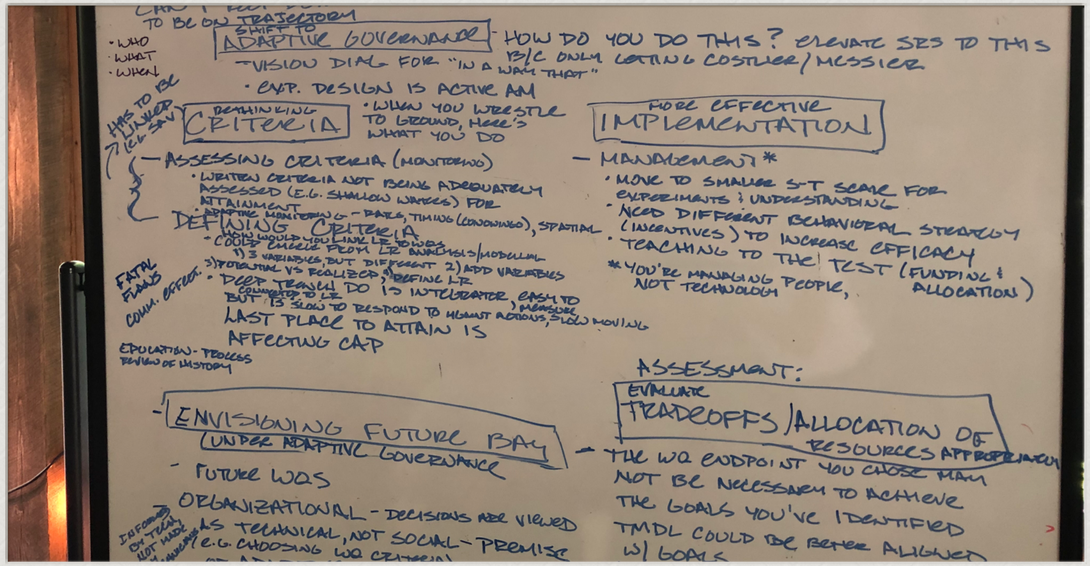
Discussion of Utilizing Remaining FY23 Workshop Funds on Activities Related to Findings in the Comprehensive Evaluation of System Response (CESR)

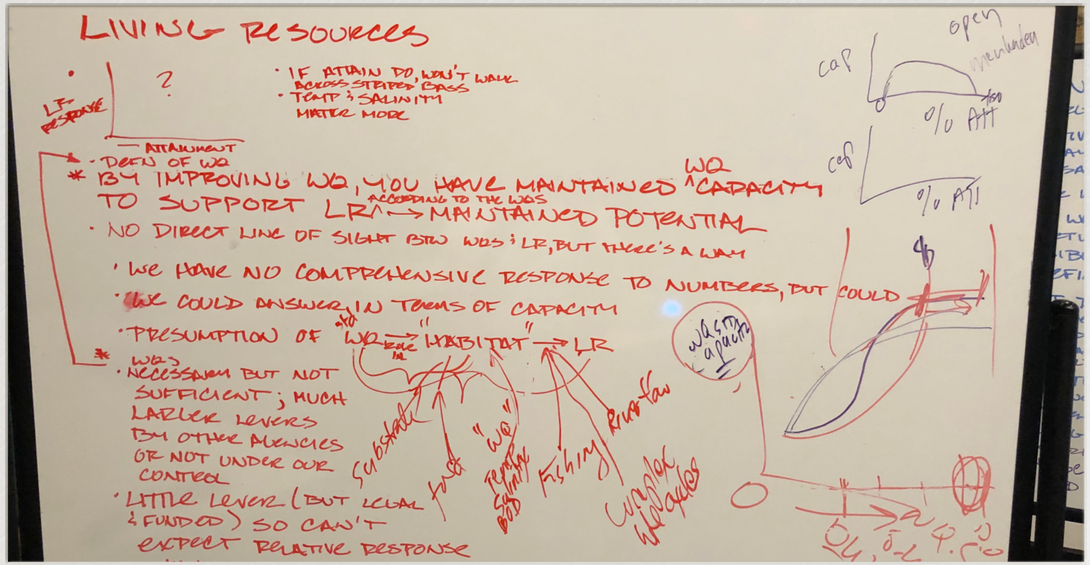
Denice Wardrop and Meg Cole

Important Points for STAC

- *Sunsetting of CESR Steering Committee/Initiation of CESR Outreach and Engagement Committee*
- *Use of STAC workshop funds for CESR outreach*
- *Consistency of concepts and languages*

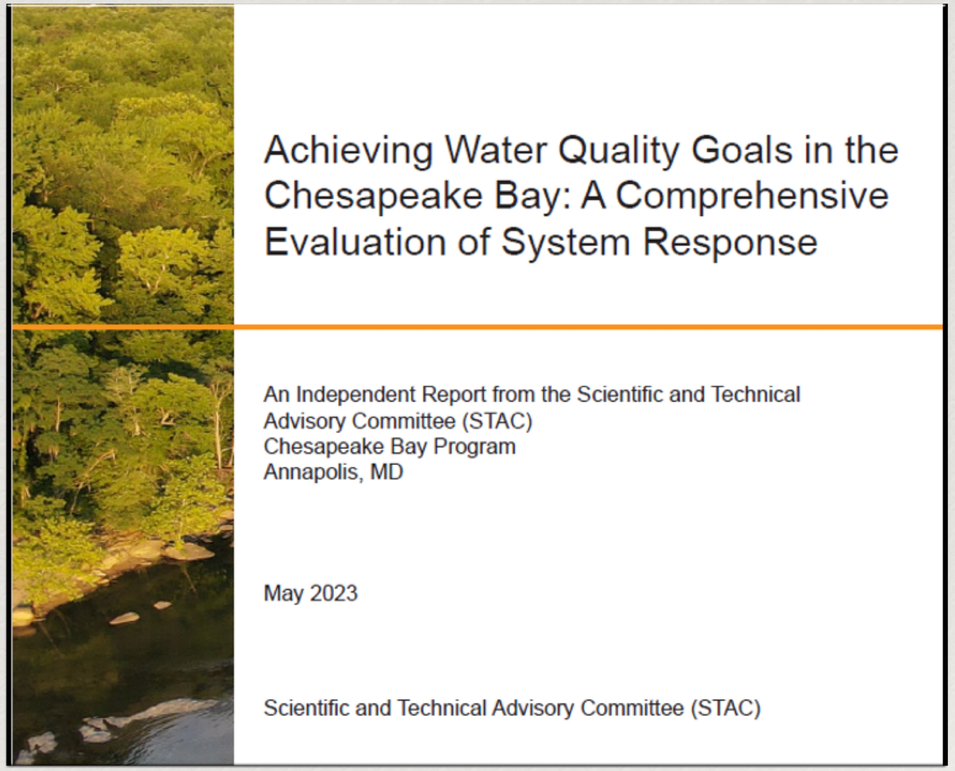
But first……


TO BE ON TRAJECTORY
SHIFT TO ADAPTIVE GOVERNANCE
HOW DO YOU DO THIS? ELEVATE SBS TO THIS
B/C ONLY GETTING COSTLIER/MESSIER
VISION DIAL FOR "IN A WAY THAT"
EXP. DESIGN IS ACTIVE AM
REFINING CRITERIA
WHEN YOU WRESTLE TO GROUND, HERE'S WHAT YOU DO
MORE EFFECTIVE IMPLEMENTATION
ASSESSING CRITERIA (MONITORING)
WRITTEN CRITERIA NOT BEING ADEQUATELY ASSESSED (E.G. SHALLOW WATERS) FOR ATTAINMENT
DEFINING CRITERIA
MANAGEMENT *
MOVE TO SMALLER S-T SCALE FOR EXPERIMENTS & UNDERSTANDING
NEED DIFFERENT BEHAVIORAL STRATEGY (INCENTIVES) TO INCREASE EFFICACY
TEACHING TO THE TEST (FUNDING & ALLOCATION)
* YOU'RE MANAGING PEOPLE, NOT TECHNOLOGY
FATAL FLAWS
COMM. EFFECT
LAST PLACE TO ATTAIN IS AFFECTING CAP
EDUCATION - PROCESS
ENVISIONING FUTURE BAY
UNDER ADAPTIVE GOVERNANCE
ASSESSMENT:
EVALUATE TRADEOFFS/ALLOCATION OF RESOURCES APPROPRIATION
FUTURE WQS
ORGANIZATIONAL - DECISIONS ARE VIEWED AS TECHNICAL, NOT SOCIAL - PREMISE
THE WQ ENDPOINT YOU CHOSE MAY NOT BE NECESSARY TO ACHIEVE THE GOALS YOU'VE IDENTIFIED
TMDL COULD BE BETTER ALIGNED W/ GOALS


LIVING RESOURCES
LR RESPONSE
ATTAINMENT
IF ATTAIN DO, WON'T WALK ACROSS STRIPED GRASS
TRAP & SALINITY MATTER MORE
DEFN OF WQ
BY IMPROVING WQ, YOU HAVE MAINTAINED WQ CAPACITY TO SUPPORT LR → MAINTAINED POTENTIAL
ACCORDING TO THE WQS
NO DIRECT LINE OF SIGHT BTW WQS & LR, BUT THERE'S A WAY
WE HAVE NO COMPREHENSIVE RESPONSE TO NUMBERS, BUT COULD
WE COULD ANSWER IN TERMS OF CAPACITY
PRESUMPTION OF WQ → HABITAT → LR
WQS NECESSARY BUT NOT SUFFICIENT; MUCH LARGER LEVERS BY OTHER AGENCIES OR NOT UNDER OUR CONTROL
LITTLE LEVER (BUT LEGAL & FUNDED) SO CAN'T EXPECT RELATIVE RESPONSE
cap
% ATT
cap
% ATT

CESR

- *Joint STAC effort (2019-2023)*
- *Inclusive of STAC Membership (designed by Brian Benham)*
- *Major Resource Documents as a foundation*
- *Synthesis*
- *Multiple levels of review*



Heavy Lifters

Steering Committee

Brian Benham, Virginia Tech

Anthony Buda, USDA, ARS

Bill Dennison, UMCES

Zachary Easton, Virginia Tech

Ellen Gilinsky, Ellen Gilinsky LLC

Andy Miller, UMBC

Mark Monaco, NOAA

Kenny Rose, UMCES

Leonard Shabman, Resources for the Future

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Jeremy Testa, UMCES

Denice Wardrop (Co-editor)

STAC Chairs

Brian Benham, Virginia Tech

Andy Miller, UMBC

Kathy Boomer, FFAR

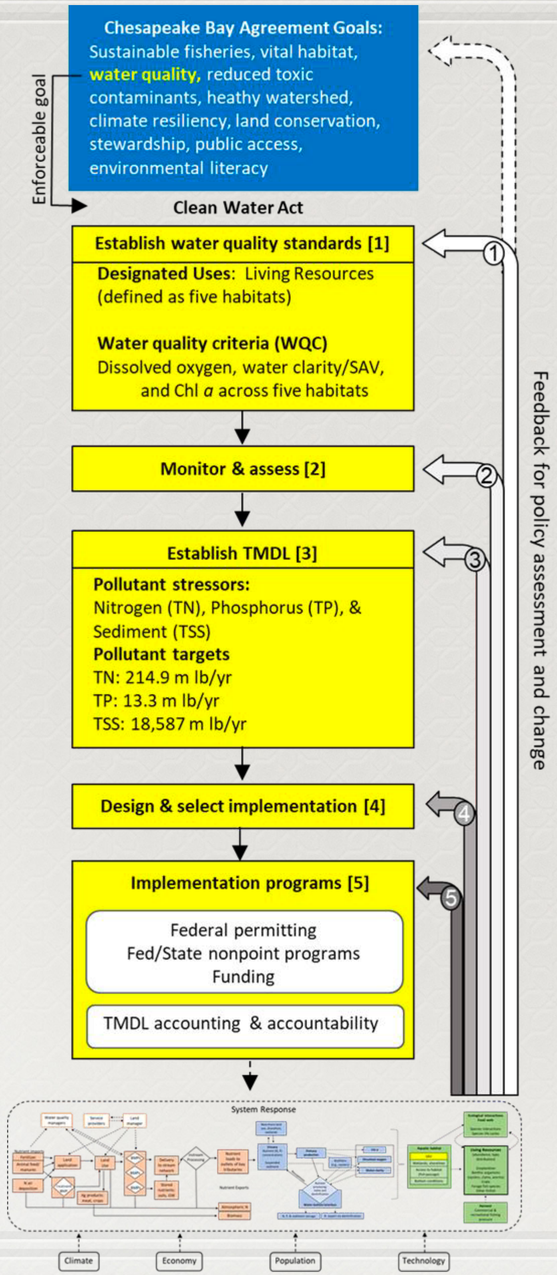
Communication

Dave Jasinski, GreenFin

Paula Jasinski, GreenFin

Lauren Huey, GreenFin

Rachel Felver, CBP



Refocusing water quality management efforts on improving living resource response

- *Tiered approach to structuring the TMDL and achieving WQS*
- *Revisions to existing WQC*

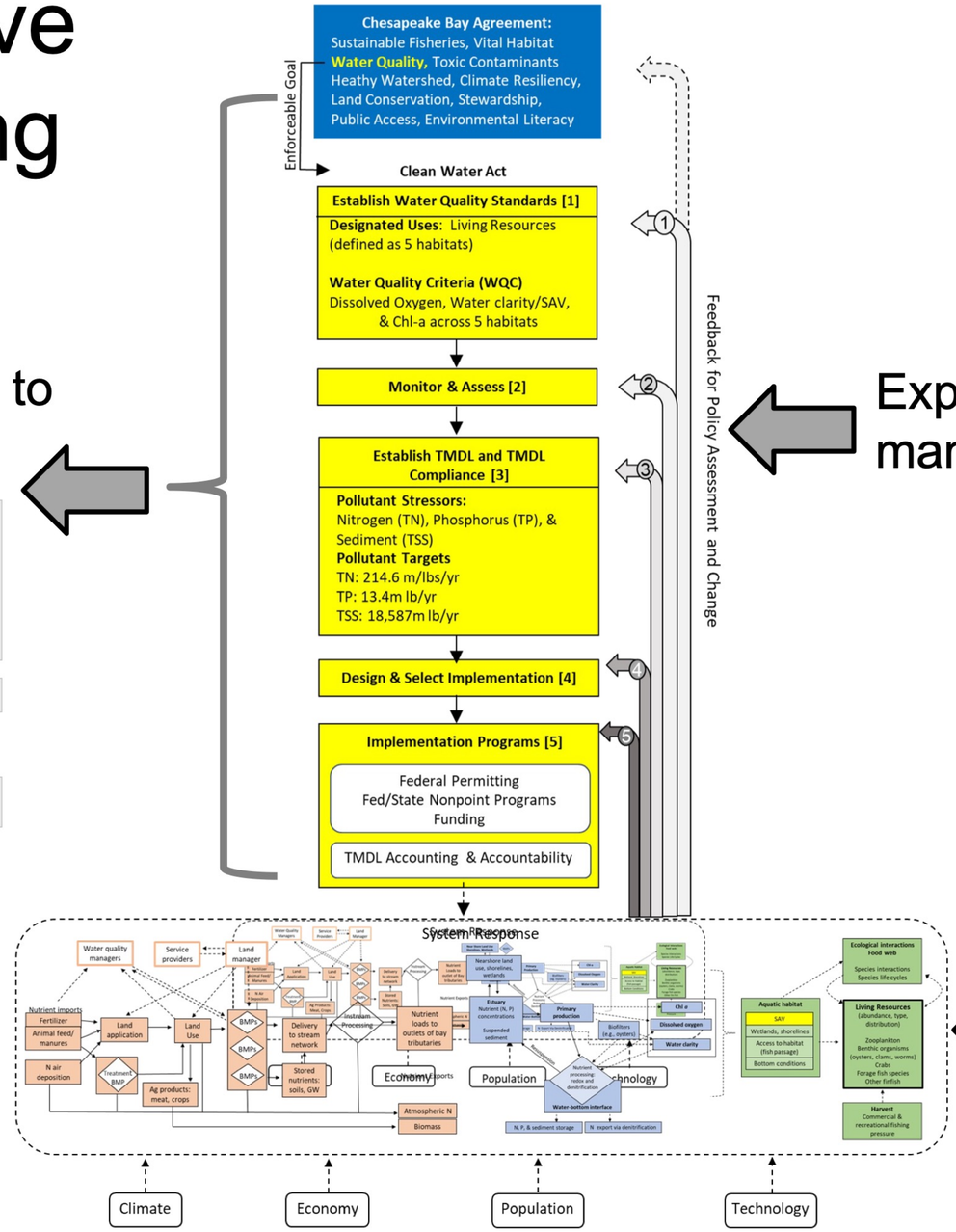
Improving effectiveness of nonpoint source management

- *Addressing mass imbalances*
- *Spatial considerations*
- *Incentives*
- *Institutional innovation through sandboxing*

Enhancing adaptive management to improve the CBP's ability to learn and respond to uncertainties and response gaps

- *Expand participation in adaptive management*
- *Use decision science for enhanced adaptive management*
- *Expand analytical tools to support decision-making under uncertainty.*
- *Target monitoring and research to support adaptive management*

Expand Adaptive Decision-making



Improve transfer of learnings to relevant decisionmakers

Expand the scope of adaptive management

Improve capacity to identify and evaluate uncertainties and gaps in system response

Kathy's presentation to MB

An entrance ramp onto expanding adaptive decision-making

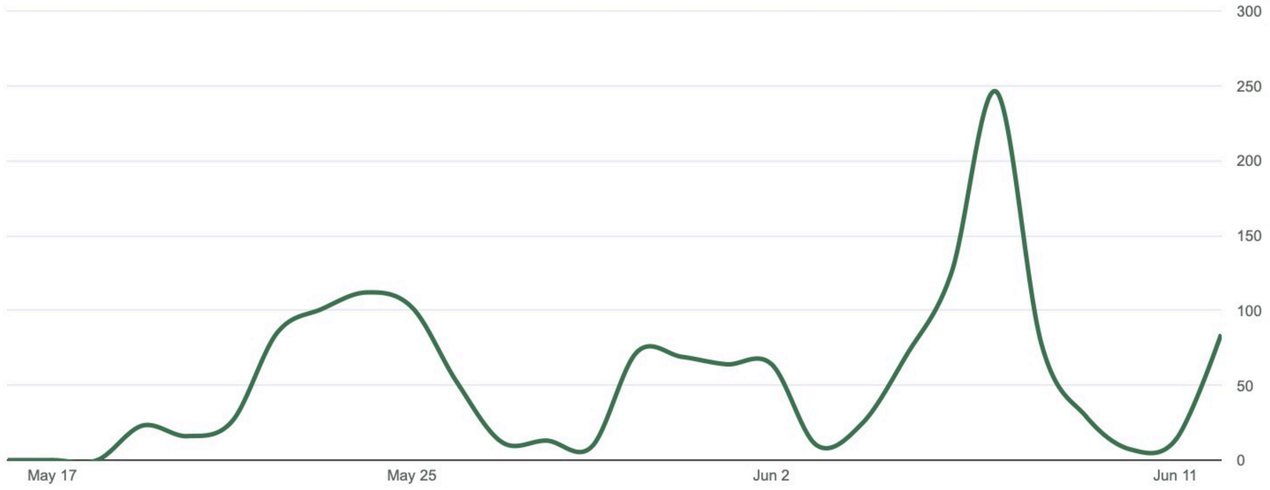
Socializing Messages in Preparation for Conversation

- *WQGIT*
- *Sustainable Fisheries GIT*
- *STAR*
- *Management Board (2)*
- *GIT Chairs and Leadership*
- ***Adam Ortiz, Region III Administrator***
- ***Maryland Governor's Bay Cabinet***
- ***Chesapeake Bay Commission***
- ***Virginia Bay Cabinet (scheduled)***
- ***Chesapeake Bay Foundation***
- ***Clean Water Coalition***
- ***Local Government Advisory Committee***
- *SRS Biennial Meeting*
- *Long Island Sound STAC (scheduled)*
- *Academic (UMBC , CCMP Plenary)*
- *Resource Documents (Estuary, LR)*

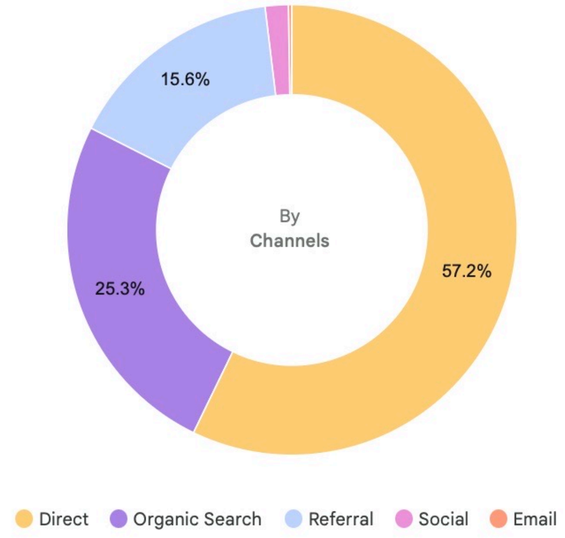
All Users

1.1K

0% compared to the previous 28 days



Channels | Locations | Devices



Source: Analytics

Title	Pageviews	Unique Pageviews	Bounce Rate	Session Duration
1. CESR – STAC /stac/cesr/	700	590	82.28%	1m 19s
2. STAC – Chesapeake Bay Scientific and Technical Advisory Committee /stac/	406	344	33%	2m 18s
3. Using Carbon to Achieve Chesapeake Bay (and Watershed) Water Quality Goals and Climate Resiliency: The Science, Gaps, Implementation Activities and Opportunities – STAC /stac/events/using-carbon-to-achieve-chesapeake-bay-and-watershed-water-quality-goals-and-climate-resiliency-the-science-gaps-implementation-activities-and-opportunities/	280	220	81.21%	1m 34s
4. June 2023 STAC Quarterly Meeting – STAC /stac/events/june-2023-stac-quarterly-meeting/	176	137	85.92%	34s
5. Rising Watershed and Bay Water Temperatures— Ecological Implications and Management Responses – STAC /stac/document-library/rising-watershed-and-bay-water-temperatures-ecological-implications-and-management-responses/	104	94	91.57%	1m 45s
6. Day 2: Using Ecosystem Services to Increase Progress Toward, and Quantify the Benefits of, Multiple CBP Outcomes – STAC /stac/events/day-2-using-ecosystem-services-to-increase-progress-toward-and-quantify-the-benefits-of-multiple-cbp-outcomes-copy/	78	62	71.11%	1m 45s
7. Best Management Practices to Minimize Impacts of Solar Farms on Landscape Hydrology and Water Quality – STAC /stac/events/best-management-practices-to-minimize-impacts-of-solar-farms-on-landscape-hydrology-and-water-quality/	69	60	78.72%	1m 54s
8. Workshops – STAC /stac/workshops/	64	52	18.42%	4m 53s
9. Current Membership – STAC /stac/current-membership/	56	49	41.67%	12m 26s
10. Who We Are – STAC /stac/who-we-are/	51	44	70%	2m 53s

CESR Outreach and Engagement Committee

- *Vision: A CESR outreach plan will advance dissemination and understanding of the CESR findings and motivate implementation of the options identified in the report.*
- *Process: Formed from members of the CESR Steering Committee* plus STAC Chair and Vice Chair, and will have a team leader (Stephenson). Access to support from the CRC and would coordinate with the CRC.*

** can include STAC and non-STAC members*

Two primary activities; Activity 1

- *Support CBP partner efforts to investigate CESR findings and policy implications. Would identify STAC and other scientific expertise to encourage and support continuing interest in topics that have generated interest. Would be alert to funding opportunities that would support these activities, and to help connect partners across the watershed who are working on similar issues. The CESR Outreach Team Lead would track and report back to the Team the progress of these efforts.*

Two primary activities; Activity 2

- *Facilitate the dissemination of under-served, but key CESR findings and policy implications. Would identify key issues not receiving attention, would evaluate why this is the case, and then would further develop and highlight the topic within the CBP partnership (through workshops, technical papers, etc). As a start, we propose a focus on adaptive decision-making to address uncertainty in system response.*

Next steps

- *Presentation repository*
- *Focus and process for a Step 2 of adaptive decision making*
- *Late June meeting for above*

Resources

- *Covered under "old" award*
  - *GreenFin work on Chesapeake Bay Commission presentation, Executive Summary, Final CESR report*
  - *Professional technical editor (Pat Nichols)*
- *Funds in Year 1 and 2 of current award:*
  - *Workshop funds: Year 1 $25-30,000 unused, Year 2 $30,000*
  - *Professional consultants: Year 1 $5000, Year 2 $5000*
  - *Web and technical services Year 1 $2000, Year 2 $718*
  - *Supplemental from Year 1 savings (unknown)*

Important Points for STAC

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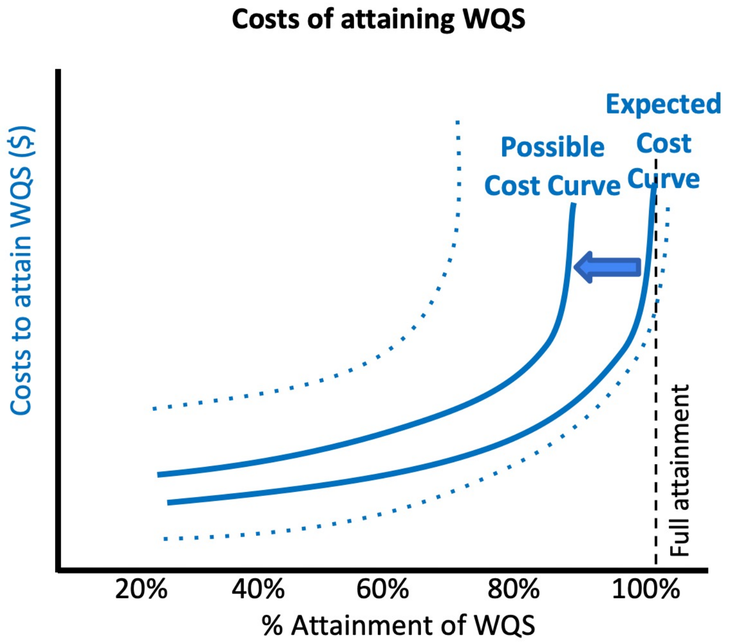
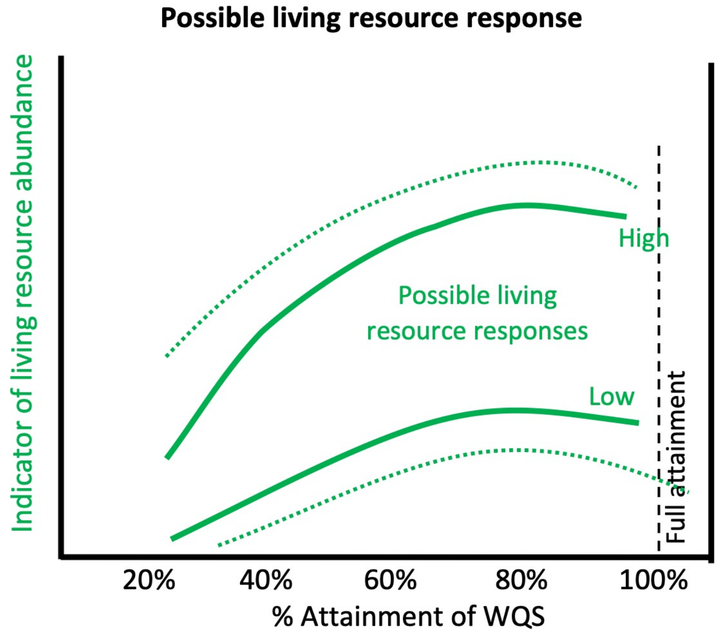


Expected cost curve: costs increase rapidly as nutrient reductions approach TMDL goals and full attainment is expected to be achieved.

Possible cost curve: Gaps in nonpoint source and estuary response likely shifting cost curve to left and full attainment may not be possible



What is the consequence for living resources?

High LR curve: Maximum LR response for water quality improvements

Lower LR curve: LR response is dampened but could be shifted to High LR curve by changing the location & timing of Bay water quality improvements and improving other factors that influence living resource abundance (habitat, harvest, etc)

CESR Policy Implications

- *There are opportunities to further reduce nutrients from nonpoint sources, but changes to programs and policies need to be considered.*
- *Additional nutrient reductions will improve water quality, but water quality criteria may be unattainable in some regions of the Bay under existing technologies.*
- *The legal requirements of the Clean Water Act (the water quality goal) divert attention away from considering multiple means of improving living resources (support of aquatic life as the designated use) as articulated in the Chesapeake Bay Watershed Agreement.*
- *Opportunities exist to adjust approaches to prioritize management actions that improve living resource response.*
- *Expanding the scope of adaptive management could address critical uncertainties and response gaps.*