The STAR Origin Story

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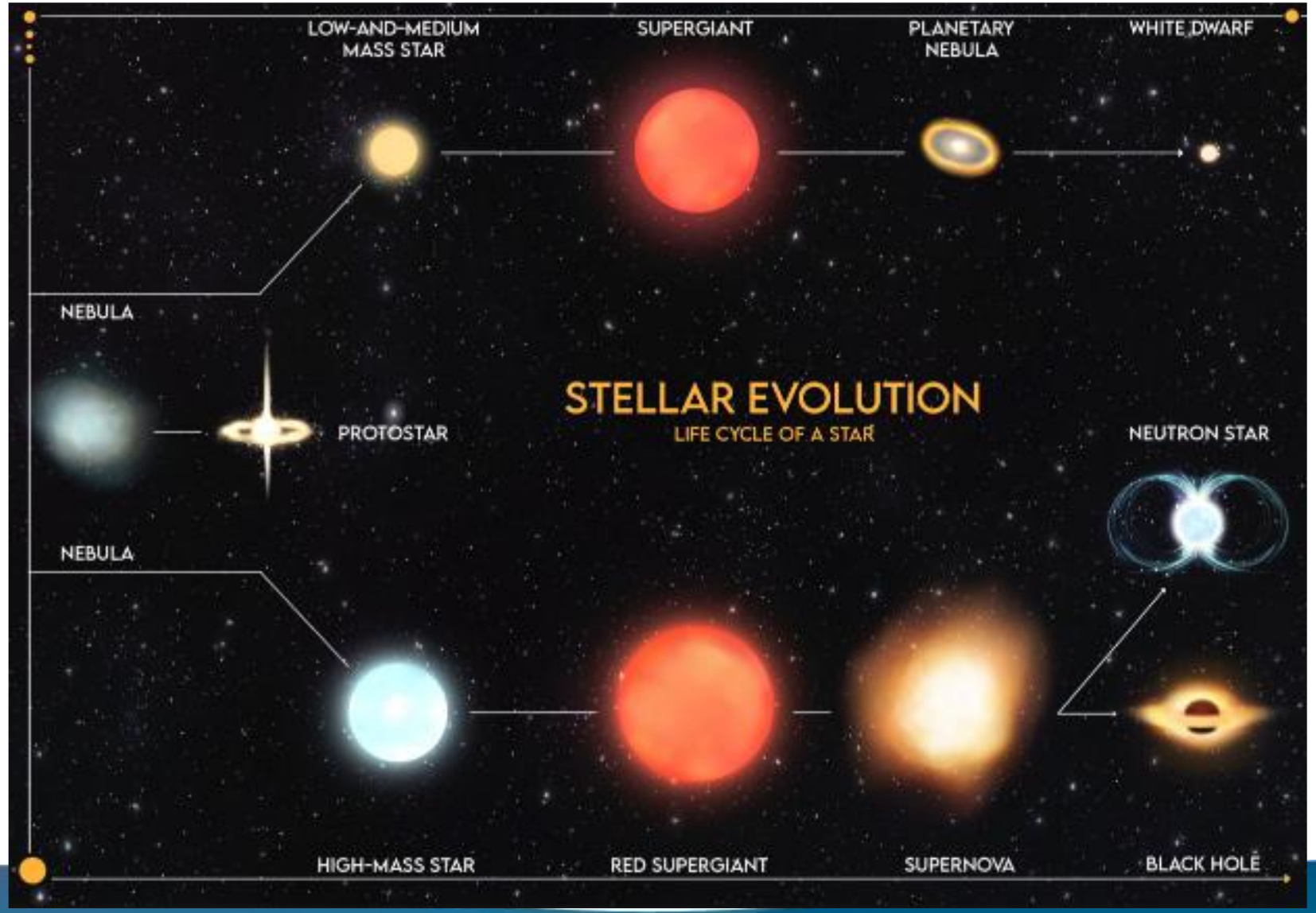
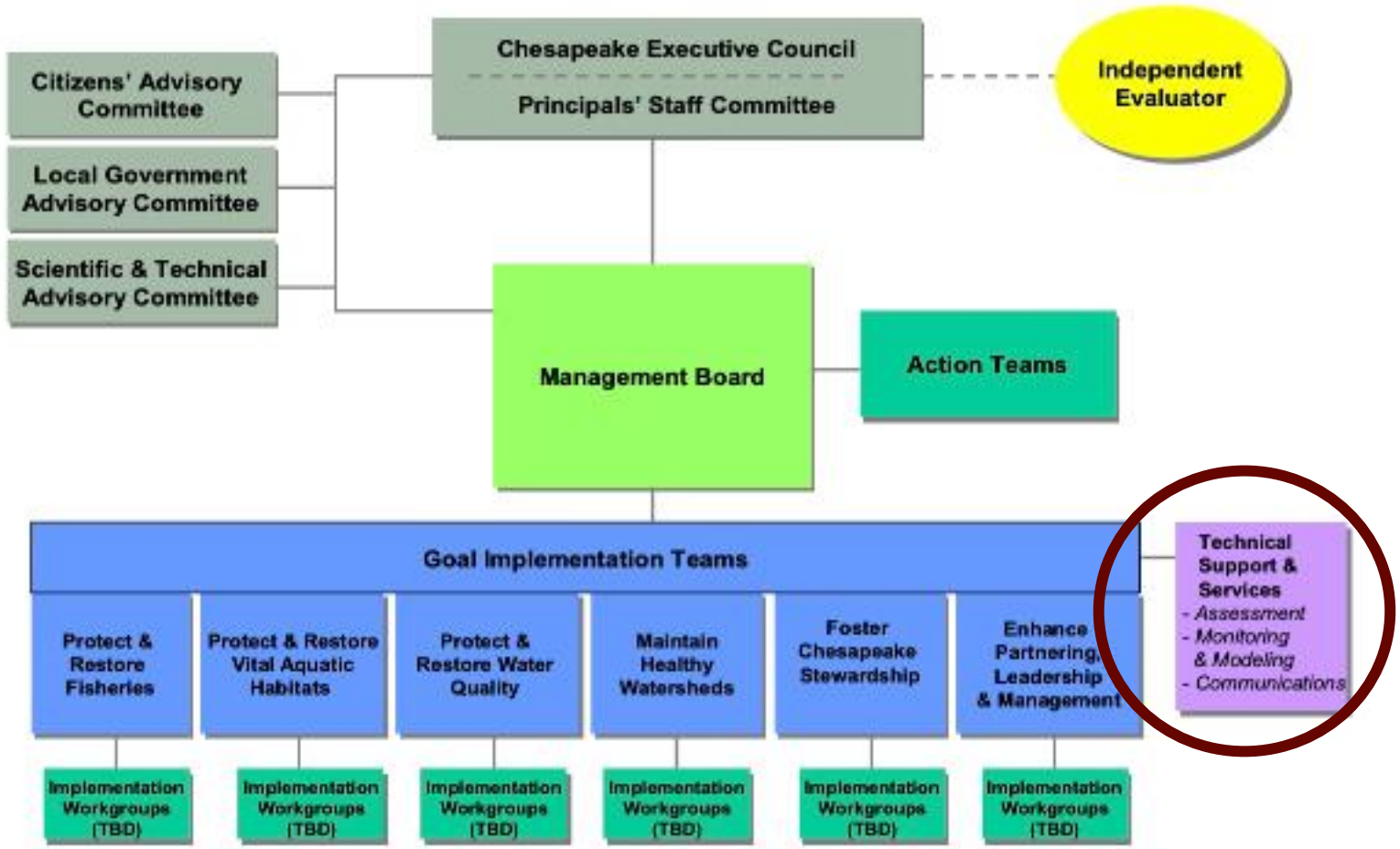
25 June 2026

University of Maryland
Center for Environmental Science

Stellar evolution = two potential pathways (Go big or Go home)



Proposed name = Technical Support & Services (TSS): The path to a white dwarf



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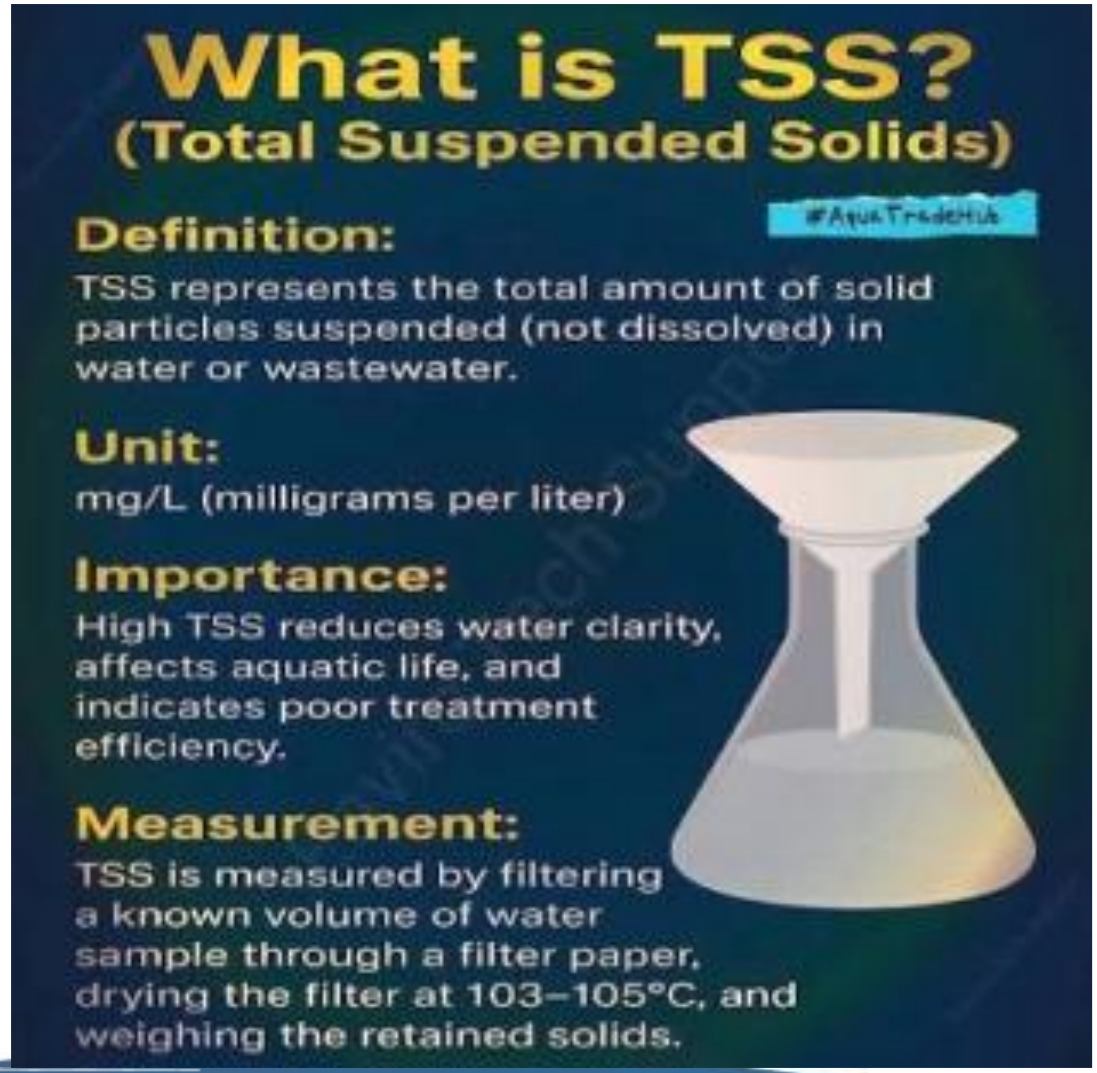
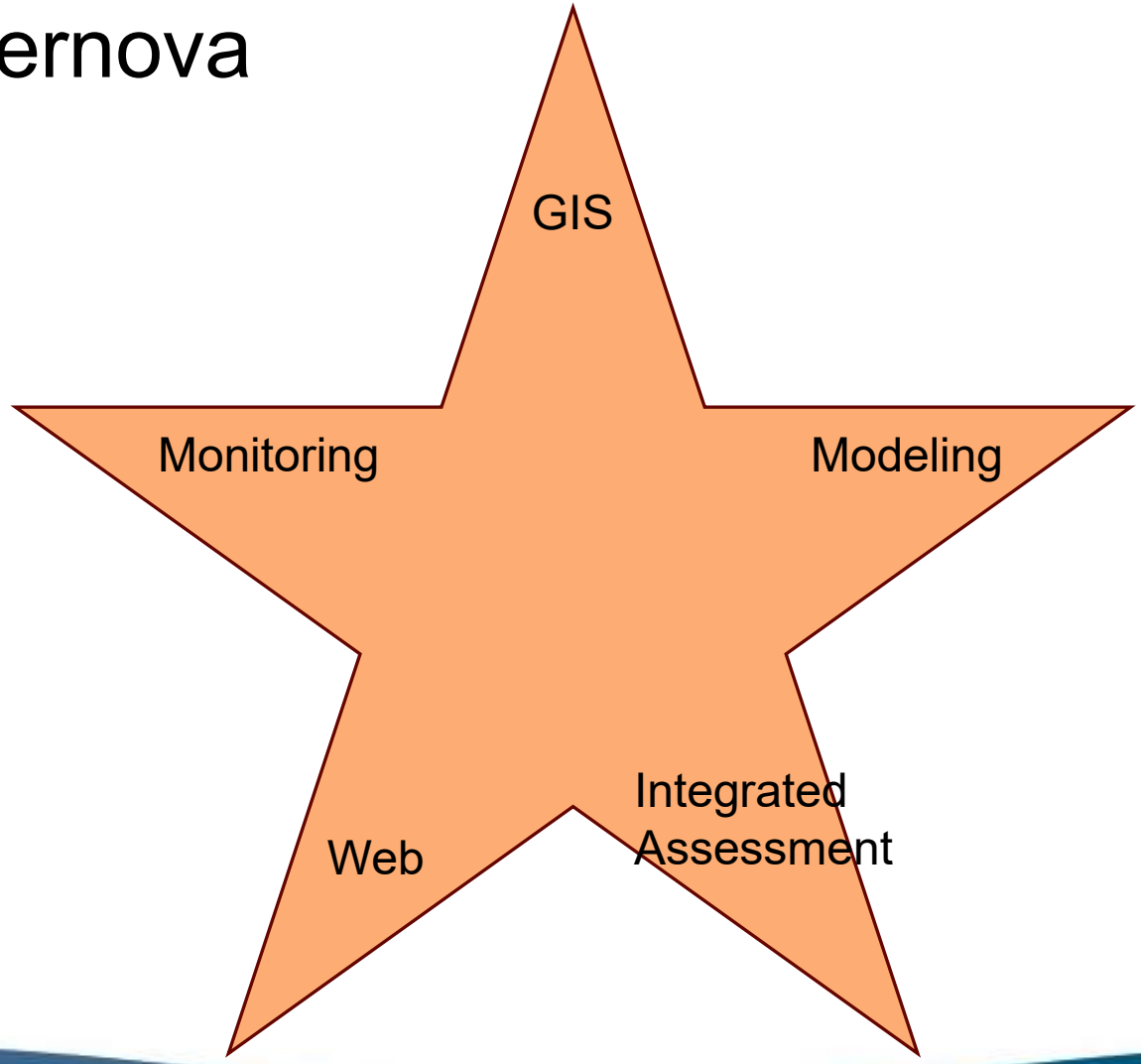
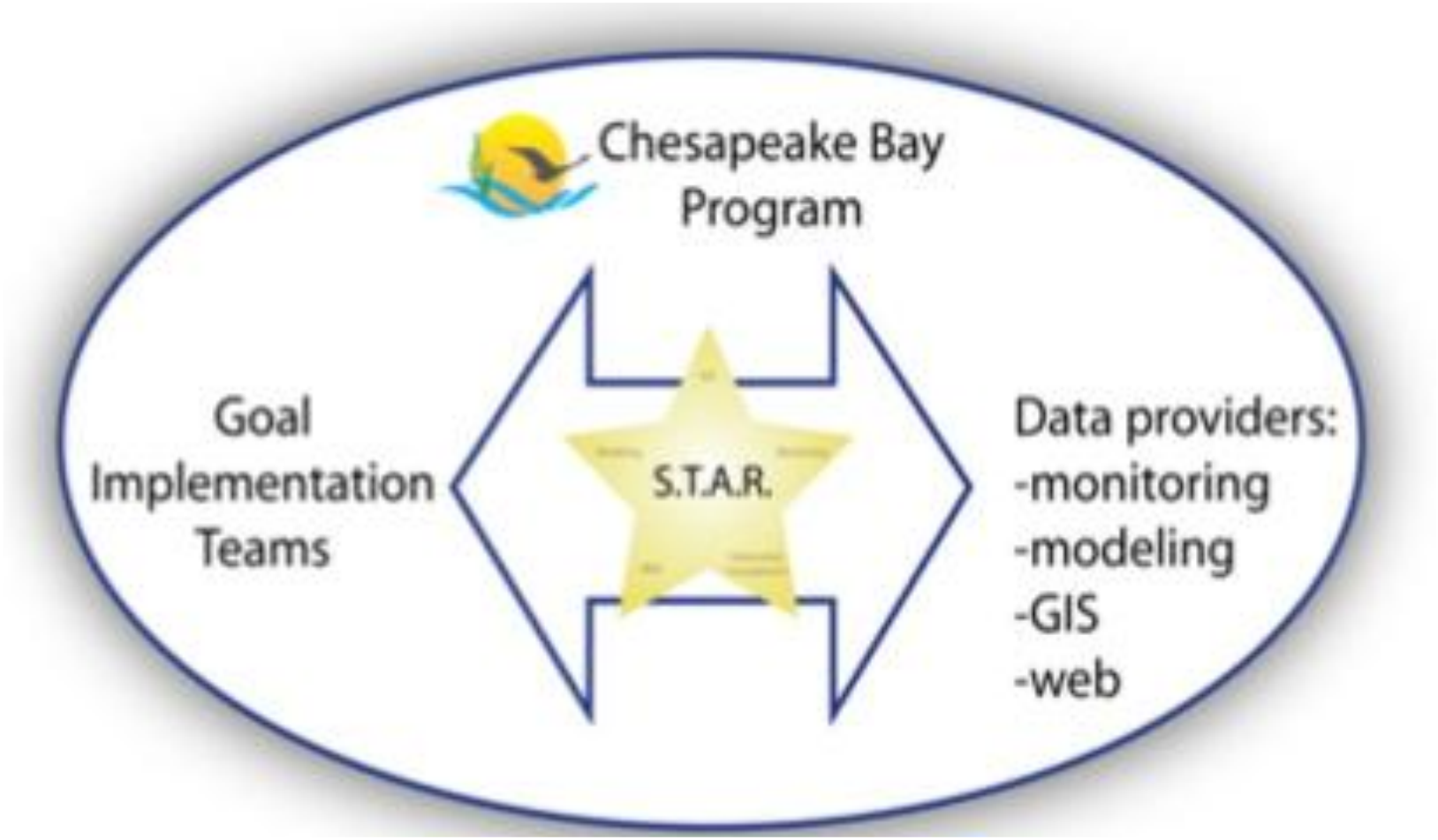


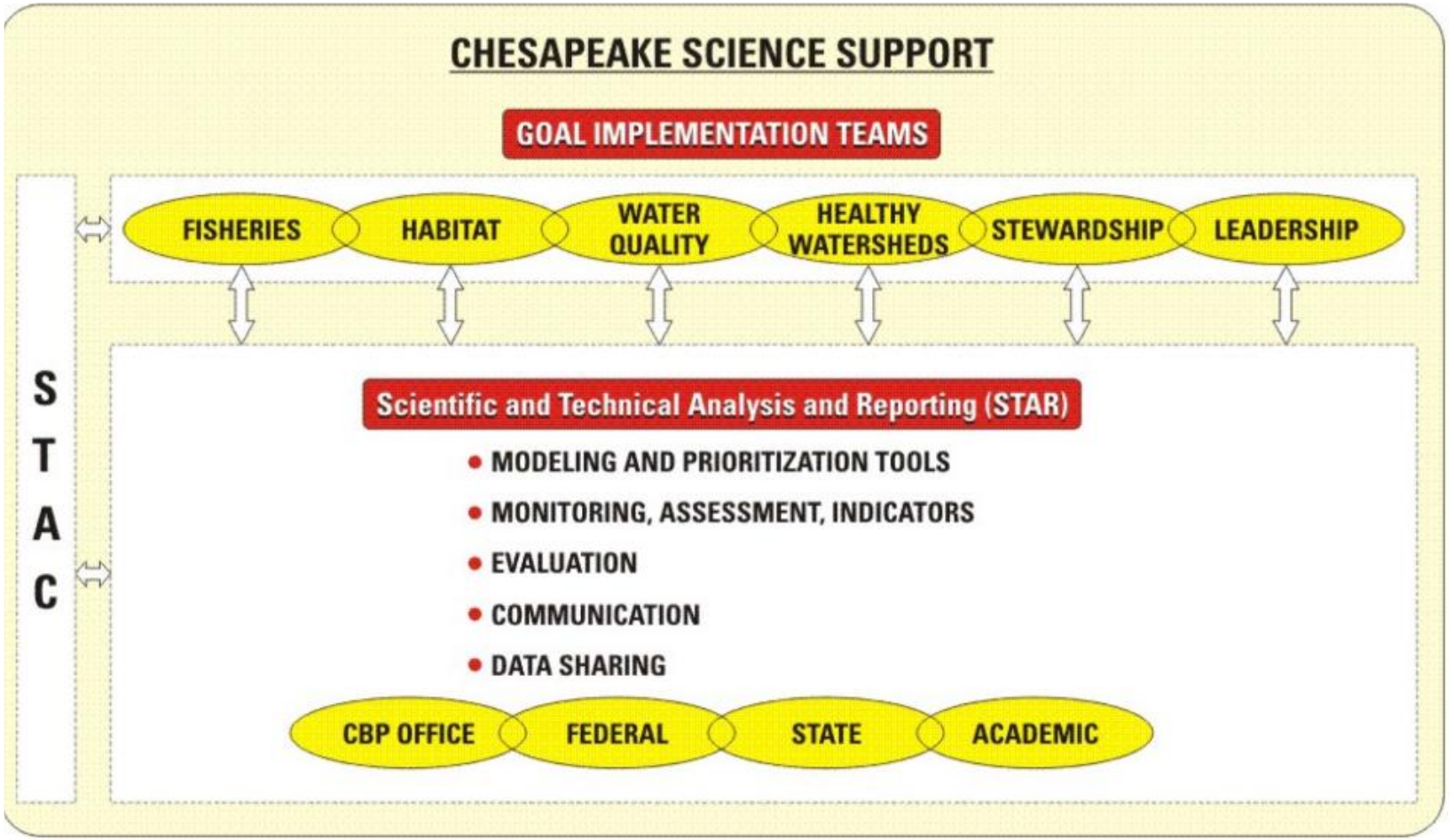
Scientific & Technical Assessment & Reporting (STAR): The path to a Supernova



STAR linked Goal Implementation Teams to Data Providers



STAR interfaced with STAC and with agency & academic scientists



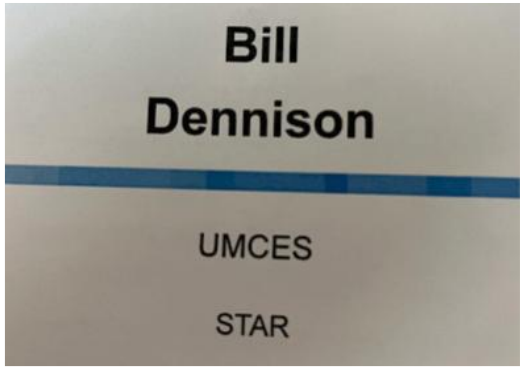
STAR provided great titles

Breck Sullivan

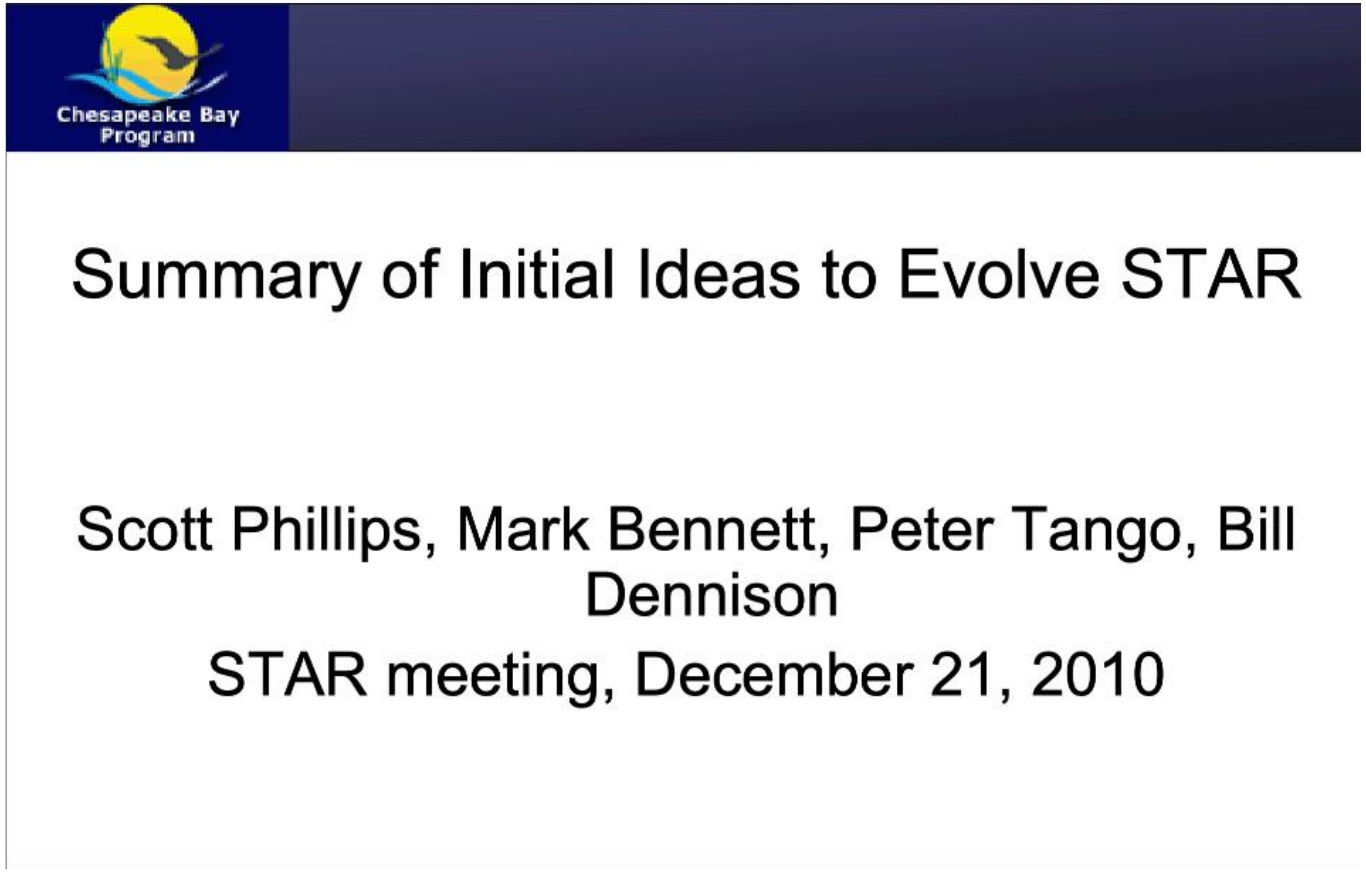
Scientific, Technical Assessment & Reporting Coordinator

< Back to all staff

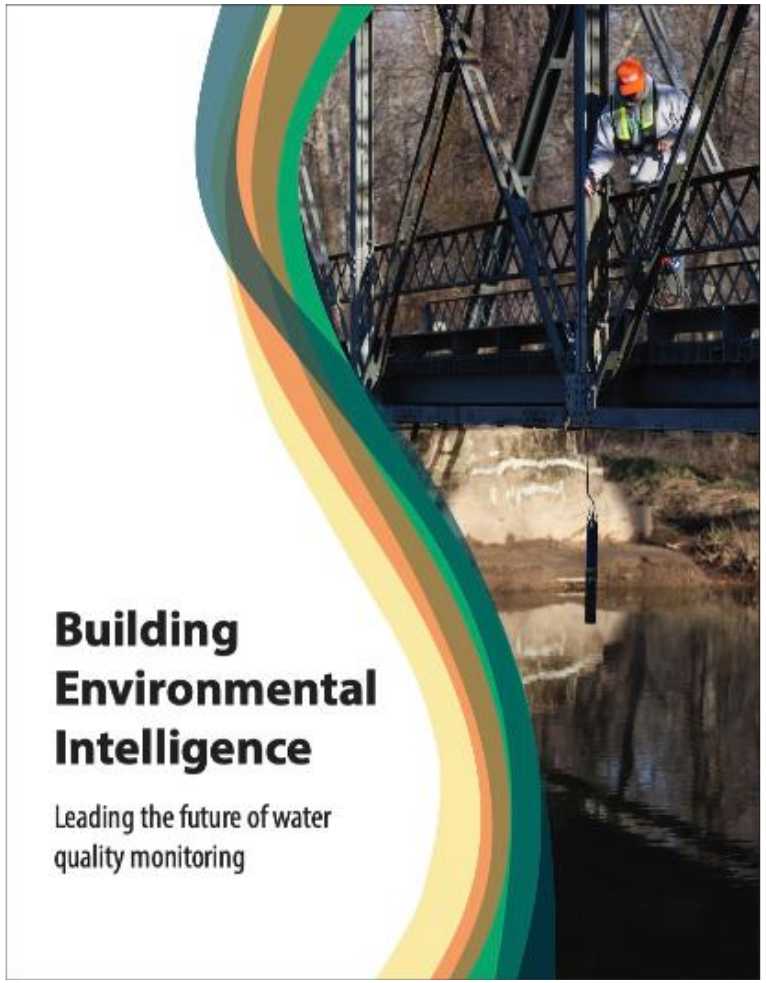
Breck Sullivan is employed by the U.S. Geological Survey and works at the Chesapeake Bay Program (CBP) as the Scientific, Technical Assessment and Reporting (STAR) Coordinator and Ecosystem Analyst. She oversees strategic direction for meeting the science needs within STAR and the CBP Goal Implementation Teams. She also supports analysis activities to advance understanding of factors affecting trends in estuarine water quality and living resources. She holds a bachelor's degree in Environmental Studies from Salisbury University. She received her master's degree from State University of New York College of Environmental Science and Forestry (SUNY ESF) in Environmental Monitoring and Modeling.

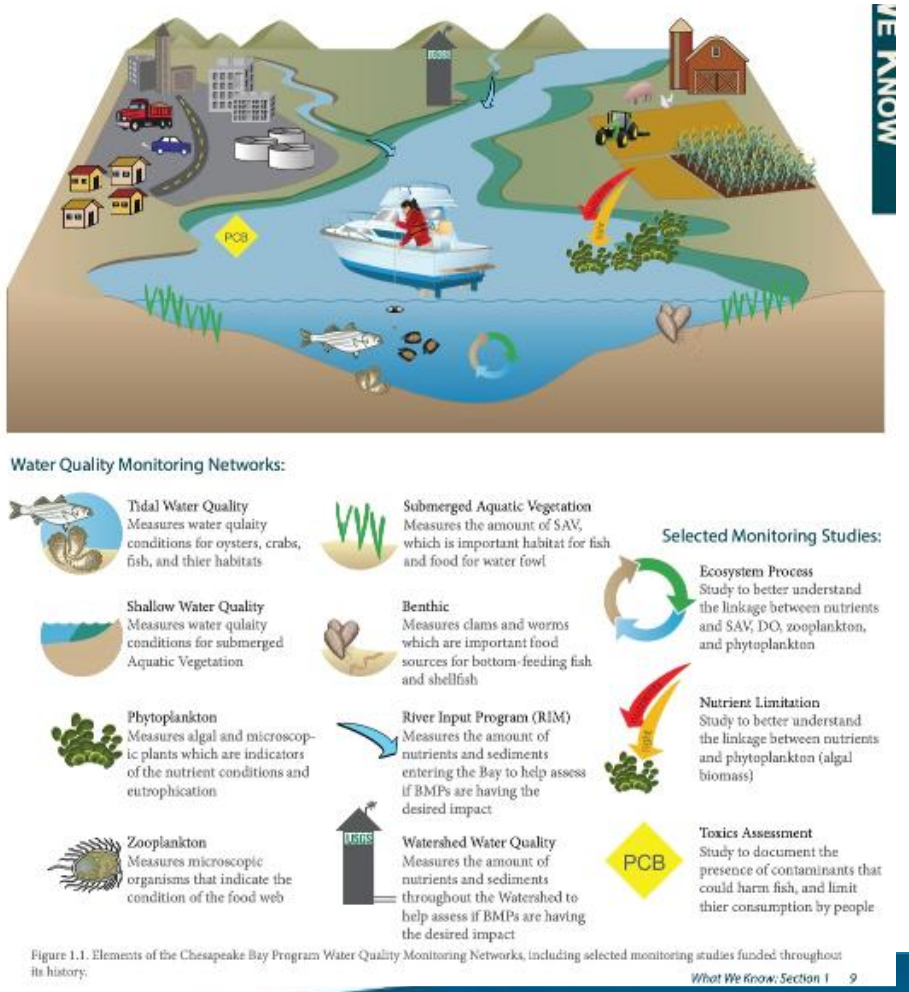


Nebula stage: STAR had its genesis in 2010 following MRAT (Monitoring Realignment Action team)



Red supergiant stage: STAR report: Building Environmental Intelligence 2014





Time line of science and monitoring in CBP

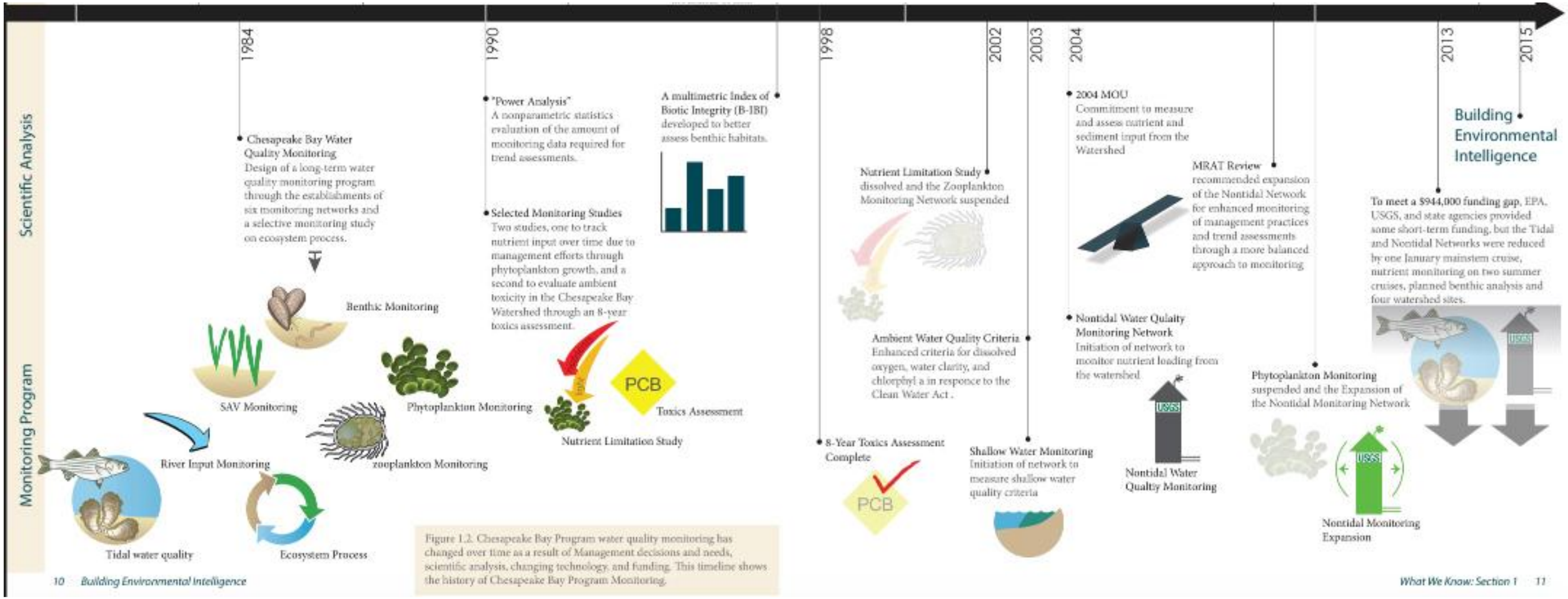
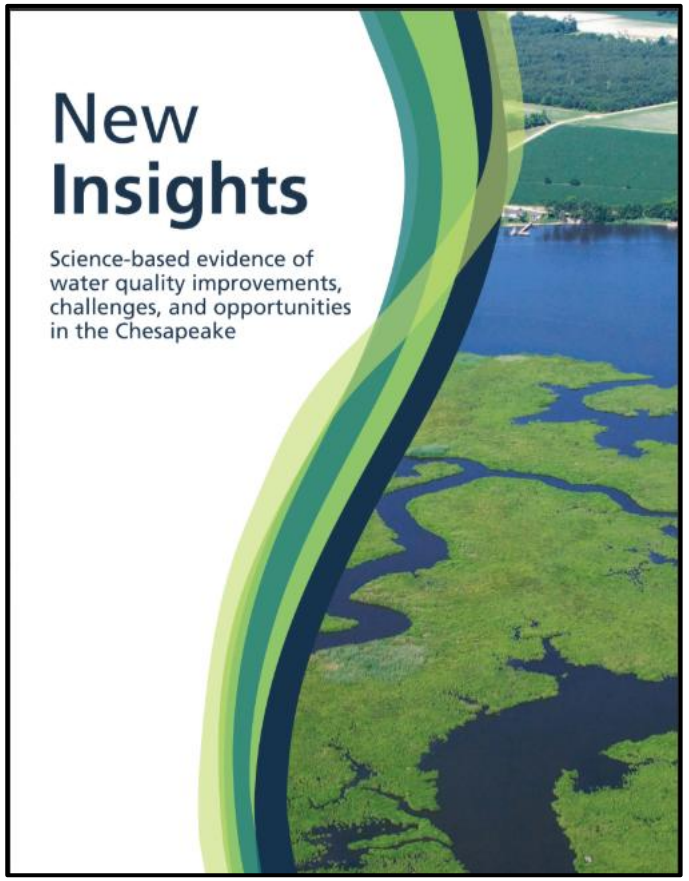


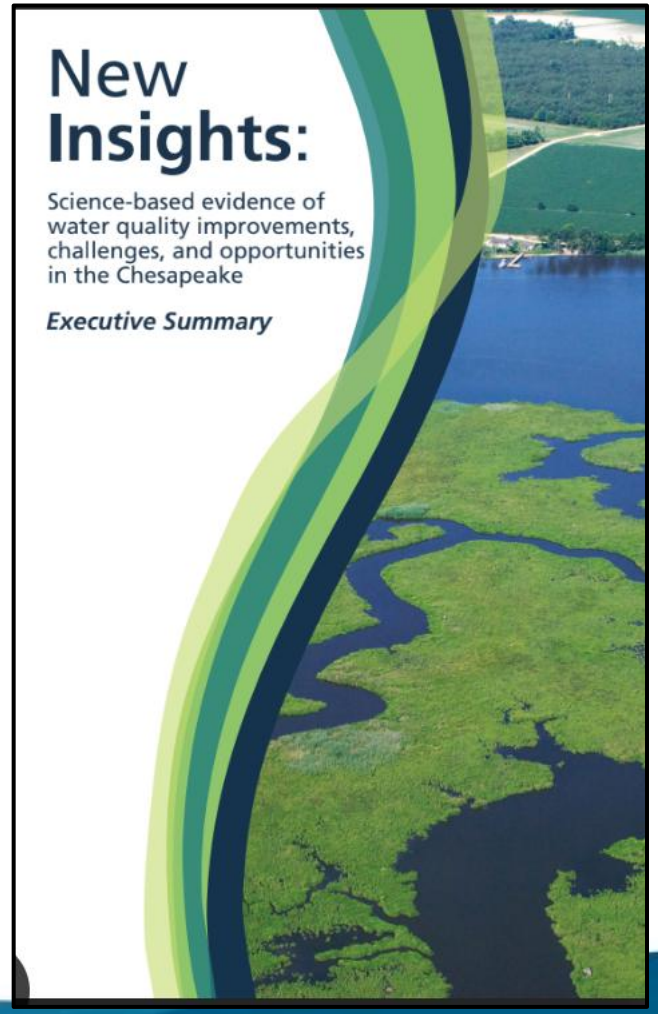
Figure 1.2. Chesapeake Bay Program water quality monitoring has changed over time as a result of Management decisions and needs, scientific analysis, changing technology, and funding. This timeline shows the history of Chesapeake Bay Program Monitoring.

Supernova stage: New Insights synthesis report; 2015

Full report
52 pp.



Executive summary
6 pp. trifold



Take home points

Adjusting our course

The examination of water quality monitoring data associated with best management practice implementation in the Chesapeake Bay watershed reveals multiple implications for continued efforts in Bay restoration:

1. *Investments in sewage treatment plants provide rapid water quality improvements.*
2. *National requirements of the Clean Air Act are benefitting the Chesapeake Bay watershed.*
3. *Some agricultural practices are providing local benefits to streams.*
4. *Lag times that delay improvements mean patience and persistence are needed to realize the results of our efforts.*
5. *Expanding population, increased fertilizer use, and more livestock may counteract water quality improvements.*
6. *Science should be better used to guide restoration choices and subsequent monitoring is needed to evaluate effectiveness.*
7. *Proven and innovative stormwater management practices need to be implemented and evaluated to maintain and improve Bay health as urban and suburban development expands.*

University of Maryland
CENTER FOR ENVIRONMENTAL SCIENCE

Supernova stage: New Insights synthesis report; Media event

Speakers (Black hole): Rich Batiuk, Nick DiPasquale, Scott Phillips, Bill Dennison, Don Boesch

Science communicators (Neutron stars): Catherine Krikstan, Brianne Walsh, Margaret Enloe, Christina Lyerly

STAR leadership; Formation of the THREE AMIGOS

Originally Mark Bennett (USGS) and Bill Dennison (UMCES);

Scott Phillips (USGS) added

= THREE AMIGOS

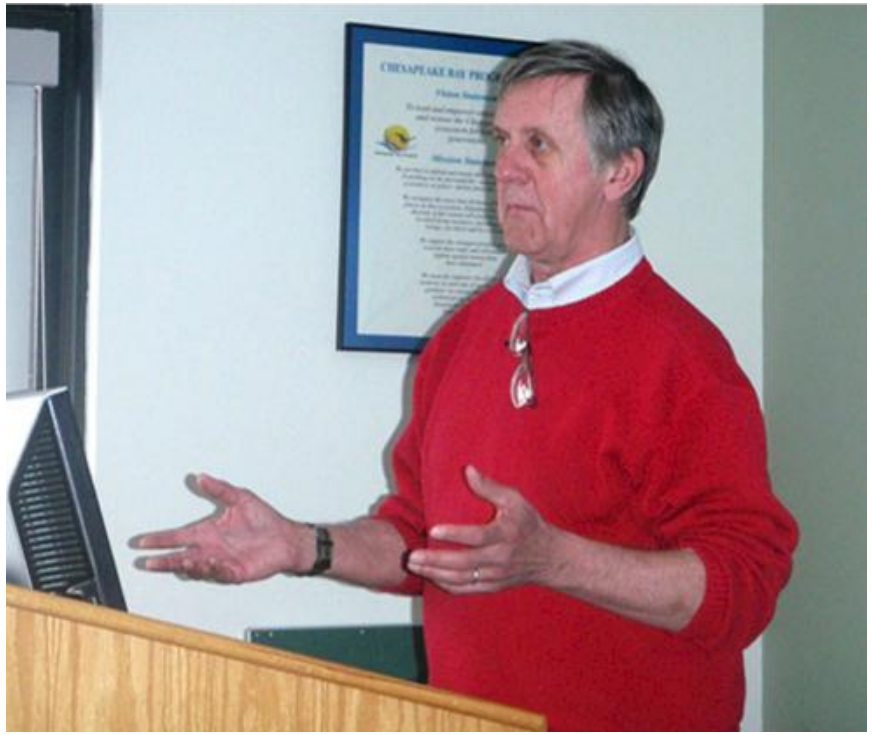
1:30 PM **Amigos Planning Meeting**

- BASIN Report and Intelligent Monitoring Tri-fold update & next steps
- Meet Mindy
- Discuss a possible "User Council"
- Presenters list for New Technologies Webinar Series
- Questionnaire for New Technologies Webinar Series

STAR met monthly in the “Fish Shack”

STAR meetings 10-12, instead of 10-3; start and end on time

STAR seminars followed 10-12 STAR meeting



STAR occasionally held joint meetings with staffers and coordinators

Chesapeake Bay Program
A Watershed Partnership

Joint STAR/Staffers/Coordinators Meeting
August 23th, 2012

11AM – 12:30PM
305a Chesapeake Bay Program Office
Annapolis, MD

Conference Line 1-866-299-3188 code 2675715
Adobe Connect https://epa.connectsolutions.com/cbp/

http://www.chesapeakebay.net/calendar/event/18625/

Agenda

11:00 AM **Welcome Introduction and Updates – Bill Dennison (STAR Chair), Mark Bennett (STAR Vice Chair), Peter Tango (STAR Coordinator), Carin Bisland (Staffers/Coordinators Chair)**

STAR Leadership and Carin Bisland will give an introduction and request updates from the Goal Implementation Teams.

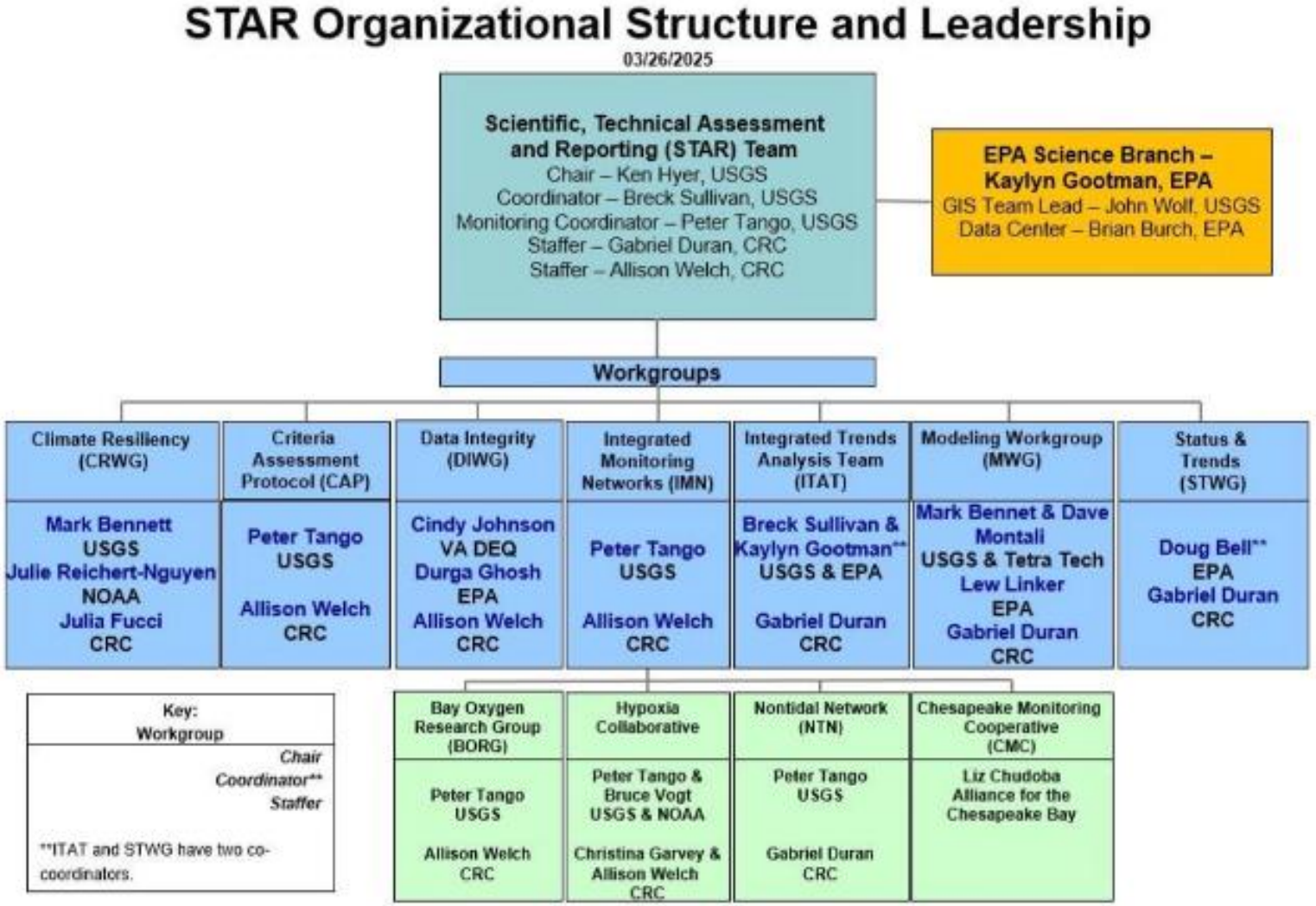
Numerous STAR workgroups formed

STAR Workgroups 2015 Workplans

Leadership of the workgroups/teams under STAR will present and discuss their 2015 workplans and/or the five major priorities of the workgroup for the year.

- **Integrated Monitoring Networks Workgroup** *(Peter Tango)*
- **Data Integrity Workgroup** *(Bruce Michael and Mary Ellen Lay)*
- **Status and Trends Team (formerly Indicators)** *(Jennifer Gundersen)*
- **Climate Change Workgroup** *(Zoe Johnson and Mark Bennett)*
- **Explain Ecosystem Condition and Change: Water Quality Trends Team** *(Jeni Keisman, Joel Blomquist and Jeremy Testa)*
- **Modeling Workgroup** *(Lee Currey, Dave Montali, and Lew Linker)*
- **Information Management & GIS Support** *(John Wolf)*

Multiple workgroups formed to support STAR



My personal reflections on the stellar evolution of STAR

- Provided a vehicle for staying on top of Chesapeake Bay & Watershed science
- Developed key syntheses
- Linked agency and academic scientists with resource managers
- Facilitated interactions between modelers, data analysts, GIS and web team
- Enjoyable meetings supported by great coordinators & staffers