AN INCREASING number of mining companies are using or proposing to use Canadian lakes, streams and wetlands as mine waste dumps, mostly with constructed containment dams. The impacts and proposals are spread throughout the nation’s provinces and northern territories:

- In the Northwest Territories, Tyhee NWT Corp. plans to use Winter Lake for dumping at its Yellowknife Gold project. BHP Billiton has dumped tailings into Long Lake at its Ekati diamond mine, where kimberlite ore and waste rock are acid-generating and acid rock drainage is leaching into groundwater. The mine polluted a large area of tundra when it spilled more than four million liters of tailings from its system in May 2008. At the nearby Diavik Diamond mine of Rio Tinto and Harry Winston, the tailings pond destroyed a small valley lake on the Eastern Island.

- In Saskatchewan, Golden Band Resources at its Jolu Central Gold mill is proposing to dump more than 200,000 tonnes of tailings per year into Mallard Lake, which was previously used as a tailings dump. The previous dumping between 1973 and 1997 had caused severe contamination in the water and sediments of Mallard Lake and downstream in the sediments and fish of Yew Lake.

- In Nunavut, Newmont subsidiary Miramar Mining Corp. plans to dump tailings into Tail Lake at its Doris North gold project. Agnico-Eagle Mines Ltd. is using the northwest arm of Second Portage Lake to dump 22 million tonnes of tailings over eight years and plans to turn Vault Lake into a mine pit for its Meadowbank gold project.

- In Ontario, Marathon PGM was considering the use of Bamoos Lake, an important lake trout ecosystem, for its copper and platinum tailings disposal. Local and national opposition has canceled that plan, but its other proposed alternative would still destroy a number of smaller lakes and streams. Near Sudbury, Xstrata owns the Strathcona mill that dumps some nickel and copper tailings into a portion of Moose Lake, and Vale operates the Copper Cliffs mine that is dumping tailings into the remains of Meatbird Lake.

- In Newfoundland and Labrador, Vale (Voisey’s Bay Nickel Company) plans to use Sandy Pond for dumping 381,000 tonnes/year of residue from its Long Harbour nickel processing plant. Canadian Fluorspar is planning on using Shoal Cove Pond, a coastal lake with brook trout and American eel populations, to dump its tailings from an industrial fluorspar mine site it is hoping to re-open at St. Lawrence. Teck has already destroyed Trout Pond and Gill’s Brook tributary for its copper-zinc Duck Pond mine. Rio Tinto dumps around 30,000 tonnes per day of iron ore tailings (up to 23 million tonnes for over 40 years) into Wabush Lake at the Carol mine. Just south of Wabush Lake, Cliffs Natural Resources (Cleveland Cliffs) is dumping approximately 13 million tonnes of tailings annually into Flora Lake and tributary streams at its open-pit Wabush/Scully iron mine.

- In British Columbia, Taseko Mines Ltd. (Hunter Dickinson) proposed to drain Fish Lake (Teztan Biny) and use the basin to store waste rock, and to turn Little Fish Lake and Upper Fish Creek into a tailings impoundment. The proposal was rejected by a federal environmental assessment in late 2010; the decision was consistent with a 2007 decision to reject the proposed Kemess North mine that would have dumped tailings into Duncan (Amazay) Lake. In June 2011, Taseko resubmitted a modified proposal that would still destroy Little Fish Lake, and though leaving Fish Lake intact would likely result in contamination of the lake by seepage from the tailings impoundment.