

Washing continues at mine

By RUSS PARADICE

A much bigger section of the abandoned Mt. Washington open pit copper mine will likely be excavated and washed down this summer as part of the B.C. government's ongoing quest to stop a deadly flow of copper leachates from streaming out of the mine into the Tsolum River.

The source of the copper pollution is a phenomenon known as acid mine drainage, the mining industry's number one environmental headache. The copper pollution has decimated fish runs on the Tsolum.

Black Creek resident Father Charles Brandt, who first started lobbying Victoria in the early 1980s to save the Tsolum, says officials from several provincial and federal ministries recently met in Nanaimo to discuss the project results to date and determine what should be done next.

Last summer, the provincial Ministry of Energy, Mines and Petroleum Resources hired a contractor to excavate the waste rock from a very small section of the pit floor, "a test strip," and then wash down the uncovered bedrock.

Monitoring devices were set up to determine if the work in the test strip area decreased the amount of leachate coming from it.

Keith Ferguson, an environmental engineer with the federal Environment Ministry, said Monday the monitoring results show the test work had some "positive" effect.

However, the test results are not "completely definitive" because water from either side of the test strip drained into the area, making it difficult to extrapolate pure data on the effectiveness of the work, Ferguson says.

Brandt says officials at the Nanaimo meeting generally agreed that a much larger area of the pit floor, anywhere from a half acre to an acre, should be excavated and washed down this summer, funds permitting.

Brandt says the excavated waste rock will be pushed against

the base of the pit floor where it will be encapsulated with an impermeable cover, possibly made of concrete.

Although he admits to being "impatient" over the reclamation project's slow progress, Brandt says he's fully confident the provincial government will follow the project through to a successful conclusion.

Ferguson said he's also optimistic a permanent solution will be found to the vexing problem.

The Ministry of Energy, Mines and Petroleum Resources is the lead ministry for the project. The ministry has conducted work on the mountain over the last three summers.

The acid mine drainage problem at Mt. Washington is coming from waste rock left at the site. During the mine's brief lifetime in the mid-1960s, waste rock was put into two main dumps

located beside the shallow open pit mine.

Acid mine drainage occurs when water and oxygen in the air combine together and come in contact with the sulphide compounds that are present in certain types of rock. This naturally-occurring phenomenon is in-

tensified when these rocks are broken or crushed, as is the case with waste rock. The acid produced, in turn, leaches (or frees) the copper and other metals in the rock.

Over the course of two summers, 1988 and 1989, loose piles of waste rock around the dump were collected and put on top of the two main dumps. The dump thought to be the source of the acid mine drainage problem was sloped and completely covered by a one-metre thick blanket of glacial till, which officials dubbed a "giant raincoat."

By keeping water off the waste rock and preventing oxygen from getting to it, officials hoped to stop the acid drainage process from ever taking place. But subsequent water samples showed no significant improvement in the water run-off, meaning the raincoat alone couldn't solve the problem.

It was later determined that acid was being generated in the compacted waste rock left on the pit floor itself. Officials are now grappling with ways of dealing with this problem.