The Algonquin Eco Watcher

ALGONQUIN ECO WATCH

POSTAGE LABEL HERE

TOLL FREE 1-888-894-TREE • FAX (705) 377-5200
Website www.algonquin-eco-watch.com
Email: wilton@amtelecom.net

Volume 5 ◆ Number 1 ◆ Spring-Summer 2003

RR#1 Spring Bay, ON P0P 2B0

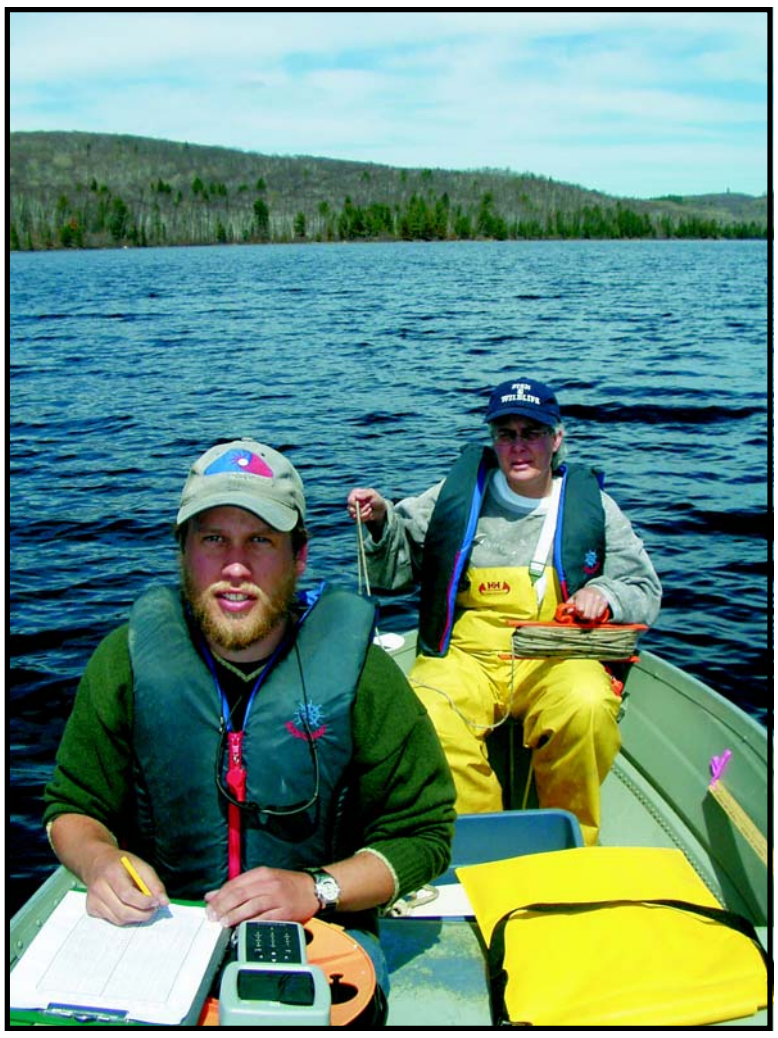
ALGONQUIN ECOSYSTEM HEADWATER - LICHEN STUDY

The 2003 field season will "close the loop" in our program to establish water quality and flow data for those waters that source outside Algonquin Park, but flow into it. While some of these inflowing watercourses were identified in the provincial "Lands For Life" exercise and given "Enhanced Management Area" status, others were not. Algonquin Eco Watch has been involved in negotiations with the Ontario Ministry of Natural Resources in an effort to have all Algonquin headwaters included in that classification. While our efforts to date have been unsuccessful, we are hopeful that information gained from this study will significantly increase our chances of success.

The long-term goal of this program is to provide meaningful baseline information for future comparisons, which will assist in defining and locating inbound sources of water pollution. This year's work will be concentrated around the eastern and northern boundaries of the Park, as well as along the abandoned CNR line and the Highway 60 corridor. In addition, we will establish at least 5 new permanent lichen plots that will complete a grid encompassing Algonquin Park and assist in tracking sources of air pollution.

This project has been made possible thanks to a partnership among Algonquin Eco Watch, the W. Garfield Weston Foundation, the McLean Foundation, Sir Sandford Fleming College, the Lake Partners Program and the Ontario Ministry of Natural Resources/Ontario Parks.

While it will require considerable time to collate, format and present the data gathered during the 3-year duration of this program, the results will be available to all interested groups and individuals.

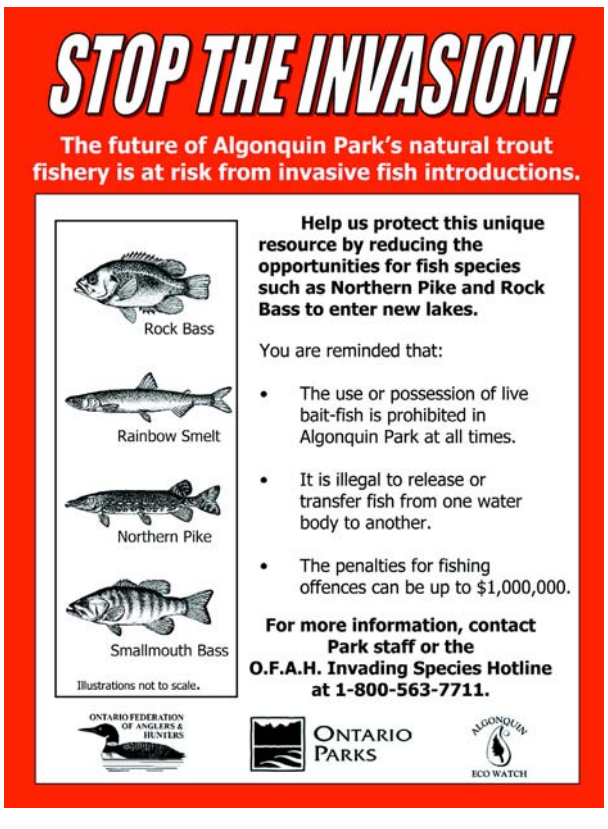


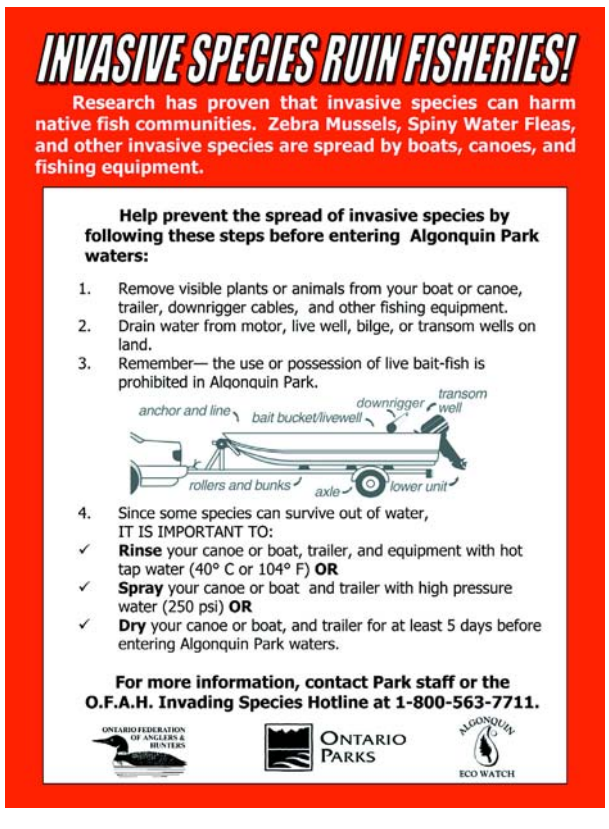
Leigh Hann (right) and Jay McConnell conducting physio-chemical tests on Cauchon Lake, adjacent to the abandoned CNR line, northern Algonquin Park.

INVASIVE SPECIES

Mounting concern over introduced species from other ecosystems led to the creation of 2 new signs that may now be seen at launching sites and access points in and around Algonquin Park. These signs (see below), which are the result of a "partnership" among Algonquin Eco Watch, the Ontario Federation of Anglers and Hunters, and Ontario Parks, warn of the dangers of species introductions into the Algonquin Ecosystem. The inadvertent or intentional introduction of fish species such as bass, smelt and pike, in addition to the transfer via boats and trailers of such pests as the zebra mussel and the spiny water flea, could cause the collapse of Algonquin's predominantly cold-water trout fisheries. Plankton tows, conducted in conjunction with the "Algonquin Ecosystem Headwater-Lichen Study" (see update this issue), so far indicate that the spiny water flea is not present in Algonquin waters. Hopefully these new signs will act as a visible reminder for us all, to help protect the waters of the Algonquin Ecosystem.

In response to the introduction of "unwanted" fish species to Algonquin waters Algonquin Eco Watch has dedicated one of its Highway 60 sign sites to this problem. Our new sign may be seen on the highway, when approaching from the west.





THE DE-WATERING OF LAKE HURON

While the Algonquin Ecosystem receives much of it's moisture from passing weather systems, considerable additional moisture is obtained through a phenomenon known as "Lake Effect", which results from moisture-laden air being cooled as it travels up the slope of the Algonquin Dome on prevailing westerly winds. While this often results in heavy precipitation as snow or rain, it also replenishes the headwaters of the seven major rivers that source on the Dome. This natural phenomenon depends directly on the surface area of Lake Huron/Georgian Bay, which can be verified by the fact that lake effect slows and stops as those water bodies progressively freeze over during the winter. This "water-generating engine" has been in balance for thousands of years, but may now be in jeopardy.

As the water continues to drop, islands become peninsulas in Lake Huron's North Channel.

It is likely that during the summer of 2003, the Lake Huron level will drop below the 1964 level, which was the lowest on record. While the reasons for this are many, including such factors as the city of Chicago withdrawing in excess of 2 billion gallons per day, plus several consecutive dry summers, the implications of global warming deserve special consideration.

Global warming will extend the open water period in the basin, which is expected to increase lake effect, owing to a longer period of evaporation. In effect, this will increase the amount of moisture precipitating onto the Algonquin Dome and have the short-term beneficial effect of increasing flow in the 7 major rivers that source there. The "down side" of this scenario is that the Amable du Fond, Petawawa, Bonnechere, Madawaska and York Rivers flow easterly into the Ottawa River drainage, while only the Muskoka and Magnetawan Rivers flow westerly back into Georgian Bay. This will result in an increased net water transfer out of the Lake Huron/Georgian Bay basin, exacerbating the already declining water level, caused by diversions, municipal withdrawals and longer, warmer open water periods. As the water level drops, the open water area of the basin will decrease, causing the long-term effect of reducing lake effect and river flow within the Algonquin Ecosystem.

Such recent proposals as the dredging and widening of the St. Lawrence Seaway by the U.S. Army Corps of Engineers and the construction of a municipal water pipeline from Lake Huron to supply southwestern Ontario's perceived domestic and municipal needs, would only serve to further lower the water level in Lake Huron.

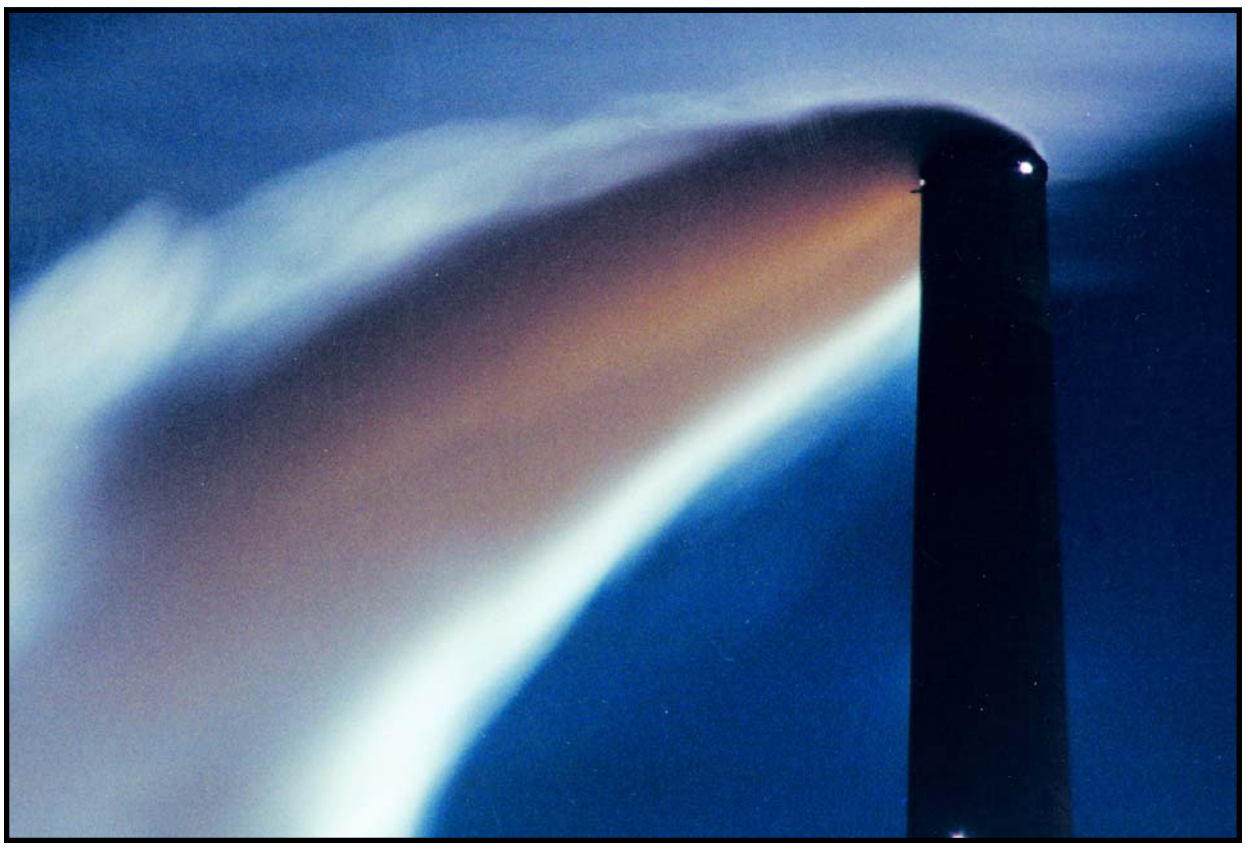
For these reasons, Algonquin Eco Watch will actively support any effort against proposals that are likely to cause further withdrawal of water from the Lake Huron/ Georgian Bay basin.

GRAPHITE MINE UPDATE

This open pit graphite mine continues to negatively affect the headwaters of the Magnetawan and Tim Rivers.

Failure to pay fines imposed under the Provincial Offences Act for non-compliance to Director's Orders imposed by the Ministries of the Environment and Northern Development and Mines, will result in cancellation of the Certificate of Approval and the Permit to Withdraw Water at the Graphite mine site, in the Town of Kearney (see "Bullets", this issue). This mine located adjacent to Graphite Lake, just outside the western boundary of Algonquin Park, is situated at the headwaters of the Magnetawan and Tim Rivers. Since the Tim River flows easterly through Algonquin Park, Algonquin Eco Watch will seek to have that mining claim permanently decommissioned in an environmentally responsible fashion.

SUPERSTACK UPDATE



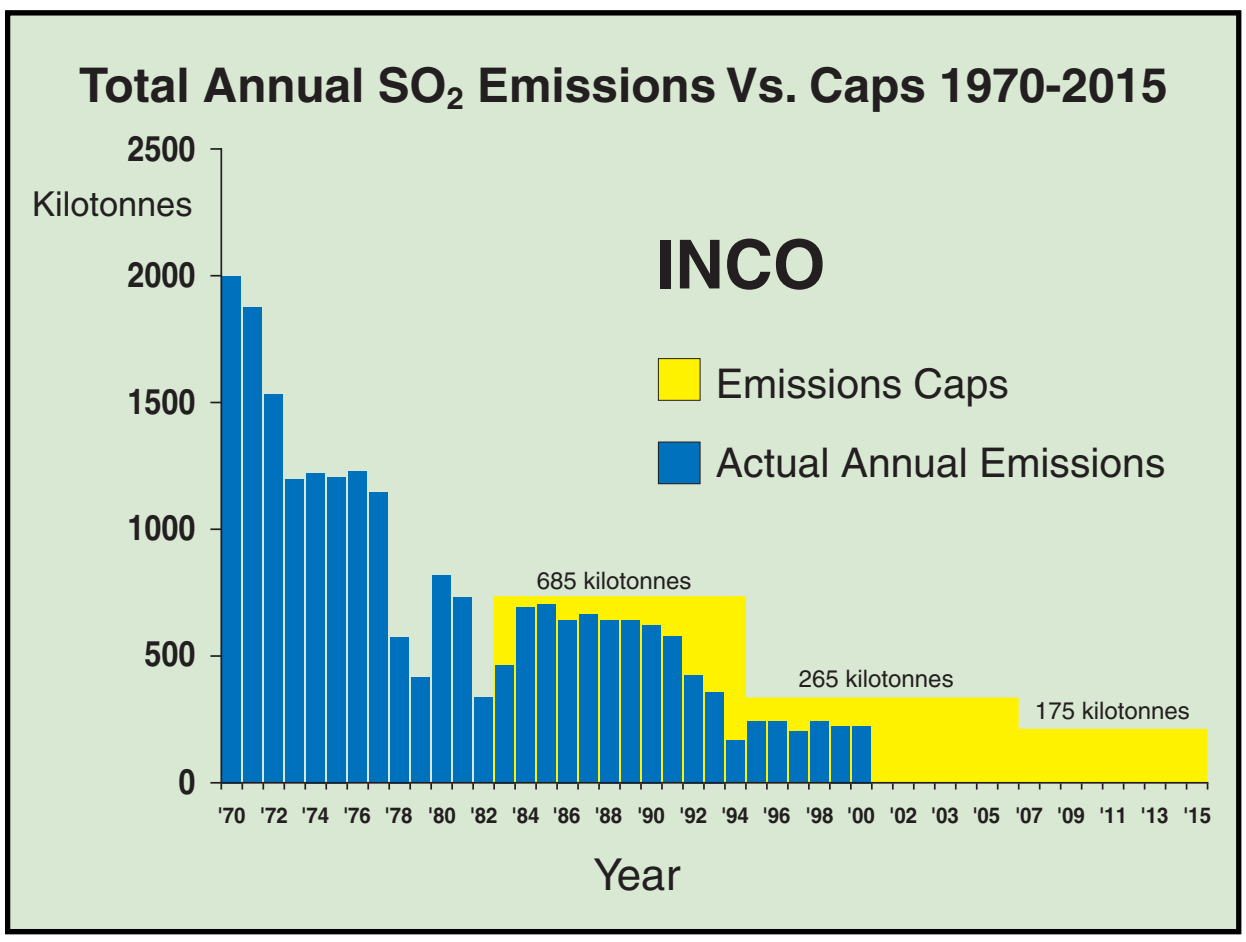
Superstack by moonlight.

Algonquin Eco Watch (AEW) met with Ministry of the Environment (MOE) personnel on February 18th and again on March 4th, 2003, regarding concerns over our interpretation of sulphur dioxide (SO_2) emissions from the 381m chimney (Superstack) at INCO in Sudbury. AEW has expressed ongoing concern in this regard, since the Algonquin Ecosystem lies directly in line and within range of emissions from the stack, particularly during frequent periods of northwesterly winds. Sulphur dioxide is known to be toxic to plant life.

While our interpretation of the data received via the "Freedom of Information and Protection of Privacy Act" from MOE was correct (see "Algonquin Eco Watcher, Spring-Summer, 2001), evidently we received data that more correctly reflect emissions that would occur under maximum operating conditions, rather than the actual emissions, which vary according to seasonal production levels. The latter are calculated by a third party consultant (acceptable to the MOE Director), but obtainable only from INCO. The following excerpt from a letter from INCO to the MOE explains the difficulties encountered when attempting to separate Superstack emissions from total INCO emissions from all sources.

> "In answer to the request for the 381m stack portion of the total annual sulphur dioxide emission reported for the Smelter Complex, we do not have actual data. I used best available data to calculate total average annual emissions from the other 3 major atmospheric release points ….. The attached table provides modified data that cannot be construed as hard fact."

INCO "best estimate" data are presented in the accompanying graph, along with the "CAPS", or maximum allowable SO_2 levels from all INCO sources, which continue to be legislated downward through time.



Graph data: (Expressed in tonnes) '92-396061; '93-338333; '94-143626; '95-215447; '96-216013; '97-180391; '98-214016; '99-201082; '00-201482; '01-210378; '02-221507. CAPS;'92 - '94 = 685,000; '95 - '02 = 265,000

While no individual CAPS exist for Superstack alone, it appears that total INCO emissions do not exceed the CAPS for all INCO sulphur dioxide emissions. **This introduces doubt as to how the total emissions can be accurately calculated unless the emissions from the individual components (including Superstack) are known.**

Since SO_2 emissions from Superstack are the only ones likely to reach the Algonquin Ecosystem, Algonquin Eco Watch will continue to closely follow and report on future developments in this regard.

Note: A recently issued Director's Order, states that INCO must further reduce total SO_2 emissions to a CAP of 175 kilotonnes (175,000 tonnes) annually by December 31st, 2006. It is expected that further reductions will follow.

Food For Thought

- Ministry of the Environment personnel were unable to explain the science behind the assigning of maximum allowable SO_2 emissions (CAPS). This is understandable owing to the constantly changing and unpredictable nature of wind currents. It does, however, beg the question: "What minimal emission levels will ensure no danger to plant life?" While it is encouraging to see the steady lowering of allowable emissions through time, the sheer height of Superstack, approximately 732m (2400ft) above sea level, virtually ensures that SO_2 particles can travel impressive distances.

It can be mathematically demonstrated that by lowering Superstack, the Radius of (SO_2) Influence (ROI) would be proportionately reduced. If this were done in conjunction with emission reduction, those areas such as the Algonquin Ecosystem would eventually be withdrawn from the ROI, while the status of those areas remaining within the ROI would remain unchanged. In the long-term, this would mean that annual maintenance costs and the ultimate Superstack decommissioning/removal costs would be significantly reduced.

OUR MEMBERS WRITE

- *"It should not be necessary to stock Park lakes with fish if they are properly managed."* - Algonquin Eco Watch (AEW) understands that stocking is now only carried out adjacent to the Highway 60 corridor, since it is such a high use area. The imposition of such proven restrictions as slot limits (protecting those sized fish most critical to successful population reproduction) represents a definite move toward sustainable fisheries management.

- *"Does it not seem ridiculous to make a reservation one year in advance for a campsite in a natural environment park?"* - Superficially that seems to be the case. Unfortunately the reality of Ontario's burgeoning population necessitates restricting human activity within the Park, if the natural environment/ecosystem is to be protected.

- *"I share the need for research into detrimental emissions from outside the Park, but is it not time to look within also?"* - While AEW attempts to address issues originating from within the Park, we also feel that it is necessary to be aware of and deal with problems that source outside, but may negatively affect the Algonquin Ecosystem. (See articles on Superstack emissions, and our water/lichen study, this issue).

- *"I have been trying to get steel wire fishing-line banned in Algonquin. I spend 3 weeks per year fishing in the Park. I fish deep for lake trout. Every summer I pull up about 500m of steel wire from the bottom. People get a snag and cannot break the line so they cut it off at the canoe and let all the wire sink to the bottom. I have found dead otters and loons caught up in coils of wire."* - Possible ways of overcoming this problem include the use of a monofilament leader – which will break before the wire line in the event of a snag. Readers may also wish to consult the following website www.laketrout.org. Algonquin Eco Watch considers this to be a significant issue worth pursuing and would welcome comments and/or suggestions from members.

BULLETS

CNR Decommissioning: Ownership of the CNR right-of-way remains disputed, with the Canadian National Railways contending that ownership reverted to the Province after abandonment and Ontario Parks refusing ownership pending environmental clean-up. As a result of a further site inspection and collection of slag samples from the roadbed, the Canadian Wildlife Service (CWS) of Environment Canada is conducting heavy metals tests to compare with results obtained by Algonquin Eco Watch, in an effort to determine the harmful effects on birds of ingesting slag.

The Algonquins of Pikwakanagan: The 2-year Provincially imposed mandate to achieve fundamental grounds for land claim negotiations with the Algonquins of Pikwakanagan expired in March, 2003. While recent correspondence from the Ontario Native Affairs Secretariat to Algonquin Eco Watch (AEW) expresses hope that negotiations will resume, AEW continues to express concern regarding the implications of the unresolved problems associated with the harvesting of fish and wildlife populations within the Algonquin Ecosystem.

Graphite Lake: In May of 2002, a $55,000 fine was imposed by the Ontario Ministry of the Environment (MOE) on the owners of the graphite mine located at the headwaters of the Magnetawan and Tim Rivers. The fine was levied for "failing to comply with a certificate of approval and a control order (relating to water quality monitoring) at the mine" and had a 1-year payment deadline. Also, the Ministry of Northern Development and Mines (MNDM) issued a Director's Order for the company to file a Closure Plan within the same time frame. Recent discussions with MOE and MNDM indicate that neither deadline has been met and that those Ministries will be "reviewing and preparing alternative options". Since the required monitoring was not done, it was not possible to ascertain the status of previously identified water quality impairment. Algonquin Eco Watch will continue to follow developments in this regard.

Kids' Camps: During the summer-fall of 2002, Algonquin Eco Watch made several presentations and was invited to participate in long-range environmental planning at 3 children's camps. It is most rewarding to discuss the Algonquin Ecosystem with enthusiastic youths and to see the long-range interest expressed by councilors and camp administrators. We look forward to a future increase in these activities.

Muskoka River Plan: Algonquin Eco Watch has a seat on the Muskoka River Public Advisory Committee, as part of a study to review the operational management of Crown and privately owned water control structures (dams and hydropower facilities) on the Muskoka River system. Headwaters of both the North and South branches of the Muskoka River are located in Algonquin Park, and water control structures are present on 5 headwater lakes; namely McCraney, Burnt Island, Joe, South Tea and Ragged. The 4 areas of concern that Algonquin Eco Watch intends to pursue are dam integrity (leakage), lake trout egg/fry survival, protection of wetlands, and stable water levels for loon nesting.

Designed & Printed by: O.J. Graphix & Design
Printed on recycled paper.

If you agree with the ideas and opinions expressed in the Algonquin Eco Watcher, please pass this copy on to a friend.
(Back issues available on request.)

DONATION FORM

Anyone donating $15.00 or more will receive a 1 year membership plus a tax deductible receipt. The Algonquin Eco Watch Group is a registered Canadian charity.
Donations can be mailed to:

ALGONQUIN ECO WATCH, RR#1, Spring Bay, Ontario, P0P 2B0
Please make cheques payable to " Algonquin Eco Watch"

Name *(please print)*_____

Address _____

City _____ Province/State _____

Postal Code/Zip Code _____ Phone#(_____) _____

Email Address:_____