

MEMORANDUM

State of Alaska

50.901

TO: Ed Huizer
Water Rights Coordinator
Division of Commercial Fish
DF&G, Juneau

DATE : April 19, 1967

FROM: Tom Richardson
Area Management Biologist
Division of Commercial Fish
DF&G, Juneau

SUBJECT: Salmon Creek Dam Rehabilitation

Concerning our meeting on April 10, 1967, with Mr. Norton and Mr. Childs of A. J. Industries, I have checked our library for any reference on the toxic affect of cement on fish life. Apparently we have no literature available on this subject. However, the high pH values associated with lime solutions is mentioned as being quite toxic to fish.

Steve Smedley cites three instances of fish mortalities in his experience with the California Department of Fish and Game that resulted from leaching cement. Stan Swanson pointed out that cement leaching into Ketchikan Creek from a bridge construction project in 1959 drove all adult salmon that were below the effluent source out of the stream.

There is, therefore, a definite threat to fish in Salmon Creek if sufficient amounts of cement from resurfacing grout and gunnite get into the stream.

It appears to me that timing and discharge are important factors to consider in this operation besides making sure that the contractor is doing everything within his ability to keep this material from entering the stream. The ideal time for the work would be prior to appearance of salmon in the stream, i.e., prior to August 1. A. J. Industries indicate that it will be very late in the summer before the work can be accomplished. High discharge is important to dilute the effluent as much as possible. Mr. Norton has indicated to us that he will attempt to divert a large portion of the contaminated water immediately below the dam into the powerhouse flume, thus reducing pollution of the main stream.

I would like to collect water samples of Salmon Creek before and during the operation. We will need to know the exact time that the contractor will initiate and complete the gunniting and resurfacing work in order to get samples during the peak of highest possible contamination and observe effects on fish, if any, in the lower stream.

CC: Roy Rickey, Stan Swanson, Roger Wadman ✓