

Rapid Installation of Dental Amalgam Separators

Northeast Ohio Regional Sewer
District

September 2010 to December 2012

\$250,000

Top 3 Accomplishments/Impacts

- Rebate program helped us get the dental community to voluntarily install equipment that they wouldn't have otherwise
- 326 dentists installed separators within a 6 month window
- Found some dentists who we didn't even know about

Regional Value

- Other wastewater treatment plants in the Great Lakes drainage area could benefit from using a rebate program to incentivize installation of dental amalgam separators
- Installation of separators keeps particulate mercury contained at the source (rather than rolling around in the sewer system). This also makes it available for recycling.

Ecosystem and Management Improvements

- Results will impact the ecosystem through reduced input of a bioaccumulative toxin

Public Benefits from Project

- Reduced exposure to mercury emissions from biosolids incineration
- Eventually, through reduced mercury exposure when eating locally caught fish (less consumption advisories)
- Installation of separators preserves the availability of mercury amalgam as a treatment option

Economic Impact

- Each dental office who participated saved \$500 on the cost of a dental amalgam separator
- Regionally \$141,997.56 was disbursed through rebates
- Economic benefit to local suppliers of separators

New Research Needs and Management Questions

- Future fish tissue studies to evaluate effect on ecosystem
- Continued monitoring of influent, effluent and biosolids concentrations at NEORSD plants

Benefits of Synthesis Effort

- Other agencies could build off the incentive model
- Separators are just one piece in the puzzle. Other toxin reduction efforts are necessary to achieve a strong effect.