Indicators, ChesapeakeProgress, and Adaptive Management

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Overview

1. What types of indicators can we use?

2. How do these types of indicators fit into the Adaptive Management process?

3. What is needed for indicators to be useful in Adaptive Management at the CBP?

4. What marks a good indicator?

5. How are indicators toward the Chesapeake Bay Watershed Agreement outcomes reported at the CBP?

6. Indicator Development Process Background

7. Examples of current indicators developed for other outcomes

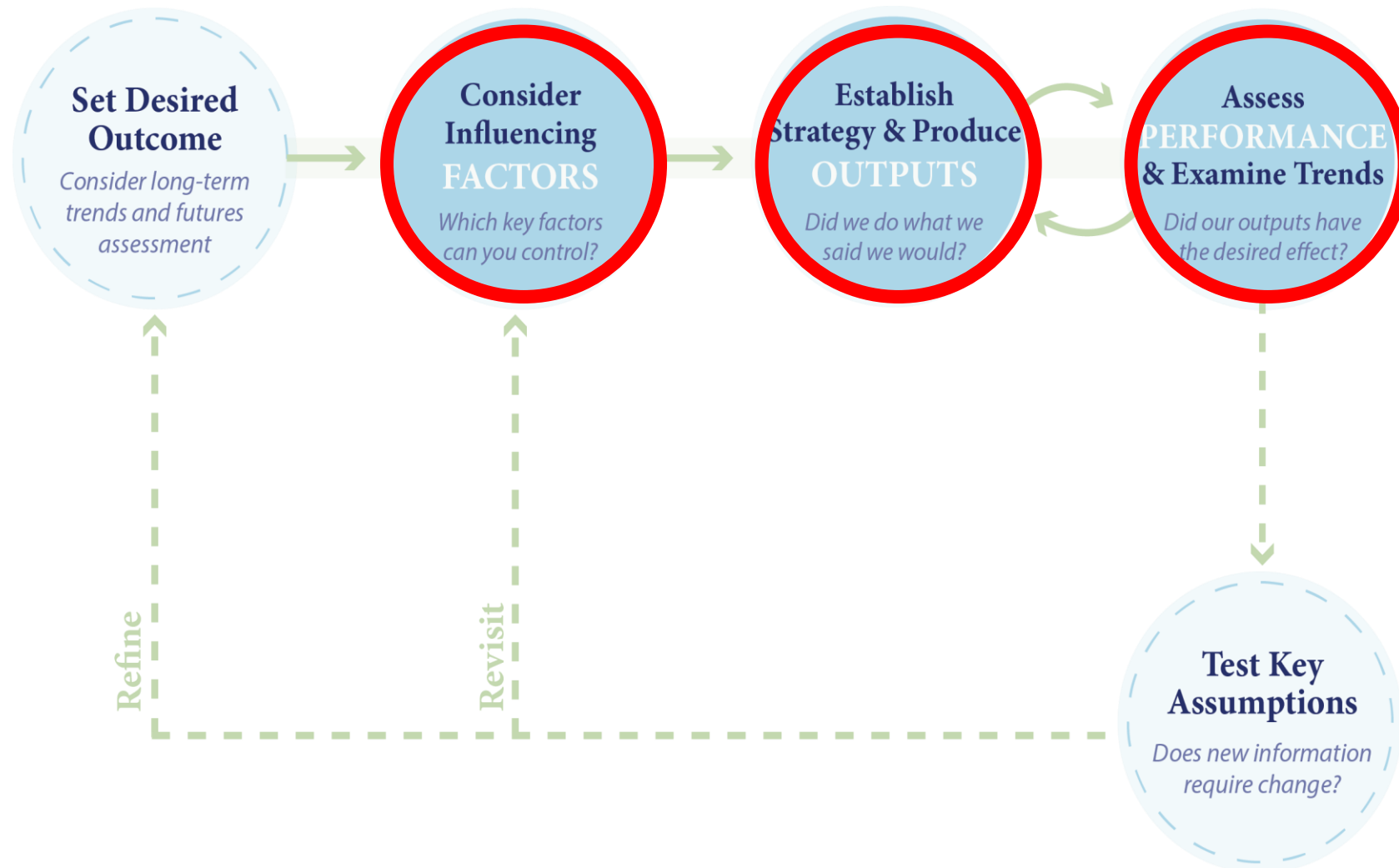8. Today's focus for indicator development: Local Leadership

What are the different forms of indicators?

Influencing Factors – What KEY influencing factors are impacting the achievement of an outcome?

Outputs – Are we doing what we said we would do in our work plans and management strategies?

Performance – Are we achieving the outcome?

Indicators and Adaptive Management

Important Indicator Qualities*

Simple and easy to understand

Be scientifically well-founded

Have a reference or threshold value of significance

Be responsive to changes in the environment

Show trends over time

Feasible to measure and report (reasonable cost/benefit ratio)

Updated regularly with reliable procedures (timely with support of a monitoring program)

Adequately documented, known quality

Be useable by the community

Policy relevant

*From Peter Tango's 2019 presentation "2019IndicatorsOVERVIEW PPT Reference"

PROGRESS

CHESAPEAKE PROGRESS

Helping federal, public and internal oversight groups track the Chesapeake Bay Program's progress toward the goals and outcomes of the *Chesapeake Bay Watershed Agreement.*

OYSTER RECOVERY PARTNERSHIP

Learn more about us

Role of ChesapeakeProgress.com

A Partnership tool to track the work we do and how we measure it

- Accountability and transparency about the above

Adds depth of information we are portraying

- Information on metrics

Ensures we are communicating outcome progress in a meaningful and useful way

Developing New Indicators

Described on page 3 of the Indicators Framework

Summary of steps, as relevant to outcome representatives*

1. GIT coordinator identifies monitoring/tracking need
2. Work with indicators coordinator to identify possible indicators to meet need
3. GIT approval (utilizing STAR when needed)
4. Status and Trends Workgroup (STWG) approval
5. GIT coordinator and staffer collate and send monitoring and tracking data, analysis and methods to indicators Coordinator
6. Indicators coordinator works with Subject Matter Experts (SMEs), web content specialist, GIS team, Communications team, and Web team to complete indicator update

*Not all steps independent of outcome/GIT representatives are included in slide for brevity. For full process, please see Indicators Framework document on the STWG page

Current Indicators: Oysters

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Oysters

RECENT PROGRESS **INCREASE**

OUTLOOK **ON COURSE**

Continually increase finfish and shellfish habitat and water quality benefits from restored oyster populations. Restore native oyster habitat and populations in 10 tributaries by 2025 and ensure their protection.
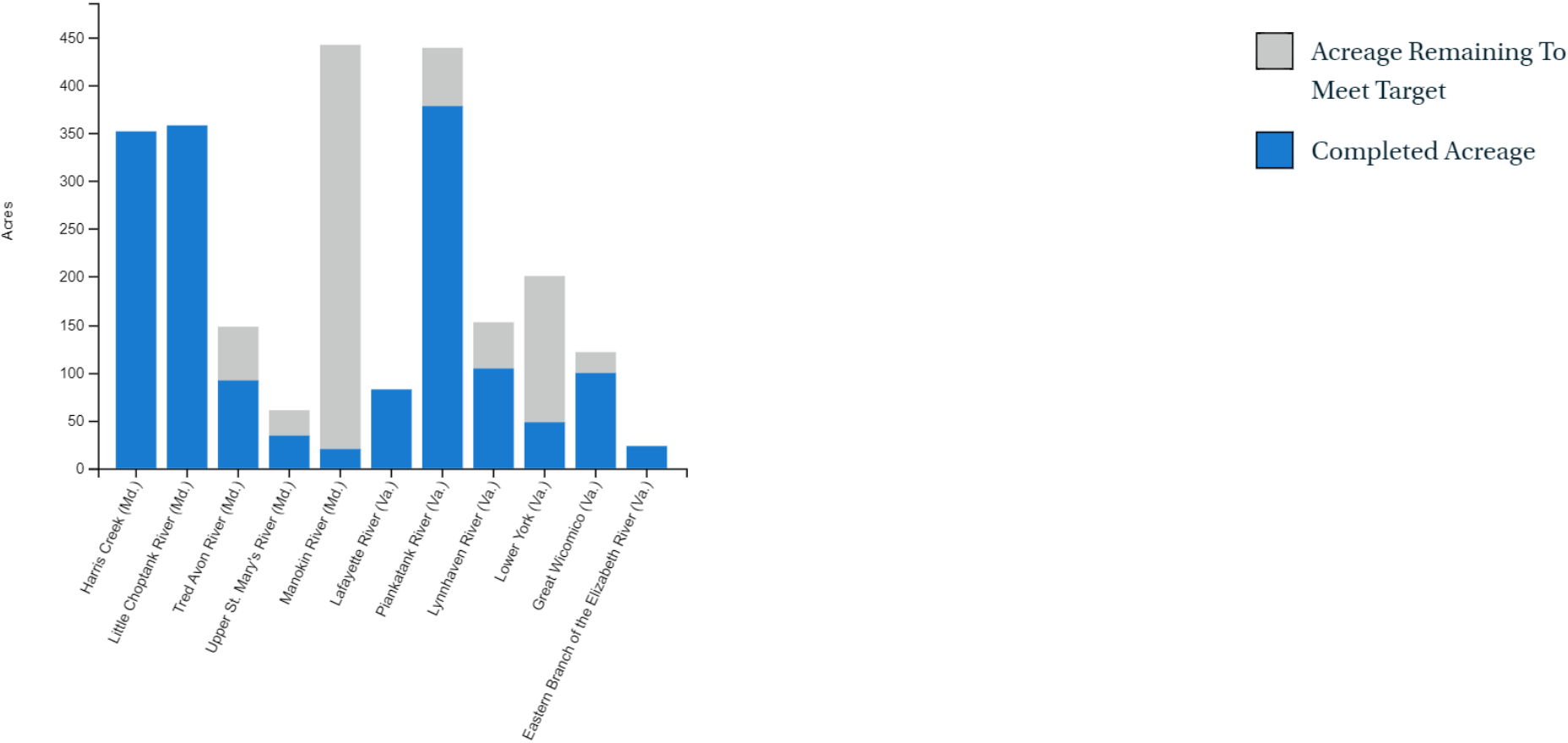
Metrics

Oyster Reef Restoration (2020)

Individual acreage targets are based on a tributary's historic oyster habitat and currently restorable area.

VIEW CHART   **VIEW TABLE**

Metrics

Oyster Reef Restoration Progress Dashboard

Tributary	Tributary Restoration Plan	Reef Construction and Seeding	Monitoring and Evaluation	Completed/Target Acreage
Harris Creek (Md.)	Complete	Complete	In Progress	351/351
Little Choptank (Md.)	Complete	Complete	In Progress	358/358
Tred Avon (Md.)	Complete	In Progress	In Progress	92/147
Upper St. Mary's (Md.)	Complete	Not Started	N/A	TBD/60
Manokin (Md.)	Complete	Not Started	N/A	TBD/441
Lafayette (Va.)	Complete	Complete	In Progress	82/80
Piankatank (Va.)	Complete	In Progress	In Progress	378/438
Lynnhaven (Va.)	Complete	In Progress	In Progress	105/152
Lower York (Va.)	Complete	In Progress	N/A	48/200
Great Wicomico (Va.)	Complete	In Progress	N/A	TBD/122
Eastern Branch of the Elizabeth River (Va.)	N/A	Complete	In Progress	24/20

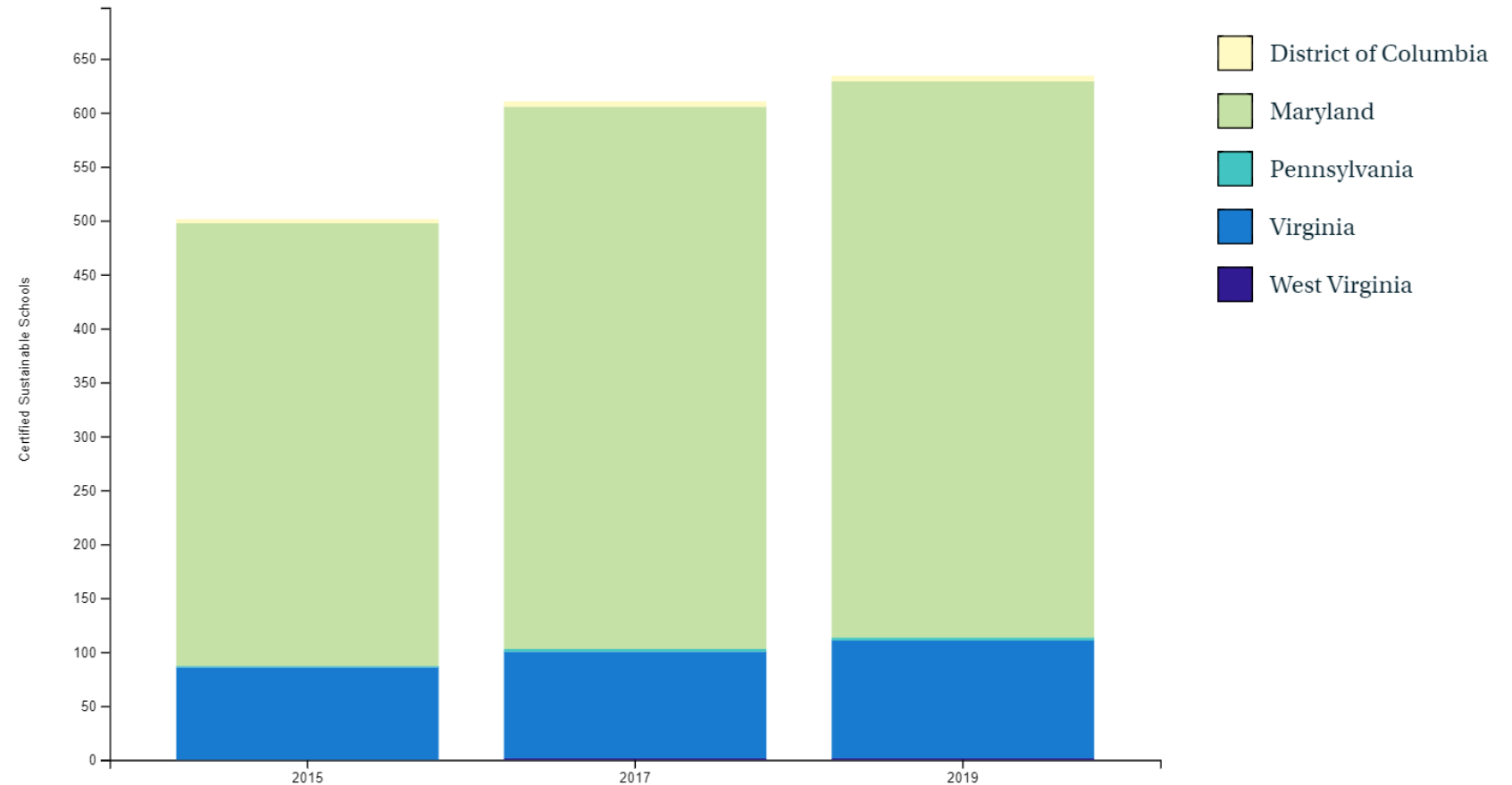# Current Indicators: Sustainable Schools

Metrics

Certified Sustainable Schools in the Chesapeake Bay Watershed (2015-2019)

Certified sustainable public and charter schools have been recognized by the following programs: U.S. Green Ribbon Schools, National Wildlife Federation Eco-Schools USA, Md. Green Schools, Pa. Pathways to Green Schools and Va. Naturally Schools.

VIEW CHART   **VIEW TABLE**

Focus of Today:

Local Leadership

RECENT PROGRESS NO CHANGE | **OUTLOOK** UNCERTAIN

Continually increase the knowledge and capacity of local officials on issues related to water resources and in the implementation of economic and policy incentives that will support local conservation actions.

Progress

Recent Progress: No Change

While currently progress toward achieving the outcome cannot be measured, significant progress has been made in the last few years, including the creation of the methodology for a baseline survey. Additionally, existing educational opportunities have been evaluated, stakeholder interviews conducted and recommendations developed for engaging with local leaders. These efforts led to the development of tailored educational materials and ongoing engagement with local government trusted sources. Between 2018 and 2020, an estimated 1,500 local government elected officials and staff covering all six watershed states and the District of Columbia have been reached increasing their understanding of Bay restoration and protection issues.

However, before the Chesapeake Bay Program can report progress, the partnership must determine how many local governments are participating in restoration activities and what their local elected officials know about the watershed. To this end, a survey of the baseline level of knowledge of local elected officials will be administered in the future.

Outlook: Uncertain

Until data become available, It is uncertain if the Local Leadership Outcome will be met.

Local elected officials have diverse experiences, values and agendas, and the communities they serve range in resource capacity. Increasing officials' knowledge about the Chesapeake Bay and drawing clear links between watershed health and local priorities will engage those officials who haven't yet committed to our restoration work. Creating and nurturing a culture of excellence among these officials will showcase their work and provide easy access to models that officials can adapt and replicate in their own communities.

Thank you!

Any other questions on these topics?