

## ENVIRONMENT

## Tsolum: Concern for this damaged river grows

By Father Charles A. E. Brandt

THERE IS A GROUNDSWELL occurring, a renewed interest in the Tsolum River Watershed. It is coming not so much from politicians, or from organized environmental groups, but from the people themselves who live and work in the watershed. And this is how it should be. For unless a movement springs from a grassroots level, it can very easily get bogged down in bureaucratic wrangling.

In the '50s, the Tsolum boasted great runs of salmonids: runs of pink salmon in excess of 150,000; coho runs in the thirty thousands; chums and cutthroat in the lower regions of the river; and steelhead trout in the 17-23 pound range. The river was rich in small invertebrate life, mostly free from silt, and ran through a splendid forest of fir, hemlock and cedar.

The decline of this fabulous river — as with many of our Island rivers — began with the clear-cut logging that occurred along almost its entire length. The logging eventually brought flooding to the river, movement of gravel, silting and smothering of eggs and invertebrate life, and finally, with extremely low flows in the late summer months, the consequent depletion of oxygen and increased temperatures.

Coupled with the disaster of clear-cut logging was the lowering of the water levels due to extraction by irrigation and household use. As well, toxic farm fertilizers have left their impact on the river. When the air base was constructed at

Comox, vast quantities of spawning gravel were removed directly from the streambed to construct the concrete runways.

And then, to cap it all, Mount Washington Copper moved into the upper watershed, just to the east of Mount Washington ski area and alongside McKay lake, and in 1964 commenced its open-pit mining of copper and precious metals.

Exceedingly short-lived, the company went into receivership in 1966, leaving in its trail the unreclaimed pits where pyrite ores lay exposed to water and oxygen. This ore, with a high content of sulphur, quickly formed sulphuric acid by coming in contact with the oxygen and water.

From the exposed ore, copper leachate formed and moved into the watershed until it reached the Tsolum River, and eventually the Puntledge where together they form the Courtenay River, and so on into the great Courtenay Estuary.

Copper is the dreaded enemy of young salmonids (coho fry and smolts, along with pink and chum, steelhead and cutthroat fry), and it is a scientific fact that the amount of copper that finds its way yearly into the Tsolum watershed kills young salmon and deters adult salmon escaping back to the river to spawn.

For 10 years the government has



Mount Washington mine site: problems 30 years later

attempted a cure of this acid mine drainage (AMD), costing the taxpayers of the province more than \$1 million to date.

The cure has been illusive. Today, there is as much copper in the river as there was 10 years ago. When the government began its remedial action in 1988, it followed the number one option recommended by SRK (Steffen Robertson & Kirsten, a Vancouver firm) and gathered all of the overburden into one great pile, mixed it with lime and then covered it with one metre of till. It was a beautiful piece of work and formed a giant raincoat over the ore pile. Overlooked at the time was the effect ground water had in producing leachate as it moves through the fractured pit floor.

SRK had several other options, which

were not looked at seriously at the time. One of these options was "treatment." That is how most mine operations deal with their leachate. For example, Westmin, where they simply treat the leachate with lime which precipitates the copper. They deposit the sludge formed from this operation down an abandoned mineshaft, leaving no problem.

It now appears that a treatment plant will be the ultimate solution to the Mount Washington problem. We are looking at a cost of approximately \$6 million dollars. That may seem like a lot, but SRK estimated that

at present the community is losing approximately \$2 million a year from the Tsolum River resource (fish plus jobs plus recreational value). So far, \$60 million dollars has gone down the drain.

To prepare for the final solution to this great river, much work needs to be done — and many members of the community are already involved.

As well, the Comox Valley Chapter of the Steelhead Society — through its Tsolum River Enhancement Committee, The Tsolum River Watershed Protection Society, and the Black Creek Ratepayers Association — is making contributions through deep concern for this river. Finally, a new Watershed Co-ordinating Assembly has been established.

We are on the eve of a new millennium. We are at the terminal phase of the cenozoic era, a geological period of 65 million years. The new era will be the ecozoic era, the age of the earth. We have brought about vast changes on a geological and biological order. The four great components of the earth — the landsphere, the watersphere, the airsphere and the lifesphere, are being decisively altered by the more recent sphere, the mindsphere.

The ultimate custody of the earth belongs to the earth. The earth will solve its problems, and possibly our own, if we will let the earth function in its own ways. We need only listen to what the earth is telling us. We are an autistic generation. We don't hear the voices.

We fail to realize that the natural world is not a collection of objects to be exploited, but a community of subjects to be communed with. To enter into this communion experience means that we have to change, that we have to undergo a transformation of consciousness.

So with the Tsolum River. If only we had listened to the earth. We thought we knew best what was good for the river and for ourselves. But it is not too late.

The river will never again be what it was intended to be. But with our new insights, and by working together as a community, we can allow the river to once again flow clean and sweet to the estuary and become the rightful home to those creatures whose home it rightfully is.

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