A bi-state and interdisciplinary approach to develop environmental quality indicators by means of partnerships

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Narragansett Bay Estuary Program – NEIWPCC
Narragansett Bay and its Watershed

Watershed
1,705 sq. mi
60% in MA
105 cities and towns
(71 MA, 34 RI)

Bay
196 sq. mi
560 mi shoreline
The Story and Timeline

2014

Approach

3 new full-time staff

No Data

New restructured program

2015 - 2016

Engagement & Development

24 indicators

2017

Outputs and Outcomes

✓ State of the Bay and Watershed Report

✓ New Data

✓ Strong Partnerships

✓ Technical Committees
Challenge 1: Bi-State Bay and Watershed

- NBEP
- MA/RI Partners
- Regional & National Partners
- Local & Academic Partners
- Partnership

> 50 partners in total
The + 50 Partners

Federal & Interstate Agencies

Nonprofit Agencies

Geosyntec consultants

Massachusetts State & Local Agencies

Rhode Island State & Local Agencies

Academic Institutions

Boston University

Drexel University

Clark University

Brown University

Roger Williams University

The University of Rhode Island

Environmental Data Center

CDM Smith

The Nature Conservancy

Mass Audubon

Academy of Natural Sciences

Massachusetts Department of Environmental Protection

Rhode Island Department of Environmental Management

Narragansett Bay Estuary Program
Challenge 2: Participation

- Identify ✓
- Share ✓
- Streamline ✓
- Validate ✓
- Feedback ✓

Inclusiveness

Data

Time

Enthusiasm

Bi-State Partners & NBEP

Funding

Energy

Methods

Ownership

Ideas

Drafts & Final
Challenge 3: Developing Indicators

- Data Sharing & Standardization
- Data Analysis & Synthesis

Bay and Watershed Scale
- Small to Large Scales

24 Indicators
- Status and Trends

- Representation of Results
- Data Interpretation
Population

Partners:
EPA & University of Rhode Island

1.95 million people (2010)

8% 1990-2010

promoting

Sprawl: 1-4 acres of land use per resident in the watershed
Wastewater

Partners: MassDEP, RIDEM, EPA

Sewered Areas

62% population connected

High Density Areas of Onsite Systems

8% population
Open Space

Partners:
UMass Amherst, RIDEM & MA EOEEA

Of 1,705 sq. mi watershed

- 8% is protected high ecological natural lands
- 17% is unprotected
Shellfishing Areas

Partners:
MADMF and RIDEM

Status as of 2015

63% Approved
13% Conditionally Approved
24% Prohibited

Of 196 sq. mi bay

Changes

3,711 acres in 2017

1995-2015
Marine Beaches

Partners:
RIDOH & MADPH

Bay Beaches
(37; 5 in MA)

14 are high concern

23 are low concern

Frequency Monitoring & Beach Closures

More

Less
Direct Outcomes

GIS Bi-State and Interinstitutional

- Committed GIS Expert Group
- Technical Poster
  (*Fall NEARC Awards – Best Overall, Best People’s Choice)
- Further research and analysis

Partners: MassDEP, RIDEM, EPA & CSRA, URI
Southern New England Program: Economic Valuation of Ecosystem Services

Indirect Outcomes

• Outputs from Indicators
• Technical Group
• Engaging other partners
Other Indirect Outcomes: beyond your control

In R.I., EPA keeps scientists from speaking

EPA Abruptly Blocks 3 Agency Scientists From Giving Talks On Climate Change

It's the latest sign of the administration's assault on climate science.

By Alexander C. Kaufman
At the End, the core relationship between NBEP and Partners