commentletters - Effects on water quality within rivers/streams of suction dredging for gold

6/12/07 Workshop

Suction Dredge Mining

Deadline: 6/22/07 Noon

From:

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To:

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Date:

Sun, Jun 17, 2007 5:30 AM

Subject:

Effects on water quality within rivers/streams of suction dredging for gold

JUN 17 SWRCB EXECUTIVE

I would like to comment on the effects on water quality due to operation of suction dredges. I have been involved in gold dredging as a recreational pastime for 21 years. I have operated gold dredging equipment in Australia, New Zealand and Canada. I have been an active member of, "Prospectors and Miners Association" of Victoria Australia plus "The Australian Gold Dredgers Association".

The operation of a suction dredge in a freestone river environment, common type of river where payable gold bearing rivers exist, will result in a small localised effect on turbidity measurements. This quickly reverts back to background levels of the stream fairly quickly. This observation is reported in many scientific reports done on this type of mining. Many reports where done in USA and also Australia. From studies done on active dredging operations in the Goulburn River (Victoria Australia) turbidity was measured at 10, 50 & 100 metres downstream of an operating dredge, the turbidity measurements had returned to background levels. The many years i have spent in close proximity to gold bearing waterways i have noticed that natural flooding would raise the rivers turbidity far more than a large number of operating dredgers could.

Mercury levels, the Goulburn river in Victoria Australia has a very long history of productive gold mining, mercury was used in the stamp mills of the many rich gold mines in the period 1860-1990. Also there is naturally occurring mercury there, (cinnabar lodes). Operators of suction dredgers did locate mercury coated gold, amalgam plus mercury in globular form, at least some of this has been removed

from the river system. Another popular gold dredging stream in Victoria was the Tanjil river, the EPA and Victorian Fisheries department often check fish for mercury readings. There was a large decline in mercury levels of fish sampled after the popular dredging years on the Tanjil late 1970s to mid 1980s. The conclusion i make here is that gold dredging and subsequent removal of mercury recovered by the mining operations in the Tanjil river had reduced the mercury level of the resident fish. Also a huge quantity of spent lead shot and sinkers were recovered, even in very remote areas?

In 1993 the Ovens river system Victoria Australia had a major flood, the worst in living memory, the Ovens system is a freestone gold bearing river similar to many Californian streams, the flood was very destructive causing massive erosion. Many studies where done on the effect on fish etc. The experts were surprised that how quick the river system recovered.

Also in 2003 and 2006/2007 Victoria had some very large forest fires over 1 million hectares each time, burnt for 60 days, its surprising how quick the forest and river systems recover.

The Big river was the last stronghold of suction dredging in Victoria, dredging was banned in 1990 after many reports could not find any evidence of any long term damage to the river, they banned it just in case?

Only a year or two after that the Big river was proclaimed a heritage river, as it is in very pristine condition, water quality, essentially natural, proving that the gold dredging had not destroyed the river at all. I can take anyone willing to see it there!!

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