

MEMORANDUM

TO WHOM IT MAY CONCERN
From: John Field, PhD

14 September 2003

Re: Fish assessment of Hotel Lake and outlet creek

The Area A Quality Water Association recently asked me to review an environmental assessment report of Hotel Lake and its outlet creek prepared by Jacques Whitford Ltd in February 2003. The following are my observations concerning the methods used and certain conclusions drawn by the author(s) of the report.

1. It is my experience that minnow traps are relatively ineffective as a fish sampling method during the winter months (December – February). In part this is because fish feed very little when water temperatures are low, so they respond poorly to baited traps. Fish are also relatively inactive, so are less likely to encounter traps (this would also explain why the gill nets used in another part of the assessment were so unsuccessful). With regard to the observation that no fish were seen in the outlet stream – juvenile salmonids in particular generally spend the winter well hidden under rooted cutbanks and logs.
2. The only salmonid caught during the fisheries assessment was identified as a rainbow trout (apparently incorrectly as intimated in a subsequent letter responding to a query from DFO biologist Dave Nanson). It is surprising that the authors did not refer to the fact that Hotel Lake is well known by anglers in Pender Harbour and beyond for its cutthroat trout. And it is even more surprising that they would prepare mitigation measures only for rainbow trout (in the original report) based on the capture of just one fish.

For both of the above reasons, in my opinion it is inappropriate to put much confidence in the fish data obtained and therefore the recommendations that are based upon them.

3. The mitigation measures presented in the report are based on an assumption that lake-resident salmonids spawn in late winter. At this time the outlet creek would be expected to be flowing, and therefore fish would be able to enter it for spawning. Based on the following observations, I don't think that this assumption is necessarily valid. (1) Ruby Lake, one of the other lakes in the larger Sakinaw Lake watershed (of which Hotel Lake is also a part) is well known for its fall-spawning race of cutthroat trout. (2) In mid-November 2001, I observed fully mature cutthroat trout migrating out of Sakinaw Lake into Ruby Creek. (3) In December 2000, a Salmonid Enhancement Program volunteer reported capturing a running-ripe female cutthroat trout in Mixal Creek. For these reasons, I believe that there may be fall-spawning cutthroat trout throughout accessible streams of the Sakinaw Lake watershed.

The mitigation measures described in the report would not benefit a fall-spawning race of cutthroat trout. If anything, they would have a detrimental effect.

4. Another assumption made in the report is that peamouth chub from Hotel Lake spawn in the outlet creek sometime in late April or early May. I don't have specific

knowledge about the habits of chub in this lake, but I would like to point out that this species has been observed spawning during early June in Mixal Creek. It would be best to obtain data specific to Hotel Lake before allowing any possibility of the lake being drawn below the outlet sill level earlier in the year, as proposed in the mitigation measures described in the assessment report.

5. It is incorrectly stated in the report that coho salmon spawn in Mixal Creek in “October/November”. It is amply documented that adult fish *enter* Sakinaw Lake at that time, but that they then hold in the lake for a month or more while they mature. They begin to enter the streams where they spawn, such as Mixal Creek and its feeder lakes and tributaries, in early December (in most years). The major run occurs early in the season, but small numbers of fish have been observed spawning into the middle of January.