# Indicator Framework

SUPPORTING THE CHESAPEAKE BAY PROGRAM INTO THE FUTURE

# Purpose of Today's Meeting

#### RECOMMENDED DECISIONS

- Adopt recommended update of CBP Indicators Framework
- Approve Indicators Management Process (as outlined in Whitepaper)
- Direct STAR to re-launch the Status & Trends Workgroup to implement the CBP Indicators Framework in coordination with GIT leads and STAC

# Agenda -> Summarizing Our Work

- I. Background
- II. New CBP Indicators Framework
- III. Indicators & Adaptive Management
- IV. Communicating our Work
- V. Managing Indicators
- VI. Next Steps
- VII. Review Decisions

# I. Background

GETTING ON THE SAME PAGE

### IF-Action Team Mission & Objectives

Mission: To recommend an Indicators Framework to the Mgmt. Board by Sept. 2015.

- 1. Revise Indicators Framework (IF) to better support our work, and
  - a. Align indicators to the Agreement;
  - b. Support adaptively managing; and
  - c. Communicate progress.
- 2. Support transparency efforts with Independent Evaluator (described in Chesapeake Bay Accountability and Recovery Act).
- 3. Establish process to approve and update new indicators, and adjust framework as needed.

#### Re-Cap of Need

- Current Indicator Framework 10 years old.
  - ▶ Based on the Chesapeake 2000 commitments and focused on communication to the public.
- Framework has not kept current with numerous Bay Program changes.
  - ▶ e.g., Bay TMDL, Executive Order, Decision Framework, Bay Watershed Agreement.
- Better alignment needed with Chesapeake Bay Program work, specifically adaptive management support.

#### A Few Definitions

#### Outcome

▶ What is specifically sought to be achieved. Progress toward an outcome is determined through the use of measurable indicators.

#### <u>Indicator</u>

A summary measure that provides information on the state of, or change in, the system that is being measured.

#### <u>Metric</u>

The measured value(s) used to assess specific indicators. It defines the units and how the indicator is being measured.

#### <u>Indicator Framework</u>

▶ A conceptual model that demonstrates the relationships between and describes how indicators will be used.

#### Old Indicators Framework

	Chesapeake Bay & watershed restoration	Chesapeake Bay & watershed stressors	Chesapeake Bay ecosystem health
Overarching Indices			
Top level indices			
Reporting Indicators & Indices			
Diagnostic- detailed Indicators			

#### II. New CBP Indicators Framework

ALIGNS WITH THE CHESAPEAKE BAY WATERSHED AGREEMENT

### Aligning with the Agreement



FINDING: The NEW Indicators
Framework is **ALIGNED** with the
Agreement at the Outcome level.

Agreement GOALS that support achieving the VISION flow from the Vision and are aligned with the mission of the CBP.

Agreement OUTCOMES are those aligned with the CBP mission, programs and resources and support achieving the Goal.

Outcomes are achieved through implementing the Decision Framework.

Implementing Decision Framework

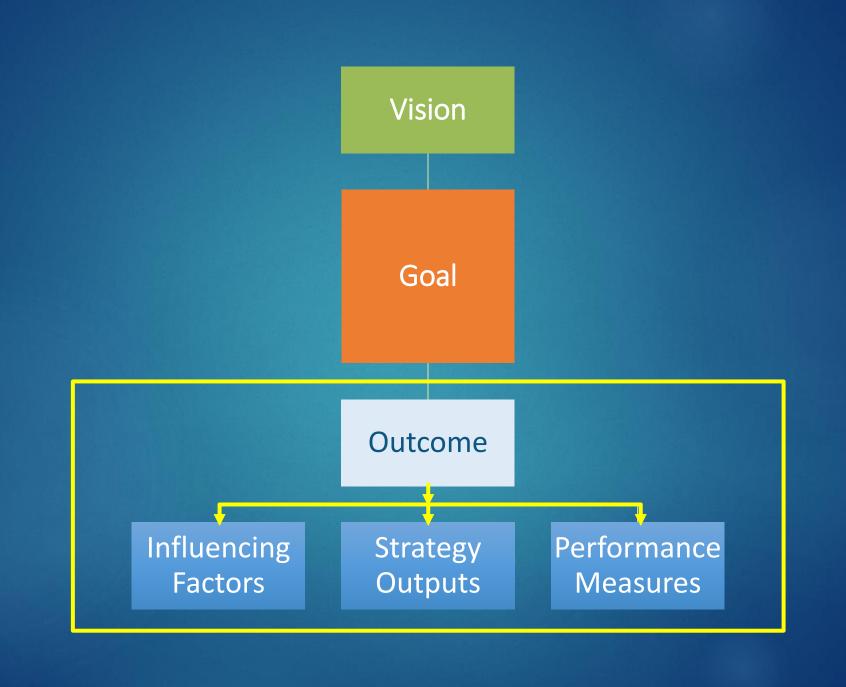
# 3 Basic Types of Information Needed to Implement Decision Framework

- What KEY influencing factors are impacting achievement of outcome? → INFLUENCING FACTORS
- Are we doing what we said we would do in our work plans and strategies? > OUTPUTS
- ► Are we achieving the outcome? → PERFORMANCE

# Putting it together



#### Vision A diversity of An environmentall An economically A vibrant cultural engaged citizens Clean water Access to the water and stakeholders Goals: Goals: Goals: Goals: Goals: Goal: Increase the Protect and restore Goal: number and Goal: a network of land Sustain healthy diversity of citizen and water habitats Reduce nutrient watersheds. Conserve lands of stewards and fisheries. Sustain to support fish and and sediment Expand public Increase the ndigenous, cultural engaged local wildlife. Protect and working forests, pollution. Reduce Conserve forests, watershed's access to the Bay and community officials. Increase arms and maritime restore finfish and toxic contaminants. armland and other resiliency to climate and its tributaries. value. valued landscapes. the environmental shellfish, their communities. Achieve water change. literacy of all habitats and their quality standards. students in the ecological region. relationships. Outcome Outcome



#### Indicators Framework

Watershed Agreement OUTCOME

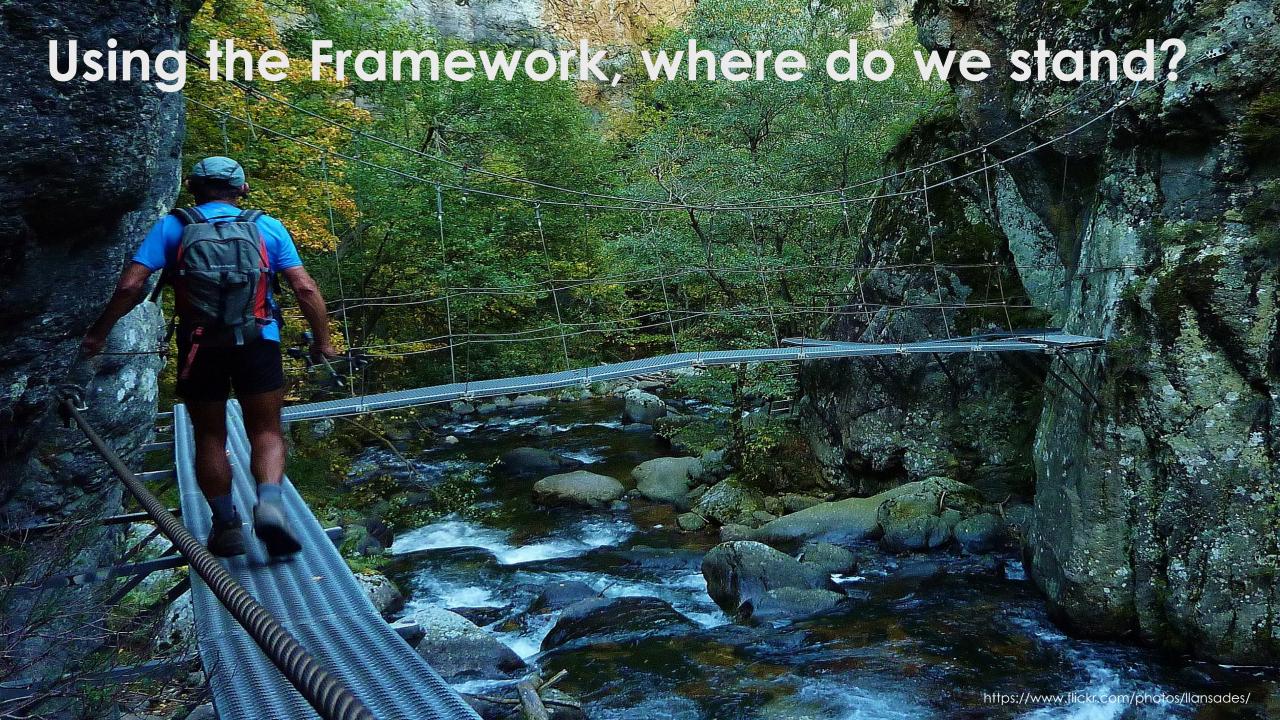
INFLUENCING FACTOR Indicator

**OUTPUT** 

**Indicator** 

PERFORMANCE

**Indicator** 



Finding: Our current suite of indicators only partially support tracking performance & achievement of the Vision, Goals, and Outcomes of the Agreement.

# At the most basic level of tracking performance...

We have **established** indicators to track progress toward 9 outcomes.

We are **developing** indicators to track progress toward 13 outcomes.

Another 9 outcomes without any performance indicators.

# Outcomes with Established Performance Indicators

- Blue Crab Abundance and Blue Crab Management
- ► Fish Passage
- Submerged Aquatic Vegetation (SAV)
- 2017 and 2025 Watershed Implementation Plans (WIPs)
- Water Quality Standards Attainment and Monitoring
- Protected Lands
- Public Access

#### Outcomes with Performance Indicators Under Development

- Oyster
- Brook Trout
- Stream Health
- Wetlands
- ▶ Black Duck
- ► Forest Buffer
- Healthy Watershed

- ▶ Tree Canopy
- Toxic ContaminantsPolicy and Prevention
- Citizen Stewardship
- Student
- Sustainable Schools
- Environmental Literacy

#### Outcomes without Performance Indicators

- Fish Habitat
- Forage Fish
- Toxic ContaminantsResearch
- Local Leadership
- Diversity

- Land Use Methods and Metrics Development
- Land Use Options Evaluation
- Climate Monitoring and Assessment
- Climate Adaptation

#### That tells us about performance.



Where can we find information about influencing factors and outputs?

#### We need to look to our suite of indicators.

Blue Crab Abundance OUTCOME =

215M Female Crabs

SAV Abundance <Infl. Factor>

Blue Crab
Management
<Output>

Blue Crab Abundance

<Performance>

#### Supports cross-outcome connections

SAV Abundance OUTCOME =

90K acres by 2017

Water Clarity

<Infl. Factor>

2017 WIPs

Citizen Involvement

<Output>

Current SAV Abundance

<Performance>

#### Framework helps identify gaps...

Blue Crab Mgmt.
OUTCOME =

Eval/Estab Framework by 2018

Improved Harvest Data

<Infl. Factor>

Revised Stock Assessment

<Output>

Blue Crab Management

<Performance>

### And what about adaptive management?



### III. Indicators & Adaptive Management

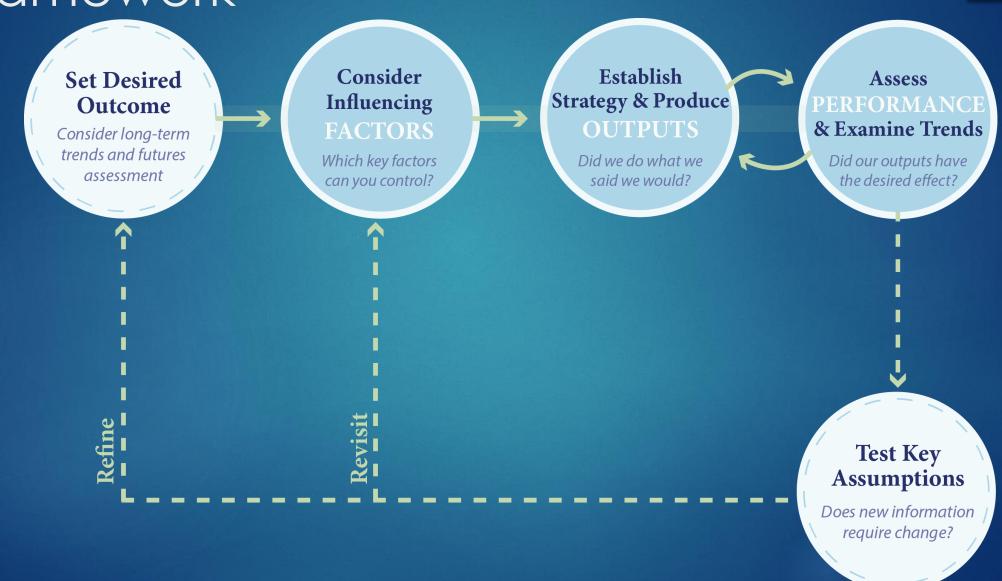
SUPPORTING ADAPTIVE MANAGEMENT

#### Finding:

Indicators are most effective when we understand how they support and relate to the Decision Framework.

→ To support adaptive management, we need information about environmental success and information about activities and factors that support environmental success.

# Using Indicators in Simplified Decision Framework



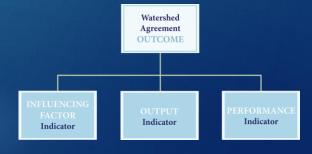
# IV. Communicating Our Work

TRANSPARENT AND ACCOUNTABLE

Finding: There are key types of information we need to communicate how we're doing, what we're doing and why we're doing it.

# CBP Indicators Address 3 Basic Types of Information

- What KEY influencing factors are impacting achievement of outcome? → INFLUENCING FACTOR
- ► Are we doing what we said we would do? → OUTPUT
- ► Are we achieving the outcome? → PERFORMANCE





ChesapeakeProgress will have all indicator types upon launch, but we won't have all types for each outcome.

Finding: ChesapeakeProgress supports transparency and accountability and can be used by the Independent Evaluator to report on restoration activities (under CBARA).

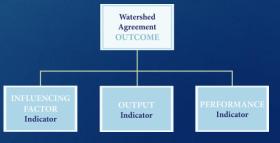


### Re-cap Objectives 1 and 2

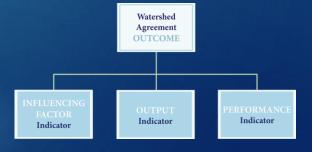
- Revise Indicators Framework (IF) to better support our work, and meet the following goals:
  - Align indicators to the Agreement;
  - Support adaptively managing; and
  - Communicate progress.
- Support transparency efforts with Independent Evaluator.

#### RECOMMENDATION

Adopt recommended update of CBP Indicators Framework



# V. Managing Indicators CRADLE TO GRAVE



Finding: Indicators approval process requires coordination among GITs, Status and Trends Workgroup, data providers, and Communication Team.

# Indicator Management Process Paper

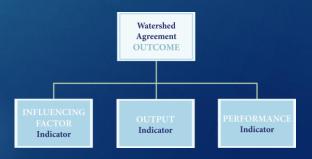
#### DESCRIBES CURRENT PROCESS

- Includes steps for:
  - Recommending a new indicator
  - Updating current indicator
  - Archiving an out-of-date indicator

Recommendation: Approve Indicator Management Process articulated in attached Whitepaper.

### VI. Next Steps

CONTINUING INDICATOR DEVELOPMENT WORK



Recommendation: Re-start STAR Status and Trends Workgroup.

Mission: Enforce the integrity of the Indicators Framework. Ensure up-to-date indicators for Partnership products. Foster cross-outcome collaboration.

Recommended membership: GIT reps., GIS, Indicator Coordinator, Monitoring reps., STAR Analyst, Communications, ChesapeakeStat rep.

Fall 2015 •Update indicators framework in light of **Indicators** Watershed Agreement Framework •Will sunset when new framework is **Action Team** established Review monitoring and assessment strategies **Indicators** and indicators to support Watershed **Assessment** Agreement outcomes **Team** •Incorporate work of the IA Team into S&TW **Integrated**  Evolve from BASINs work Monitoring Recommend monitoring funding Workgroup priorities

Monitoring User Council\*

**Status and Trends Workgroup Integrated Monitoring Workgroup** 

Operational

\*To be established

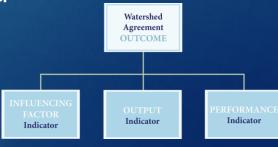
### VII. Review Decisions

TO RE-CAP

#### Review Decisions

#### **DECISIONS**

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INFLUENCING
FACTOR
Indicator

Watershed
Agreement
OUTCOME

PERFORMANCE
Indicator

PERFORMANCE
Indicator

### Membership

- Rich Batiuk (OSAI)
- Carin Bisland (OPA, GIT6)
- Mark Bennett (STAR)
- Bill Dennison (STAR)
- Melinda Ehrich (STAR)
- Margaret Enloe (Communications Team)
- Jennifer Gundersen (BAT)
- Catherine Krikstan (Comm. Workgroup, ChesapeakeStat)

- Scott Phillips (STAR)
- Guy Stephens (Web Team, ChesapeakeStat)
- Peter Tango (STAR)
- Doreen Vetter, Chair (GIT6, ChesapeakeStat)
- Denice Wardrop (STAC)
- John Wolf (STAR, GIS Team)



DOREEN VETTER, CHAIR, INDICATORS FRAMEWORK ACTION TEAM