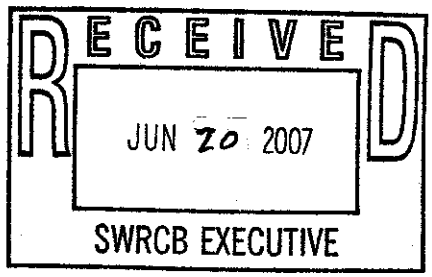
6/12/07 Workshop
Suction Dredge Mining
Deadline: 6/22/07 Noon

The New 49'ers

27 Davis Road, Happy Camp, CA 96039 (530) 493-2012 dcmccra@attglobal.net

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



6 June 2007

Dear Sirs,

My name is Dave McCracken. I manage The New 49'ers Prospecting Organization in northern California, where our members have access to over 60 miles of mining claims along the Scott, Salmon and Klamath Rivers, and some of their creek tributaries in Siskiyou County. We have around 1,300 active members, some who use suction dredges under permit from the Department of Fish and Game (DFG).

As I have been actively managing this program for the past 23 years, I have had plenty of opportunity to observe the impact upon water quality from the effects of suction dredging. My personal observation has been when any visual impact can be seen at all, the impact is small and localized. This observation has been similarly reflected by numerous studies and published reports on this subject. For example, a report on the water quality cumulative effects of placer mining on the Chugach National Forest, Alaska found:

> **"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).**

I was operating a 12-inch dredge under Special Permit along the Klamath River during the early 1990's. As part of that Special Permit process, DFG biologists visited the area where I was dredging and conducted turbidity sampling above my dredge and around 200 feet below my dredge. They were not able to determine any increase in turbidity. Therefore, my Special Permit to operate the 12-inch dredge was approved for as long as I continued to apply for it. These observations were consistent with other published information on this subject:

> **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).

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."

As I am sure that you aware, environmental interests have been trying to eliminate suction dredging from California's waterways for a long time. During recent years, they have been making noise about the possibility that the localized increased turbidity behind some suction dredges may contribute to raising water temperatures in the overall waterway. With concern over this possibility, we hired two qualified fish biologists (both retired from the EPA) two years ago to perform water temperature testing upstream and downstream of active dredging operations along the Klamath River. They tested in numerous locations, and were not able to find <u>any</u> measurable increase in water temperature behind operating dredges. Although, in some cases, they <u>did</u> discover cooler water within the dredge holes, and cooler water within the discharges from the dredges which were sucking up the cooler water (probably ground water) from the dredge holes. Similar results were acknowledged by published material on this subject:

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 (SNF, 2001) states, "*There is no evidence that suction dredging affects stream temperature.*"

I was personally directly involved with the California Environmental Quality Act (CEQA) process during 1993 and 1994 (and again in 1997), when existing State-wide suction dredge regulations were adopted by California. I recall that the State Water Resources Control Board enacted a State-wide exemption at that time for persons operating suction dredges in conformance with Section 5653 suction dredge regulations. As I recall, this exemption was issued to simplify the permitting process for suction dredgers (many who visit from out of state and only suction dredge during a brief holiday

or vacation), and also to not burden the State Water Resources Control Board or its Regional offices with applications from thousands of (very) small-scale gold miners who have a negligible impact, if any, upon water quality. This was somewhat reflected in the environmental Impact Statement (EIS) which was published by DFG at that time:

> ***Suction dredging causes less than significant effects to water quality.*** **(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).**
> **"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).**

As far as I know, the most comprehensive study to date concerning how water quality is affected by suction dredging was contracted by the EPA to analyze of the effects on mining in the Fortymile River in Alaska. The report 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).

While I acknowledge the possibility exists that a suction dredger could encounter an occasional patch of particularly-silty streambed, while dredging in a smaller-sized waterway, which could cause detectable increased turbidity levels some extended distance downstream, this would be a rare anomaly which seldom occurs. My guess is that our adversaries in the environmental community will grasp at these very rare occurrences to push their own agenda -- which we all know has less to do with the health of fish, than it does about trying to rid America's public lands of productive activity.

Nothing short of complete prohibition of all productive activity can guarantee that an occasional anomaly might not occur. This is true of any regulated activity. We would not want to see the Statewide exemption for suction dredgers un-renewed just because of the possibility of a rare anomaly. There are several reasons to pause and consider:

1) The occurrence of excess turbidity by suction dredgers is so rare, there is no evidence that we are aware of suggesting that those rare occurrences have ever harmed a single fish or other aquatic species.

2) The burdensome and expensive requirement for suction dredgers to acquire a water quality permit would all but eliminate the activity in the State of California. DFG is already charging out-of-state visitors $167.25 for an annual suction dredge permit. That's already a lot of money to spend on a permit for someone who is only going to visit for a few days or a week or two. I know, because I am in the business of trying to bring visitors to California. And I can tell you that many who would otherwise come here are already discouraged from coming because of the cost of the existing suction dredge permit.

Adding a burdensome water quality permit to the process will also discourage most Californians who presently enjoy the activity of suction dredging.

Gold prospecting has been a productive activity in California since before we were even a State. And while I acknowledge that some of the earlier practices were harmful to the environment, suction dredging today is carefully regulated by DFG and other agencies to ensure that the overall impacts do not create any measurable negative impact.

With this in mind, I encourage you to please weigh the negatives against the positives when you make a decision concerning a renewal of your state-wide exemption for suction dredgers. While I understand that economic consequences not your first concern, good leadership and responsibility to Californians require State agencies to take an honest look at the costs and benefits of the various policies which are being considered.

In this case, if you choose to not renew the state-wide water quality exemption for suction dredgers, I can nearly guarantee that you will eliminate an entire industry in this State; an industry which does a great deal to help support many rural communities; an industry that generates millions upon millions of dollars in income for California -- and would continue to do so for the foreseeable future. We hope you will carefully consider what will be gained before you destroy our industry!

Thank you very much for considering my comments.

Sincerely,

Dave McCracken
General Manager, The New 49'ers