

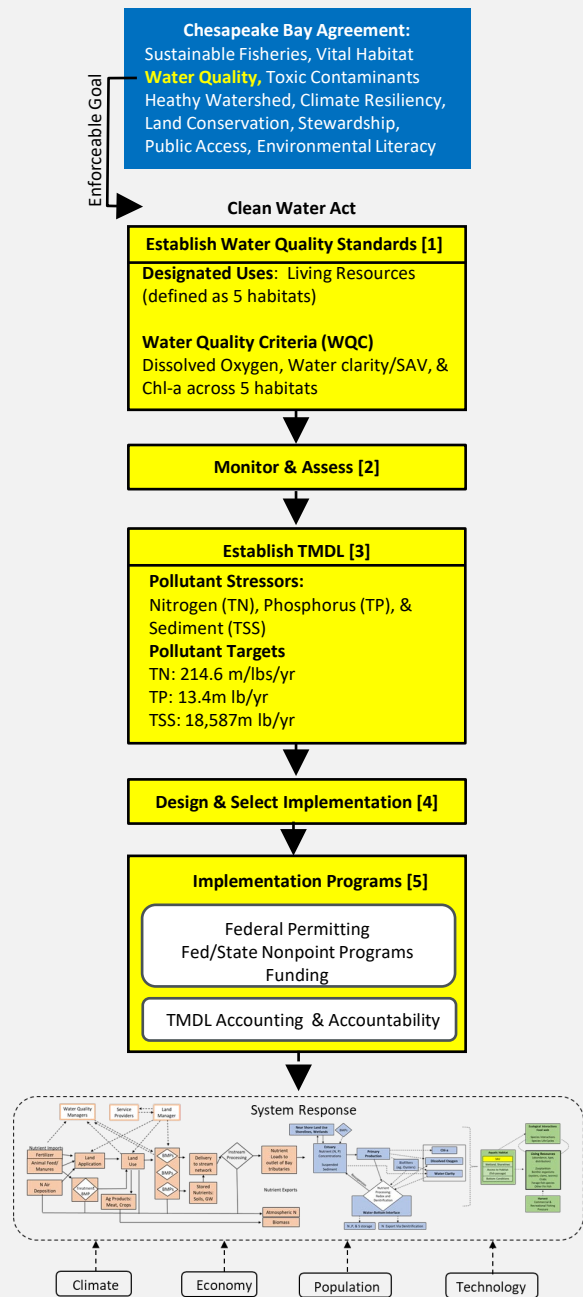
# COMPREHENSIVE EVALUATION OF SYSTEM RESPONSE (CESR) to Water Quality Management Efforts, Part 2

Chesapeake Bay Commission  
18 November 2022

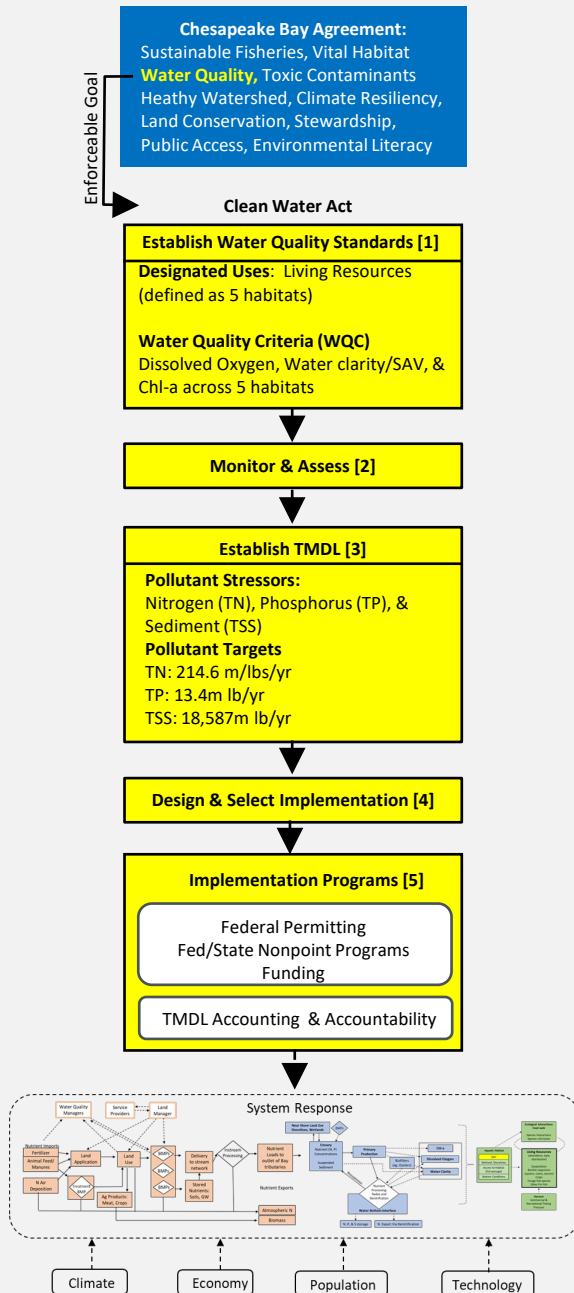


## Two Premises

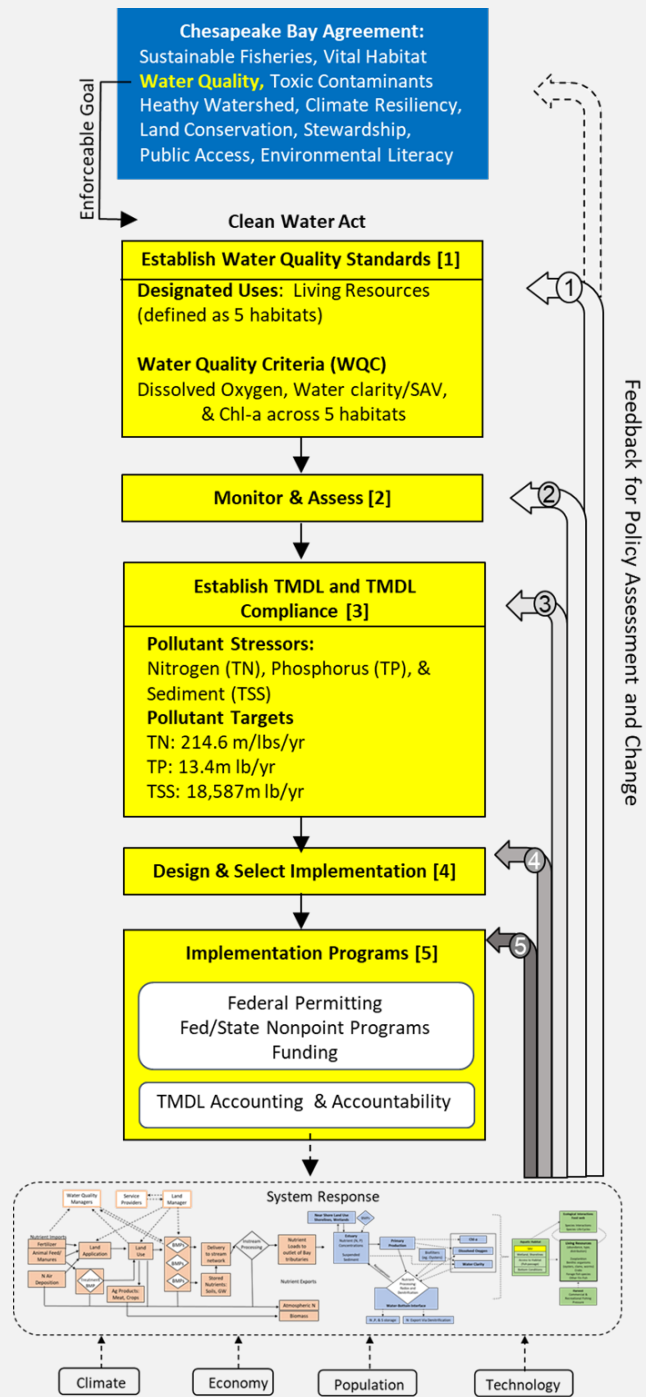
- Achieving our desired outcomes is proving more challenging than we expected.
- There are opportunities to improve our effectiveness, but they will require a significant change in our thinking and our programs.

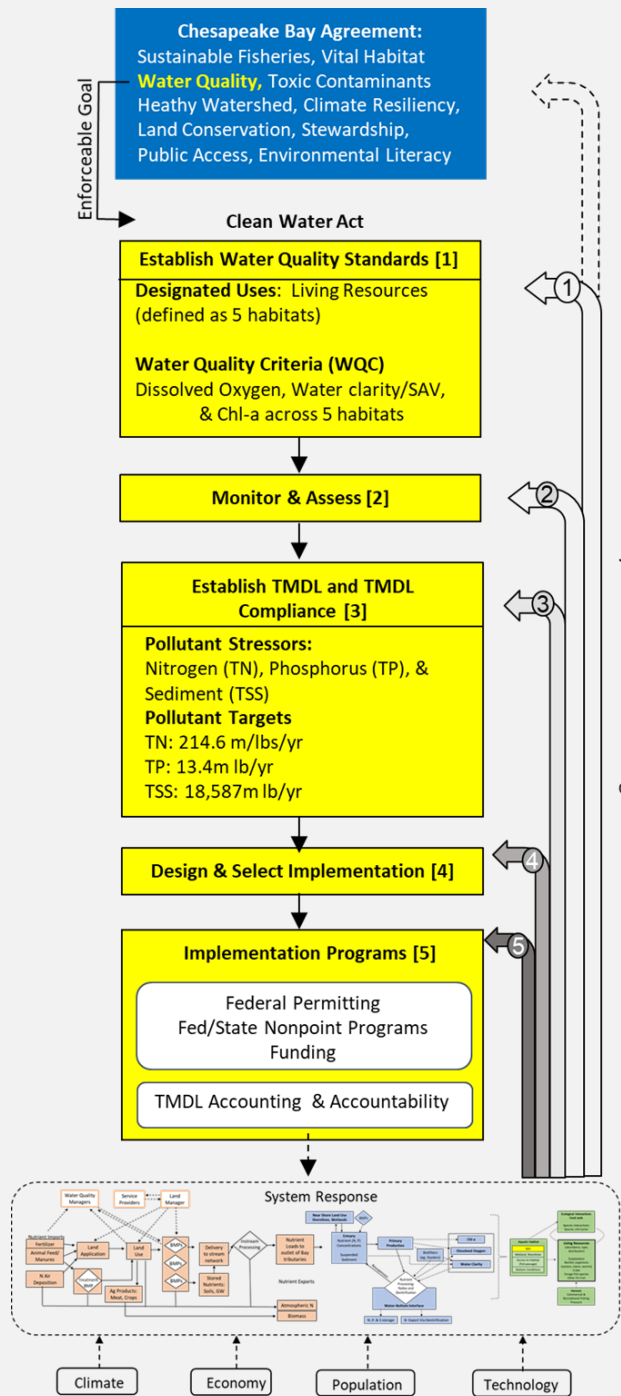


# SUMMARY OF FINDINGS

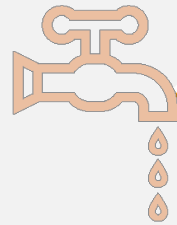


- *Uncertain if it is possible to achieve water quality criteria (DO, SAV), but efforts have stemmed further declines in water quality.*
- *Existing nonpoint source water quality programs are insufficient to achieve the nonpoint source reductions required by the TMDL*
- *It might not be possible to meet the all TMDL and WQ goals but this may not be necessary to enhance and support living resource goals.*
- *The existing adaptive management process has limited capacity to effectively address the uncertainties and response gaps described in this report.*

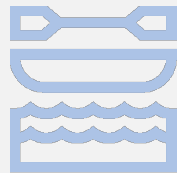




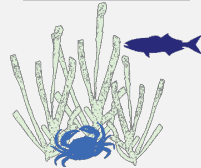
# Implications



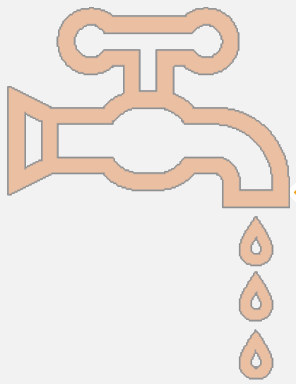
Improving effectiveness of  
nonpoint source  
management programs



Improving living resource  
response to water quality  
management efforts

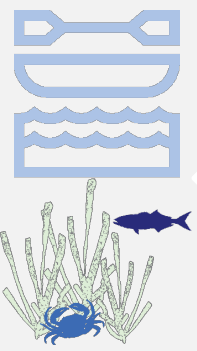


Expand adaptive  
management



## Improving effectiveness of nonpoint source management programs

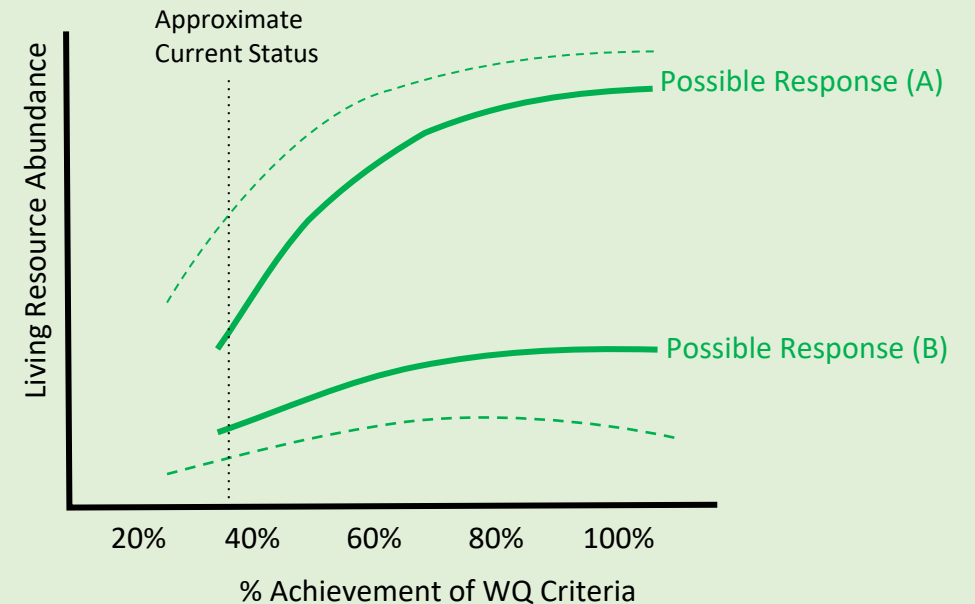
- Spatial targeting
- Outcomes-based incentive programs
- Targeted, performance-based requirements
- Facilitating policy innovation through “sandboxing”



## Improving living resource response to water quality management efforts

- Expression of the criteria can be shifted to more accurately reflect necessary conditions for habitat suitability (value, mode, how and where measured)
- Achievement of TMDL targets could be prioritized according to location (segments) or habitat type.
- Addition of management actions to elevate LR response to WQ management efforts.

Possible Living Resource Responses to Existing Water Quality Standards







# Expand adaptive management

- Expanded AM will need to include all levels of policy feedback and learning in the existing CWA approach (arrows 1 through 4).
- Who?
- How?
- Now is an opportunity to developed expanded adaptive management processes

