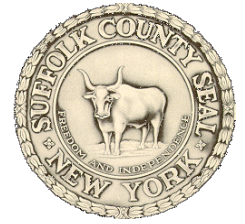




# Suffolk County HAB Action Plan

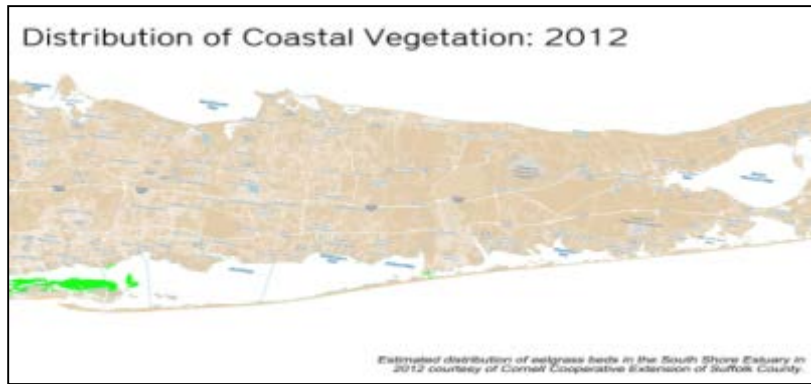
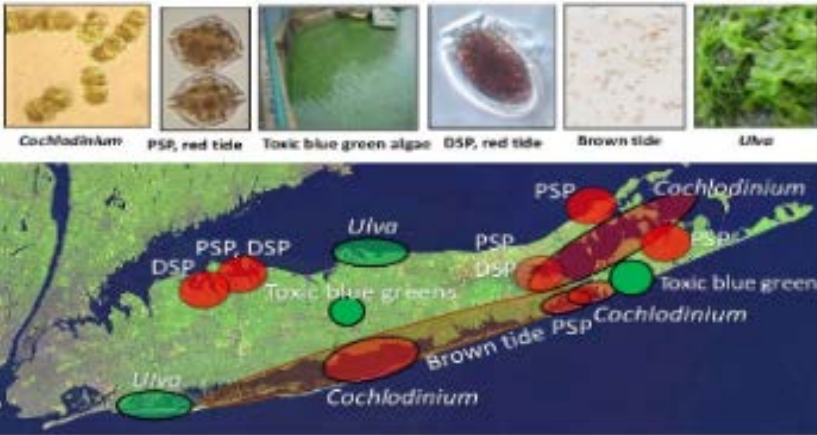


**Public Symposium  
May 16, 2018**

# NITROGEN PROBLEM

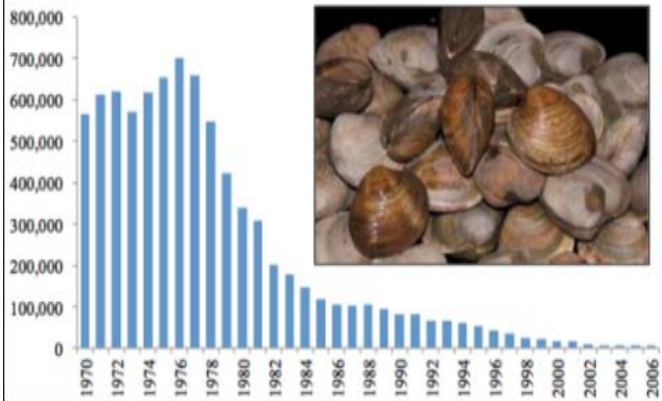
- All 3 Estuary systems IMPAIRED (dissolved oxygen), PLUS:

Harmful algal blooms across Long Island

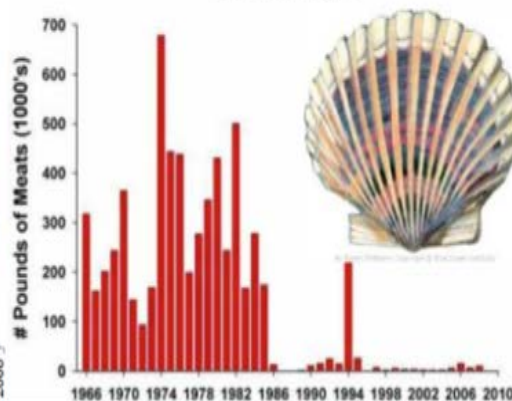


~90% loss of SAV; major loss of wetlands

Hard clam landings (bushels) in Great South Bay



New York Bay Scallop Landings - Commercial -



Loss of shellfish



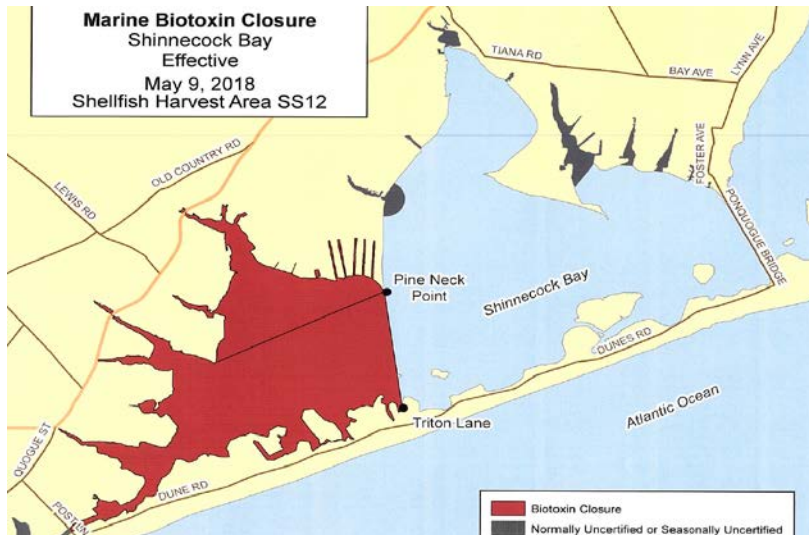
Fish kills

# May starts HAB season

## Current confirmed HABs in 2018:

- **Western Shinnecock Bay**
- **Lake Ronkonkoma**
- **Lake Agawam**

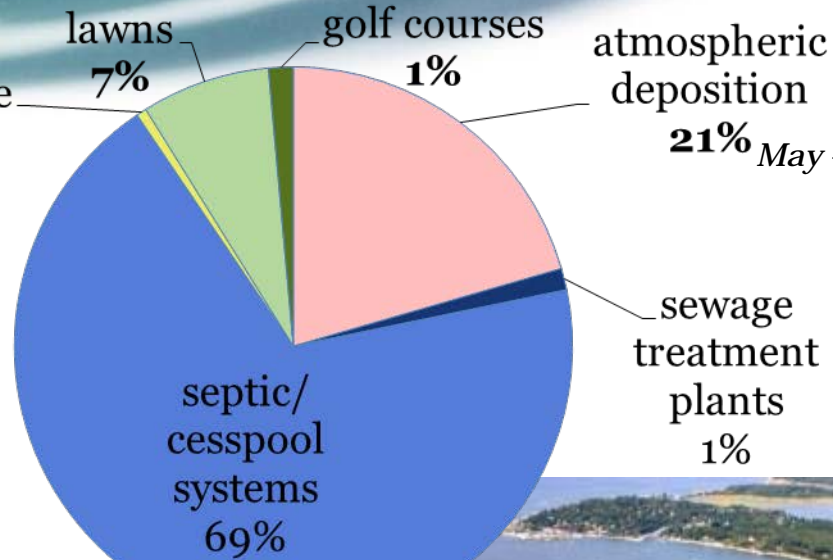
### Biotoxin



### Cyanobacteria



# Reclaiming Our Water



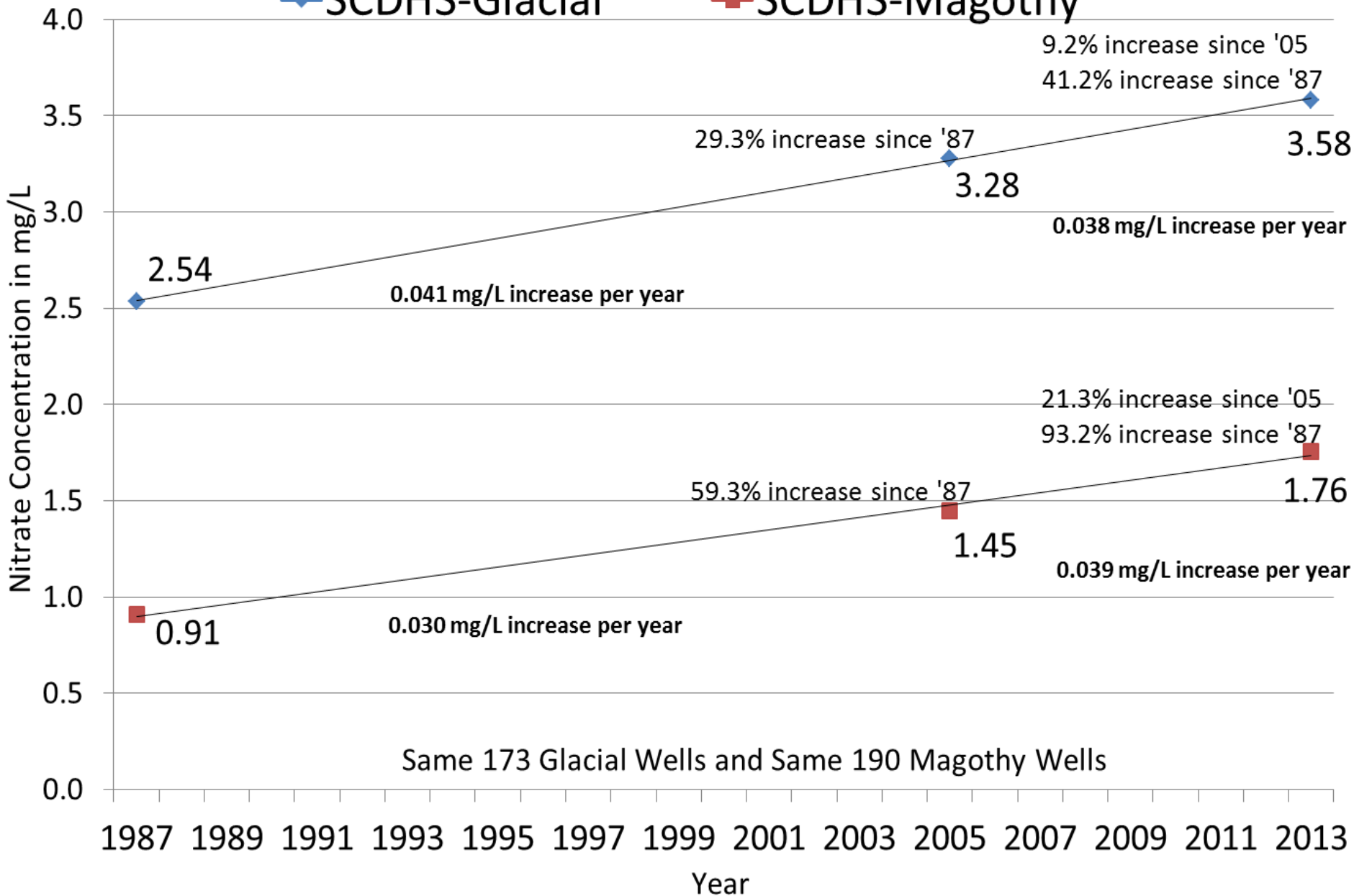
May - June 2015



# SCDHS Database Nitrate Averages-Same Wells

—◆— SCDHS-Glacial

—■— SCDHS-Magothy



# Suffolk County Actions to Reduce Nitrogen



- **Comp Plan**
- **IBM Smarter Cities Challenge**
- **Subwatersheds Wastewater Plan**
- **Multiple Sanitary Code Policy Changes**
- **Septic Demo Program**
- **Septic Incentive Program (SIP): Groundwork for a Water Quality Improvement District**
  - **NYS SIP (\$10 million/year) will greatly expand Suffolk County's SIP**  
(Another layer of funding still needed to change landscape)
  - **Over 60 installed or in application process**
- **Multiple Commercial Projects**
- **Working with SUNY SB Center for Clean Water Technology in designing nitrogen removing "layer cake" leach fields at County Park locations**
- **Harmful Algal Blooms Action Plan**



## The HAB Action Plan Project Background:

- SC recognized the threat posed by HABs and aimed to establish an HAB Action Plan and framework that provides a coordinated strategy for research, monitoring, and management moving forward.
- SCDHS teamed up with New York Sea Grant (NYSG) to lead project.
  - NYSG is an integral part of a nationwide network of Sea Grant programs, and has active membership in all three of the state/National Estuary Programs touched by Suffolk County (PEP, SSER, and Long Island Sound). Therefore, is uniquely and optimally positioned to lead such a project.
- Contract between SCDHS and the Research Foundation for SUNY
  - contract # 525-8224-1170-00-00001
- Funded by the Suffolk County Water Quality Protection and Restoration Program (WQPRP).
  - The WQRP provides for funding projects that protect and restore water resources (surface and ground water)



## As per the SC HAB Action Plan:

### Bad news:

*“HAB frequency and diversity in the County appear to be increasing and may have reached a level unprecedented elsewhere in the United States”*

### Good news:

*“Significant reduction in the frequency scope, and extent of ecosystem/human health impacts of future HABs in Suffolk County is achievable”*

## Examples of Success of regional large-scale Nutrient load reduction efforts:

- **Long Island Sound** - moderation in the severity of hypoxia
- **Mumford Cove** - increased SAV, no more red tides, less macroalgae
- **Northport Harbor** - no significant red tides since STP upgrade
- **Chesapeake Bay** - increased SAV, highest cover in almost half a century





# **WATER QUALITY IMPROVEMENT DISTRICT**

## **PURPOSE & BENEFITS:**

- ✓ Provide Administrative Structure for Sewer and IA Programs
- ✓ Manage Sewer & IA Served Parcels In Separate Tiers
- ✓ Provide Oversight of Installation and Maintenance of I/A OWTS
- ✓ Consolidate 24 Existing Sewer Districts Into Single Tier
- ✓ More Efficient Administration & More Equitable Uniform Billing