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Social Science Indicators for the Narragansett Bay Estuary Program

Narragansett Bay, Little Narragansett Bay,
Coastal Salt Ponds



**NARRAGANSETT BAY
ESTUARY PROGRAM**

Science Update: Social Science Indicators for the Narragansett Bay Estuary Program

Narragansett Bay Estuary Program

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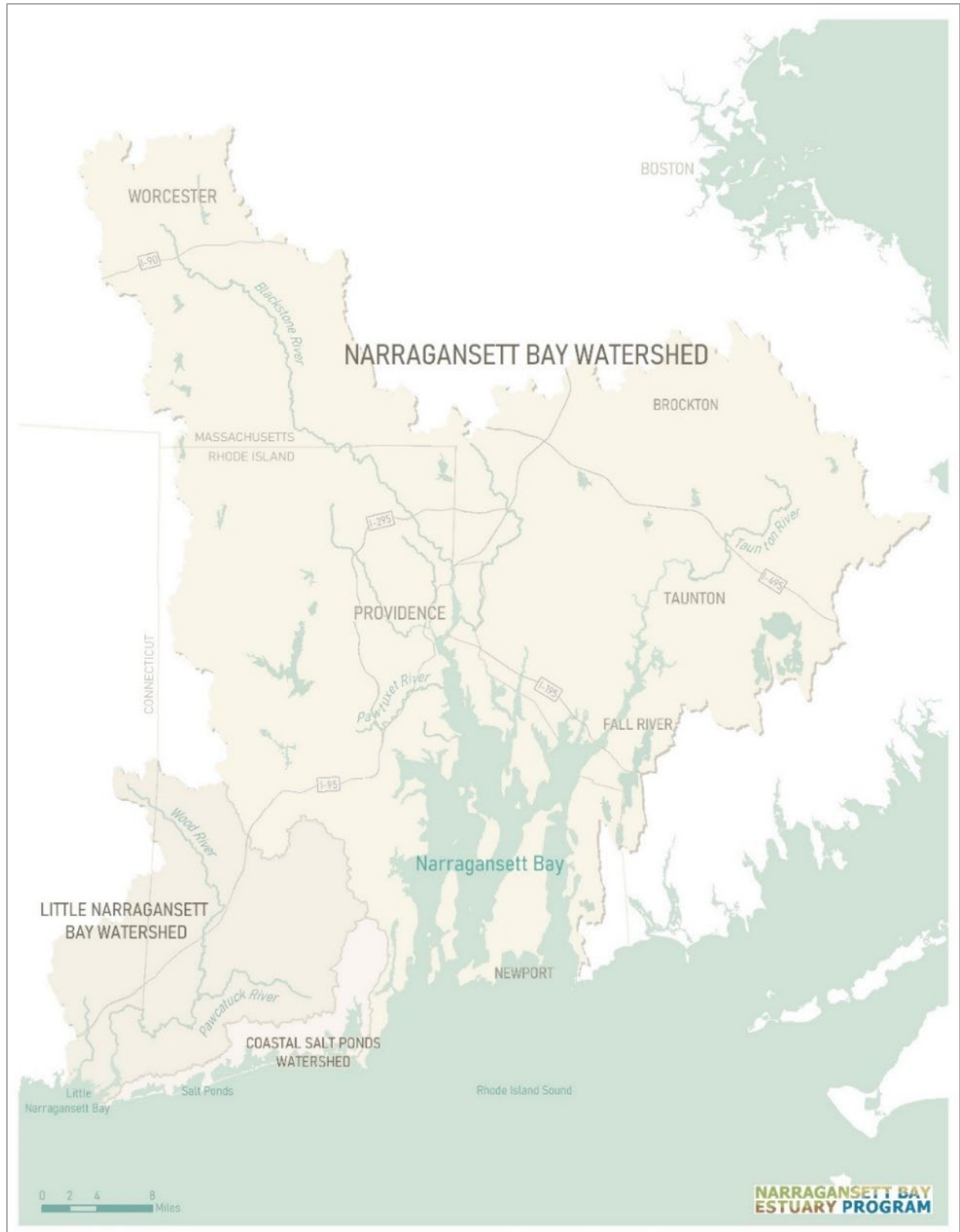
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NARRAGANSETT BAY ESTUARY PROGRAM AND ITS STUDY AREAS

The Narragansett Bay Estuary Program is part of the National Estuary Program, established in 1987 as an amendment to the federal Clean Water Act administered by the U.S. Environmental Protection Agency (EPA). The NBEP uses a voluntary, community-driven approach to enhance the water quality, wildlife, and quality of life in the Narragansett Bay, Little Narragansett Bay, Coastal Ponds, and their watersheds in Rhode Island, Massachusetts, and Connecticut. Uniting 2 million people across 113 communities in 3 states, the watershed hosts diverse habitats that sustain wildlife and vital economies.



Map of the Narragansett Bay Estuary Program study areas.

PURPOSE

This report describes the outcome of a year-long Social Science Working Group effort to understand and consider the application of social science data available in the Narragansett Bay Estuary Program study areas. The working group met to discuss social science data and explore indicators to characterize the interactions between natural environment and people in the region. The approach detailed below will be implemented by the Narragansett Bay Estuary Program with the support of the Social Science Working Group and the Science Advisory Committee.

WHY SHOULD NBEP TRACK SOCIAL SCIENCE INDICATORS?

The vision and mission of the Narragansett Estuary Program is to restore and protect the water quality, wildlife, and quality of life for all who live, work, and play in the Narragansett Bay region. We cannot meet the vision and mission without fully understanding the interaction of the watershed's natural resources with the people that live, work, and play in the region, and how environmental conditions impact their lives.

As a National Estuary Program, NBEP is required to report on the environmental condition of its study areas. The NBEP's current report, [*The State of Narragansett Bay and Its Watershed*](#) (2017), includes 24 environmental indicators that describe the stressors to the region (such as population growth, nutrient loading, land use, and chemical pollutants) and associated environmental conditions. The condition indicators describe how the environment responds to these stressor indicators (Figure 1).

Indicators are topics that allow NBEP to evaluate key stressors to the region, assess condition, describe trends, and look ahead towards potential future changes. **Metrics** are specific subtopics and associated data that inform the full indicator. NBEP uses metrics to evaluate the trends and provide information for future changes.

Three of these 24 existing indicators illustrate in part how environmental conditions impact public health — water quality conditions for general recreation, beach use, and shellfishing. However, these indicators do not fully address how watershed environmental conditions impact people. In fact, they are generated from biophysical data, and describe where resource use is allowed based on protecting human health from bacterial contamination. NBEP's existing indicators lack social science data and perspectives that would facilitate a holistic understanding of the ways watershed residents relate to the natural environment.

NBEP sought to address this gap by convening a working group to discuss human-environment interactions and relationships. These discussions advised NBEP on relevant topics and potentially useful metrics and indicators. The results of these meetings are included on the Social Science Working Group [website](#).

Indicators and metrics cannot perfectly characterize the many nuanced human-environment interactions in the region. Without resource constraints, we ideally would measure what we want to know — the social benefits of ecological indicators. That is, the behavior change or change in value of a resource to the community as a result of a management action to improve water quality. Given current resource constraints, this document seeks to create a framework which supports understanding the nuance of the human-environment interaction.

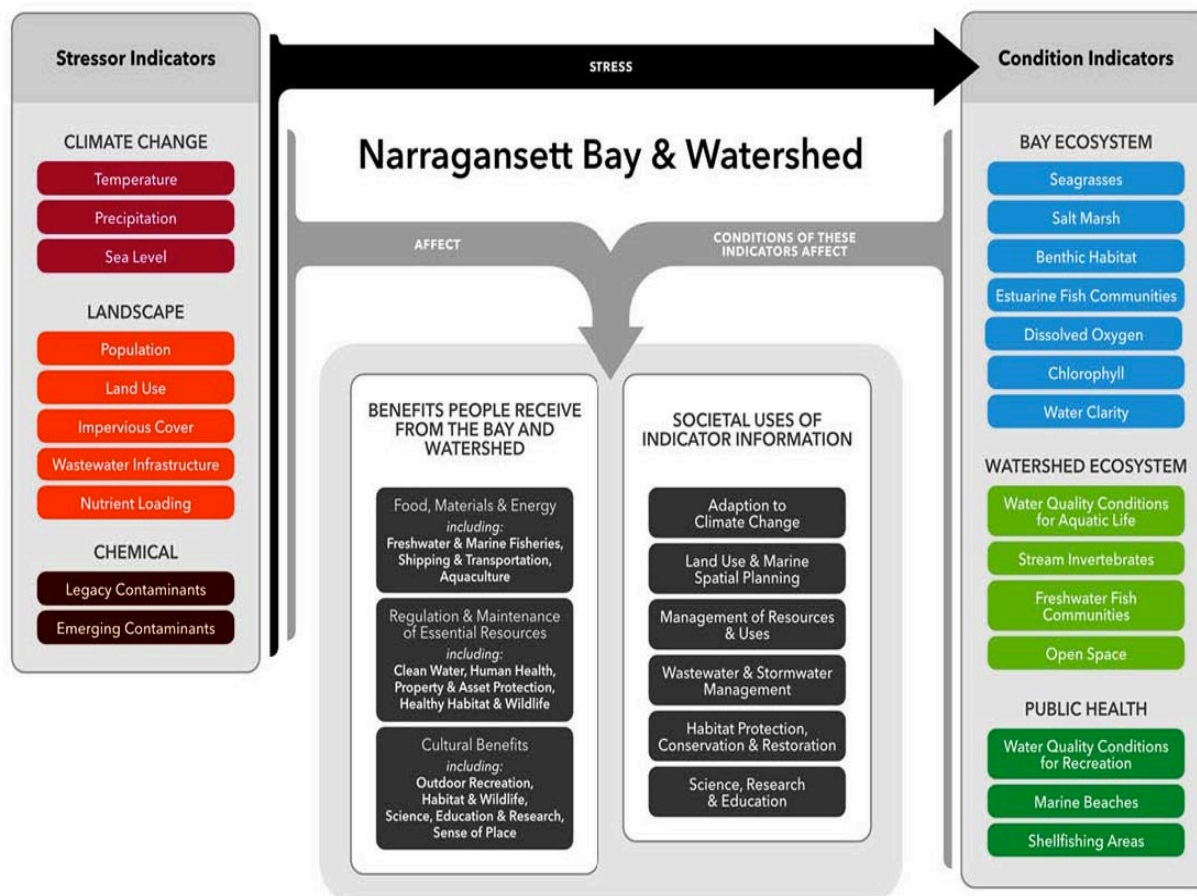


Figure 1. The list of stressor and condition indicators addressed in NBEP's State of Narragansett Bay and Its Watershed.

This document is the result of preliminary efforts by NBEP and the Social Science Working Group to develop socioeconomic indicators for the greater Narragansett Bay Region. The metrics do not always include social data, but do create the baseline actions to measure against. For example, a Public Access indicator may begin by an assessment of the number of access points to parks and recreational areas, travel time to those points, and assess quality of those points (amenities or if the recreational space is safe for recreating). As time and money allow, cell phone data could be added to understand user demographics, and look for changes in the number of people visiting a newly-developed access point, or coming to an established access point now that the water and land have been made safe for recreating.

With this caution in mind, the remainder of this document recounts the preliminary efforts of NBEP and the Social Science Working Group to develop socioeconomic indicators for the greater Narragansett Bay

WHICH SOCIAL SCIENCE INDICATORS SHOULD WE TRACK?

In 2020, [Social Science Working Group](#) began discussing the role of social science in NBEP's indicator framework and set an objective to use social science data to meaningfully inform environmental decision-making. NBEP employed a trained facilitator (E&C Enviroscope) to help focus the scope of the discussions and discover useful data sources. Informed by their expertise and the results of public opinion surveys to inform NBEP's ongoing strategic planning process, [Vision 2032](#), the Working Group decided to pursue three indicators with associated metrics: public access, public health, and the economy (Figure 2).

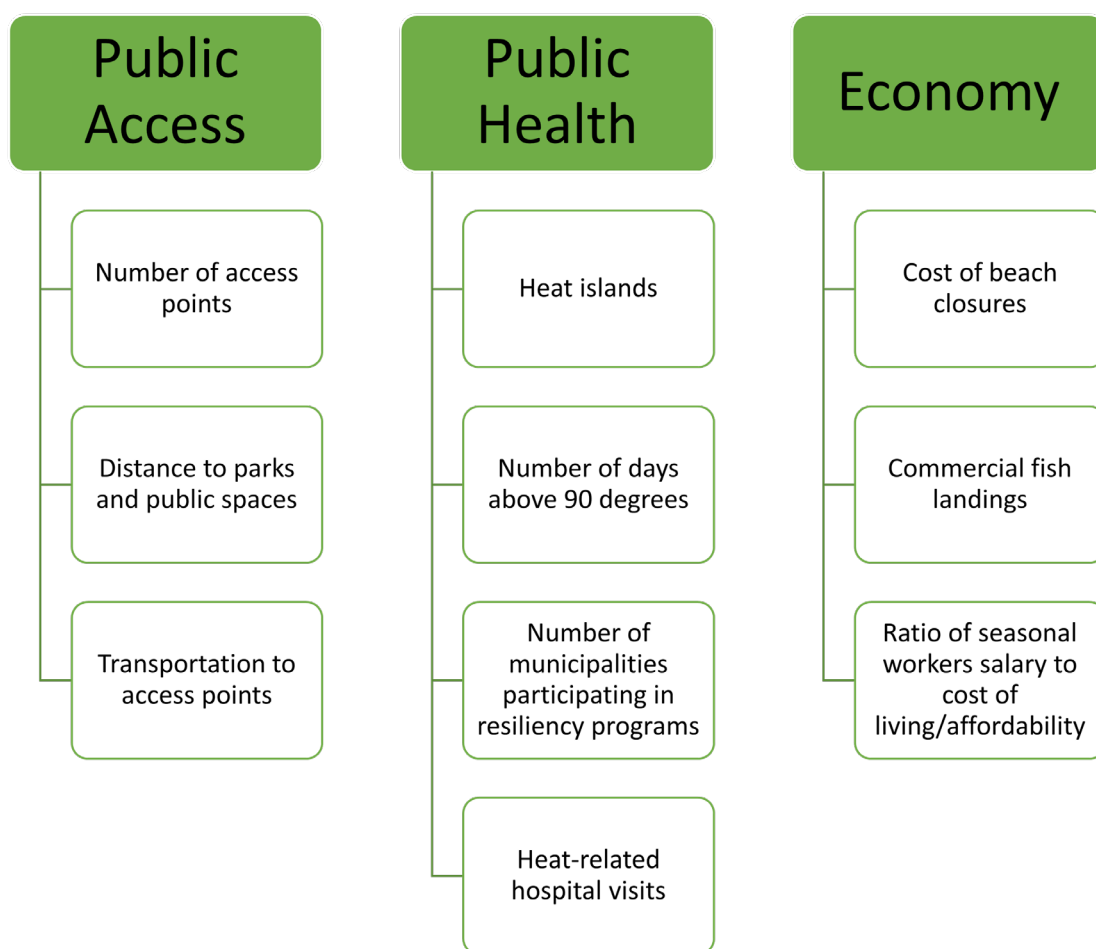


Figure 2. Indicators (green boxes) and metrics (open boxes) discussed by the Social Science Working Group.

In May 2022, the Social Science Working Group chose to reframe the public health indicator into two indicators, Resilient Municipalities and Public Health. Resilient Municipalities tracks municipality-level responses to climate change and encourage municipalities to engage in resilience planning while Public Health address the issues that directly impact human health and well-being. The Public Access and Economy indicators remained the same, but the Working Group identified different metrics (Figure 3).

In summary, NBEP will develop Four socioeconomic indicators: (1) Public Access, (2) Resilient Municipalities, (3) Public Health, and (4) Watershed Economy.

Table 1 provides a summary of the indicators, the tasks to be completed, who will complete the tasks, and outcomes we are trying to achieve. The section following Table 1 describes these indicators and poses questions (and potential answers) to describe metrics used to inform the indicators. As noted above, this is a start to have fully integrated indicators which measure behavior change and value of resources in our region. The indicators and metrics in Table 1 provide the baseline, building the scaffolding supporting better measurements of how people use a resource, change in value and/or behavior.

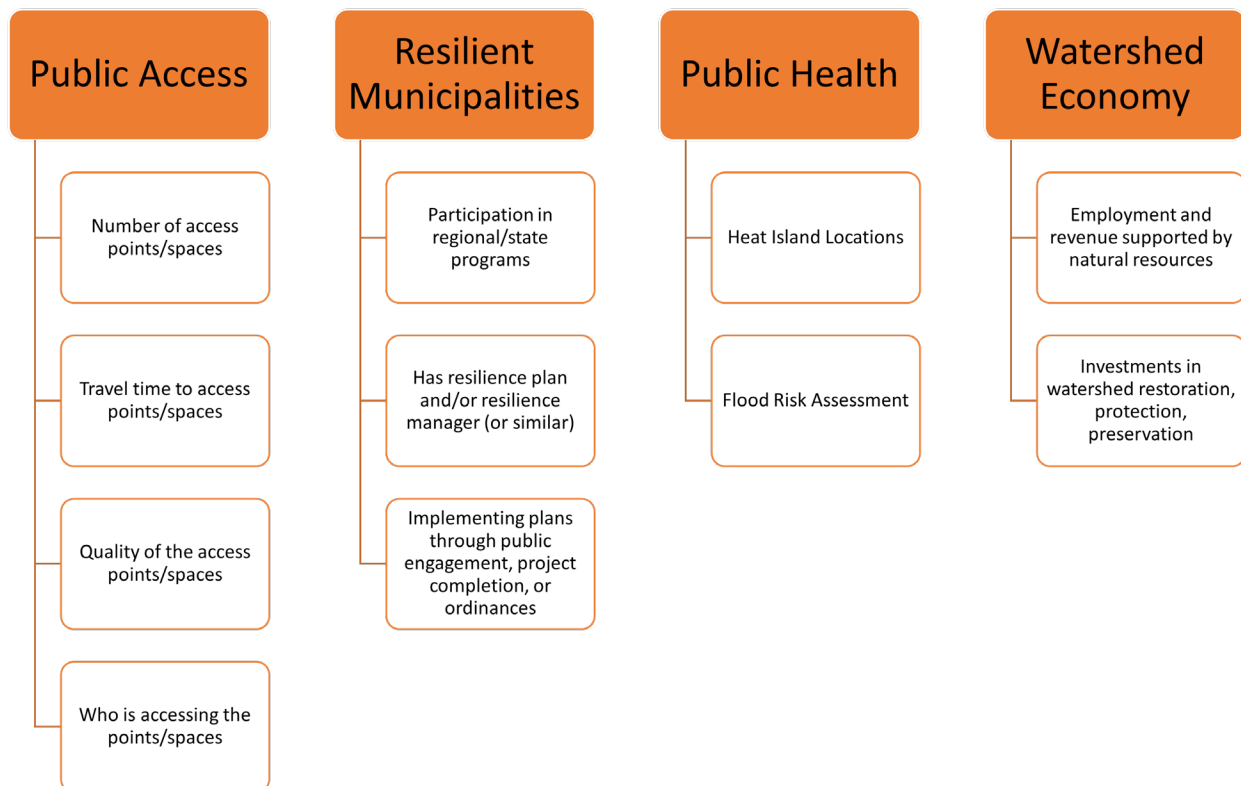


Figure 3: Indicators (orange boxes) and metrics (open boxes) chosen by the Social Science Working Group to pursue

Table 1. Social science potential indicators matrix. This is the start of social science indicators, with information and better metrics evolving with time, money, and capacity. For more detailed information or links to reports/data, see the individual indicator subheading.

Indicator	Objective Information				Subjective Info.	Actions		End Goal
	Criteria	Scale of data	Limitations/Caveats	Status/Gaps	Subjectivity*	Tasks	Who	Outcomes
Public Access	Number of access points/spaces	Town, state, watershed, study area	Currently only know shoreline, saltwater access points; RI has location of parks	Need to know parks (MA & CT), river access, FW beaches		Define point/space for FW/SW beaches, parks, river access, shoreline access	NBEP	Comprehensive public access database with GIS layers
	Space user Demographics		Known for popular shoreline activities (EPA/NBEP study)	Need to expand to other points/spaces		Use cell-phone data (or other data) to determine		
	Travel time to points/space			Need to know walking, car, bus travel times		Define travel time and start/end points		
	Quality of access points/spaces		Most data pertaining to quality is water or habitat quality, not other measures of quality	Need to expand datasets to other points/spaces	Quality can be subjective; need to define with metrics that we have or can be quantified	Use Impaired Waters list, beach closures, Toxic Release Inventory, Park Score.		Linked water quality information to public access database
Resilient Municipalities	Participation in resiliency programs (e.g., MVP, MRP, CIRCA, etc.)	Town-level only; could scale to state level	Limited by program funding, town capacity, and town eligibility	Known by the groups administering the programs, could be cataloged for study area	This indicator could be a comparison of “haves” and “have-nots.”	Collect information from groups administering these programs	NBEP or Partners (could be done by Interns)	Database of information on how towns have considered preparing for or are implementing plans to be resilient with a changing climate
	Has resilience plan/manager (or similar)		Limited by town capacity	Need to define “plan” and need to know if towns have them	Could towns be categorized/ranked by external factor (like population or median income)?	Collect information from the internet for all towns in study area		Find focus geographies to increase resiliency preparedness
	Implementing Resiliency (or similar) Plan		Limited by town capacity	Need to define “implementing” and how towns are doing this				
Public Health	Location of heat islands	Census block, town, state, watershed, study areas	Need to think through how to decrease heat islands; could looking at tree cover help?	Need to know for the study area	Will be very focused on urban areas	Map heat islands and tree cover. Incorporate into EJ Tool	NBEP	Comprehensive database of public health threats with GIS layers
	Location of flood risk		Current information (STORMtools) only covers sea level rise	Need to know for rainfall, sea level rise, storm surge, and river flooding Need to know impacts of impervious surfaces	Will highlight socioeconomic differences if mapped with EJ tool	Map flood risk from sea level rise, storms, and rivers. Track number of people displaced by flooding Incorporate into EJ Tool		Increased understanding of heat islands and flood risk to the study areas Increased awareness of how these issues impact the environmental justice communities in the study areas
Watershed Economy	Employment and revenue supported by natural resources	State scale, watershed, study areas	“Natural resources” is a broad category Expand on 2019 URI report	Known from a 2019 URI report (limited areas)	These metrics will paint an incomplete picture. With proper caveats, that may be OK for our purposes	Update 2019 report and conduct a literature review for additional materials	Hire Consultant	Start of an economic review for watershed or Vision 2032.
	Investments in watershed restoration & preservation	Town, state, watershed, study area	Uses NEPORT (National Estuary Program Online Reporting Tool), which is only populated with data NBEP receives from partners	Need more information from partners to use NEPORT		Collect data from NEPORT	NBEP	

*These indicators can be very subjective in nature – for example, what is “good” or “healthy” – therefore, we are trying to be as objective as possible. This category highlights some major areas of subjectivity that may possible skew results or create confusion.

**Who refers to who can/will complete the tasks.

PUBLIC ACCESS

Public access refers to the rights of people to access certain buildings, open spaces, or information. In RI, MA, and CT, public access has classically referred to the shoreline, particularly the area below the high tide mark, which is protected by Public Doctrine and therefore available to everyone. NBEP takes a broader view of public access to include not only right of way to the shoreline, but also parks, fresh and saltwater beaches, and river access. [Save The Bay](#) summarizes the issues of Public Access well: that while public access points are increasing, accessing them is still a challenge, particularly in urban areas. Vision 2032, NBEP's upcoming strategic plan, identifies public access as a critical topic in characterizing human use and management in the Narragansett Bay region.

A public access indicator should address not only the number of access points or spaces, but also the quality and accessibility of those points and spaces. Metrics should measure travel time to access points and assess the quality of those destinations. Quality refers to not only water and habitat quality (can folks swim or boat there? Is it clean and free of litter?) but also impaired-mobility access and other features that allow people to visit (such as wheelchair ramps to key areas, bathrooms, picnic areas).

How many public access points/spaces are in the region?

NBEP anticipates creating a data base of parks, saltwater beaches, freshwater beaches, shoreline, and river access points. Next, we will define "point" either by the entry to the access area (such as a right-of-way to the shoreline), or by the entire access area (such as a park). We will also identify the management agency organization responsible for maintaining the public access space.

Potential data sources include:

- [RI CRMC Rights-of-Way and Public Access](#)
- The [Trust for Public Land \(TPL\) ParkServe](#) reports access data by city (e.g., how many parks in a city).
- [RI DEM Outdoor Recreation Map](#)
- [Public Access to the Waters of Massachusetts](#)
- [MA DCR Inland Beaches](#)
- [CT Coastal Access Guide](#)

How long does it take for visitors to travel to public access spaces?

Use of a public access point or space means that it must be reachable by walking, car, or bus. Answering this question will help NBEP understand who can reach public access points, and may highlight areas that could benefit from more public access points based on transit hubs and population size.

Potential data sources include:

- The [National Recreation and Park Association](#) provides performance reviews for regional parks and recreation agencies (e.g., number of residents per park).
- The [Trust for Public Land \(TPL\) ParkServe](#) reports access data by city (e.g., percentage of residents within a 10 min walk of a park).
- [RI DEM Outdoor Recreation Map](#) and [RIGIS](#)
- [MassGIS](#)
- [CT DEEP Land Conservation and Outdoor Recreation](#)
- [RIGIS RIPTA Bus Routes](#)
- [MassGIS MBTA Bus Routes and Stops](#)
- [MassGIS MBTA Rapid Transit](#)

What is the quality of the public access space?

Many factors may restrict the accessibility of a public access space for some or all groups:

- Restrictions on accessibility to the spaces, such as lack of disabled parking spaces, lack of regularly open restrooms, lack of paths/boardwalks.
- Location in or near impaired waters.
- Lack of amenities (picnic areas, restrooms, playgrounds, etc.)
- The total land area available for recreation.

Potential data sources include:

- RI and MA's Impaired Waters lists
- EPA's Toxic Release Inventory
- MA and RI monitored beach closure events list (where do beach closures occur most often?)
- Public opinion survey answering these questions:
 - Do you access nature near your home?
 - If so, where?
 - How do you get there?
 - What do you do there?
 - Are there nature access spots near your home that you don't go? Why?

NBEP does not anticipate being able to conduct a survey during the first iteration of this indicator but will work to do so if survey data would add useful nuance to publicly available data about access quality and accessibility.

What are the user demographics of the public access points and spaces?

In 2021, EPA and NBEP conducted a [study](#) using cell phone data to analyze watershed coastline users. This study showed that many coastline visitors were local to the region and New England. NBEP could leverage this work to include more access points and spaces beyond the coastline. NBEP would need to use the dataset already purchased for the EPA study, or purchase new data to highlight the public access points and spaces in the database created for this indicator. These data could tell us the popularity of places with locals and tourists. By knowing the origin of the visitors, maintenance and upkeep can be better directed to the proper agency. For example, if a site is popular with locals, can the local government or a community group spearhead the necessary maintenance? If popular with tourists, can the tourism council or the state government absorb some of the capacity and costs for maintenance? Answering these questions would be a longer-term project.

To develop a public access indicator, NBEP will first create a database of public access points and spaces. Then we will look at travel times to those spaces by walking, car, or bus. We can start to assess quality of the spaces through linking this database with other indicators, such as Water Quality for Recreation (the Impaired Waters List) and Marine Beach Closures. We anticipate that we will add more quality metrics and better understand access point visitor demographics in future iterations of the public access indicator.

RESILIENT MUNICIPALITIES

Resiliency is the ability to respond to or recover from a crisis or disruption. Regional municipalities and communities must be resilient to environmental changes, whether major hurricanes or increasing sea levels due to climate change. While state and federal governments can support local communities and municipalities during a crisis, the responsibility of day-to-day action resides with local communities or municipalities. NBEP feels it is important to understand and track local community and municipality are preparedness and resiliency.

In creating this indicator, NBEP intends to help communities meet the challenges of climate change by encouraging and facilitating the creation and implementation of resiliency plans.

Has the community or municipality participated in regional or state programs to improve resiliency?

This fundamental question enables NBEP and its partners to understand which communities have taken advantage of programs such as RI's Municipal Resilience Program (MRP), MA's Municipal Vulnerability Preparedness (MVP) Program, Connecticut Institute for Climate Adaptation (CIRCA), Sustainable CT, Sea Grant Extension programs, the Southeast New England Program (SNEP) Network, or others. For communities who haven't participated, further investigation/discussion could reveal the barriers preventing participation.

Does the community or municipality have a resilience plan and/or resiliency manager?

Some areas may not participate in resiliency-focused planning programs because they have already planned on their own and have the capacity to manage their plans. NBEP expects that a resilience plan may have other names such as a comprehensive management plan, an open-space plan, a hazard plan, or a stormwater plan. Each plan should include recommendations from related statewide plans, mechanisms for funding and implementation, and actions to protect priority habitats. The addition of a Resiliency Manager (or similar position) provides the community with a point-person to implement the resiliency plans and participate in or lead future planning needs.

How is the community or municipality implementing their resilience plan (if they have one)?

NBEP has identified several imperfect metrics to address this question. NBEP could track funding received to implement projects or the number of projects that have been completed. NBEP could also track ordinances that address buffers or setbacks for priority habitats which are more conservative than state laws. Finally, NBEP could identify public involvement in developing/implementing the plans by counting the number of public meetings, or resident or household participation in the plan (if applicable).

To develop a resilient municipalities indicator, NBEP will choose appropriate metrics, then create a checklist or matrix based on those metrics. NBEP will strive to fill in the matrix for each of the 113 municipalities in the watershed. This will show us the information readily available, and highlight communities that will need more in-depth outreach.

PUBLIC HEALTH

A healthy public is tied to a healthy environment. As NBEP developed its social science indicators, we discussed what public health indicators reflected environmental issues. Climate change is a key issue for the region, and understanding how increasing temperatures and increased flooding will impact the people who live and work in the region is important. A public health indicator should address issues that the region

could tackle – reducing urban heat islands through increasing urban green spaces and reducing flooding risk through addition of green infrastructure practices or maintenance/improvement of existing infrastructure.

Where are the heat islands in the region?

Heat islands are a measure of the extent to which urban areas re-emit solar energy more than natural landscapes and outlying areas with fewer structures and more greenery. NBEP would identify heat islands throughout the study areas, with a potential focus on hot spots which assess the differences in air temperatures among different locations within cities.

Potential data sources include:

- [NASA's Moderate Resolution Imaging Spectroradiometer \(MODIS\)](#) measures surface temperature by seven solar and three thermal spectral bands when there are clear skies. Each pixel has a 1km resolution.
- [NOAA's Advanced Very High Resolution Radiometer \(AVHRR\)](#) determines surface temperature. The ground resolution is about 1.1 km.
- [Landsat Thematic Mapper and Enhanced Thematic Mapper Plus](#) provide thermal infrared imagery and data that can be used to calculate surface temperature and urban heat island. The Landsat Thematic Mapper was active from 1982-2012 on a 16-day repeat cycle. The Enhanced Thematic Mapper has collected images since 1999 on a 16-day repeat cycle.
- [NOAA Centers for Environmental Information](#) provides daily maximum and minimum temperatures.
- The [National Weather Service stations](#) can provide local weather statistics for temperature.
- The [NCEP/NCAR Reanalysis Project](#) (National Center for Environmental Prediction/National Center for Atmospheric Research) uses an analysis/forecast system to perform data assimilation using past data from 1948 to the present. The data set provides 4-times daily, daily, and monthly values for surface and air temperature.

Heat island data sets could be added to [iTree](#) or similar dataset to explore how trees can decrease heat island impacts. The [Trust for Public Land](#) can provide locations of parks and green space within urban areas.

What is the flood risk for neighborhoods in our region?

Flooding is a critical infrastructure issue for our study areas. Higher flood totals and more frequent flooding can overwhelm stormwater sewers, basins, and flood basements of residences and businesses. Low-lying areas in our region are heavily impacted by flooding from rivers and storm surges. Climate change will continue to bring increased nuisance flooding during high tides, increased sea level, and more frequent storms. These will continue to tax stormwater infrastructure.

To understand how flooding impacts our region, NBEP has explored using flood risk using a model by [First Street](#). First Street works with insurance companies to understand risk and insuring properties. The model was created by a team of over 80 experts to analyze flood hazards, projects future climate scenarios, incorporates local adaptation, and validates against satellite and government records. It incorporates flooding from tides, rain, rivers, and storm surges.

For the public health indicator, NBEP would create a comprehensive database of heat islands and flood risks for the study areas. This indicator can be paired with the public access indicator to highlight areas that could be developed as green space for heat island and flood risk mitigation. Additionally, this indicator could be paired with NBEP's [Environmental Justice Tool](#) highlighting critical infrastructure needs in frontline communities.

WATERSHED ECONOMY

A vibrant economy is deeply connected to a functional environment supportive of many uses and habitats. People live in and visit the region to enjoy the water, scenery, forests, and natural resources. They support the economy through retail and restaurant purchases, purchasing fishing licenses, visiting the beach, etc. which all increase the amount of revenue to the region and support jobs for residents. This indicator would highlight how improving the environment as tracked by the natural science indicators impacts the regional economy.

What economic sectors are the most important to the watershed economy?

In 2019, the University of Rhode Island led an [effort](#) to explore the economy of the Narragansett Bay Watershed in several categories – tourism, beach use, maritime trade, and aquaculture. These categories reflect the connection between a healthy watershed ecosystem and the economy. This report identified 13 key sectors:

- Agriculture
- Aquaculture and shellfishing
- Beach use
- Commercial fishing
- The defense industry
- Forestry
- Hunting
- Ports, transportation, and maritime trade
- Recreational boating
- Recreational fishing
- Research and education
- Tourism
- Wildlife viewing

NBEP proposes to focus on employment and revenue in the watershed supported by natural resources, tourism, or other categories which are directly related to the work on

NBEP and its partners. We plan on using the same or similar sources of information referenced in the original report:

- [NOAA National Ocean Watch](#) reports commercial fish landings
- [Headwaters Economics](#) provides an economic overview of the region
- [Bureau of Labor and Statistics](#) reports employment and wages
- [Bureau of Economic Analysis](#) reports GDP for states and regions
- [National Ocean Economics Program](#) reports economic information on coastal regions

How can we track how much money is invested in restoration, protection, and preservation of the watershed?

NBEP is required to provide EPA with the amount of money leveraged for restoration, protection, and preservation of the watershed. Every August, NBEP staff reach out to partners to find out what they have completed in the previous fiscal year, and relays that information to the EPA through its National Estuary Program Online Reporting Tool (NEPORT). NBEP can produce a yearly snapshot of money invested for watershed protection by our partners through this tool. The list of partners can potentially include:

- Narragansett Bay NERR
- Save The Bay
- Local municipalities
- Southeast New England Program (SNEP) grantees
- RI Coastal Resources Management Council
- MA Division of Ecological Restoration

NEPORT can be combined with our environmental justice tool to illustrate where money is being spent, assess how much of it supports environmental justice communities, and identify gaps in capacity and project development. This will dovetail nicely with EPA's directives to National Estuary Programs to spend money on projects (development to implementation) in environmental justice areas, and will highlight progress made in preserving, protecting, and restoring the watershed.

RECOMMENDATIONS, TIMELINE, AND FUTURE WORK

Recommendations

Table 1 shows NBEP poised to lead on Public Access and Public Health immediately. NBEP recommends beginning with these two indicators. NBEP proposes to create websites for each indicator. This will mirror our upcoming strategic plan, Vision 2032, and move us towards more interactive applications. Each website will contain a framework that will be common for all the indicators (including existing indicators) and include background information, methodology, results, and a discussion putting those results in context.

Timeline

This plan for developing social science indicators was vetted by the staff of NBEP and the members of the Social Science Working Group. NBEP will continue to develop these indicators into full reports. During the drafting process, those reports will be reviewed by the Social Science Working Group and NBEP's Science Advisory Committee and should be published mid-2023 (Figure 3). The four social science indicators will be incorporated into NBEP's upcoming status and trends report (tentatively titled the State of the Narragansett Bay Region), with an anticipated publishing date of mid-late 2024.

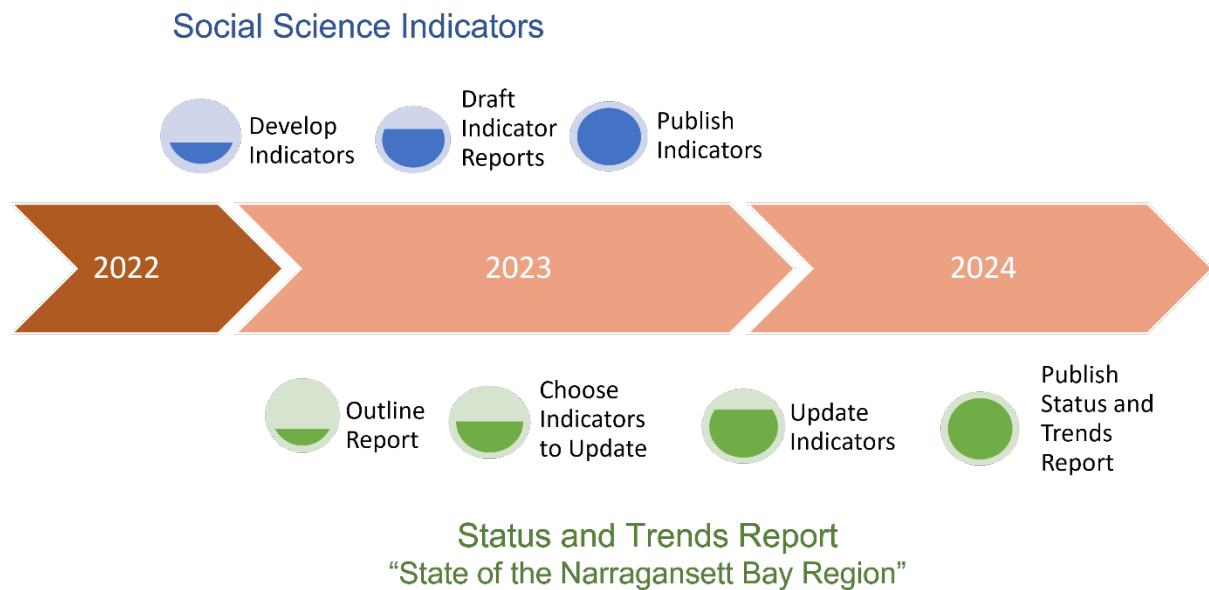


Figure 4. Timeline to develop and publish these Social Science Indicators along with the projected timeline of the status and trends report.

Future Work

This document produced a framework to build objective, quantifiable, and relevant social science indicators for the Narragansett Bay Region. Table 1 is the first version of these indicators and must be advanced if we are to accurately measure the social benefit of these indicators.

One way to describe this framework is [Benefit Relevant Indicators](#), which link ecological indicators and ecosystem service metrics to ecological and social outcomes (Olander et al. 2018). Olander and colleagues (2018) described this process as a causal change where an action is measured by the change in ecosystem, then how the change in ecosystem service (described as the combination of ecological and social data), and then the change in social value (described as a benefits assessment of value or preference) (Figure 5).

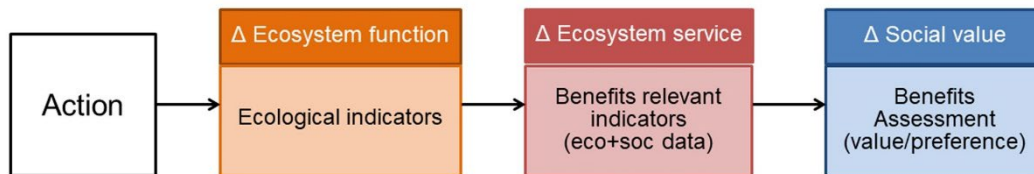


Figure 5. From Olander et al. (2018), an ecosystem service causal chain shows how an action, stressor, policy, or project moves through an ecosystem to affect benefits to people.

The causal chain links the biophysical indicators we are already tracking to their social benefit we would like to track. This document, particularly Table 1, is a first iteration of this linkage, where we start to describe the social benefits that are important to NBEP's mission and vision, and how to best track and understand them. The social science are independent descriptors of how resources are used and the change in use over time. Eventually, the social science indicators can be linked to biophysical indicators using this causal change, thereby completing the Benefit Relevant Indicators framework.

Figure 6 highlights a couple of pertinent examples for benefit relevant indicators linking our biophysical data to the social benefit information we'd like to understand about the region. These examples focus on key issues in the region – wetlands restoration and flooding mitigation – which highlight how management actions can impact the ecological indicators we measure, ecosystem services offered by those regions, and finally, how the benefit to society changes with those actions.

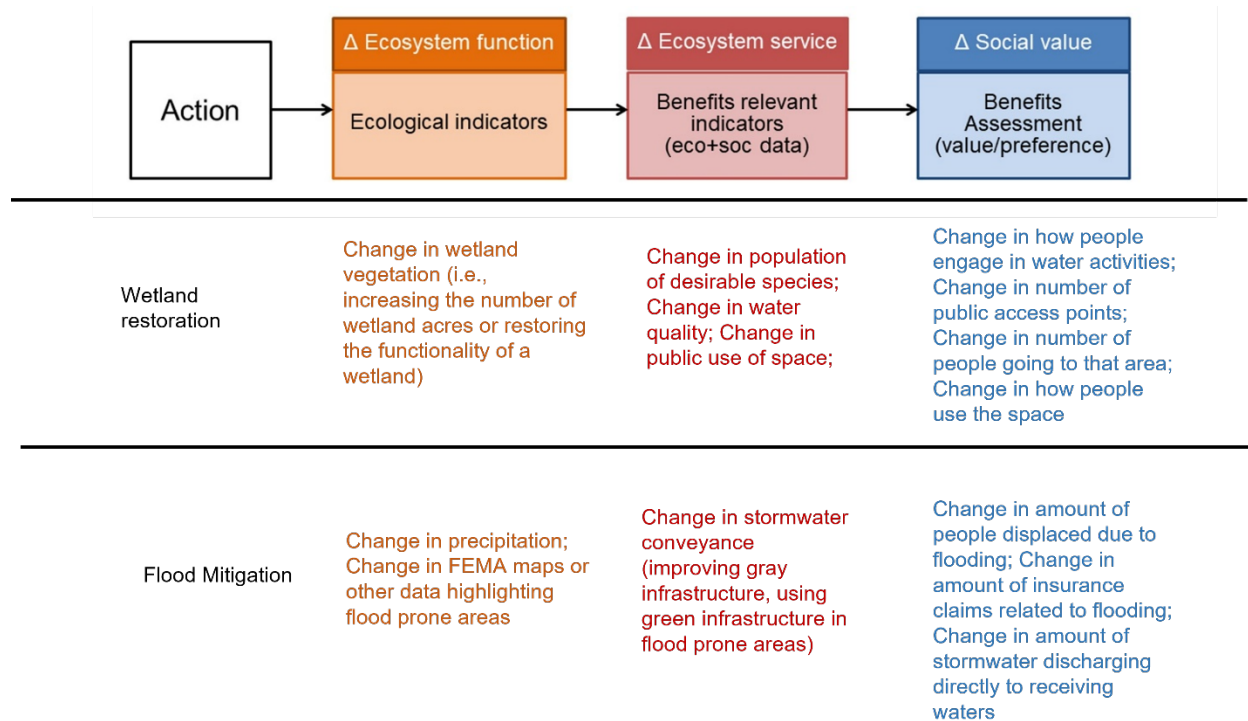


Figure 6. Examples of using the causal chain created by Olander et al. (2018) to create benefit relevant indicators.

NBEP will begin to develop the indicators listed in Table 1. As stated above, NBEP is poised to act on Public Access, Resilient Municipalities, and Public Health. We will develop the databases needed and share them widely when ready. Additionally, NBEP wants to continue to develop indicators which assess the benefits of natural resources. Figure 6 shares a roadmap for NBEP to follow into the future with the assistance of the Social Science Working Group and the NBEP Science Advisory Committee.

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