

**PROJECT:** Alaska Placer Mining Cumulative Environmental Impact Statements

**AGENCY:** Bureau of Land Management, Anchorage, AK

**INVOLVED PARTIES:** BLM, U.S. Army Corps of Engineers, State of Alaska Department of Environmental Conservation, Sierra Club Legal Defense Fund

The BLM prepared four court-ordered EISs in the late 1980s to address the cumulative environmental impacts of placer gold mining in four large watersheds in central and eastern Alaska. A lawsuit (Sierra Club v. Penfold) alleged that individual mining operations were cumulatively contributing sediments and pollutants to river ecosystems. These rivers provided subsistence fisheries to Native Alaskans and sport fishermen. The court enjoined BLM from approving new plans of operations until it could quantify the cumulative impacts of the hundreds of mines up and down these rivers.

To quantify the cumulative impacts caused by mining BLM compiled thousands of water quality records for all rivers within the enjoined watersheds, which included streams with private and State mines. The region is mostly undeveloped wilderness, so it was relatively straightforward to identify all activities. In other words, whatever occurred as a result of mining was the basis of the environmental impacts within the affected area.

Prior to the lawsuit and injunction, BLM routinely approved plans of operations with standard mitigation measures. One of the key elements of this policy was that all mines had to comply with Section 404 of the Clean Water Act. This provision required miners to get permits from the Army Corps of Engineers and State of Alaska Department of Environmental Conservation as part of their mining plans. It was BLM's position that if the Corps and State issued the 404 permits, no undue or unnecessary impacts could occur. The court stated, however, that it was BLM's responsibility to consider the potentially cumulatively significant impact caused by individually small and permitted levels of effluent discharged by the hundreds of BLM mines.

The four EISs were completed in 18 months and the lawsuit was dropped after BLM agreed to modify its requirement for mitigation plans from miners. The EISs showed that some cumulative impact could be attributed to BLM's placer mining program in the enjoined watersheds. BLM's sediment model added the individual contribution from each mine ("end of pipe") for a total amount. BLM showed that some sediment dropped out during normal stream flow, but higher than background levels of turbidity and some sediments persisted throughout the watershed. The increase in sedimentation and turbidity was then analyzed to determine impacts on these resources against the biological needs for benthic macrobiotic communities and fisheries. The direct and indirect impacts of these impacts were then assessed against other resources, such as recreation, subsistence and sportfishing.

BLM also analyzed the loss of upland habitat from road building and staging areas in support of mining. These activities also were shown to contribute to the overall cumulative impacts of placer mining in the region.

The assessments demonstrated that other, non-Federal, mines were contributing a far greater sediment load and pollution because they were not protected by Federal regulations and oversight.