



**MUNICIPAL ALLIANCE FOR ADAPTIVE MANAGEMENT  
MEMBERS MEETING  
DRAFT MINUTES**

Meeting Type: **Regular Meeting**  
 Meeting Location: **City of Dover, City Hall, First Floor Conference Room**  
 Remote Location: [https://us06web.zoom.us/meeting/register/tZEqcuqvrT8jHN1coDqzAYvyq6Xwmfa-62RE](https://us06web.zoom.us/join/https://us06web.zoom.us/meeting/register/tZEqcuqvrT8jHN1coDqzAYvyq6Xwmfa-62RE)  
 Meeting Date: **December 2, 2021**  
 Meeting Time: **2:00 p.m.**

**1. CALL TO ORDER**

The Meeting was called to Order at 2:00 p.m. with a quorum of the members present.

Present:

**Members:**

Town/City	Representative	In person
Dover	Gretchen Young (GY) Environmental Projects Manager	Yes
Portsmouth	Suzanne Woodland (SW) Deputy City Attorney	Yes
Rochester	Katie Ambrose (KA) Deputy City Manager	Yes
Exeter	Jennifer Perry (JP) Public Works Director	Yes
Newington	Denis Messier (DM) Plant Operator	Yes

**Town of Milton and Rollinsford representatives unable to attend.**

**Non-Members Participating Remotely via Zoom:**

Kalle Matso, PREP  
 Jamie Houle, UNHSWC  
 Sally Soule, NHDES  
 Hannah Coon  
 Others were present as audience but did not participate.

**In person:**

Melissa Pally (MP), CLF Waterkeeper  
 Terry Desmarais, Portsmouth City Engineer

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**2. APPROVAL OF MINUTES OF SEPTEMBER 9, 2021 MEETING**

**Motion:** Motion by SW to accept Members Meeting Minutes. Seconded by KA. Unanimously approved.

**3. REVIEW OF EXECUTIVE COMMITTEE ANNUAL CONTRIBUTION RECOMMENDATION**

GY reviewed information presented and discussed the Executive Committee meeting.

Approval for website development cost estimate of \$6,405.00.

Approval for Brown and Caldwell agreement in the amount of \$50,000 for the calendar year

Approval for PTAP Medium level of service in the amount of \$50,000.

Approval for PREP Priority Group 1 in the amount of \$234,100.

Approval for PREP Priority Group 2 Mussel Watch in the amount of \$7,300.

Approval for PREP Priority Group 2 Tier 1 Seagrass Monitoring in the amount of \$75,000.

Design flow based cost allocation for each facility:

Rochester - \$120,835.75

Portsmouth - \$176,088.68

Dover - \$112,908.15

Newington \$6,966.67

Rollinsford \$3,603.45

Milton \$2,402.30

**4. STAKEHOLDER COMMENT**

MP stated that the stakeholder committee supports the earnest and ambitious effort this year. She asked if other communities were going to also participate in the work, particularly the monitoring activities. GY stated that other communities are welcome to join in work with MAAM. Kalle Matso from PREP stated that he is reaching out to other regulated communities in the hopes of involving them this year. Some communities are participating to varying degrees.

**5. PUBLIC COMMENT**

No comments from public attendees.

**6. VOTE ON FINAL RECOMMENDED ANNUAL CONTRIBUTION FOR CY22**

**Motion:** Motion by SW to accept recommendations of the Executive Committee for funding MAAM work in 2022. Seconded by DM. Unanimously approved.

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**7. OTHER BUSINESS**

**8. SCHEDULE NEXT MEETING AND AGENDA ITEMS (6-MONTH REVIEW OF AMP)**

GY noted that the January meeting will be a real workgroup meeting to review where we are. DM said he will give an update on nitrogen removal work being done on non-point sources in the town, similar to the updates Rochester, Dover and Portsmouth gave in September.

Meeting Date and location to be determined.

**9. ADJOURN**

**Motion:** DM moved to adjourn. Seconded by SW. Unanimously approved.

Meeting adjourned at 2:20 PM

Prepared by: Gretchen Young, Environmental Projects Manager, City of Dover



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# Technical Memorandum

Prepared for: Municipal Alliance for Adaptive Management

Project Title: PREP Engagement

Project No.: 156320

## **Technical Memorandum**

Subject: Funding Priorities for 2022 Great Bay Estuary Monitoring

Date: October 22, 2021

To: Gretchen Young, P.E., Environmental Projects Manager

From: Stacy Villanueva, Principal Scientist  
Dan Hammond, Supervising Scientist  
Clifton Bell, Managing Engineer

## Section 1: Introduction

The Municipal Alliance for Adaptive Management (Municipal Alliance) is participating in the optional Adaptive Management Framework set up in the recently promulgated National Pollutant Discharge Elimination System (NPDES) Great Bay Total Nitrogen General Permit for Wastewater Treatment Facilities in New Hampshire (“General Permit”, NHG58A000). As a component of the Adaptive Management approach, the Municipal Alliance is engaging with the other communities subject to the General Permit, the Piscataqua Region Estuaries Partnership (PREP) and the New Hampshire Department of Environmental Services (DES), and other stakeholders on the management and environmental monitoring objectives currently ongoing for the Great Bay Estuary (GBE) and has committed funding to ensure that important data collection and analysis activities can be completed.

Brown and Caldwell (BC), on behalf of the Municipal Alliance, has been engaged with the PREP and other stakeholders over the last several months to identify short- and long-term monitoring needs and priorities to work toward a more comprehensive understanding of the stressors affecting eelgrass in the GBE, their interactions, and potential management approaches. BC has reviewed the details of ongoing and proposed studies, PREP monitoring priorities, and existing funding gaps to make recommendations to the Municipal Alliance for use of its monitoring funds for the next year. This technical memorandum (TM) provides a summary and prioritization of the 2022 monitoring programs that could be funded by the Municipal Alliance.

## Section 2: Basis of Cost Estimates for 2022

In late summer and early fall of 2021, BC and PREP held a series of communications on future monitoring activities. These communications included discussion of scientific information gaps, monitoring approaches, future data evaluation methods, costs, and timing. PREP provided tabulations of funding sources and needs by monitoring activity, and these were refined over the course of the discussions. BC’s prioritization presented in Section 3, below, was based on the latest version of the cost estimates provided by PREP (K. Matso, elec. comm., 14 Oct 2021), which are included as Attachment A. The following are provided to aid in the interpretation of the funding needs tables presented in this TM:

- The 2022 funding needs presented in the main body of this TM are those that are not currently projected to be met by non-Municipal Alliance funding sources such as PREP, NHDES, and NOAA-funding eelgrass stressors project. See Attachment A for estimates of the non-Municipal Alliance funding sources and where they are assumed to be directed.
- PREP’s tabulation of funding sources includes approximately \$83k of funds from municipal sources apart from the Municipal Alliance budget. Of these, approximately \$54k are labeled as “requested” and are not (yet) assumed to be available. If these funds become available, they could presumably be applied to the funding needs presented in this document and thus reduce the funding request from the Municipal Alliance.
- PREP’s estimates included approximately 30 percent contingency, including non-discretionary (~5 percent) and discretionary (~25 percent) contingency. BC’s tabulations include the non-discretionary contingency but do not include the discretionary contingency. Hence, it is possible that the final activity costs will differ somewhat from those presented in this TM, or that the activity scopes will have to be adjusted to stay within these estimates.



## Section 3: Recommendations for 2022 Municipal Alliance Funding

BC recognizes that PREP’s monitoring funding needs for 2022 may exceed the Municipal Alliance’s available funding for the coming year. As such, we have grouped the studies identified by PREP as needing Municipal Alliance funding into three priority tiers based on several criteria, including: overall benefit to the development of the Adaptive Management framework; continuity of data collection; needs of future data analysis or modeling activities; and expansion of existing monitoring activities to generate a more comprehensive data set.

Priority Group 1 contains four ongoing studies that are planned to be repeated annually as part of the base level of monitoring in GBE; funding for engagement of external advisors to review the monitoring program and the upcoming State of the Estuary report; and two planning activities for high priority future studies. Table 1 provides details about Group 1 studies. BC recommends the commitment of Municipal Alliance funds to this group of studies in 2022. These activities include the core water quality and seagrass monitoring that would be critical for basic interpretation of the relations between seagrass, macroalgae, light conditions, and various water quality constituents. They also include progress on a better understanding of the role of turbidity/sediment and storm conditions, to be continued post-2022.

**Table 1. Priority Group 1 Studies for 2022 Municipal Alliance Funding**

Study Name	Cost	Study Description
Tier 2 Seagrass Monitoring	\$46,000	Continuation of work that started in 2021 and will continue annually during summer. Study includes characterization of seagrass density and morphology, macroalgal abundance and type, and sediment characteristics.
Tier 2 Seagrass Supplement	\$7,000	Additional characterization of macroalgal abundance in spring and autumn at a subset of the Tier 2 monitoring locations. Provides preliminary data needed to develop future studies of potential stressor linkages between macroalgae and seagrass.
Estuarine Water Quality Monitoring Booster	\$41,000	Expanded temporal and/or spatial scope of ongoing estuarine water quality monitoring program.
Light Array Program	\$29,000	Continuation of work that started in 2020 and will continue annually. Provides high resolution data on the light environment in the estuary.
External Advisors: Monitoring Program Review	\$25,000	Partial funding for engaging external advisors to review and provide guidance on the overall monitoring program. The remainder of the total cost of \$50,000 would be covered by PREP funds.
External Advisors: SOOE Review	\$10,000	Partial funding for engaging external advisors to review and provide guidance on the upcoming State of the Estuary Report. The remainder of the total cost of \$20,000 would be covered by PREP funds.
Turbidity and Sediment Dynamics Synthesis and Recommendations	\$60,000	Work will focus on compiling, reviewing, and synthesizing work done to date related to turbidity and sediment dynamics in GBE. This work is essential for identifying data gaps related to turbidity and sediment stressors on eelgrass and will be used to develop monitoring or modeling recommendations to close data gaps.
Storm Add-On to Eelgrass Stressor Project - Planning	\$5,000	Creation of a workplan to study the impacts of storm events on water quality in GBE. Actual monitoring to be conducted in a future year.
5% Contingency	\$ 11,100	Budget for additional unanticipated costs. Discretionary contingency not included.
<b>Group 1 Total</b>	<b>\$233,100</b>	



*Priority Group 2* contains three studies that will provide valuable data on eelgrass and potential eelgrass stressors but, if not funded by the Municipal Alliance or other contributors, will not disrupt continuity of data collection or significantly delay future high priority future studies. Group 2 also contains one study (*Tier 1 Seagrass Monitoring*) that will be changed from annual to biennial data collection if not funded by the Municipal Alliance in 2022. The details of Group studies are provided in Table 2. BC recommends that the Municipal Alliance fund any Group 2 study that its budget allows.

Table 2. Priority Group 2 Studies for 2022 Municipal Alliance Funding		
Study Name	Cost	Study Description
Mussel Watch	\$7,300	This study will build on the previously conducted NOAA Mussel Watch study and will involve collection and analysis of bivalve tissue as a measure of toxic constituents in the water column. Beginning in 2022, PREP would like to make this data collection effort part of its base annual monitoring program.
Shoreline Hardening Survey	\$15,000	A survey to determine the location and extent of hardened shoreline in GBE. Shoreline hardening impacts hydrodynamics, sediment movement, and water quality, all of which can impact eelgrass health. This study does not need to be conducted annually; PREP recommends a frequency of 5–10 years.
Sediment Toxics Synthesis/Recommendations	\$30,000	Work will focus on compiling, reviewing, and synthesizing work done to date related to toxic sediment constituents in GBE. This work will identify data gaps with respect to the impact of toxic chemical stressors on eelgrass and will be used to develop monitoring or modeling recommendations to close data gaps.
Tier 1 Seagrass Monitoring	\$75,000	Continuation of annual aerial imagery mapping of seagrass in GBE. Beginning in 2022, PREP plans to shift the frequency of this monitoring from annually to every other year and is not planning to conduct this study in 2023. Maintaining annual data collection of seagrass distribution and extent will allow for greater agility in responding to large or unanticipated eelgrass gains or losses.
5% Contingency	\$2,600	Budget for additional unanticipated costs. Discretionary contingency not included.
<b>Group 2 Total</b>	<b>\$54,900</b>	

*Priority Group 3* contains one relatively high-cost study (*Storm Add-On to Eelgrass Stressor Project*) that is in development and has not been previously implemented. Details about this study are provided in Table 3. BC considers this to be a high-priority study and has included the cost of planning for this study as a Group 1 item in 2022 so that the study is ready to be implemented in 2023. BC recommends that the Municipal Alliance fund this study in 2022 if it has additional budget remaining after Group 1 and 2 studies are funded (either by the Municipal Alliance or another source). Alternatively, if the Municipal Alliance has budget available to partially fund this study in 2022, BC recommends working with PREP to determine if preliminary or partial data implementation of this study in 2022 would be possible for a fraction of the total study cost.





**Table 3. Priority Group 3 Studies for 2022 Municipal Alliance Funding**

Study Name	Cost	Study Description
Storm Add-On to Eelgrass Stressor Project - Implementation	\$195,000	Implementation of a study to investigate the impacts of storm events on water quality in GBE. The workplan for this study has not been fully developed yet.
5% Contingency	\$9,700	Budget for additional unanticipated costs. Discretionary contingency not included.
<b>Group 3 Total</b>	<b>\$204,700</b>	

## Section 4: Next Steps

The 2022 monitoring year will be very active for PREP and partners with the monitoring activities identified above and the NOAA-funded *Eelgrass Stressor Project*. BC has previously recommended that the partners develop multi-year monitoring and modeling plans to ensure that future stressor-linkage activities have the necessary data. The 2021 discussions to date have made progress in that regard. Additional progress is expected in 2021–2022 through several related communications forums including: (1) continued dialogue between PREP, BC, and external advisors; (2) the technical advisory committee; and (3) the end-user engagement group that PREP has formed to track progress on the NOAA-funded *Eelgrass Stressor Project*.

Although funding needs for 2023–2025 have not yet been tabulated with the same level of detail as 2022, they are projected to be similar or higher than funding needs for 2022. For example, monitoring during storm conditions could cost approximately \$100k per year for two years, and the *Tier 1 Seagrass Monitoring* (\$75k) is planned to be performed again in 2023. Hence, Priority 1 and 2 funding needs are likely to continue to exceed the Municipal Alliance’s base level of funding (~\$225k). After the Municipal Alliance makes funding decisions for 2022, BC recommends identifying the highest priority non-funded activities and the effect on post-2022 funding needs. This information will inform efforts to either increase future Municipal Alliance funding or secure additional funding from other sources.

## Attachment A: PREP's 2022 Monitoring Cost Estimate Table

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October 14, 2021 version from K. Matso (PREP)



<b>2022 Activities and Costs (Draft)</b>							
	Not all activities, but most activities pertinent to Great Bay Permit. Does not include other contributions such as from GBNERR to WQ						
<b>Activity</b>	<b>Amount</b>	<b>2021 Priority</b>	<b>Most Likely</b>	<b>Analysis</b>		<b>Plan Component</b>	
			<b>Funding Source</b>	<b>Included?</b>	<b>Frequency</b>		
Tier 1 Seagrass Monitoring	\$ -	n/a		No	Every other year	Part A - Monitoring	
Tier 2 Seagrass/Seaweed Monitoring	\$ 46,000	Highest	MAAM	Yes	Annual	Part A - Monitoring	
Tier 2 Spring/Fall Supplement	\$ 7,000	Highest	MAAM	Yes	Annual	Part A - Monitoring	
Tier 3 SeagrassNet	\$ 31,000	Highest	DES	No	Annual	Part A - Monitoring	
Tidal Tributary Water Quality	\$ 13,000	Highest	PREP	No	Annual	Part A - Monitoring	
Nutrient Loading Assessment	\$ 31,000	Highest	PREP, DES	Yes	Every three years	Part A - Monitoring	
Estuarine WQ monitoring	\$ 81,500	Highest	PREP, DES	No	Annual	Part A - Monitoring	
Est WQ booster Cocheco (full), CML grabs only	\$ 41,000	Higher	MAAM	No	Annual	Part A - Monitoring	
Light array Deployment, O&M, QA/QC	\$ 29,000	Highest	MAAM	No	Annual	Part A - Monitoring	
Shellfish Sondes	\$ 40,333	Highest	DES Shellfish	No	Annual	Part A - Monitoring	
Phytoplankton	\$ 1,800	Highest	PREP	No	Annual	Part A - Monitoring	
MusselWatch	\$ 7,300	Higher	MAAM	No	Annual	Part A - Monitoring	
Impervious Cover	\$ 4,000	Highest	PREP	No	Every five years	Part B or C - Source Reduction	
External advisors SOOE Review	\$ 20,000	Highest	PREP/MAAM 50/50	n/a	Every five years	Part D - Scientific Evaluation	
External advisors Monitoring Program Review	\$ 50,000	Higher	PREP/MAAM 50/50	Yes	Once every ~ 10	Parts A, D, and E (TMDL Develop)	
Sediment Toxics Synthesis/Recommendations	\$ 30,000	High	MAAM	Yes	One Time	Parts A, D, and E (TMDL Develop)	
TurbiditySediment Dynamics Synthesis/Recommend	\$ 60,000	Highest	MAAM	Yes	One Time	Parts A, D, and E (TMDL Develop)	
Shoreline Hardening Survey	\$ 15,000	Higher	TBD	Yes	Every 10 years	Part A - Monitoring	
Storm Add-On to NOAA Project (Planning)	\$ 5,000	Higher	MAAM	n/a	One Time	Parts A, D, and E (TMDL Develop)	
Storm Add-On to NOAA Project (Implement)	\$ 195,000	Higher	MAAM	No	One Time	Parts A, D, and E (TMDL Develop)	
Seaweed, Epiphytes and Light	\$ -	High	NOAA Eelgrass Proj	Yes	TBD	Parts A, D, and E (TMDL Develop)	
Seaweed and Nutrient Requirements	TBD	Highest	n/a	n/a	TBD	Parts A, D, and E (TMDL Develop)	
Benthic Health Assessment	TBD	Higher	See "Sediment Toxics" above		TBD	Parts A, D, and E (TMDL Develop)	
Data Management	\$ 15,000	Highest	Durham	n/a	Ongoing	All	
Data Analysis	\$ 15,000	Highest	Durham	n/a	Ongoing	All	
3-Year Eelgrass Stressors Project	\$ 183,000		NOAA	Yes	One Time	Part D - Scientific Evaluation	
Sub-Total	\$ 737,933						
Non-Choice Contingency (5%)	\$ 36,897	Highest	TBD				
Choice Contingency (25%)	\$ 184,483	Highest	TBD				
Total New Costs (including contingencies)	\$ 959,313						
Estimated MAAM Portion (w/o Contingency)	\$ 443,300						
Estimated PREP/DES /Durham Portion	\$ 253,390						
Gap	\$ 262,623						



## EXHIBIT A

### DESCRIPTION OF PROJECT

The Environmental Protection Agency (EPA) issued the *National Pollutant Discharge Elimination System Great Bay Total Nitrogen General Permit for Wastewater Treatment Facilities in New Hampshire*, Permit Number NHG58A000. This NPDES permit includes an Adaptive Management Framework Voluntary Submittal, which will require ambient water quality monitoring, nitrogen pollution tracking and reporting these findings to the EPA. These efforts related to the Adaptive Management Framework will be undertaken by the Municipal Alliance for Adaptive Management (MAAM) in cooperation with the Piscataqua Region Estuaries Partnership (PREP), Piscataqua Region Monitoring Collaborative (PRMC), NHDES, and other stakeholders.

The Project will continue Brown and Caldwell's (BC's) engagement with PREP, MAAM, and others regarding the research and monitoring plan currently being developed for the Great Bay Estuary (GBE). The goal of BC's participation is to help ensure the monitoring and research undertaken by the regional partners effectively supports the adaptive management framework. Related objectives include identifying monitoring and research needed to make linkages between beneficial use and stressors, helping MAAM anticipate and prioritize funding requests, developing monitoring/research plans, and interpreting monitoring results to inform adaptive management activities, and communicating with other stakeholders. BC's tasks specific to the Project include Project Management and Administration, Meeting Participation and Communications, and As-Needed Technical Support. The budget assumes funding will support activities in 2022.

These tasks will be completed by the BC team of Clifton Bell, Dan Hammond, Stacy Villanueva, Kirk Westphal, Mark Allenwood, and Andrew Goldberg. Clifton Bell will serve as the lead scientist and will specifically lead project components that involve communication of technical positions to PREP, regulatory agencies, and other stakeholders. Clifton Bell, Stacy Villanueva, Dan Hammond, and Kirk Westphal will provide technical support on individual tasks, as needed. Andrew Goldberg will serve as the project manager. Mark Allenwood will serve as the Client Service Manager.

EXHIBIT B

SCOPE OF SERVICES

OCTOBER 15, 2021

The following tasks will be performed to engage with the Piscataqua Region Estuaries Partnership (PREP) regarding the research and monitoring plan currently being developed for the Great Bay Estuary (GBE).

#### Task 1 – Project Management and Administration

BC shall perform project management and administration while performing Engineering Services throughout the project. Project management and administration shall include:

- i) Preparation of monthly invoices;
- ii) Preparation of monthly summaries of work;
- iii) Routine project management.

A total of 28 hours is budgeted for Task 1.

#### Task 2 – Meeting participation and communications

BC will participate in meetings with PREP; PRMC working group meetings regarding the research and monitoring; and meetings with MAAM, DES, or other stakeholders. This scope assumes participation in 11 virtual meetings, each up to 2 hours in duration, between January 1 and December 31, 2022. It also assumes that two BC staff will participate in one in-person workshop of 1.5-day duration. This task includes preparation for each meeting, meeting participation, and an email summary of meeting notes and any proposed action items submitted to MAAM within seven working days of the meeting. It includes a budget for brief, routine communications between BC and MAAM.

Task 2 includes a budget of 110 labor hours.

#### Task 3 – As-Needed Technical Support

This task includes as-needed technical support that may arise during our engagement with PREP and their research and monitoring initiative. Examples of activities that could be accomplished under this task include literature reviews, independent data analyses, reviews of PREP/agency documents, development of recommendations for monitoring, and drafting of letters or other communications to advocate technical positions.

In 2021, one of MAAM's chief recommendations to PREP and the PRMC was to move beyond year-to-year monitoring/funding need and developing longer-term plans for monitoring and modeling. Under this task, BC may also contribute to the development of the longer-term monitoring and modeling approaches. BC will work closely with MAAM, PREP, and other technical advisors to identify the section(s) of the monitoring approaches where BC's contributions will be most valuable.

110 labor hours is budgeted for Task 3.

EXHIBIT C  
COMPENSATION

For the work described in Exhibit B, compensation shall be a fee not to exceed of \$50,000.00, including labor and expenses. The table below summarizes the project budget by task.

Task Name	Estimated Labor Hours	Expense Budget	Total Budget
Task 1 - Project Management and Administration	28	-	\$4,000
Task 2 - Meeting participation and communications	110	\$1,200	\$23,800
Task 3 - As-Needed Technical Support	110	-	\$22,200
Total Hours	248	\$1,200	\$50,000

Alan,

Thanks for reaching out to Bowst about our support for the Municipal Alliance for Adaptive Management Microsite. It is always great to work with the City and help contribute to the community.

Based on the information we have, we have outlined our involvement below.

Please take a look and let me know if you have any questions,

Best



## Overview

It is our understanding that the Municipal Alliance is looking to build a 6-7 page, standalone microsite, built in the latest version of Drupal. This site will live on its own domain which the Municipal Alliance will be responsible for owning and managing.

Bowst will be responsible for doing the initial discovery for the project where we will work with the Municipal Alliance on the overall site structure and functional requirements. Once our discovery is complete, we will provide two to three design concepts for the site. Through one to two rounds of feedback, we will work to define the final design for the site.

With the discovery and design complete, we will begin development. Using the latest version of Drupal, we will create a custom theme based on the approved design. We will then build out all the pages and supporting functionality defined in our discovery.

The site will be hosted with Pantheon, under a new account for the Municipal Alliance. Based on the estimated traffic, this can be the smallest hosting option offered by Pantheon.

All development will be done on a development environment where final approval will take place before being made live.

## Assumptions

Below is a list of assumptions:

- The site will be built using the latest version of Drupal
- The site will be hosted with Pantheon
- The Municipal Alliance will be responsible for all content and copy necessary to populate the site
- Bowst will be responsible for loading all the content
- The site will be responsive and work equally well on Desktop and Mobile devices
- Bowst will work with the Municipal Alliance on the deployment of the live
- The site will be secure and served under SSL
- Bowst will assist in the setup of a new domain name, however is not responsible for purchasing it or maintaining it

## Rough Estimate

SECTION 1	
Development	
SUBTOTAL	
	\$6,405.00
Description	Price
Discovery, Project Setup	\$800.00
Theme Development	\$3,000.00
Content Integration, QA, General Project Time	\$2,500.00
Hosting / Monthly	\$45.00
Domain Registration / 5 years	\$60.00
<b>Total</b>	<b>\$6,405.00</b>



# Great Bay Pollution Tracking and Accounting Program

## FUNDING SCENARIOS

### OVERVIEW

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The Great Bay estuary exhibits symptoms of pollution: low dissolved oxygen in tidal rivers, increased macroalgae, and declining eelgrass. Pollution originates from sources spread across the watershed including septic systems, fertilizers, and air pollution. Stormwater runoff from developed areas is a major pollution pathway.

The Great Bay Pollution Tracking and Accounting Program (PTAP) was created in 2015 to provide a cooperative forum for communities to participate in a process to develop and implement a consistent regional pollution tracking and accounting system. Initial outcomes include creation of a regional workgroup, development of an online tracking database, and incorporation of methods to quantify benefits of pollution management activities.

### WHY PTAP?

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Current PTAP goals include continued development of: 1.) the online PTAP database to track activities that affect pollutant loads, and 2.) an accounting system to credit management activities, estimate long term pollutant load reductions, and track watershed trends. PTAP is needed because:

- Communities face regulatory requirements to improve water quality in Great Bay
- Requirements include implementation and tracking of pollution control activities
- Tracking and quantifying implementation is challenging and expensive, particularly if everyone does it differently

Participating communities agree: regional coordination is needed to leverage scarce financial resources and develop a consistent, effective tracking system.

### PTAP BENEFITS

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The PTAP tracking and accounting approach serves as a framework for a nutrient control implementation plan that communities can use toward regulatory compliance. This aspect of the program has multiple benefits.

#### Program Benefits

- **Economic:** Financial resources are leveraged at the regional level so that municipalities do not shoulder costs individually.
- **Regulatory:** A consistent regional accounting system and tracking tool will help meet municipal permit requirements. PTAP participation is consistent with NPDES permit compliance processes.
- **Social:** Regional coordination promotes common understanding of needs and identifies opportunities for collaboration and resource-sharing.
- **Environmental:** Regional pollution management will result in measurable water quality improvement.

### THE CHALLENGE

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Early phases of PTAP were funded through one-time-only grants from state and federal sources. Those funding sources are likely to become unavailable in the future.

Therefore, sustainable funding from local sources must be identified now to provide continued financial support for essential services provided through this comprehensive regional pollutant tracking and accounting program.

**Sustained funding for PTAP would cover four basic functions:**

- **Database Management:** General website hosting and maintenance with minimal database management (GRANIT and UNHSC) including assistance with final reports and tracking outputs.
- **Program Facilitation:** Formation of a governing advisory committee and meeting facilitation.
- **Technical Assistance and Community Outreach:** Assist communities with PTAP data entry, reporting, and communicating results. Ensure source data such as high-resolution impervious cover (IC) data and land-use classification are incorporated into the database.
- **Research and Credit Updates:** Support ongoing research and regional tracking and accounting approaches including the following.
  - Facilitation of expert elicitation processes to update non-structural BMP nutrient reduction credits such as:
    - Street sweeping
    - Catchbasin cleaning
    - Municipal leaf collection programs
    - Ordinances
  - Identification of tracking efficiencies for local BMP credits and regional land use change

**Potential funding scenarios:** Two potential funding approaches have been identified. A funding program for PTAP could employ one method or a combination of methods. The two approaches are described below.

Funding method	Description	Pros/Cons
<b>User fee</b>	Users pay a fee each time a record is created	<b>Pro:</b> less data input burden for towns <b>Con:</b> cumbersome administration
<b>Annual participation fee</b>	Municipalities “subscribe” to PTAP by paying an annual usage fee	<b>Pro:</b> centralized administration <b>Con:</b> will need to identify equitable approach

**Cost scenarios:** Potential level-of-service cost scenarios for PTAP are described below.

Level of Service	Services Provided	Cost per year - baseline
Basic	Website hosting, minimal database management, limited technical assistance for communities/users	\$20,000
Medium	Includes basic services plus facilitation of workgroup meetings, enhanced technical assistance for users, and GIS data updates	\$50,000
Full	Includes all services plus facilitation of expert panels to develop enhanced credits for non-structural BMPs	\$170,000

**NEXT STEPS AND TIMELINE**

**Short Term – a commitment:** The existing PTAP workgroup must decide whether to implement a sustainable funding approach. To help meet this commitment, a PTAP workgroup meeting will be scheduled for fall, 2020.

**Long Term – gain momentum:** Schedule for moving sustainable funding forward.

- Form governing advisory committee – late fall 2020
- Refine funding plan – winter 2021
- Implement funding plan – initiate 2021
- Revisit funding plan – end of 2021