Update:
Maryland Oyster Restoration in Support of the Chesapeake Bay Executive Order

Presented By:
Stephanie Westby, NOAA
On behalf of:
Maryland Interagency Oyster Restoration Workgroup under the GIT

Executive Order Goal:

- Restore oyster populations in 20* tributaries by 2025

Oyster Metrics:

- NOAA, USACE, DNR, VMRC, Army Corps, UMD, VIMS + 17 consulting scientists;
- Developed Bay-wide, consensus definition of 'restored reef' and 'restored tributary'
- On-the-ground restoration is now being built to meet these metrics

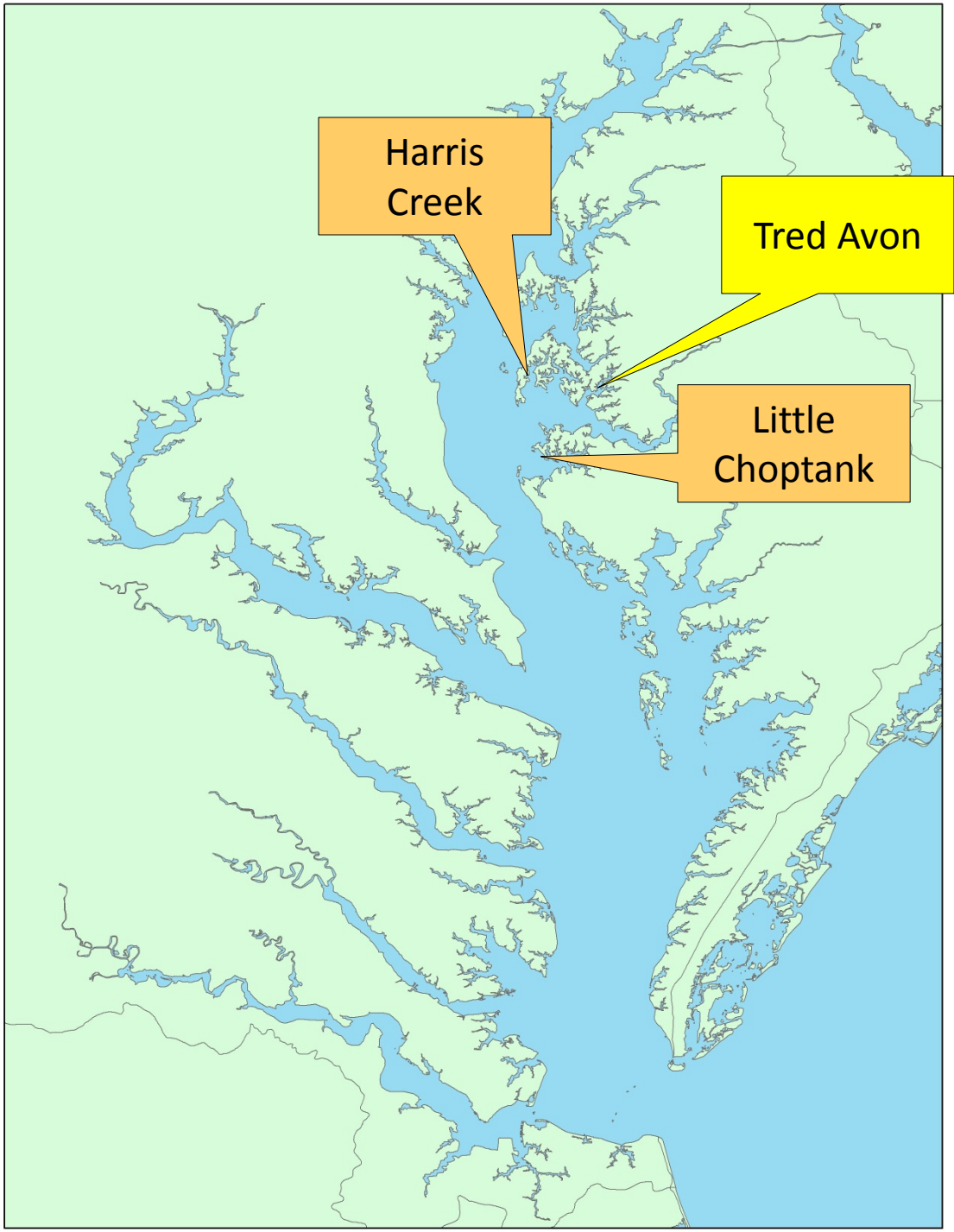
Established:

- MD & VA Oyster Restoration Interagency Workgroups

Maryland

Tributary Selection:

- Harris Creek
- Little Choptank River
- **Tred Avon**



Harris Creek

Developed Tributary plan

Calls for 377 acres to be restored to the Oyster Metrics-level definition

Tributary Plan implementation

Currently complete: 184 acres

Planned & Funded for 2014:

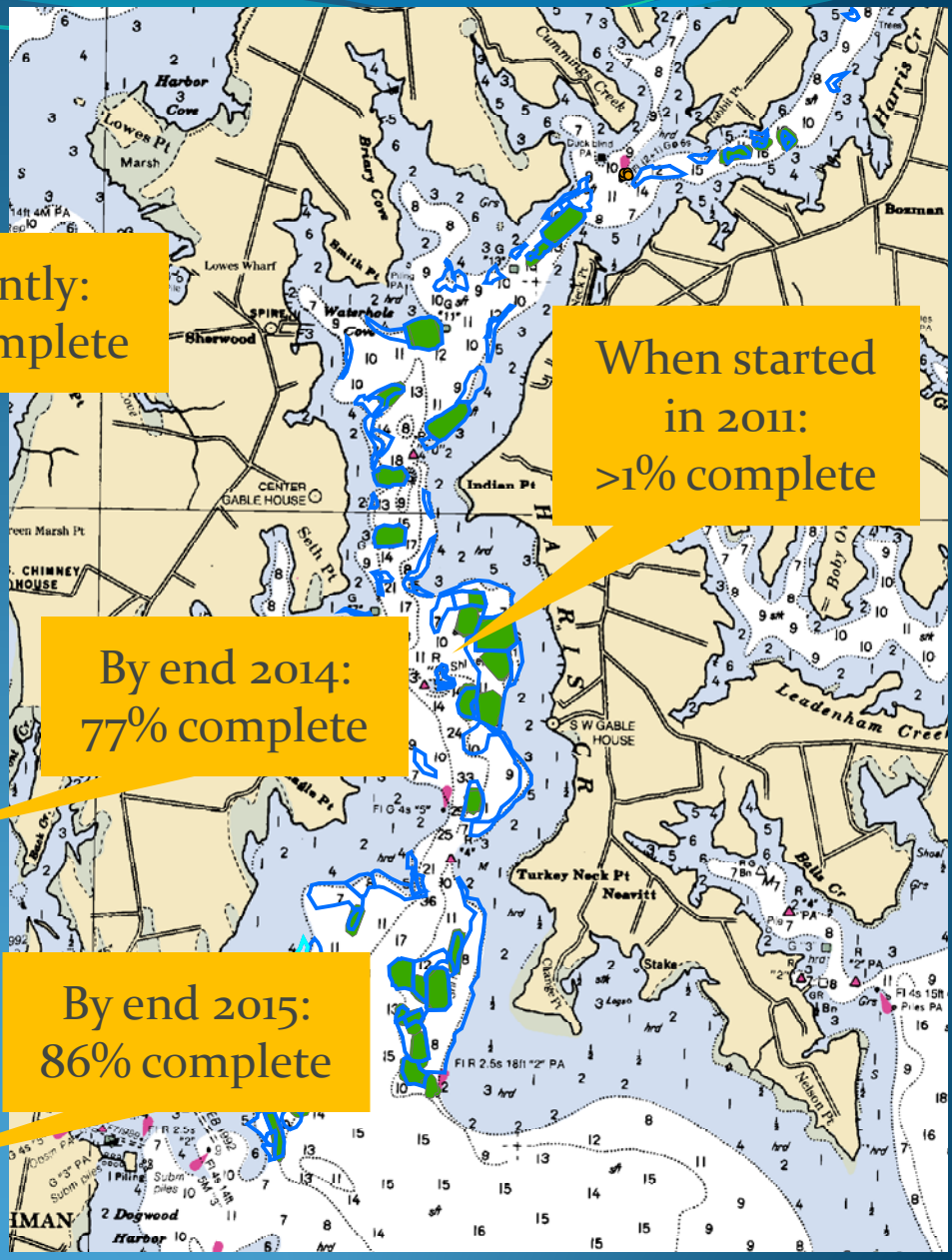
105 acres *(62 acres by DNR; 23 acres by USACE; ≈ 20 more acres by ORP; NOAA & DNR contributing funds for seeding via ORP)*

Will bring total to 289 by end of 2014

Anticipated for 2015:

37 acres *(or more) by USACE, with seeding provided by NOAA & DNR via ORP*

Will bring total to 326 by end of 2015




Harris Creek
Taken Nov 6, 2013
https://plus.google.com/photos/111210790396300041378/albums/5943532588341448305?authkey=CPif872iyKSYowE
4th video

Harris Creek

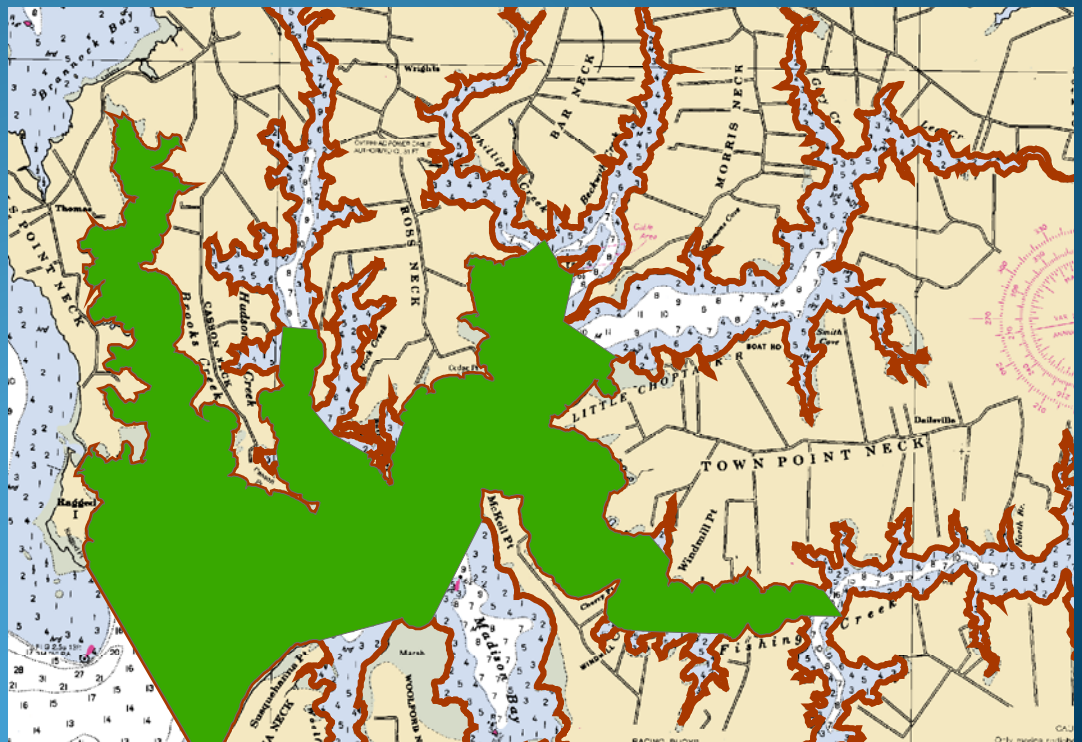
https://plus.google.com/photos/111210790396300041378/albums/5943532588341448305?authkey=CPif872iyKSYowE

Little Choptank River

Developed Draft Tributary plan

Process:

Honor natural oyster bar & oyster sanctuary boundaries; depth 4-20 ft.; suitable water quality



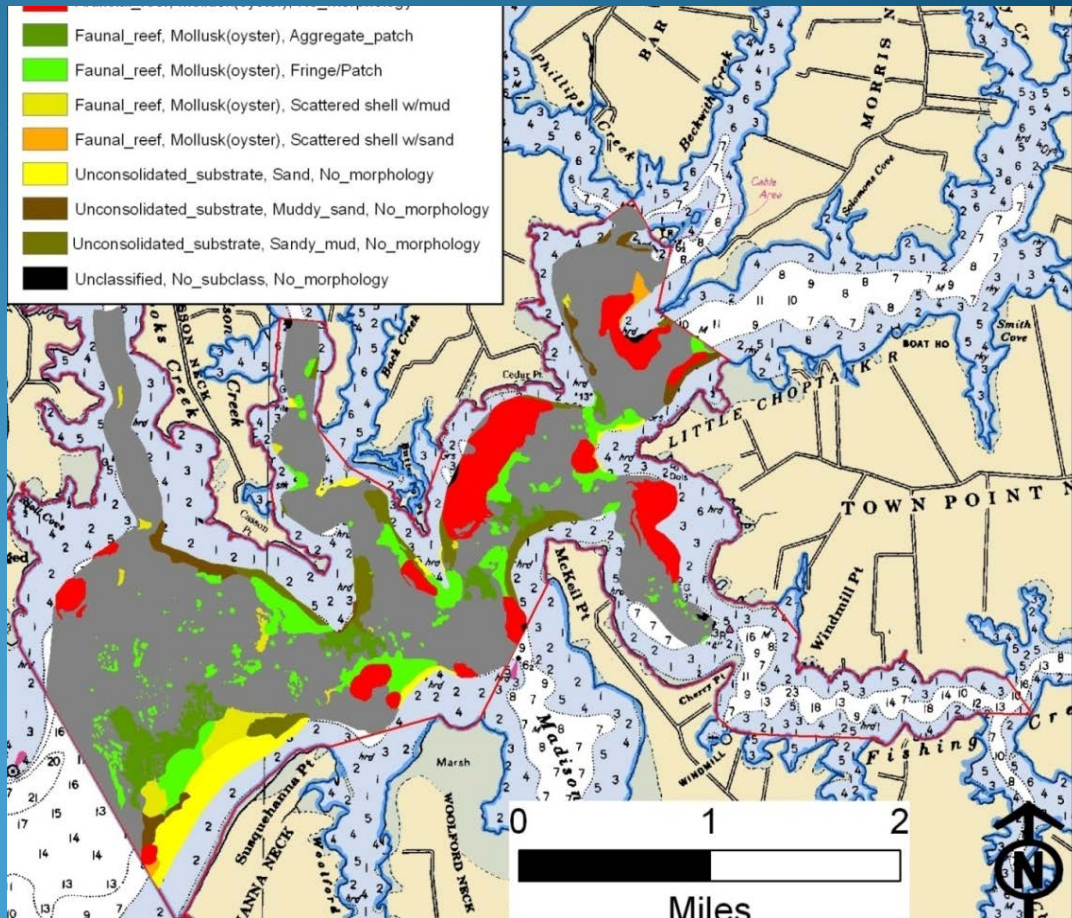
Little Choptank River

Developed Draft Tributary plan Process:

Honor natural oyster bar & oyster sanctuary boundaries; depth 4-20 suitable water quality

Perform benthic sonar surveys to locate hard river bottom suitable for restoration

Eliminate various exclusion zones (ex: areas around aids to nav, channels.



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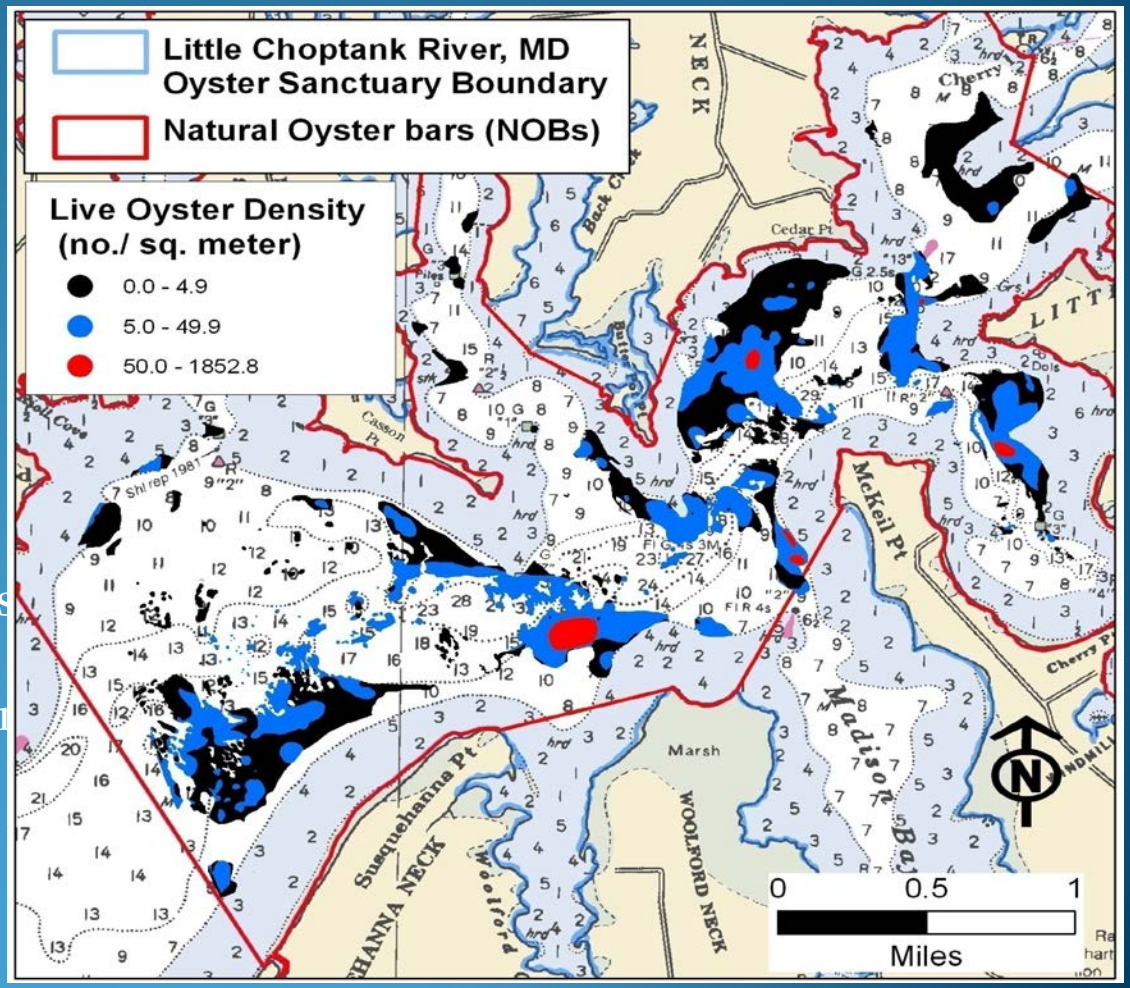
Perform oyster density surveys (Versar funded by NOAA, and Paynter Labs)



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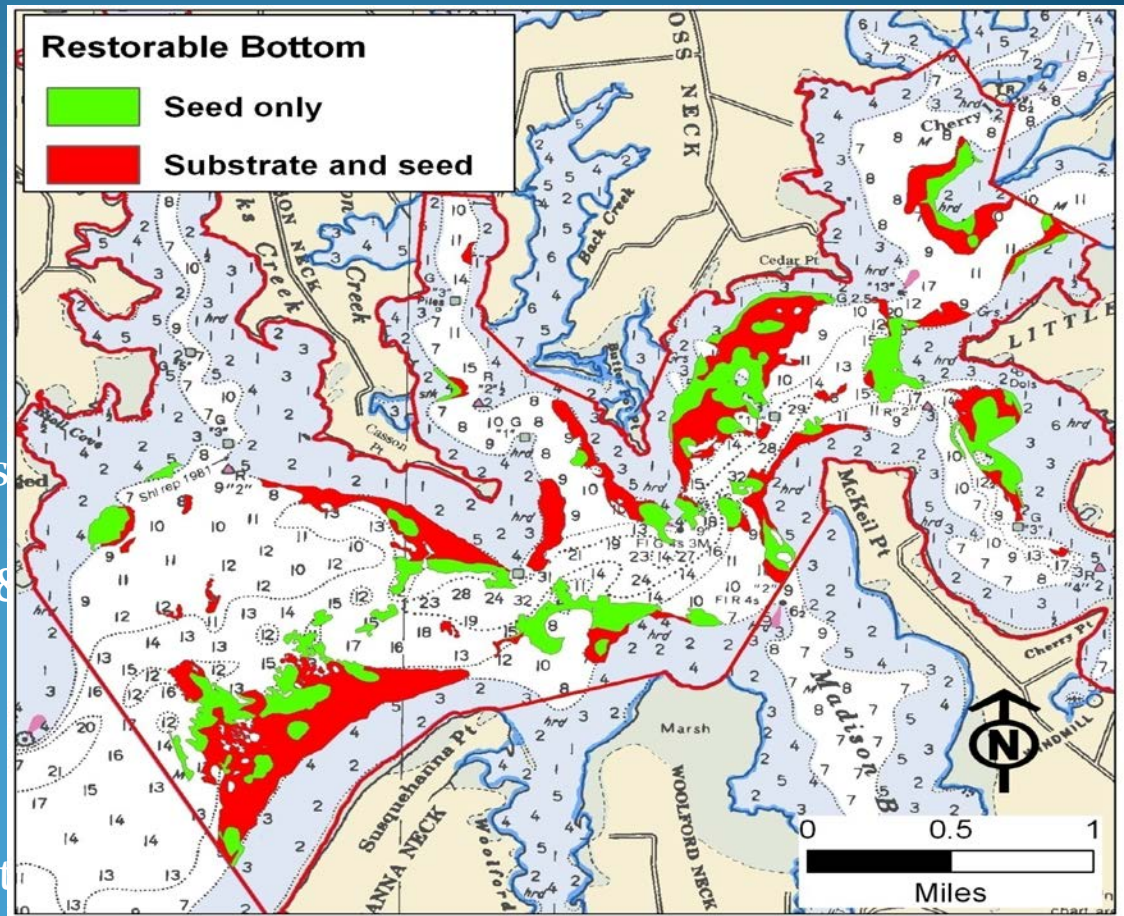
Develop draft target restoration areas

Collect input from consulting scientist



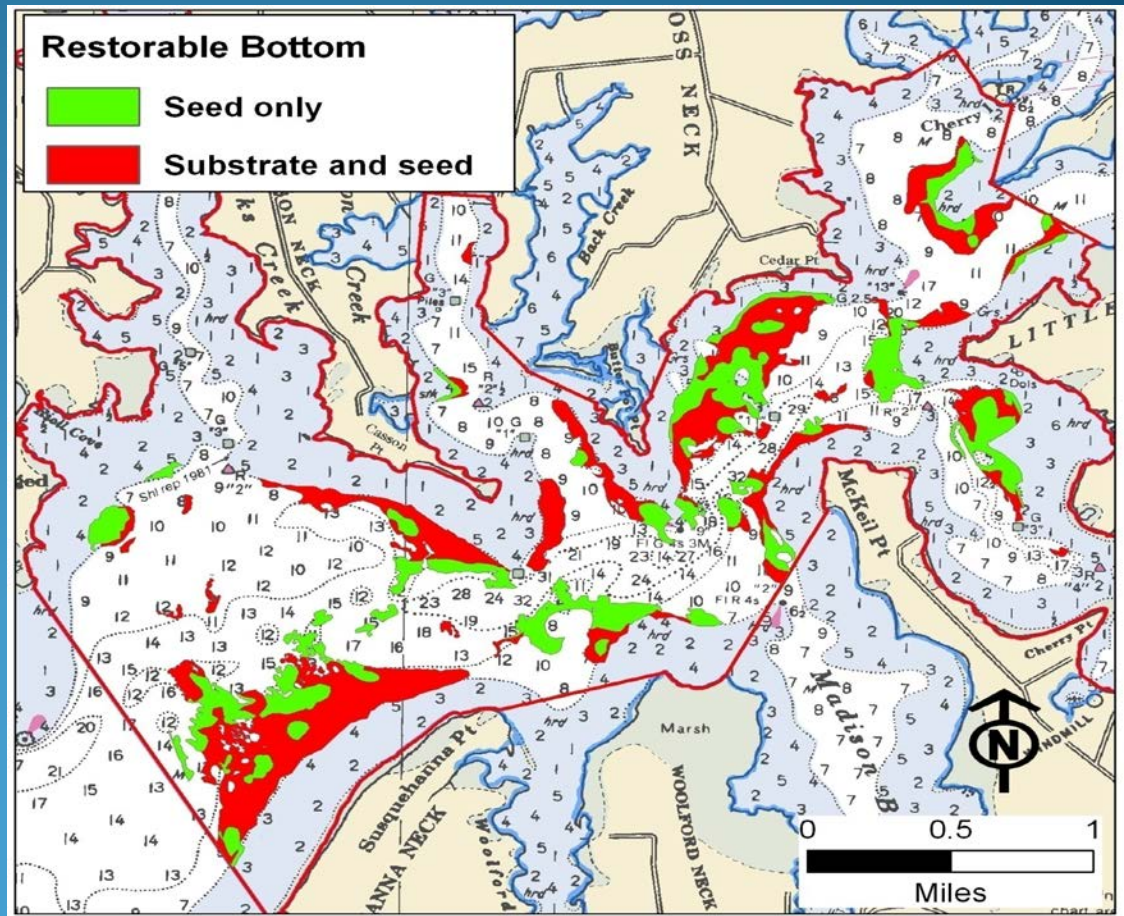
Little Choptank River

Developed Draft Tributary plan

Next steps:

Hold open house/ permit hearing for public input

Create final Tributary Plan ('living document')



Tred Avon River

Developed Draft Tributary plan

Honor natural oyster bar & oyster sanctuary boundaries; depth 4-20 ft.; suitable water quality ✓

Perform benthic sonar surveys to locate hard river bottom suitable for restoration ✓

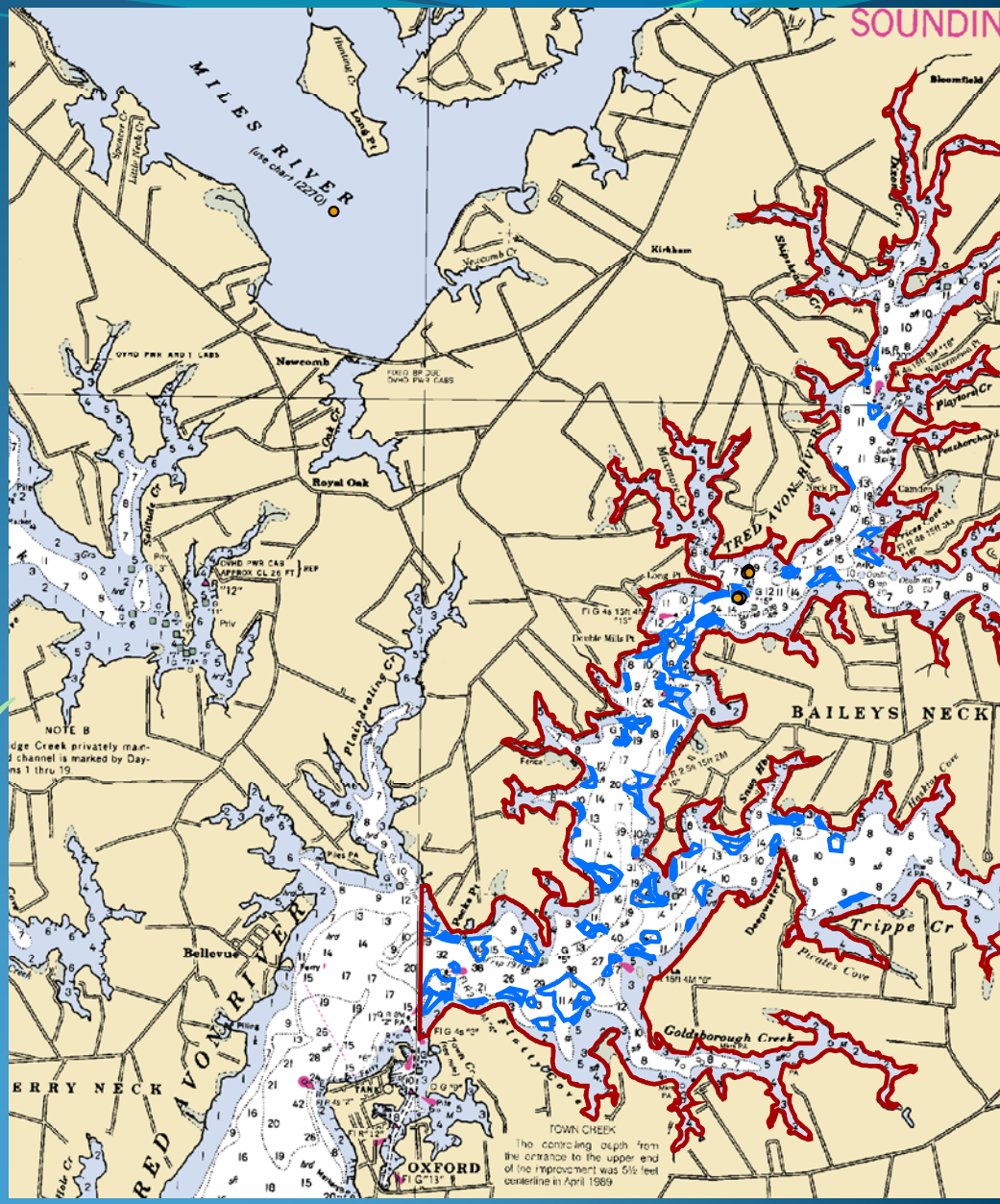
Eliminate various exclusion zones (ex: areas around aids to nav, channels) ✓

Perform oyster density surveys (DNR) ✓

Develop draft target restoration areas ✓

Collect input from consulting scientists ✓

Hold open house for public input ✓



Monitoring

-For Oyster Metrics success criteria
  - -reef-level oyster surveys at year 1, 3 and 6 (ORP)
  - -reef footprint mapping: post-construction, year 3 and year 6 (NOAA)

-Diagnostics (ex: disease; water quality)
  - -DNR vertical profiler in Harris
  - - NOAA vertical profiler in Tred Avon (spring 2014)
  - -DNR ongoing water quality monitoring
  - -DNR annual fall surveys

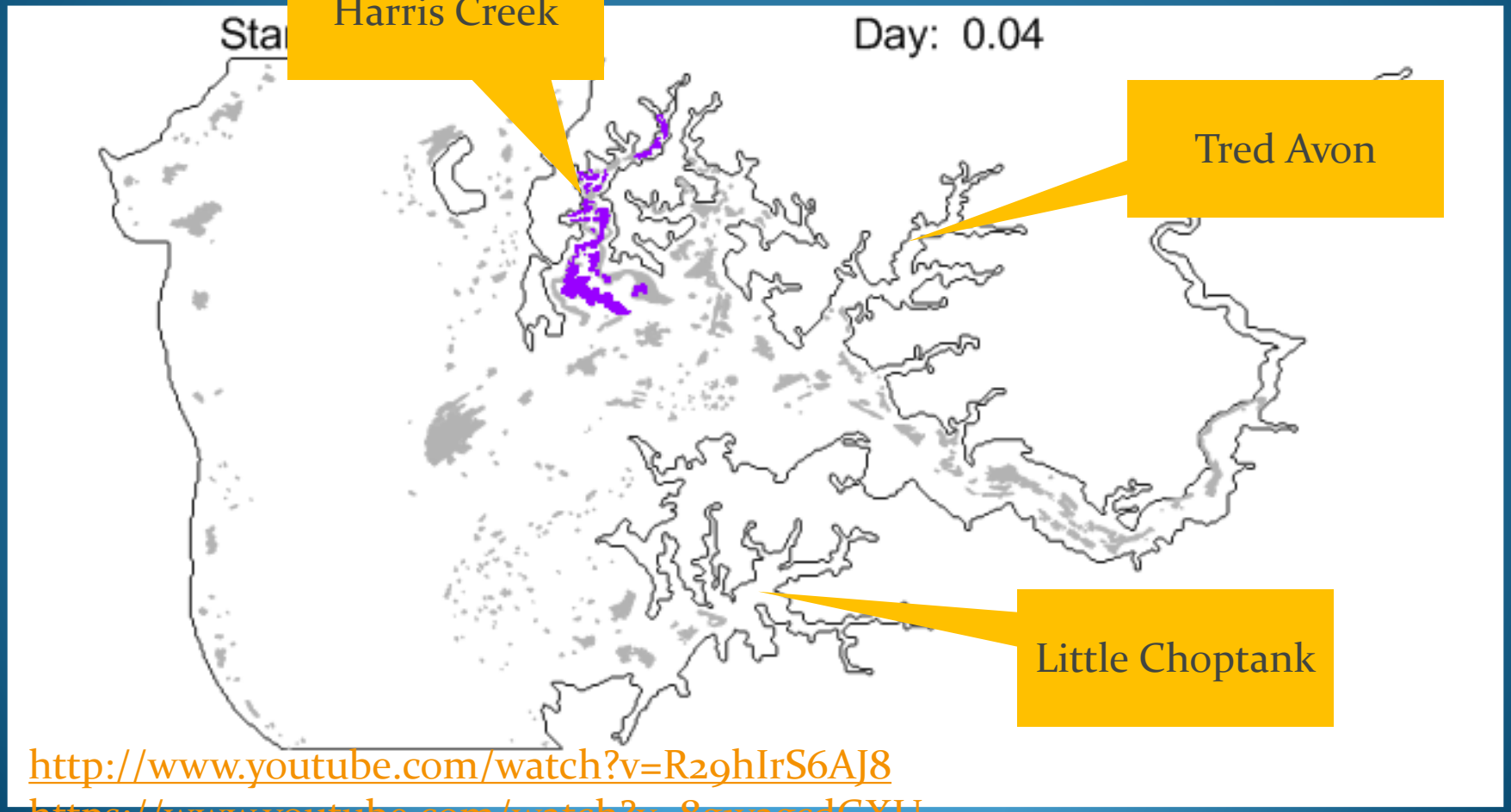
-Can be used to adaptively manage restoration techniques

Research

-ex: quantification of ecosystem services (Howard Townsend will present on this next)

Harris Creek
Larval Transport Model Output

Dr. Elizabeth North,
funded by US Army Corps of Engineers Baltimore District



http://www.youtube.com/watch?v=R29hIrS6AJ8
https://www.youtube.com/watch?v=8qiyagcdGXU