

# ***Issues of Concern Regarding Aur Resources' Proposed Duck Pond Mine in Central Newfoundland***

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Aur Resources plans to destroy two lakes in central Newfoundland—natural water bodies that are vitally important habitat for trout, salmon, otter, waterfowl, and other species—by using them for the disposal of mine waste that will be acid-generating and environmentally toxic. Aur has argued that the destruction of these lakes for its “Duck Pond” copper-zinc mine is the best alternative for disposal of its mine wastes.

Canadian regulatory authorities have not challenged this assertion and have recommended that the Metal Mining Effluent Regulations (MMER) under the Fisheries Act be amended by the Government of Canada to add these ponds to Schedule 2 of the MMER. Inclusion on Schedule 2 allows for the redefinition of any water body in Canada as a mine waste dump and subsequently exempts mining companies from the protective requirements set by the MMER on effluent that enters the natural environment. The amended MMER went to Gazette One on April 8, 2006.

## **FACTS FROM THE PUBLIC RECORD PERTAINING TO THE AUR RESOURCES DUCK POND PROJECT**

- 1) Sacrificing ponds, rivers, wetlands—all important fish and wildlife habitat—for a mine with a predicted life span of 6.2 years.**
  - The Duck Pond (copper-zinc) Mine will significantly and permanently affect two main tributaries entering the stem of the Exploits River, Newfoundland's largest river system: Harpoon Brook (Trout Pond, Trout Pond Brook, Gill's Pond Brook) and Noel Paul's Brook (Tally Pond, Tally Pond Brook) (DFO Oct 17, 2001)
  - Two ponds will be permanently buried in mine waste. Trout Pond and another pond (lacustrine habitat) in the headwaters of a tributary to Gill's Pond Brook will be destroyed by environmentally toxic mine waste exceeding Metal Mining Effluent Regulations (MMERs) limits. Both ponds contain brook trout and Atlantic salmon (ouananiche). Trout Pond also contains threespine stickleback, otters, and other species. This area of the watershed contains trout and both landlocked (ouananiche) and sea run Atlantic salmon, as well as waterfowl under an international treaty, and other species, at least one of which is listed by COSESWIC as a “species of concern.”
  - Degradation of riverine habitat. Loss of riverine habitat is expected in “elements of the Harpoon Brook and Noel Paul's Brook watersheds:” (Trout Pond Brook, Gill's Pond Brook, Tally Pond Brook, East Pond Brook) (EIS 2001:236). Riverine degradation is as a result of complete loss of flow, flow alterations, and toxic seepage from mine waste through dams, among others (EIS 2001:260; EIS Deficiency List October 2001). These

waterways contain brook trout, sea run and land-locked Atlantic salmon, Arctic char, American eel, threespine stickleback, among others.

- The Exploits River is a scheduled salmon river and has been part of a major Atlantic salmon enhancement program funded by the Department of Fisheries and Oceans since 1978. **This project has cost upwards of \$30 million public dollars** and was scheduled to become self-sufficient in 1990 and expected to produce 100,000 salmon in full production.

**2) The legal obligation on the proponent and on local Environment Canada authorities to explore alternative mine waste disposal options was not taken seriously.**

- Aur Resources, local Environment Canada – Environmental Protection Branch, the Newfoundland Department of Environment and Labour, and the Department of Fisheries and Oceans did not do all they could to explore alternatives to the destruction of two ponds and significant river/aquatic habitat for mine waste disposal. Environment Canada in Ottawa only found out about the planned destruction of fish habitat in February 2005 (personal communication: Chris Doiron, EC).
- The plan to use Trout Pond as a mine waste impoundment dates back to an EIS prepared by Noranda Minerals Inc. in 1991.
- A review of the public record shows that the Environmental Assessment Division of the Department of Environment and Labour of Newfoundland and Labrador provided Guidelines for a new EIS, after Thundermin Resources and Queenston Mining took over the project in 2000, and requested that the proponents provide “alternatives” to individual project components based on a detailed discussion of environmental, social and economic criteria (Guidelines Dec. 2000:3.3; 7.2). With respect to alternatives to the destruction of two fish bearing ponds by mine waste, the 2001 EIS provides 11 lines of text, one map, and one chart based on a Multiple Account Analysis to conclude that the destruction of Trout Pond is the best alternative for mine waste disposal (pp. 23-25). This conclusion does not appear to be challenged in any of the government reviews of the 2001 EIS (reviews by local branches of Federal Departments and by Provincial Departments), nor is this issue ever addressed again in subsequent environmental reviews, even though the project changed hands once again and further studies were conducted.
- Aur Resources and Canadian regulatory authorities were obligated to seek alternatives to the destruction of healthy fresh water bodies for industrial purposes. In the case of the “Duck Pond” mine, there is an alternative to the destruction of the ponds and surrounding wetlands, but government and the company have ignored it. At the Louvicourt mine (also copper-zinc) in Quebec, where Aur Resources is 30% owner as well as mine manager, the decision was made to not destroy natural water bodies for mine waste disposal, but to create manmade structures. The following quotes from a report published by the mine companies clearly indicate that Aur Resources and Canadian regulatory authorities do have a viable alternative to the destruction of fresh water bodies at this mine.

“The Louvicourt Mine, located near Val d’Or, Quebec, has been in operation since 1994. It produces copper and zinc concentrates. The tailings generated from the ore processing operations have a strong net acid generating potential. Louvicourt Mine, a grassroots project, was designed for closure with the best available technology at the time of design. In order to inhibit short and long term acid generation potential, sub-aqueous disposal was selected at the design stage. Given the fact that disposal in a natural lake was ruled

out up front for obvious reasons related to loss of natural habitat and risks to permitting delays, a man made facility built with dams was planned. The mine includes, therefore, the first fully man-made sub-aqueous tailings disposal facility built in Canada. The requirement of using sub-aqueous disposal had serious implications on the placement of tailings. The tailings facility, located about 9 km from the mine site, has been selected based on the available natural confinement, the favourable foundation, and hydrogeologic conditions” (Abstract, p. 2, emphasis added). “Overall, the use of the man-made structure to control acid generation of tailings has proven to be a successful endeavour” (Conclusion, p. 19, emphasis added).

Source: Performance and Monitoring of the Louvicourt Mine Tailings Disposal Area, M.R. Julien, et al, Golder Associates, and Jean Cayouette, et al, Aur Resources (no date), pp. 21.

3) **“Compensation” plans for “alteration, disruption or destruction of lacustrine [lake/pond] and riverine fish habitat” are based on inadequate and deficient data. The compensation plan review process shows a cavalier attitude towards the natural resources that are being sacrificed.**

- In 1989, initial fish sampling was done between September 21 and October 3, when Brook trout are known to spawn and leave ponds, rendering the results of this sampling unreliable (EIS Deficiency List October 2001).
- The 2001 EIS was rejected by Fisheries and Oceans Canada as it contained “insufficient information...to allow the quantification of fish habitat potentially impacted by the proposed project” (DFO Feb 1, 2002). Additional information was requested for Trout Pond Brook, Gill’s Pond Brook tributary, and Tally Pond Brook systems.
- In 2003, DFO provided new proponent Aur Resources with information on how to conduct field work to establish fish and fish habitat baselines and asked Aur to determine the “productive capacity” of Trout Pond and Gill’s Brook tributary (“Sedimentation Pond”) (Snow, May 22). **Aur was warned that ten days may not be enough time and that sampling should not be done late in the summer when “fish (particularly brook trout) restrict their movements”** (Snow, June 13). **Nonetheless, Aur’s consultants undertook the sampling of Trout Pond and Sedimentation Pond in ten days during the heat of summer.**
- In 2004, the consultants for Aur Resources comment on “difficulty in providing compensation for lost pond habitat” for the two ponds that will be destroyed and suggest that they will compensate with additional riverine habitat units (Jacques Whitford: 8 April). DFO agrees to this plan even though compensating for habitat with “**unlike habitat**” [bold in original] is the “second option within the hierarchy” (Snow: May 19).
- In 2004, DFO commented on Aur’s habitat compensation strategy by noting: 1) it is unfortunate that the sampling during high water temperatures led to the necessary abandonment of using individually numbered tags because of high risk of mortality; 2) Aur cannot claim to have determined the “productive capacity” of the two ponds based on a “single estimate of standing stock for each species in each pond” [underline in original]; 3) Aur can consider undertaking “additional fieldwork during the 2004 field season to reassess efforts undertaken in 2003...” (Snow: May 19). We have seen no evidence that Aur followed DFO’s suggestion and undertook any more field studies to better determine fish and fish habitat affected by the mine.

- In 2005, DFO asked Aur to assess the impacts on fish and fish habitat of a jetty that is to be put into yet another pond – Tally Pond – from which water will be drawn for the mine. Aur's consultants conclude: "As no standing stock estimate has been determined for Tally Pond, data from Trout Pond has been used to produce surrogate standing stock estimates." DFO accepted this. In other words, an estimate based on minimal field studies from Trout Pond, which is quite different in proportions and other characteristics, was considered an acceptable means to determine the impacts on fish and fish habitat in Tally Pond.

**4) After a predicted 6.2 years of operations, the destruction of two ponds and the degradation of river/aquatic habitat, this mine will become a "perpetual care and maintenance" mine. In the middle of a critical watershed for Newfoundland, this mine's highly acidic waste has the potential to leach out metals and will need to be kept under water behind a number of dams that will need to be maintained "in perpetuity."**

- Aur has established that groundwater is high in its project area. In 2001, Environment Canada identified that "possible contamination of groundwater by ARD [Acid Rock Drainage] is an issue of concern not further addressed in the EIS" (Env Can, September 25).
- In 2001, The Department of Mines and Energy – Mineral Development Division noted that "[f]inancial assurance for mine rehabilitation and closure must also be addressed" (EIS Deficiency List October 2001). While subsequent submissions by Aur provide some information on closure plans, there is no evidence that a bond has been posted adequate to cover costs of perpetual monitoring of ground and surface waters around the mine and perpetual maintenance of the dams that will keep the toxic mine waste from contaminating the Exploits River system.