

# Northeast Regional Mercury Total Maximum Daily Load



New England Interstate Water  
Pollution Control Commission

# Overview

💧 **Background Information**

💧 **TMDL Calculations**

💧 **TMDL Goals**

💧 **Next Steps**

# Who is NEIWPCC?

- 💧 **New England Interstate Water Pollution Control Commission**
- 💧 **Compact Member States: New England States and New York**
- 💧 **Congressionally Authorized Interstate Commission formed in 1947**
- 💧 **Based in Lowell, Mass.**

# STATE PRIORITIES

**EXECUTIVE COMMITTEE**  
(Chief Environmental Officers)

**NEIWPCC COMMISSION**  
(Commissioners from each State)

**NEIWPCC STAFF**

**COORDINATE  
WATER QUALITY  
IMPROVEMENT**

**RESEARCH**

**TRAIN  
ENVIRONMENTAL  
PROFESSIONALS**

**EDUCATE THE  
PUBLIC**

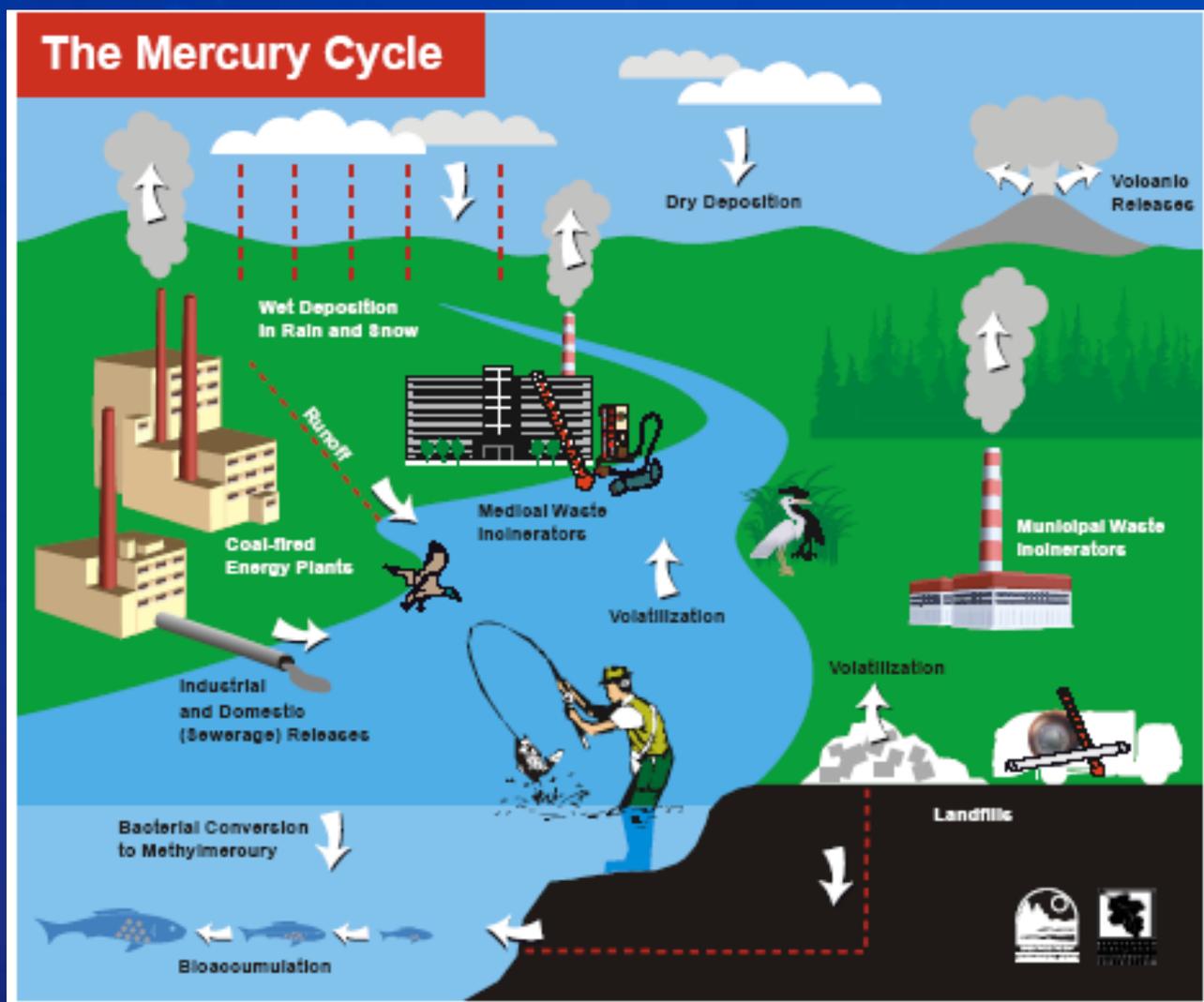
# Why is mercury a concern?

💧 **Toxic metal**

💧 **Human exposure from  
contaminated fish**

💧 **Fish consumption advisories**

# How does mercury get into fish?



# Fish Consumption Advisories and Impaired Waters

- 💧 Statewide fish consumption advisories in six states
- 💧 Over 10,000 impaired lakes, ponds, and reservoirs
- 💧 Over 46,000 impaired river miles

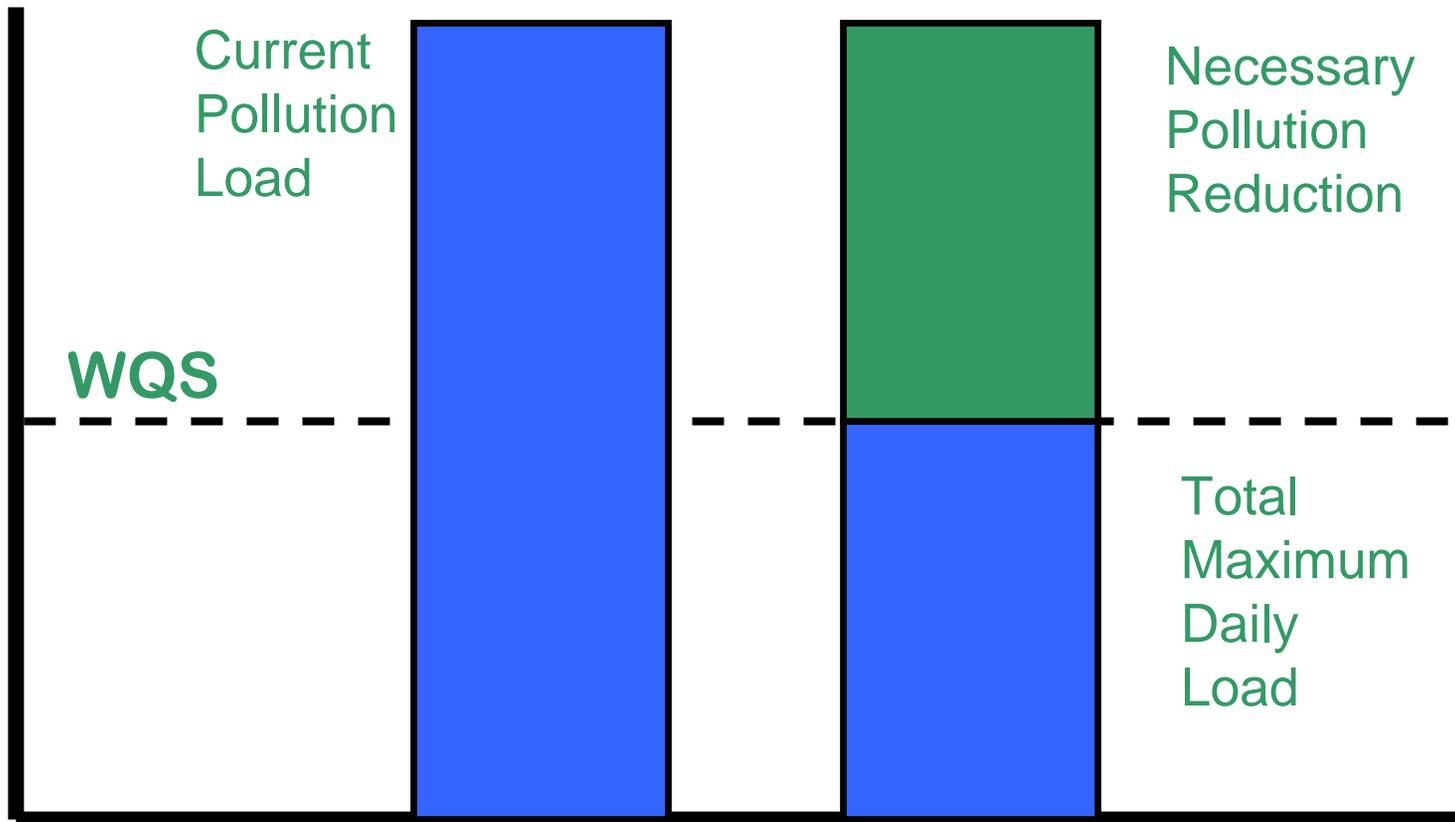
*(TMDL Page 3 for details on all states)*

# What is a TMDL?

TMDL = Total Maximum Daily Load

- Amount of a specific pollutant that a waterbody can receive and still meet water quality standards (WQS)
- States required to develop TMDLs for all waters listed on their 303(d) list (of impaired waters)
- TMDLs approved/disapproved by EPA

# What is a TMDL?



## What is a TMDL?

TMDL = Waste Load Allocation (WLA) + Load Allocation (LA) +/- Margin of Safety (MOS)

- 💧 WLA: Sum of all point sources
- 💧 LA: Sum of all nonpoint sources (including atmospheric deposition)
- 💧 MOS: Margin of safety

## Why a regional TMDL?

- ⦿ Atmospheric deposition of mercury common problem in region
- ⦿ States already working together
- ⦿ Less resource-intensive

# **New England Governors – Eastern Canadian Premiers Mercury Task Force**

 **Formed in 1998**

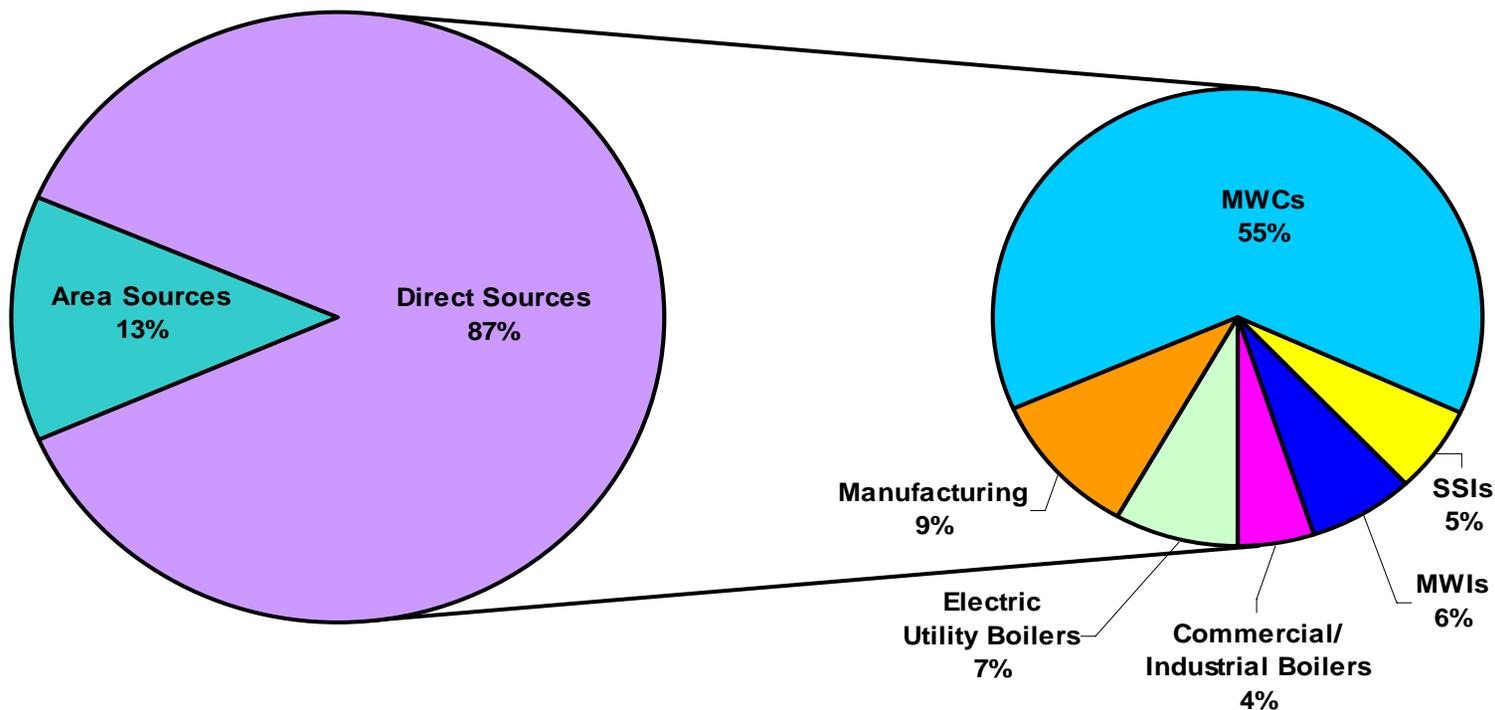
 **Virtual elimination goal**

 **Interim goals**

 **50% for 2003**

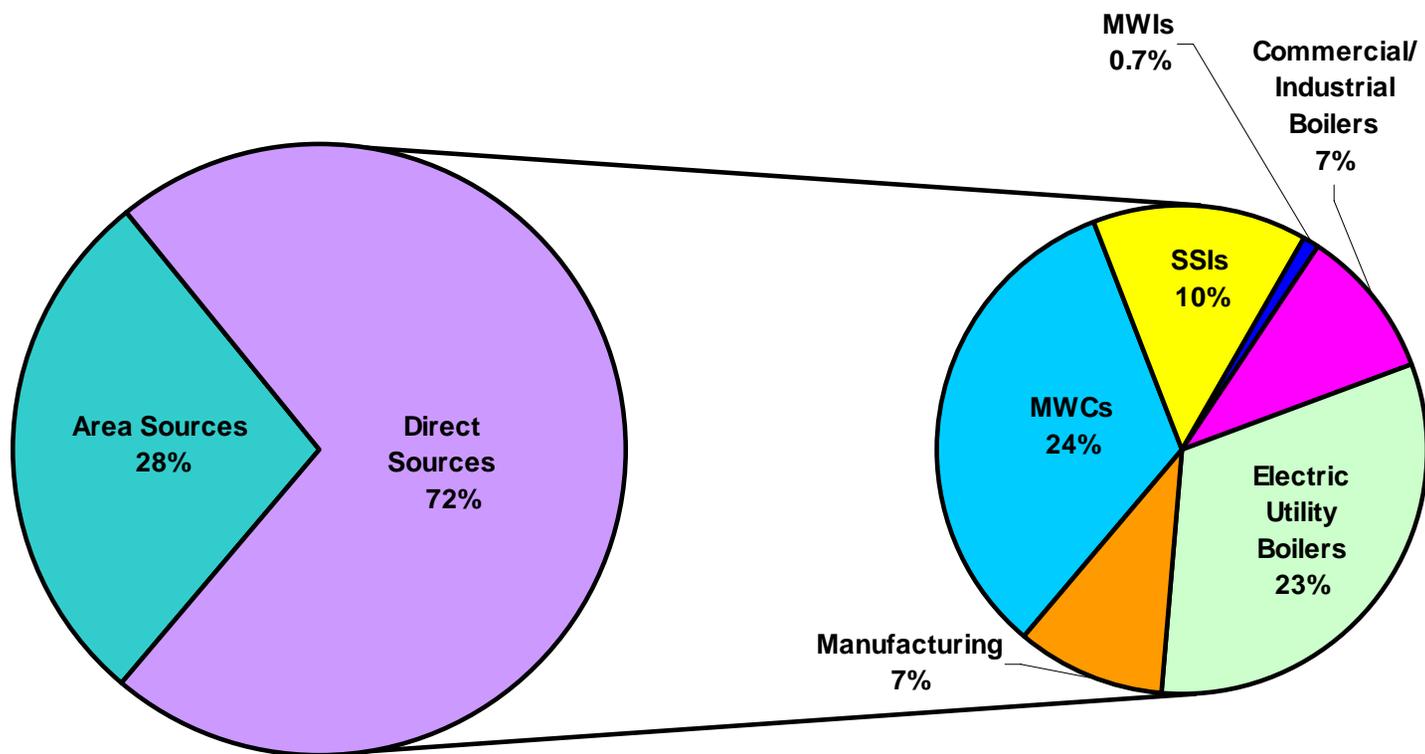
 **75% for 2010**

# Regional Mercury Emission Sources (1998)



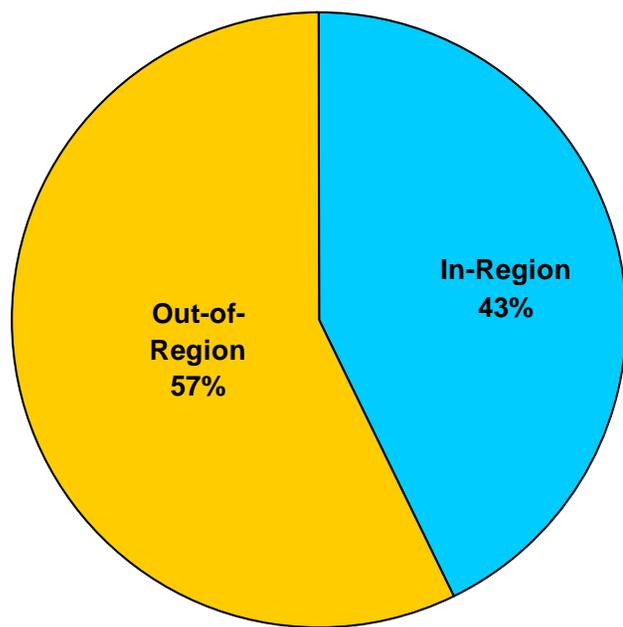
Source: NESCAUM

# Regional Mercury Emission Sources (2002)

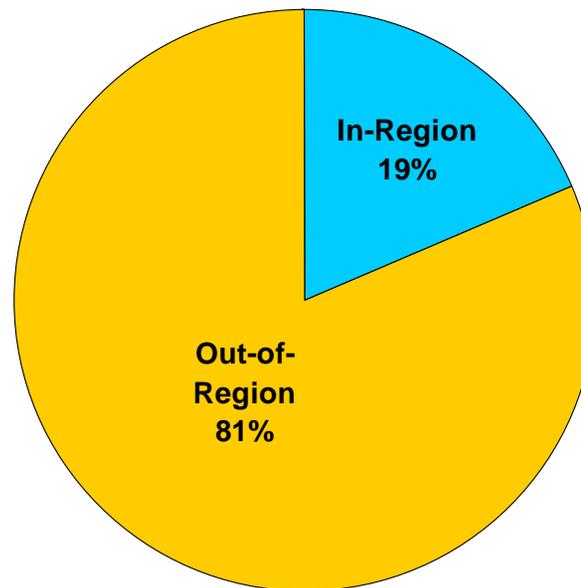


Source: NESCAUM

# Contributions of In-Region and Out-of-Region Sources to In-Region Deposition



**1998**



**2002**

# TMDL Baseline

- 💧 **Baseline year 1998**
- 💧 **Baseline fish concentration 0.86 to 1.14 ppm for smallmouth bass**
- 💧 **Target fish concentration 0.3 ppm**

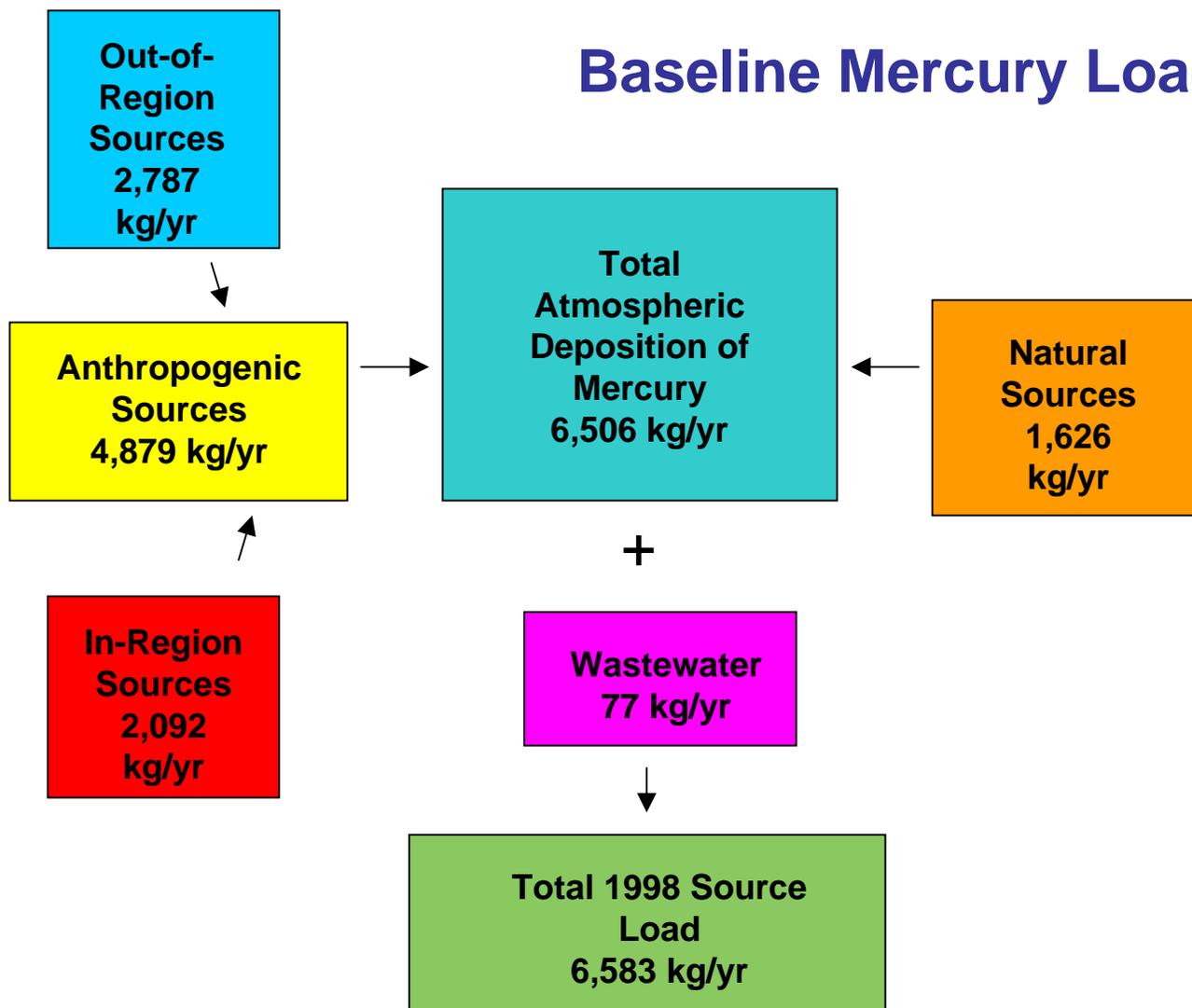
## TMDL Framework

**Current Fish  
Tissue Levels  
0.86 – 1.14 ppm**

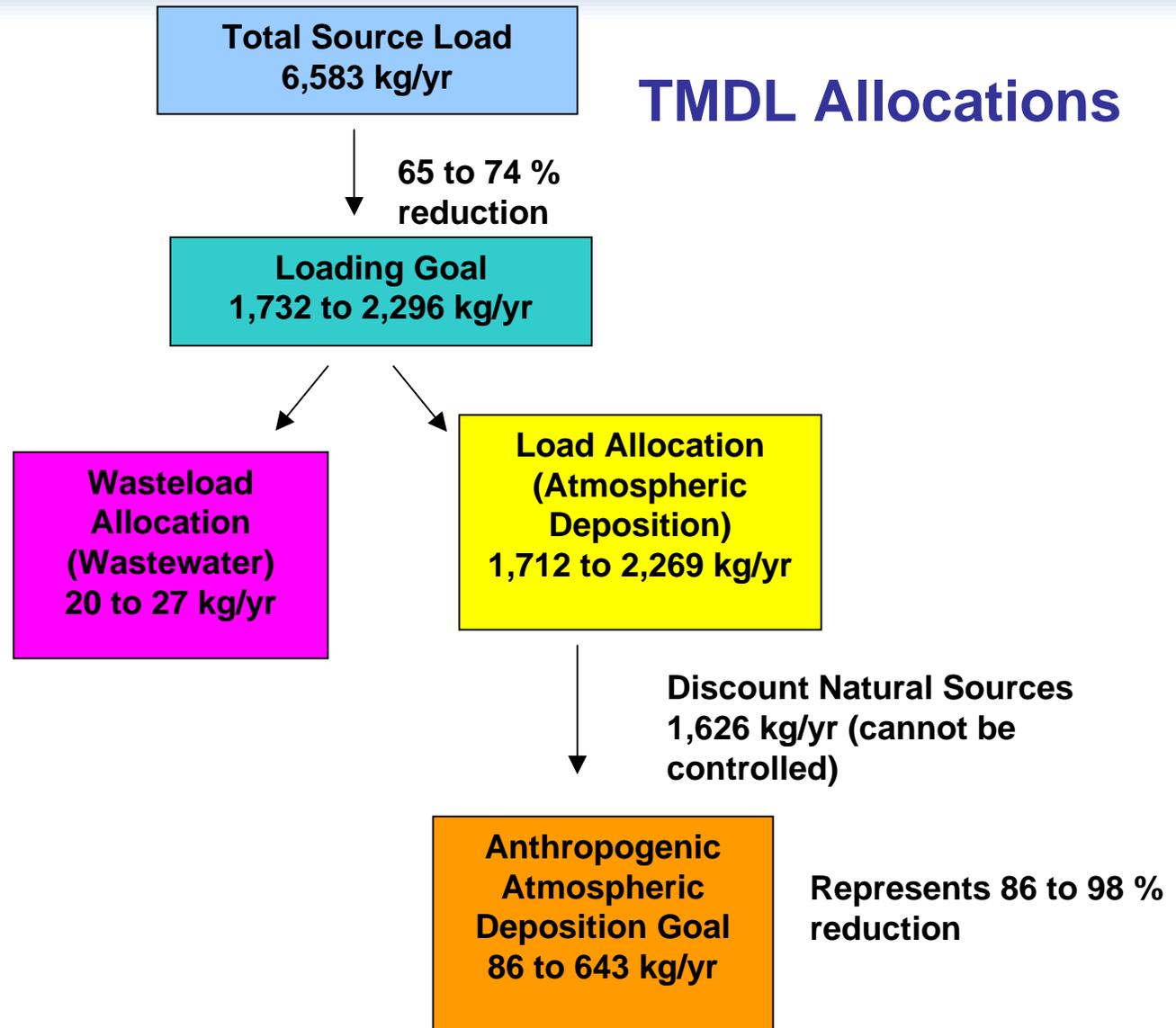
**65 to 74% reduction**

**Target Fish  
Level  
0.30 ppm**

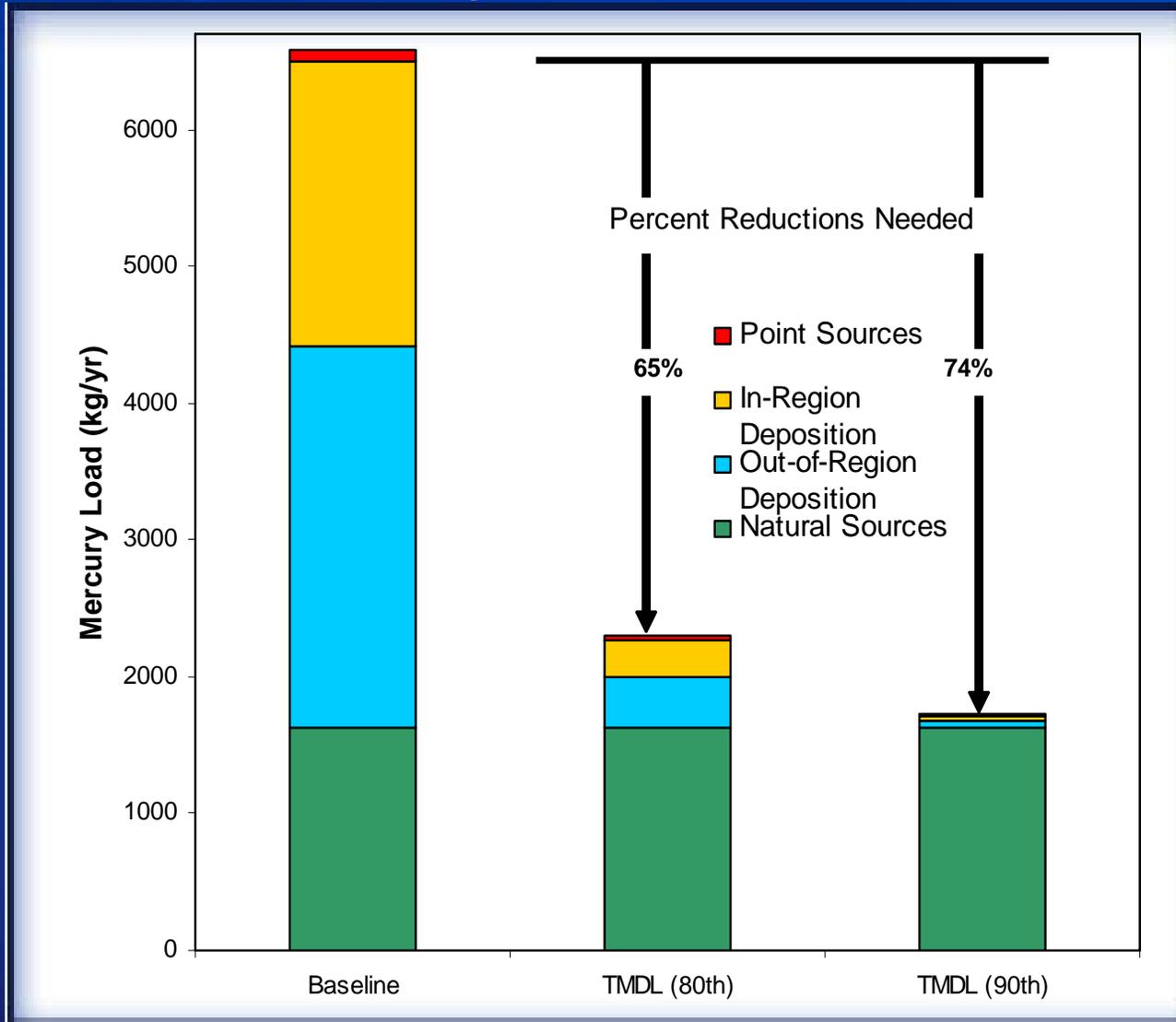
## Baseline Mercury Load



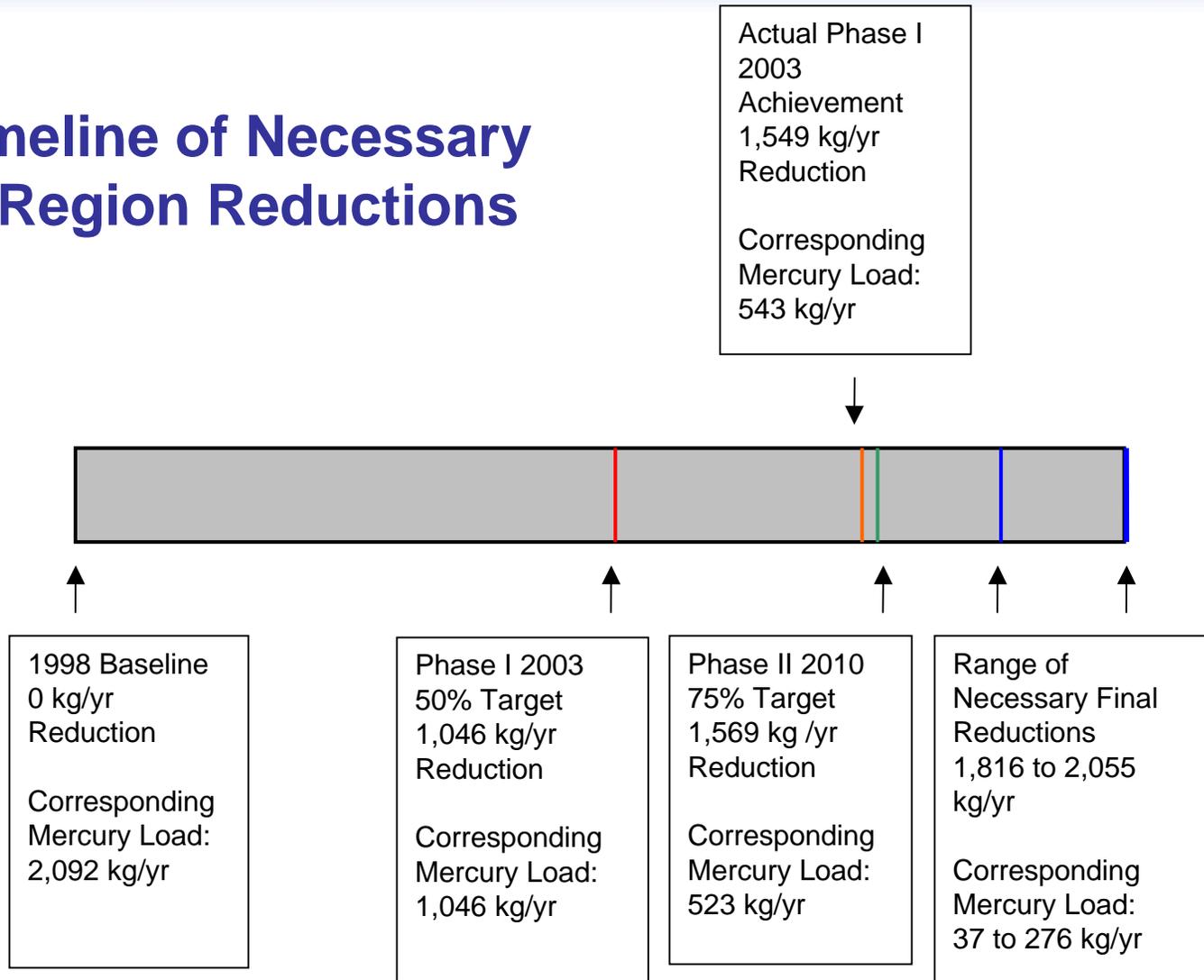
## TMDL Allocations



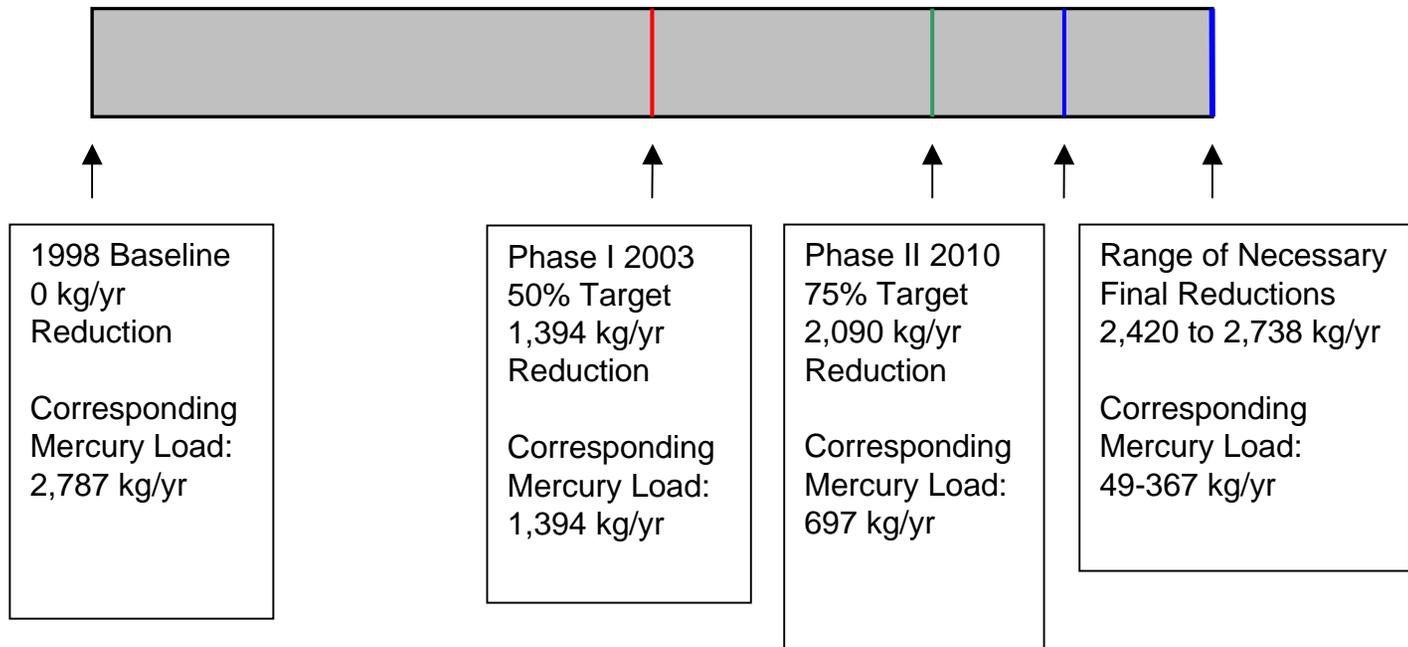
# Comparison of TMDL to Baseline Loads by Source



# Timeline of Necessary In-Region Reductions



## Timeline of Necessary Out-of-Region Reductions



# Adaptive Implementation

- 💧 All Northeast states will continue with mercury reduction initiatives in place
- 💧 Re-evaluate fish tissue, emissions, and deposition data in 2010
- 💧 Reconsider end goal and timeline

## Next Steps

- 💧 Full TMDL document available at [www.neiwpcc.org/mercury](http://www.neiwpcc.org/mercury)
- 💧 Comment period closed June 8, 2007
- 💧 Final TMDL by summer 2007

# Contact Information

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