

Mercury TMDL Stakeholder Process

Developing
Recommendations for the
State's Implementation Plan

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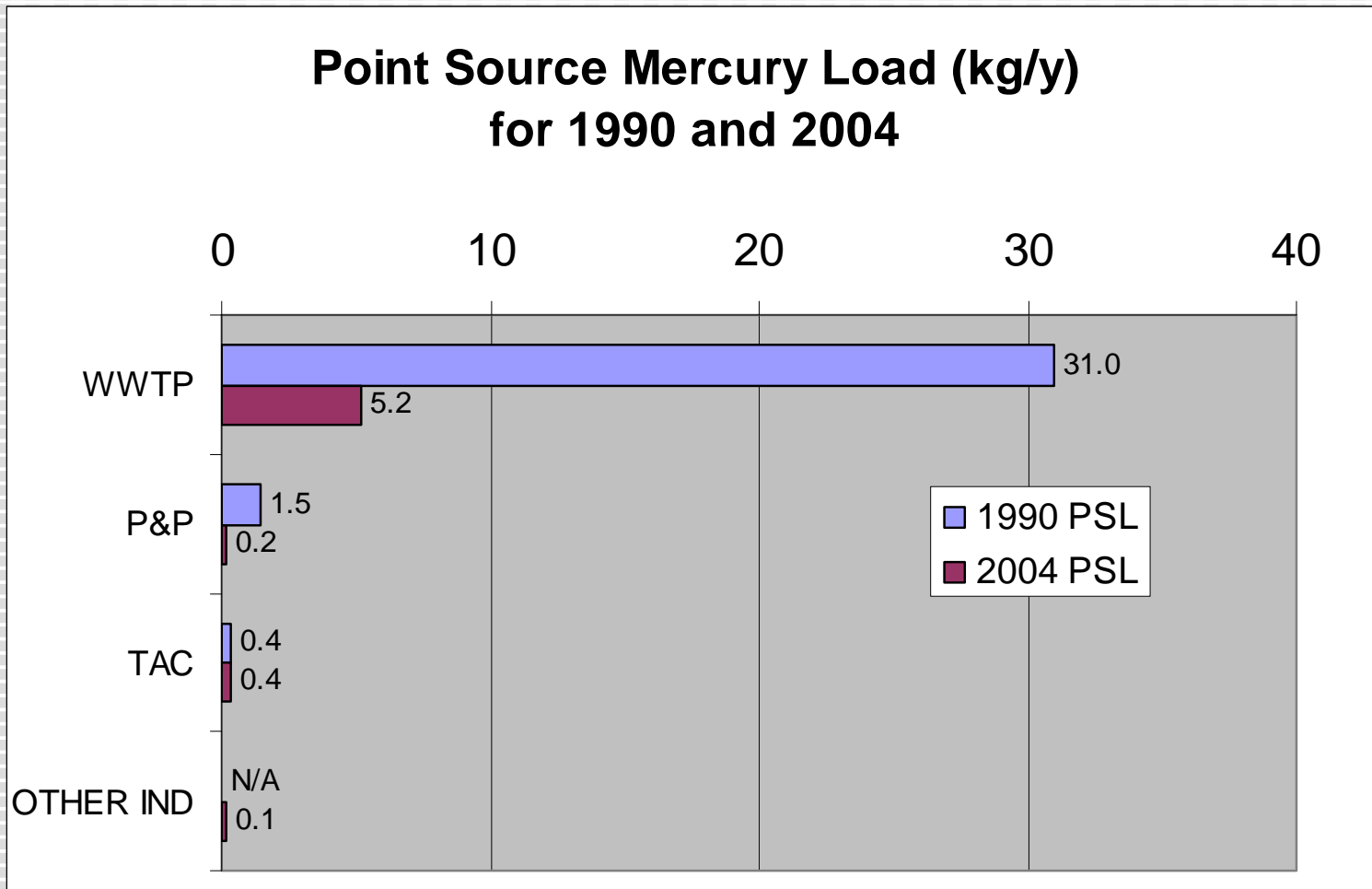
Overview

- Review of Mercury TMDL Goals
- Overview of Stakeholder Process
- Update on Progress

Minnesota's Mercury TMDL

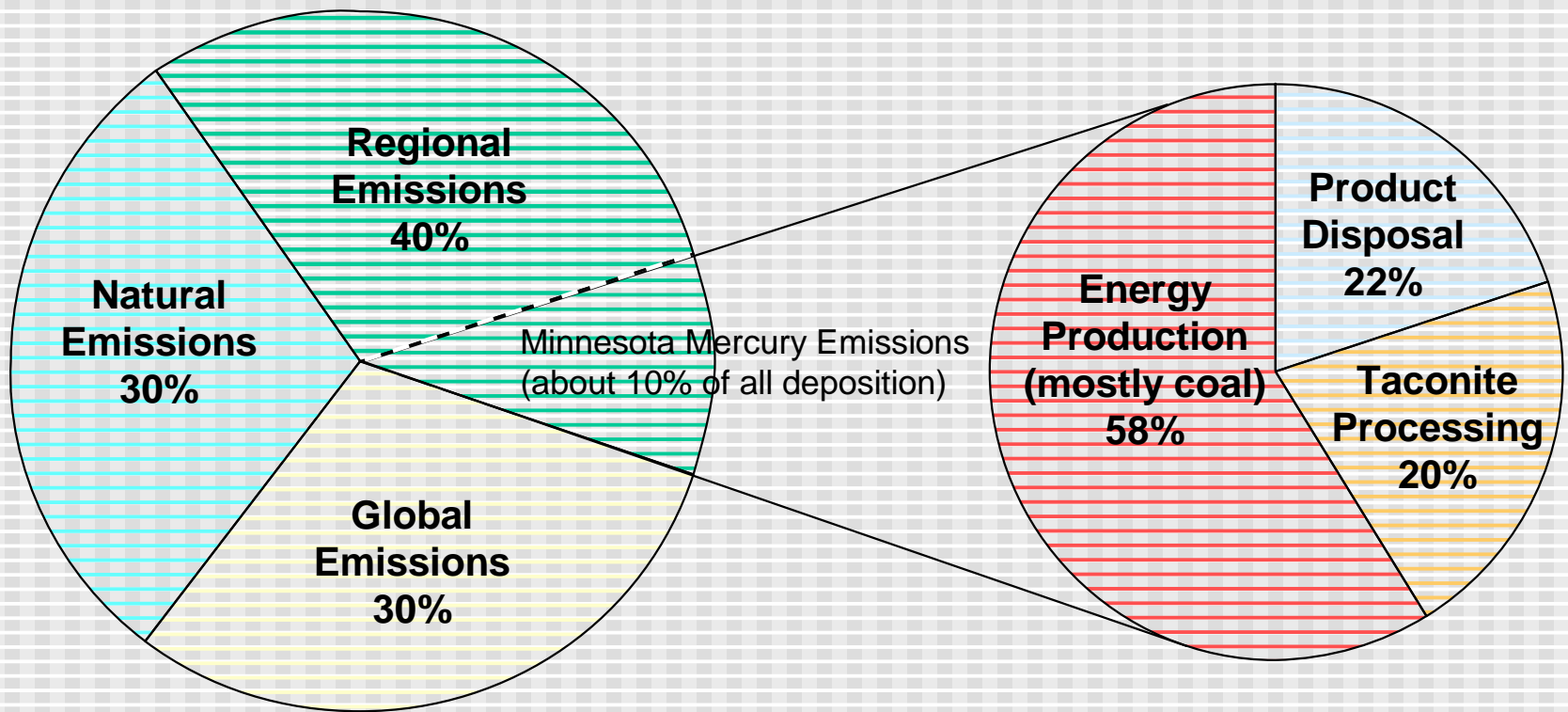
- Minnesota's Mercury TMDL approved March 2007
- Statewide*
- Water Point Source Discharge Cap 24.2 lb
 - Discharges in 1990: 72 lb
 - Current discharges: 15.2 lb
- Air Emissions Target 789 lb/yr
 - 93% reduction from 1990 levels
 - 67% reduction from 2005 levels (3328 lbs)

Water Point Source Discharges



Source: Mn Pollution Control Agency

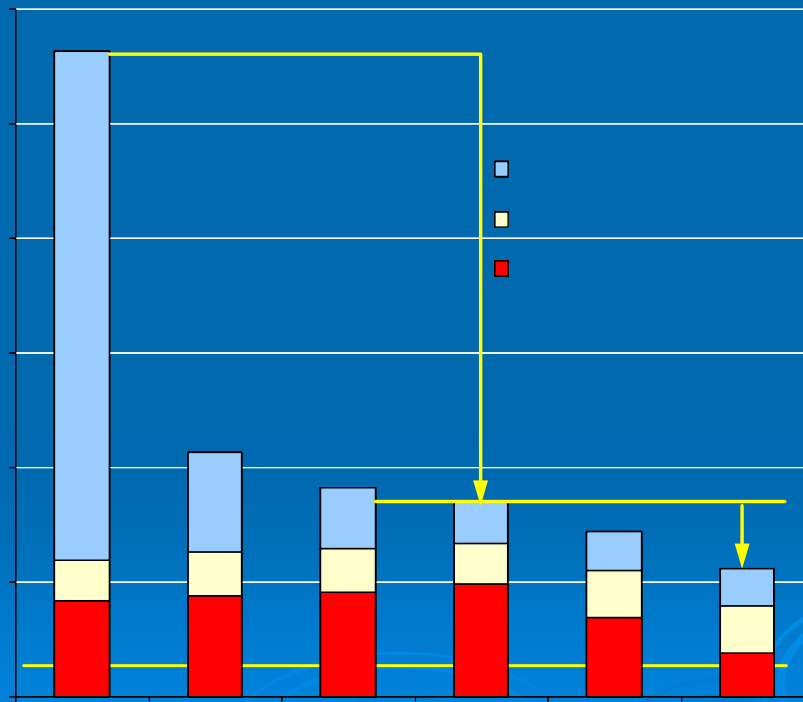
Atmospheric Deposition - 2005



Source: Mn Pollution Control Agency

Air Emissions 1990-2015

Estimated annual mercury emissions in Minnesota: 1990-2015



Stakeholder Process

- State needs implementation plan to reach TMDL goals
- MEI designs, manages and facilitates stakeholder process to develop recommendations for implementation plan
- Designed as 1-year process (conclude in May '08)
- Open, transparent, balanced representation
- Develop strategies and timelines to meet air and water goals
- Include strategies for new sources

Stakeholder Process

- Stakeholder Groups
 - Strategy Work Group
 - 17 members
 - Meets Monthly (June '07 - April '08)
 - Various Sectors & Interests
 - Taconite
 - Electric Power
 - Wastewater Treatment
 - Environmental Advocacy
 - Tribes
 - State Agencies
 - Environmental Justice
 - Recreational Fishing

Stakeholder Process

- Stakeholder Groups
 - Partners Group
 - Over 75 organizations invited
 - Two meetings during process
 - Provides input and feedback
 - Technical Advisory Group
 - Scientists, Technical Experts
 - Advise on questions of science, fact, technology
 - Accepts tasks from Strategy Work Group

Stakeholder Tasks

■ Water Point Sources

- Recommended strategies and guidelines for water point source discharges to ensure that total statewide mercury discharges remain below 24.2 lb. (11kg).
 - Discharges in 1990: 72 lb
 - Current discharges: 15.2 lb

Stakeholder Tasks

■ Water Point Sources

■ Plan should include:

- How to address existing sources as well as new and expanding sources (a permitting strategy/guideline)
- How to allocate future reserve capacity of 8.8 lb (4 kg) among municipal and industrial sectors
- Mercury minimization plan guidance for municipal wastewater treatment plants
- How to account for chemicals or conditions that impact methylation including sulfate discharges to mercury-impaired waters

Stakeholder Tasks

■ Air Emissions

- Recommend strategies and timeframes for meeting the TMDL air emission goal of 789 lb annual emissions from Minnesota sources, including:
 - Establish air emission sector reduction targets for emissions from energy, taconite and product-related sectors.
 - Develop sector-specific strategies to meet the overall and sector goals.

Stakeholder Tasks

■ Air Emissions

- Develop interim and final timeframes for the sector and overall goals.
- Determine how to accommodate potential new sources of air emissions. (inform development of guidelines/rules that will closely follow this process)

Stakeholder Process

- Knowledge Building
 - Review of emissions inventory
 - Presentations from sector representatives
- Development of Strategies to Meet Goals
 - Variety of proposals introduced by Strategy Work Group, MPCA and others
 - Technical aspects evaluated
 - SWG considers, selects
 - Partners Group provides input/feedback

Stakeholder Process

- Strategy Development
 - Sector-by-Sector approach
 - Criteria for strategy evaluation (Air)
 - Reaching goal of 789 lbs
 - Identify implementation issues and barriers
 - Consider costs
 - Determine timeframe for achieving reductions
 - Strategy selection
 - Politically, socially acceptable, economically feasible
 - Consensus = can live with it (not voting process)

Findings

- Work to be done in all sectors/emission categories
- No source is insignificant
- Identify research needs & opportunities
- Identify implementation barriers

Progress Update

- Water Discharge Strategy - accepted
- Improvements/Refinements in Air Source Inventory
- Significant Progress in all Sectors
- Need to address new and expanding sources

Proposed Strategies

- Water Point Source Discharges
 - Distribution of Unallocated Load
 - First-come, first-served, if meet planning, monitoring and discharge criteria
 - Allocations made through MPCA permitting
 - When reserve used, new loads must be offset
 - Adequate reserve exists for projected future loads

Proposed Strategies

■ Air Emissions

■ Electric Power Generation

- Require controls at major facilities (not already covered by other initiatives)
- Assess effectiveness of MCCAG recommendations re: energy efficiency and renewables, CIP. Extend goals if necessary.

Proposed Strategies

■ Air Emissions

■ Taconite Processing

- Outline and follow research plan to determine appropriate technology
- Require percentage reductions by target dates

Proposed Strategies

■ Air Emissions

■ Industrial Boilers and Wood Combustion

- Assess anticipated Federal MACT standard for industrial boilers
- Require further controls if not acceptable Hg control

■ Metal Smelting

- Increase removal of mercury in scrap metal sources
- Require controls at facilities to achieve percentage reductions

Proposed Strategies

■ Air Emissions

■ Cremation

- Study options for abatement and/or controls
- Require percentage reduction by target date

■ Dental Preparations

- Continue prevention and education efforts
- Address insurance bias against non-mercury fillings
- Study technologies to control emissions from clinics

Proposed Strategies

■ Air Emissions

■ Products

- Education on mercury in products
- Improve opportunities for collection and processing
 - Product stewardship
 - Recycling
 - Outreach with specific industry sectors
 - Increase compliance with existing laws
- Lamp Recycling
 - Improve practices
 - Require controls on facilities

New and Expanding Sources

- Challenging Topic
- Options Include:
 - Create reserve capacity (below 789)
 - Require/allow in-state offsets
 - Require/allow out-of-state offsets
 - Pursue cap and trade

For More Information

- Track Progress at:

www.mn-ei.org

- Email Distribution List

- Contact Info:

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