



PREPTM

Piscataqua Region Estuaries Partnership

2022

ANNUAL REPORT

LETTER FROM OUR DIRECTOR



Dear Partners:

It's been a busy and productive year, with more than the usual number of new projects and changes.

First and foremost, this year marks the first of five years where we will more than

double our operating budget with funds from the Bipartisan Infrastructure Law. PREP staff have worked hard with our Management Committee to come up with a general plan for the next five years as well as a very specific plan for 2023. With this additional funding, PREP is making its existing programs in science, community engagement and habitat restoration even stronger. We're also increasing the resources dedicated to the Hampton-Seabrook Estuary. Also, we're continuing to invest in better and more secure data management and making scientific information more accessible. Finally, we've hired a new Communications Coordinator who will help us build relationships with different key organizations throughout the Piscataqua Region Watershed.

While our budget situation has changed, so has our staff line-up. Rachel Rouillard, after 10+ years at the helm of PREP, moved on to an exciting position at the NH Chapter of The Nature Conservancy. Fay Rubin of UNH did a fantastic job as Interim Director, and in May, I officially started my tenure as Director of PREP. Some surprises were in store for me. The most pleasant surprise is that my hopes for enjoying this work have, so far, been met and exceeded. Part of the reason this job is so satisfying is the positive and collaborative nature of the Piscataqua Region community: from municipal leaders to state and regional staff to our fantastic non-profit representatives. And, of course, it's impossible to overstate how awesome the PREP Staff is. A big thanks to Fay Rubin, Abigail Lyon, Trevor Mattera and Sierra Kehoe!

Trevor Mattera, Habitat Program Manager; Fay Rubin, Special Projects Manager; Abigail Lyon, Community Engagement Manager; Dr. Kalle Matso, Director

The last change to discuss gives me an excuse to generate some excitement about an upcoming event: the State of Our Estuaries Conference. Earlier this year, we decided that we didn't want to risk a large indoor event during a pandemic, even if that pandemic was becoming a bit less scary. So, we moved the conference from Dec 9, 2022 to June 2, 2023. We're hoping that an early summer event will garner even more enthusiasm and diverse representation from watershed managers and citizens.

PREP Staff, with the help of the Management Committee, are busy putting the finishing touches on a great Report, which will update the status and trends of key indicators for our two estuaries of national significance. New sections have been added to the materials, including information on green crabs, horseshoe crabs, salt marsh sparrows, and lobsters. We're also busy planning the conference day itself. We're excited to use the conference as a way to launch our new and improved communications and outreach program: striving to better understand how PREP can collaborate more effectively with partners throughout the Watershed.

Stay tuned for more about the conference and other exciting activities that PREP and partners are planning for 2023. Happy New Year and thank you.

A handwritten signature in black ink, reading "Kalle Matso".

Kalle Matso, Director



Photo courtesy of Todd Selig

PROGRAM HIGHLIGHTS

SCIENCE

The 2022 field season welcomed the first data collection activities of the **Eelgrass Resilience Project**, funded by the NOAA NERRS Science Collaborative. This project, led by Bill McDowell of UNH with close collaboration with the Great Bay National Estuarine Research Reserve, capitalizes on existing eelgrass and seaweed monitoring programs, but adds more intense and detailed data collection to better understand stressors on eelgrass. In addition, data will be combined with a **hydrodynamic model** developed at UNH's Center for Coastal and Ocean Mapping. The second season of the project will occur in 2023 and charrettes are planned for 2024 to discuss project implications on management.

COMMUNITY ENGAGEMENT

Now the **Community Engagement** program, PREP hired a **Communications Coordinator**, Sierra Kehoe, to lead communications and outreach. PREP and partners closed out five **Piscataqua Region Environmental Planning Assessment** projects and are preparing to announce funding for 2023. The **Clean Sweep** project developed a measured approach to track nitrogen removal from street sweeping and is piloting the approach with Dover and UNH. PREP and partners launched the **Building Community Support for Sustainable Stormwater Funding** workshop series to teach municipalities skills for improved outreach. Community Engagement Manager, Abigail Lyon, as co-chair for the **NH Coastal Adaptation Workgroup**, is leading the development of a **CAW Action Agenda** and an application to **Great Bay 2030** to co-design a grant program for Great Bay communities.

RESTORATION & CONSERVATION

PREP and partners wrapped up our second year of **pilot-scale eelgrass restoration** in the Great Bay Estuary with over 1,600 shoots transplanted across three sites. Results of this project will directly inform the design and implementation of a **large-scale eelgrass and oyster restoration project** planned for 2023 and 2024. Leading alongside Brianna Group from The Nature Conservancy, Trevor Mattera is co-chairing a new **Habitat Restoration Workgroup** as part of the Great Bay 2030 initiative funded by NH Charitable Foundation. The second **Habitat Spotlight** report released early this year, highlighting some of the exciting projects occurring in our region. And in partnership with the Southeast Land Trust of NH, PREP supported the protection of over 245 acres of priority lands in the watershed.

PREP REPORTS & PUBLICATIONS

SeagrassNet Monitoring in the Great Bay Estuary, NH/ME Field Season 2020, Kalle Matso, Trevor Mattera, David Burdick, Lara Martin, Amanda Giacchetti, and Tom Gregory

Tier 2 Monitoring in the Great Bay Estuary, NH/ME Field Season 2021, Trevor Mattera, David M. Burdick, Lara Martin, Amanda Giacchetti, Sierra Kehoe, Kalle Matso, Tom Gregory, and Cynthia Hays

Clean Sweep: Recommendations for New and Updated Credits for Street Cleaning in New Hampshire, PREP and UNH Stormwater Center

Eelgrass Distribution in the Great Bay Estuary and Piscataqua River for 2021, Michael Routhier, Raymond Grizzle, Taylor Goddard, and Krystin Ward

For a complete list of PREP's reports and publications, visit [UNH's Scholars Repository](#)



BIPARTISAN INFRASTRUCTURE LAW FUNDING

Thanks to the Bipartisan Infrastructure Law (BIL) enacted in 2021, PREP is more than doubling its operating budget. Of the Environmental Protection Agency's (EPA) \$50 billion, \$132 million was allocated to the National Estuary Program (NEP). Split evenly, \$909,800 was awarded for each of the next five years to each NEP for their estuaries of national significance – which includes PREP's estuaries: Hampton-Seabrook and Great Bay! The BIL funds will be used for many projects surrounding the Comprehensive Conservation Management Plan's (CCMP) focal areas. The CCMP is a planning document that provides a cohesive, regional approach for maintaining and improving the health of coastal systems. In accordance with the Diversity, Equity, Inclusion, and Justice Clause (Justice40), all NEP's will strive to spend 40% of the BIL funds in a way that benefits the disadvantaged communities in their watershed.

Due to this funding, PREP now has capacity to lead additional efforts to support our estuaries – including the creation of several coordinating positions. First, a Great Bay Adapts coordinator will be funded by BIL money with anticipated support from Great Bay 2030 starting in Spring of 2023.

The coordinator will lead the NH Coastal Adaptation Workgroup (CAW) Great Bay Adapts project to co-design a technical assistance program that aids Great Bay communities in their climate adaptation strategies. Additionally, the coordinator will provide needed capacity to support communities across the Piscataqua region as they apply for funding and implement projects. (To learn about Great Bay 2030, click [here](#)). Second, a Hampton-Seabrook Estuary (HSE) Coordinator will be jointly funded by PREP and the Seabrook Hamptons Estuary Alliance. The HSE Coordinator will act as a crucial backbone of the HSE Collaborative, a diverse group of partners focused on directly supporting priority work in that estuary. This coordinator will align the investments and efforts made by partners of the HSE Col-

laborative while sustaining the group's momentum. Third, a new regional Land Conservation Manager, supported by PREP and hosted by the Southeast Land Trust of NH, will provide necessary capacity to coordinate the strategic protection of priority lands and critical habitats to meet the 2021 NH Coastal Watershed Conservation Plan's ambitious goals.

Beyond these vital positions, BIL funding will allow for an increased capacity in science engagement and technical assistance. An Index of Biotic Integrity will be developed, which will combine monitoring on a suite of species (e.g., fish, seagrass, shellfish) to create a digestible Report Card for different parts of our estuaries. While PREP currently produces a report every five years on over 20 indicators,

the Index will be more concise and easily communicated to interested parties. Additionally, within PREP's Science Program, there will be an increase in estuarine and riverine monitoring, expansion of toxic contaminant tracking, and the development of a publicly accessible PREP database. Under the Habitat Program, these increased funds will directly enable more in-the-water projects including eelgrass restoration in Great Bay

**"IT'S NOT OFTEN THAT AN ORGANIZATION GETS TO DOUBLE ITS OPERATING BUDGET... TO DO THAT FOR FIVE YEARS MEANS THAT WE, AS A PARTNERSHIP, WILL BE ABLE TO ACCOMPLISH UNPRECEDENTED PROGRESS IN TERMS OF PROTECTION AND RESTORATION."
-KALLE MATSO, DIRECTOR**

with UNH and a culvert replacement in Milton, NH in partnership with Trout Unlimited. Finally, BIL funding will enable the Community Engagement Program to provide more direct funding to communities across the watershed through the Piscataqua Region Environmental Planning Assessment (PREPA) grant program. The 2023 PREPA grant program will offer triple the funding that was offered in 2021 to address a need identified in previous iterations of PREPA grants.

PREP is dedicated to spending the BIL funds in a way that positively impacts Piscataqua Region communities. We endeavor to invest in initiatives that continue to pay dividends beyond the five years of increased funding. PREP staff could not be more excited about these new and enhanced opportunities!



THE FACES OF THE PARTNERSHIP



2022 was a year of growth and development for the PREP staff! To start, we welcomed our former Coastal Scientist, Kalle Matso, as our new Director. Kalle is enthusiastic about understanding and expanding PREP's network to connect with the critical communities in our Watershed needed to protect and restore our estuaries.

We are pleased that Fay Rubin joined PREP as our Special Projects Manager after her term as Interim Director. Fay will be aiding with PREP's administrative needs.

While the following are internal updates rather than full-scale renovations, we're still happy to announce Trevor Mattera's promotion to a full-time position and the rebranding of Abigail Lyon's position as the Community Engagement Manager! PREP is thankful for Trevor and Abigail's continued passion and dedication to their programs and the PREP mission.

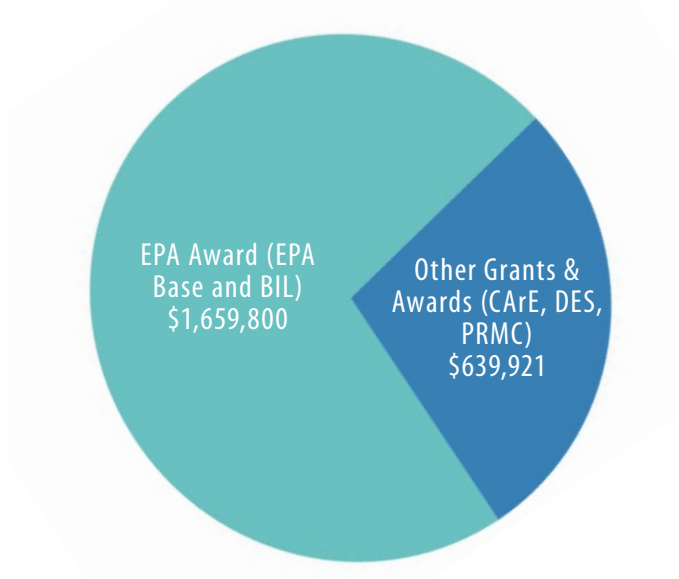
Finally, our most recent hire, Sierra Kehoe, joins PREP as our Communications Coordinator. Sierra is looking forward to using her scientific background to connect with communities and organizations to translate the science happening in our region, and to learn more about what others are doing to protect our watershed. To learn more about Sierra and her background, check out [this blog post!](#)



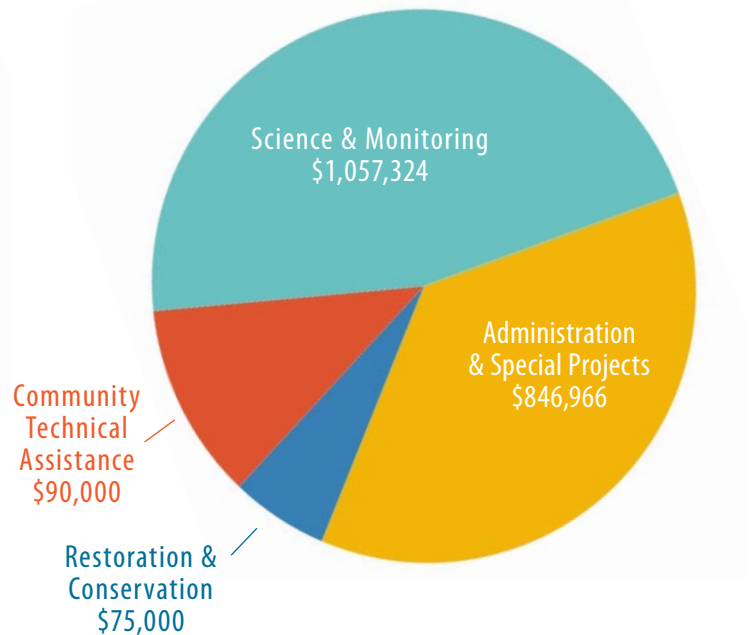
2022 BUDGET

PREP is part of the U.S. Environmental Protection Agency's National Estuary Program, a joint program between local, state, and federal agencies established under the Clean Water Act with the goal of protecting and enhancing nationally significant estuarine resources. PREP is supported in part by an EPA matching grant and is housed within the School of Marine Science and Ocean Engineering at the University of New Hampshire.

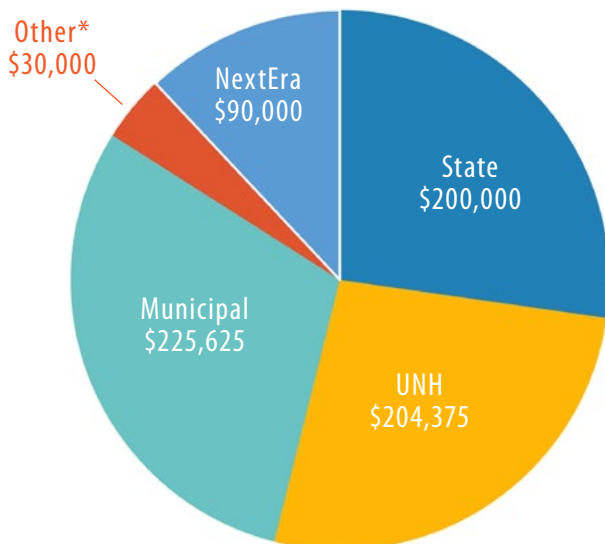
TOTAL PROGRAM REVENUE (\$2.299M)



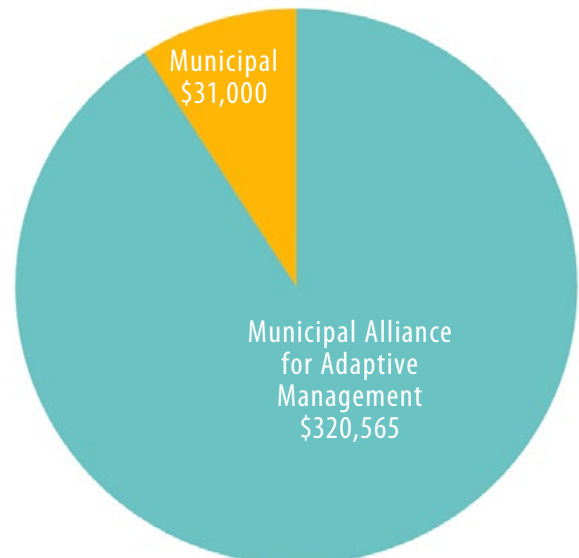
EXPENDITURE CATEGORIES (\$2.299M)



REQUIRED MATCHING FUNDS BREAKDOWN (\$750,000)



PISCATAQUA REGION MONITORING COLLABORATIVE (\$351,565)



MANAGEMENT COMMITTEE MEMBERS

Katie Ambrose, City of Rochester

Jon Balanoff, Acton Wakefield Watersheds Alliance

*Erik Beck, US Environmental Protection Agency

Dea Brickner-Wood, Great Bay Resource Protection Partnership

*Erik Chapman, NH Sea Grant/UNH

Jim Chase, Seacoast Science Center

*Steve Couture, NHDES Coastal Program

Annie Cox, Wells National Estuarine Research Reserve (CHAIR)

Jennifer Czysz, Strafford Regional Planning Commission

*Ted Diers, NH Department of Environmental Services

Rayann Dionne, Seabrook Hamptons Estuarine Alliance

*Diane Foster, School of Marine Science and Ocean Engineering, UNH

Addie Halligan, Maine Department of Environmental Protection

Russ Hilliard, Swell Oyster Company

Brianna Group, The Nature Conservancy

Don Keirstead, USDA Natural Resource Conservation Service

Jessa Kellogg, Town of Kittery

Peter Kinner, Great Bay Stewards

*Regina Lyons, US Environmental Protection Agency

Brianne O'Brien, Town of Hampton

Melissa Paly, Great Bay-Piscataqua Waterkeeper

*Cheri Patterson, NH Fish and Game Department

Jennifer Perry, Town of Exeter

Kim Reed, Town of Rye

*Cory Riley, Great Bay National Estuarine Research Reserve

Todd Selig, Town of Durham

Carl Spang, Lamprey River Watershed Association

Roger Stephenson, Union of Concerned Scientists

John Storer, City of Dover

*Indicates a standing seat on the Management Committee

**Indicates PREP program officer



Photo courtesy of Jerry Monkman

TECHNICAL ADVISORY COMMITTEE

The **Technical Advisory Committee (TAC)** advises PREP on technical, science-based issues related to the estuary program, the **State of Our Estuaries** report, and the implementation of the **Comprehensive Conservation Management Plan**. TAC membership is open and the public is encouraged to attend.

For more about TAC and workgroup meetings visit PREP's [website](#).

JOIN THE PREP COMMUNITY FOR CLEAN WATER

What do our watershed and estuaries mean to you? Maybe you like to enjoy a beautiful sunset, a walk along the coast, volunteering for your favorite organization, or fishing with your family and friends. Share your photos with **#shotsfromtheshed** and you could be featured in an upcoming edition of PREP's newsletter, "**Downstream.**"



PREPcommunity




@PREPcommunity



Piscataqua Region Estuaries Partnership



@prepestuaries



6,800+
downloads
of PREP Reports
& Publications from
the UNH Scholars'
Repository!

722
eelgrass
shoots were
collected for in lab
analysis for both
Tier 2 & 3!

PREP
provided
\$43,000 in
PREPA grants
this year!

Countless
hours spent by
PREP and partners
to continue protecting
and improving the
health of our
estuaries!

Over
an hour of
underwater footage
was collected for the
Tier 2 monitoring
program!

750
grams of
seaweed were
collected for
analysis in the
summer field
season!