Remedial action for pollution problem in JackfishBay area

by Rob Cotton
The News

The Jackfish Bay Remedial Action Plan has hired a consulting firm to evaluate the condition of the water in Blackbird Creek.

"The Jackfish Bay Public Advisory Committee(PAC) has been reviewing the current situation and identified the water uses they feel are important," said Jim Murphy, Jackfish Bay Remedial Action Plan(RAP) co-ordinator, with the Ontario Ministry of the Environment.

The next stage, he explained, is to identify ways and means of restoring the water to standards that will allow these water use goals to be met.

The study will provide PAC with information on the condition of the creek, look at feasible remediation procedures, he said.

The Blackbird Creek system has carried the waste water discharge from Kimberly-Clark's fully bleached kraft mill since 1948.

As a result, no aquatic life has been detected in the creek or the small lakes of the system except for rattailed maggots and other pollution tolerant organisms.

Water quality studies have also revealed that the creek system does not dilute the industrial discharge well enough to protect the waters of Moberly Bay and Jackfish Bay.

In 1989, Kimberly-Clark began operating an aerated stabilization basin at the Terrace Bay mill.

This resulted in a decrease in the toxicity of the effluent, however contaminated sediments in the Blackbird Creek system continue to be re-suspended and carried into Moberly Bay.

The drainage basin would continue to carry contaminants into Lake Superior even if mill effluent was no longer present.

Jackfish Bay was identified by the International Joint Commission on the Great Lakes as one of 42 areas where the water quality doesn't meet the standards of that jurisdiction, Murphy said.

Seventeen of those are on the Canadian side.

Remedial Action Plans were developed as a way to restore the identified areas to acceptable standards, Murphy continued.

The Public Advisory Committees were created as a way to involve the public in the process.

"They are identifying what uses should be restored and how that might be done in a feasible manner," he explained.

The local Jackfish Bay Remedial Action Plan Public Advisory Committee was established in May of 1989.

When the study is done the committee will have completed the first stage of this process and be in a position to look at remedial action.

The Jackfish Bay PAC met last Thursday evening to review its water use goals after receiving public input at an earlier open house.

In the short term the committee wants toxins in the Blackbird Creek system, from point sources, particularly chlorinated organic compounds, reduced to meet or exceed federal and provincial guidelines.

Long term use goals of the committee:

Safe Drinking Water

*Jackfish town cottagers should be able to drink the water from Jackfish Bay.
*Water entering Jackfish Bay area of Lake Superior from the Blackbird system must be safe for consumption.

Fisheries

*The fish habitat and spawning area in Blackbird Creek and Jackfish Bay must return to a healthy hospitable state.
*The fisheries of the area must be part of a balanced and healthy aquatic community.
*All fish caught in the area must be safe for human consumption at any size or quantity and have contaminant levels that are less than, or at most, equal to background levels.

Recreation

*The water in Jackfish Bay must be clean and odorless for swimming, boating and scuba diving.
*Blackbird Creek and Jackfish Bay must be returned to natural conditions in order to support hunting and trapping.
*The aesthetic of Blackbird Creek and Jackfish Bay should be improved in order to encourage tourism and educational trips.

Wastewater receiver

*Blackbird Creek and Jackfish Bay can continue to be used for mill effluent discharge providing that it does not impair beneficial uses, inhibit indigenous biota or have an adverse impact on the ecosystem.

Ontario Hydro to fund mine reseach

Ontario Hydro has agreed to fund a mining research project at Laurentian University in Sudbury. Dr. Anis Farah of the School of Engineering will conduct a project to help hydraulic mine backfill operations become more efficient and economic.

The three-year project to research the use of lignite coal fly ash, produced at Ontario Hydro's Thunder Bay and Atikokan generating stations, will cost about $180,000.

Stabilized hydraulic mine backfills are used to form working platforms for mining equipment so it can more closely follow mineral veins and deposits. Depleted mines are also backfilled to reduce the risk of collapse.

Dr. Farah will use fly ash to try to produce a high density backfill containing 80 per cent or more solids, to eliminate the cost and other problems associated with handling the excess water resulting from present methods.

"Fly ash would have two roles," says Dr. Farah. "It would reduce the use of cement, which is more expensive, and it would give the backfill better flow characteristics to make it possible to pump backfill of a higher density."

The Thunder Bay and Atikokan stations, produce about 100,000 tonnes of low sulphur lignite fly ash each year.