Long Island Sound Water Quality Workshop

July 14-15, 2015

University of Connecticut, Avery Point Campus

CIRCA
Connecticut Institute for Resilience and Climate Adaptation

SEA-BIRD COASTAL

NOAA
National Oceanic and Atmospheric Administration
U.S. Department of Commerce

NEIWPCC
New England Interstate Water Pollution Control Commission

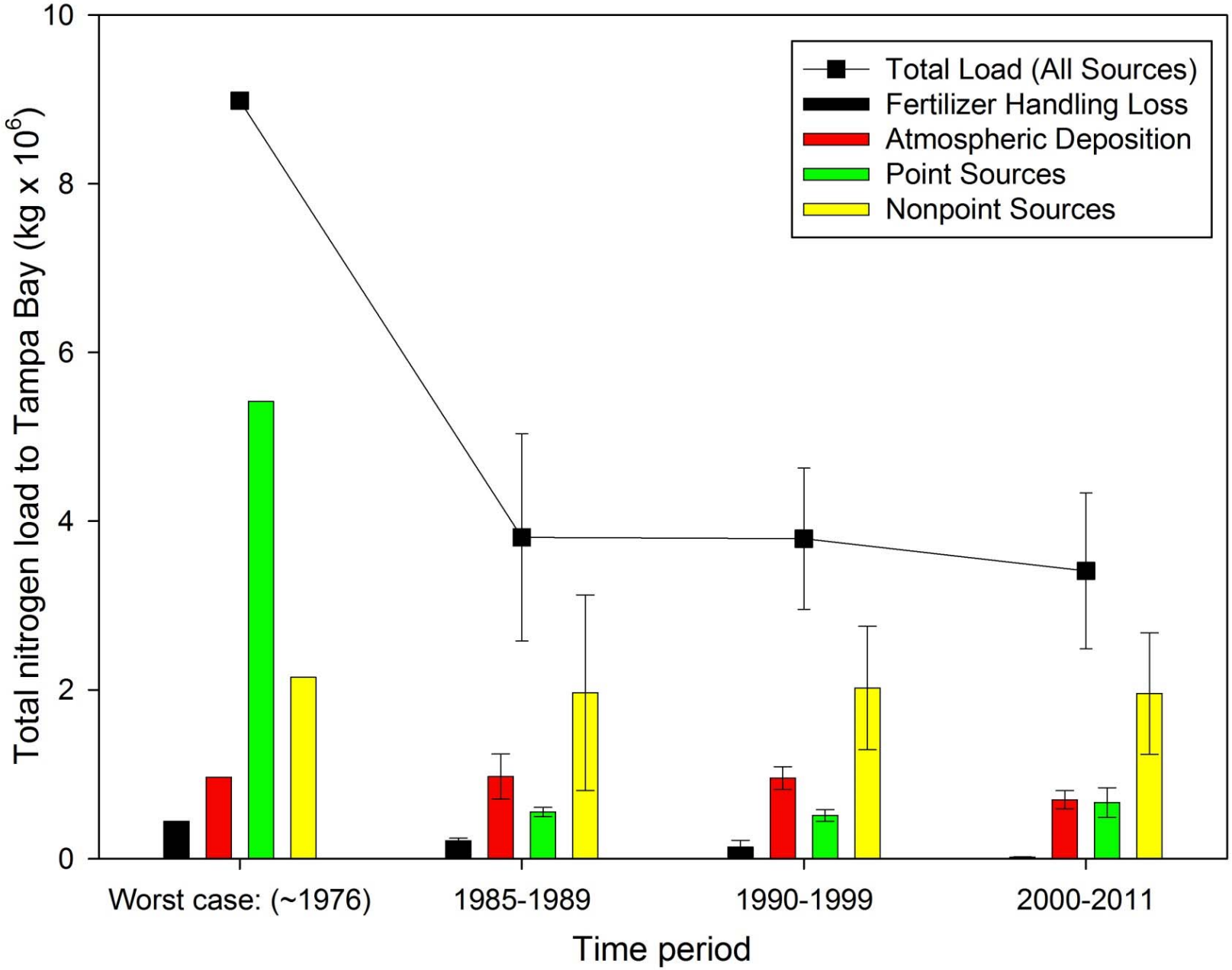
Long Island Sound Study
A Partnership to Restore and Protect the Sound

United States Environmental Protection Agency

Major Conclusions from Yesterday

- As Point Source reductions continue, other sources will become more important.
  - Thus, our need to understand and model them increases

Reduce Nitrogen Loads



Major Conclusions from Yesterday

- As Point Source reductions continue, other sources will become more important.
  - Thus, our need to understand and model them increases
- Linkages between Nitrogen loading and Hypoxia are difficult to establish
  - Models can help us understand causal relationships between them
- There is a need to consider alternate endpoints (e.g. chlorophyll, seagrass) in addition to hypoxia

The Paradox of Patience vs. Precautionary Principle

- Evidence suggests that estuaries take time to respond to changes in loadings.
- Management activity often cannot wait for conclusive evidence.

- Models can potentially help us bridge this gap

Overarching Questions

- What are the next steps for our modeling program
  - Improving existing models?
  - Developing alternate hypoxia based approaches?
  - Modeling other eutrophication endpoints?

- Should alternative approaches supersede or complement ongoing efforts?

Overarching Questions

- What are the existing data gaps, and what new data might improve our ability to model LIS?
  - Hypoxia
  - Alternative endpoints
  - Different parameters, more spatial coverage, more temporal coverage, etc…

Overarching Questions

- How can we better incorporate anticipated future ecosystem dynamics and changing climate into our models?
  - Different approaches
  - Different simulations
  - More/Better data