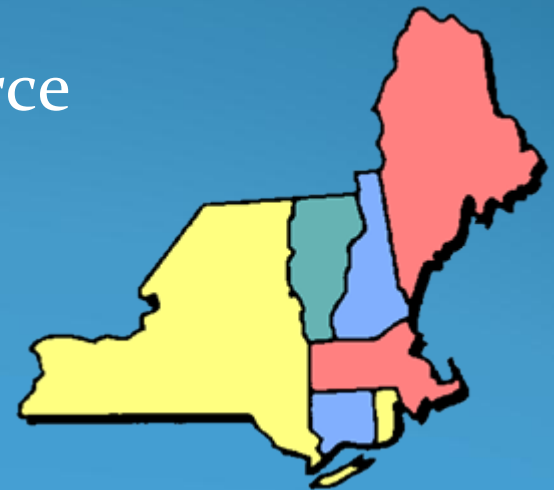


# Mercury Reduction in the Northeast: Successes and Challenges

Mark Smith, Massachusetts DEP

Co-Chair, NEG-ECP Mercury Task Force

June 22, 2010



# Framework for Regional Mercury Reduction

- Three Regional Interstate Organizations
  - NEIWPC - Water
  - NESCAUM - Air
  - NEWMOA - Waste
- New England Governors – Eastern Canadian Premiers Mercury Action Plan and Task Force
- New York State DEC Mercury Work Group
- New Jersey Mercury Task Force and Reduction Action Plan
- State Strategies and Plans

# NEG-ECP Mercury Action Plan

- Adopted in June 1998
- Ultimate goal: virtual elimination of anthropogenic mercury emissions and discharges
- Interim goals:
  - 50% Reduction by 2003
  - 75% Reduction by 2010
- Broad political support in both U.S. and Canada
- Informed by state and regional mercury assessments
- Implemented by regional Task Force

# Action Plan Principles

- Scientifically-informed precautionary principle
- Comprehensive solutions
- Cooperation and collaboration
- Importance of State/EPA leadership in addressing global sources

# Pollution Prevention

- Action Plan Objectives
  - Reduce/eliminate non-essential uses
  - Segregate, collect, and recycle discarded products
- Accomplishments
  - Comprehensive mercury products legislation:
  - Recycling and collection of more than 10,000 lbs in region

# Emissions Reductions

- Goals under MAP:
  - Maximum feasible reductions
  - Specific emission limits included
- Tracking and monitoring by jurisdictions

# Reductions by Source

- Municipal waste combustors
  - States have limit 3 times more stringent than EPA; resulted in more than 85% reduction in emissions
- Medical waste incinerators
  - States agreed to limit 10 times more stringent than EPA; resulted in more than 95% reduction in emissions

# Reductions by Source

- Dental Sector

- All Northeast state require amalgam separator wastewater pollution controls
  - Legislation or regulations (under state CWA)
- Reduce SSI emissions, releases from sludge reuse and wastewater discharge



# Reduction by Source

- Utilities

- MAP Objective: maximum feasible reductions
- All Northeast states with coal-fired power plants have stringent limits
- Adopted rules requiring 80-95% at coal plants by 2015 or earlier



# Monitoring and Research

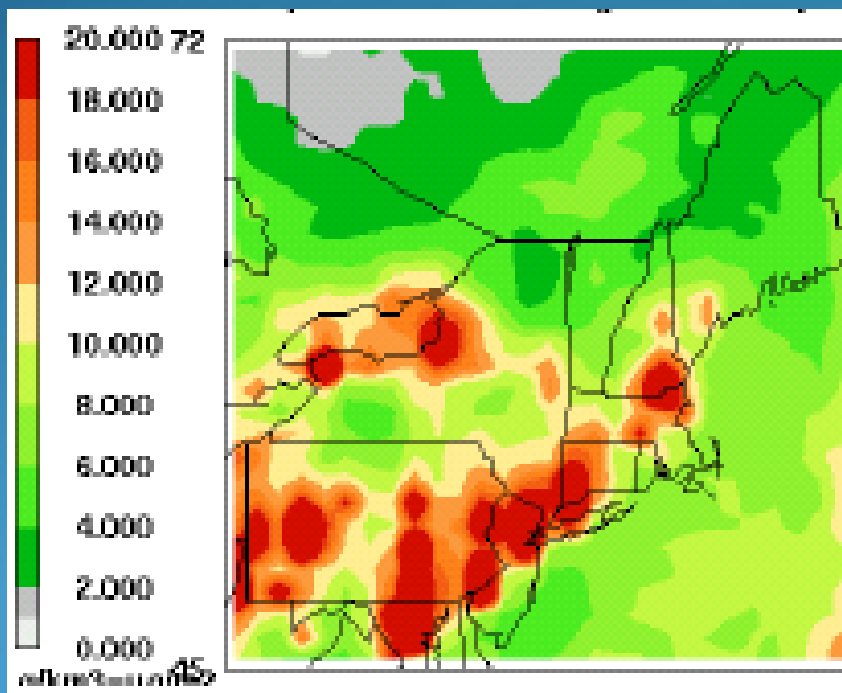
- Tracking and assessing trends
  - Emissions
  - Deposition
  - Fish
- Improving source estimates
  - Home heating and residual oil

# Summary of Progress to Date

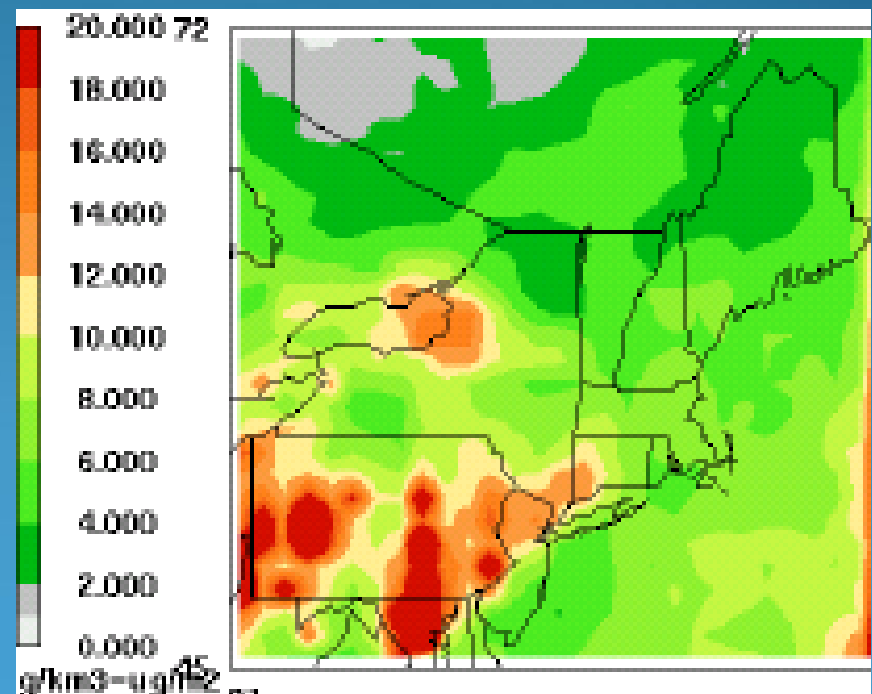
- Mercury emissions decreased significantly across region
  - >60% in NE states by 2003
  - >80% estimated now
  - Inventory being updated in 2010-2011
- Product bans and collection efforts are yielding results
  - IMERC data trending strongly downward

# Modeled Decreases in Modeled Deposition – Particularly in “Hotspots”

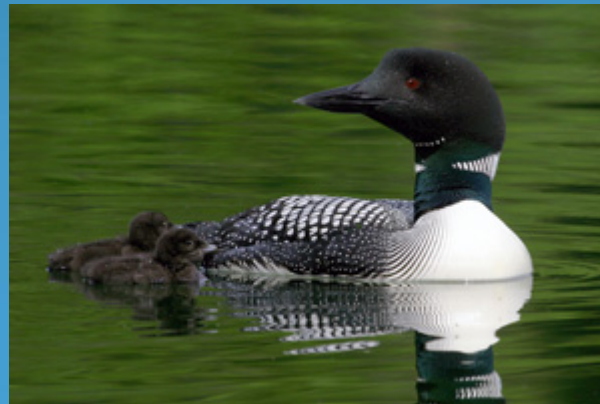
Pre-Action Plan ( $\mu\text{g}/\text{m}^2$ )



Post-Action Plan ( $\mu\text{g}/\text{m}^2$ )



# Mercury Levels in Biota Improving



# Ongoing Regional Priorities

- Continue to implement strategies to achieve 2010 goal
- Continue strategic monitoring to assess progress
- Assist/inform national and international efforts

# Challenges

- Mercury still high!
- Out-of-region and global sources
- Funding and resource limitations
- New mercury –added products and legacy products

# For More Information

- NEG-ECP Mercury Action Plan
  - [http://www.epa.gov/region1/eco/mercury/pdfs/Mercury\\_Action\\_Plan.pdf](http://www.epa.gov/region1/eco/mercury/pdfs/Mercury_Action_Plan.pdf)
- NYS DEC Mercury Work Group
  - <http://www.dec.ny.gov/chemical/285.html>
- NJ Mercury Task Force
  - [http://www.nj.gov/dep/dsr/mercury\\_task\\_force.htm](http://www.nj.gov/dep/dsr/mercury_task_force.htm)



# Contact Information

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- NJ Mercury Task Force
  - Robin Heston, [robin.heston@dep.state.nj.us](mailto:robin.heston@dep.state.nj.us)

# Mercury Levels in Biota Improving

- Mercury levels in NH loon and MA fish down

**Percent Change in Mercury Concentrations in MA Fish Post Emission Reductions (1999 - 2008)**

