

The Great Bay 2030

PREPARED BY ROSS STRATEGIC



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The Opportunity

Great Bay estuary and its watershed represent one of New Hampshire's true ecological gems, recognized locally and nationally as a significant resource for people and nature. In 2015, five partners – Conservation Law Foundation, Great Bay National Estuarine Research Reserve, The Nature Conservancy in New Hampshire, New Hampshire Department of Environmental Services, and the Piscataqua Region Estuaries Partnership – agreed to work collectively to advance a five-year vision for investment and action to protect water quality in the Great Bay estuary. Known as Great Bay 2020, this collaboration operated with funding support from the NH Charitable Foundation (NHCF) and in-kind contributions from the core partners. Great Bay 2020 contributed to a host of positive outcomes including organizational relationship building, accelerated land and water conservation, marine habitat restoration, and increased community awareness. Real progress has been made. And there remains great need and opportunity for individual and collective action if we are to truly sustain and revitalize the Great Bay ecosystem.

Great Bay 2030 represents a continued commitment to collaborate by this core group of partners and provides a structure and framework for engaging many other traditional and non-traditional partners across an array of activities. Working together, we have identified five focal areas where collective attention, effective partnerships, and investment in the coming years is needed and can make a big difference for the future of the watershed. These include:

- Foster a Culture of Stewardship
- Restore Critical Habitats
- Enhance Water Quality and Quantity
- Adapt to Climate Change
- Protect Priority Lands

There are significant factors that make this a particularly important time to come together around Great Bay. First, many years in the making, the U.S. EPA has issued the Great Bay Total Nitrogen General Permit covering 12 communities in the watershed. This permit requires significant investments in stormwater management and other non-point source pollutant controls. Second, the financial and societal impacts of the COVID-19 pandemic, combined with a new administration, have shifted the federal policy environment. Congress is currently advancing two pieces of legislation that, if passed, will lead to extraordinary federal infrastructure and other investments that could benefit Great Bay (see Appendix 1). And so, in addition to continuing with the great work already underway, we see a unique and perhaps historical opportunity whereby enhanced collaboration and private investment can unlock and leverage tens of millions of dollars of federal funding to advance our vision.

By continuing and strengthening our collaboration, Great Bay 2030 will enable us to develop and update shared priorities, identify emerging issues and opportunities, maintain strong communications and working relationships, evaluate and mutually support investment and allocation of NHCF and other private funding support, leverage public funding, and develop and implement high impact projects that will make a meaningful difference across our special landscape.

GREAT BAY 2030 VISION

A healthy Great Bay estuary system distinguished by clean water, accessible lands for recreation and education, habitat for fish and wildlife, climate resilience, and engaged communities that are committed to supporting the estuary and its watershed for generations to come.

Specifically, this partnership aims to: improve key indicators of water quality such as nitrogen, sediment and bacteria; increase the number of priority land conservation projects completed; enhance the scale and success of restoration activities that expand the quality and quantity of estuarine habitats; and expand the number of communities and individuals making decisions and taking actions that improve the health of Great Bay.

To measure our progress, the Great Bay 2030 partners will develop five-year objectives and medium and long-term progress targets for each focal area in collaboration with the people and institutions who are most embedded in the work.

GEOGRAPHIC SCOPE

The Great Bay watershed covers ~1,025 square miles in southeastern NH and Maine, and encompasses Little Bay, Great Bay, the lower Piscataqua River. It also includes the drainage basins for the Lamprey River, Squamscott River, Bellamy River, Winnicut River, Oyster River, Cocheco River, and Salmon Falls River. Over 400,000 people reside around 48 cities and towns within the watershed.

GUIDING PRINCIPALS

Climate Resilience: Great Bay 2030 will be informed by the current and projected impacts of climate change and will seek to ensure that the projects and activities we support build climate resilience for people and nature.

Equity, Diversity, Inclusion, and Justice: The Great Bay 2030 partner organizations will develop and adopt a set of principles around equity, diversity, inclusion, and justice (EDIJ) that will inform the substance of the Great Bay 2030 work, as well as how and with whom that work is carried out.

Science-based: Great Bay 2030 will ground its work in the most up-to-date science around protecting the environment and human health. In many cases this calls for the use of previously developed plans with science underpinnings, as well as other key scientific work. This also includes identifying key gaps in scientific understanding that limit the ability to make a significant impact, helping to catalyze applied research to fill these gaps, and remaining nimble to act when emerging science reveals important trends this group can help address.

Organizational Learning: Great Bay 2030 will continually assess what is working and how to improve. The timing and design of these reviews will be developed and implemented by the Steering Committee with the support of the Great Bay 2030 Coordinator and will provide Great Bay 2030 with actionable feedback on structure, design, and activities.

Focal Areas

The Great Bay 2030 partners have identified five focal areas where collaboration and investment can make a big difference for the future of the watershed. These include:

- Foster a Culture of Stewardship
- Restore Critical Habitats
- Enhance Water Quality and Quantity
- Adapt to Climate Change
- Protect Priority Lands

These focal areas, and our associated goals, are further described below.

FOCAL AREA 1: FOSTER A CULTURE OF STEWARDSHIP

Environmental stewardship is a cornerstone of a sustainable, healthy Great Bay ecosystem. People and communities will support and engage in efforts to protect the Great Bay estuary only if they understand its values, the threats facing it, and ways they can help. Environmental stewardship connects people with places and influences behaviors and actions that positively impact the environment in which they live. Building public support for investing in clean water, restoration, and improved infrastructure is essential to the recovery and sustainability of the Great Bay estuary. The Great Bay 2030 collaborative will align multiple organizations with differing expertise around shared outreach and communications outcomes to raise awareness among communities in the watershed and engage the people who live and recreate there.

Goal: Residents of communities in the Great Bay watershed will embrace a culture of stewardship focused on appreciating the values that a healthy estuary and watershed provide and protecting those values through individual and community actions that support improved water quality and habitat conditions.

FOCAL AREA 2: RESTORE CRITICAL HABITAT

Habitat restoration has multiple benefits not just to the ecosystem but to human health in and around Great Bay and the Great Bay upper watershed. One of the most direct and tangible ways to promote a healthy Great Bay is to restore key habitats like oyster reefs, seagrass meadows, salt marshes, floodplains, and riparian areas. Currently, multiple partners are engaged in restoration efforts, however we lack a robust and inclusive partnership that brings together those interested in taking a more comprehensive and integrated long-term approach. Great Bay 2030 can help to validate and direct support to ongoing restoration efforts; support collaborative science that helps to identify restoration needs, priorities, and methods; and look across habitat restoration activities that are currently occurring as individual actions and play a connective role between habitat restoration activities in up-watershed areas and in the Great Bay itself.

Goal: Municipalities, nongovernmental organizations, public agencies, academic faculty, resource managers and citizens will support and advance the restoration of critical habitats that sustain the health and resilience of Great Bay estuary.

FOCAL AREA 3: ENHANCE WATER QUALITY AND QUANTITY

Decades of population growth and low-density development have generated pollution and demand for water that threaten the health of the Great Bay estuary. While there has been progress in recent years reducing pollution from major sewage treatment plants, further efforts are needed in order to restore the health of critical habitats. Opportunities to enhance water quality include reducing pollution caused by stormwater runoff and septic systems and pursuing further improvements to sewage treatment plants where needed, as well as improvements to other critical infrastructure like culverts. In addition to water quality, a focus on water quantity as measured by instream flows in the upper portions of the Great Bay watershed is part of a holistic approach to protecting ecological function. This focal area acknowledges that regulatory and municipal action, underpinned by public support, is essential to restoring water quality and addressing water quantity. The Collaborative's unique value is to advance needed actions in the watershed to reduce pollution, including the alignment of work in the upper watershed areas and areas closer to Great Bay, connecting, empowering, and supporting the efforts of local communities, conservation groups, and others to address pressures on water quality and quantity.

Goal: Municipalities, regulators, advocacy groups, public agencies, and technical support organizations will work to reduce pollution and ensure adequate clean water to sustain a healthy Great Bay estuary and human uses, as well as to strategically address the major sources of water pollution in the Great Bay watershed.

FOCAL AREA 4: ADAPT TO CLIMATE CHANGE

Climate Change is an enormous threat to people and nature in New Hampshire and will require sustained effort and resources from every sector to ensure our communities and ecosystems can thrive in the future. One important part of addressing the climate challenge is to help communities plan for and adapt to the impacts of climate change using nature-based solutions and other approaches that support and do not undermine resilient ecosystems. The 30-member [Coastal Adaptation Workgroup \(CAW\)](#) assists communities in NH's coastal watershed to prepare for the impacts of extreme weather and long-term climate change by providing resources, facilitation, and guidance that enhance readiness and resilience. Several members of the Great Bay 2030 Steering Committee are also CAW members and will provide a direct connection between the Steering Committee and CAW. The Collaborative's work will align climate work with water quality, culture of stewardship, and restoration work and to amplify climate resiliency needs identified by CAW to diverse funders.

Goal: Community leaders, nongovernmental organizations, public agencies, and others will understand the risks of climate change and will facilitate the adoption of technologies, policies, mechanisms, and approaches needed to enable communities in the Great Bay watershed to best adapt to and mitigate those impacts in ways that benefit or do not harm nature.

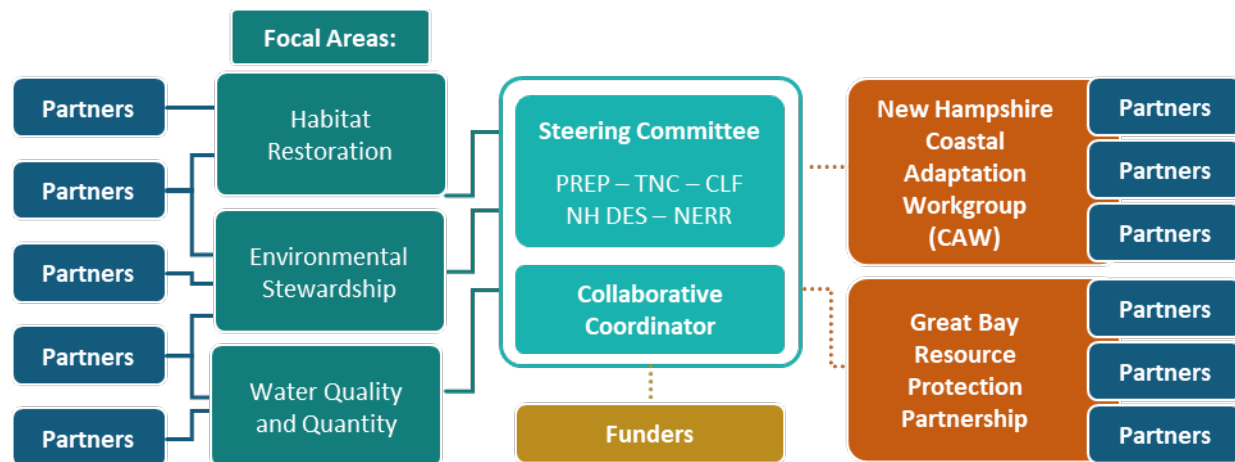
FOCAL AREA 5: PROTECT PRIORITY LANDS

Land protection is a conservation strategy that can help to minimize climate impacts like flooding, protect water quality and quantity, safeguard wildlife habitat, and provide opportunities for recreation and restoration. The Great Bay Resource Protection Partnership (GBRPP) is a collaboration of public agencies and conservation organizations in the coastal New Hampshire region that promotes landscape-scale land conservation and stewardship. Several members of the Great Bay 2030 Steering Committee are members of GBRPP, providing a direct link between the two collaboratives. Great Bay 2030 can support this focal area by: affirming and validating the importance of strategic land conservation for the future of the watershed; endorsing funding and partner capacity commitments for the GBRPP; supporting collaborative science and outreach to prioritize areas for land conservation investment; and amplifying needs and opportunities identified by land protection partners.

Goal: Nongovernmental organizations, municipalities, public agencies, and land trusts and managers will support and expand the protection of strategically important lands across the Great Bay watershed that are necessary to maintain and improve the health of the estuary.

Great Bay 2030 Structure

Figure 2: Great Bay Collaborative Structure



Steering Committee: Great Bay 2030 will be led by a Steering Committee comprised of the five organizations that have worked together for the past several years as the Great Bay 2020 collaborative: Conservation Law Foundation, Great Bay National Estuarine Research Reserve, The Nature Conservancy in New Hampshire, New Hampshire Department of Environmental Services, and the Piscataqua Region Estuaries Partnership. The Steering Committee may add members with the unanimous consent of existing members.

The Steering Committee is responsible for advancing the work of the focal area working groups, coordination among focal areas, and communicating priority investments that can make a difference in the watershed. The Steering Committee is also responsible for aligning efforts with our guiding

principles and evaluating Great Bay 2030 and adjusting as needed. By working together in this manner and through regular communication and coordination, Steering Committee members can help their respective organizations, their partners, the NH Charitable Foundation, and the Great Bay estuary by promoting and recommending projects that will make meaningful impacts, as well as being able to adaptively manage ongoing and future efforts at a regional scale as opportunities arise or conditions change.

Great Bay 2030 Coordinator: Great Bay 2030 will be supported by a Coordinator. Key responsibilities of the Coordinator will include: maintaining communication flow amongst the Great Bay 2030 Steering Committee members and with focal areas working groups including through organizing and reporting out on regularly scheduled meetings and working group updates; supporting requests for and pulling together of project and funding ideas; managing communications with NH Charitable Foundation; promoting accountability among Steering Committee members; and identifying funding options for Great Bay 2030 projects. The Coordinator will hold Great Bay 2030 accountable to the guiding principles articulated above. The Coordinator will create a process that advances EDJI in project development, selection, and implementation; ensure that sound science is brought into evaluation criteria and gap analysis; and will lead the adaptive evaluation needed to improve the partnership.

Focal Area Working Groups: Focal area working groups will provide forums to interact with additional partner organizations with relevant expertise. These groups exist for two focal areas now: Climate Adaptation (Coastal Adaptation Workgroup) and Priority Land Protection (Great Bay Resource Protection Partnership). Great Bay 2030 will help stand up and/or strengthen and maintain partnerships around the focal areas of Culture of Stewardship, Critical Habitats Restoration, and Enhancing Water Quality and Quantity. Focal area working groups will share information about trends in the watershed, ongoing work, and will generate ideas about where investment and capacity is needed to advance their collective goals.

Great Bay 2030 Approach

The goal of Great Bay 2030 is to bring more resources toward efforts that will promote clean water, accessible lands for recreation and education, habitat for fish and wildlife, climate resilience, and engaged communities that are committed to supporting the estuary and its watershed. It is important to acknowledge that critical work is being supported now through NHCF to support some of the focal areas described in this document. The goal of Great Bay 2030 is to grow the investment, not to divert or dilute successful efforts. We also acknowledge that the people who are closest to the work being done will best know the needs of this region and the emerging opportunities. To foster a network of invested partners, Great Bay 2030 will focus on building decentralized capacity to think strategically, develop project ideas, and implement and evaluate projects. We envision the following approach, including how an annual investment of \$1,000,000 could be allocated:

1. SUPPORT FOR FOCAL AREA WORKING GROUPS

Focal area working groups will need assistance with coordination, communications, strategy and project development, grant writing, and identifying capacity gaps. The needs will be different for each group; some groups already have some capacity and organizational structure and others do not currently have any formal mechanisms or structure in place. These groups will be where project ideas are generated and implemented. Focal area working groups will bring in the partners that are relevant and engaged in their topic.

Required Investment: Each focal group will need a portion of an FTE to support meetings, compile notes, facilitate development of project/idea lists, and assess resource requirements to move ideas forward through the Great Bay 2030 process. Focal area working group coordinators could sit within or be sponsored by any Great Bay 2030 organization or another partner, and would be accountable to their focal group and serve as a liaison with the GB2030 Steering Committee (Dea Brickner Wood from GBRPP is an example of how this might function).

Estimate \$200K/year

2. PROJECT IDEA PRIORITIZATION, PROMOTION, AND IMPLEMENTATION

Focal area working group ideas should be put forward in a simple way to the Steering Committee annually or semiannually. The Steering Committee will work together and with NHCF to brainstorm funding opportunities, help sequence or make connections between ideas, and recommend high-impact projects that align with and advance GB2030 goals and which would benefit from private investment. We anticipate a spectrum of investments from small, discrete and time-bound projects to larger multi-year initiatives, some of which will set New Hampshire up for large public investment or grant opportunities. Workgroups could request single year, multi-year, or phased projects when pitching an idea. Criteria will be developed for workgroups to vet potential projects and for the Steering Committee to use in discussion of projects.

Required Investment: Funding for projects; Great Bay 2030 Coordinator time and working group coordinator time to solicit and organize project ideas and refine recommendations; Steering Committee time to participate in these meetings and prepare recommendations; funding to support grant writing, etc. as needed.

Estimate \$780K/year, with most going directly to support projects

3. SUSTAINING COMMUNICATION AND TRUST

A key finding from early assessments of the Great Bay 2020 effort was that the Steering Committee members have built substantial trust and are mutually committed to advancing important work in the watershed. To sustain the productive relationship between Steering Committee members, it would be beneficial for the Committee to meet 2-4 times a year to discuss emerging opportunities or ideas and organizational priorities. In this way, the sessions to discuss specific project ideas can benefit from sustained communication between organizations about shared goals. These meetings can be used to evaluate how Great Bay 2030 efforts are progressing, to trouble shoot or prepare for any challenges that

come up, and to discuss how to efficiently help and work with focal area working group coordinators and the Great Bay 2030 Coordinator. Included in this element is regular and clear communication and involvement from the NHCF.

Required investment: Great Bay 2030 Coordinator time to coordinate these meetings, help collaborate with NHCF, etc.

Estimate \$20K/year

Appendix 1

Illustrative examples of new or significantly expanded federal funding proposed by Congress that directly relate to Great Bay 2030 focus areas:

\$207 million over five years for grants to states and territories to implement coastal and Great Lakes habitat restoration projects which will provide ecosystem and community resilience benefits under the Coastal Zone Management Act and the Coastal and Estuarine Land Conservation Program.

\$77 million for National Estuarine Research Reserves to implement coastal habitat restoration projects which will provide ecosystem and community resilience benefits under the Coastal Zone Management Act and the Coastal and Estuarine Land Conservation Program.

\$492 million for competitive grants for coastal natural infrastructure projects under the National Oceans and Coastal Security Fund to benefit fish and wildlife and to reduce the impacts of coastal flooding.

\$491 million for competitive grants for Community-Based Habitat Restoration projects that restore marine, estuarine, coastal, and Great Lakes or protect or construct features that protect coastal communities from flooding or coastal storms.

\$1 billion for the Great Lakes Restoration Initiative to protect and restore Great Lakes habitats.

\$1 billion for FEMA Pre-disaster Hazard Mitigation Assistance to help communities—both coastal and non-coastal—to adapt to changing condition and reduce their vulnerabilities so they can withstand and rapidly recover from hazards.

\$2.55 billion for USACE coastal storm risk management, hurricane and storm damage reduction, projects, and related activities including at least \$200 million for shore protection projects.

Appendix 2

A central tenant of this approach is that project ideas will bubble up from the working groups. However, Steering Committee members have brainstormed potential projects that could fill known gaps in our watershed work that would advance the mission of this partnership to provide concrete examples of the types of projects that may move forward. Examples are listed in the table below.

Foster a Culture of Stewardship
Create and deploy signage of waterways that enter Great Bay.
Evaluate if and how the Every Drop campaign can continue.
Collect and use baseline information about public awareness about and willingness to engage in Stewardship behaviors.
Developing an oyster conservationist program to engage over 100 community members per year in raising and deploying oysters and building a cadre of ambassadors for the estuary.
Developing a Durham community oyster garden/cages, interpretive signs, and a data box to reach a wider community and potential alternative demographics.

Restore Critical Habitats
Supporting efforts to develop funding needed to complete oyster, seagrass, and salt marsh restoration at ecologically meaningful scale.
Supporting efforts to restore critical habitats up-watershed related to freshwater resources, especially along the riparian corridors.
Fostering a partnership of NGOs, researchers, and agencies to develop, test, monitor, and scale eelgrass restoration techniques.
Continuing collaborative restorative aquaculture and oyster restoration approach with NH oyster growers in stock enhancement, eelgrass research, etc.
Filling a key knowledge gap by developing a prioritization framework for floodplain and riparian area restoration or enhancement.
Designing and implementing an incentive program for up-watershed landowners that would provide direct benefits for saltmarsh protection.

Enhance Water Quality and Quantity
Educate and mobilize the public to support local investments, planning, and policies/ordinances to reduce pollution.

Enhance Water Quality and Quantity

Develop and pilot innovative local incentives and finance strategies around reducing septic system pollution.

Develop policies and actions to address how groundwater rise will impact septic systems.

Exploring drinking water supply protection. New Hampshire DES has done some mapping of groundwater recharge areas.

Facilitating community involvement climate change and drought scenario planning.

Providing a convening function for communicating around water quality contaminants of emerging concern such as PFAS, PFAO, personal care products, and microplastics.

Adapt to Climate Change

Mapping ground water rise throughout the remaining communities in the coastal zone

Hosting an annual climate summit with partners to share new and emerging climate science relevant to the region

Continuing work with communities to help implement the NH Coastal Flood Risk Summary guidance into local land use decisions

Supporting communities to establish dedicated funding for stormwater and flood resilience

Conducting regional assessments of historically underserved populations

Filling critical knowledge gaps around future climate migration to New Hampshire, as well as resident migration away from the coast

Protect Priority Lands

Create and house innovative science-based tools to inform land protection planning.

Maintain or increase the lands transaction grant program through diversifying funding and building capacity to apply for the grants.

Coordinate technical assistance to private landowners to encourage stewardship practices that align with regional management plans for conserved lands.

Develop a program to provide technical assistance and outreach in conservation planning and stewardship of conserved lands for communities in the watershed.

Create a small grants program to implement stewardship activities on conserved lands in the coastal region.