

**NB Mercury Action Plan - Progress Report
Under the NEG/ECP**

Initiative & Objective	Progress to Date	Notes
<p>1. EMISSIONS REDUCTION - at least 50 percent reduction within the NEG/ECP region by 2003</p> <p>a) Medical Waste Incinerators - meet NEG/ECP limit of 0.055 mg/dscm (milligrams per dry standard cubic metre) by December 2003</p> <ul style="list-style-type: none"> • Future approvals will require annual mercury stack testing as well as meeting NEG/ECP limit. • Work with facilities to remove mercury-containing products from waste prior to incineration, and on replacing equipment containing mercury with alternatives. <p>b) Industrial Sources - Maximum achievable reductions in shortest feasible timeframe</p> <p>c) Coal-Fired Utility Boilers - Promote national and international strategies to reduce emissions; develop/implement regional strategies by 2003.</p> <p>Note: Currently no national mercury emissions standards exist for coal-fired utility boilers, so efforts will focus on gathering emissions data.</p> <ul style="list-style-type: none"> • Grand Lake Station anticipated to be retired prior to 2010, or will be refurbished with appropriate pollution control equipment. 	<p>Medical Waste Incinerators:</p> <ul style="list-style-type: none"> • Facilities have pollution control equipment in place and have conducted mercury stack testing. • As of October 2001, average mercury concentrations at MSWM and ERH were well below limit. • Operating approvals will continue to be mechanism to control mercury emissions at these facilities. <p>Industrial Sources:</p> <ul style="list-style-type: none"> • Air and water operating approvals amended to include stricter mercury limits on air emissions and effluent discharges. • Plant is required through its operating approval to conduct quarterly source testing on the primary mercury point sources. • An ambient Mercury Monitoring Study was completed in 2003. The study results identified a fugitive source of mercury that has since been rectified. <p>Coal-Fired Utility Boilers:</p> <ul style="list-style-type: none"> • Operating approvals amended to require mercury stack testing. • Testing done at Grand Lake in Fall 2000 and 2003; testing at Belledune in December 2000 and Summer 2004. 	<p>Medical Waste Incinerators: There are two medical waste incineration facilities in NB: Mr. Shredding Waste Management (MSWM, Moncton), and Edmundston Regional Hospital (ERH, Edmundston).</p> <p>Dr. Everett Chalmers Hospital (DECH) incinerator was taken out of service permanently as of mid July 2002.</p> <p>Industrial Sources: PCI Chemicals Canada Inc., Dalhousie</p> <p>Coal-Fired Utility Boilers: Grand Lake and Belledune Generating Stations are power plants which use coal to generate electricity. Coal is known to contain mercury.</p> <p>Grand Lake Station: Decision pending.</p>

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<ul style="list-style-type: none"> • Belledune Station stopped using NB coal in January 2002. This reduces by half the NB coal used for power generation in the Province. 		<p><u>Belledune Station:</u> Winter/Spring edition of this Progress Report erroneously reported that Belledune Station stopped using NB coal in January 2001.</p>
<p>2. <u>SOURCE REDUCTION AND SAFE WASTE MANAGEMENT</u> Identify and Implement Source Reduction Programs - By 2003, reduce the overall amount of mercury-containing waste, where feasible, from household, commercial and industrial sources, through source reduction, segregation, and safe waste management, including recycling.</p> <ul style="list-style-type: none"> • Explore the potential for the recycling of fluorescent light bulbs and mercury separation unit. <p>Target audiences include:</p> <p>a) <u>Provincial Government Departments</u></p>	<p><u>Provincial Government:</u></p> <ul style="list-style-type: none"> • Developed Mercury Action Plan for NB. • Continued participation on Canada-Wide Standards development committee for mercury. • Letter from Deputy Minister of ELG to other Deputy Ministers recommending that future purchases of fluorescent lights, which can contain mercury, should be low-mercury/energy-efficient lights, has been sent. • Dept. of Supply and Services has developed a policy for acquisition of low-mercury/energy-efficient fluorescent lighting for government buildings. • Preparing communication to large property owners encouraging use of low-mercury/energy-efficient fluorescent light bulbs. 	

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<p>b) <u>Hydrometric stations</u></p>	<p><u>Hydrometric stations:</u></p> <ul style="list-style-type: none"> • All mercury manometers installed at hydrometric stations have been replaced with mercury-free waterlevel monitoring devices. A complete modernization of the network has been completed. 	<p><u>Hydrometric stations:</u> Manometers measure the water level in rivers and lakes and are housed in small sheds on banks of rivers or lakes.</p>
<p>c) <u>Schools</u></p>	<p><u>Schools:</u></p> <ul style="list-style-type: none"> • Following communication at Deputy Minister's level concerning use of mercury in schools, Dept. of Education reported that liquid mercury is no longer used in school science labs, and that fluorescent lights are being replaced with low mercury/energy-efficient models. • ELG to check progress. 	
<p>d) <u>Hospitals</u></p>	<p><u>Hospitals:</u></p> <ul style="list-style-type: none"> • Communications underway with hospital corporations to inventory mercury-containing products in use. • Awarded ETF grant to a hospital corporation to conduct an inventory of mercury products and to replace mercury manometers. • Continuing to work with hospital corporations to identify mercury-free products. 	
<p>e) <u>Dental Offices</u> -</p> <ul style="list-style-type: none"> • Develop document co-signed by Minister and executive director of NB Dental Society (NBDS) advising dentists of mercury reduction initiatives Canada-Wide Standards - Fall 2002. • Develop Letter of Understanding with NBDS - December 2001. 	<p><u>Dental Offices:</u></p> <ul style="list-style-type: none"> • Participating in finalization of Memorandum of Understanding with Canadian Dental Association to promote best management practices and collection and recycling of dental amalgam waste. • Letter of Understanding between NBDS and DELG to promote better management of amalgam signed. 	<p><u>Dental Offices:</u> Mercury is a component of amalgam dentists use to fill teeth. There is a resulting waste management issue when amalgam is removed at dentists' offices.</p>

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<p>3. OUTREACH AND EDUCATION - Educate the public about adverse environmental and health effects of mercury and ways to reduce the risk of exposure</p> <p>a) General Public:</p> <ul style="list-style-type: none"> • Develop a summary and progress report of NB's Mercury Action Plan - Winter 2002. • Prepare an introductory publication on the presence, sources and management of mercury in NB - Spring 2002. • To complement fish consumption advisories issued by Dept. of Health & Wellness, produce feature article on health implications of fish consumption - Spring 2002. • Continue to evaluate mercury education needs. <p>b) Dentists:</p> <ul style="list-style-type: none"> • Produce and distribute a brochure for dentists on best management practices for mercury waste recycling - Fall 2002. 	<p>General Public:</p> <ul style="list-style-type: none"> • A summary of NB's Mercury Action Plan, and 1st edition of Progress Report, produced and available publicly (print and web formats) as of March 2002. • Editions produced to date: Summer/Fall 2002; Winter/Spring 2002/2003 and September 2004 (print and web formats). • First draft completed. • NB residents can refer to the General Information section in FISH 2004, a document published by the Department of Natural Resources (DNR), which contains fish consumption guidelines. <p>Dentists:</p> <ul style="list-style-type: none"> • Research for publication continues. 	<p>Beginning September 2004, the Mercury Progress Report will be produced annually.</p> <p>Fish Consumption Advisories: Annual DNR FISH guidebook contains recommendations concerning fish consumption in the Province.</p>
<p>4. RESEARCH, ANALYSIS AND STRATEGIC MONITORING</p> <p>a) Fish and Wildlife Tissue Sampling:</p> <ul style="list-style-type: none"> • Support and expand research and analysis to improve our understanding of mercury sources, impacts and cycles in the environment. • Carry out fish sampling program to monitor mercury levels - Summer 2003. <p>b) Regional Mercury Indicators:</p> <ul style="list-style-type: none"> • Support and expand strategic monitoring of mercury emissions, deposition and fish tissue levels and develop meaningful environmental indicators to measure and track progress. • Collect data identified through indicator development process and publish annual status report 	<p>Fish and Wildlife Tissue Sampling / Regional Mercury Indicators:</p> <ul style="list-style-type: none"> • DELG continues to create partnerships with Environment Canada, Health and Wellness and Natural Resources, as well as University of New Brunswick participants in COMERN (Collaborative Mercury Research Network). • A workshop was held in the fall of 2003 with the above-mentioned partners to discuss the management, research and monitoring of mercury in New Brunswick. The workshop identified existing monitoring programs and priorities for future work. • DELG is committing \$5,000 to a joint New Brunswick Mercury monitoring project with Environment Canada - Fall 2004. • DELG's annual Air Quality Report includes results of mercury concentration in air and wet deposition. 	<p>DELG has changed the approach from the initiatives outlined in the Summer/Fall 2002 Progress Report, as partnering with academic and research communities, and other government organizations will provide a more comprehensive analysis of the environmental impacts of mercury.</p> <p>Wet deposition mercury monitoring in St. Andrews was terminated in December 2003 by Environment Canada. Regional indicators of wet deposition and mercury are maintained at Kejimkujik National Park, Nova Scotia.</p>