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SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF SAN BERNARDINO

Coordination Proceeding
Special Title (Rule 1550(b))

Judicial Council Proceeding No. JCPDS 4720

SUCTION DREDGE MINING CASES

**REPLY DECLARATION OF JOSEPH
GREENE IN SUPPORT OF MINERS'
JOINT MOTION FOR INJUNCTION
AGAINST DEFENDANTS**

Judge: Hon. Gilbert G. Ochoa
Dept.: S36J
Date: June 23, 2015
Time: 8:30 a.m.

Related Actions:

*Karuk Tribe of California, et al. v. California
Department of Fish and Game*

RG 05211597 – Alameda County

*Hillman, et al. v. California Department of
Fish and Game*

RG 09434444 – Alameda County

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<i>Karuk Tribe of California, et al. v. California Department of Fish and Game</i>	RG 1263796 – Alameda County
<i>Kimble, et al. v. Kamala Harris, Attorney General of California, et al.</i>	CIVDS 1012922 – San Bernardino County
<i>Public Lands for the People, et al. v. California Department of Fish & Game, et al.</i>	CIVDS 1203849 – San Bernardino County
<i>The New 49’ers, et al. v. State of California; California Department of Fish and Game, et al.</i>	SCCVCV 120048 – Siskiyou County
<i>Foley, et al. v. State of California; California Department of Fish and Wildlife, et al.</i>	SCSCCV 13-00804 – Siskiyou County
<i>Walker v. Harris, et al.</i>	34-2013-80001439 – Sacramento County

1 Joseph Greene states:

2 1. I am an independent environmental consultant and make this Reply Declaration in
3 further support of the Miners' motion for an injunction in this action.

4 **Unregulated Dredging Is Not At Issue.**

5 2. It is my understanding that the motion seeks to facilitate dredging under
6 regulations developed in 1994. A great deal of the testimony submitted in opposition to the
7 motion for an injunction, addresses "the general effects of suction dredging on fish" (e.g., Moyle
8 Decl. ¶ 13), without regard to the dredging sought under the 1994 regulations in the proposed
9 injunction.

10 3. Some of the testimony concerning impacts even addresses imagined impacts of
11 suction dredging that would involve violations of those regulations. Mr. Soto, for example,
12 complains that "large boulders, stumps and rootwads in the stream may be removed before a site
13 is excavated, which reduces stream channel stability". (Soto Decl. ¶ 6.) In fact, the 1994
14 regulations prohibited any person from "mov[ing] any anchored, exposed woody debris such as
15 root wads, stumps, or logs (§ 228(f)(4)), as well as imposing significant limitations on moving
16 boulders (§ 228(f)(1)(A)).

17 4. Mr. Soto also complains that suction dredges may involve "entrainment of fish
18 eggs and yolk sac fry" (Soto Decl. ¶ 15.) This obviously depends upon whether the eggs or sac
19 fry are present (and whether the miners encounter them). The 1994 regulations contained
20 extensive time restrictions forbidding miners from operating when eggs and sac fry were present
21 (§ 228.5), and I am not aware of any evidence to suggest appreciable risks to eggs or sac fry
22 from operating in compliance with the timing restrictions.

23 5. Mr. Soto's testimony that the "1994 regulations do not provide protections for
24 federally or state listed threatened or endangered species or species of special concern listed
25 subsequent to 1994" is not true. For example, the 1994 regulations restrict operations during
26 times when coho salmon eggs may be in the gravel; the subsequent listing of the salmon under
27 the Endangered Species Act does not vitiate the protections provided by the 1994 regulations.

28 6. Because the opposing witnesses appear to be offering opinions about suction

1 dredging in general, or even suction dredging actually conducted in violation of the 1994
2 regulations, rather than suction dredging under the injunctive relief requested by the Miners, the
3 testimony necessarily fails to address incremental effects of the injunction.

4 **Opponents Do Not Offer Quantitative Testimony Concerning Actual Effects.**

5 7. The testimony of opponents of suction dredging continues to make reference to
6 the *possibility* of harm without regard to its likelihood. (*E.g.*, Moyle Decl. ¶ 11 (“can harm”).

7 8. None of the opponents respond to the facts presented in my opening declaration
8 concerning the comparative insignificance of dredging on the scale of the waterways involved.
9 Even several thousand dredgers operating on thousands of miles of California waterways under
10 the 1994 regulations would necessarily have minimal impact on those waterways. The effects
11 described by suction dredging opponents, if they occur at all, must be placed in this larger
12 context to appreciate their insignificance.

13 9. One witness who addresses the question of scale is Dr. Duffy, who relies upon the
14 fact that “the scale of dredging is small relative to entire stream” as a reason that “dredge holes
15 could not significantly benefit fish”. (Duffy Decl. ¶ 12.) Obviously, precisely the same scale
16 argument shows how the holes could not significantly harm fish either. It is obvious that we are
17 debating extraordinarily small effects, far too small to measure any impact on fish populations, in
18 a context where there is not even any quantification of whether the positive effects outweigh the
19 negative ones.

20 10. Testimony concerning “chronic disturbance” to fish (Moyle Decl. ¶ 15) offers no
21 guidance as to the significance of such disturbance. A 1986 study by Harvey of tagged rainbow
22 trout demonstrated that no tagged fish moved further than from a pool to one of the adjacent
23 riffles or vice versa in any two-week period, leading to the conclusion that the fish “moved very
24 little in either the dredged or control areas. The fact that fish approach dredges and feed from
25 their discharges, as well as swimming in company with the dredgers underwater, suggests that
26 any “disturbance” is not one of significance.

27 11. Professor Moyle acknowledges that fish are attracted to invertebrates that may be
28 dredged up and discharged to become available for consumption, but complains that he has only

1 seen common rainbow trout doing this. The statement that “other native species are almost never
2 seen in such conditions” is misleading, insofar as the rainbow trout are much more common, but
3 the increased food supply benefits all fish, and if other fish are present, they too will feed off the
4 back of the dredge.

5 12. Research demonstrates that the invertebrates in the streambed recolonize very
6 rapidly, on the order of a month or so. In some sense, the effect of the suction dredgers on the
7 food supply from aquatic organisms in the streambed can be analogized to farmers tilling a field
8 with resultant increased productivity. Mr. Lehr’s speculation that adverse effects may arise
9 when one takes this “zoo” feeding away is not support by any data, and is contrary to the
10 complaints of other witnesses (and the general ecological truth) that fish communities are
11 constantly short of food, such that additional food is unquestionably more beneficial than highly
12 abstract and theoretical concerns about “intraspecific competition”¹ from “artificially elevated
13 fish densities brought forth from the artificial forage environment”. (Lehr Decl. ¶ 16.) Mr.
14 Lehr’s comment is akin to saying that we should not put food in a pasture, and instead let them
15 starve, because they might fight over it. It is confusing mix of second-, third- or higher order
16 effects in the testimony of these witnesses that makes it so vital to understand the effects of scale,
17 and to measure and quantify effects.

18 13. Mr. Lehr’s statement that the dredging “changes the bottom of the streams to an
19 artificially homogeneous condition, without the places to hide and forage that fish (and
20 especially juvenile fish) need to survive and thrive” (Lehr Decl. ¶ 16) is stunningly contra-
21 factual, particularly given the general complaint that dredgers create large holes in the stream
22 bottoms (as well as turbidity plumes in which juvenile fish can hide).

23 14. Opponents offer no data to support testimony that “turning over the stream
24 bottom, altering the stream channel, and clouding the water” on a temporary basis will “reduce
25 the ability of the stream to support fishes”. (Moyle Decl. ¶ 11.) As previously explained, the
26 only study attempting to assess an impact on fish populations—which included assessing with
27

28 ¹ Intraspecific competition is a term from population ecology describing an interaction whereby
members of the same species compete for limited resources.

1 effects of illegal conduct with more significant impacts than proposed in the injunction as well as
2 dredging under regulations—found no significant impact.

3 15. Professor Moyle states that the study concerned only the Illinois River, which was
4 highly modified by historic hydraulic mining. (Moyle Decl. ¶ 19.) However, that statement is
5 also true of the Klamath River and other California rivers where suction dredging typically
6 occurs. Nor did the study concern a single river. In fact it concerned 59 river, stream and creek
7 reaches within the Illinois subbasin that were sampled for fish populations and dredging intensity
8 over time. Professor Moyle also complains that the data were not “sensitive to the local impacts
9 of dredging” (*id.*), but does not explain what this means. The whole point of the study was not to
10 determine if suction dredge adversely affected any single fish in any single dredge hole, but
11 whether the cumulative impacts of a National Forest full of suction dredgers had any measurable
12 impacts on fish populations.

13 16. Dr. Duffy attacks the Bayley study by quoting the phrase: “The statistical
14 analysis did not indicate that suction dredging has no effect on the three responses measured . . .”
15 without including the balance of the sentence: “but rather than any effect that may exist could
16 not be detected at the commonly used Type 1 error rate of 0.05”. This is a way of saying that
17 any effect of suction dredge mining cannot even be measured as statistically-significant, leading
18 to Professor Bayley’s conclusion: “Given that this analysis could not detect an effect averaged
19 over good and bad [suction dredge] miners, and that a more powerful study would be very
20 expensive, it would seem that public money would be better spent on encouraging compliance
21 with current guidelines than on further study”.

22 **Drought and Temperature.**

23 17. Mr. Soto says “there is no evidence I am aware of that supports the miners’ claims
24 that “suction dredge holes” create “thermal refuges”. (Soto Decl. ¶ 16.) This phenomenon is
25 easily observable, and in fact has been the subject of a report and testimony by now-former
26 California Department of Fish and Wildlife biologist Dennis Maria (a true copy of which is
27 attached as Exhibit 1 hereto).

28 18. Mr. Maria’s observations that “dredge holes in the riverbed created the only

discernable juvenile rearing habitat” observed in one stretch of the Salmon River, which “likely were providing thermal relief in a stretch of the Salmon River that typically exceeds 70F during July and August, benefitting primarily juvenile steelhead and coho salmon” (Exhibit 1, at 4-5) is consistent with my own understanding, observations, and measurements of summer water temperatures along the Klamath River and its tributaries.

19. Dr. Duffy’s complaint that the dredge holes are not associated with “cold water inflow” (Duffy Decl. ¶ 12) ignores flows of cooler water within streambeds that may occur, as well as the phenomenon of stratification that permits cooler water to persist at depth. His real complaint appears to be that the holes are not a “natural hydraulic practice,” but they may save the lives of fish in hot temperatures whether they are natural or not.

20. There is a large body of research confirming the benefit of such holes:

- Harvey and Lisle (1998) wrote that, "Dredge holes 3 feet or deeper are considered adequate refugia for fish. Excavating pools could substantially increase their depth and increase cool groundwater inflow. This could reduce pool temperature. If pools were excavated to a depth greater than three feet, salmonid pool habitat could be improved".
- Excavations from dredging operations can result in temporarily formed pools or deepen existing pools which may improve fish habitat. Deep scour may intersect subsurface flow creating pockets of cool water during summer which can provide important habitat for fish. Nielsen, J. L., T. E. Lisle, and V Ozaki. 1994. Thermally stratified pools and their use by steelhead in northern California streams. Trans. Am. Fish. Soc. 123:613-626.
- During times of low flow in a river or stream, increased water depth can provide a refuge from predation by birds and mammals. Harvey, B. C., and A. J. Stewart. 1991. Fish size and habitat depth relationships in headwater streams. Oecologia. 87:336-342.
- Pools created by abandoned dredger sites can provide holding and resting areas for juvenile and adult salmonids. Stern, G. R. 1988. Effects of suction dredge mining on anadromous salmonid habitat in Canyon Creek, Trinity County, California. M.S. Thesis, Humboldt State University, Arcata, California, 80 pp.
- Eight fish occupying a riffle during late summer in Butte Creek, California, moved into a dredged excavation nearby. Harvey, B. C. 1986. Effects of suction gold dredging on fish and invertebrates in two California streams. N. Am. J. Fish. Manage. 6:401-409.
- Juveniles used dredge holes, and their feeding, growth, and production did not seem to be impacted. Hassler, T.J., W.L. Somer and G.R. Stern. 1986. Impacts of suction dredge mining on anadromous fish, invertebrates and habitat in Canyon Creek, California. U.S. Fish and Wildlife Service, California Cooperative Fishery

Research Unit, Humbolt State University. Cooperative Agreement No. 14-16-0009-1547, Final Report. Arcata, CA.

- Dace, suckers, juvenile steelhead and salmon fed, rested and held in dredge holes. Hassler, T.J., W.L. Somer and G.R. Stern. 1986. Impacts of suction dredge mining on anadromous fish, invertebrates and habitat in Canyon Creek, California. U.S. Fish and Wildlife Service, California Cooperative Fishery Research Unit, Humbolt State University. Cooperative Agreement No. 14-16-0009-1547, Final Report. Arcata, CA.

21. From this perspective, Mr. Lehr's testimony concerning how "habitat alteration could affect the minimal cold water refugia" of particular importance during drought conditions (Lehr Decl. ¶ 12) is a perfect example of how it is important to balance the tiny, asserted negative impact of possibly causing fish to move out of cold water against the creation of additional refugia where the cold water is present. Mr. Lehr may "not know how all these factors will play out in the summer months" (id. ¶ 14), but there is every reason to believe that the dredging will, on balance, *improve* the survival of cold-water-dependent fish.

Turbidity

22. In response to my testimony concerning turbidity, Mr. Soto makes the claim that turbidity will lead to "blocked sun light penetration into the water, disrupting basis food production" (Soto Decl. ¶ 6.) This is a perfect example of why it is vital to consider the effects of scale.

23. There is no research of which I am aware that would show that intermittent turbidity of the type caused by suction dredgers would have any impact whatsoever on juvenile salmon. Mr. Soto's testimony concerning effects on the survival rate, to the extent is true at all, refers to laboratory tests where juvenile fish are exposed to extraordinarily high levels of turbidity from which they cannot simply swim away (as they can in the wild).

24. A leading model of such laboratory effects shows the following:

TSS (mg/L)	Calculated Turbidity (NTU)	
59,874	62,084.2	59,874 mg/l for 1 hour
8,103	8,402.1	8,103 mg/l for 7 hours
2,981	3,091.0	2,981 mg/l for 1 <i>day</i>
403	417.9	403 mg/l from 6 <i>days</i> to 2 <i>weeks</i>
148	153.5	148 mg/l for 7 <i>weeks</i>
55	57.0	55 mg/l for 4 <i>months</i>
20	20.7	20 mg/l for 11 <i>months</i>

25. This is yet another textbook example of the importance of measurement and quantification in assessing impact, because the intermittent turbidity plumes that may result from suction dredging (or may not, depending upon the substrate) involve NTU levels far below those that could cause harm:

26. For example, turbidity was 0.5 NTU upstream, 20.5 NTU 13 ft downstream, and 3.4 NTU 160 ft downstream of an active dredge on Canyon Creek (Hassler *et al.* 1986). On Butte Creek and the North Fork of the American River where ambient turbidities were <1 NTU, maximum turbidity 16 ft downstream of active dredges reached 50 NTU but averaged only 5 NTU (Harvey 1986). Wanty *et al.* (1997) reported turbidity values of 19 NTU 100 ft downstream of a 10 inch dredge located below Wilson Creek on the North Fork Fortymile River. Values returned to near background levels (3.7 NTU) within the next 100 ft but remained slightly above background levels (2.2 - 2.3 NTU) as far as 492 ft downstream.

27. In short, the highest level of turbidity reported in the literature, arising from a 10-inch dredge that could not be used under the 1994 regulations, was such that juvenile salmon would have to be confined in the thickest part of the plume for more than four months continuously to experience serious impacts. There is no real-world risk here at all.

28. Mr. Soto's concerns about turbidity interfering with feeding also fail to take account of the localized impacts and intermittent nature of the plumes, fail to account for the protective effect of the plumes from predators, and amount to unsubstantiated speculation. It is undisputed that juvenile fish come to the back of the dredges to feed; Mr. Soto would have the Court believe that they do this even though they must be unable to eat because of the lack of "clear water".

29. Predation effects are very important for juvenile fish survival, and there is every

reason to believe that turbidity's benefits of providing cover from birds outweigh any adverse impacts on prey identification by the fish. Mr. Soto is in some sense making the "deeply seated error" as the biologists criticized long ago by Charles Darwin in the *Origin of Species* for contending that "the physical conditions of a country as the most important for its inhabitants; whereas it cannot, I think, be disputed that the nature of the other inhabitants, with which each has to compete, is at least as important, and generally a far more important element of success".

The Causes of Decline.

30. Professor Moyle cites generally declining fish populations and asserts that this means that "it should be assumed that dredging causes harm, unless it can be proven otherwise". (Moyle Decl. ¶ 18.) This statement again includes an assumption that the quantitative impact of suction dredging is significant in relation to broader causes of decline.

31. Such an assumption is contrary to current scientific knowledge. A report out of the National Center for Public Policy Research (Carlisle, 1999) further addresses the issues of salmonid population declines and steps taken to restore them.

"Until recently, fish biologists assumed that only changes in the freshwater habitat of salmon could explain the variability in the salmon population. Scientists were thus quick to conclude that human modification of this habitat was the reason for the salmon population decline. Forestry practices have changed in recent years to protect salmon from harm. Buffers mandate that no construction or other development take place within a specified distance from a stream bank to prevent harm to breeding pools or other vital habitat. Other land-use laws have also been implemented to severely restrict development near rivers and wetlands. This is the reason why there have been no new dams built in Washington in the past 35 years. Citizen groups have also organized to clean many streams while agricultural land-use practices and wastewater treatment have steadily improved over the last 25 years (Kaczynski, V., 1998). Together these efforts have helped Pacific Northwest streams become significantly cleaner than they were in the 1970s and thus more ecologically amenable to salmon. A federally funded 1991 study by the Battelle Marine Science's Laboratory, for example, concluded that Puget Sound - home of the Puget Sound chinook salmon that was recently listed by the NMFS - is the cleanest it has been since before World War II (Anderson, R., 1999). Nevertheless, the salmon has not rebounded.

32. In short, despite billions of dollars in expenditures, widespread implementation of policies to aid the salmon and a cleaner environment, the salmon population continues to decline. It is obvious that the drivers of fish decline for oceangoing fish are not primarily associated with freshwater habitat. Rather, broader factors such as ocean conditions and climate are the primary

1 drivers.

2 33. For example, it was stated in the NOAA Idaho Suction Dredge Study (NOAA,
3 2003) that, "Ocean conditions are a key factor in the productivity of Northwest salmonid
4 populations, and appear to have been in a low phase of the cycle for some time and are likely an
5 important contributor to the decline of many stocks".

6 34. The marked decline in the salmon catch beginning in the mid-1970s corresponded
7 to an increase in the temperature of the Pacific Ocean off the coasts of Washington, Oregon and
8 California. This warming has had a most detrimental impact on salmon survival rates. Dr. Victor
9 Kaczynski (1998), a fish biologist and consultant on fishing issues in the Pacific Northwest, says
10 that "per classical ecological theory, a 70% decline in zooplankton biomass results in a 70%
11 reduction in predators dependent on zooplankton directly and in their food chain (such as coho
12 salmon) while an 80% reduction would result in a food supply that could only support 20% of
13 the prior predator biomass (such as coho salmon)." With a reduction in zooplankton levels by
14 more than 70% in the past two decades, West Coast salmon have declined by at least 70% as
15 well. In addition, the salmon numbers are further reduced because the warmer water attracts
16 predators such as mackerel and Pacific hake. These fish doubly threaten the salmon by
17 consuming the reduced zooplankton food supply and by eating the salmon themselves.

18 35. Notwithstanding these adverse effects, the Department other fishery agencies
19 continue to authorize salmon and other harvests with direct and adverse impacts on fish. The
20 available data suggest that the actual, quantitative impact of large numbers of suction dredgers
21 operating under the injunction would not injure so much as a single fish, and certainly would
22 involve less impact on fish than a single, successful fisherman might have in a day of fishing.

23 36. In assessing the impact of suction dredging, it is important to remember that there
24 was an era in California of widespread hydraulic mining that could and did frequently wash
25 entire hillsides into California rivers, and cause widespread problems downstream. These events
26 did not cause the extinction of any of the fish species about which suction dredging opponents
27 testify, and I am not aware of any research even showing an appreciable impact on history
28 harvest levels.

37. The degree of risk to sensitive species imposed by tiny suction dredges, with effects that are in substance non-existent compared to this historical mining, must be evaluated in light of this history and with common sense. A single river rafter wading in to the river “could cause”, or “threaten”, or “pose a risk to” sensitive fish species because he or she may step upon eggs and kill them, but no one contends that such risks, of even greater magnitude than those caused by suction dredgers (because unlike the dredgers, the rafters are not restricted from operations when eggs are in the gravel), should result in an order that no human being may any longer enter California rivers. Common sense should apply to the assessment of dredging risks as it applies to the impacts of other river users.

I certify under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on June 17, 2015.

Joseph C. Greene

Joseph Greene

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UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
OAKLAND DIVISION

KARUK TRIBE OF CALIFORNIA,
Plaintiff,

v.

UNITED STATES FOREST SERVICE, *et al.*,
Defendants.

Case No. 04-4275 (SBA)

**DECLARATION OF DENNIS MARIA IN
OPPOSITION TO PLAINTIFF'S MOTION
FOR SUMMARY JUDGMENT**

Date: June 21, 2005
Time: 1:00 p.m.
Ctm: 3, 3d Floor

Judge: Hon. Sandra B. Armstrong

I, Dennis Maria, declare as follows:

1. I reside in Yreka, California. I am 55 years old and competent to testify.
2. I am a watershed biologist by profession. I obtained my Bachelor of Science degree in wildlife management from Humboldt State University in Arcata, California in June, 1973. I have spent nearly my entire professional life since 1975 working with fish and fisheries management issues with 24 years working specifically on fishery related issues related to the Klamath-Trinity Basin.

1 3. Until I retired on April 1, 2005, I was employed full-time by the California Department of
2 Fish and Game as the watershed biologist assigned to the portion of the Klamath River watershed
3 extending upstream from the confluence of the Trinity River to the Oregon border. Including
4 seasonal work, I have worked for the California Department of Fish and Game for thirty-one and-
5 a-half years, with nearly twenty-five of those years in the capacity as a fishery biologist.

6 4. I have spent a lot of time observing dredging operations on the Scott, Salmon and Klamath
7 Rivers. This included underwater observations of suction dredging operations in order to determine
8 the effects of suction dredging on fish, benthic invertebrates, and other species. I provided key
9 input to the CEQA process described below that created existing dredging regulations, restrictions,
10 and allowances applicable to Siskiyou County and the Klamath National Forest. I have actively
11 monitored existing conditions and dredging activity since the adoption of the existing dredging
12 regulations, and have made recommendations concerning the need for any changes.

13 5. I have reviewed the declarations of Leaf Hillman and Toz Soto in support of the Plaintiff's
14 Motion for Summary Judgment, as well as the Summary of Fishery Issues Concerning Suction
15 Dredge Mining ("Grunbaum Summary") by Jon Grunbaum dated April 20, 2004 (Administrative
16 Record of Suction Dredging Activities ("A.R.") at 294-99).

17 6. In my experience and based on my observations, suction dredging in the Klamath National
18 Forest does not cause any significant harm to fish and other wildlife if it is conducted in accordance
19 with California law and regulations. The Hillman and Soto Declarations and the Grunbaum
20 Summary fail to show that suction dredging causes harm to the resources that allegedly support the
21 Karuk Tribe. In fact, during the fall of 2004, I made several requests by e-mail to Mr. Toz Soto
22 asking him for his field data and field notes in order to evaluate his allegations that fish, specifically
23 sturgeon, lamprey and coho, were being irreparably harmed by dredging. My intent was to evaluate
24 his data in order to determine if suction dredge regulation changes were needed on the Salmon
25 River. I never received a response from either e-mail request I made.

26 7. The Hillman and Soto Declarations and the Grunbaum Summary do not mention that
27 California regulates suction dredging. The statutes controlling suction dredging are Cal. Fish and
28 Game Code §§ 5653-5653.9. These statutes require suction dredgers to obtain an annual permit and

1 follow the dredging regulations. The suction dredging statutes give the California Department of
2 Fish and Game the authority to issue regulations concerning suction dredging. The regulations are
3 codified at Cal. Code of Regulations. Title. 14, §§ 228 and 228.5 (1994)(copies are at A.R. 280-
4 293). Failure to obtain a permit before dredging or to follow the dredging regulations is punishable
5 as a misdemeanor. In addition, failure to follow the dredging regulations may subject the dredger to
6 civil penalties under Cal. Fish and Game Code § 1602, as in a case in which I provided testimony
7 concerning river flows and levels at the trial. *People v. Osborn*, 116 Cal. App. 4th 764 (2004). In
8 the Osborn case the defendant suction dredger was alleged to have dredged into the bank and was
9 sued for violation of former Cal. Fish and Game Code § 1603 (now § 1602) which prohibits
10 substantially changing the bed, channel or bank of a river without first providing notification to the
11 California Department of Fish and Game.

12 8. The Soto Declaration states, for example, at paragraph 9 that “[l]arge boulders, stumps, and
13 rootwads in the stream may be moved before a site is excavated, which reduces stream stability.”
14 The dredging regulations prohibit, among other actions, moving anchored, exposed woody debris
15 such as root wads, stumps or logs. Cal. Code Regs. tit. 14, § 228(f)(4)(1994)(A.R. at 286).

16 9. The Hillman and Soto Declarations and the Grunbaum Summary do not mention that an
17 extensive process was undertaken by the State of California as required by the California
18 Environmental Quality Act (CEQA)), codified at Cal. Pub. Res. Code §§ 21000-21178.1, to finalize
19 an Environmental Impact Report on the effects of suction dredging. A copy of the summary of the
20 Final Environmental Impact Report of April 1994 for “Adoption of Regulations for Suction Dredge
21 Mining,” which explains the process and the considerations considered in developing the current
22 dredging regulations, is attached as Exhibit 1 to this declaration. As a result of the CEQA process,
23 regulations were created to mitigate concerns and reduce negative impacts to less than significant.
24 This included regulations to close streams to protect salmon redds (eggs) and juveniles during
25 critical time periods, restrict the size of dredges allowed in different waterways, prevent dredging
26 into the banks of rivers, prevent importation of silt into the waterway, and many other measures to
27 reduce or eliminate impacts that potentially could create a significant impact. I personally
28

1 contributed to the CEQA process insofar as Siskiyou County (location of the Klamath National
2 Forest) waters are concerned.

3 10. Mr. Hillman's declaration simply consists of unsupported conclusions concerning the effect
4 of suction dredging on fish and other natural resources. Mr. Grunbaum and Mr. Soto are known to
5 me to work as fisheries biologists working in the Klamath National Forest. Despite having the
6 opportunity to observe and measure the effects of dredging operations in the Klamath National
7 Forest the Soto Declaration and the Grunbaum Summary state only speculations unsupported by
8 data or actual observation. They contain no actual data, observations, or measurements concerning
9 the effects of actual suction dredging operations in the Klamath National Forest or anywhere, apart
10 from the four photographs of showing dredges contained in Exhibit 2 to the Soto Declarations.

11 11. I have personally observed actual suction dredging sites and determined whether such
12 operations were likely to affect fish species. For example, on September 15, 2003 (the final day of
13 the California dredging season along the Salmon River), the California Department of Fish and
14 Game (DFG) organized an inspection, to which it invited the Karuk Tribe, the U.S. Forest Service,
15 the local environmental activist group called the Salmon River Restoration Council (SRRC), any
16 local residents who might want to attend, and The New 49'ers. Thirteen people participated in the
17 inspection, including Pete Brucker from SRRC, seven people from the Forest Service (including
18 two District Rangers, three minerals officers and one fish biologist), and three representatives of
19 The New 49'ers. I headed up the inspection as the lead California Department of Fish and Game
20 fishery biologist from Yreka, accompanied by my supervisor, Mr. Bob McAllister from Redding.
21 We examined several locations on the main stem of the Salmon River that had experienced
22 dredging during the 2003 dredging season on that river (July 1-September 15).

23 12. At least three of the photographs in Exhibit 2 of the Soto Declaration show dredges at a part
24 of the Salmon River approximately one mile upstream from the confluence of the Salmon River
25 with the Klamath River. This was the first site we examined on September 15, 2003. I observed
26 that this region was primarily a run with little if any cover associated with the wetted channel. The
27 dredge holes in the riverbed created the only discernable juvenile rearing habitat that I witnessed.
28 My experience also tells me that the dredge holes that were created likely were providing thermal

1 relief in a reach of the Salmon River that typically exceeds 70F during July and August, benefiting
2 primarily juvenile steelhead and coho salmon. My files indicate that little, if any spawning by coho
3 salmon occurs in this reach of the Salmon River and Mr. Brucker of the SRRC confirmed this was
4 true based on numerous SRRC s surveys conducted over recent years.

5 13. I wrote a report concerning my observations from this inspection. I concluded as follows: "*I*
6 *saw nothing that would be considered a violation or that would have a significant impact to the*
7 *fishery or significantly negatively impact the overall biotic community of the Salmon River.*"

8 14. The California Department of Fish and Game was approached last year by the Karuk Tribe
9 (represented by Mr. Soto), the Six Rivers National Forest, and the Klamath National Forest, with
10 request to restrict suction dredging by persuading the Department to change the dredging
11 regulations to make them more restrictive by closing certain waterways to dredging, further limiting
12 the dredging season, and the like. The Department's position was that it is interested in considering
13 the merits of regulation changes that have demonstrable benefits to fish species, and particularly the
14 anadromous fish species. However, any changes to the regulations must be supported by data, such
15 as survey and trapping reports, which clearly confirm that the current regulations result in negative
16 impacts to fish. Furthermore, the data would have to show that the changes would decrease those
17 impacts. The "concerns" raised by the Hillman and Soto Declarations and the Grunbaum Summary
18 are examples of the data-free submissions that cannot support a regulation change at this time.

19 15. The Administrative Record for this lawsuit contains a good example of a request to change
20 the dredging regulations to make them more restrictive. The supervisors of the Klamath National
21 Forest and the Six Rivers National Forest wrote to the director of the California Department of Fish
22 and Game on November 19, 2004 requesting that the Department consider changes to the dredging
23 seasons (set forth in Section 228.5 of the dredging regulations) because "the current suction
24 dredging regulations create administrative challenges to the Six Rivers and Klamath National
25 Forests" and incidentally "**may cause** direct impacts to several fish species on the Klamath and Six
26 Rivers National Forests." (A.R. at 300-302) The only supporting documentation was a one page
27 chart (A.R. at 302) of alleged life phases of five fish species with respect to the dredging seasons on
28 various rivers. The only support for this chart was said to be "the review that was based on current

1 literature, field surveys by the Forest Service, Fish and Wildlife Service, and the Karuk Tribe, and a
2 discussion with California Department of Fish and Game biologist Dennis Maria [the undersigned
3 declarant].” (A.R. at 300) The response dated February 24, 2005, by Regional Manager Donald B.
4 Koch of the California Department of Fish and Game, requested the data supporting negative
5 impact of current regulations and decrease of impact due to the requested changes in the
6 regulations. (A.R. at 304-305) The Administrative Record reveals no further correspondence
7 concerning this request.

8 16. I am familiar with the Klamath National Forest and its watercourses. The “Riparian
9 Reserves” in that Forest, as shown in the Management Area 10 map in the Klamath National Forest
10 Land and Resource Management Plan available at :
11 http://www.fs.fed.us/r5/klamath/publications/pdfs/forest_management/managementareamaps2.pdf
12 (accessed May 14, 2005), includes essentially all land in the Klamath National Forest that is near a
13 watercourse or body of water. The Klamath National Forest contains rugged terrain that has many
14 streams and creeks in addition to the rivers. Only the sides of mountains and hills that have no
15 streams and the tops of the mountains and hills are not in “Riparian Reserves.”

16 I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.
17

18 DATED: This 17th day of May, 2005.
19
20

21 /s/ Dennis R. Maria
22 Dennis R. Maria
23
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CERTIFICATE OF SERVICE

I certify that on May 17th, 2005, I electronically filed the foregoing
DECLARATION OF DENNIS MARIA IN OPPOSITION TO PLAINTIFF'S MOTION FOR
SUMMARY JUDGMENT, with the Clerk of the Court, using the CM/ECF system, which will send
notification of such filing to the following:

Joshua Borger, srmeredith@envirolaw.org

James Russell Wheaton, sarah-rose@thefirstamendment.org

Roger Flynn, wmap@igc.org

Barclay Thomas Sanford, Clay.Samford@usdoj.gov

Brian C. Toth, brian.toth@usdoj.gov

s/ James L. Buchal

JAMES L. BUCHAL

Attorney for The New 49'ers, Inc. and Raymond W. Koons

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ATTESTATION OF SIGNATURE

I hereby attest that I have on file all holograph signatures for any signatures indicated by a
“conformed” signature (/S/) within this efiled document.

Executed this 17th day of May, 2005.

s/ James L. Buchal
James L. Buchal

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I am a citizen of the United States, over the age of 18 years, and not a party to or interested in the within entitled cause. I am an employee of Murphy & Buchal, LLP and my business address is 3425 SE Yamhill Street, Suite 100, Portland, Oregon 97214.

REPLY DECLARATION OF JOSEPH GREENE IN SUPPORT OF MINERS' JOINT
MOTION FOR INJUNCTION AGAINST DEFENDANTS

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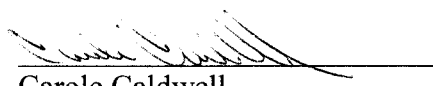
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