

February 13, 2003

Mr. Ned Brooks  
Mercury Coordinator  
Minnesota Pollution Control Agency  
520 Lafayette Road North  
St. Paul, MN 55155-4194

**RE: WLSSD Voluntary Mercury Reduction 2002 Annual Report**

Dear Mr. Brooks:

The Western Lake Superior Sanitary District (WLSSD) is a strong supporter of the Minnesota Voluntary Mercury Reduction Project. WLSSD is an active member of the Minnesota Pollution Control Agency's (MPCA's) Mercury Contamination Reduction Initiative and enthusiastically supports the consensus that programs that encourage voluntary participation are preferable to a broad regulatory approach. Additionally, WLSSD has complied with mercury emission limits for biosolids land application program and its wastewater discharges, and will continue to minimize releases to the environment from these sources. This report will document WLSSD's mercury reduction activities that occurred within the last year.

WLSSD staff continues to work with dental practices in order to reduce the amount of amalgam particles discharged to the sewer or released to other media where mercury may be emitted to the environment. WLSSD, in cooperation with the Northeast District Dental Society, applied for and received a local environmental improvement grant. Grant funds are being used to purchase improved sedimentation traps, which capture fine amalgam particles that normally would be sewerer from dental suction systems. These treatment systems, when properly installed and operated, capture 99 percent of the amalgam particles (ISO standard) released through dental suction systems. This is far superior to conventional traps, which capture 60-80 percent of the amalgam. As of December 2003, 45 advanced treatment systems have been installed out of a possible total 50 possible dental practices in the WLSSD service area. The remaining practices will continue to be pursued to volunteer for the program by the WLSSD until treatment units are installed in all practices. The concentration and mass of mercury in the wastewater sludge is being tracked by WLSSD in order to measure the success of this project.

WLSSD operates a Household Hazardous Waste Facility and Clean Shop program to manage hazardous wastes including mercury-containing wastes. Households and small businesses disposed of 645 pounds of mercury waste in 2000, 968 pounds in 2001, and 1121 pounds in 2002. (See attached spreadsheet for itemization of mercury items recycled.) Households that choose to turn in mercury-containing fever thermometers to WLSSD for proper recycling receive a mercury-free thermometer in exchange.

The table below shows the actual mercury emissions from WLSSD facilities and the reductions we originally committed to achieve for 2001 and 2008.

### Mercury Emissions from WLSSD Facilities

<b>Type of Emission</b>	<b>1990</b>	<b>1998</b>	<b>2000</b>	<b>2001 Commitment</b>	<b>2001 Actual</b>	<b>2002 Actual</b>	<b>2008 Commitment</b>
	Lbs/yr	Lbs/yr	Lbs/yr	Lbs/yr	Lbs/yr	Lbs/yr	Lbs/yr
Incinerator Stack (AIR)	47	10	11	5	8	0	0
Wastewater Effluent (WATER)	42.4	2.0	1.0	0.8	0.7	0.22	0.5
Incinerator ash (Landfill)	1.3	52.5	5	2	0.9	0	0
Biosolids (Land Application)	0	5.9	5	10	7.5	9.8	11
<b>Subtotal</b>	<b>90.7</b>	<b>70.4</b>	<b>23.4</b>	<b>17.8</b>	<b>17.1</b>	<b>10.3</b>	<b>11.5</b>
Solid waste Estimate (Landfill)	118	55.2	100	95	95	92	80
<b>Total</b>	<b>208.7</b>	<b>125.6</b>	<b>123.4</b>	<b>112.8</b>	<b>112.1</b>	<b>102.3</b>	<b>91.5</b>

The total wastewater influent mercury load for 2002 was 9.1 pounds per year. Industrial sampling shows WLSSD industrial customers discharged 1.46 pounds. The source of the remaining mercury was households and unregulated small businesses. Mass balance analysis determined that 97.6% of the mercury received as a component of WLSSD wastewater influent appears in the biosolids product; only 2.4% of the mercury received is discharged to the receiving waters. This was the first year of using ultra-low level EPA method 1631 for effluent mercury testing at WLSSD.

If you have any further questions concerning WLSSD's efforts to reduce mercury emissions, please feel free to call Tim Tuominen of my staff at (218) 722-3336 extension 324.

Sincerely,

Kurt N.W. Soderberg  
Executive Director