Chesapeake Bay Program Strategy Review System:

Healthy Watersheds

Emily Trentacoste, STAR Co-Coordinator
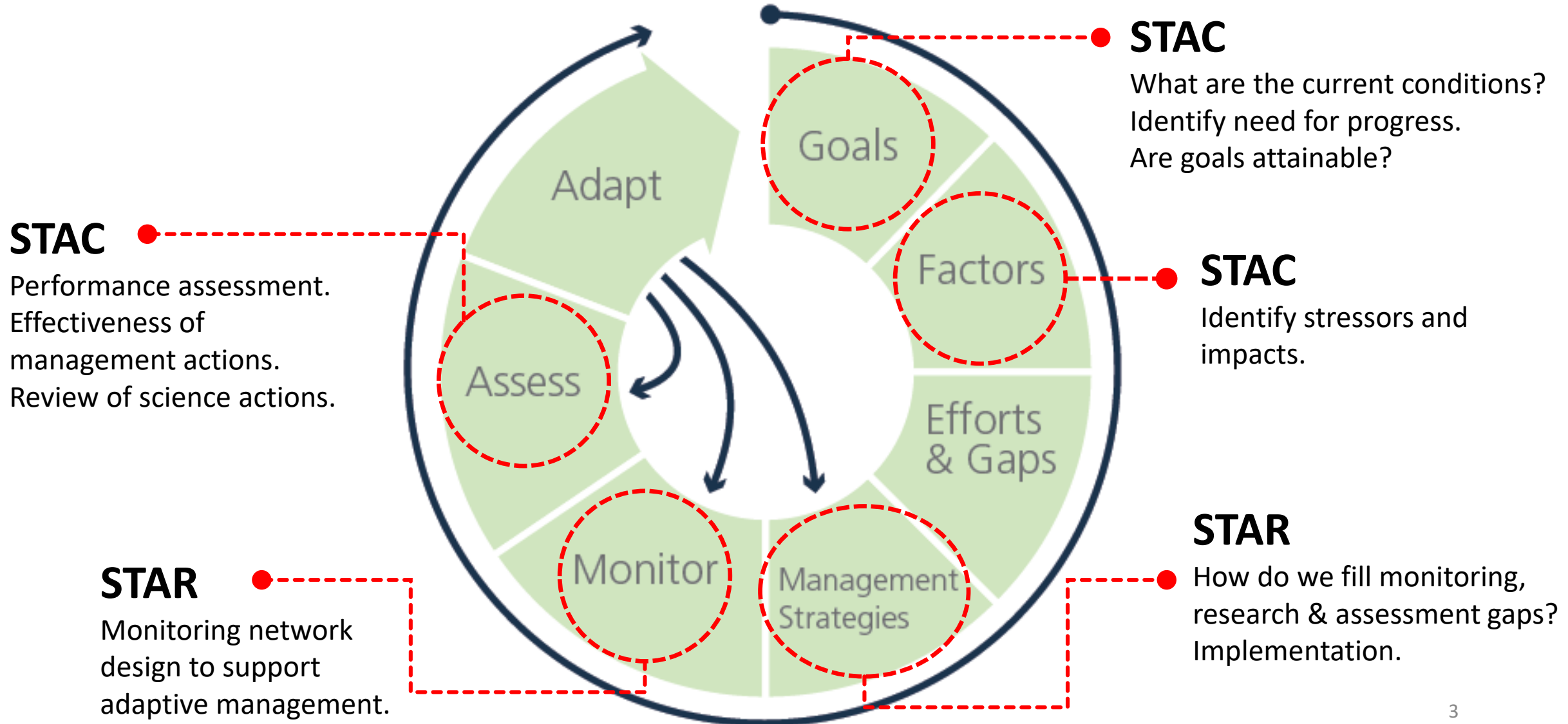
STAC Quarterly Meeting
9/11/2019
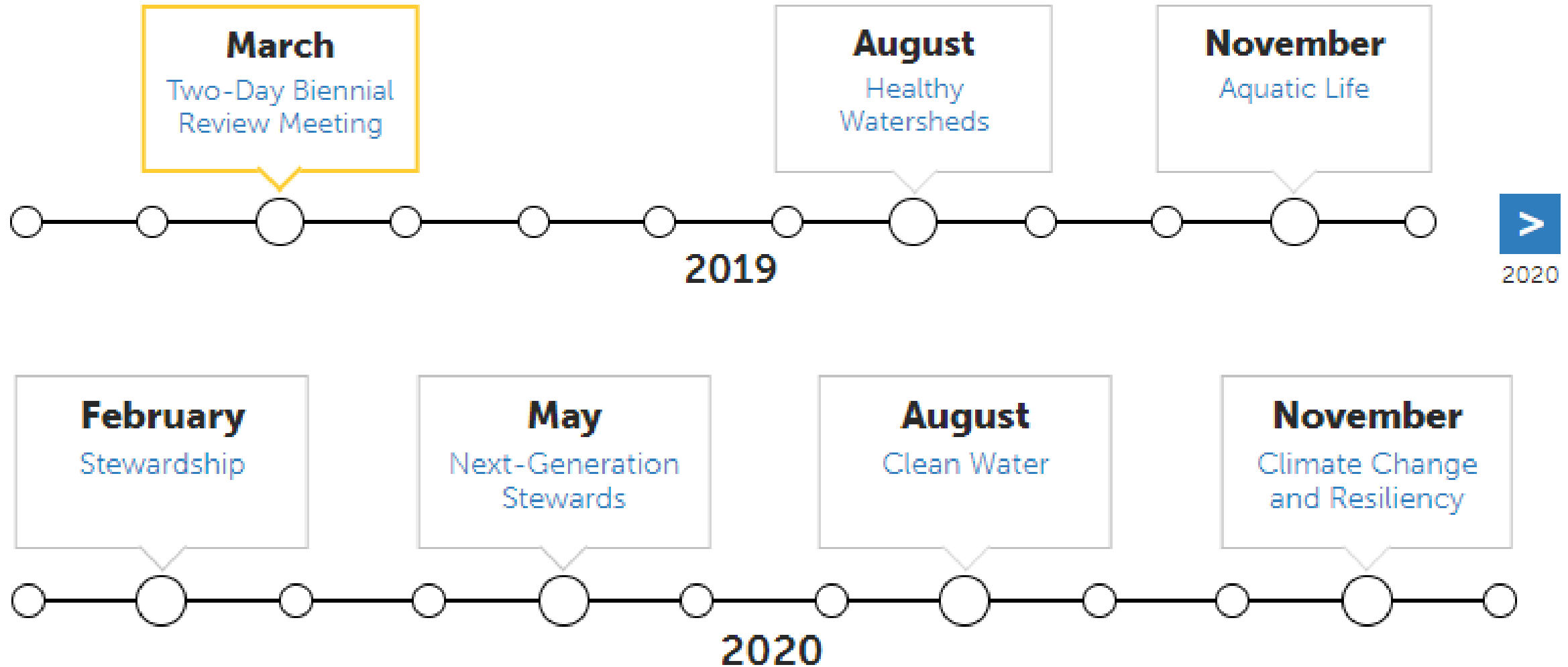
Reminder: CBP Strategy Review System

- Cohorts of workgroups for each outcome report progress to Management Board
- Workgroups develop and update short-term action plans for achievement of long-term goals
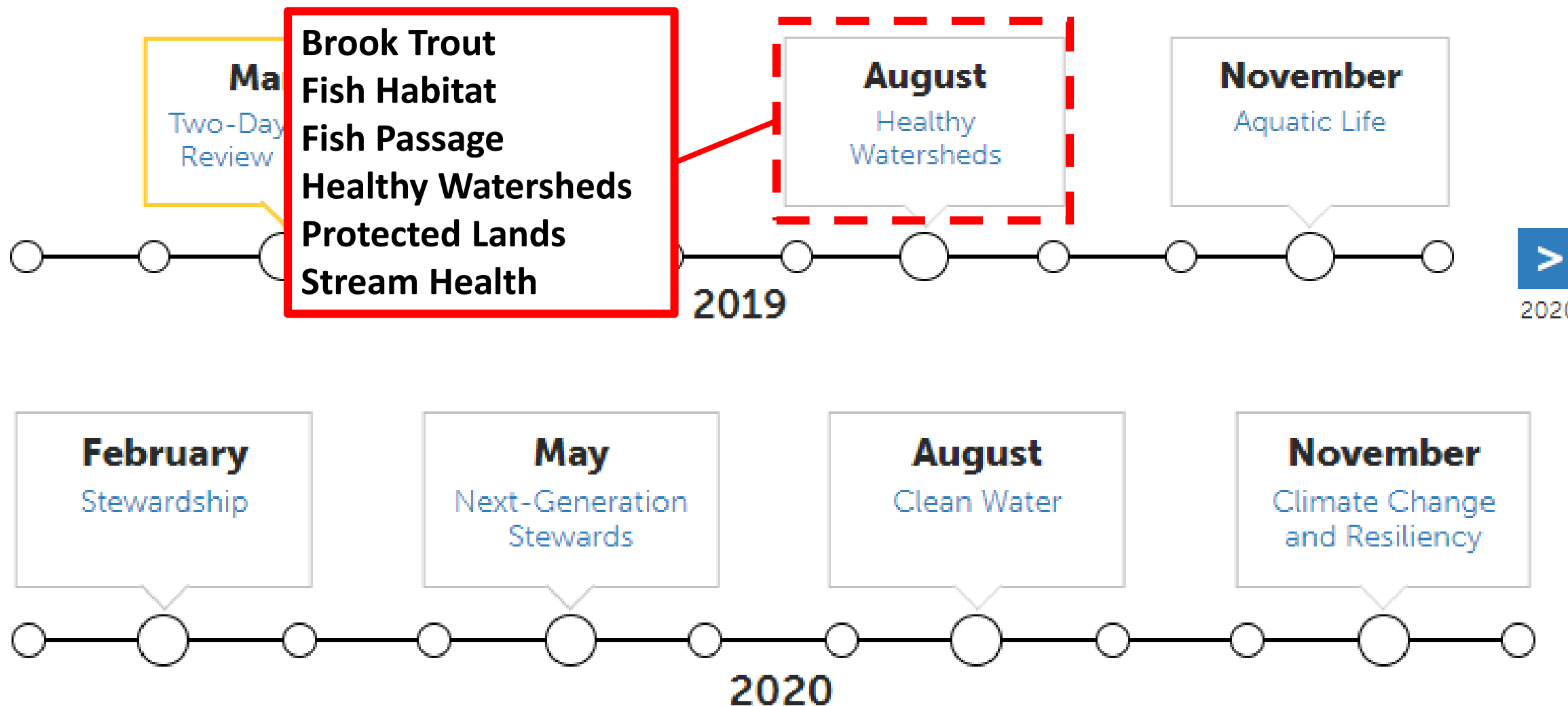- New 2019: incorporated Strategic Science & Research Framework into SRS

Reminder: STAC's role in the SRS

STAC
What are the current conditions?
Identify need for progress.
Are goals attainable?

STAC
Identify stressors and impacts.

STAR
How do we fill monitoring, research & assessment gaps? Implementation.

STAC
Performance assessment.
Effectiveness of management actions.
Review of science actions.

STAR
Monitoring network design to support adaptive management.

Goals
Adapt
Factors
Assess
Efforts & Gaps
Monitor
Management Strategies

SRS Schedule 2019-2020

SRS Schedule 2019-2020

Reminder: Strategic Science & Research Framework

Master science needs list

GIT science needs

2017/2018 SRS-identified needs

STAC workshop recs

|	A	B	C	D	E	F
1	SRS Outcome	Need	Completed? (Y/N)	More specific detail	Why is this needed?	Category
2	Stream Health	Support for reporting progress for Chessie BIBI	No	This is requisite of the Bay Program and Stream Health outcome. Need to analyze and report on the indicator.	To report on Stream Health Outcome.	Data Gathering, Analysis - translation of Chessie BIBI to stream miles
		Stream Health/Fish Habitat & Passage/Water Quality: Establish guidelines and relationship between stream coordior restoration acivities and functional lift including biological lift. This information will support project		Stream Corridor Restoration efforts have demonstrated ability to reduce sediment and nutrient loadings, however, the abaility to achieve biological lift has been more challenging. Build on function based restoration approach to document restoration success stores and lessons learn to guide	To make progress towards stream health	

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Ongoing resource assessment

Healthy Watersheds Cohort
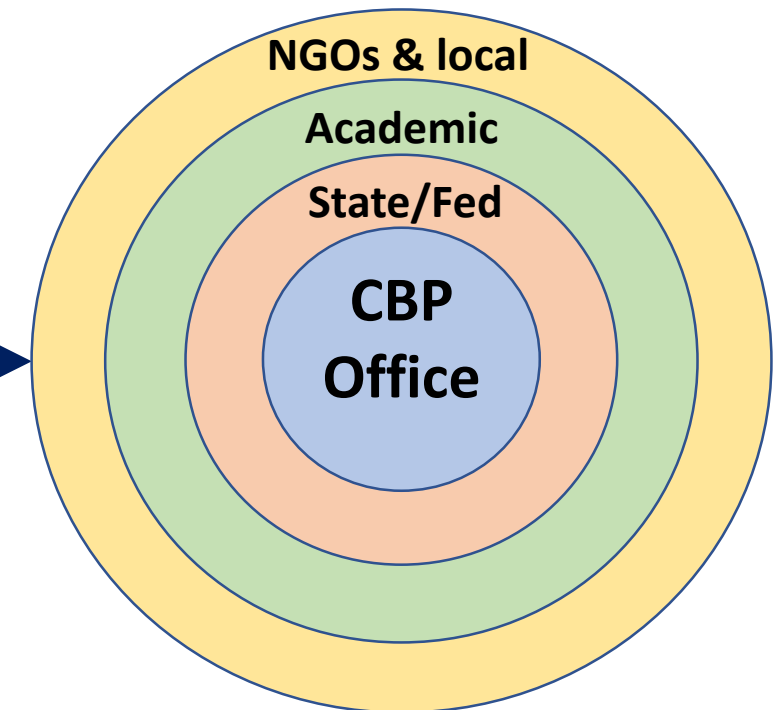
Brook Trout

Fish Passage

Protected Lands

Fish Habitat

Healthy Watersheds

Stream Health

Brook Trout science needs

- **eDNA method development:** applicability to brook trout realm; pilot study to identify factors affecting eDNA results
- **Conservation genetics:** support for basic research as well as summary of state of the science
- **Tracking progress:** framework, process and database/tool needed for tracking monitoring and implementation activities across entities and GITs
- **Monitoring support:** coordination between GITs and states; funding and support
- **Groundwater modeling:** expand USGS spatio-temporal GW model to Bay watershed to predict groundwater influence in headwaters

Fish Habitat science needs

- **GIS data inventory:** collect and compile fish habitat geospatial datasets
- **Phytoplankton/zooplankton monitoring:** identify cost-efficient options
- **Shallow water monitoring:** identify existing gaps, develop plan
- **Monitor vertical water column:** for hypoxia volume/extent
- **Shoreline condition inventory:** baywide inventory of shoreline condition/type
- **Pilot fish habitat assessment:** determine locations, carry out assessment

Fish Passage science needs

- **eDNA analysis:** utilize eDNA for prioritizing culvert projects

Healthy Watersheds science needs

- **Monitoring healthy watersheds:** continued support needed
- **Vulnerability assessment:** need more information on current and future stressors and how to integrate into healthy watershed assessment
- **Preliminary healthy watersheds assessment:** how to use, trainings, potential as indicator for progress
- **Marginally healthy watersheds:** ways to identify and track
- **Communication & coordination of technical products:** between GITs and workgroups; with states
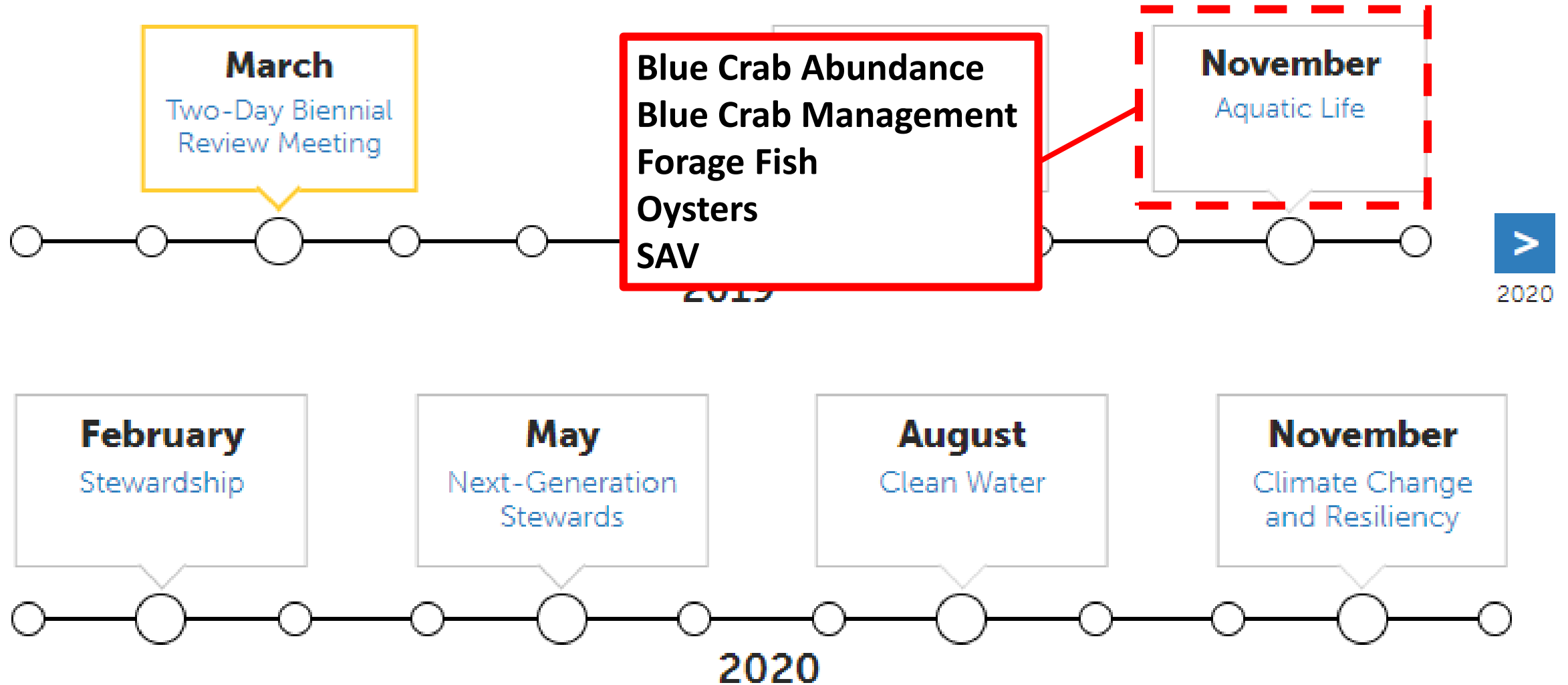
Protected Lands science needs

- **Climate change impacts:** impacts to protected lands and high value conservation lands
- **Public health criteria:** develop and document human health criteria related to protected lands
- **Indigenous cultural landscapes:** improve documentation, conservation and restoration of indigenous cultural landscapes
- **Cultural and scenic landscape documentation:** scenic resources documentation; develop methodology for assessing impacts
- **Spatial mapping & analysis**

Stream Health science needs

- **Identify stressors/understand management implications:** research on stressors/sources of WQ impairments that my limit recovery; identify management strategies and stream response
- **Explanatory factors for stream health:** research on other non-biological indicators, metrics, functions, factors
- **Continued support for indicator analysis & reporting**

SRS Schedule 2019-2020

March — Two-Day Biennial Review Meeting

**Blue Crab Abundance
Blue Crab Management
Forage Fish
Oysters
SAV**

November — Aquatic Life

2019

2020

February — Stewardship

May — Next-Generation Stewards

August — Clean Water

November — Climate Change and Resiliency

2020

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