

Mercury Reductions Measured at Wastewater Treatment Facilities Following Implementation of Dental Amalgam Programs ^{1,2}

Agency and Location	Fate of Treated Effluent	Fate of Biosolids	Date of Amalgam Program Implementation	Percent Mercury Reduction
Central Contra Costa Sanitary District, Martinez, CA ³	San Francisco Bay; recycled water	Incineration	November 2007 (mandatory program)	77% (biosolids)
King County (Seattle metro area), Washington ⁴	Puget Sound	Land application to crops, forests, landscaping	End of 2004 (97% compliance)	55% (biosolids)
Madison Metropolitan Sewerage District, WI ⁵	Rock and Mississippi Rivers systems	Field application	December 2008 (mandatory)	45% (biosolids)
Massachusetts Water Resources Authority, Boston, MA ⁶	Massachusetts Bay	Pelletized for fertilizer	April 2006 (mandatory, statewide)	60% (biosolids)
Metropolitan Council Environmental Services (Minneapolis / St. Paul, MN) ⁷	Mississippi River	Incineration	January 2003 voluntary; later mandatory	51% (influent)
Regional Water Quality Control Plant, Palo Alto, CA ⁸	San Francisco Bay; recycled water	Incineration	March 31, 2005 (mandatory)	63% (biosolids)
San Francisco Public Utility Commission ⁹	San Francisco Bay and Pacific Ocean; recycled water	Land application and alternative daily cover for landfill	February 2004 (mandatory)	45% (biosolids)
Western Lake Superior Sanitary District, Duluth, MN ¹⁰	St. Louis Bay to Lake Superior	Land application	2005 (100% voluntary installation)	62% (biosolids) 77% (effluent)

¹ The information tabulated by [Stephanie Hughes, P.E.](#), San Jose, CA, for the Bay Area Pollution Prevention Group ([BAPPG](#)), completed January 11, 2011.

² These agencies were frequently involved with other programs to reduce mercury in their systems (such as mercury thermometer take-back programs and/or hospital mercury reductions), therefore the reductions are not solely from amalgam separator installations. Agency representatives affirm that dental mercury programs provided the single largest direct impact to their mercury reductions.

³ As of 2010 versus baseline of 2004, based on electronic communication with Melody LaBella, CCCSD, November 19, 2010

⁴ As of 2007-2009 versus baseline dataset from 2000, based on data provided by Patricia Magnuson, King County, December 14, 2010.

⁵ As of 2009-2010 versus baseline dataset from 2003-2006, based on electronic communication from Ralph Erickson, MMSD, December 6, 2010

⁶ As of 2007-2009 versus baseline of 2000-2001, based on electronic communications from Charles Bering, MWRA, December 21, 2010

⁷ As of 2010, versus baseline prior to program issuance, based on electronic communication from Peter Berglund, MCES, January 7, 2011.

⁸ As of Fall 2010, based on electronic communication from Karin North, City of Palo Alto, November, 2010

⁹ As of 2007 versus a baseline of 2004, based on data provided by Meg Gale, SFPUC, December 8, 2010

¹⁰ Based on electronic communication with Tim Tuominen, WLSSD, December 6, 2010.