

Mobilize collective knowledge and resources to support Casco Bay

The Casco Bay Estuary Partnership (CBEP) serves as a convener, helping regional entities launch and sustain collaborative Bay-related initiatives. The Partnership coordinates an active "community of practice," leveraging support and maximizing resources so that residents throughout the watershed can better address the complex and evolving challenges facing Casco Bay.

Strategy 4.1: Serve as an information hub on Casco Bay issues and initiatives

CBEP mobilizes scientific, political, financial and human resources to address the needs of Casco Bay and its watershed by gathering, organizing and systematically sharing information.

Strategy 4.2: Provide an organizational anchor for initiatives that benefit the Bay

CBEP has a long record of assisting groups and coalitions with organizing, project development and grant seeking. It will continue traditional, grant-focused efforts to fund work that supports its mission, and explore innovative funding mechanisms that align with CBEP priorities.

Strategy 4.3: Expand the scope and coordination of Bay-related environmental monitoring

Numerous groups monitor Casco Bay or its watershed (e.g., tracking water quality, invasive species, freshwater systems, biota and ocean acidification impacts), but many efforts operate in isolation with little coordination. The region would benefit from having a venue for evaluating long-term monitoring needs and a consistent way to share data. Coordinating monitoring would foster data sharing, help identify key environmental indicators, and advance a regional sentinel monitoring network.

CBEP will lead development of a robust, collaborative regional monitoring program. The costs of a comprehensive Casco Bay monitoring program outstrip the resources available solely through core U.S. Environmental Protection Agency funding so monitoring must be a collective responsibility that rests on shared priorities.

Gather and Share Casco Bay Information

Goal 4: Mobilize collective knowledge and resources to support Casco Bay

Strategy 4.1: Serve as an information hub on Casco Bay issues and initiatives

Purpose

Strengthen the Casco
Bay Estuary Partnership's
role as a central hub for
information about the Bay
and its watershed, and
expand public access to
CBEP's archives of Bayrelated publications,
research and data

Timeline

Ongoing

Key Alliances

- State and federal agencies
- Municipalities
- Nongovernmental organizations
- Research community
- Businesses

Description

Casco Bay Estuary Partnership (CBEP) has provided trusted technical information on Casco Bay for decades and has enhanced informational exchanges in the region (particularly through its Management Committee), but numerous entities working on behalf of the Bay are not linked to CBEP's informational network. A more systematic approach to exchanging information is needed among all the organizations that hold, develop and use information about Casco Bay and the watershed.

CBEP will work with allied organizations to more broadly distribute Bay-related information (e.g., new research publications, relevant upcoming conferences and events, volunteer opportunities, and related press) via CBEP's website and e-newsletter as well as other organizational publications and social media.

To strengthen its role as a regional information hub, CBEP will improve its internal systems for collecting, storing and sharing information. CBEP has an extensive paper library (primarily of older papers and reports dating back to CBEP's first decade, many of which are still relevant and provide important historical baselines) as well as a searchable online publications library. To improve access to both paper and electronic resources, CBEP will systematically (1) catalog publications, reports, and other information on Casco Bay and produce a current bibliography of Bay-related information; and (2) scan paper reports of historical interest or containing historically important data, making them available online (where copyright allows).

In addition, CBEP will expand its Casco Bay Stories website by inviting other organizations and individuals (e.g., schools and arts organizations) to submit Casco Bay Stories for review and inclusion in this growing archive of place-based narratives that foster greater appreciation for the diversity of human connections to the Bay.

Resources

This effort will require a significant upfront investment of CBEP staff time (over a period of months), and ongoing staff effort to maintain this system over time and to more broadly share informational resources. CBEP may need to rely on the data management expertise of other organizations or contractors.

Outputs

- Standardized systems for collecting targeted Casco Bay information; providing ready access to stored information; and sharing it with allied organizations and their constituencies
- New outreach content disseminated through electronic and social media
- New "Casco Bay Stories" content
- Bibliography of Bay-related information
- Expanded online publications library

Outcomes

- Short-term
 - Expanded access to Bay-related data and reports
 - Readily accessible bibliography of CBEParchived materials
- Medium-term
 - Archived information is incorporated into future Bay-related research and studies
 - Bay-related research increases
- Long-term
 - Improved research, management and decision-making due to the availability of better information

Metric	Target
Paper reports scanned and added to digital archives	By end of 2016
Bibliography of archived reports and data available online	2017
Systems enhanced for sharing information externally	Completed in 2017

Report on the State of the Bay

Goal 4: Mobilize collective knowledge and resources to support Casco Bay

Strategy 4.1: Serve as an information hub on Casco Bay issues and initiatives

Purpose

Provide regular updates on indicators of Casco Bay health and encourage public discussion of Bay science and management at periodic State of the Bay conferences

Timeline

Begin standardizing indicator preparation by 2017, with conference and report in 2020

Key Alliances

- Friends of Casco Bay
- Maine Department of Environmental Protection
- Maine Department of Marine Resources
- U.S. Fish & Wildlife Service Gulf of Maine Coastal Program

Other Cooperators

- Organizations that provide access to data
- Individuals who peerreview indicators
- Academic scientists

Description

The U.S. Environmental Protection Agency requires that each National Estuary Program provide periodic public reports (often based on a group of environmental indicators) summarizing conditions in its coastal waters. Casco Bay Estuary Partnership (CBEP) issues a State of the Bay report every five years in conjunction with a conference that fosters sharing of Bay-related information and ideas.

Most State of the Bay indicators are based on data collected by other organizations (especially state and federal agencies and Friends of Casco Bay), with CBEP's own role in data collection limited. This minimizes CBEP's monitoring costs but can complicate report preparation due to changes in data availability or content over time.

Before the next State of the Bay report in 2020, CBEP will work with monitoring partners to formalize a State of the Bay framework (as part of creating the new Casco Bay Monitoring Plan—Action 4.3.A). CBEP and monitoring partners will define data sources, craft data access agreements, and determine data analysis procedures for selected environmental indicators (automating data access and analysis wherever possible). In addition to streamlining State of the Bay report preparation, standardization will improve public access to data and results, and facilitate more frequent evaluation of the Bay's condition.

Resources

The State of the Bay report requires a substantial time commitment from CBEP staff during the year preceding the conference when the report is being completed. It also requires support from other organizations that provide access to data and review of draft results. Funding needs for the report and conference are major (approximately \$40,000, or higher if contractual assistance is used), but could be reduced by improved coordination of data collection and management (Action 4.3.A).

Outputs

- Streamlined data analysis for select State of the Bay Indicators
- State of the Bay conference
- State of the Bay report

Outcomes

- Short-term
 - Greater consistency in reporting and more frequent updates of select State of the Bay indicators
 - Increased public understanding of Bay status and trends

- Medium-term
 - Stronger collaborations around data monitoring and analysis
- Long-term
 - Improved science and decision making pertaining to the Bay and watershed

Metric	Target
Suitable data submitted to CBEP	Annually
Number of State of the Bay indicators formalized	At least 6 by 2019
State of the Bay report completed	2020
State of the Bay conference held	2020

Share Scientific and Community Information to Inform Relevant Policy Decisions

Goal 4: Mobilize collective knowledge and resources to support Casco Bay

Strategy 4.1: Serve as an information hub on Casco Bay issues and initiatives

Purpose

Inform development of effective policies to protect the Bay

Timeline

As need arises

Other Cooperators

- State and federal agencies
- Municipalities

Description

Casco Bay Estuary Partnership (CBEP) strives to be a trusted source of credible data and information on Casco Bay and its watershed. The Casco Bay Plan 2016–2021 affirms and extends its commitment to scientific rigor, and to finding solutions to the Bay's environmental challenges. CBEP is neither a regulator nor a regulated entity but works constructively with both groups. CBEP has long-standing relationships with federal and state agencies, local governments and a wide range of nonprofit organizations. These connections enable CBEP to serve as a valued informational conduit for decision makers at local, federal, and state levels, informing policy decisions without being perceived as having a direct stake in the outcome.

Given the technical and practical expertise of CBEP staff, the network of contacts the Partnership embodies, and the complexity of challenges facing the Bay, CBEP and allied organizations will share information and insights with decision-makers at all levels. This input could be provided in varied settings from informal pre-rulemaking discussions or stakeholder working groups to formal rulemaking or permitting processes.

Resources

CBEP staff members already stay current on emerging policy changes so only limited additional time is needed to review and comment on proposed rules and ordinances.

Outputs

Submitted comments and testimony on proposed rules

Outcomes

- Short-term
 - Improved topical knowledge among policy makers
 - Higher visibility for CBEP among key policy makers
- Medium-term
 - Improved local, state and federal rules and policies
- Long-term
 - Improved water quality due to sounder management of coastal waters

Metric	Target
Written comments submitted, or testimony delivered	At least 3 by 2021
Participation in informal policy discussions or working groups	At least twice by 2021

Lead Place-Based Planning to Benefit Habitat and Water Quality

Goal 4: Mobilize collective knowledge and resources to support Casco Bay

Strategy 4.2: Provide an organizational anchor for initiatives that benefit the Bay

Purpose

Lead, facilitate and support collaborative planning that benefits Casco Bay within sub-regions of the watershed

Timeline

Ongoing

Key Alliances

- Cumberland County Soil and Water Conservation District
- Maine Department of Environmental Protection
- Long Creek Watershed Management District
- New Meadows Watershed Partnership
- Presumpscot River
 Watershed Coalition

Other Cooperators

- Royal River Coalition
- Land trusts
- Municipalities

Description

Watershed-focused and place-based collaborations can help build support among local groups and local government in support of larger (Casco Bay watershed-scale) priorities. Casco Bay Estuary Partnership (CBEP) has consistently supported the work of existing sub-watershed and sub-regional scale collaborations, and helped catalyze the formation of new ones. CBEP is currently involved with four place-based efforts around the Presumpscot River, New Meadows watershed, Long Creek, and Crooked River. A fifth, centered on the Royal River, is in the early stages of development.

Smaller-scale efforts often benefit from the direct, personal connections that local people and organizations have with their immediate waters and landscapes. The most successful of these locally driven initiatives work collaboratively to implement specific projects and facilitate communication about shared issues and needs. Watershed groups can be particularly effective at illustrating linkages between local issues and the Bay by engaging communities at a local scale that is meaningful and recognizable.

Local collaborations usually operate based on a set of shared goals or priorities in the form of a plan. Informal place-based plans are complemented by formal watershed-based plans, which are often developed in response to regulatory imperatives or to facilitate access to federal nonpoint source water pollution program funding known as "Section 319" grants. CBEP has worked closely with Cumberland County Soil and Water Conservation District, the Maine Department of Environmental Protection, and the Cities of Portland and South Portland (among others) to develop and implement such plans.

CBEP will continue supporting the development, refinement and implementation of collaborative, place-based (e.g., watershed, embayment or island) plans that sustain regional efforts, particularly those that incorporate habitat protection and restoration, water quality and community aspirations.

Resources

CBEP leadership in this arena requires significant staff time as plan development can be an extended, labor-intensive process. Some CBEP funding can help facilitate planning or implementation, but staffing place-based coalitions typically requires other organizations to dedicate significant staff time and seek external funding (or both).

Outputs

- Formation of place-based collaborations with shared goals and priorities
- Regional land conservation plans that reflect shared goals and priorities
- Formal watershed-based plans

Outcomes

- Short-term
 - Increased local capacity to work strategically and collaboratively to protect habitat, improve water quality, and achieve other community goals
 - Local project successes that can scale up and be shared across the larger watershed

• Medium-term

- Implementation of goals, strategies and actions that benefit the Bay and watershed
- Improved information exchange and emergence of new partnerships

• Long-term

 Improvements to Casco Bay's habitats, water quality, ecosystem function and integrity

Metric	Target
Implementation projects completed	1 per group per year
Collaborative events & meetings	2 per group per year
Development of new plan(s); refinement of existing plans	At least 1 by 2021

Jost Technical Working Groups on Emerging Issues

Goal 4: Mobilize collective knowledge and resources to support Casco Bay

Strategy 4.2: Provide an organizational anchor for initiatives that benefit the Bay

Purpose

Foster formation of ad hoc working groups around emerging issues or shared interests to encourage collaborative approaches that benefit the Bay and watershed

Timeline

As need arises

Key Alliances

- Researchers
- State and federal natural resource agencies
- Nongovernmental organizations

Description

Working groups are short-term, *ad hoc* groups that form around shared interests or emerging issues. Casco Bay Estuary Partnership (CBEP) often plays a strategic role helping to convene working groups. Past examples include a circulation modeling workshop, the Casco Bay "Mud Summit," a workshop on green crab science, and groups working on eelgrass monitoring and restoration.

CBEP will continue hosting or supporting *ad hoc* working groups of scientists and other experts to discuss and address emerging issues in Casco Bay.

Resources

Generally, working groups require moderate amounts of staff time over a period of a few weeks or months, followed by lower levels of staff time to maintain progress. Total staff time needs will depend on the number of active working groups. In recent years, CBEP has managed one such working group a year, and that level of commitment is likely to continue.

Outputs

- New forums for collaboration between researchers and organizational representatives
- Project deliverables, such as reports or data

Outcomes

- Short-term
 - Increased frequency and scale of collaboration on topics of shared interest
 - Greater efficiency and more comprehensive information and results
- Medium-term
 - Expanded, scientific knowledge base of Casco Bay and its watershed
- Long-term
 - Improved decision making on Bay-related activities and policies

Metric	Target
Number of working groups	1 per year
Number of working group meetings	2 per year
Number of deliverables (reports; data sets, new projects)	1 per group

Seek Resources to Support Programs That Benefit the Bay

Goal 4: Mobilize collective knowledge and resources to support Casco Bay

Strategy 4.2: Provide an organizational anchor for initiatives that benefit the Bay

Purpose

Build organizational capacity to implement the Casco Bay Plan by increasing and diversifying funding sources

Timeline

Ongoing

Key Alliances

- Management Committee members
- Watershed groups
- U.S. Fish & Wildlife Service Gulf of Maine Coastal Program
- Greater Portland Council of Governments

Other Cooperators

 University of Southern Maine Research Service Center

Description

The U.S. Environmental Protection Agency encourages National Estuary Programs to diversify and increase programmatic and leveraged funding by applying for grants from a variety of sources, including federal programs, state programs and foundations. Casco Bay Estuary Partnership (CBEP) has a long record of fundraising to support shared priorities. Recent successes include raising funds for Youth Conservation Corps work on Trout Brook; ocean acidification monitoring programs; the three-year Presumpscot River Vision, Values, and Priorities project; salt marsh restoration in Harpswell; and the Presumpscot Targeted Watershed Grant.

CBEP core staff members also support other groups working on behalf of the Bay, ranging from local organizations to academic researchers, in their efforts to seek funds for specific projects. CBEP involvement may be significant (e.g., acting as fiscal agent) or minimal (e.g., a letter of support to accompany a grant proposal).

In seeking alternative sources of funding to support implementation of the Casco Bay Plan, CBEP will (1) collaborate with allied organizations to identify opportunities for obtaining and diversifying revenue sources; (2) leverage local networks to attract federal funds (by identifying local sources of match); and (3) pursue external funding resources to support Plan Actions.

Resources

Significant CBEP staff time will be required to increase fundraising efforts and explore innovative sources of funding (which might yield little short-term success, but could potentially offer significant long-term benefits). CBEP also will seek *pro bono* professional assistance.

Outputs

- Updated list of grant-funding programs
- Pledged non-federal match (cash and in-kind)
- Completed and submitted grant proposals

Outcomes

- Short-term
 - CBEP and others are better able to take advantage of suitable grant programs
 - More numerous and competitive federal grant proposals submitted
- Medium-term
 - Increased local capacity for implementation; increased federal grant funding outside Section 320 U.S.
 Environmental Protection Agency funding
- Long-term
 - Improvements to Bay's habitats, water quality, ecosystem function and integrity

Metric	Target
List of grant opportunities created in 2016 and updated annually	Annual updates
Number of collaborative external grant proposals per CBEP FTE	≥ 2 per year

Coordinate a Casco Bay Monitoring Network and Plan

Goal 4: Mobilize collective knowledge and resources to support Casco Bay

Strategy 4.3: Expand the scope and coordination of Bay-related environmental monitoring

Purpose

Convene and lead a Casco Bay Monitoring Network that identifies shared priorities and facilitates the efficient exchange of data, and foster development of a shared Casco Bay Monitoring Plan

Timeline

Begin early in 2016 and ongoing thereafter

Key Alliances

- Friends of Casco Bay
- University of Southern Maine
- Island Institute
- Bowdoin College Coastal Studies Center
- Gulf of Maine Research Institute
- Southern Maine Community College
- University of New Hampshire
- SEANET research consortium
- Maine Department of Environmental Protection

Other Cooperators

- Integral Sentinel Monitoring Network
- Northeastern Regional Association of Coastal and Ocean Observing Systems
- Northeast Coastal Station Alliance

Description

A growing number of entities are monitoring the waters within Casco Bay and its watershed (including Friends of Casco Bay, Maine Healthy Beaches Program, Maine Department of Marine Resources, the SEANET research consortium and the Gulf of Maine Research Institute, along with numerous academic researchers). Simultaneously, discussions are underway in the Northeast about the need to establish an Integrated Sentinel Monitoring Network able to document long-term change in coastal ecosystems.

The widespread interest in monitoring could help document changes underway in Casco Bay, but to date there has been little work to coordinate these efforts. Casco Bay Estuary Partnership (CBEP) will establish and staff a Casco Bay Monitoring Network in order to:

- 1. Catalog existing and anticipated monitoring programs;
- 2. Identify shared monitoring priorities;
- Consider shared deployment of monitoring resources so that efforts led by different organizations complement and support each other;
- 4. Minimize duplication of effort or collection of similar but incompatible data; and
- 5. Facilitate sharing of data.

CBEP will also work with statewide and regional monitoring collaborations to place Casco Bay monitoring efforts into a larger context, share monitoring approaches, and link into shared data-access tools. Working with members of the Casco Bay Monitoring Network, CBEP will develop and periodically update a shared Casco Bay Monitoring Plan.

Resources

The costs of a comprehensive Casco Bay monitoring program far exceed the resources available through CBEP's core funding. Monitoring must be a shared responsibility of the many individuals and organizations with a stake in understanding the Bay. CBEP will invest moderate time in staffing the Network and helping to prepare the shared monitoring plan.

Outputs

- Casco Bay Monitoring Plan
- Revised data agreements

Outcomes

- Short-term
 - Improved communication among entities monitoring Casco Bay

- Medium-term
 - Greater efficacy of monitoring work and increased sharing of Bay-related monitoring data
- Long-term
 - Better early detection of changes in Bay water quality and habitats

Metric	Target
Number of participants in Casco Bay Monitoring Network	Minimum of 8 organizations
Number of meetings of the Network	≥ 2 per year

Facilitate Improved Research on Changes in Casco Bay

Goal 4: Mobilize collective knowledge and resources to support Casco Bay

Strategy 4.3: Expand the scope and coordination of Bay-related environmental monitoring

Purpose

Foster and share scientific research that helps to explain how and why Casco Bay is undergoing rapid change and what communities in the region can do to cope with that change

Timeline

Begin Network discussions early in 2016 to determine site development timeline

Key Alliances

- U.S. Fish & Wildlife Service Gulf of Maine Coastal Program
- Wells National Estuarine Research Reserve
- Maine Department of Environmental Protection
- Maine Coastal Program/
 Department of Agriculture,
 Conservation and Forestry

Other Cooperators

- Academic institutions
- Northeast Regional Association of Coastal and Ocean Observing Systems
- Northeast Coastal Station Alliance
- Integrated Sentinel Monitoring Network

Description

A bewildering array of forces are rapidly transforming the ecosystems and shorelines of Casco Bay, including sea level rise, warming air and water temperatures, ocean acidification, coastal development, and an influx of nonnative species (some of which are becoming invasive). Responding constructively to these changes requires careful monitoring to detect changes (Action 4.3.A) and greater scientific understanding of where the changes may lead.

There is strong regional interest in establishing high-resolution, long-term monitoring locations where a broad range of environmental parameters can be monitored simultaneously. The goal of these "sentinel sites" is to document changing conditions and to collect information about the processes driving ecosystem change. The Northeastern Regional Association of Coastal and Ocean Observing Systems (NERACOOS) and the Northeast Regional Ocean Council are leading a discussion about sentinel monitoring, assembling information on existing sentinel monitoring programs, and developing design recommendations.

Casco Bay Estuary Partnership (CBEP) will establish a sentinel monitoring program for Casco Bay, and integrate data collection both with other Casco Bay monitoring efforts (Action 4.3.A) and with the regional sentinel monitoring network.

CBEP also plans to begin tracking stands of invasive *Phragmites australis* around Casco Bay (with a baseline established by 2017 and subsequent updates done at least every five years). This baseline will help in understanding whether *Phragmites* is expanding or not within the region.

CBEP will also work with academic institutions and other organizations to facilitate research that advances scientific understanding Bay changes (e.g., studies of non-native and invasive species, means of controlling invaders like the European green crab, and methods to ameliorate ocean acidification).

CBEP will continue working with other organizations to assess the impacts of climate change and sea level rise on Casco Bay's tidal wetlands through such actions as: investigating sediment processes within narrow-valley wetlands and fringing marshes; monitoring relative sea-level rise (RSLR) at representative sites through the use of Sediment Elevation Tables (SETs) and other methods; and assessing how the elevation profile of Casco Bay's tidal marshes may affect how they respond to changing sea levels. Findings from these investigations will inform future tidal wetland protection and restoration work, as well as associated policies.

Resources

This Action will require significant CBEP staff time, depending on how much responsibility other organizations assume for sentinel monitoring. Initial set-up costs for a sentinel monitoring program could be substantial, and the budgetary commitment extends over time because data collection must continue long term.

Outputs

- Sentinel monitoring sites established
- SETs placed in Casco Bay wetlands and other data informing RSLR
- Sediment budgets and assessment of elevation profiles for representative marsh sites
- Baseline maps of invasive Phragmites stands around Casco Bay

Outcomes

- Short-term
 - Infrastructure in place to track changes in Bay ecosystems
- Medium-term
 - Ongoing documentation of changing conditions in the Bay
 - Improved understanding of changing coastal ecosystems
- Long-term
 - Better decisions regarding coastal management
 - Better water quality and ecosystem resilience

Metric	Target
Establishment of sentinel monitoring sites	3 sites by 2020
SETs placed in Casco Bay tidal wetlands	Placed at a minimum of 5 sites by 2020
Baseline map of Phragmites australis stands around Casco Bay	Ву 2017

Expand Monitoring of Casco Bay Tributaries

Goal 4: Mobilize collective knowledge and resources to support Casco Bay

Strategy 4.3: Expand the scope and coordination of Bay-related environmental monitoring

Purpose

Increase understanding of conditions in rivers and streams that may influence the health of Casco Bay

Timeline

Begin in 2016 and gradually increase effort

Key Alliances

- Cumberland County Soil and Water Conservation District
- Maine Department of Environmental Protection
- U.S. Geological Survey
- Long Creek Watershed Management District
- Presumpscot River Watch
- Maine Volunteer River Monitoring Program
- Maine Volunteer Lake Monitoring Program

Other Cooperators

- University of Southern Maine
- U.S. Fish & Wildlife Service Gulf of Maine Coastal Program
- Municipalities
- Watershed groups

Description

The watershed's rivers and streams act as funnels, carrying not only water but stormwater runoff, nutrients, pesticides, road salt, fecal waste, eroded sediment, litter and other contaminants directly into Casco Bay. There are some data on the water quality of the Bay's major tributaries (thanks to the work of the Maine Department of Environmental Protection, U.S. Environmental Protection Agency, Presumpscot River Watch, U.S. Fish & Wildlife Service, and others), but limited capacity—historically and currently—has restricted the monitoring effort.

To better inform understanding of how tributaries influence the Bay, monitoring efforts need to be expanded both geographically and temporally. In addition, at least one river gauge on a major tributary needs to be installed to update baseline knowledge about the volume of water flowing out of the watershed.

Casco Bay Estuary Partnership (CBEP) will work with others to establish a regional framework for coordinated monitoring of rivers and streams, and advocate for reestablishment of river gauges on one or more of Casco Bay's major tributaries.

Resources

Expansion of freshwater monitoring will require a concerted effort over several years. While this effort might be led by CBEP staff, other organizations already involved with monitoring could also lead this effort. Some grant writing will be necessary to develop funding capacity to support watershed monitoring.

Outputs

- Establishment of a watershed monitoring committee
- A regional framework for monitoring in the Casco Bay watershed
- Establishment of at least one river gauge station
- Water quality data
- Grant proposals

Outcomes

- Short-term
 - Coordination among allied organizations
 - Strategic allocation of staff and funding resources toward expanded monitoring
 - Grant funding
 - Data on water quality and water quantity
- Medium-term/Long-term
 - Better understanding of the water quality and quantity of Bay's tributaries
 - Better understanding of the impact of tributaries on Bay's health
 - Better decision making
 - Improvements to the Bay's habitats, water quality, ecosystem function and ecosystem integrity

Metric	Target
Creation of regional monitoring framework	2018
Establishment of one river gauge station	2019