

**NARRAGANSETT BAY  
ESTUARY PROGRAM**

February 19, 2020

**Science Advisory Committee Meeting**

# Key Discussion Topics

- SAC responsibilities
  - Guiding Principles
  - Formal member nomination process TBD
- Vision 2032 preview
- Science updates by summer 2020

# Welcome and Highlights



SAC Co-Chairs



Internship Program



Science Updates

# SAC Member Nomination Process



GUIDING PRINCIPLES



PROCESS FOR NOMINATION



CONTINUE TO THINK ABOUT  
AS WE DISCUSS CCMP

# SAC

## Responsibilities



#### 4. The Science Advisory Committee

The Science Advisory Committee shall operate as a standing advisory committee to provide a forum for the Estuary Program and its partners to examine, discuss, and exchange scientific findings and technical information to facilitate the integration of science into the effective management of the study area. The Science Advisory Committee shall:

- Provide for the exchange and synthesis of existing and emerging scientific issues.
- Support the development of conceptual frameworks that integrate physical, chemical, biological, geological, ecological, economic, and policy dimensions of the study area.
- Provide a mechanism to integrate science with management decision-making and strengthen the science focus of the Estuary Program.
- Develop recommendations for research, monitoring, and assessment priorities and identify funding opportunities for these priorities.
- Make recommendations to the Executive Committee to develop and prioritize the content of the Estuary Program's annual work plan.
- Ensure the peer review of scientific and technical products generated by the Estuary Program.
- Assist in the development of requests for proposals as needed; and support selected report generation.
- Aid the development of science conferences.
- Assist in the development or publishing of science proceedings.
- Present the Steering Committee with technical information to be used for decision-making.
- Advise the Steering Committee about emerging management issues and recommend research or action to address those issues.
- Evaluate and advise the technical aspects of implementation projects.
- Review and interpret water quality monitoring program results and other technical information to help determine success or redirection of NBEP projects or bay management actions.
- Provide a coordinated research focus and networking support to the NBEP.
- Assist in the completion of a status and trends report, including development of scope, providing technical input, and reviewing the draft and final reports.
- Advise the Steering Committee and Executive Committee on scientific merit of proposals received.

# SAC Member Nomination Process



GUIDING PRINCIPLES



NOMINATION PROCESS



CONTINUE TO THINK ABOUT  
AS WE DISCUSS CCMP

# Vision 2032



Plan complete by  
**end of 2022**

National Estuary Program requirement:

- Regional ten-year plan
- Full revision of 2012 update

**NBEP commitment:**

- Two-year process
- Stakeholder-driven
- Transparency and early engagement
- Water, Wildlife, Quality of Life
- Call To Action

# Vision 2032



Plan complete by  
**end of 2022**

# Progress Update

Three subcommittee meetings\*

Agree to plan development principles

Presentations from EPA, NEPs, and consultants to inform effort

Audience work

Status of actions in 2012 plan evaluated

Internal staff work to set framework

\*Meetings are open to all who want to join






# Vision 2032



Plan complete by  
end of 2022

Criteria for Inclusion: Consistent with NBEP mission, feasible in 10 years, commitment by an entity, viable finding source(s), measurable against metrics

## Vision 2032 Matrix [4 Goals, 13 Objectives, 37 Actions]—January 21, 2020 DRAFT

 <b>Goal #1: Water</b>	 <b>Goal #2: Wildlife</b>	 <b>Goal #3: Quality of Life</b>	 <b>Goal #4: Human Capacity to Implement the CCMP</b>
<p><b>OBJECTIVE 1A:</b> Reduce point source pollution to the NBEP study area (Federally regulated discharges).</p> <ol style="list-style-type: none"> <li>Action Area: Upgrade 10 Taunton River wastewater treatment plants (WWTPs).</li> <li>Action Area: Complete Phase 3 Combined Sewer Overflow (CSO) project in Providence.</li> <li>Action Area: Identify and reduce separate sewer overflows (SSO) and illicit discharges.</li> <li>Action Area: Complete activities called for in local Phase 2 municipal separate storm sewer system (MS4s) permits.</li> <li>Action Area: Implement hazard mitigation and adaptation activities.</li> </ol> <p><b>OBJECTIVE 1B:</b> Reduce nonpoint source pollution (NPS) from the landscapes of the NBEP study area (non-Federally regulated discharges)</p> <ol style="list-style-type: none"> <li>Action Area: Install and maintain stormwater management (SWM) BMPs on new development, with an emphasis on green infrastructure where feasible.</li> <li>Action Area: Prioritize retrofit and maintenance of SWM BMPs on existing development.</li> <li>Action Area: Repair, replace, and/or maintain outdated septic systems.</li> <li>Action Area: Support development in accordance with local comprehensive, transportation, and hazard plans.</li> </ol> <p><b>OBJECTIVE 1C:</b> Improve management of water quantity.</p> <ol style="list-style-type: none"> <li>Action Area: Install and maintain practices/infrastructure consistent with Objectives 1 and 2 under this goal.</li> <li>Action Area: Install specialized infrastructure where needed to address current and future flooding.</li> <li>Action Area: Support water management planning that enables all beneficial uses.</li> </ol>	<p><b>OBJECTIVE 2A:</b> Permanently protect native ecosystems.</p> <ol style="list-style-type: none"> <li>Action Area: Purchase or place an easement on lands that prevent habitat fragmentation and/or contain drinking water source watersheds, wetlands, sensitive species, or cultural/heritage sites.</li> </ol> <p><b>OBJECTIVE 2B:</b> Restore ecosystem health and resilience.</p> <ol style="list-style-type: none"> <li>Action Area: Install and maintain practices that help form more resilient coastal habitats (e.g., reefs, salt marsh, beaches).</li> <li>Action Area: Install and maintain practices that create healthy floodplains, wetlands, and riparian areas.</li> <li>Action Area: Install and maintain practices that improve stream connectivity and species passage.</li> <li>Action Area: Install and maintain practices in and around lakes that improve their ability to support wildlife and reduce/prevent algal blooms.</li> <li>Action Area: Install and maintain practices that create healthy native upland vegetative communities that support terrestrial wildlife, pollinators, and management of invasives.</li> </ol> <p><b>OBJECTIVE 2C:</b> Improve wildlife management.</p> <ol style="list-style-type: none"> <li>Action Area: Develop and execute species and ecosystem-specific management plans, with an emphasis on those that are endangered, biodiversity hotspots, culturally important, or harvestable.</li> </ol>	<p><b>OBJECTIVE 3A:</b> Create conditions that empower local connection and fair access to the benefits of abundant, healthy, and resilient natural resources.</p> <ol style="list-style-type: none"> <li>Action Area: Generate job and professional development opportunities in the “green economy” for all (interns, volunteers, FTE).</li> <li>Action Area: Create and sustain fair and equitable public access to healthy natural resources.</li> <li>Action Area: Ensure chances for all citizens to meaningfully participate and have an equitable voice in decisions that impact their place.</li> </ol> <p><b>OBJECTIVE 3B:</b> Improve human wellbeing in local places across the region.</p> <ol style="list-style-type: none"> <li>Action Area: Intentionally cultivate, develop, and/or maintain projects that address water quality, flooding, and urban heat islands in environmental justice communities.</li> <li>Action Area: Improve water quality safety monitoring, timeliness of advisories, and clear signage (fish consumption, mosquitoes, heat stress, etc.).</li> </ol> <p><b>OBJECTIVE 3C:</b> Preserve local culture.</p> <ol style="list-style-type: none"> <li>Action Area: Enhance and preserve locally important cultural, heritage, and related sites and/or activities.</li> </ol>	<p><b>OBJECTIVE 4A:</b> Gather, organize, and share information necessary to create baseline information, answer questions, and otherwise inform future action.</p> <ol style="list-style-type: none"> <li>Action Area: Pursue scientific investigations to answer priority questions (e.g., identified data gaps).</li> <li>Action Area: Create systems to compile, synthesize, and share information.</li> <li>Action Area: Develop models to inform actions and reactions in the Narragansett Bay Region.</li> <li>Action Area: Support more coordinated, comparable, and useful monitoring data to track progress against short- and long-term metrics and indicators and support creation of new monitoring methods where needed.</li> </ol> <p><b>OBJECTIVE 4B:</b> Develop and sustain strong leaders and sound governance structure among those implementing the CCMP.</p> <ol style="list-style-type: none"> <li>Action Area: Support greater staff capacity and expertise to carry out commitments in CCMP.</li> <li>Action Area: Support outreach and education on the value of local natural resources and actions people can take to preserve them.</li> <li>Action Area: Nurture conditions that develop/support local “champions” in communities across the region.</li> <li>Action Area: Evaluate and integrate existing plans into CCMP and pursue new cross-boundary planning as necessary.</li> <li>Action Area: Ensure laws, programs, and guidelines are in place for NBEP and partner organizations to meet obligations in CCMP.</li> </ol> <p><b>OBJECTIVE 4C:</b> Acquire funding to sustain NBEP and its partners implementing the CCMP.</p> <ol style="list-style-type: none"> <li>Action Area: Develop adequate funding to support NBEP and partner actions under CCMP.</li> <li>Action Area: Explore long-term financing options for executing CCMPs.</li> </ol> <p><b>OBJECTIVE 4D:</b> Provide technical assistance to those executing CCMP actions.</p> <ol style="list-style-type: none"> <li>Action Area: Fill gaps by providing targeted technical assistance to local entities (municipalities, land trusts, small groups).</li> </ol>

Action areas are “buckets” to be filled, refined, etc. during a two-year process

# Vision 2032



Next meeting  
**March 31<sup>st</sup> 10a-4p**  
RIDEM Room 300



Subcommittee will refine matrix in upcoming meeting

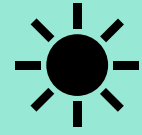


Review a roadmap of principles, answers to EPA, deliverables and engagement timelines and checklist

## SAC Roles

- Formal opportunities for input from SAC at specific milestones
- Participation in targeted working groups
- Welcomed participation in subcommittee meetings
- Identify and engage new participants

# Science Updates



Water Clarity



Land Use



Social Science

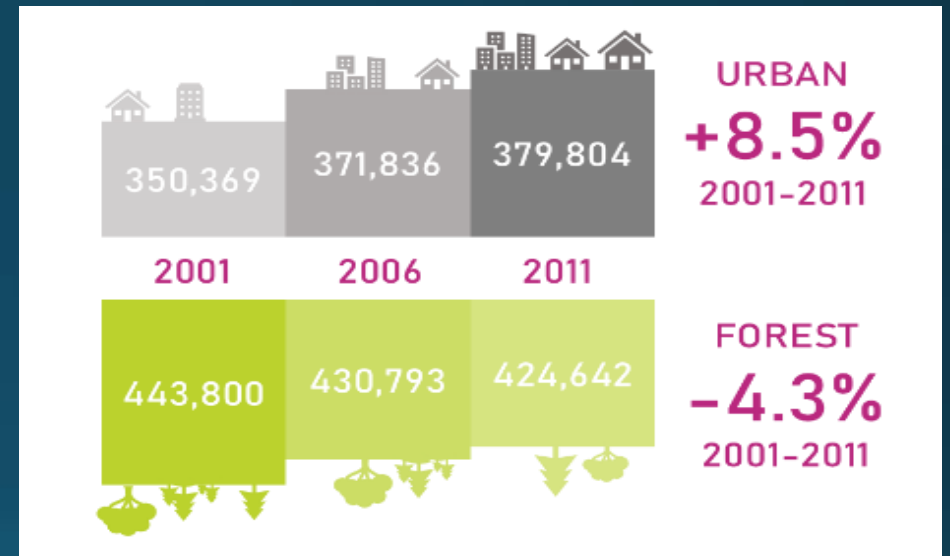


Benthic Habitat

# Land Use

## Internship opportunity

- 2016 edition National Land Cover Database – full update
- Optional special projects:
  - Watershed-wide development analysis - solar, residential, commercial, industrial
  - Simplified state layers or CCAP land use for analysis and display
  - Land use change projections
  - i-Tree carbon, water, and air
- Deliverables: hub-ready data and digital map product



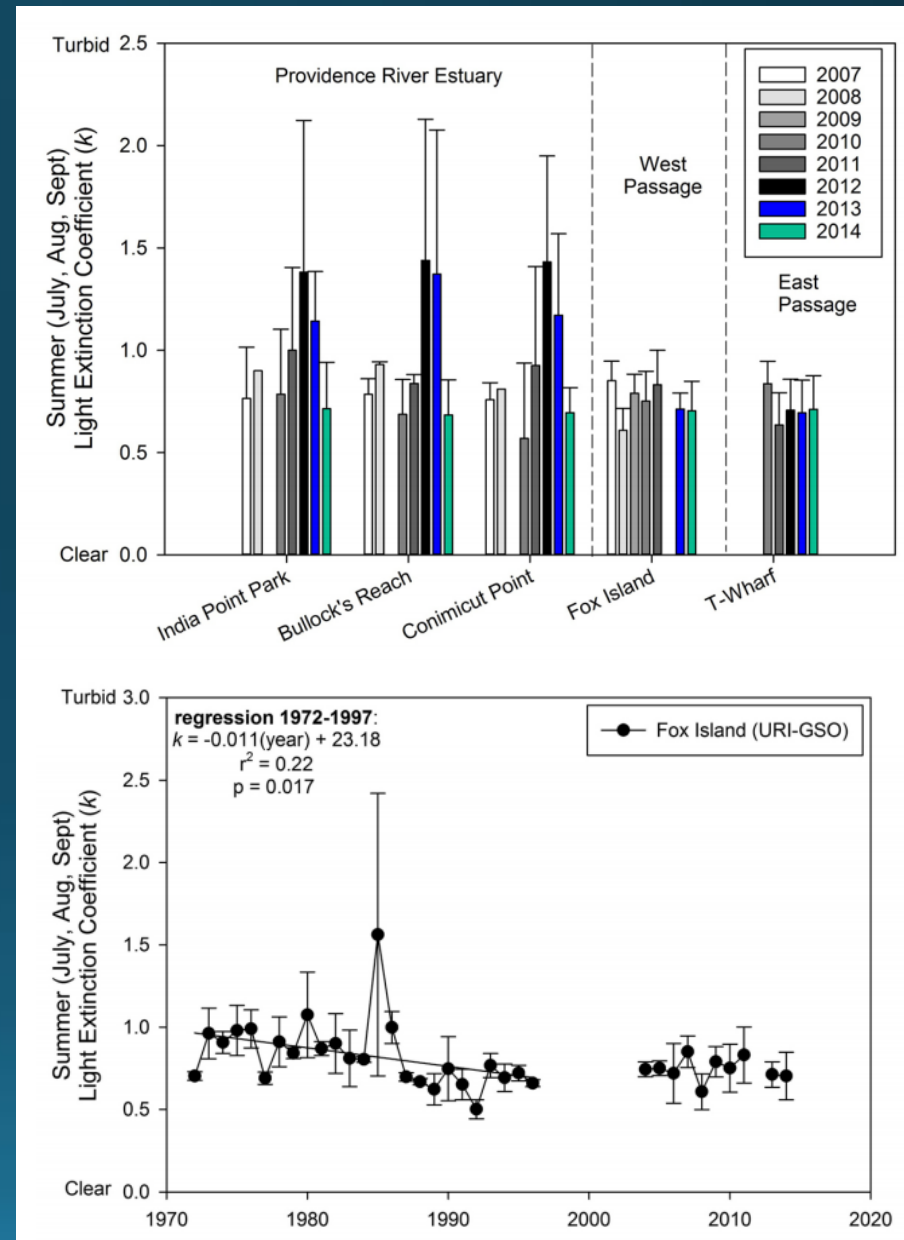
# Social Science Working Group



- Met with Rob Johnston
  - Revised thinking from that conversation and our own thoughts
- Working group
  - One-on-one conversations explore possibility of working group
    - How can social scientists collectively leverage their work to achieve goals for Narragansett Bay and the watershed?
    - What are the key shared goals/questions for the region?
    - How to better integrate social science data and new research directions in Vision 2032?
  - Convene a first meeting in the fall

# Water Clarity

- Met with Nate Merrill
- Gathering data sources (secchi & PAR)
  - EPA
  - NBNERR
  - NBC
  - URI-GSO
  - RIDEM
- We will convene a working group in the spring/summer
- How best to proceed with indicator
  - Audience for update
  - Data sources for update
  - Using satellite imagery to fill in gaps

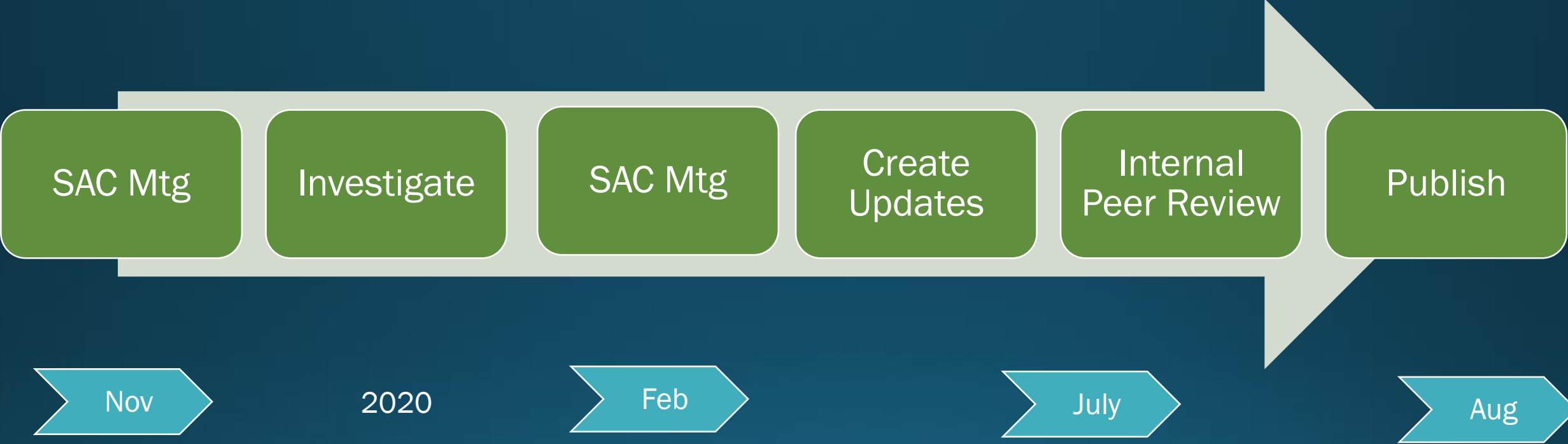


# Benthic Habitat

- Presentation to follow
- Discusses new results from 2018 data collection
- Presents format for update
- Puts work into context with new work in the upper portions of NB



# Science Update - process





# How does the bay respond to changes in the watershed



Emily Shumchenia,  
E&C Enviroscaapes



Highlight changes to the benthic habitat using Sediment Profile Imagery



This science update explores the results, presenting those results, and using the results by others

# Upcoming Opportunities & Action Items

- Mass. Association of Conservation Commissions, Feb 2020
- Land & Water Summit, March 2020
- NEERS, June 2020
- RAE & ANEP, October 2020
- NEERS, October 2020
  
- \*\*who's doing cool stuff that we can show off at RAE?  
Presentation or tour setting
- \*\*awesome students for internships – projects for interns?

# Vision 2032



## 4 main goals

- Water
- Wildlife
- Quality of Life
- Human Capacity

13 objectives and 37 actions

Align SAC expertise with goals