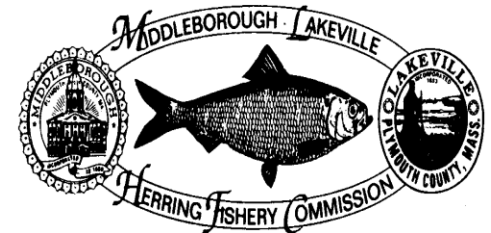
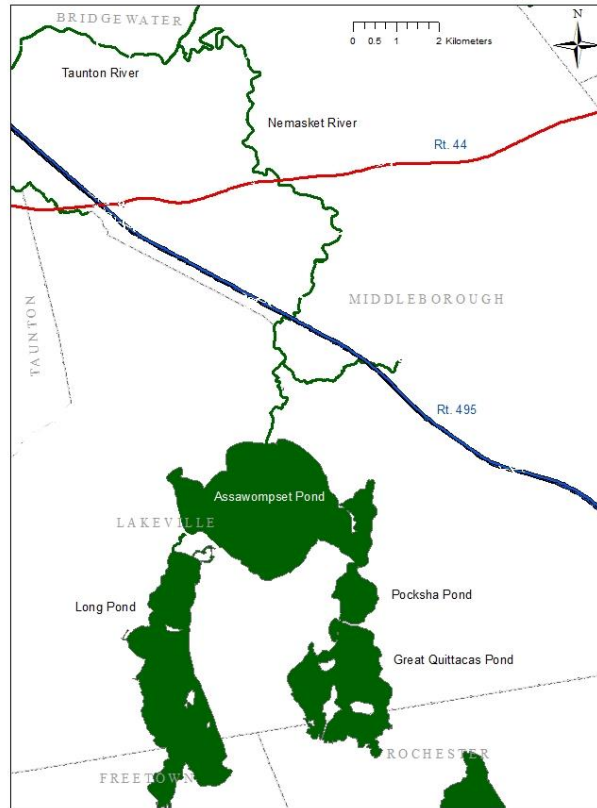


Nemasket River Sustainable Fishery Management Plan for River Herring

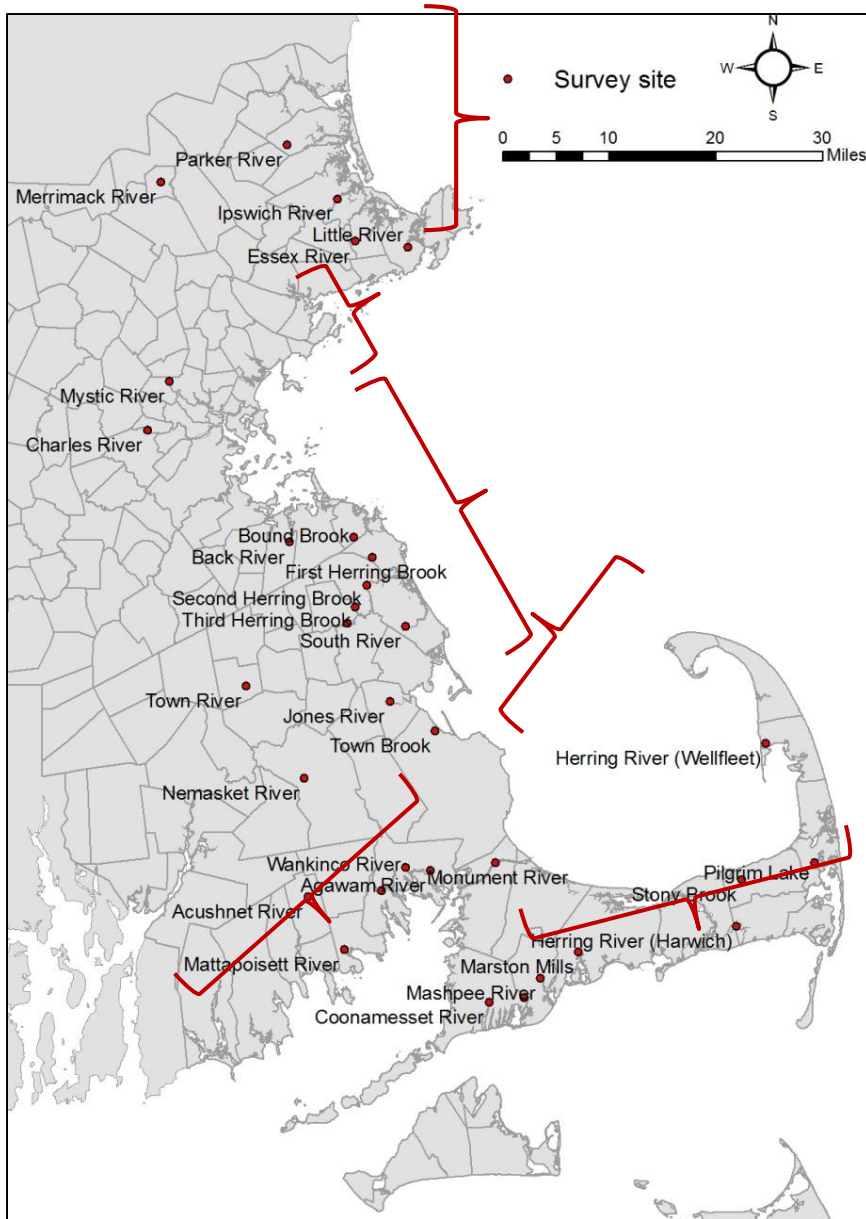
Marine Fisheries
Commonwealth of Massachusetts



Bank Building, 20 Centre Street, Middleborough, Massachusetts 02346

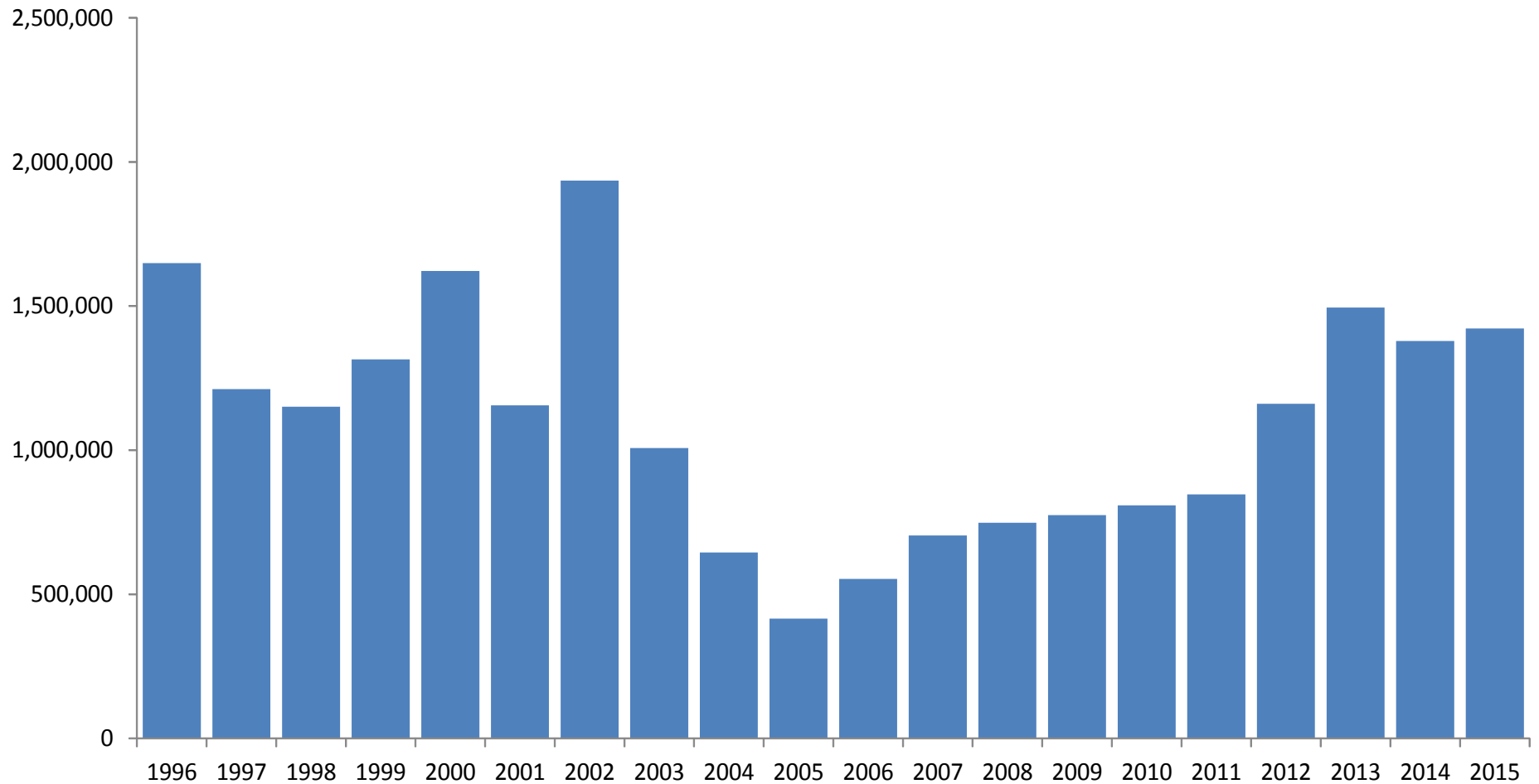
Presented to the Shad and River Herring Board
October 25, 2016

River Herring Monitoring in Massachusetts



- ~80 herring runs in MA
- 33 runs with counting
- 14 with 'census' level quality
- 8 runs with biological sampling

Massachusetts River Herring 20-year count index



Nemasket River Herring Fishery

- Historic and cultural importance
- Largest area of spawning and nursery habitat in a coastal watershed in MA
- Stewardship of Herring Fishery Commission
- Annual Herring Run Festival
- 21 year run count data series



Nemasket River Sustainable Fishery Plan

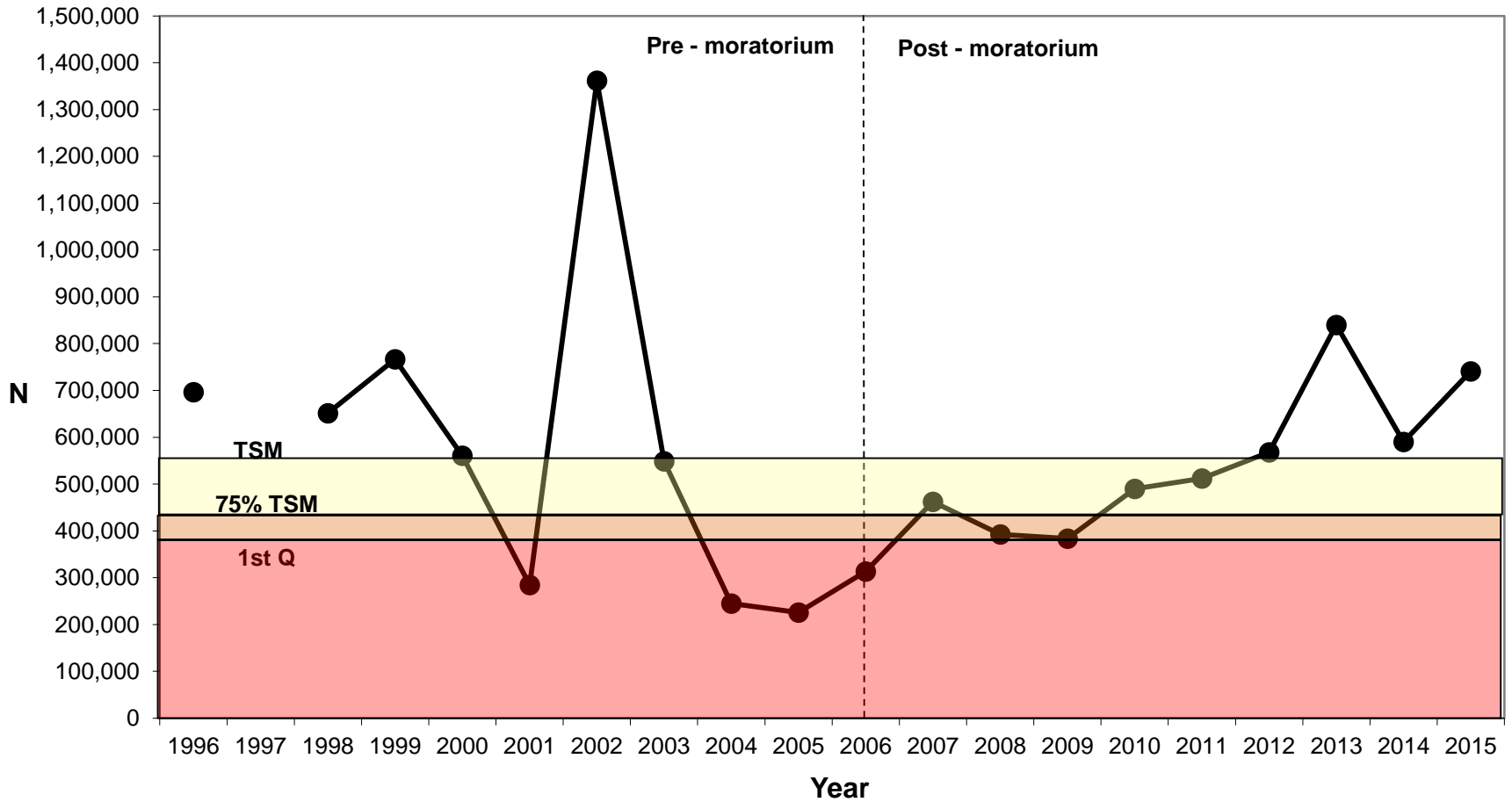
Sustainability Measure – ongoing spawning run visual count

Sustainability Target – harvest 10% of Time Series Mean (TSM)

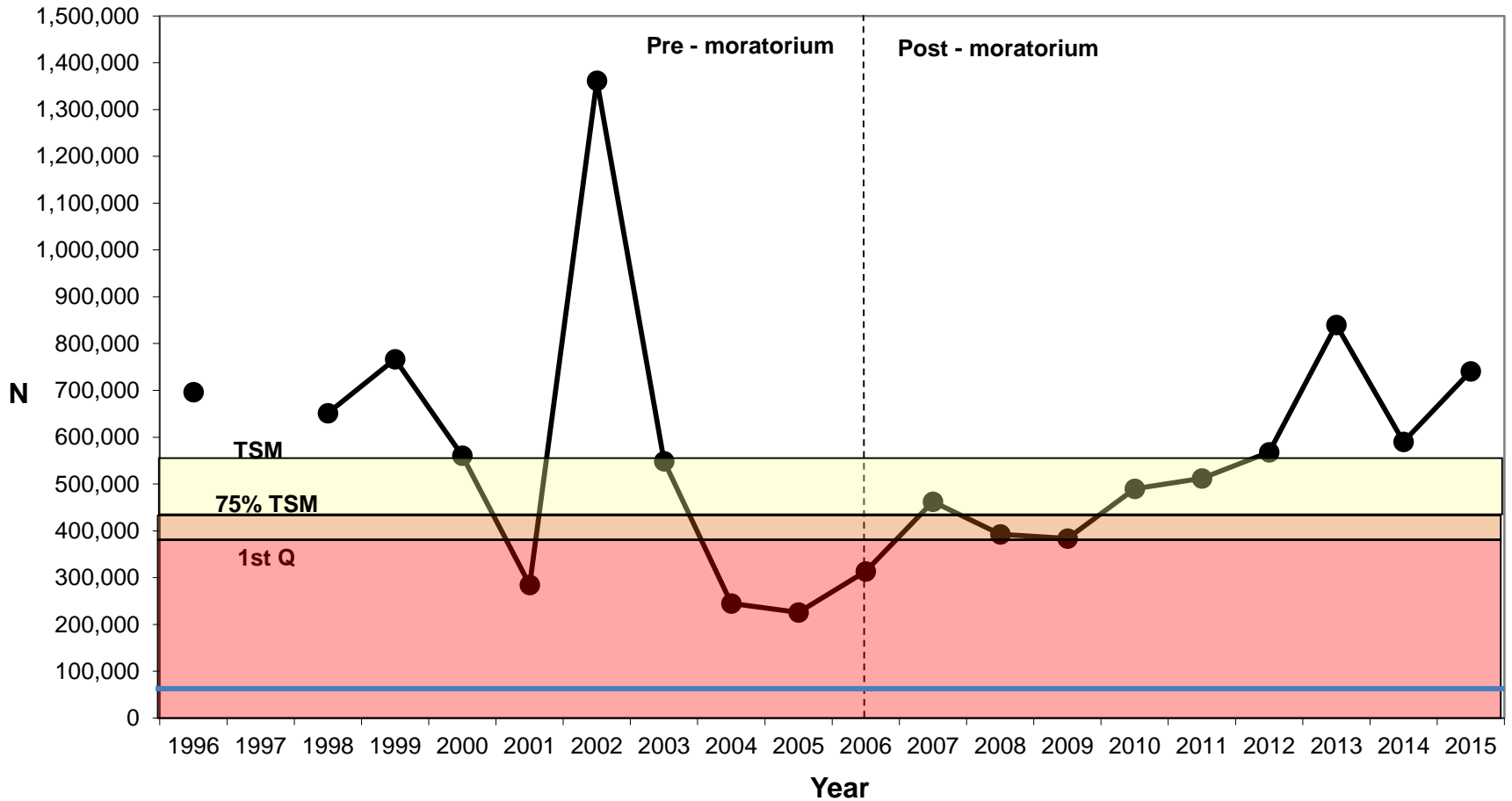
Primary Action Threshold – 25th percentile of run count time series

- Reduce harvest to 5% of TSM with 2 consecutive years below threshold
- Close fishery with 3 consecutive years below threshold

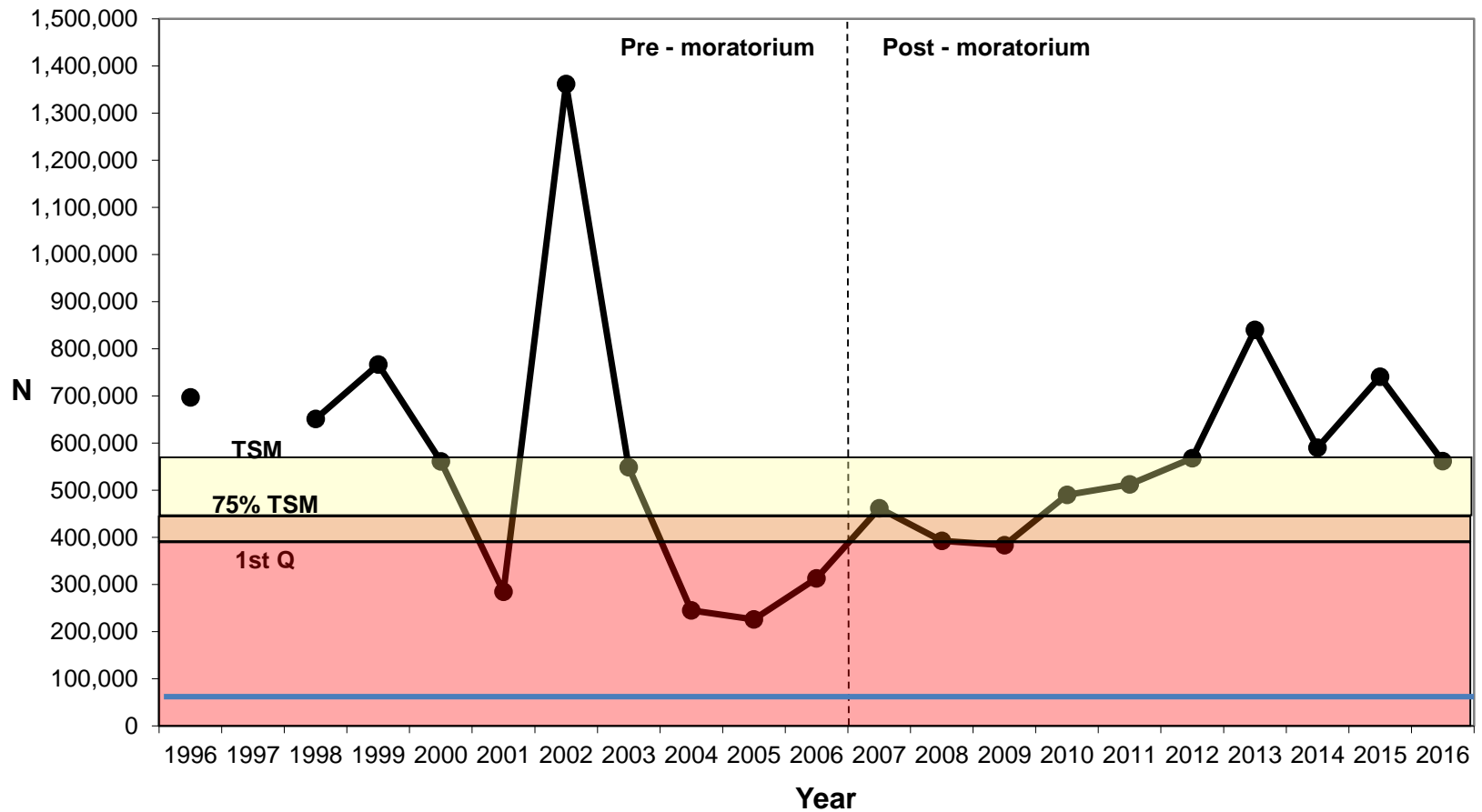
Nemasket River Herring Count: 1996-2015



Nemasket River Herring Count: 1996-2015



Nemasket River Herring Count: 1996-2016



Nemasket River Harvest Management

Pre-Ban Management: open entire run for 4 days/week, 48 fish per permit /week, unlimited resident permits and 200-300 non-resident permits

Proposed Management: (10% of TSM = 55,967 fish)

Harvest Permits - unlimited for residents of Middleborough and Lakeville and 250 non-residents

Season - 5 week season

Bag Limit - 20 fish per permit / week

Trip Tickets - unique trip ticket required for possession of herring

Expected Harvest

- Season & weekly limit/permit: $5 * 20 = 100$ fish per permit holder for the season
- Expected permits: 900 (residents & non-residents)
- Maximum harvest under this scenario= 90,000 fish
- Assumed harvest rate of 50% of maximum potential harvest = 45,000 fish
- *10% of TSM = 55,967 fish*

Technical Committee Review / Recommendation

October 2, 2016 conference call:

The reviewed SFMP offered 3 harvest management options that gave the Herring Commission a range of approaches for managing the fishery

The TC discussed the merits of the harvest options and requested a revised harvest management option that combined features of the 3 options to provide a conservative approach to avoid overharvest of the sustainability target

The TC approved the SFMP with the revised management option



Shad and River Herring Sustainable Fishery Management Plans (SFMPs)

Presented to the Shad and River Herring Board
October 25, 2016

Overview



Two types of SFMPs will be submitted in 2017 for Board review:

- 1. Same measures, new data:** If a state decides to keep the existing measures, the report will be updated with recent data. The state will also detail in the executive summary how the existing sustainability measures have supported harvest without diminishing potential future stock reproduction and recruitment.
- 2. New measures, new data:** A state will suggest new sustainability measures and/or harvest locations for the Board to review.

River Herring SFMP



State	Board Approval Date	2017 Board Review Date
Maine	11/2010	February
New Hampshire	3/2011; 3/2015	2020
Massachusetts	10/2016	2021
New York	11/2011	February
North Carolina	8/2010	May
South Carolina	8/2010	May

Shad SFMP



State	Board Approval Date	2017 Board Review Date
Connecticut	10/2012	May
Delaware River Basin	2/2012	February
PRFC	2/2012	May
North Carolina	5/2012	May
South Carolina	11/2011	May
Georgia	2/2012	May
Florida	11/2011	May



Questions