

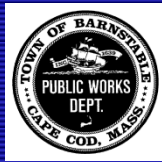
Barnstable Town Council

Water Resources

Management Update

Embayment Monitoring Program

Department of Public Works
October 20, 2022

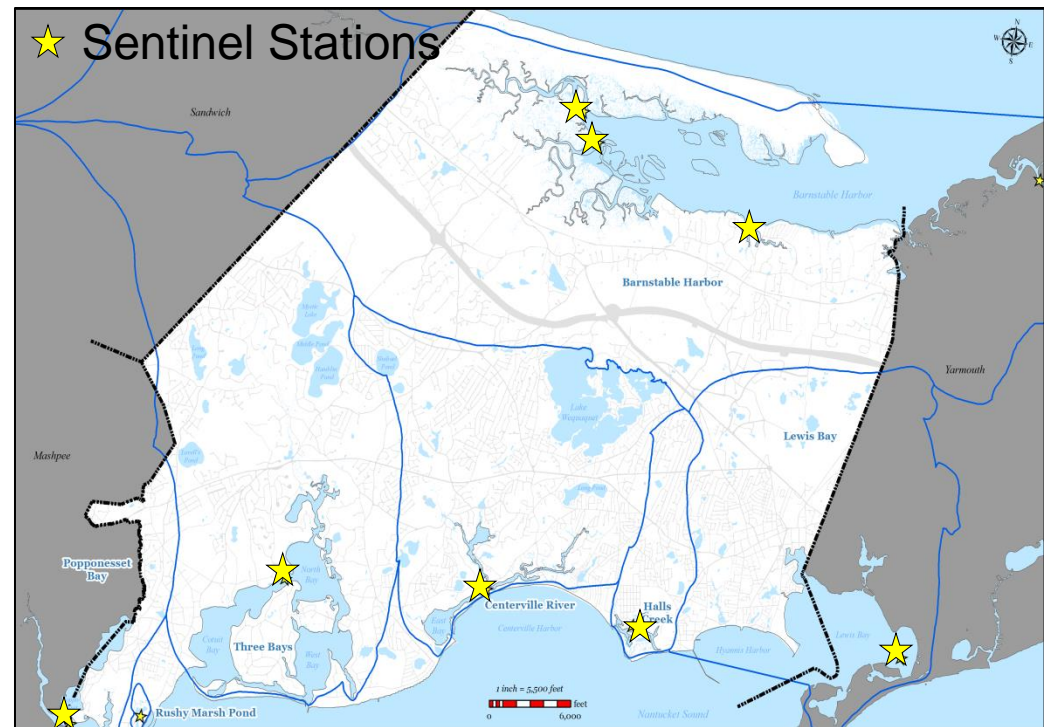


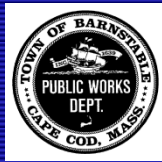
Embayment Monitoring Program Overview



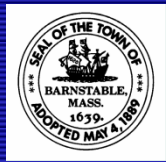
- **General**

- Annual monitoring program
- Data collected from 70 stations
- Initiated in 2002
- Collaborative effort involving:
 - Town staff
 - citizen volunteers
 - Barnstable Clean Water Coalition
 - adjacent Towns, and
 - SMAST

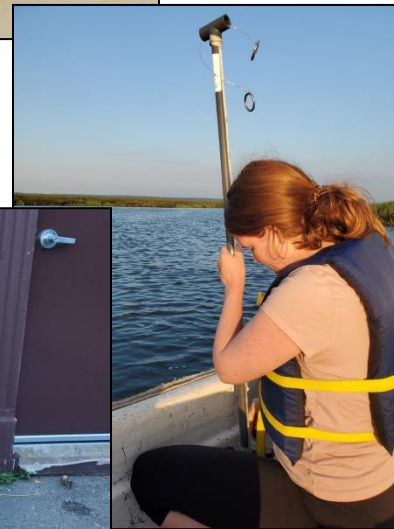




Embayment Monitoring Program Field Sampling

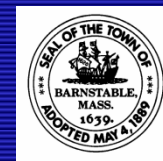


- Annual training for roughly 25-30 samplers divided among ~15 teams
- Sampling occurs during a mid-ebb tide between 6-9AM from July – Sept
- Field data collected for water clarity, dissolved oxygen, and temperature.
- ~ 300 samples are collected each year over four sampling events
- Samples are delivered to SMAST for sample processing

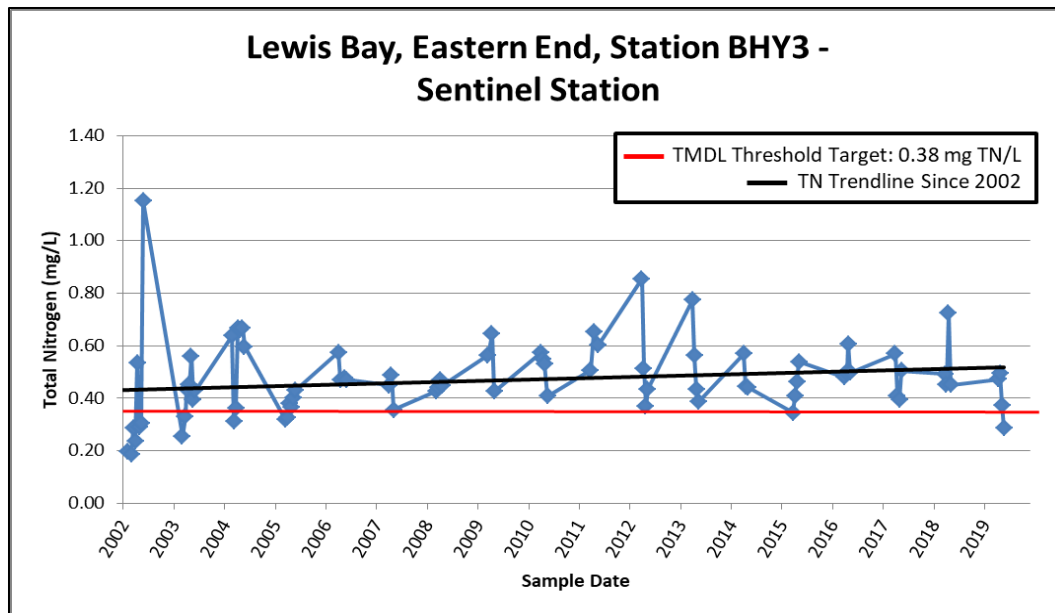
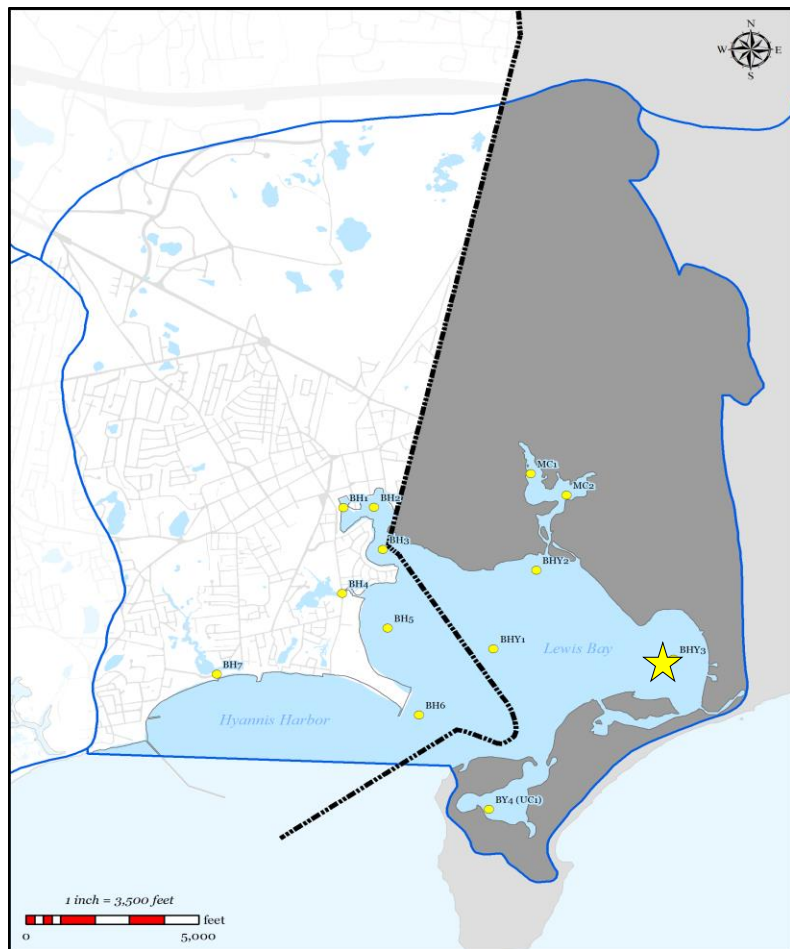


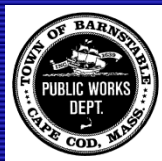


Embayment Monitoring Program Results

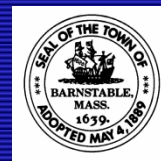


- Lewis Bay

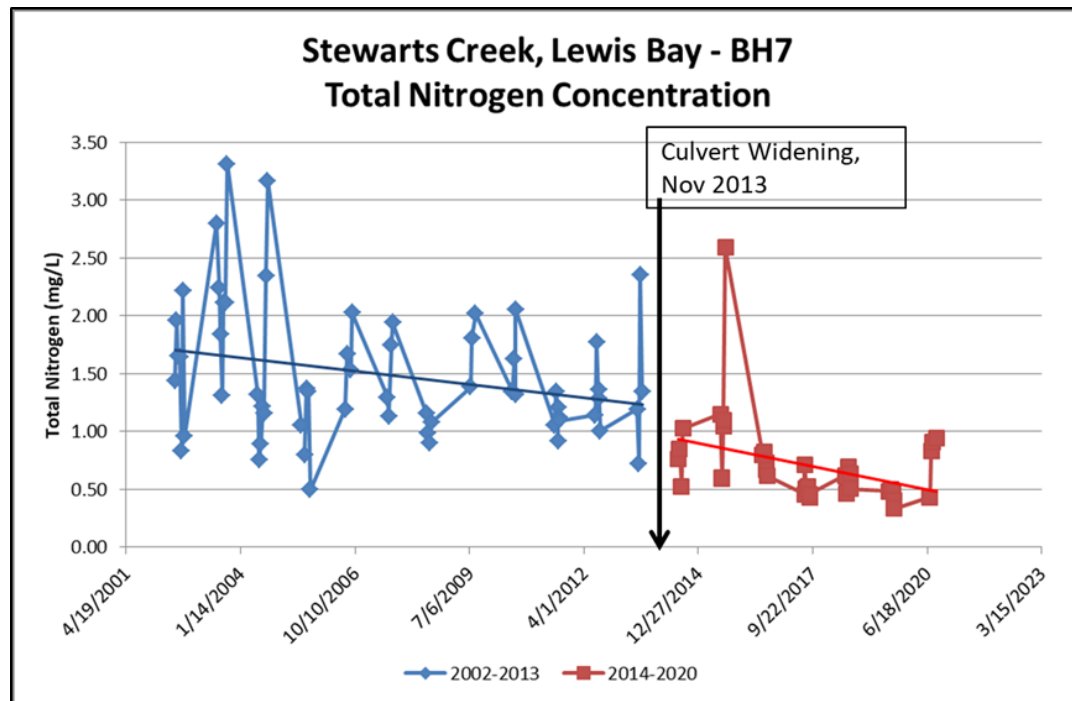
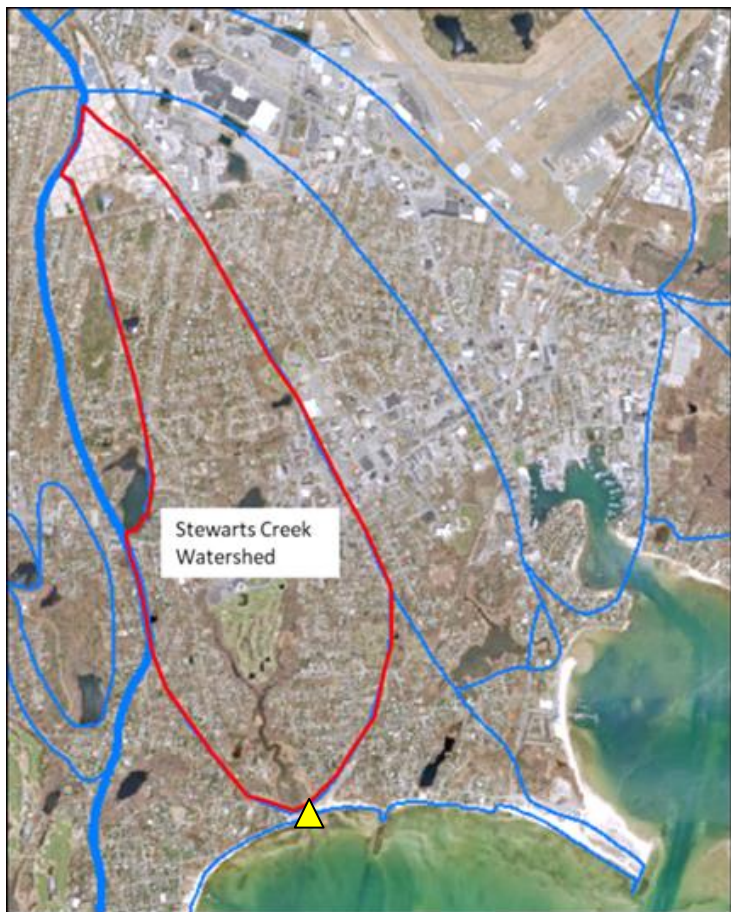




Embayment Monitoring Program Results

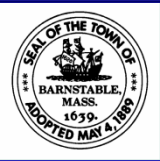


- Stewarts Creek

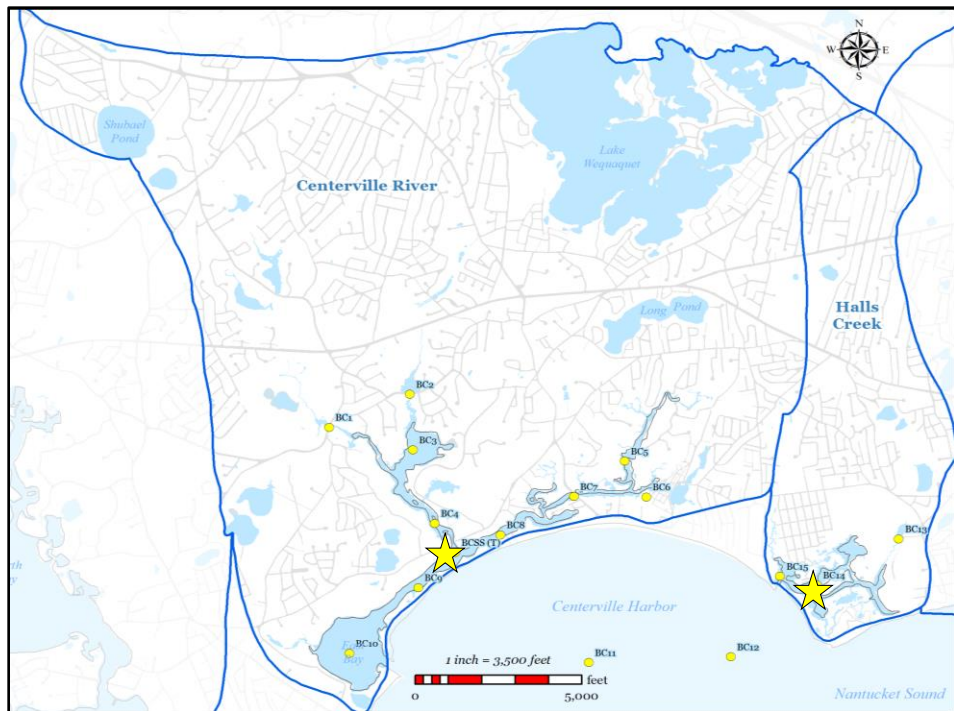




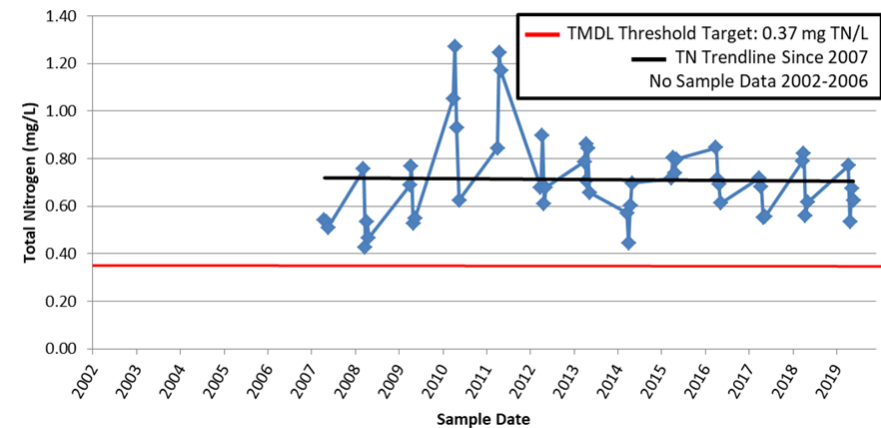
Embayment Monitoring Program Results



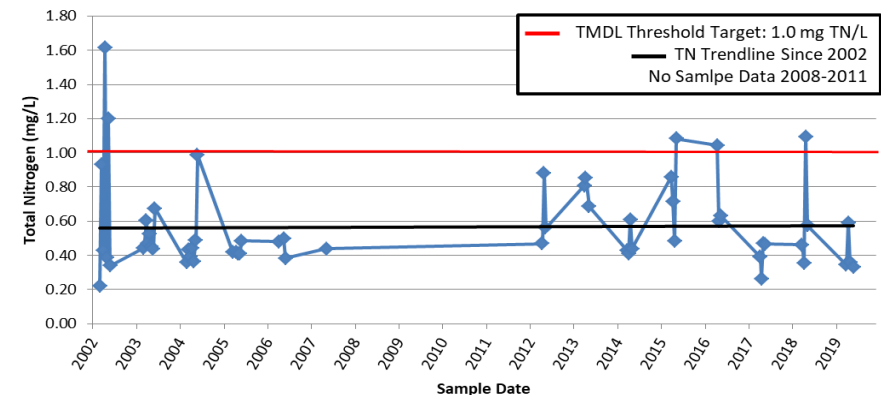
- *Centerville River*
- *Halls Creek*

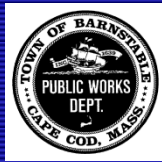


Centerville River, Confluence of Bumps River and C'ville East Branch, Station BCSS - Sentinel Station



Halls Creek, Station BC14 - Sentinel Station

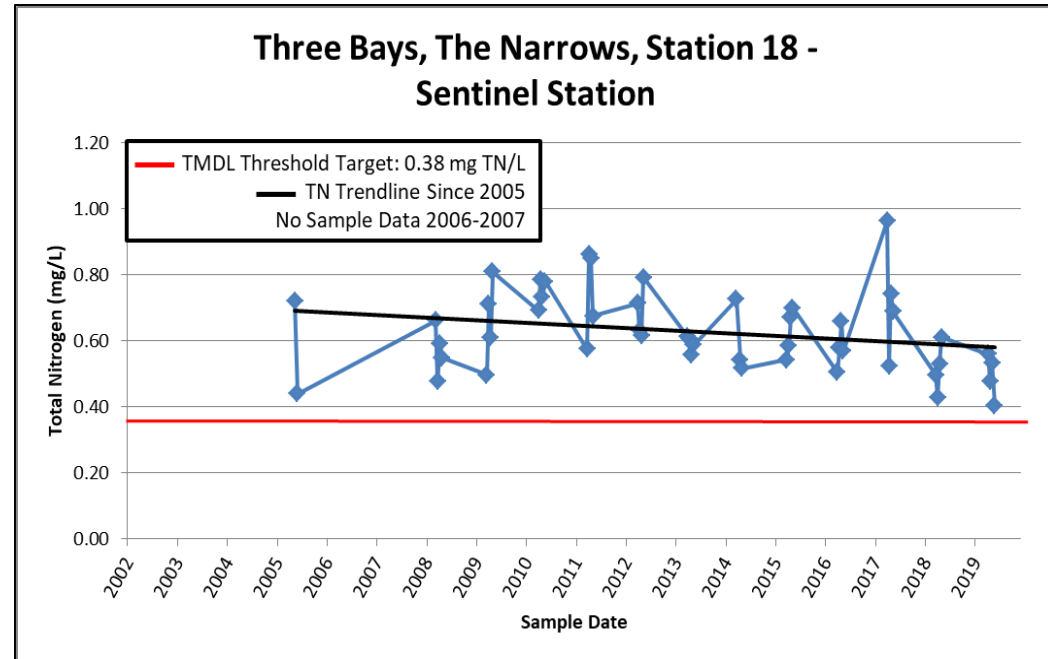
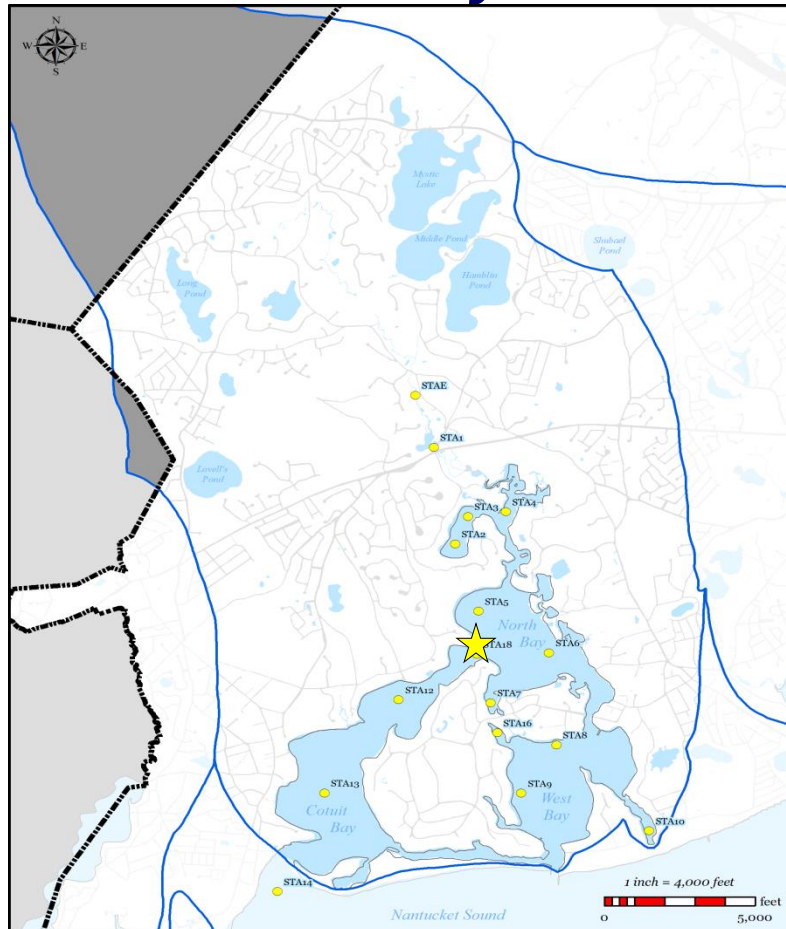


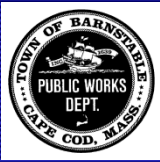


Embayment Monitoring Program Results



- Three Bays

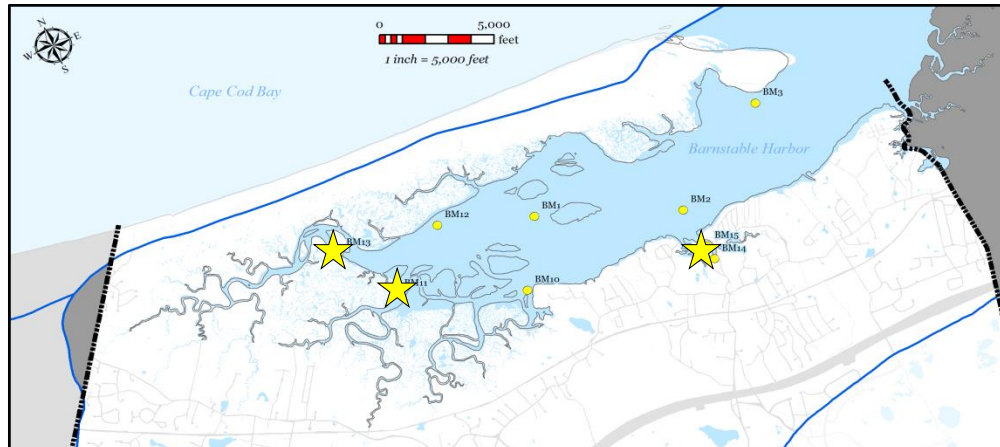




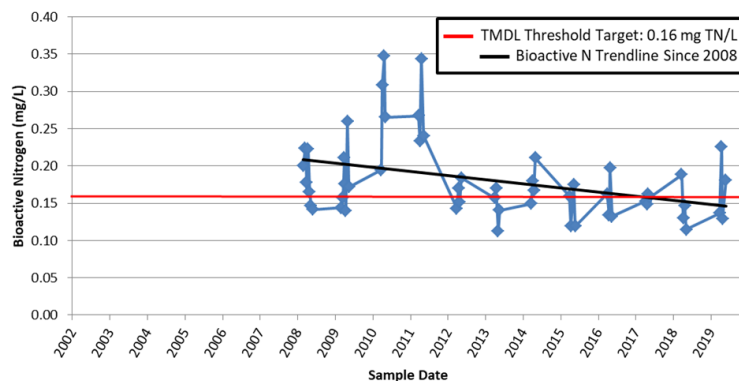
Embayment Monitoring Program Results



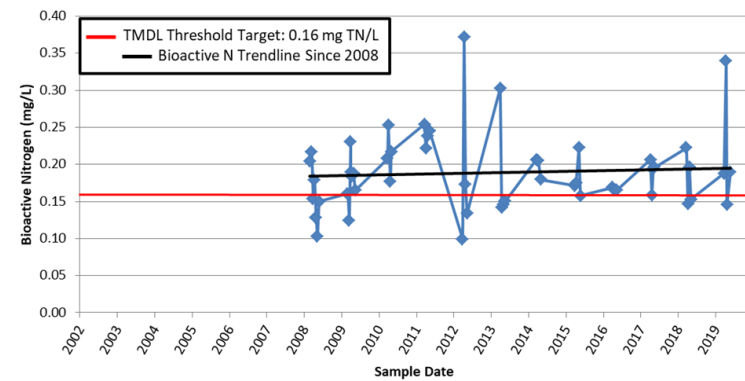
- Barnstable Harbor, Great Marshes*

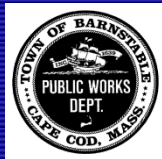


**Barnstable Harbor, Station BM11 -
Sentinel Station**

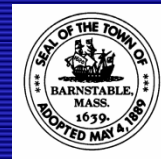


**Barnstable Harbor, Station BM13 -
Sentinel Station**

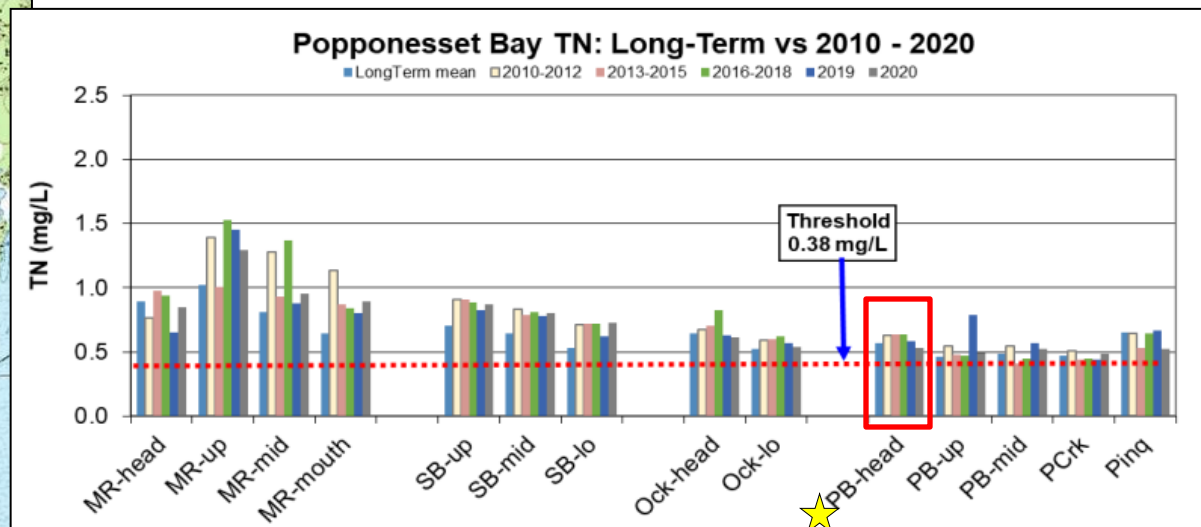




Embayment Monitoring Program Results



- Popponessett Bay (Shoestring Bay)

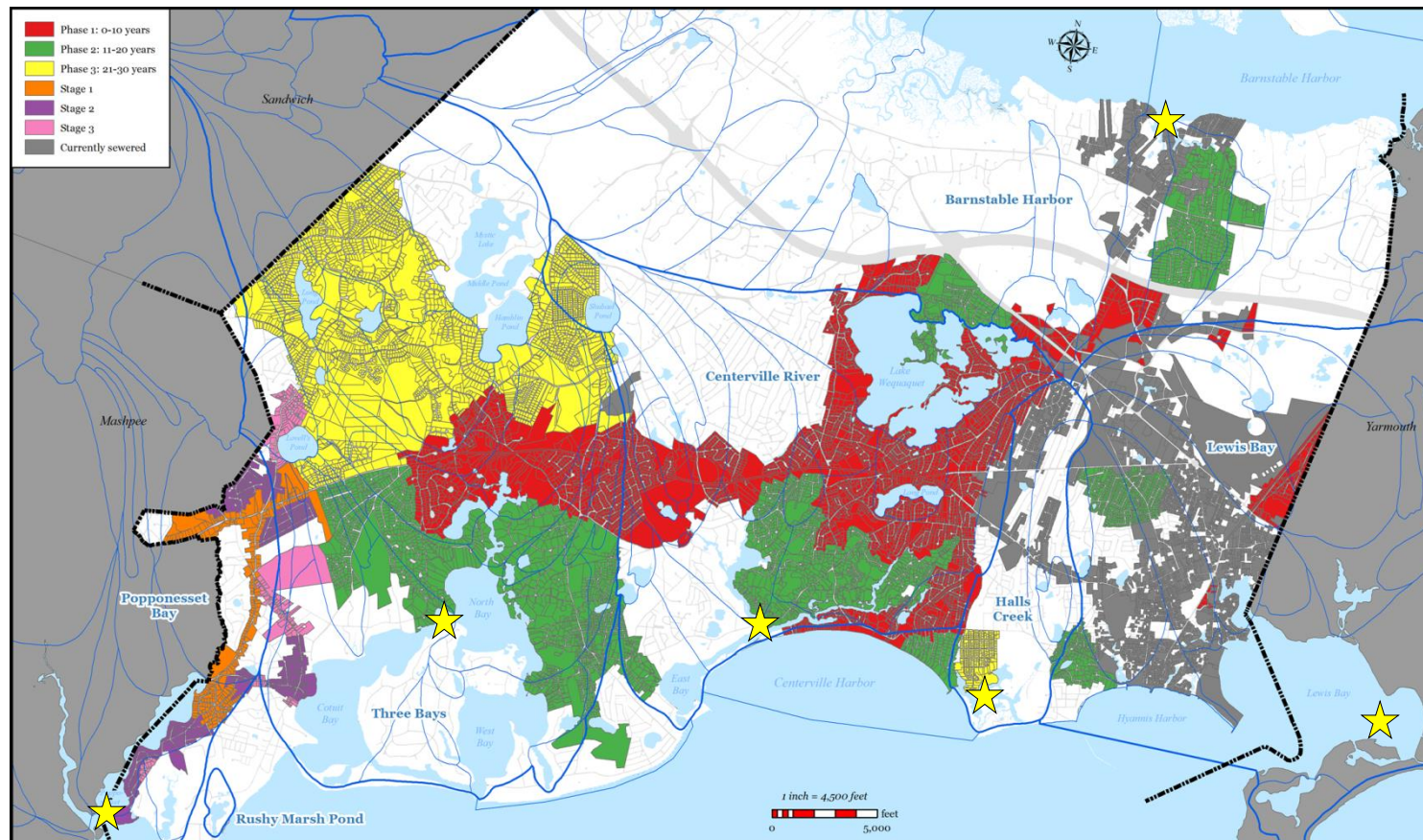


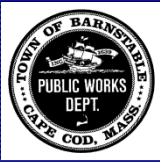


Embayment Monitoring Program Looking Forward



- This monitoring program provides the baseline data for our estuaries and the ability to track nitrogen improvements as we implement our CWMP*





Discussion?

