



# Massachusetts Bays

NATIONAL ESTUARY PARTNERSHIP

Margherita Pryor  
U.S. Environmental Protection Agency, Region 1  
5 Post Office Square  
Boston MA 02109

July 25, 2022

Dear Margherita:

We are excited to submit Massachusetts Bays National Estuary Partnership (MassBays') first application for funding under the Infrastructure Investment and Jobs Act of 2021 (here referred to as the Bipartisan Infrastructure Law, or BIL), to implement Federal Fiscal Years 2022 and 2023 workplans.

With funding under BIL, the National Estuary Programs have an opportunity to take significant strides in implementation of our CCMPs. MassBays has identified a suite of infrastructure-related activities that will serve to both improve coastal habitats and address environmental injustices in communities across our planning area. This workplan includes specific tasks to be taken up with FFY22 funds, as well as a preview of how we plan to put BIL funds to work in future years. The activities proposed here are in alignment with the NEP BIL Funding Implementation Memorandum from Radhika Fox dated July 26, 2022 and provided to the NEP Directors this afternoon.

MassBays' Management Committee reviewed and approved this application, confirming its alignment with our CCMP. Please do not hesitate to contact us if you have any comments, suggestions, or concerns.

Sincerely,

Pam DiBona  
Executive Director  
Massachusetts Bays National Estuary Partnership  
pamela.dibona@mass.gov  
339-368-0608 (cell)

Juliet Simpson  
Management Committee Chair

cc: Bob Chen, Interim Dean, UMass Boston School for the Environment

**Massachusetts Bays National Estuary Partnership**

**Proposed Workplan**

**Bipartisan Infrastructure Law Federal Fiscal Year 2022 Funding**

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## A. Summary

### Background

MassBays' planning area is large, stretching 1100 coastal miles and including 50 coastal municipalities from the New Hampshire border to Provincetown at the outer end of Cape Cod. Within this area, we have a range of infrastructure and environmental justice-related needs. For example:

- **Building resilient communities.** MassBays has described the diversity encompassed by our planning area in terms of demographics and exposure to toxins, geohydrology, and environmental stressors and resources. Any effort to improve community health and resiliency requires interdisciplinary approaches.
- **Responding to climate change.** The Gulf of Maine will see among the highest increases in sea level rise on Earth over the next decades, and increased frequency and severity of storms has already been observed in our region. While the Commonwealth has invested significant capital monies in programs to assist municipalities to plan for and address the impacts of these changes, some are not able to take full advantage of those resources due to lack of local capacity.
- **Addressing regional issues.** Massachusetts is a home-rule state, and any response to cross-municipal issues – from dam removals to stormwater and wastewater management – requires deliberate coalition-building.

Over the course of the next five years and beyond, MassBays will apply BIL funds to respond to these needs, through planning and implementation of infrastructure improvements with municipalities including EJ communities, habitat restoration alongside community partners, and building monitoring infrastructure that will serve all of these efforts.

The work proposed for the coming year is aligned with five years of planning, public input, and stakeholder reviews that have resulted in a new CCMP framework which incorporates scientifically informed and credible habitat restoration targets, heightened focus on impacts and responses to climate change, and greater inclusiveness and community input to decision-making to genuinely address environmental justice. These new components of the CCMP position MassBays well to seize the once-in-a-generation opportunity offered by the BIL funding. We anticipate being able to achieve both the targets and outcomes more quickly, realizing progress toward our goals under the Clean Water Act to restore and maintain the chemical, physical, and biological integrity of our estuaries, address climate change, and ensure that benefits are distributed fairly to all citizens of MassBays communities.

### Proposed Work and Staffing

To prepare this first workplan under BIL funding, we have worked with partners to identify needs in municipalities containing environmental justice communities as defined by the Commonwealth's Executive Office of Energy and Environmental Affairs. Under this workplan:

- The **Merrimack River Watershed Council** and **Mystic River Watershed Association** will lead local projects in their regions that directly address situations in which local capacity has hindered progress on water management.
- **MassBays' Regional Service Providers** will also invest BIL funds into programming and staffing that will build local capacity to undertake infrastructure improvements.
- **MassBays' Central Staff** will initiate implementation of our region-wide plan for longer-term continuous monitoring, provide direct support to EJ communities seeking assistance with community-initiated water quality and habitat monitoring, and develop a five-year plan for BIL funding implementation aligned with our CCMP according to the funding guidance, especially with regard to empowering EJ and other underserved communities to bring their voices to decision making at multiple levels and in a variety of settings.

## Programmatic outcomes

MassBays' CCMP calls for programs that will deliver on the following three programmatic outcomes:

- **Information about habitat conditions across the Bays is documented, and disseminated via a targeted communications strategy.** State of the Bays reporting is a requirement of §320, and a focus of MassBays' outreach and communication efforts. This overarching reporting is in the context of ongoing outreach to highlight MassBays' and the larger National Estuary Program's contributions to improving conditions over time.
- **A majority of MassBays municipalities implement habitat protection and restoration practices, informed by diverse stakeholders, including underserved communities.** MassBays' RCs provide technical support, conduct outreach to underserved residents, and convene stakeholders across sectors, helping municipal decisionmakers implement restoration and protection efforts that are grounded in scientific research and best practices as well as local expertise and EJ considerations.
- **Measurable progress toward target conditions across the MassBays planning area.** A central aspect of this outcome is utilization of specific target conditions for habitats in the Bays. A means for documenting trends over time is critical to this outcome, and it is thus tied to the State of the Bays reporting outcome above.

## B. Proposed Projects and Activities

MassBays' work over the coming year will implement components of our revised CCMP and contribute to the following Outcomes:

- A. Sustainable NEP
- B. Improved habitat continuity and restored hydrology
- C. Improved water quality
- D. Resilient coastal habitat, including nature-based coastal protection
- E. Restored natural communities
- F. Robust interagency and interdisciplinary collaboration and partnerships
- G. Well-informed, multisector input to decision making which includes underserved communities

Our proposed work with funding under Federal Fiscal Year 2022 is aligned with and driven by the following Goals and Strategies described in the CCMP:

### **Goal 1. MassBays provides new resources to support research and management in the Bays.**

Strategy 1.1 Address data gaps

Strategy 1.2 Support valid (QA/QC) data collection and use

### **Goal 2. MassBays reaches all planning-area municipalities with actionable information about coastal habitats**

Strategy 2.1 Support research to inform policy and actions

Strategy 2.2 Technical support and communications

Strategy 2.3 Increase influence of underserved communities on decision making

**Goal 3. MassBays provides regular and locally informed State of the Bays reporting that reflects the unique characteristics of MassBays assessment units (embayments, rocky shore, barrier beach), to document progress and inform local action and progress toward target conditions.**

Strategy 3.1 Establish target (improved) water quality and habitat conditions tied to desired uses and ecosystem services, and document progress toward those targets

Strategy 3.2 Guide local action for expanded habitat and improved water quality

Our proposed tasks are also closely related to the Clean Water Act Core Programs, which are:

- (1) establishing water quality standards
- (2) identifying polluted waters and developing plans to restore them (total maximum daily loads)
- (3) permitting discharges of pollutants from point sources (National Pollutant Discharge Elimination System permits)
- (4) addressing diffuse, nonpoint sources of pollution
- (5) protecting wetlands
- (6) protecting coastal waters through the National Estuary Program
- (7) protecting Large Aquatic Ecosystems.

The tables of proposed activities below, organized according to MassBays' CCMP Strategies, include the following:

**Title (Region), Budget/LOE:** Activity name and MassBays geographic region in which it will be carried out, and Level of Effort

**Description:** Status (New or Ongoing), project activities and objectives

**CWA Core Program:** Per list (1-7) above

**CCMP Outcome:** Per list (A-G) above

**Partners:** Collaborators not directly funded by MassBays/§320 funds

**Timeline & Deliverables:** Product(s) expected, and the quarter (Q1-Q4) projected for their completion

**Strategy 1.1 Make new data available, especially to address specific gaps in knowledge**

<b>Title (Region), Budget + LOE</b>	<b>Description</b>	<b>CWA core program CCMP outcome</b>	<b>Partners</b>	<b>Timeline &amp; Deliverables</b>
Initiate long-term monitoring for MassBays' region (Central Staff)	<b>New</b> Initiate planning for deployment of sensors to implement continuous water quality monitoring in Salem Sound to track nearshore conditions by gathering continuous data. We will start with T, DO, salinity, possibly pH, precisely to look at these changes which are happening more rapidly and therefore it is important that we capture changes over time, space, tidal cycles etc.	(2) Identifying polluted waters and developing plans to restore them; (6) Protecting coastal waters through the National Estuary Program  (C) Improved water quality	CZM, NERACOOS, USGS	(Q1) Update MassBays monitoring plan to incorporate BIL funding, (Q4) Deploy sensors (buoy) at identified locations, plan for data gathering
Healthy Estuaries Small-Grant Program (Central Staff, All Regions)	<b>New</b> MassBays will solicit proposals a make awards to local partners engaged in monitoring and planning for infrastructure improvements.	(6) Protecting coastal waters through the National Estuary Program  All CCMP outcomes	Grantees to be announced	(Q3) solicit and review grant proposals received, (Q4) Announce awards and develop contracts; provide technical support to grantees as needed

**Strategy 2.1 Support research to inform policy and actions**

<b>Title (Region), Budget + LOE</b>	<b>Description</b>	<b>CWA core program CCMP outcome</b>	<b>Partners</b>	<b>Timeline &amp; Deliverables</b>
Implementation and Monitoring of Dam Removals (South Shore)  250h	<b>Ongoing</b> Work with communities and other partners to assess feasibility and seek funding for removal of dams and other barriers and collect ecological data pre- and post-restoration.	(7) Protecting large aquatic ecosystems  (B) improved habitat continuity and restored hydrology	Sea Run Brook Trout Coalition, Trout Unlimited, DFG, Hanover Mall, NOAA Fisheries, USFWS, DER, Towns of Norwell, Marshfield, Duxbury, Hanover, and Pembroke	(Q4) Report on feasibility assessment undertaken with Hanover and Pembroke to evaluate Luddams Ford Dam removal; annual progress report re: Peterson Pond post-restoration monitoring and feasibility analysis for a fish ladder at Jacob's Pond; list of next steps for Temple Street and Veterans Memorial Park Dams (South River) based on data collection and partner input

**Strategy 2.2 Provide education, training, and technical support; share case studies (successful and not); and support collaboration and cooperation on specific topics**

<b>Title (Region), Budget + LOE</b>	<b>Description</b>	<b>CWA core program CCMP outcome</b>	<b>Partners</b>	<b>Timeline &amp; Deliverables</b>
Supporting municipal and regional actions for resilient coastal habitats and communities (South Shore)  100h	<b>Ongoing</b> Coordinate South Shore Climate Group for joint outreach and education efforts, assist communities in planning MVP projects, and assist Duxbury Beach Reservation and UMB with beach profiling	(6) Protecting coastal waters through the National Estuary Program  (D) Resilient coastal habitat, including nature-based coastal protection	South Shore towns, CZM, MAPC, Duxbury Beach Reservation, UMB	(Q1-Q4) Monthly beach profile data, (Q4) Documentation of MVP community support provided, (Q4) SS Climate Group meeting agendas
Advancing stormwater remediation (South Shore)  25h	<b>Ongoing</b> Provide technical support re: stormwater management, including LID and green infrastructure, for nutrient reduction	(4) Addressing diffuse, nonpoint sources of pollution  (C) Improved water quality	MassDEP, South Shore Towns	(Q1-4) Documentation of outreach in communities related to stormwater management, (Q1-4) List of grant proposal support provided to municipalities and partners

**Strategy 3.2 Guide and assist local action to expand habitat and improve water quality according to targets**

<b>Title (Region), Budget + LOE</b>	<b>Description</b>	<b>CWA core program CCMP outcome</b>	<b>Partners</b>	<b>Timeline &amp; Deliverables</b>
<p>Advancing stormwater management to improve water quality and address flooding in the City of Malden (Mystic River Watershed Association)</p> <p>Effort will include two staff members over two years, a total of approximately 700h</p>	<p><b>New</b> Goals include:                      1) Promote the development of a stormwater management program that reduces nutrient runoff and improves anadromous fish habitat;                      2) Contribute to the development of sustainable funding for the stormwater management program; 3) Raise awareness and understanding in municipal government and the general public about nutrient pollution and green infrastructure;                      4) Complete siting and conceptual design of a series of green infrastructure installations;                      5) Implement at a minimum, ten stormwater infiltration trenches in the municipal boundaries to address flooding and water quality problems.</p>	<p>(4) Addressing diffuse, nonpoint sources of pollution</p> <p>(C) Improved water quality</p>	<p>City of Malden (under written agreement)</p>	<p>(Y1/Q1-2) Updated stormwater ordinance to meet MS4 permit standards; (Y1/Q1) GAP analysis that identifies the current state of the stormwater management program in the City and identifies future funding needs; (Y1/Q3-4) Technical analysis providing background on the role that a Stormwater Utility can play in providing sustainable funding to the stormwater program; (Y1/Q2-Y2/Q2) Analysis of opportunities to site green infrastructure; (Y1/Q2-Y2/Q3) ten infiltration trenches installed in strategic locations along the Malden River.</p>
<p>Provide technical assistance for compliance with MS4 permitting and NPS pollution mitigation (Upper North Shore)</p> <p>\$50,000 + 100h</p>	<p><b>Ongoing</b> Review bylaws, regulations, and ordinances, assist communities with implementation of modified ordinances. Identify, procure funding for, and implement projects to mitigate NPS pollution in the Merrimack River and its watershed.</p>	<p>(4) Addressing diffuse, nonpoint sources of pollution</p> <p>(C) Improved water quality</p>	<p>Stormwater Collaborative, MVPC communities and municipal planners, EPA, DEP</p>	<p>(Q1) Model bylaw; (Q4) list of municipalities assisted and the type of assistance provided; (Q4) Inventory of potential NPS mitigation projects and supporting watershed-based plans</p>

**Strategy 3.2, continued**

Title (Region), Budget + LOE	Description	CWA core program CCMP outcome	Partners	Timeline & Deliverables
<p>Develop solutions to flooding and water quality impairments in Merrimack River tributaries (Merrimack River Watershed Council)</p> <p>Effort will include five staff members over three years, expending a collective 83% FTE per year</p>	<p><b>New</b> Goals include: 1) Integrate community input into watershed planning and solutions to flooding and water pollution on the Spicket and Shawsheen Rivers; 2) Complete the watershed planning necessary to prepare municipalities and communities for development and prioritization of specific infrastructure improvements; 3) Facilitate inter-municipal collaboration, data-sharing, and project prioritization; and 4) Deliver the benefits of flood mitigation and pollution remediation to communities, with a prioritized focus on Environmental Justice communities</p>	<p>(4) Addressing diffuse, nonpoint sources of pollution</p> <p>(C) Improved water quality</p>	<p>Cities of Lawrence and Methuen, neighborhood groups, others TBD</p>	<p>This is a three-year project, Year 1 (Y1) will focus on community outreach and monitoring on the Spicket River; Year 2 (Y2) on monitoring in both the Spicket and Shawsheen Rivers and implementation in the Spicket watershed, and Year 3 (Y3) on monitoring in the Shawsheen River, with implementation in the Shawsheen watershed.</p> <p><b>Deliverables</b> include:</p> <ul style="list-style-type: none"> <li>• Lists of key stakeholders and partner agencies that contribute to watershed planning, community engagement and BMP development;</li> <li>• Spicket River and Shawsheen River Sampling and Analysis Plans for amendment to the Merrimack River WQ monitoring QAPP and monitoring results;</li> <li>• Site-specific Watershed-Based Plans according to DEP guidance under CWA S.319; and land-use assessments;</li> <li>• Conceptual Designs for at least three Best Management Practices (BMPs) in each watershed, informed by community input, and which, where appropriate, optimize multi-benefit solutions for water quality and flood resilience;</li> </ul>

				<ul style="list-style-type: none"> <li>• Deliverables produced in the course of project implementation, including summaries of joint meetings across towns, joint funding applications, and trainings and technical assistance provided to municipal staff;</li> <li>• Community engagement materials and outcomes, which may include public workshops, publication of ArcGIS Storymaps, and volunteer opportunities to conduct water sampling, and presentations and outreach materials communicating the benefits of water quality and climate resilience, including how to implement nature-based solutions on their own properties, such as disconnecting a downspout, planting urban trees, and rain gardens.</li> </ul>
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**Strategy 3.2, continued**

<b>Title (Region), Budget + LOE</b>	<b>Description</b>	<b>CWA core program CCMP outcome</b>	<b>Partners</b>	<b>Timeline &amp; Deliverables</b>
Maintaining Adequate Streamflow in First Herring Brook (South Shore) 75h	<b>Ongoing</b> Support the Town of Scituate in the effort to raise their reservoir and provide adequate downstream flow, and promoting public service announcements (PSAs) regarding water conservation.	(7) Protecting large aquatic systems  (B) Improved habitat continuity and restored hydrology	Town of Scituate, DER	(Q2) Report on use of seasonal streamflow management tool; (Q3) Report on previous year’s water levels in First Herring Brook; (Q1-4) Documentation of support provided to the town around permitting and outreach
Support municipal and regional actions that promote climate resilient coastal habitats and communities (Lower North Shore, South Shore)  400h LNS 100h SS	<b>New</b> Work with municipalities and other partners to encourage adaptations to climate change, using nature-based solutions where possible.	(7) Protecting large aquatic ecosystems  (E) Restored natural communities	Lower North Shore and South Shore municipalities, CZM, MAPC, Duxbury Beach Reservation, UMB	<b>LNS:</b> (Q2-4) At least written one case study for inclusion in the MassBays newsletter; (Q2-4) Deliverables from two CZM CR grants to be submitted for FY23-24: <i>Marblehead Municipal Light Department and Adjoining Land and The House of the Seven Gables (Salem) Climate Resilience Assessment and Adaptation</i> . <b>SS:</b> (Q1-4) Monthly beach profile data collected in collaboration with Duxbury Beach Reservation and UMB; (Q4) Documentation of community support provided for MVP applications and project implementation; (Q4) Agendas from meetings of the SS Climate Group
Merrimack River water quality assessment and modeling  \$35,000 + 60h	<b>New</b> Improve and expand predictive modeling of Merrimack River water quality reporting, while assisting communities with mandated public notification of CSO events. Data will be shared via a dashboard to also include all CSO event data for WWTPs along the Massachusetts portion of the Merrimack, and a water quality rating system.	(2) Identifying polluted waters and developing plans to restore them  (C) Improved water quality (G) Well informed, multisector input into decision making which includes underserved communities	MVPC communities and municipal planners, EPA, DEP, MRWC	(Q4) Automated, predictive water quality dashboard for the Merrimack River from Lowell WWTP to Newburyport

## C. Budget

MassBays is requesting reimbursement of pre-award costs, up to 90 days, for the work included in this plan.

### Narrative

These notes refer to **Table 1, MassBays National Estuary Program Proposed BIL Budget, FFY2022.**

*Assumptions* – BIL funding allocation to MassBays will be \$909,800 for FFY22, and the same amount in FFY23.

### Proposed Spending

*Salaries* for three staff: Executive Director (0.18FTE), and Staff Scientist (0.35FTE), and Coastal Data Scientist (0.06FTE). The majority of the Coastal Data Scientist's salary, fringe, and indirect costs are covered by a NOAA Project of Special Merit Grant and an EPA Exchange Network Grant.

*Fringe benefits:* Fringe benefits are negotiated annually between the Commonwealth of MA, UMB and the Department of Health and Human Services (DHHS). Fringe benefits are costs associated with employee related expenses including health plan, pension plan, and workman's compensation expenses among others. UMB has four fringe rates in accordance with the University's FY2022 Fringe Benefits and Payroll Tax Rates memorandum and NICRA.

Rate #1 General Fringe, 37.46%

Rate #2 Health and Welfare, \$33 Bi-weekly/FTE

Rate #3 Payroll Tax, 1.97%

Rate #4 Worker's Compensation Insurance, 0.26%

These rates are applied based on the personnel appointment type, benefitted/non-benefitted status, period of service and salary rates. In this case the appointment, benefits status, period of service and applicable rates are as follows:

Personnel	Appointment	Period of service	Applicable Rates
PI Pam DiBona	Professional Benefitted	Calendar	Rates 1, 2, 3, 4
Senior Scientist Prasde Vella	Professional Benefitted	Calendar	Rates 1, 2, 3, 4
Data Scientist Jill Carr	Professional Benefitted	Calendar	Rates 1, 2, 3, 4

### Equipment

- Monitoring Plan implementation. MassBays will purchase a YSI multiparameter sonde for field deployment to evaluate alternative locations for future long-term monitoring efforts to track nearshore conditions on a continuous, real-time basis. With this information in hand we will seek funding in subsequent years under BIL to support expanded monitoring.

### Travel (see Table 2)

We propose new funding of \$6042 for the following:

- Site visits
  - Two round-trips to each of the MyRWA and MRWC project sites. At \$0.585/mile, assuming 71 miles to Lawrence/Methuen and 12.5 miles round trip to Malden.
  - Two round-trips to Salem for monitoring investigations (final location TBD), \$0.585/mile and 40 miles round trip.

- Other Professional Development Conferences
  - Assuming registration fees for conference relevant to BIL activities and planning.

*No Contractual expenses requested.*

*Other Expenses*

- Regional Service Providers. Each RSP will expend \$17,000 on efforts described above; see details in Table 3.
- Healthy Estuaries Grants. \$64,690 will be combined with remaining funds from the FFY21 S.320 cooperative agreement to award small grants to partners implementing our CCMP.
- Salem State University. SSU researchers will collect and analyze sediment cores to inform long-term concerns about eelgrass loss in Duxbury-Kingston-Plymouth Bays. A detailed budget is included in Table 3.
- Mystic River Watershed Association. MyRWA will receive \$260,000 for the two-year project described above. A detailed budget is provided in Table 3.
- Merrimack River Watershed Council. MRWC will also receive \$260,000, for the three-year project described above. A detailed budget is provided in Table 3.

*Indirect Charges*

The University of Massachusetts Boston has a Facilities and Administrative overhead rate of 52.5%, which is a federally negotiated indirect cost rate agreement between University of Massachusetts Boston and the Department of Health and Human Services effective 10/02/2020. The indirect rate is charged to expenditures relating to direct costs excluding equipment, as well as the first \$25,000 of each subaward. UMass Boston's threshold for equipment is \$5,000.

*Matching Funds*

Matching funds are not required under this cooperative agreement.

**Table 1. Proposed spending, Federal Fiscal Year 2022**

<b>Bipartisan Infrastructure Law Grant Application (FFY22) Massachusetts Bays National Estuary Program Proposed Expenditures</b>	
<b>Salaries</b>	
<b>subtotal, salaries</b>	<b>\$ 64,906</b>
<b>Fringe benefits</b>	
<b>subtotal, fringe</b>	<b>\$ 26,274</b>
<b>total, salaries + fringe</b>	<b>\$ 91,180</b>
<b>Travel</b>	
<i>(see Table 2)</i>	\$ 314
<b>subtotal, travel</b>	<b>\$ 314</b>
<b>Equipment</b>	
monitoring plan implementation	\$ 20,000
<b>subtotal, equipment</b>	<b>\$ 20,000</b>
<b>Other</b>	
Regional Service Providers	\$ 85,000
Healthy Estuaries Grants	\$ 64,690
Salem State University, sediment analysis DKP	\$ 13,000
Mystic River Watershed Association	\$ 260,000
Merrimack River Watershed Council	\$ 260,000
<b>subtotal, other</b>	<b>\$ 682,690</b>
<b>Total Direct</b>	<b>\$ 794,541</b>
<b>Indirect</b>	
52.5% (salaries + fringe, travel, contracts, HE grants, supplies)	\$ 82,184
52.5% (SSU; MyRWA, MRWC first \$25K)	\$ 33,075
<b>subtotal, indirect</b>	<b>\$ 115,259</b>
<b>Total Request, FFY22</b>	<b>\$ 909,800</b>

**Table 2. Travel expense details**

<b>destination (# travelers)</b>	<b>ground transportation</b>	<b>Regional meeting registrations</b>
project implementation site visits (1 car @ \$0.575/mi x 2 trips)		<b>\$ 170</b>
Lawrence/Methuen	\$ 83	
Malden	\$ 15	
Salem	\$ 46	
<b>subtotals</b>	<b>\$ 144</b>	<b>\$ 170</b>
<b>Total travel requested</b>		<b>\$ 314</b>

**Table 3. Subaward budget details**

<b>Merrimack Valley Planning Commission</b>		
<b>Line Item</b>	<b>Total Requested</b>	<b>Detail/Justification</b>
Salaries	\$7,054	200 hours Regional Coordinator, no fringe charged
Indirect	\$9,946	141% on Salaries
<b>Total</b>	<b>\$17,000</b>	

<b>Salem Sound Coastwatch</b>		
<b>Line Item</b>	<b>Total Requested</b>	<b>Detail/Justification</b>
Salaries	\$17,000	416 hours new hire, no fringe incurred
Indirect		none requested
<b>Total</b>	<b>\$17,000</b>	

<b>North and South Rivers Watershed Association</b>		
<b>Line Item</b>	<b>Total Requested</b>	<b>Detail/Justification</b>
Salaries & Fringe	\$17,000	300 hours Regional Coordinator, 11% fringe
Indirect		none requested
<b>Total</b>	<b>\$17,000</b>	

<b>Association to Preserve Cape Cod</b>		
<b>Line Item</b>	<b>Total Requested</b>	<b>Detail/Justification</b>
Salaries & Fringe	\$17,000	200 hours Regional Coordinator, 22% fringe
Indirect		none requested
<b>Total</b>	<b>\$17,000</b>	

<b>Northeastern University Marine Science Center</b>		
<b>Line Item</b>	<b>Total Requested</b>	<b>Detail/Justification</b>
Salaries & Fringe	\$17,000	607 hours technician, 25.5% fringe
Indirect		none requested
<b>Total</b>	<b>\$17,000</b>	

<b>Salem State University</b>		
<b>Line item</b>	<b>Total Requested</b>	<b>Detail/Justification</b>
Salaries & Fringe	\$3,980	160h PI and lab technician, 1.89% fringe
Direct Costs	\$8,178	4d field costs @ \$500/d, 109 isotope analyses @ \$11/sample, 6 chronology radiocarbon dates @ \$239/sample, 20 chronology Cesium-137 @ \$125.25/sample, sediment coring pipes and other sampling supplies @ \$1040.34
Indirect	\$842	6.9% on direct costs
<b>Total</b>	<b>\$13,000</b>	

<b>Merrimack River Watershed Council (3-year budget)</b>		
<b>Line item</b>	<b>Total Requested</b>	<b>Detail/Justification</b>
Salaries	\$168,614	no fringe requested
Travel	\$4,386	200 sampling days * 38 miles @\$0.575/mile
Contractual	\$25,000	engineering consultant
Other Direct Costs	\$10,000	1400 samples per parameter, sampling supplies to include E.coli sampling and analysis (15 bottles @ \$106.75, 3 packs Colilert trays @ \$1527, 1 QC kit @ 207.08), Total Phosphorous sampling bottles (7 @ \$131.25) and sample preservative (38 @ \$32.30), pH supplies (1 calibration standard @ \$63.50, 2 boxes pH strips @50.76), Sensors (2 pH sensors @ \$322.35, 2 replacement Hach Pro sensors @ \$150.08, 4 conductivity standards @ \$43.40), and deionized water (5 bottles @ \$20)
indirect costs	\$52,000	25% approved NICRA
<b>Total</b>	<b>\$260,000</b>	

<b>Mystic River Watershed Association (2-year budget)</b>		
<b>Line item</b>	<b>Total Requested</b>	<b>Detail/Justification</b>
Salaries	\$3,476	714h Ecological Resilience Manager, Watershed Scientist, 15.82% fringe
Travel	\$750	federal mileage rates for travel to and within Malden
Contractual	\$197,504	Subcontracts, including consultants and contract staff with expertise in stormwater management design and planning
Other Direct Costs	\$1,000	Participant Support Costs and meeting supplies
indirect costs	\$26,000	25% approved NICRA
<b>Total</b>	<b>\$260,000</b>	