following:

(1) A statement of the time, place, and nature of proceedings for adoption, amendment, or repeal of the regulation.

(2) Reference to the authority under which the regulation is proposed and a reference to the particular code sections or other provisions of law that are being implemented, interpreted, or made specific.

(3) An informative digest drafted in plain English in a format similar to the Legislative Counsel's digest on legislative bills. The informative digest shall include the following:

(A) A concise and clear summary of existing laws and regulations, if any, related directly to the proposed action and of the effect of the proposed action.

(B) If the proposed action differs substantially from an existing comparable federal regulation or statute, a brief description of the significant differences and the full citation of the federal regulations or statutes.

(C) A policy statement overview explaining the broad objectives of the regulation and, if appropriate, the specific objectives. (4) Any other matters as are prescribed by statute applicable to the specific state agency or to any specific regulation or class of regulations.

(5) A determination as to whether the regulation imposes a mandate on local agencies or school districts and, if so, whether the mandate requires state reimbursement pursuant to Part 7 (commencing with Section 17500) of Division 4.

(6) An estimate, prepared in accordance with instructions adopted by the Department of Finance, of the cost or savings to any state agency, the cost to any local agency or school district that is required to be reimbursed under Part 7 (commencing with Section 17500) of Division 4, other nondiscretionary cost or savings imposed on local agencies, and the cost or savings in federal funding to the state. For purposes of this paragraph, "cost or savings" means additional costs or savings, both direct and indirect, that a public agency necessarily incurs in reasonable compliance with regulations.

(7) If a state agency, in proposing to adopt, amend, or repeal any administrative regulation, makes an initial determination that the action may have a significant, statewide adverse economic impact directly affecting business, including the ability of California businesses to compete with businesses in other states, it shall include the following information in the notice of proposed action: (A) Identification of the types of businesses that would be affected.

(B) A description of the projected reporting, recordkeeping, and other compliance requirements that would result from the proposed action.

(C) The following statement: "The (name of agency) has made an initial determination that the (adoption/amendment/repeal) of this regulation may have a significant, statewide adverse economic impact directly affecting business, including the ability of California businesses to compete with businesses in other states. The (name of agency) (has/has not) considered proposed alternatives that would lessen any adverse economic impact on business and invites you to submit proposals. Submissions may include the following considerations: (i) The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to businesses. (ii) Consolidation or simplification of compliance and reporting requirements for businesses. (iii) The use of performance standards rather than prescriptive standards. (iv) Exemption or partial exemption from the regulatory requirements for businesses."

(8) If a state agency, in adopting, amending, or repealing any administrative regulation, makes an initial determination that the action will not have a significant, statewide adverse economic impact directly affecting business, including the ability of California businesses to compete with businesses in other states, it shall make a declaration to that effect in the notice of proposed action. In making this declaration, the agency shall provide in the record facts, evidence, documents, testimony, or other evidence upon which the agency relies to support its initial determination. An agency's initial determination and declaration that a proposed adoption, amendment, or repeal of a regulation may have or will not have a significant, adverse impact on businesses, including the ability of California businesses to compete with businesses in other states, shall not be grounds for the office to refuse to publish the notice of proposed action.

(9) A description of all cost impacts, known to the agency at the time the notice of proposed action is submitted to the office, that a representative private person or business would necessarily incur in reasonable compliance with the proposed action. If no cost impacts are known to the agency, it shall state the following: "The agency is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action."

(10) A statement of the results of the assessment required by subdivision (b) of Section 11346.3.

(11) The finding prescribed by subdivision (c) of Section 11346.3, if required.

(12) A statement that the action would have a significant effect on housing costs, if a state agency, in adopting, amending, or repealing any administrative regulation, makes an initial determination that the action would have that effect. In addition, the agency officer designated in paragraph (14), shall make available to the public, upon request, the agency's evaluation, if any, of the effect of the proposed regulatory action on housing costs.

(13) A statement that the adopting agency must determine that no reasonable alternative considered by the agency or that has otherwise been identified and brought to the attention of the agency would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.

(14) The name and telephone number of the agency representative and designated backup contact person to whom inquiries concerning the proposed administrative action may be directed.

(15) The date by which comments submitted in writing must be received to present statements, arguments, or contentions in writing relating to the proposed action in order for them to be considered by the state agency before it adopts, amends, or repeals a regulation.

(16) Reference to the fact that the agency proposing the action has prepared a statement of the reasons for the proposed action, has available all the information upon which its proposal is based, and has available the express terms of the proposed action, pursuant to subdivision (b).

(17) A statement that if a public hearing is not scheduled, any interested person or his or her duly authorized representative may request, no later than 15 days prior to the close of the written comment period, a public hearing pursuant to Section 11346.8.

(18) A statement indicating that the full text of a regulation changed pursuant to Section 11346.8 will be available for at least 15 days prior to the date on which the agency adopts, amends, or repeals the resulting regulation.

(19) A statement explaining how to obtain a copy of the final statement of reasons once it has been prepared pursuant to subdivision (a) of Section 11346.9. (20) If the agency maintains an Internet Web site or other similar forum for the electronic publication or distribution of written material, a statement explaining how materials published or distributed through that forum can be accessed. (b) The agency representative designated in paragraph (14) of subdivision (a) shall make available to the public upon request the express terms of the proposed action. The representative shall also make available to the public upon request the location of public records, including reports, documentation, and other materials, related to the proposed action. If the representative receives an inquiry regarding the proposed action that the representative cannot answer, the representative shall refer the inquiry to another person in the agency for a prompt response. (c) This section shall not be construed in any manner that results in the invalidation of a regulation because of the alleged inadequacy of the notice content or the summary or cost estimates, or the alleged inadequacy or inaccuracy of the housing cost estimates, if there has been substantial compliance with those requirements.

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**OLD GOLD MINER**

Member since 11-15-09  
81 posts

11-20-09, 02:58 PM (MDT)



**43. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**

In response to [message #42](#)

APA & what it is all about:

[http://www.oal.ca.gov/Administrative\\_Procedure\\_Act.htm](http://www.oal.ca.gov/Administrative_Procedure_Act.htm)

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**dredgeman**

Member since 11-2-09  
19 posts

11-20-09, 03:03 PM (MDT)



**44. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**

In response to [message #42](#)

Hello Old Gold  
Since we are guessing is your name Dennis

I called Stopher who is on Friday official statewide day off.  
So I called Horizon and left a message. Michael called back and I asked a little about who determined the criteria for the study. Since as you point out "in stream suction mining" is the area of authority. Mike said that the DFG lawyers included the other variables. Since it is a statewide "PROJECT" they wanted to cover all angles of a new law suit.

I called back and clarified that CEQA is project specific and asked if the cities and counties of CA were notified. Mike said that DFG had notified the county registrars office.

He stumbled around agreeing that CEQA is site specific for each project. When I said CEQA was site specific and that DFG made the state a Project he felt that the project was in CA not CA.

After playing dumb and asking if the regs apply to the state, how is the state not the project. Mike informally agreed that the state was the project.

I also asked if the DFG was going to notify all the claim holders where dredging could take place. He felt that DFG had made reasonable attempts at notification of the affected people.

Just some of the fun today. fyi

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**OLD GOLD MINER**

Member since 11-15-09  
81 posts

11-20-09, 04:19 PM (MDT)



#### 45. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"

In response to [message #44](#)

No need to guess my name. It is "Jim". I would prefer to remain reasonably anonymous. Simply because I don't need, or want any notoriety. Nor, want to get "flooded" with more correspondence than I have time to deal with or answer.

I'm a retired large corporate & mid-level public & private venture mining engineer. Who, since retirement has remained active in small scale placer mining & own mining claims over industrial mineral deposits & placer gold deposits in California, Oregon, Nevada & Idaho

I got involved here, because members of my immediate & extended family were making a living, suction dredging. SB 670 pulled \$10,000 a month, right out of their pockets. That is wrong. To help right that wrong, I got involved.

But, would rather be out prospecting, or mining. Rather than spend endless days pouring over tons of law, in finding, reviewing, compiling & posting all the fatal faults in SB 670, the CEQA study & any proposed new regulation DFG might try to implement.

SB 670 is a badly written, idiotic, fatally flawed law. CDFG implementation of it, is helter-skelter & arbitrary to say the least. These California bureaucrats are pushing this whole process through, as though all the miners it effects. Are someone they can lead around by the nose, as if we are sheep. WRONG ANSWER.

Here, it appears CDFG is standing on a rooftop, urinating on a crowd of affected miners below, taking their livelihood, and private property rights. While shouting to the crowd. It's just "rain", don't worry everything is fine & legal. WRONG ANSWER

So, I have been pouring over all applicable law, finding what is applicable that these autocrats have not complied with. Then, throw those legally binding wrench's right smack in the gears of this SB 670 & CEQA process.

With the intent, just possibly of making then realize, this process is so "FUBAR" that maybe we out to do it correctly. It is also meant to exhaust every administrative & legal remedy possible, while the process is occurring. To create a record of factual legal evidence within it's record. To have sufficient legal grounds to appeal or challenge, any/all aspects of it in a court of competent jurisdiction. As that may become applicable.

PLP v. SB 670 is in play. But, there is no assurance, how any ruling there may come out, or when. I just want to insure, we have the involved faults on the record, as the CEQA process plays out. In case they are needed anywhere, in the process, or court action, to defeat SB 670.

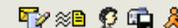
LOL, yes... You throwing monkey wench's on the desks of the autocrats, for them to see.....makes them stutter. Be sure to get any/all comments in/on the written record. That is the pile of legal fuel, to burn SB 670 into ashes.

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**Gold Seeker**Member since 12-26-07  
125 posts

11-20-09, 05:25 PM (MDT)

**46. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #45](#)

Old Gold Miner,

I can appreciate your wanting anonymity.

I want you to know that it is very much appreciated that you are involved in this research, you are helping so many more than just your family members!! 😊

I have copied and pasted this entire thread to date and saved it in Microsoft Word for a backup and for my future reference, I will continue to follow this thread and add it to that Word document.

I don't want to see your hard work lost as it almost was on the Nugget Shooter Forum.

We have needed some very big guns in this fight and I want to THANK YOU for bringing in the BATTLESHIP!!

You have my greatest respect,

Skip, A.K.A. Gold Seeker, Au Seeker

Seek and Ye Shall find, and when you do thank GOD!!!

[Alert](#) | [IP](#)[Printer-friendly page](#) | [Edit](#) | [Reply](#) | [Reply With Quote](#) | [Top](#)**Mark\_NC**Member since 11-12-09  
4 posts

11-20-09, 05:30 PM (MDT)

**47. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #45](#)

Jim,

I am just curious if anyone has looked into Horizon's background any at all? Looking over their website, it clearly states that the company was founded in 2008. I find it relatively hard to believe that a company little more than 1 year old could be tasked with such an important undertaking as this EIR. Was this a bidding process where they were bidding against other firms? Horizon's website only claims 2 prior projects, both being for Sonoma County to the tune of 1.85 million dollars. Could it be possible that they were created just for the purpose of giving certain CDFG officials with "green" agendas, a report that they desire, not a report that is factual? I wonder how many environmental activist groups they may be tied to as well?

I may be grasping at straws here, but it just seems odd that we see no previous work from this group to prove they are capable of performing the duties they have been hired to do. This smells of some form of collusion IMHO.

It also appears to me that Horizon and certain CDFG officials could be guilty of a criminal act if this could be proven. After all, they are taking taxpayer money as payment for the study. There could also be some civil liability there on Horizon's part. I hope they have plenty of money in their budget for legal fees if they tank this study. (on purpose or otherwise).

Anyway, just my feeble mind wandering aloud. I also say a big thank you for the efforts you are putting forward on this.

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81 posts

11-20-09, 06:38 PM (MDT)

**48. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #47](#)<http://horizonh2o.com/mission.html>

Kenneth Schwarz, Ph.D

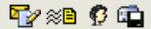
<http://www.scwrp.org/resumes/Schwarz.pdf>

Michael Stevenson – Watershed Scientist. M.S. Yale University, School of Forestry and Environmental Studies (emphasis on Watershed Management and Restoration); B.A. University of California, Santa Cruz, Environmental Studies. Six years of experience.  
Contribution: Senior Peer Review – Hydrology and Water Quality

Both use to work for Jones &amp; Stokes.

<http://www.climatechangeefocusgroup.com/>[Alert](#) | [IP](#)[Printer-friendly page](#) | [Edit](#) | [Reply](#) | [Reply With Quote](#) | [Top](#)**Goldfinds**Member since 8-24-09  
6 posts

11-20-09, 07:05 PM (MDT)

**49. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #42](#)

LAST EDITED ON 11-20-09 AT 07:07 PM (MDT)

OGM

Reading the Administrative Procedure Act

reference to Article 8. Judicial Review ..... 11350-11350.3

11350. (a) Any interested person may obtain a judicial declaration as to the validity of any regulation or order of repeal by bringing an action for declaratory relief in the superior court in accordance with the Code of Civil Procedure. The right to judicial determination shall not be affected by the failure either to petition or to seek reconsideration of a petition filed pursuant to Section 11340.7 before the agency promulgating the regulation or order of repeal. The regulation or order of repeal may be declared to be invalid for a substantial failure to comply with this chapter, or, in the case of an emergency regulation or order of repeal, upon the ground that the facts recited in the finding of emergency prepared pursuant to subdivision (b) of Section 11346.1 do not constitute an emergency within the provisions of Section 11346.1.

My question is could this apply to SB 670, or is this only for State dept regs.

Because as I read this, and think of why sb670 was classified as an emergency law without proper justification or scientific evidence.

Anyway this is an interesting read.

goldfinds

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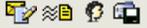
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**OLD GOLD MINER**

Member since 11-15-09

81 posts

11-20-09, 08:30 PM (MDT)



**50. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**

In response to [message #49](#)

LAST EDITED ON 11-20-09 AT 08:30 PM (MDT)

SB 670 was passed an "urgency" legislation, which made it go into effect the day it was signed into effect. Rather than at the end of the fiscal year.

So, I am not sure, if "emergency" applies.

However, the CEQA events unfolding do come under the APA. As well as any regulation DFG puts into effect.

Some of which is "bizarre", to say the least. Not to mention "not in accordance with law"

Fish and Game Code section 5653, subdivision (d). This provision of the Fish and Game Code makes it illegal to possess a vacuum or suction dredge in areas, or in or within 100 yards of waters that are closed to the use of vacuum or suction dredges.

All waterways in the whole state are closed. Meaning, you are subject to citation, fine, even arrest if you even transport a suction dredge on any road, highway or interstate freeway next to any waterway in California.

That illegally effects your right of free movement & "Commerce" statewide.

These bureaucrats have simply lost their minds.

In early December, I plan to test this law personally.

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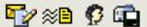
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**OLD GOLD MINER**

Member since 11-15-09

81 posts

11-20-09, 10:03 PM (MDT)



**51. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #50](#)

The Federal environmental impact standard on public domain lands, consisting of 45% of California. Is to prevent "unnecessary or undue degradation" of public lands by operations authorized by the mining laws. This long standing, and well thought out environmental impact standard is based on common sense, practicality, and indisputable physical facts.

No natural mineral resource deposit exists, in tidy packages, in orderly stacks, on a shipping platform, waiting to be found, and hauled away. They exist in nature, in whatever setting they exist in. All mineral deposits requiring mining, in order to extract the valuable mineral there.

Given that obvious irrefutable fact, some environmental degradation must take place, in order to mine a natural mineral resource. The cornerstone of all federal regulation governing those environmental impacts, caused by mining is carefully premised on that factual foundation. Otherwise, it would be impossible to mine any natural mineral resource.

The federal standard is not "NO" degradation. Rather, it is to prevent "unnecessary or undue degradation" in mining operations on federal lands. Plainly, if a "NO" environmental degradation standard existed, for agriculture, manufacturing, commerce, and power production. Modern civilization as we know it in America, or California could not exist.

If a "NO" environmental degradation standard is established here, for small scale suction dredge gold mining in California. A "precedent" is set, for all other uses of water, land, agriculture, manufacturing, travel and commerce statewide. Perhaps, if the legislature were to go without everything that mining fundamentally provides them with.

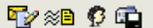
After a day of setting naked, cold, hungry, without shelter, or every other modern necessity, or convenience mined mineral resources make possible. The legislature might come to the full realization of how foolish, arbitrary & idiotic SB 670 actually is. What next, stop limestone, or aggregate mining in California, destroying the states domestic production of cement, and concrete?

[Alert](#) | [IP](#)[Printer-friendly page](#) | [Edit](#) | [Reply](#) | [Reply With Quote](#) | [Top](#)**OLD GOLD MINER**

Member since 11-15-09

81 posts

11-21-09, 02:32 AM (MDT)

**52. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #51](#)**SB 670**

The people of the State of California do enact as follows:

**SECTION 1. Section 5653.1 is added to the Fish and Game Code, to read:**

**5653.1. (a) The issuance of permits to operate vacuum or suction dredge equipment is a project pursuant to the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) and permits may only be issued, and vacuum or suction dredge mining may only occur as authorized by any existing permit, if the department has caused to be prepared, and certified the completion of, an environmental impact report for the project pursuant to the court order and consent judgment entered in the case of Karuk Tribe of California et al. v. California Department of Fish and Game et al., Alameda County Superior Court Case No. RG 05211597.**

**(B ) Notwithstanding Section 5653, the use of any vacuum or suction dredge equipment in any river, stream, or lake of this state is prohibited until the director certifies to the Secretary of State that all of the following have occurred..."**

1. The puzzle there being, Karuk tribe v. CDFG court order only covers the Klamath, Salmon & Scott rivers.

2. The next puzzle is why SB 670 prohibits suction dredging statewide, when the court order it cites to be complied with only covers the Klamath, Salmon & Scott rivers.

As such, no statewide EIR is required by SB 670. Consequently, CDFG has no statutory, or regulatory authorization, or authority to perform a statewide EIR.

CEQA § 21080. Division application to discretionary projects; nonapplication; negative declarations; environmental impact report preparation

“(a) Except as otherwise provided in this division, this division shall apply to discretionary projects proposed to be carried out or approved by public agencies...”  
(B ) This division does not apply to any of the following activities:  
(1) Ministerial projects proposed to be carried out or approved by public agencies.

CEQA only applies to “Discretionary” projects.

SB 670 provisions declare the issuance of suction dredge permits is a CEQA “Project”. Consequently, removing any “discretion” CDFG has in the matter.

With all “discretion” removed, the project is made “Ministerial”. That being the case, having no discretion to do otherwise. CDFG has no authority to perform an EIR under CEQA, and “Must” approve the project permits.

This is a perfect example of mutually incompatible statutory directives.

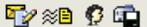
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**OLD GOLD MINER**

Member since 11-15-09  
81 posts

11-21-09, 06:14 AM (MDT)



**53. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**

In response to [message #52](#)

LAST EDITED ON 11-21-09 AT 06:21 AM (MDT)

<http://www.consrv.ca.gov/smgb/Regulations/Documents/mou%2092.pdf>

READ THIS ONE.  
THIS THROWS A KINK IN CDFG'S CEQA PARTY  
IT'S NOT THEIR WAY OR NO WAY.....ANYMORE

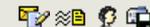
(suggest you save a pdf copy, in case this link goes away)

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**russeau**Member since 7-9-03  
4929 posts

11-21-09, 06:21 AM (MDT)

**54. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #53](#)

the 92pdf isnt attached to the link.

russeau

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81 posts

11-21-09, 06:57 AM (MDT)

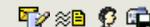
**55. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #54](#)

I fixed it.  
it should work now.

<http://www.consrv.ca.gov/smg/Regulations/Documents/mou%2092.pdf>

[Alert](#) | [IP](#)[Printer-friendly page](#) | [Edit](#) | [Reply](#) | [Reply With Quote](#) | [Top](#)**Goldfinds**Member since 8-24-09  
6 posts

11-22-09, 02:18 PM (MDT)

**56. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #0](#)

LAST EDITED ON 11-22-09 AT 02:18 PM (MDT)

Thousands of Salmon are killed every year in California rivers and streams.

<http://www.redding.com/news/2009/nov/08/are-gill-nets-decimating-klamath-and-trinity/>

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84 posts

11-22-09, 04:39 PM (MDT)

**57. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #56](#)

**"Allie Hostler, the Hoopa Valley Tribe's spokeswoman, said her tribe aims to protect the fish on the Trinity and American Indian gill netters are unfairly targeted."**

I get it killing them by the thousands to sell to SF fish markets is a good way to protect these fish while no dredger has ever killed a Salmon. And dredgers are bad..... makes sense if your IQ is less than 70

**Steve Wandt**

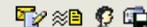
[www.naturalgoldjewelry.com](http://www.naturalgoldjewelry.com)

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**OLD GOLD MINER**

Member since 11-15-09

81 posts

**58. "RE: CALIFORNIA SUCTION DREDGE BAN SB 670"**In response to [message #57](#)**THIS IS DATED JUNE 2009**

**Impart it is Federally FUNDED & covers USFS/BLM lands.  
When federally funded, they must include & deal with federal mining law.**

**They IGNORE federal mandates of the mining laws.  
They IGNORE vested private property rights (including riparian & in-stream water rights) of  
all placer mining claim owners situated in the Klamath river basin drainage.**

---

**State Water Resources Control Board**

<http://epa.gov/region09/water/tmdl/klamath/Chapter6implementationPlan.pdf>

**6.5.3.3 Coordination with the Department of Fish and Game**

The California Department of Fish and Game (CDFG) administers a permit for suction dredging activities in the Klamath River basin. In May 2009, the State Senate passed a bill (SB 670) requiring the CDFG to temporarily halt issuance of all suction dredge mining permits. Senate Bill 670 prohibits the use of suction dredge mining equipment in rivers and streams that provide critical habitat to spawning salmon and steelhead until the CDFG updates its suction dredge rules so they comply with CEQA. The State Water Board currently working cooperatively with the CDFG to formulate general statewide regulations and/or guidelines for dredge operators. The Klamath River TMDL implementation plan supports this process as the means to address the impacts of suction dredging activities, and Regional Water Board staff recommends that CDFG incorporate the prohibition on sediment discharges in and around known thermal refugia locations into the revised permit. Regional Water Board staff will evaluate the revised permit and will consider at that time whether any further measures are necessary to protect water quality. If the permit is sufficient, the Regional Water Board may certify CDFG's program pursuant to the State NPS Policy.

**6.5.4**[Alert](#) | [IP](#)[Printer-friendly page](#) | [Edit](#) | [Reply](#) | [Reply With Quote](#) | [Top](#)[Conferences](#) | [Topics](#) | [Previous Topic](#) | [Next Topic](#)

**SUCTION DREDGE PERMITTING PROGRAM**  
**Subsequent EIR - CEQA Scoping Comment Form**

Name:	Russ Zallar
Mailing Address:	Box 72
	Goodyears Bar, CA. 95944
Telephone No. (optional):	
Email (optional):	

**Comments/Issues:** Suction Dredging: I've been Dredging FOR MANY YEARS, I CANT EVER REMEMBER OF KILLING OR HARMING FISH OR OTHER WILDLIFE. FISHERMAN KILL FISH, I SEE DEAD FISH FLOATING DOWN RIVER ALL SUMMER LONG, WITH HOOK LINE AND SINKER, STILL IN THE FISHES MOUTH. WATER SNAKES KILL MANY FISH, I SEE IT ALL THE TIME. AS FOR MERCURY AND OTHER HEAVY METALS (LEAD, COPPER, STEEL AND OTHER SCRAP), ALL THESE METALS INCLUDING LIQUID MERCURY AND GOLD END UP IN THE FRONT OF MY SLUICE BOX, WHEN I CLEAN THE SLUICE BOX OUT EVERY DAY, I SALVAGE AND RECYCLE ALL THESE MATERIALS. I USUALLY DREDGE A 20' X 60' FOOT SECTION OF RIVER DURING THE SUMMER AND THERE ARE NOT ANY HEAVY METALS LEFT IN THE RIVER DOWN TO BEDROCK WHEN I AM DONE WITH IT. THE FACT IS I PAY FISH & GAME FOR A PERMIT TO DO THIS SERVICE. COMMON SENSE WOULD THINK FISH & GAME AND FOREST SERVICE WOULD BE APPRECIATIVE OF THIS. PLUS THE FACT THAT I PICK UP GARBAGE THAT FISHERMAN, HIKERS AND RIVER VISITORS LEAVE BEHIND.

Please use additional sheets if necessary.

**SUBMIT WRITTEN COMMENTS (POSTMARKED BY 12/03/09) TO:**

**Mail:** Mark Stopher  
California Department of Fish and Game  
601 Locust Street  
Redding, CA 96001  
**Email:** dfgsuctiondredge@dfg.ca.gov  
**Website:** www.dfg.ca.gov/suctiondredge

Russ Zallar  
A "Dredger"

Questions? Please call us at (530) 225-2275

Ryck Rowan  
1227 W. Shannon Ave.  
Spokane, Wa. 99205

Mark Stopher  
California Department of Fish and Game  
601 Locus Street  
Redding, Ca. 96001

Dear Mark Stopher,

Sometimes others say it best. Modern Prospecting By Reggie Gould," Lost Treasure Magazine" January 2010.

"Three thousand five hundred dredgers with dredges six inch in diameter or smaller for the whole State of California are a threat to the salmon population, but the commercial dredges that move thousands of cubic yards of material are okay? Apparently it's okay for these giant dredges to kill tens of thousands of fish with giant dredges as long as it done for the infrastructure."

"Now these types of commercial dredges are huge moving thousands of gallons of water, sucking up fish right and left and turning the water to chocolate brown for miles. It's apparently okay if it's for commerce."

"The Fish and Game has stated it is most likely that the Salmon are disappearing in the ocean."

"Anyone who has dredged knows that the venturi jet system does not harm fish in any way, but the environmentalists groups that have been lobbying for this type of bills for years"

"As an example, the suction hose used on a dredge is almost exactly the same type tube used as the Fish and Game when stocking trout into the streams and rivers."

"In 1870, the Federal Government passed the 1870 Mining Law that gave gold miners certain mining rights for their protection."

"AB 670 is in direct contradiction to the 1870 Mining Law and as soon as it is challenged in court the Federal Law will over ride the State Law (LT) "

My opinion, The gold dredgers are few in number. They are highly regulated with costly out of state permits. It is your waters, but the National Forests road systems. Your rules F&G, but the BLM minerals. This is all done according to the Code of Federal Regulations.

So why is it that a small group of people throw a monkey wrench into the works fouling up business as usual.

This is a tightly run organization (DFG) now controlled by the whims of a environmental group? I hope not!

Question Lies in waiting, now a new survey, what is really the next step? Is there a reformat of departmental protocol that meets the strictest of examination or what is due the only action taken?

Sincerely, 

Ryck Rowan

A person of interest  
Holding a 2009  
Out of state  
Gold Dredging Permit