

# Why (Nutrient WQ) Trading?

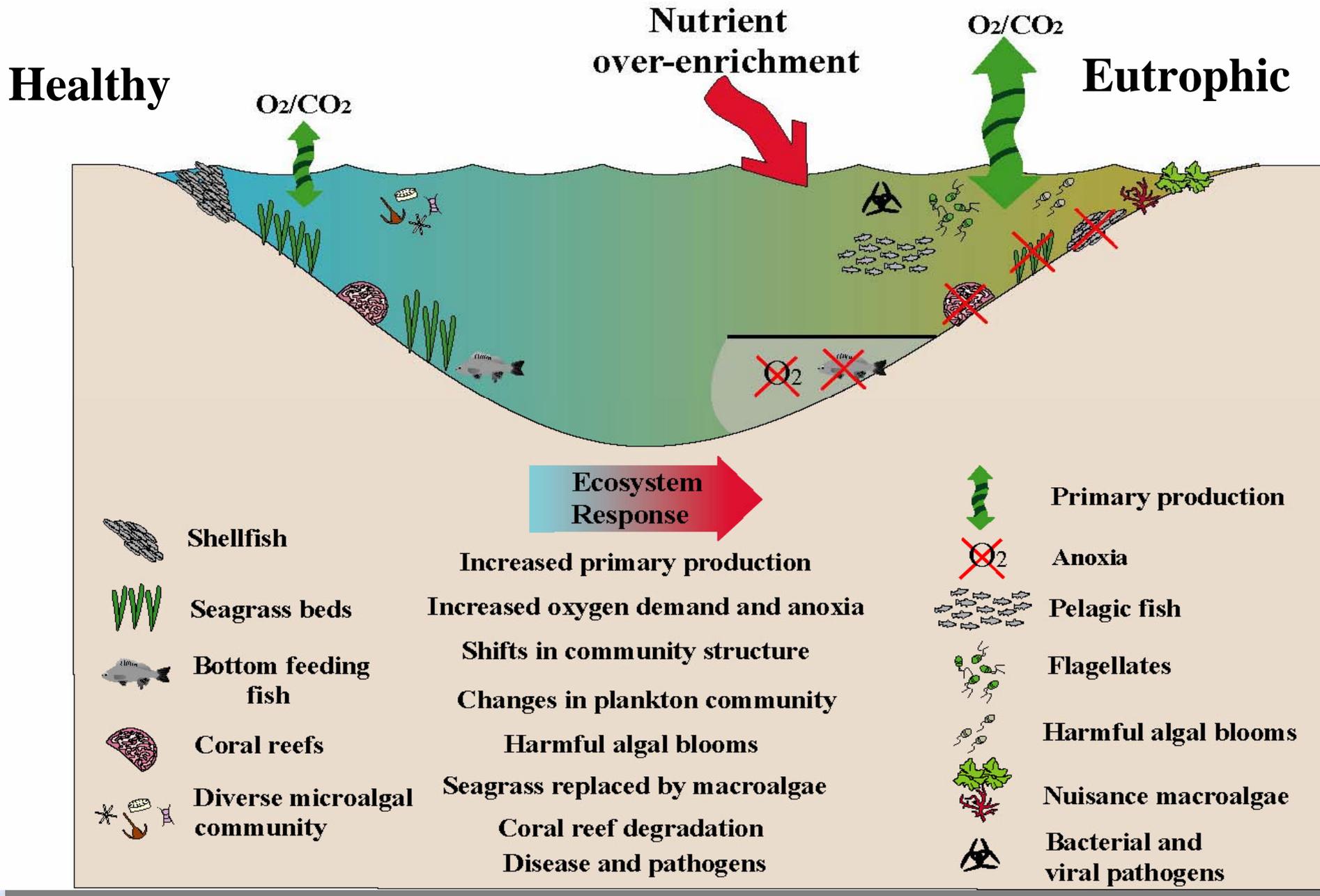
## Why Now?

Tom Simpson  
University of Maryland  
National Integrated Water Program  
Annual Conference  
Savannah, GA  
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# Examples of Nutrient Impacted Coastal Waters

- Chesapeake Bay
- Gulf of Mexico/Mississippi River Basin
- Tar/Pamlico/Neuse Basins
- Long Island Sound
- Tampa Bay
- Sea of Japan
- Black Sea/Danube
- Baltic Sea
- And the list goes on.

# Nutrient Pollution: Grand Challenge of the 21<sup>st</sup> Century



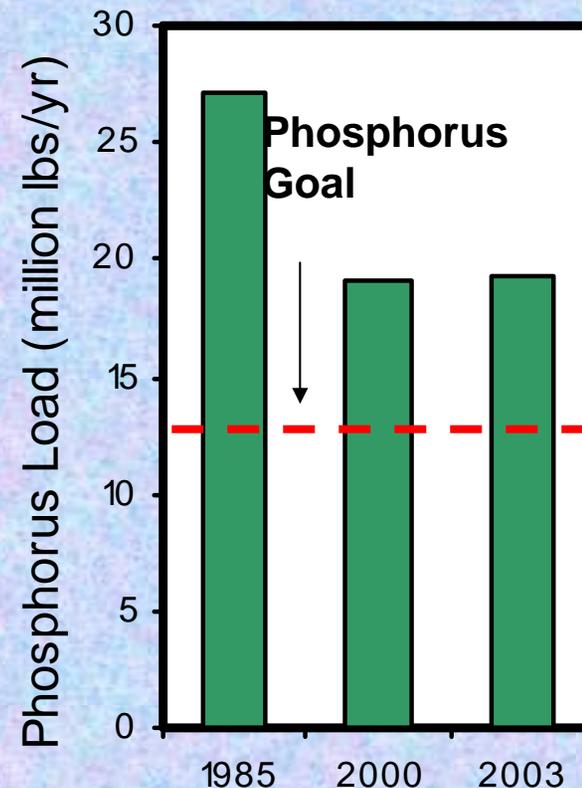
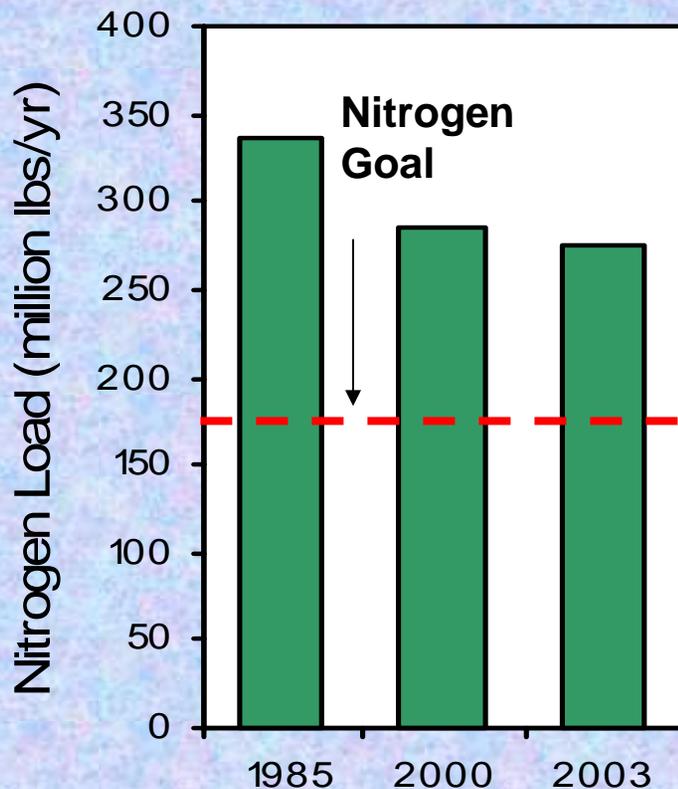
# *The Chesapeake Bay Program:*

## Chesapeake Bay Agreements

- 1983      General agreement to work together to restore Bay
- 1987      “40%” reduction in pollutant nutrient pollution by 2000
- 1992      Tributary specific nutrient reduction strategies
- 2000      Remove all nutrient and sediment impairments

# Chesapeake 2,000 Agreement

- Goal of removing all nutrient impairments to Chesapeake Bay and tidal tributaries
- Adopted a cooperative approach to achieve goal to avoid regulatory nutrient limits for point source dischargers in 2011



# Achieving New Chesapeake Bay Nutrient Loading Goals

(From Chesapeake Bay STAC 2004 white paper)

- “Full” implementation of current practices on ag and urban lands
- Upgrade sewage treatment plants
- Reduce atmospheric NOX & NH<sub>3</sub> deposition
- Identify new practices, programs and policy
- Evaluate long- term systems changes

# Why Trading?

- Looking for low cost alternative for PS upgrades
- Clean Water Act excludes most of Ag
- Looking for major market-based funding source for Ag. BMP implementation
- Hope that with expanded Ag. BMP implementation, adoption will become self sustaining
- Ag BMP "regulation by contract" with PS
- Frustration with Ag. BMP implementation progress

# Why now?

- Water Quality Restoration Goals
- TMDLs
- Criteria and Standards
- Permit Limits
- Offsetting growth impacts
- Need alternative/supplemental funding source (to federal and state funding)

# Defining Success

A successful nutrient trading program *achieves water quality objectives* in an economically optimal manner (using a market-based approach)

Nutrient trading programs must address market, technical and accountability issues to accomplish water quality, economic and legal objectives

