

**MUNICIPAL ALLIANCE FOR ADAPTIVE MANAGEMENT
MEETING OF THE MEMBERS
AGENDA**

Meeting Type: **Members Meeting**
Meeting Location: **Rochester DPW**
209 Chestnut Hill Road

Remote Location: <https://us06web.zoom.us/meeting/register/tZYqf-qhrTwiEt3hgWabBkm5hpC0yVy3oceX>

Meeting Date: **December 6, 2023**
Meeting Time: **1:00 pm**

A quorum of Members will be in person, but for those interested in participating remotely please register at the above link.

- 1. Call to order**
- 2. Approval of minutes of September 14, 2023**
- 3. Approve Epping joining MAAM as a voting/contributing member**
- 4. Review of 2024 budget recommendations – vote on final budget**
- 5. Discussion of Website**
- 6. Discussion of RDA Petition status**
- 7. Stakeholder comment**
- 8. Public comment**
 - a. Limited to 5 minutes per speaker**
- 9. Other business**
- 10. Schedule next meeting and agenda items (6 Month AMP Review and progress meeting)**
- 11. Adjourn**

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

Meeting Type: **Members Meeting**
 Meeting Location: **City of Dover – Public Works Building**
 Remote Location: <https://us06web.zoom.us/meeting/register/tZAtf-GuqDMsGdx3MyLf5HxVHSrw8QEG5ebT>
 Meeting Date: **September 14, 2023**
 Meeting Time: **1:00 p.m.**

1. CALL TO ORDER

The Meeting was called to Order at 1:00 pm with a quorum of the Members present.

Members:

Town/City	Representative	In person
Dover	Gretchen Young (GY) Environmental Projects Manager	Yes
Portsmouth	Suzanne Woodland (SW) Deputy City Manager / Deputy City Attorney	Yes
Rochester	Katie Ambrose (KA) Deputy City Manager/Finance Director	Yes
Newington	Ariel Wright (AW) WWTP Manager	No
Exeter	Paul Vlasich (PV), Town Engineer	Yes
Milton		
Rollinsford		

Non-Members In Person:

Mel Cote (MC), EPA Region 1
 Sally Soule, NH DES
 Daniel Macadam (DM), UNHSWC
 Jake Roger, Town of Epping
 Dennis Koch, Town of Epping
 Jennifer Perez, City of Dover
 Jillian Semprini, City of Dover

Non-Members Participating Remotely via Zoom included but not limited to:

Kalle Matso (KM), PREP
 Jamie McCarty, City of Portsmouth
 Brian Goetz, City of Portsmouth
 Lyndsay Butler, Town of Newmarket
 Jim Steinkrauss, Rath, Young & Pignatelli
 Melissa Paly (MP), MAAM Stakeholder Committee & CLF

MUNICIPAL ALLIANCE FOR ADAPTIVE MANAGEMENT

MEETING OF THE MEMBERS

DRAFT MINUTES

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Meeting Date: **September 14, 2023**
Meeting Time: **1:00 p.m.**

Danielle Gaito (DG), EPA Region 1
Steven Couture, NHDES
Ronnieann Rakoski, Portsmouth

2. APPROVAL OF MEETING MINUTES OF JULY 13, 2023.

Motion: SW moved to approve the meeting minutes of July 13, 2023 seconded by KA.

Roll call Vote passed as amended 5-0

3. REVIEW ADAPTIVE MANAGEMENT PLAN REVISED SEPTEMBER 2023

GY provided an update of the Adaptive Management Plan (AMP):

Background: There have been minor updates to the Town and City Specific Backgrounds.

Section a): Two new tables have been added under Section a.1; Theoretical Cost Allocation and Actual Cost Allocation. The Theoretical Cost Allocation represents the share of cost if all communities participated in the funding borne by MAAM; however, it is understood that some communities are funding PREP directly. Other updates include that Tier 1 monitoring is annual instead of the original every 2 years, Tier 2 assessments are at 25 sites instead of the original 50 sites, and PREP data management is now publicly available.

Section b): Reductions and additions of TN loads remain through PTAP. PTAP was originally funded through NHDES and is now solely funded through MAAM. PTAP is driven by MAAM communities in coordination with NHDES and EPA. Two new tables have been added under Section b.1; Theoretical Cost Allocation and Actual Cost Allocation. The Theoretical Cost Allocation represents the share of cost if all communities participated in the funding borne by MAAM. PTAP is fully funded by MAAM; however, there was discussion regarding setting up funding through user fee if not all communities participate in MAAM. It is understood that PTAP is not able to capture all load reduction activities, such as, sewer extensions and low-release fertilizer; however, MAAM continues to be at the discussions to update PTAP. Municipalities must go into PTAP and check that all items have been installed for an activity to be captured in the load reduction numbers. PTAP is also able to count total phosphorus and sediment loads.

Clarification was provided regarding the funding of PREP and PTAP. PTAP is fully funding through MAAM; no other communities outside of MAAM contribute. Four communities outside of MAAM contribute funding to PREP; PREP has received approximately \$30,000 for funding and in-kind support for these communities. This amount is not proportional and equitable across all communities, with MAAM communities funding at a much higher rate.

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Section c): Reporting by municipalities on progress of nitrogen reduction efforts (summary of Appendix D):

Dover: Recently replaced a failed culvert that was not in the CIP, which may not have reduced nitrogen but has improved water quality. There are two street reconstruction projects in the CIP that are anticipated to be in construction next year, which will reduce pavement and incorporate improved stormwater infrastructure. A large neighborhood reconstruction project has been included in the CIP that will consist of improved stormwater infrastructure. Dover continues to move forward with a stormwater utility, which will be voted by the City Council at the end of December 2023. Other efforts include a Leaf Management Program as a result of the Clean Sweep through PTAP, slow-release nitrogen fertilizer on all city properties, inflow/infiltration improvements, and outfall testing in wet weather. GY noted that an intern was tasked with collecting and testing samples, and no indicators were detected. GY expressed that wet weather sampling can be expensive and dangerous without having any explicit benefits such as nitrogen reduction.

Newington: The WWTP and Planning Department are working together to ensure projects are entered into PTAP. Newington was one of the first communities to adopt the stormwater standards in the NH Stormwater Management Manual and EPA Stormwater Regulations, which are applied to new developments and redevelopments throughout the entire town. Newington continues to undergo substantial redevelopment in the commercial areas, which will have nitrogen reduction. The WWTP continues to perform well; having low levels of nitrogen.

Portsmouth: The Peirce Island WWTP nitrogen discharge is 38,000 lbs less than permitted and the Pease WWTP nitrogen discharge is 30,000 lbs less than permitted, and both WWTPs are targeting to be further below permitting amounts by the end of the year. Projects underway include the Phase 2 of the Islington St sewer separation work and the Sagamore Ave sewer extension; there are 88 potential customers as a result of the Sagamore Ave project. MP noted that the Sagamore Ave sewer extension project should be used as a case study as a cost benefit to nitrogen reduction. Nitrogen reduction from sewer separation is currently not captured in PTAP; however, it can be entered into PTAP as a placeholder. Portsmouth is redeveloping an old stump and dump area into a recreation park, and nitrogen removal BMPs will be installed. The city recently acquired land near the Bellamy Reservoir where approximately 80 acres will be preserved from development; currently PTAP doesn't account for conservation yet. Outfalls have been added for a total of 209 throughout the city, and wet weather sampling has been completed on approximately 75% of the outfalls with no indicators being detected. Wet weather sampling has been completed for three seasons utilizing two-full time employees. Portsmouth continues to perform street sweeping and catch basin cleanings.

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Rochester: Projects include Colonial Pines sewer extensions with Phase 3 complete and Phase 4 moving towards design, Strafford Square roundabout anticipated to be complete end of 2024, and Union St Municipal Parking Lot in final design. A total of 71 properties were connected to the City’s sewer as part of the Colonial Pines Phase 3. Efforts continue with the nonstructural BMPs. Other efforts include entering existing municipal BMPs into PTAP, entering existing private BMPs into PTAP, preparation of the draft Nitrogen Source Identification Report (review of potential catchments), pilot septage receiving facility upgrade (construction anticipated 2024), preparation of a Sewer System Master Plan, preparation of Reduction Nitrogen Report, and Water Street Development project (kickoff was this week). DM noted that UNH offers a one-time deal to update PTAP using a batch import; Rochester utilized a consultant (Geosynthetic) for this effort.

Exeter: Will report separately from the AMP; however, provided an update at the meeting. The WWTP continues to produce less than permitted amount. Projects includes inflow/infiltration improvements, sump pump removal program, septage receival plant (anticipated to be completed in fall 2024), and a catch basin replacement program to replace CBs that don’t have sumps. Other efforts include implementing a Healthy Lawns education program regarding the use of fertilizer, updating the Land Use Regulations, enhancing pet waste stations (approximately 5,300 lbs were collected in a 6-month period), and initiating an advance septic system incentive program. PV noted that less pet waste bags are being found in the CBs due to having baskets at the waste stations. KM presented Healthy Great Bay to members of the community. Exeter has also retained a consultant to review and evaluate locations of structural BMPs throughout the town.

DG noted that there are Technical Assistance Centers for communities with EJ concerns to solicit grant funding for infrastructure projects.

BG noted that the City of Portsmouth is interested in extended sewer to bordering communities (Rye, Greenland, etc.), but asked who would receive the nitrogen reduction credit. MP noted that the permitted maximum daily nitrogen removal limit may be increased if additional customers are connected to the system. JM noted that the City is currently running at 50% below the limit and has capacity to add on more customers.

Sections d) and e): No major updates were made to these sections.

4. RESIDUAL DESIGNATED AUTHORITY PROGRESS UPDATE

MP noted that CLF has begun to work with the UNH Stormwater Center and the University of
Maine’s Financial Center to develop exemptions to RDA with the intent to incentivize

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municipalities to monitor the work locally. The intent is for communities who were considering stormwater utilities to continue to do so without the concern of overlapping local and federal regulations.

DG notes that EPA is pursuing funding for parcel evaluation.

5. ANNUAL FUNDING SCHEDULE

Executive Committee (EC) will meet in the October timeframe to review proposals. EC is soliciting proposals for MAAM projects between now and the next meeting. Proposals are anticipating from PREP and PTAP, but others are encouraged to submit proposals as well.

MAAM members will vote in November the recommendations for funding.

6. STAKEHOLDER COMMENT

MP stated that the stakeholder committee has been inactive.

7. PUBLIC COMMENT

MC asked about the Great Bay 2030 (GB2030) funding of the shared sweeper. GY noted that GB2030 agreed to fund it. Dover received the funding due to submitting the application, and obtained a consultant, Woodard and Curran, to develop the scope. Concurrently, Dover had been working with NHDES on how to categorize street sweeping, which delayed the shared sweeper project. Direction of street sweeping has since been resolved, and a scope and proposal from Woodard and Curran will be going to Dover’s City Council in the near future.

8. OTHER BUSINESS

None

9. SCHEDULE NEXT MEETING AND AGENDA ITEMS (OCTOBER – REVIEW OF FUNDING PROPOSALS)

November 2, 2023 at 1pm tentatively at Portsmouth; location TBD

10. ADJOURNED

Motion: SW moved to adjourn the meeting seconded by KA.

Roll call Vote passed as amended 5-0

Adjourned at 2:26 pm.

Costs:	
Website	
Brown and Caldwell	\$ 87,180.00
PTAP	\$ 50,000.00
PREP Core monitoring/oversight	\$267,400
PREP Cont. of previous special study	\$79,920
PREP New Proposal	\$30,000
PREP 5% Contingency	\$18,866
Remaining available from 2023	(\$92,615)
	\$ 440,751.00

Facility Name	Total Permitted Flow	Share	2022	2023	2024 (proposed w/ out Epping)
			\$ 422,805.00	\$ 519,684.00	\$ 440,751.00
Rochester	5.03	24.42%	\$120,835.75	\$126,893.71	\$107,620.27
Portsmouth	6.13	29.76%	\$147,261.06	\$154,643.83	\$131,155.52
Dover	4.7	22.82%	\$112,908.15	\$118,568.68	\$100,559.69
Exeter	3	14.56%		\$75,682.14	\$64,187.04
Pease ITP	1.2	5.83%	\$28,827.61	\$30,272.85	\$25,674.82
Newington	0.29	1.41%	\$6,966.67	\$7,315.94	\$6,204.75
Rollinsford	0.15	0.73%	\$3,603.45	\$3,784.11	\$3,209.35
Milton	0.1	0.49%	\$2,402.30	\$2,522.74	\$2,139.57

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			\$ 422,805.00	\$ 519,684.00	\$ 440,751.00
Rochester	5.03	23.84%	\$120,835.75	\$126,893.71	\$105,070.03
Portsmouth	6.13	29.05%	\$147,261.06	\$154,643.83	\$128,047.57
Dover	4.7	22.27%	\$112,908.15	\$118,568.68	\$98,176.76
Exeter	3	14.22%	-	\$75,682.14	\$62,666.02
Pease ITP	1.2	5.69%	\$28,827.61	\$30,272.85	\$25,066.41
Epping	0.5	2.37%	-	-	\$10,444.34
Newington	0.29	1.37%	\$6,966.67	\$7,315.94	\$6,057.72
Rollinsford	0.15	0.71%	\$3,603.45	\$3,784.11	\$3,133.30
Milton	0.1	0.47%	\$2,402.30	\$2,522.74	\$2,088.87

AMENDMENT NO. 3 TO
AGREEMENT FOR CONSULTING SERVICES
BETWEEN CITY OF ROCHESTER, NH
AND BROWN AND CALDWELL
FOR PREP ENGAGEMENT

THIS AMENDMENT NO. 3 to the Agreement for Consulting Services dated January 26, 2021 between the City of Rochester, hereinafter referred to as "Client", and Brown and Caldwell, a California corporation, hereinafter referred to as "Consultant," is made and entered into this ____ day of _____, 20__.

RECITALS:

WHEREAS, Client and Consultant entered into an agreement for consulting services January 26, 2021 (hereinafter referred to as the "Agreement");

WHEREAS, in Article II.B of the Agreement, Client and Consultant agreed that certain of the work contemplated to be performed by Consultant could not be sufficiently defined at the time of execution of the Agreement;

WHEREAS, Client desires to engage with the Piscataqua Region Estuaries Partnership (PREP) regarding the research and monitoring plan currently being developed for the Great Bay Estuary (GBE) and receive continued Consultant support with the Adaptive Management Framework development and implementation; and

WHEREAS, Client has requested changes in the Scope of Services;

NOW, THEREFORE, Client and Consultant agree to amend the Agreement as follows:

I. SCOPE OF CONSULTING SERVICES

The Scope of Services in the Agreement is amended to include the following tasks:

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) Oversight of deliverables, schedule, and budget
- iii) Project management communications

Task 1 assumes a budget of 30 labor hours.

Task 2 – Meeting Participation and Administration

BC will participate in meetings with PREP, PRMC, and related subcommittees regarding the ongoing research and monitoring. BC will also participate in meetings with MAAM, DES, or other stakeholders as needed. This scope assumes participation in 10 virtual meetings of an average 1.5-hour in duration. It also assumes that two BC scientists will participate in three in-person meetings or field visits of 1-day duration. The in-person meetings are expected to include a January 2024 meeting of the eelgrass resiliency project advisory committee, and two “charettes” for communicating the results and management implications of the study. This task includes preparation for each meeting, meeting participation, and as-needed email summaries of meeting notes and any proposed action items submitted to MAAM (following legal counsel review for attorney-client privileged communications or information) within seven working days of the meeting. It also includes budget for brief, routine communications between BC and MAAM representatives.

Task 2 assumes a budget of 156 labor hours.

Task 3 – As-Needed Technical Support

This task includes as-needed technical support that might arise during our engagement with PREP and other stakeholders. Examples of activities that could be accomplished under this task include literature reviews, independent data analyses, reviews of PREP/agency documents, development of monitoring recommendations, and drafting of materials to advocate technical positions.

In previous years, effort under the as-needed technical support task focused on identifying data gaps, coordinating on monitoring priorities, and providing oversight of PREP monitoring activities. BC anticipates similar efforts will continue in 2024 under this task. Additionally, BC anticipates providing data synthesis and support with data analysis as PREP begins to interpret data from multiple projects and draws scientific conclusions that could have regulatory consequences. Among other activities, BC anticipates that independent data analysis will be required to support MAAM’s interpretations of results from the eelgrass resiliency project, discussions of the role of macroalgae, other controls on light and eelgrass, and regulatory/management implications. Hence, BC included budget to support independent evaluations of data to confirm or modify major scientific conclusions. This task includes a concise (e.g., 2-page) year-end deliverable in which BC summarizes activities completed under this scope of work during the calendar year.

Task 3 assumes a budget of 160 labor hours.

II. SCHEDULE

Consultant is authorized to proceed with the modified Scope of Services effective on the date of this Amendment. The modified Scope of Services shall be completed by December 31, 2024.

III. COMPENSATION

Compensation for the services provided under Article I of this Amendment shall be calculated on the same basis as in the Agreement as modified by any previous amendment(s). The labor hours and cost estimates for completing the services defined in this Amendment are shown in Attachment 1. The estimated compensation for the services performed under this Amendment is \$87,180.

All other terms and conditions of the Agreement and any amendments thereto remain unchanged.

BROWN AND CALDWELL

CITY OF ROCHESTER, NH, AS FISCAL AGENT FOR THE MAAM GROUP.”

Signature: _____

Signature: _____

Printed Name: Deborah Mahoney

Printed Name: Kathryn Ambrose

Title: Senior Director Client Services

Title: City Manager

ATTACHMENT 1

COMPENSATION

For the work described in Amendment 1, compensation shall be a fee not to exceed of \$87,180.00, 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	30	-	\$4,760
Task 2 - Meeting participation and communications	156	\$7,200	\$44,980
Task 3 - As-Needed Technical Support	160	-	\$37,440
Total Hours	346	\$7,200	\$87,180

Proposal for On-going Program Support for the Pollution Tracking and Accounting Project (PTAP)

Project Lead: James Houle, UNH Stormwater Center

Project Cost: \$50,000

Duration: Winter 2023 – December 2024

Project Purpose

This funding will provide critical continued support for two key regional efforts to manage and track municipal efforts to reduce nutrient pollution from nonpoint sources.

- The PTAP pollutant tracking tool, which has now been in existence for over eight years, will be enhanced and upgraded based on recent input from end users to provide better functionality for current tracking needs. On-going technical assistance for PTAP will be provided to participating municipalities via direct communication and planned training and webinars. UNH Research Computing Services and NH GRANIT are included again as project partners to provide consistency with their past efforts to refine and enhance PTAP database functionality and operability. Accounting calculations for structural BMPs will be upgraded to comply with EPA Region 1 methods embodied in the 2017 NH MS4 permit and developed to comply with the adaptive management framework outlined in the Great Bay Total Nitrogen General Permit.
- Pollutant control tools developed through the pollutant “hot spots” mapping project will be further enhanced to provide greater utility for towns regulated under the NH MS4 permit and for towns subject to requirements of the Great Bay Total Nitrogen General Permit.

Project Scope

Objective 1: Technical assistance and improved functionality of the PTAP tracking and accounting platform.

Task 1: Review PTAP database functionality

Description: UNH and NHDES will coordinate with participating municipalities to receive feedback on the working PTAP database. The goal will be enhanced functionality and assist with PTAP participation. Feedback will be gathered through workshops, webinars, and meetings with end users.

Estimated cost: \$10,000

Objective 2: Develop PTAP reporting tools to track nitrogen additions or reductions in the Great Bay watershed.

Task 2: Annual Nitrogen Tracking Reporting

Description: In 2023 UNHSC produced the first annual reporting template for MAAM communities. UNHSC will continue to work with MAAM communities to develop and enhance the annual report template to satisfy permit obligations. In addition, project partners will work collaboratively to identify and develop consistent load reduction calculations for additional nonstructural practices for tracking that include outreach and education, wetland buffer protection/conservation land, pet waste collection and oyster bed restoration along with other efforts, with the intent of identifying promising future water quality improvement activities. It should be noted that there are no existing approved nitrogen load reduction credits that exist for these important efforts and future collaborations to create them are anticipated.

UNHSC will help develop wastewater management approaches planned for tracking include installation of innovative septic systems and enhanced treatment technologies and connection of septic systems to public sewers. Another area for technical assistance from the region is the determination of appropriate credits for these methods, particularly elimination of NPS loads through sanitary sewerage. Many methods to credit this exist, we anticipate a collaborative effort will be necessary to standardize attendant load reduction credits.

Estimated cost: \$20,000

Objective 3: UNHSC will work with MAAM to refine, build, and provide enhanced technical assistance for hotspot mapping products.

Task 3: Working with NHDES, UNH and GRANIT will continue supporting and developing the online hotspot maps for all NH MS4 communities.

Description: Additional technical assistance may include, but not be limited to, completing hotspot maps for communities not included in the original product development due to insufficient data; changes, additions, or enhancements to existing mapping products; enhanced or new mapping products such as highlighted areas of high potential septic loading; and technical assistance for end users (workshops, webinars, written guidance materials).

Estimated cost: \$10,000

Objective 4: UNHSC will work with project partners to develop long-term land use change metrics to support permit compliance.

Task 4: Working with MAAM, NHDES, UNH GRANIT, and EPA, UNHSC will continue supporting development of hotspot maps for all Great Bay communities and associated land use change

statistics.

Description: Additional technical assistance may include, but not be limited to, completing hotspot maps and hydrologic response unit (HRU) basemaps for communities tracking long-term land use change trends in the watershed.

Estimated cost: \$10,000

Summary of PREP 2024 Monitoring Proposals & MAAM Funding Request

Study Name	Previous MAAM Expenditures		MAAM 2024 Request	Study Description	Notes
	2022	2023			
Tier 1 Seagrass Monitoring	\$75,000	\$75,000	\$77,500	Continuation of annual aerial imagery mapping of seagrass in GBE.	MAAM would be providing a portion of overall study cost (~\$106k)
Estuarine Water Quality Monitoring	\$41,000	\$64,000	\$66,000	Funding of ongoing estuarine water quality monitoring program for a more comprehensive understanding of water quality patterns.	MAAM would be providing a portion of overall study cost (~\$215k)
Light Array Program	\$29,000	\$42,000	\$43,400	Continuation of work that started in 2021 and will continue annually. Provides high resolution data on the light environment in the estuary and fills an important data gap.	
External Advisors: Monitoring Program Review	\$25,000	\$10,000	\$25,000	Funding for engaging external advisors to review and provide guidance on the Eelgrass Resilience Project, Bio-Optical Model, and overall monitoring program.	External advisors: Lora Harris, Jud Kenworthy, Mike Van Den Heuvel, Simon Courtenay MAAM would be providing a portion of overall study cost (~\$48k).
Tier 2 Seagrass Monitoring	\$53,000	-	\$55,000	Continuation of work that started in 2021. Annual study that includes characterization of seagrass density and morphology, macroalgal abundance and type, and sediment characteristics.	PREP funded in 2023.
Light Monitoring and Bio-optical Model (Formerly "Turbidity")	\$60,000	\$67,000	\$79,920	This study will collect important data on non-nutrient stressors and light dynamics. Funding is for continuation of field data collection and for completion of the first version of a bio-optical model.	Continuation of a three-year workplan by A. Matsuoka to gather data and create a bio-optical model. MAAM would be providing a portion of the overall study cost.

Color Coding	Core monitoring/oversight	Continuation of previous special study	New proposal	Previously MAAM-funded but not yet complete	Other; MAAM funding not needed in 2024
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Summary of PREP 2024 Monitoring Proposals & MAAM Funding Request

Study Name	Previous MAAM Expenditures		MAAM 2024 Request	Study Description	Notes
	2022	2023			
Non-Structural BMP Expert Panel	-	-	\$30,000	Perform a literature review of nitrogen reduction credits from non-structural BMPs. To be performed by Jamie Houle of the UNH Stormwater Center.	This work could be followed in subsequent years by the formation of an expert panel to define crediting methods for use in NH.
Storm Add-On to Eelgrass Stressor Project	\$5,000	\$91,000	-	Implementation of a study to investigate the impacts of storm events and inputs on water quality in GBE. This study would collect data to help fill an important data gap.	In progress. Originally planned to be a two-year funding request to MAAM (2023 and 2024). However, PREP does not have results from first phase yet because of a later-than-anticipated start date for 2023. Therefore, additional funding would not be needed until 2025.
Tributary Discharge Measurements	-	\$5,000	-	Estimating river discharge measurements on the Bellamy, Great Works, and Salmon Falls Rivers. This study is part of a stated commitment in MAAM AMP.	In progress. Once completed, not needed again unless MAAM wants to fund additional modeling, gages, or other discharge measurement method.
Macroalgal Dynamics Synthesis and Recommendations	-	\$25,000	-	Work will focus on compiling, reviewing, and synthesizing work done to date related to green and red macroalgae in GBE, identifying data gaps related to macroalgae as potential stressors to eelgrass, and development of a monitoring plan to close data gaps (if needed).	Not completed in 2023, but PREP can begin work on this in Jan. 2024 after the planned Seaweed Workshop.

Color Coding	Core monitoring/oversight	Continuation of previous special study	New proposal	Previously MAAM-funded but not yet complete	Other; MAAM funding not needed in 2024
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Summary of PREP 2024 Monitoring Proposals & MAAM Funding Request

Study Name	Previous MAAM Expenditures		MAAM 2024 Request	Study Description	Notes
	2022	2023			
Shoreline Hardening Survey	-	\$15,000	-	A survey to determine the location and extent of hardened shoreline in GBE. Results of this survey could help inform the analysis and interpretation of the water quality and hydrodynamic studies and may be useful in identifying and management of non-point source stressors.	Not completed in 2023 because of DES staffing limitations. DES will use the funds as a required match for a Coastal Zone Management Fellow to accomplish task by Dec. 2025. Once completed, not needed again for 10 - 15 years
Tier 3 Seagrass	-	\$33,000	-	Continuation of annual Tier 3 Seagrass (aka SeagrassNet) program, a long-term project which includes monitoring seagrass plant condition, temperature, and light at fixed transects.	2023 work complete. EPA will fund in 2024
Estuarine Water Quality Monitoring Equipment	-	\$20,000	-	Funding would be used to buy new sondes for continuous data collection at the estuarine water quality locations.	Not needed in 2024: one time cost.
Mussel Watch	\$7,300	\$10,000	-	Collection and analysis of bivalve tissue as a measure of toxic constituents in the water column. This study may help identify potential non-nutrient eelgrass stressors.	EPA will fund in 2024
5% Contingency	-	\$22,850	\$18,841	Budget for additional unanticipated costs. Discretionary contingency not included.	
Total	\$220,300	\$479,850	\$395,661		

Color Coding	Core monitoring/ oversight	Continuation of previous special study	New proposal	Previously MAAM-funded but not yet complete	Other; MAAM funding not needed in 2024
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