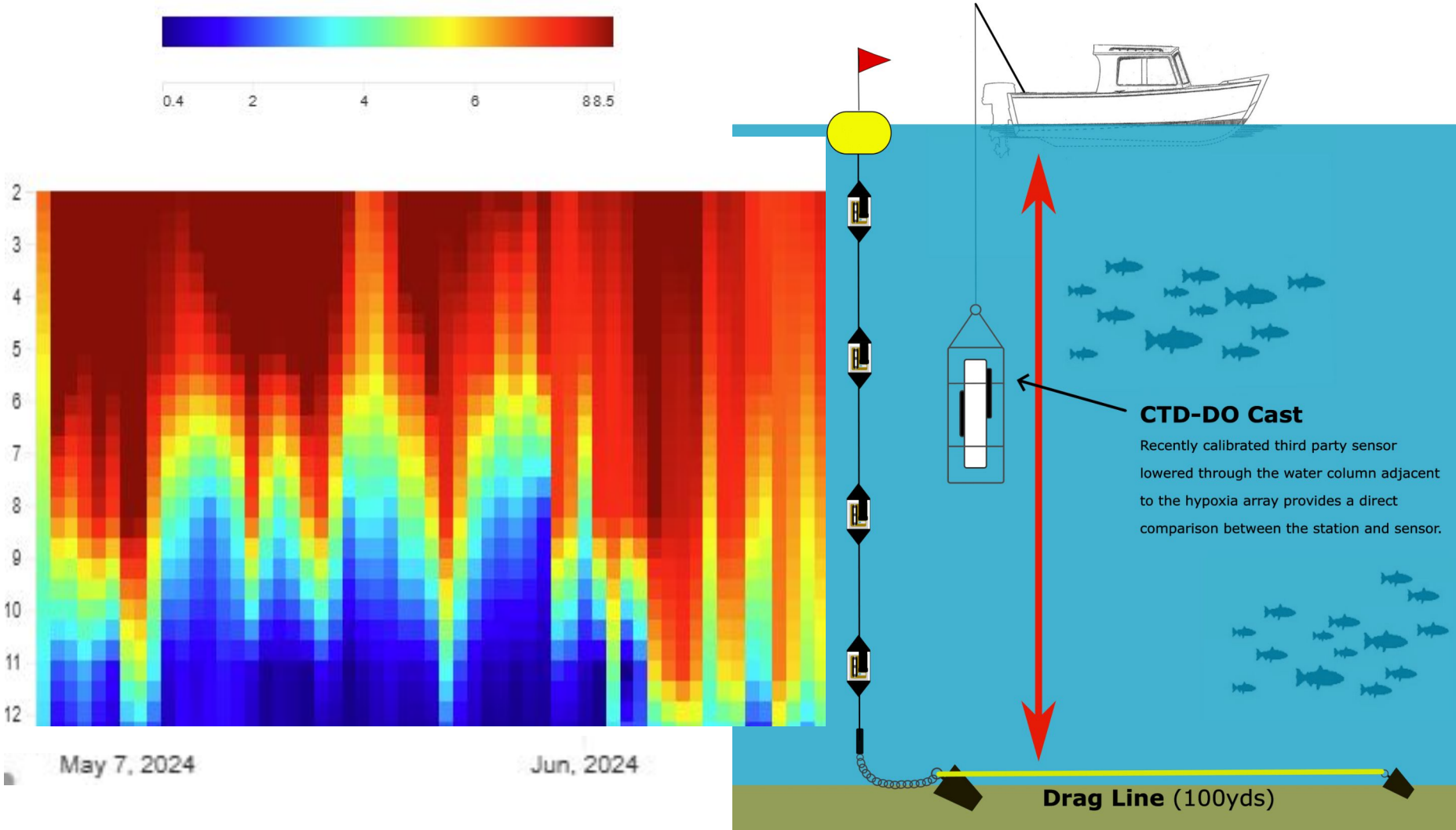
Examining the Connections between Water Quality and Living Resources in Shallow Waters

CBP
Hypoxia Collaborative Meeting

March 18, 2025

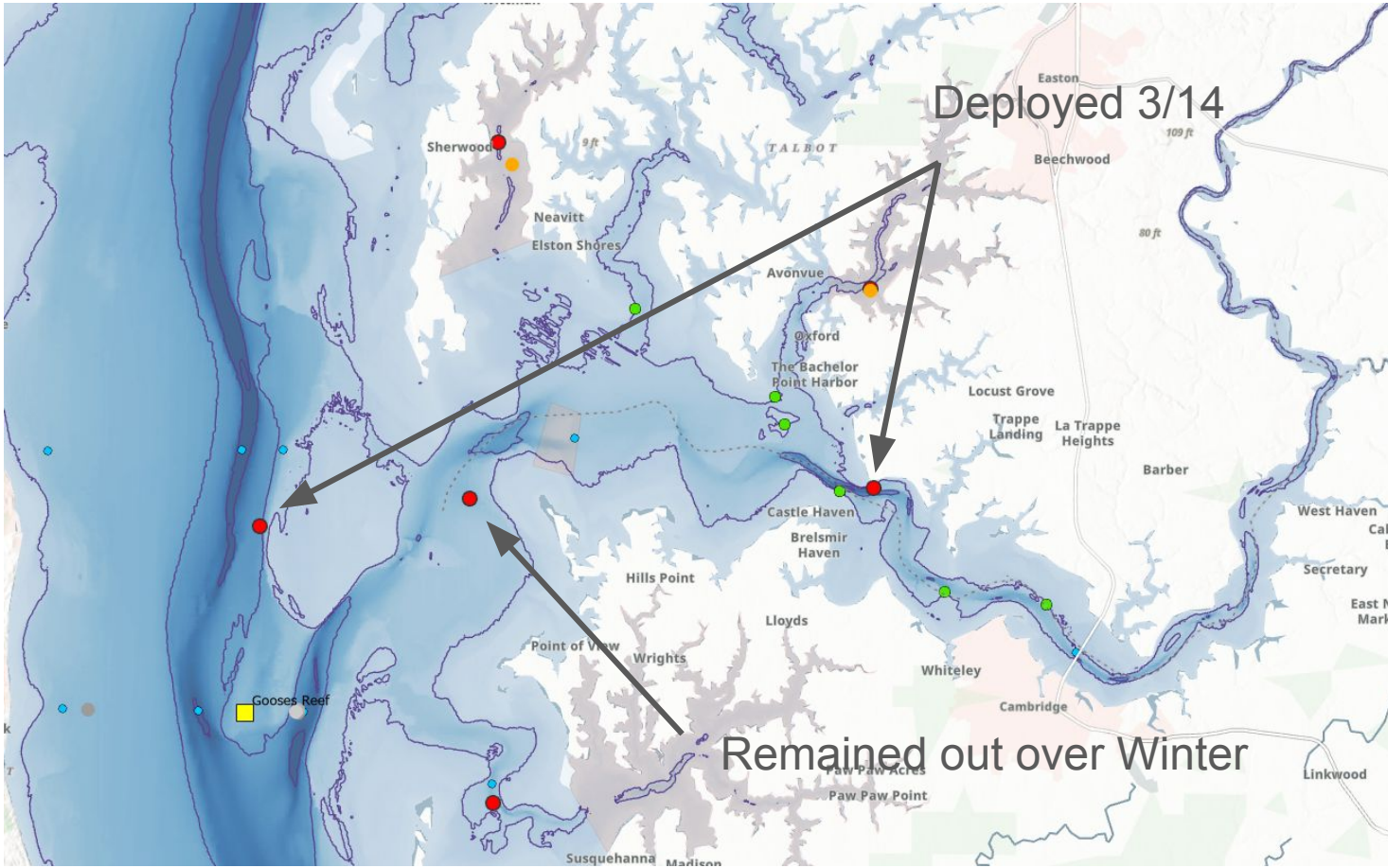

0.4
2
4
6
8
8.5
2
3
4
5
6
7
8
9
10
11
12
May 7, 2024
Jun, 2024
CTD-DO Cast
Recently calibrated third party sensor lowered through the water column adjacent to the hypoxia array provides a direct comparison between the station and sensor.
Drag Line (100yds)

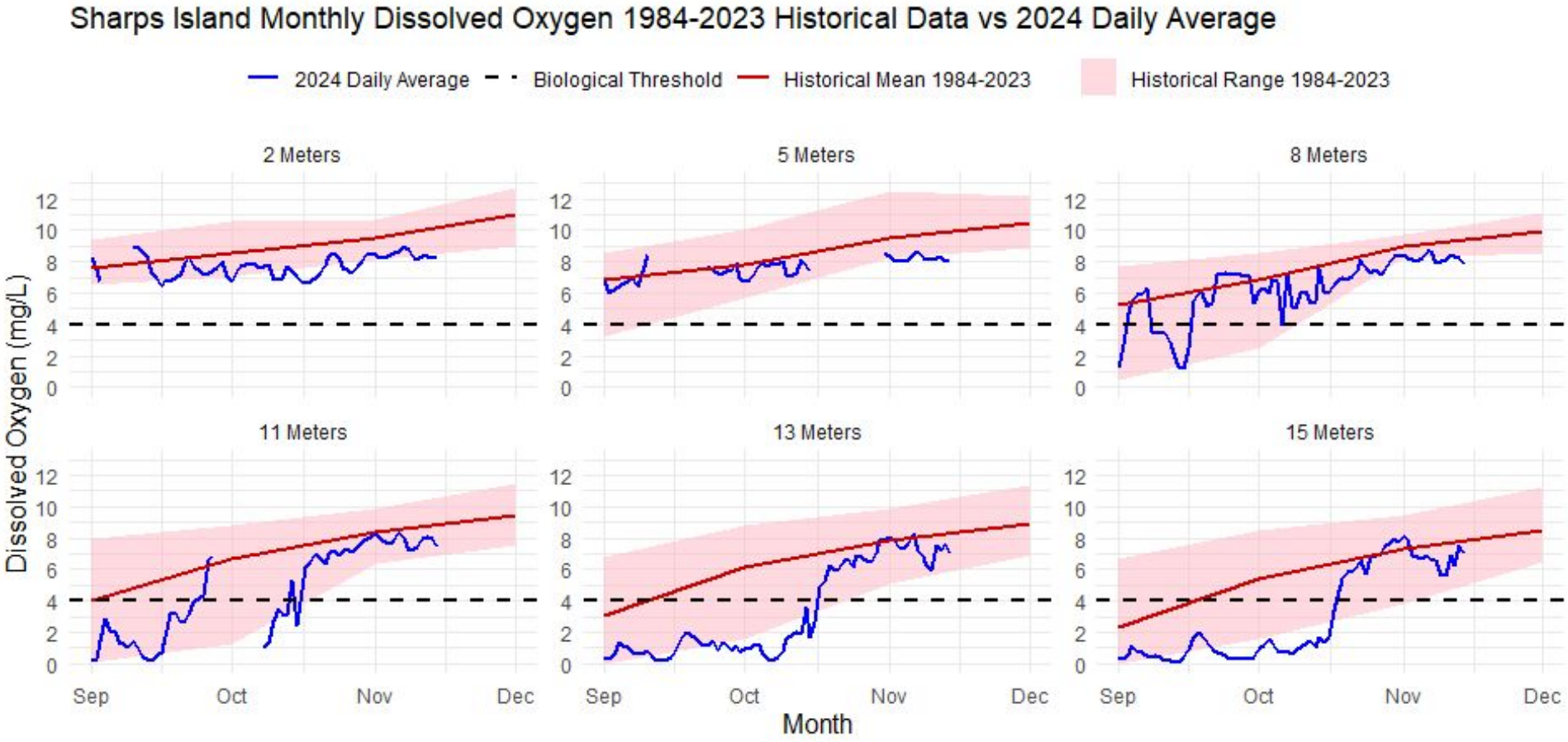
Hypoxia Monitoring

Sharps Is (2)
Lower Choptank (3)
Chlora Point (2)

Tred Avon
Harris Creek
Little Choptank

Virginia 1?
Virginia 2?




Sharps Island Monthly Dissolved Oxygen 1984-2023 Historical Data vs 2024 Daily Average
2024 Daily Average
Biological Threshold
Historical Mean 1984-2023
Historical Range 1984-2023
2 Meters
5 Meters
8 Meters
11 Meters
13 Meters
15 Meters
Dissolved Oxygen (mg/L)
0
2
4
6
8
10
12
Sep
Oct
Nov
Dec
Month

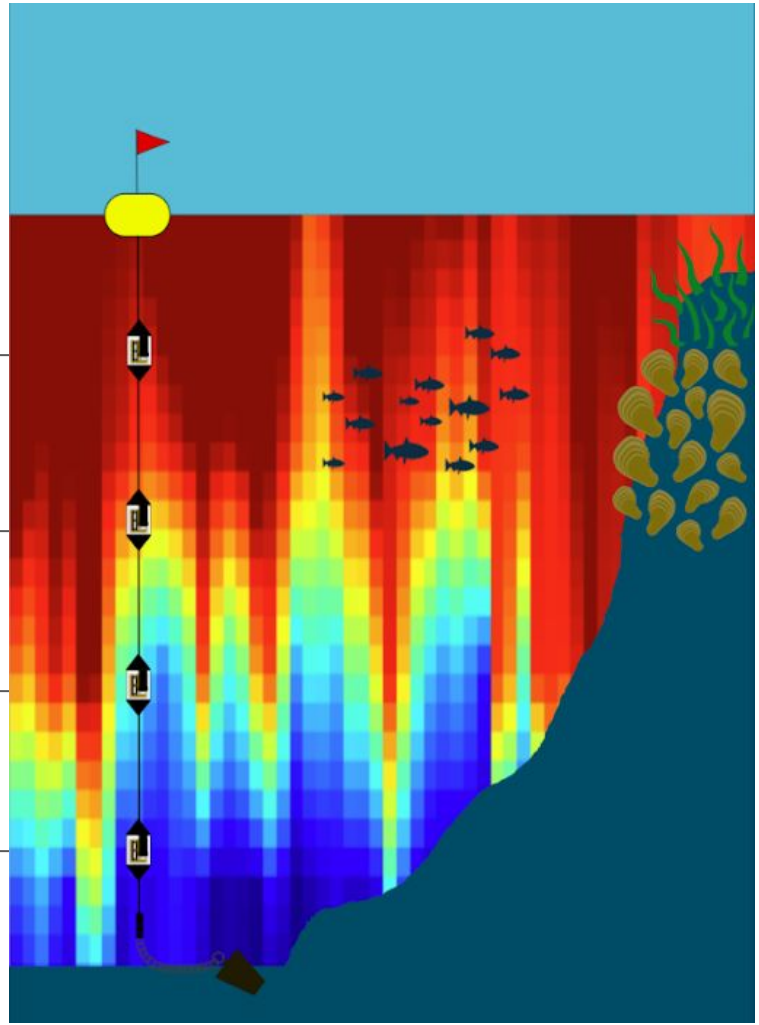
Sensor Logic

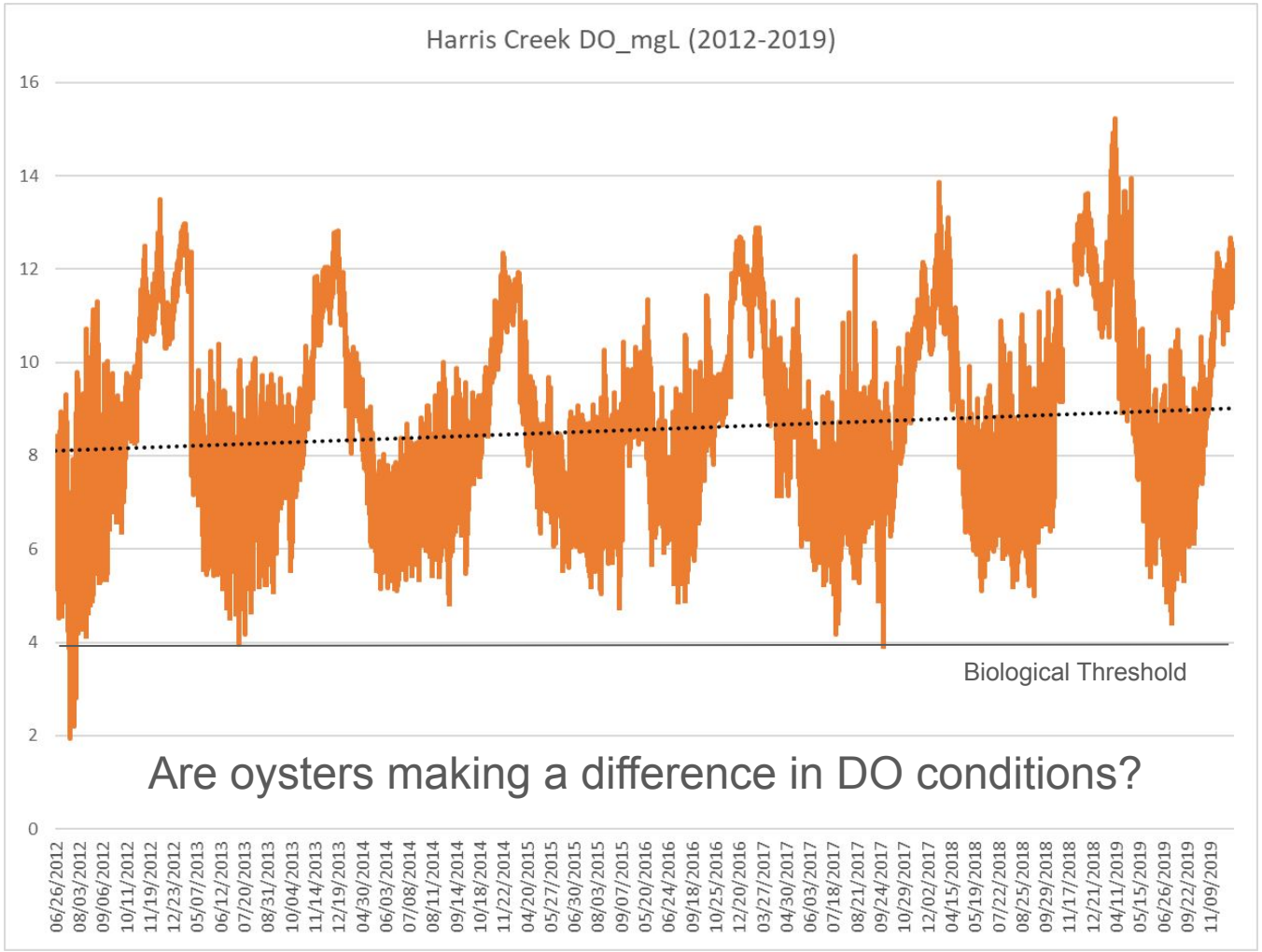
~2m represents the limit of light penetration for SAV recovery

~5m represents the limit of oyster restoration to protect from low DO

~8m represents the depth of intermittent periods of low DO

~11m represents the depth of extended periods of low DO





Harris Creek
MDDNR

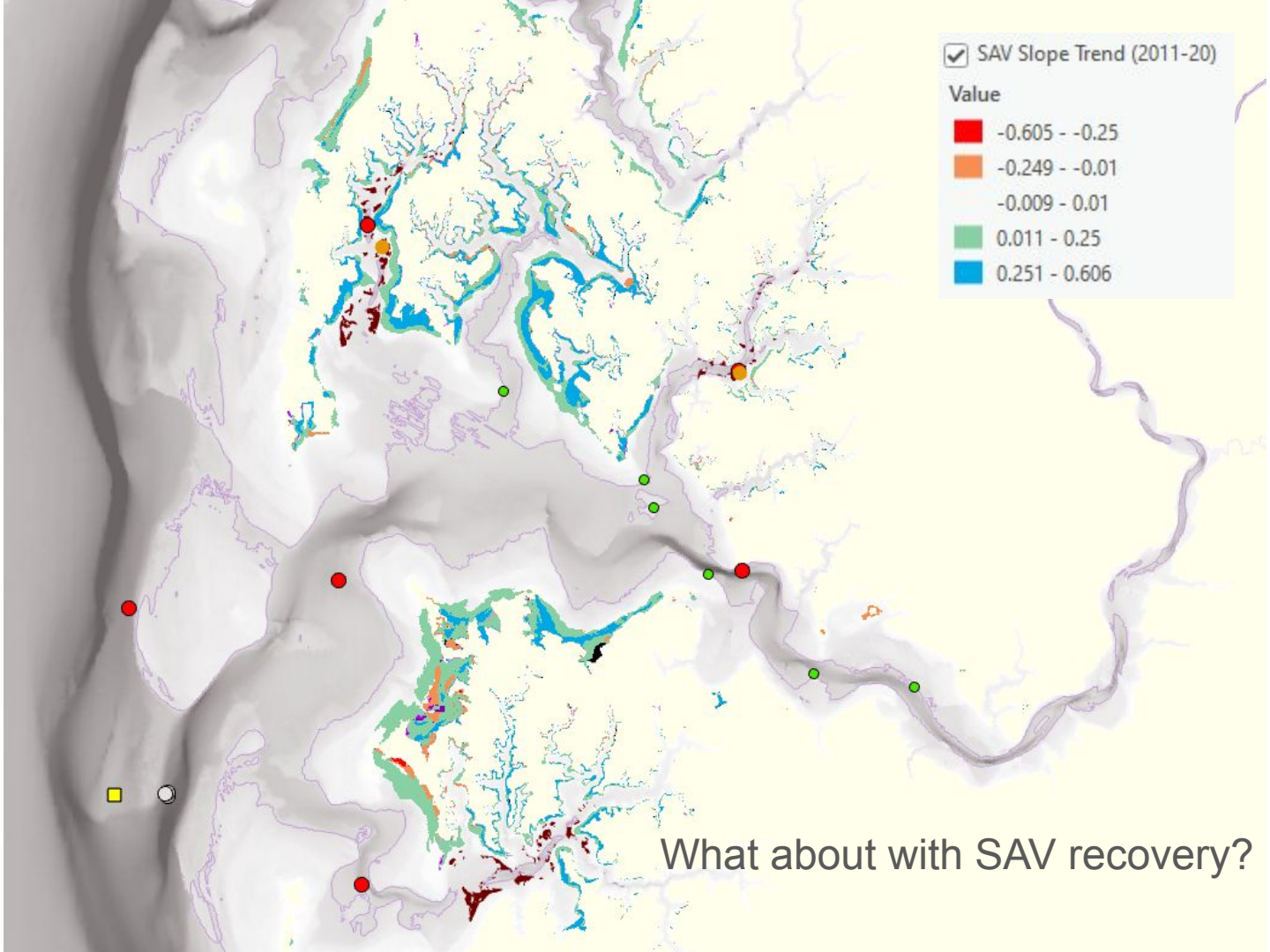
2012-2019

Shallow Water
(0.5-2m)

Critical Habitats
Marsh & SAV

Restored
Oyster Reefs

Improving Conditions



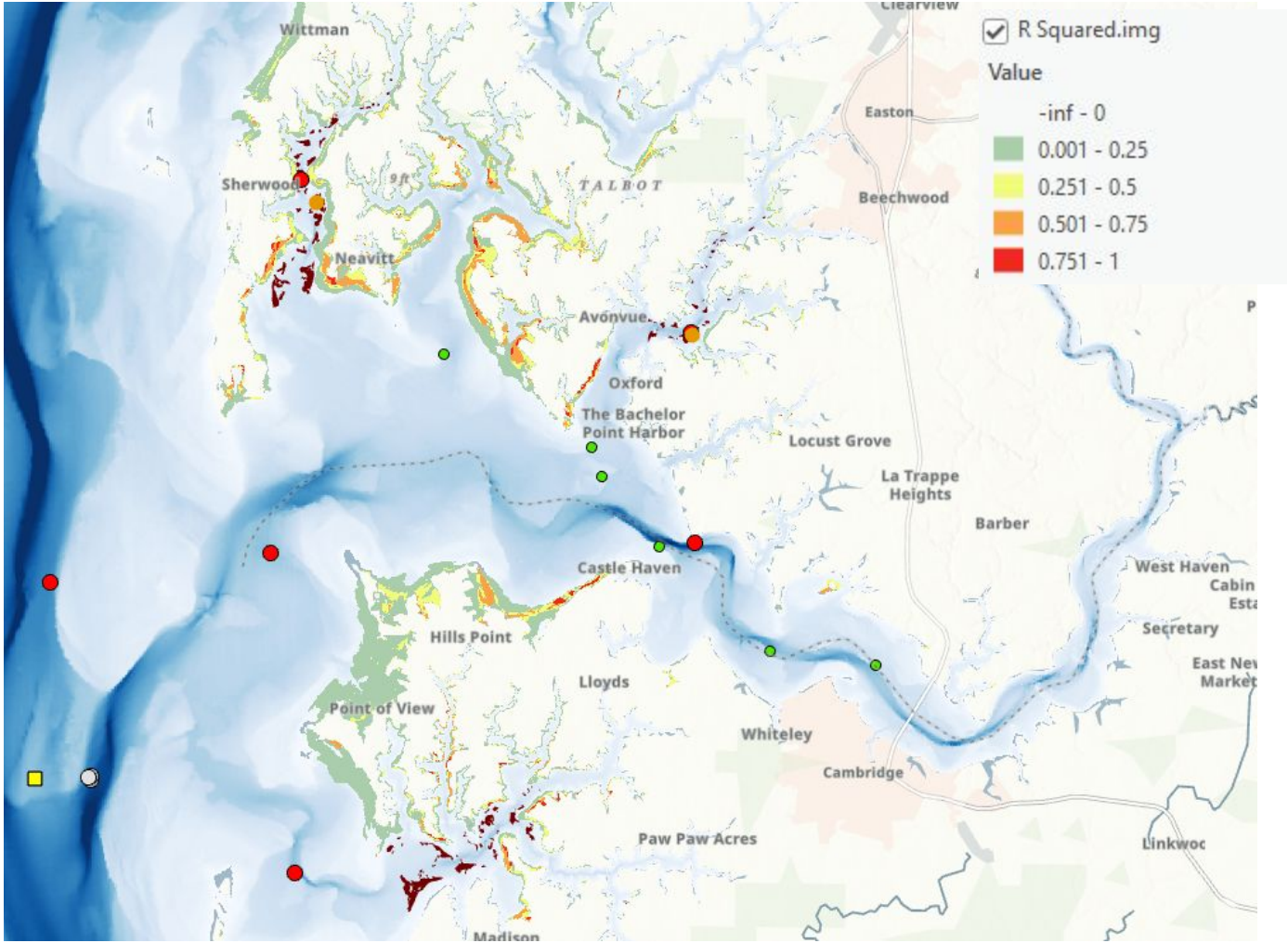
Living Resources

Shallow Water (0-5m)

Critical Habitats Marsh & SAV

Restoration Oyster Reefs

Spawning Grounds



SAV Trends

Previous slide pointed to positive slope trends

This slide shows you where those trends are more reliable

ABITAT FOCUS ARE

Your Feedback Requested

With a more limited capacity to monitor multiple geographies, does this approach seem sound?

Can this focused approach on the Choptank support your work ?

Would you like to be a maintenance partner?

Any other questions for us?