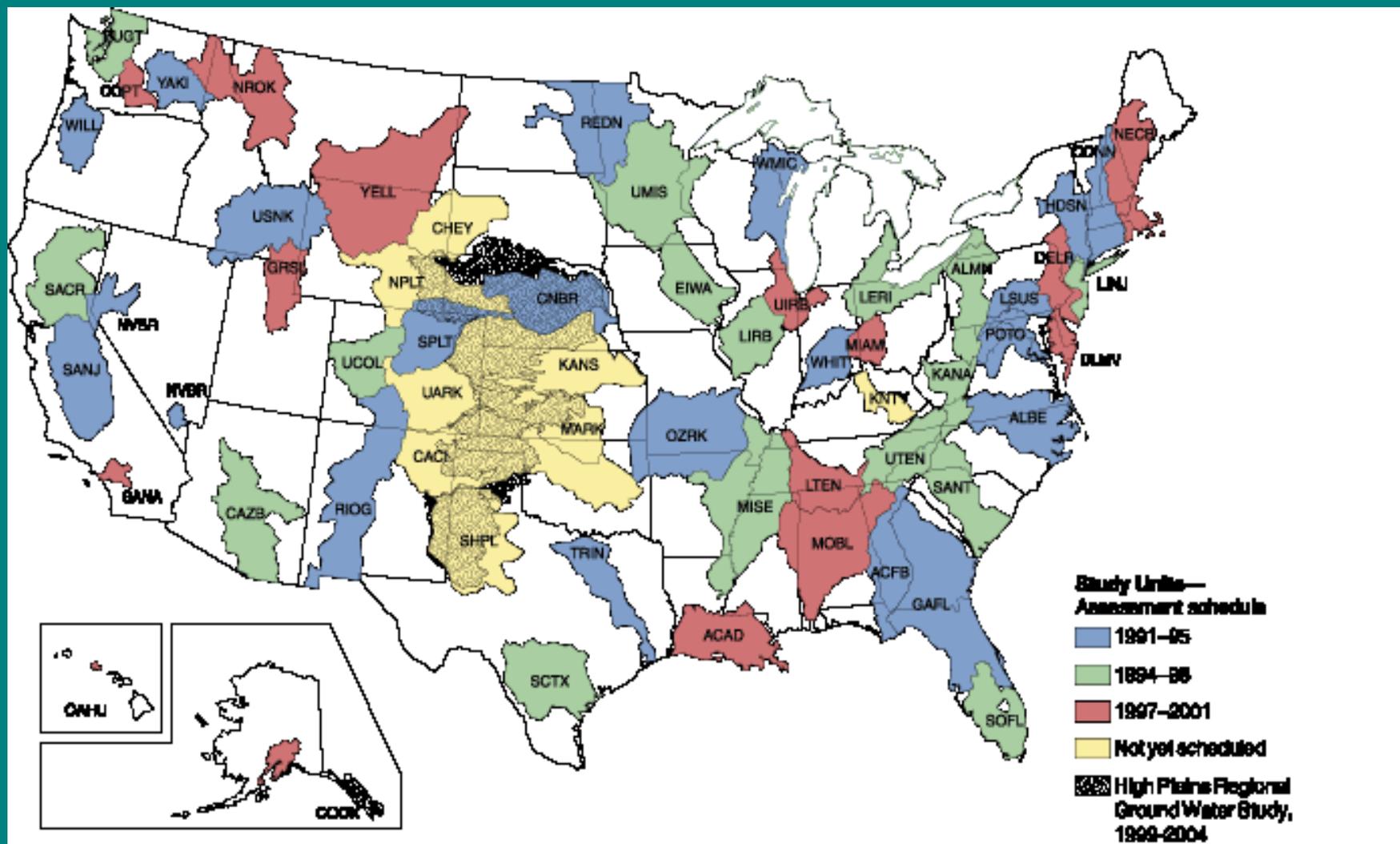


A Decade of Water-Quality Assessments: Findings for Improved Understanding of the “Big Picture”

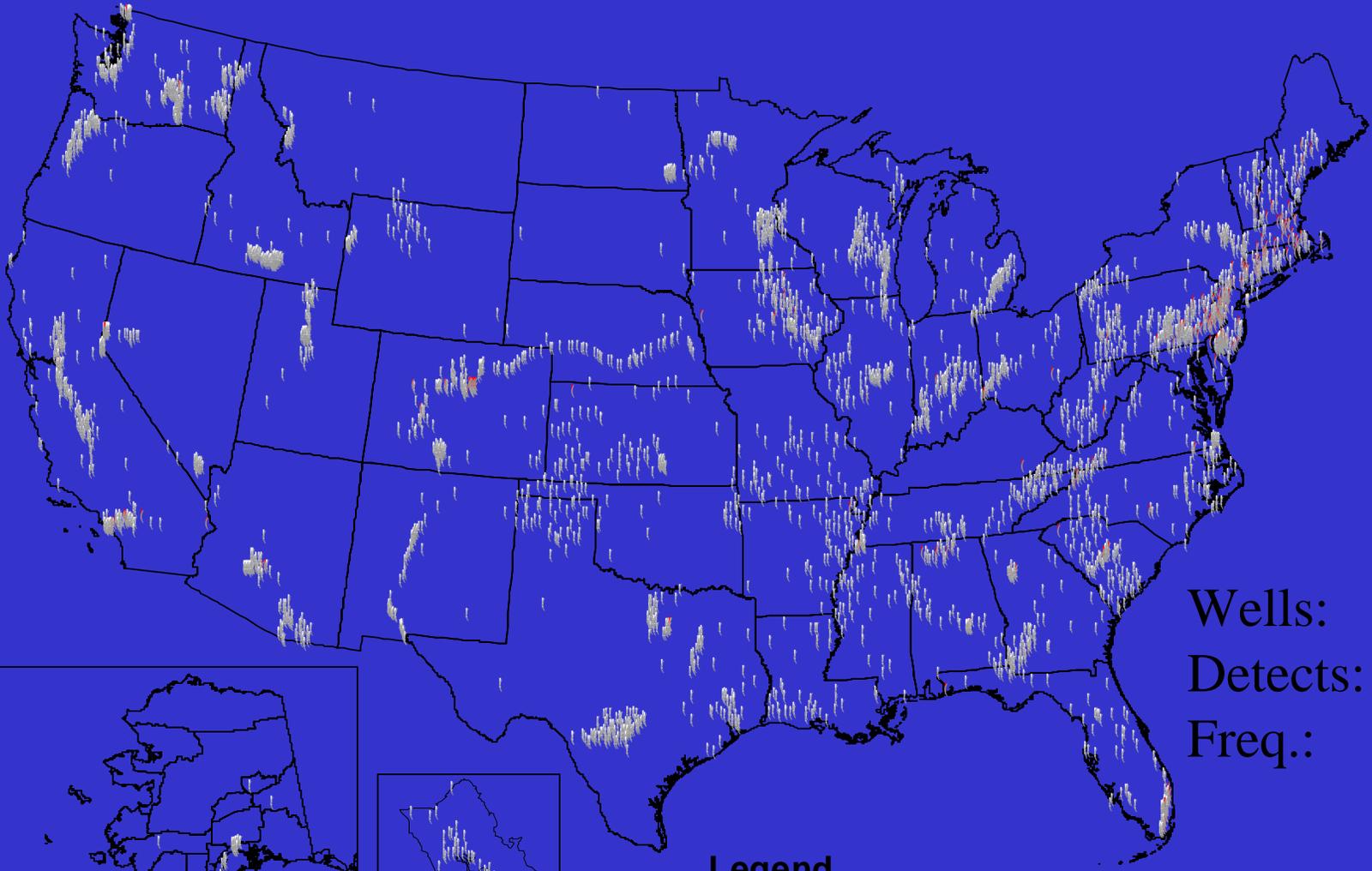
Pixie A. Hamilton and Timothy L. Miller
National Water Quality Assessment (NAWQA) Program



NAWQA Study Areas, 1991 - 2001



MTBE detections in ambient ground water and Community Water Supply Wells.

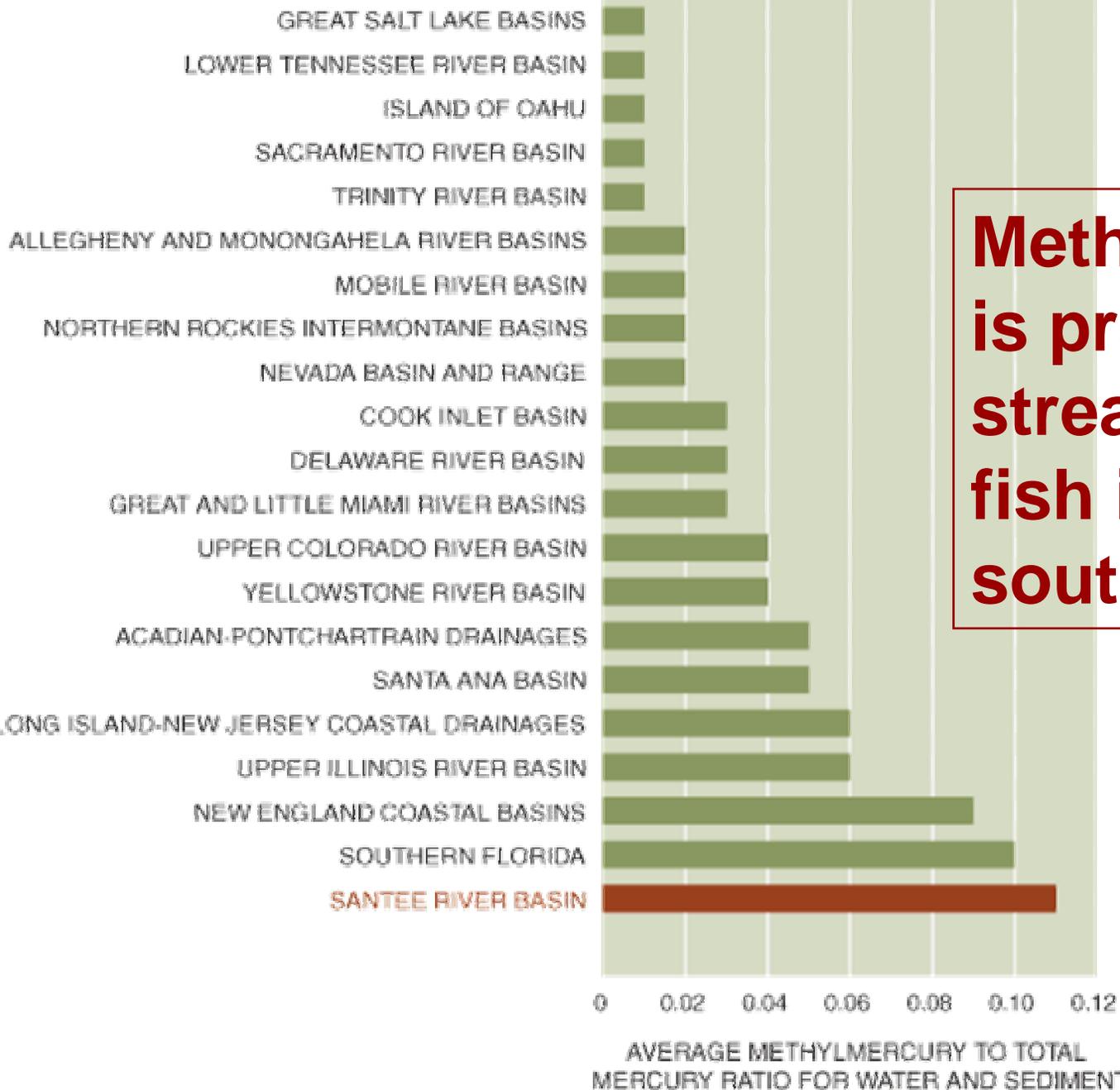


Wells: 4689
Detects: 370
Freq.: 7.9%

Legend

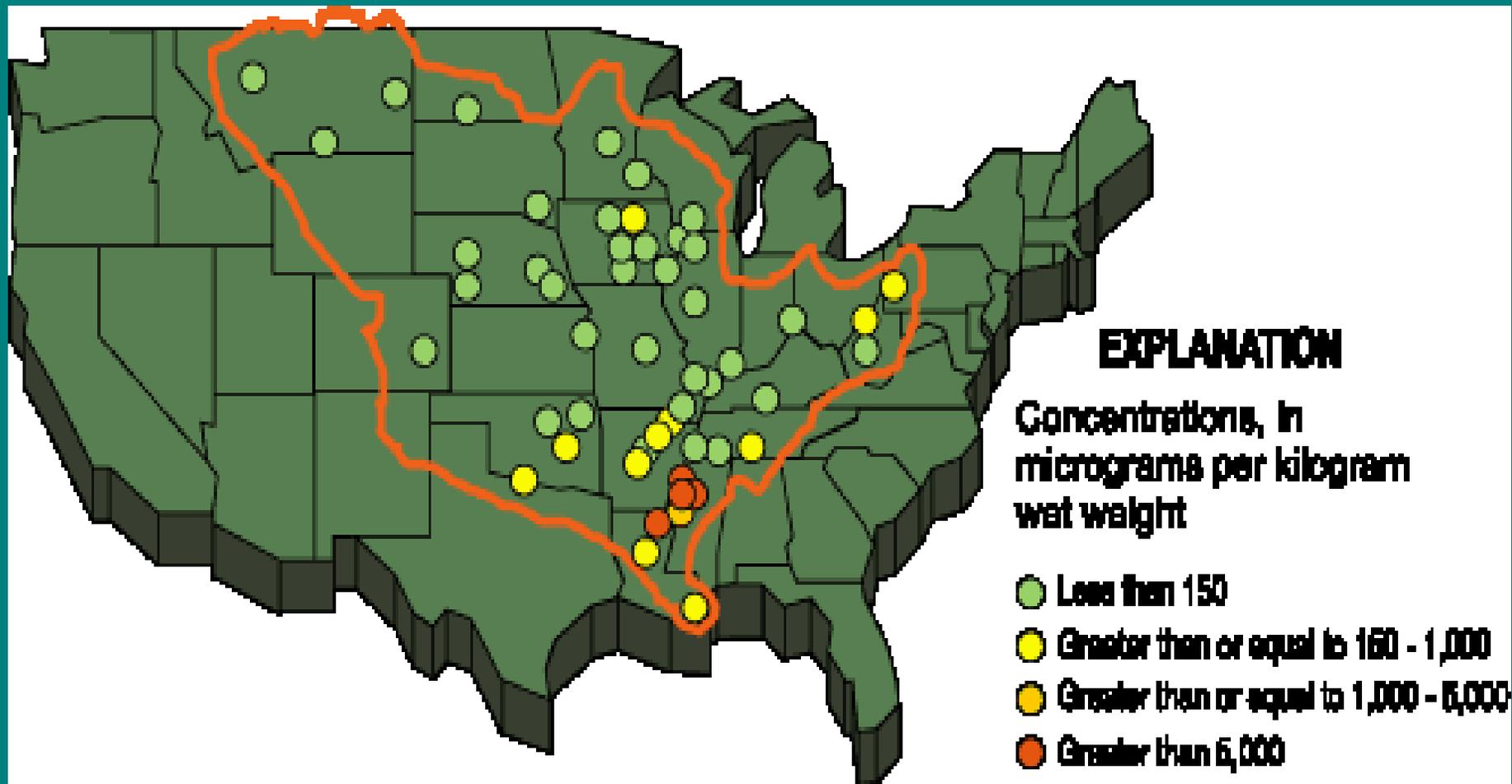
- (Well with MTBE detection
- (Well without MTBE detection

NAWQA STUDY AREAS

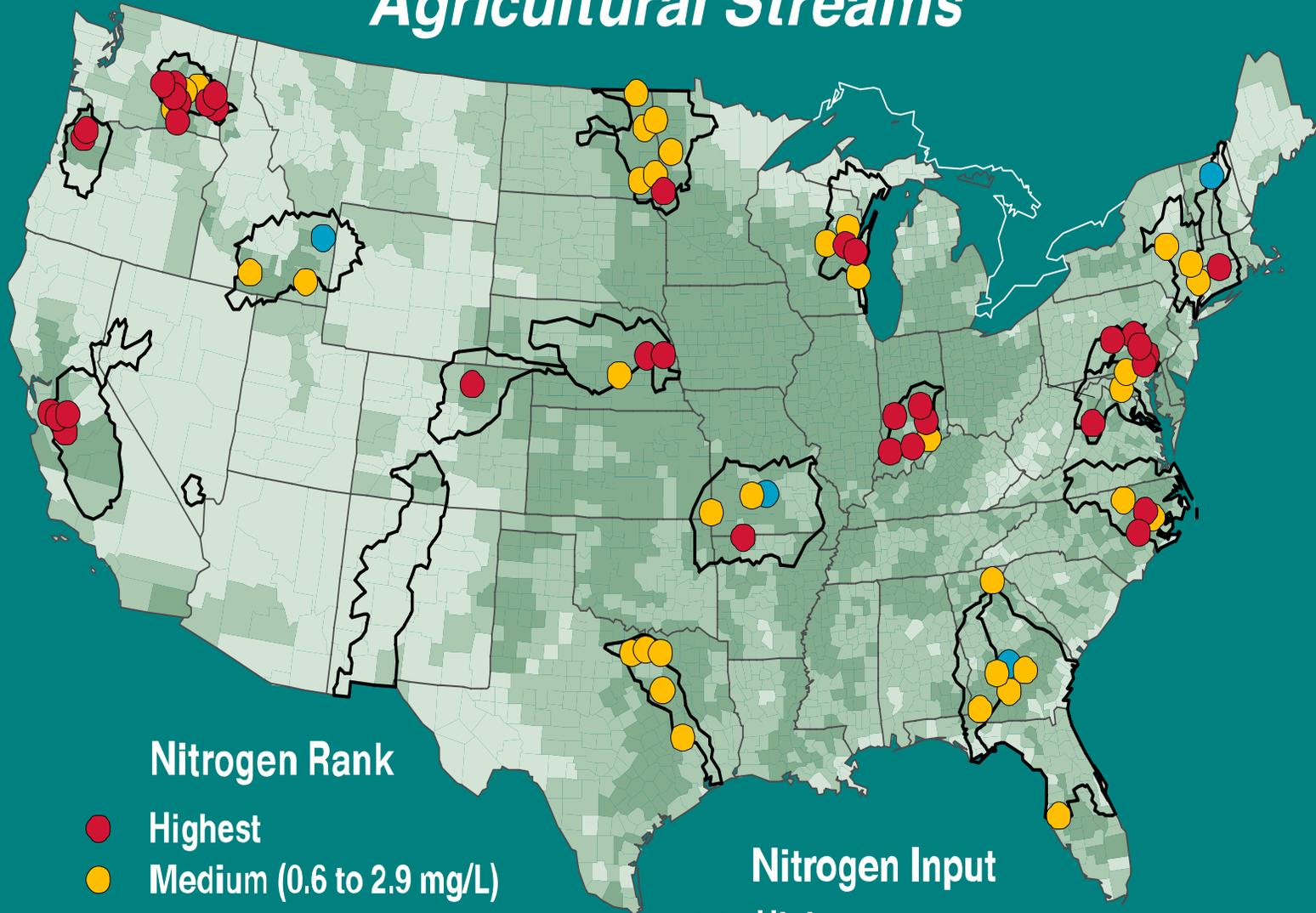


**Methylmercury
is prevalent in
streams and
fish in the
southeast**

DDT is highest in fish in the Mississippi Embayment



NITROGEN Agricultural Streams



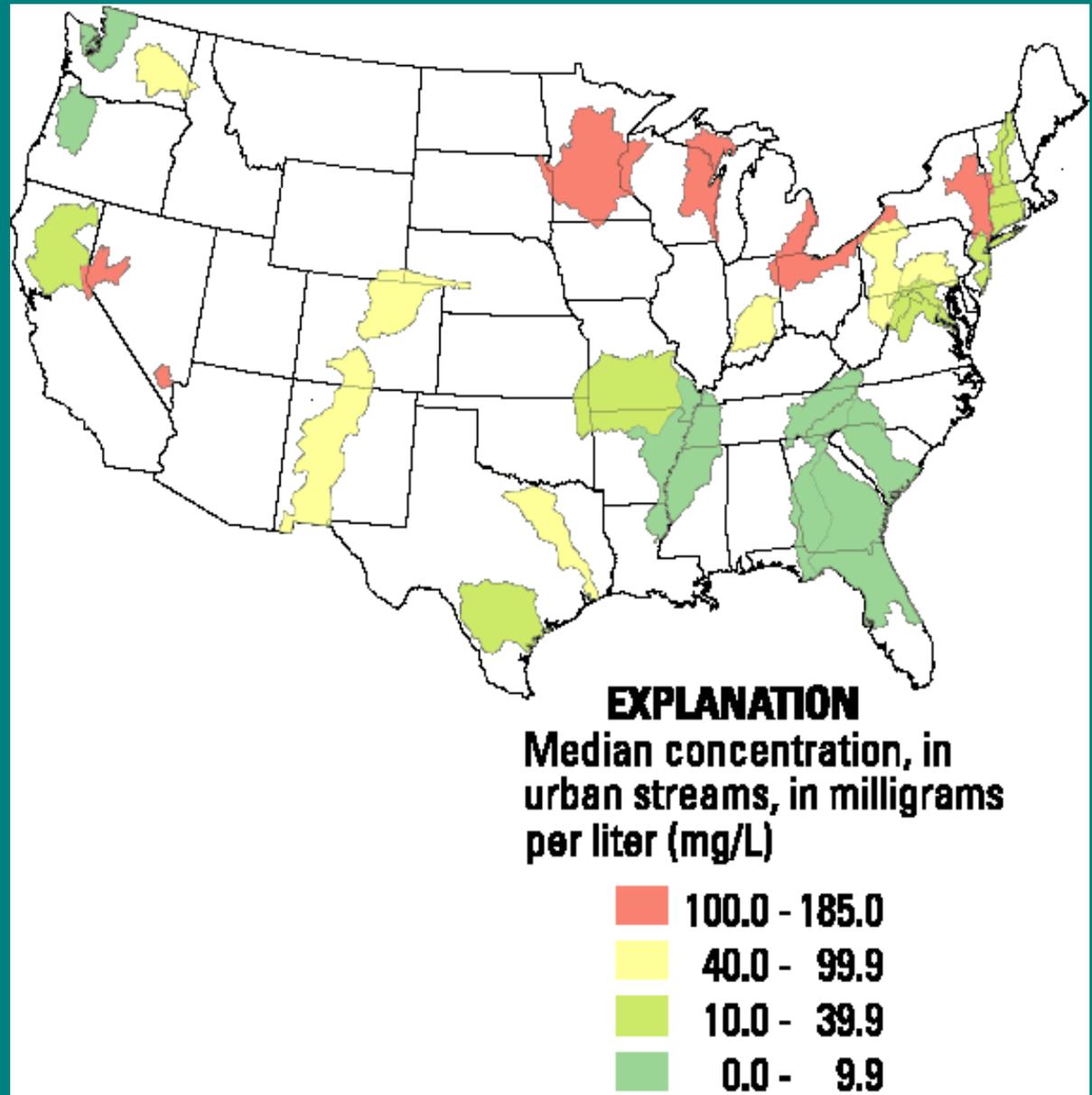
Nitrogen Rank

- Highest
- Medium (0.6 to 2.9 mg/L)
- Lowest

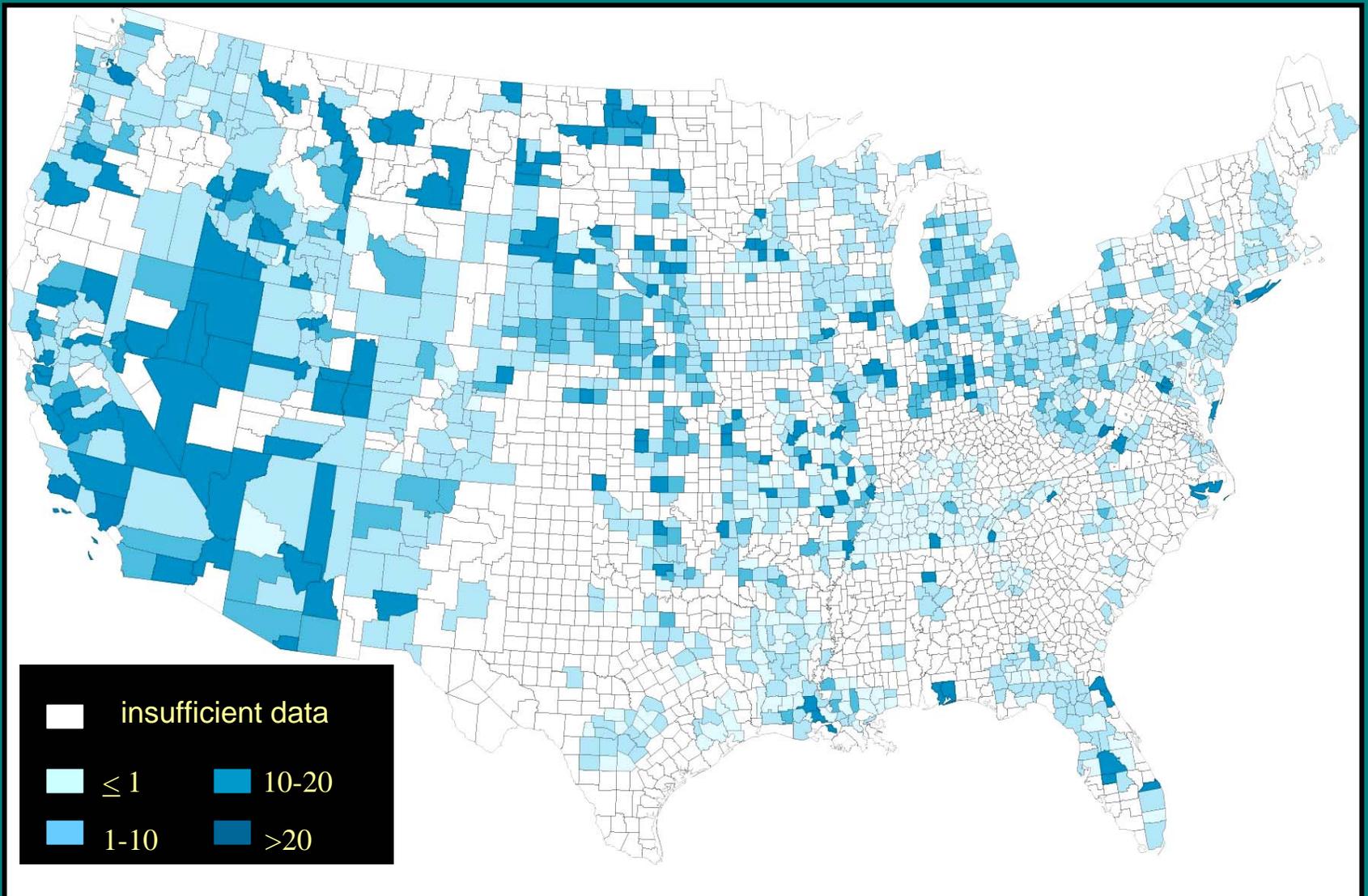
Nitrogen Input

- Highest
- Medium (6 to 25 lb/acre)
- Lowest

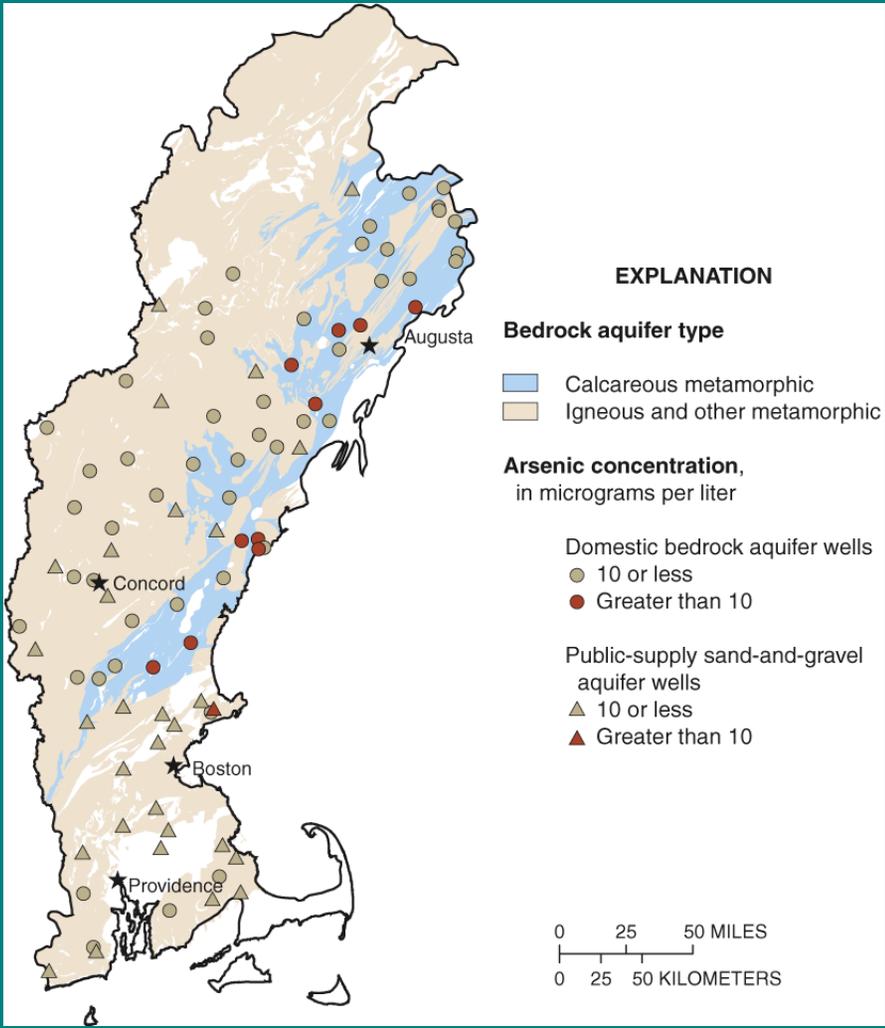
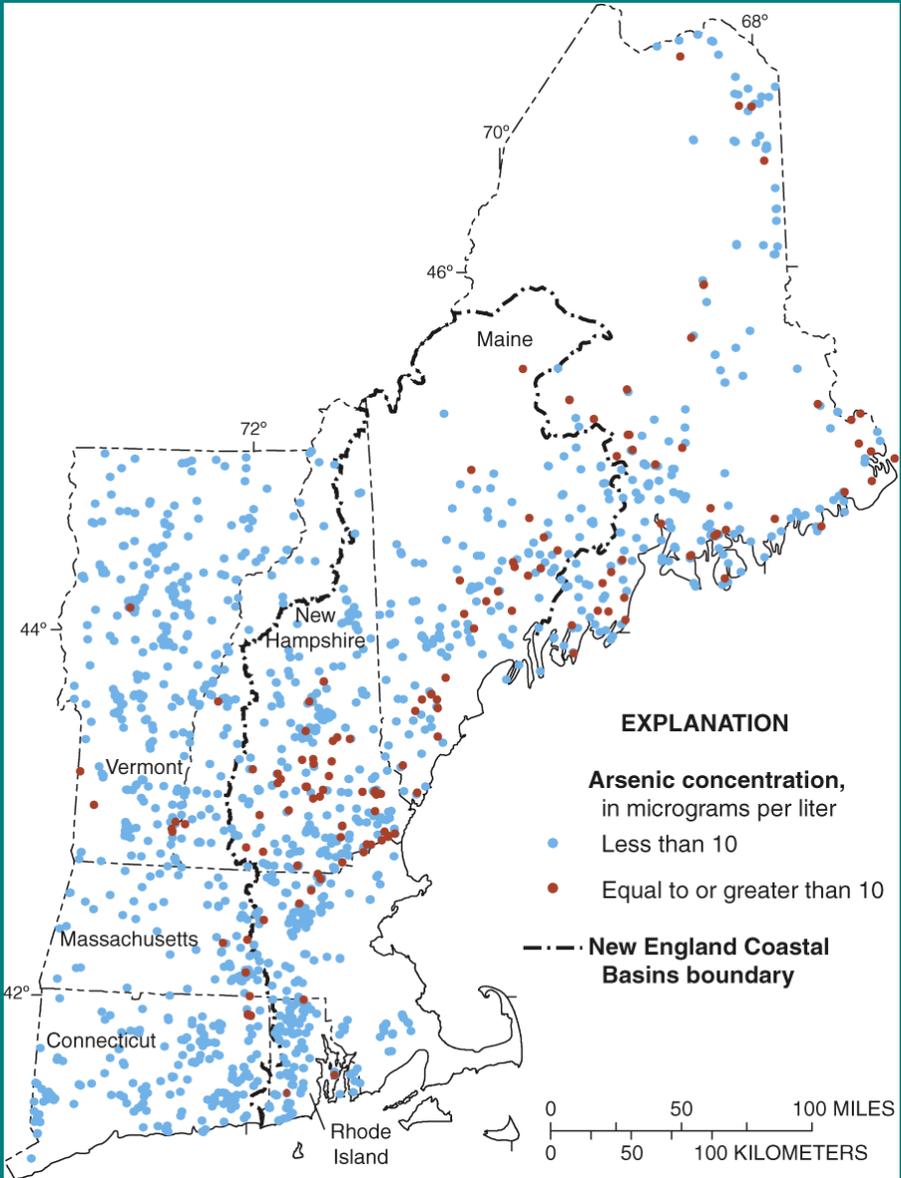
Chloride concentrations relate strongly to impervious surfaces, snowmelt, and road-de-icing

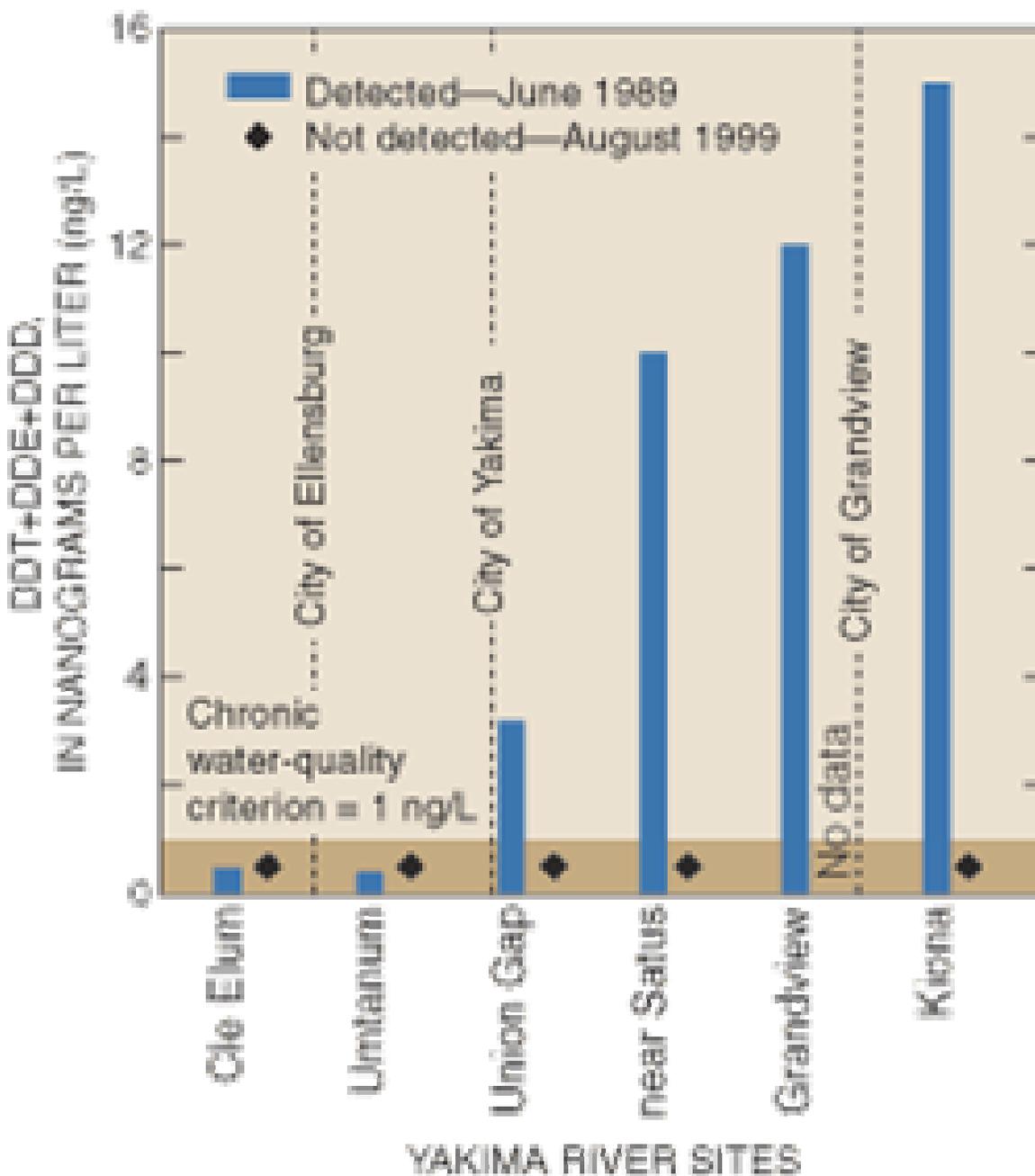


Arsenic in Ground Water in the U.S.

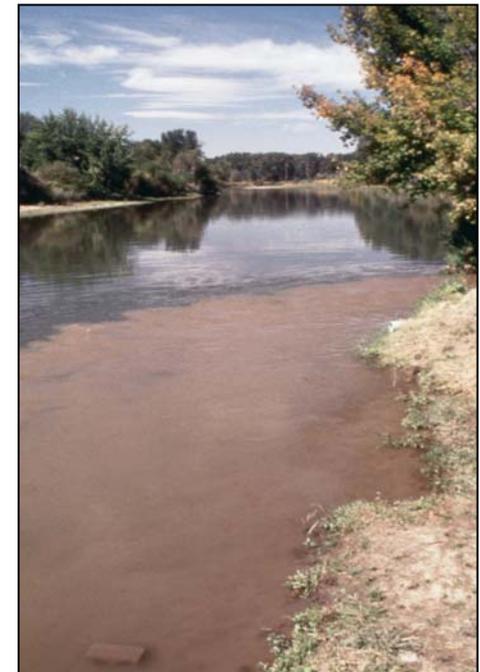


Arsenic is naturally elevated in eastern New England

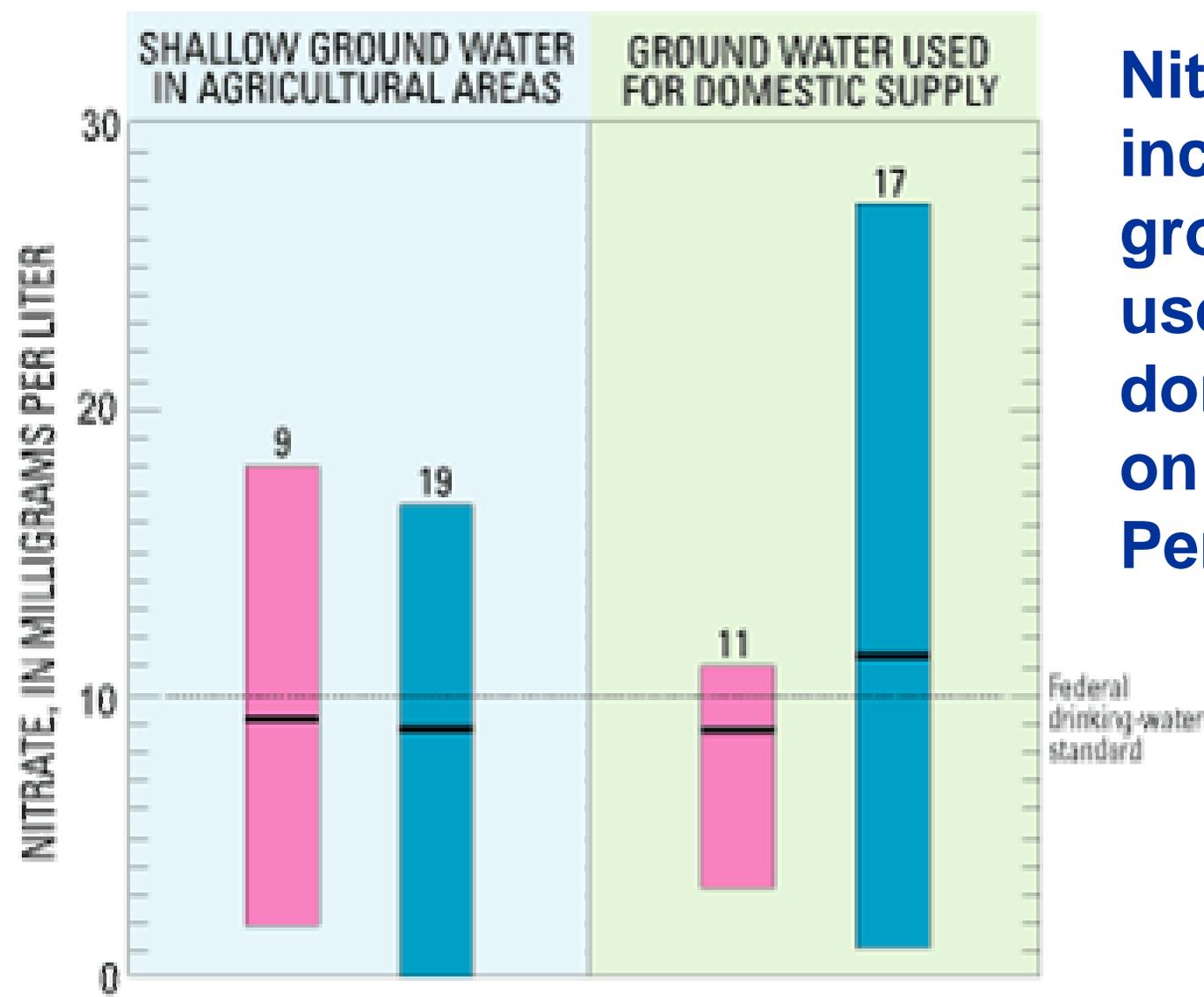




DDT is declining in the Yakima River Basin, central Washington



Nitrate is increasing in ground water used for domestic supply on the Delmarva Peninsula



EXPLANATION 19 Number of samples

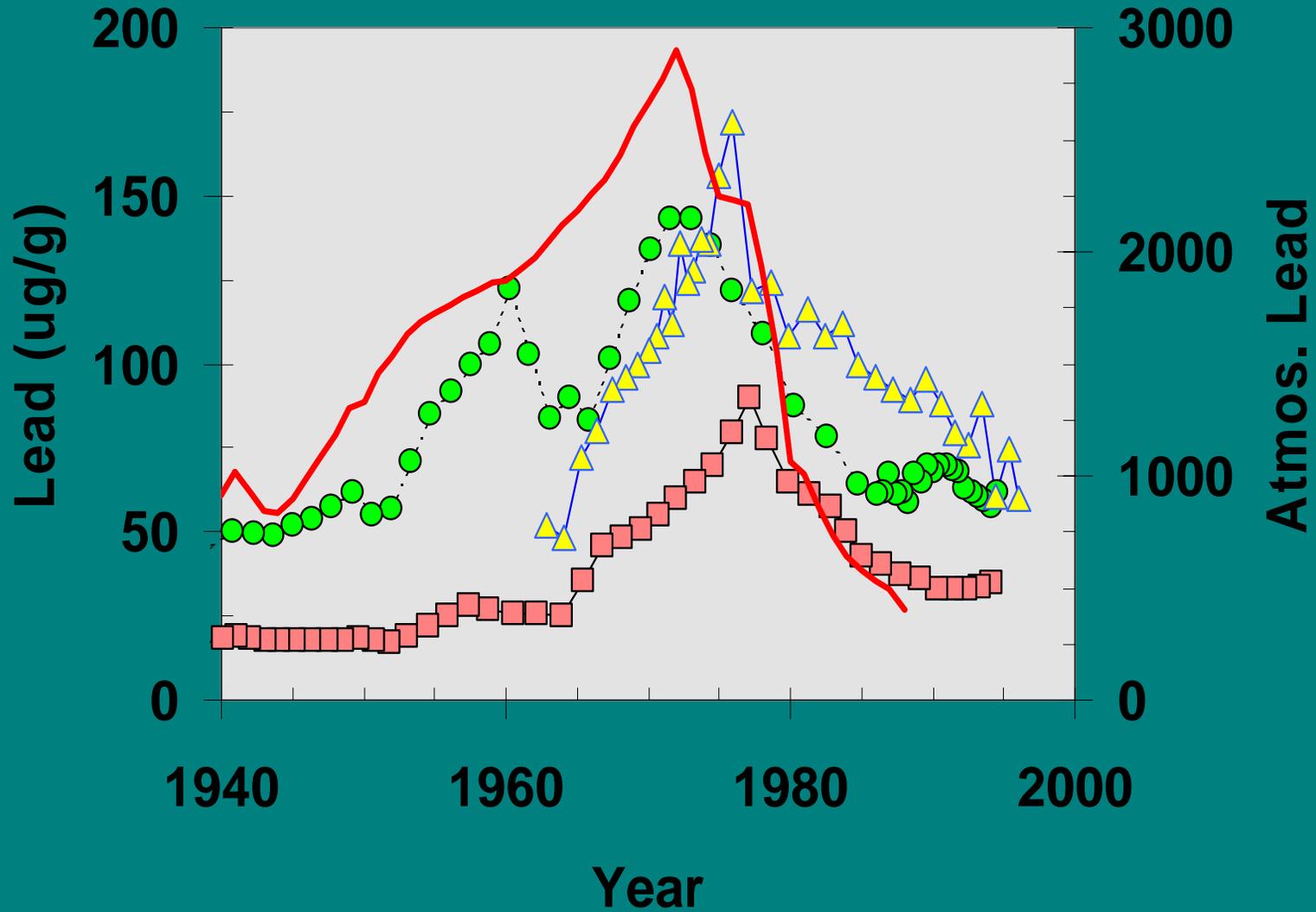
- 1988-1990
- 1999-2001
- Maximum
- Median
- Minimum

Sediment Coring in Urban Lakes and Reservoirs to Quantify Trends

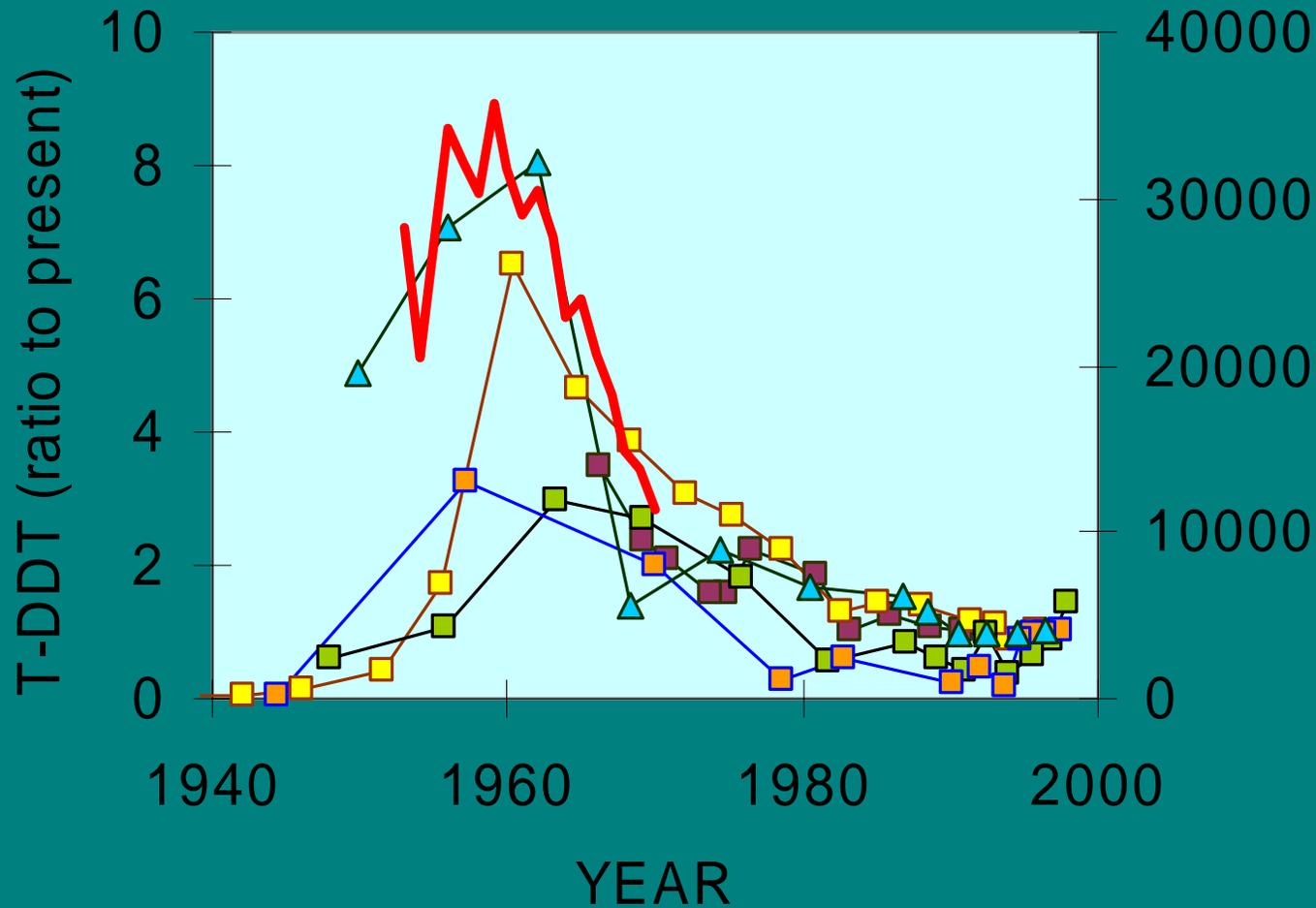
- ❑ Provides immediate information about long-term trends
- ❑ Simultaneously evaluates many sediment bound contaminants



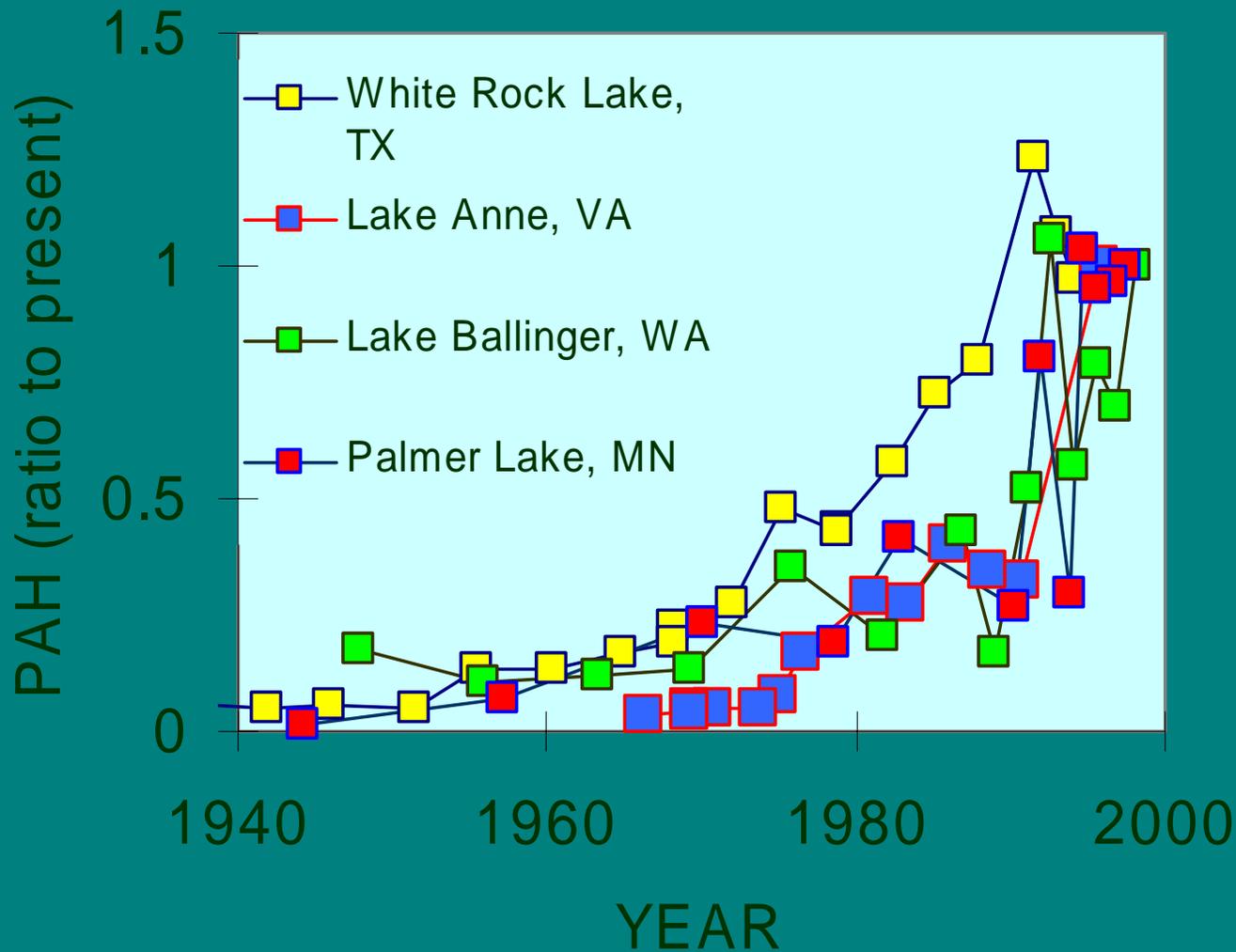
Lead Trends in Urban Lakes



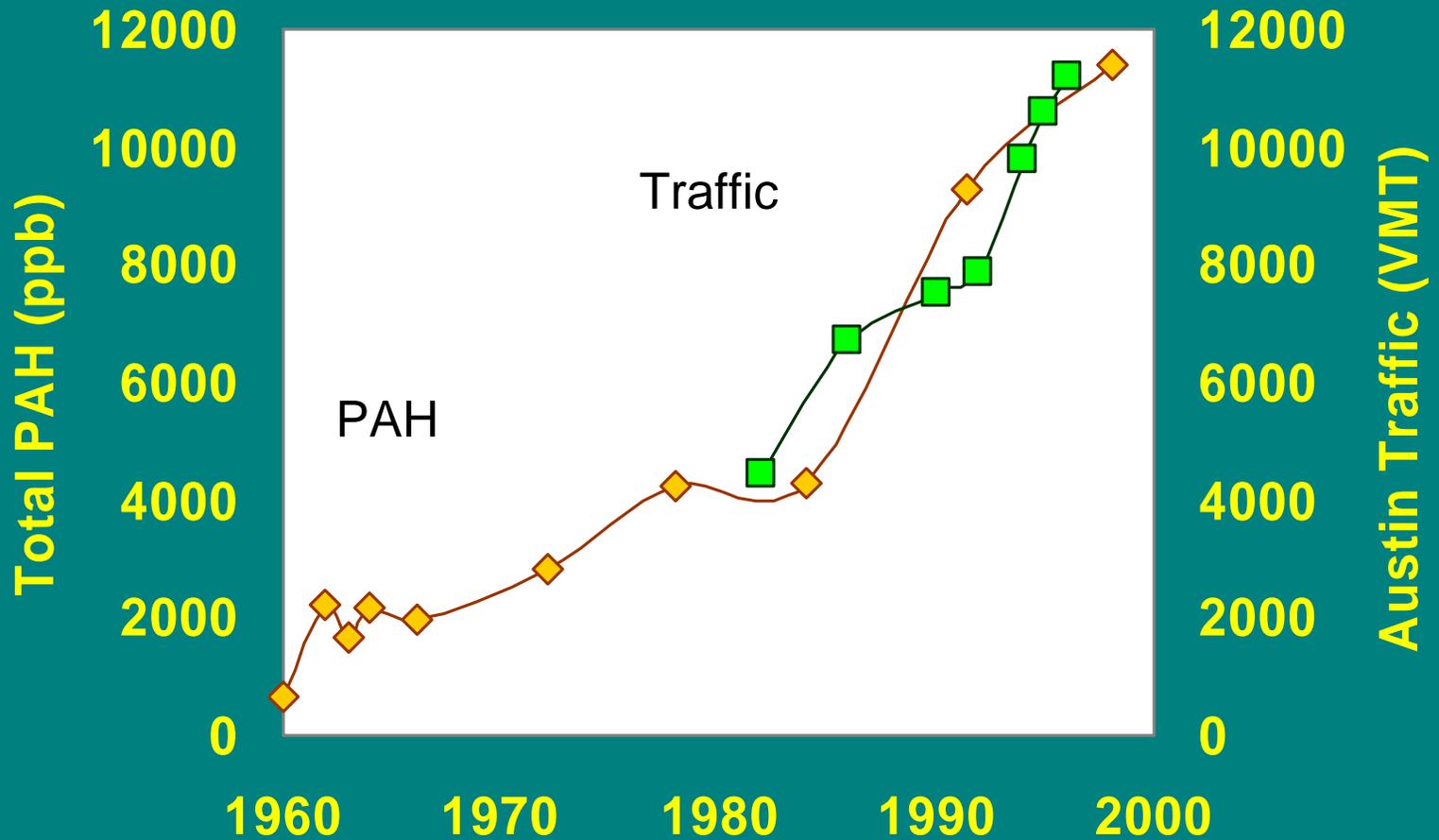
DDT: A Regulatory Success Story



Polycyclic Aromatic Hydrocarbons (PAHs)-- Rapid Increases in Urban Lakes



Close Relationship Between PAHs and Traffic



water.usgs.gov/nawqa