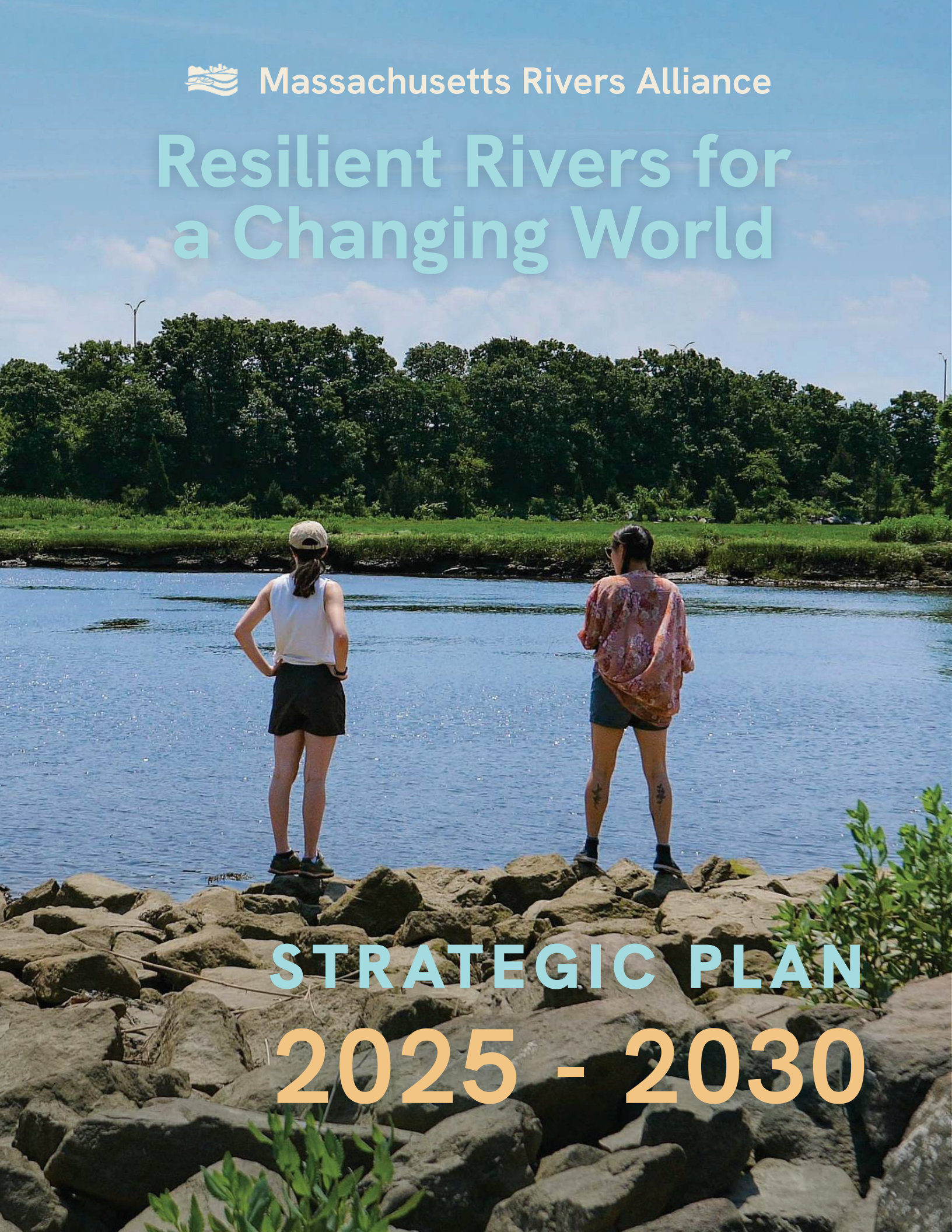
Massachusetts Rivers Alliance

Resilient Rivers for a Changing World



STRATEGIC PLAN

2025 - 2030

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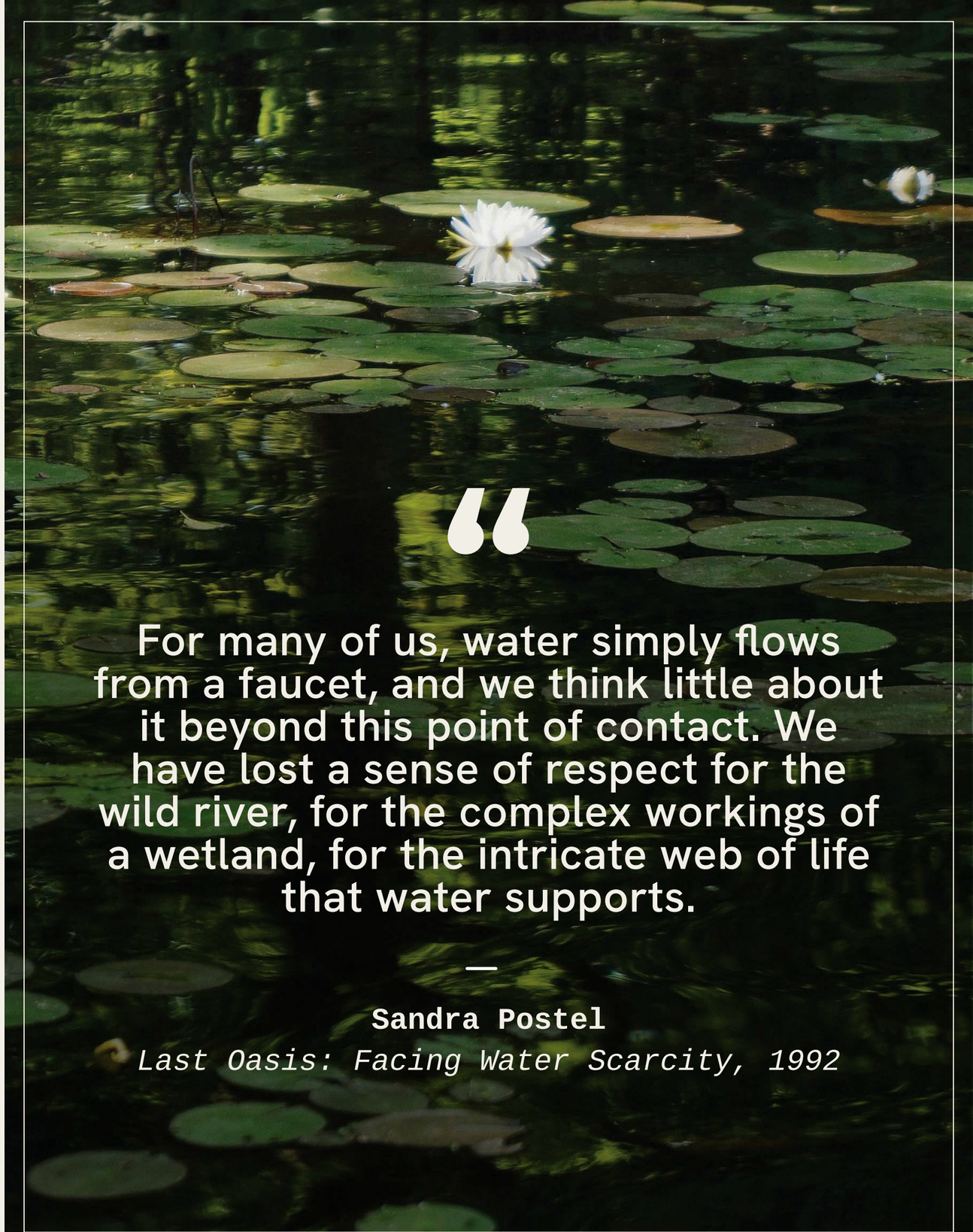

Shaping the Future of Rivers AND the Communities They Serve

This is a critical time for water and for the rivers that supply that water.

Climate change is increasing the intensity of storms and droughts in Massachusetts. Extreme wet and dry conditions affect not only the health of our rivers, but also endanger public health and safety, particularly for marginalized populations. We must urgently prepare for, and manage, both droughts and floods. The Massachusetts Rivers Alliance (Mass Rivers) promotes innovative solutions, advocates for state funding to support river-smart policies, and collaborates with legislators and government leaders to create climate resilience. Our strategy is designed to meet the greatest challenge of our times.

Seventeen years ago, the founders of Mass Rivers created a new organization to fill a gap in the state's environmental advocacy landscape. While other environmental causes (land conservation, energy, clean air) had strong advocates, the state's water and 8,000 miles of rivers had no dedicated champion operating statewide. Mass Rivers was founded to make sure that rivers have a strong voice to speak up for them. With the support of over 85 member groups, we are now the leading organization for statewide river advocacy. We have become the statewide convenor for educational and networking events that benefit river health and quality of life for communities across the Commonwealth. Harnessing the strength of our alliance, we have played a crucial role in bringing unprecedented levels of resources to the rivers, while also catalyzing change and increasing the capacity of our members and allies.

Mass Rivers Policy Director, Katharine Lange testifying at the State House, April 2023

OUR MISSION

is to protect and restore the Commonwealth's rivers and streams, and to strengthen and connect our member organizations to amplify the impact of our collective efforts towards common goals.

OUR VISION

By 2050, we see all of the residents of the Commonwealth of Massachusetts enjoying clean, healthy river systems. We will have enough clean water for current and future generations, and our rivers will support a sustainable economy. We will have rivers that flow through healthy communities and are connected to those communities, regardless of socioeconomic conditions. Most importantly, we will have rivers that are climate resilient, able to withstand the challenges of rapidly changing environmental conditions while enhancing the quality of life for people and for wildlife.

OUR VALUES

We value sustainability.

Rivers will sustain us if we sustain them.

We value public health.

Every resident of the Commonwealth has the right to affordable, clean, safe drinking water and access to outdoor recreation in a healthy environment.

We value communities.

Every river should be an asset to its community.

We value science.

Decisions about water management should be based on sound science and should incorporate the latest research on climate change.

We value inclusiveness.

We will always collaborate with all who support sustainable water management and we welcome nontraditional partners and allies.

Water and Climate Change — a Global Challenge, a Local Call to Action

Water and climate change are inextricably linked. Climate change affects the world's water in complex ways. From unpredictable rainfall patterns to shrinking ice sheets, rising sea levels, floods and droughts – **most impacts of climate change come down to water**.

Climate change is exacerbating both water scarcity and water-related hazards as rising temperatures disrupt the entire water cycle.[1] We see this play out across North America, with droughts and flooding plaguing California, groundwater pollution and depletion documented in all regions of our country, and recently, fires in Canada.

Here in Massachusetts, we face changing patterns of precipitation characterized by increasingly intense storms interspersed with droughts. Rising temperatures in our state intensify the effects of drought, and paved surfaces increase flooding. ***These changes are disrupting ordinary people's lives*** in ways big and small, some obvious and some less so. The past ten years have seen water supply emergencies in at least seven communities in our state, increased wildfires during dry summers, urban flooding, and large sewage discharges resulting from intense storms.

Mass Rivers is uniquely positioned to address these challenges.
As ***the only organization working statewide*** to improve the health and sustainability of our rivers and streams, we have built a record of achievement and strong partnerships across nonprofit, private, and government sectors. Since 2007, Mass Rivers has led the way to improving state policies for healthier waterways and increasing our shared investment in a sustainable water future. We are proud of our accomplishments to date, some of which are highlighted on page 14.

[1] United Nations Sustainable Development Goal #6, https://www.un.org/sustainabledevelopment/water-and-sanitation/.

Why Rivers?

Healthy rivers are essential to all life. Dry riverbeds and polluted streams threaten not just plants and animals, but the health of our water supplies, our economy, and our access to recreational opportunities. **The good news is that restoring our rivers to health often brings many other benefits, often called "co-benefits." Strategies to fix rivers can double – or even triple – their projects' bottom lines, in that they come with public health, safety, and economic benefits as well.** Upgrading culverts improves river connectivity and water quality, but ***also*** removes public safety hazards and avoids the costs of road replacement. Likewise, planting trees as natural buffers along urban rivers improves water quality and habitat, while providing heat and stress relief for neighborhood residents. Fixing a river benefits not just its wildlife but improves our public health, public safety, recreational opportunities, the beauty of our surroundings, and our economy. **Rivers connect us.**

This Strategic Plan

We have accomplished many of the goals we set for ourselves in our 2019 Strategic Plan, **and we are excited to reach higher and dream bigger this time around.** In the past five years, our organization and our movement for rivers have grown, and we now have the capacity to make an even bigger impact. In developing this new plan, we asked ourselves what will be the most important challenges facing rivers and water in the coming decades and what can we do in the next five years to make sure our communities are prepared for them? The pages that follow answer these questions by describing the challenges that lie ahead and our strategies for addressing them. **With your help, we will chart a path together toward a more sustainable water future.** Thank you for your support as we take on these important challenges.

Julia Blatt
EXECUTIVE DIRECTOR

Rivers are at the Center of the Climate Crisis

Ipswich river in downtown during drought, 2016

Climate Change has been an important focus of Mass Rivers' work since its early days. As anticipated in our 2019-2023 Strategic Plan, climate change has been increasing the intensity of heat, storms, and droughts, affecting the health of our rivers and public health and safety. These trends have only increased and become more urgent.

In addition, the importance of river protection and land management to climate resilience has become clear. The complex and critical relationship between climate change and rivers demands that climate change play a central role in all of our work.

Effects of Climate Change on Rivers

Climate Change affects river quality, human health, and wildlife health in myriad ways:

- More intense inland storms cause flooding for inland water bodies, at the same time that sea level rise is impeding river drainage and flooding coastal lands.
- Increased heat contributes to drought and reduces instream flow and groundwater recharge.
- Warmer waters, flooding, and droughts contribute to water pollution – including sediments, algae, pesticides, and pathogens.
- Warmer and more polluted rivers threaten fish and wildlife.
- Storm events may damage infrastructure, including dams and levees.

Protecting Our Rivers and Associated Infrastructure, and Land Use Planning Play Crucial Roles in Climate Resilience

- Ensuring sufficient stream flow in rivers and managing water according to scientific principles mitigates the effects of drought.
- Preserving forested land along stream corridors keeps rivers cool.
- Preserving wetlands, especially in river headwaters, reduces flooding and increases groundwater infiltration.
- Wetlands are also effective carbon sinks that absorb and store carbon dioxide and thus reduce greenhouse gas emissions.
- Effective stormwater infrastructure and green infrastructure increase groundwater infiltration and protect rivers from sewage, PFAS, and other contamination.
- Improving culverts and removing dams improves natural streamflows.
- River-related parks and recreation can help communities stay cooler during heat waves.

Mass Rivers will continue to expand engagement with land protection allies and promote infrastructure and land use planning that protects river health and wildlife, and creates climate resiliency more broadly.

> **Climate change is primarily a water crisis.**
> We feel its impacts through worsening floods, rising sea levels, shrinking ice fields, wildfires and droughts.
>
> **However, water can fight climate change.**
> Sustainable water management is central to building the resilience of societies and ecosystems and to reducing carbon emissions. Everyone has a role to play – actions at the individual and household levels are vital.
>
> **- United Nations**
> *https://www.unwater.org/water-facts/water-and-climate-change*

Healthy Rivers Support Climate Resilience

Poor River Health Compounds Climate Change Effects

Damaging Heat

Increasing heat reduces stream water levels and groundwater recharge. Hydrologic conditions in Mass. make groundwater recharge crucial, esp. for drinking water wells.

Storm Damage

More frequent, high-intensity storms damage infrastructure like dams scarring communities and costing taxpayers millions.

Warming Waters

Drought and warmer waters contribute greatly to water pollution. Reduced river flow leads to higher concentrations of pollutants like pesticides, pathogens, and sediments in water.

Effects on Agriculture

Droughts and floods can reduce crop yields, with consequences for food security and the larger economy.

Healthy Rivers Mitigate Climate Change Effects

Flood Safety

Improving culverts and removing dams improves water flow, can reduce flooding, and restores habitat and wildlife.

Fresh Water Conservation

Maintaining healthy streamflows by scientifically managing withdrawals support downstream communities and their economies.

Reducing Carbon and Pollutants

Restored riverbanks and wetlands reduce atmospheric carbon, reduce flooding, increase groundwater infiltration, and reduce pollutant loads.

Staying Cool

Preserving forested land along stream corridors keeps rivers and people cool.

Designed by Amanda Siow

Achieving Environmental Justice: the Crucial Role of Rivers and Water

We believe that the goal of achieving environmental justice in Massachusetts can not be attained without including rivers. Roughly half of Massachusetts residents live in environmental justice areas and, with 8,000 miles of rivers across the state, rivers criss-cross most of these areas. All of us must have water to live; access to clean drinking water has been enshrined by the United Nations as a human right. Rivers are essential to the delivery of that water, and we rely on them to support other necessities for living: agriculture, commerce, recreation, and transportation.

Therefore, no person, regardless of their race, color, location, age, or socioeconomic status should be denied the benefits of the rivers that are integral to life.

Rivers and waterways are a public asset to be used for the public good. However, over time, environmental injustices have been woven into the management (or mismanagement) of these precious public assets. Poor quality drinking water is often a first indicator of environmental injustice. But these injustices are also revealed when climate change and degraded waterways cause crises. Floods disproportionately affect marginalized and socioeconomically disadvantaged communities. Consumption of fish, shellfish, and aquatic plants from polluted waters has a greater impact on communities of color, low-income people, and Indigenous peoples (Source: EPA). Sewage spills that make rivers unsafe for subsistence fishing and recreation most often occur in low-income, minority, and linguistically isolated communities in our state. Many of these problems are caused or exacerbated by exclusionary practices that overlook how policies and projects affect people on the ground.

Photo by SolStock, 2021

With our partners and supporters **Mass Rivers will**:

- Evaluate all of our work through an equity lens and prioritize projects that benefit marginalized communities.
- Reach out to environmental justice organizations across the state to learn about their needs and, when feasible, partner with these organizations to achieve our common aims.
- Propose and support policies that will benefit environmental justice communities.
- Work with our partners to reform statewide water distribution practices to include principles of equity.
- Identify and ameliorate communities' river and water vulnerabilities that undermine river use, particularly in rural areas, to advance community health and wealth.
- Educate the public - in clear, understandable language - about river and water issues through traditional and social media.

Investments in these efforts will lead to strong, community-oriented reforms in the statewide management of water resources while also expanding the coalition of organizations that care for rivers and building political will for ongoing change.

Sustaining and Growing Mass Rivers' Capacity

In order to carry out this work, Mass Rivers deploys a small team of talented, creative, and hard-working staff, supported by a strong, engaged Board of Directors. We take pride in our team, and we are on track to grow at a steady, healthy pace. As we meet the challenges described in this plan, we must prepare to increase our capacity and continue to attract the talent needed to innovate and succeed.

OUR ACCOMPLISHMENTS

Since our inception, our small, nimble organization has leveraged its strengths to accomplish much including:

- Creation of a social movement for river protection and restoration in Massachusetts. We have built an active, engaged alliance of 86 member organizations. Mass Rivers is a national model for the statewide alliance approach to river protection.
- Passage of a major piece of state legislation (sewage notification law, 2021) and improvements in over a dozen state laws to increase future water sustainability in Massachusetts.
- Major gains in the Commonwealth's investment in rivers and environmental health. Our advocacy led to large environmental bond increases as well as significant budget increases for key state government agencies.
- Creation of our bi-annual Lobby for the Rivers Day, the largest lobby day for land and water in Massachusetts.
- Development of dozens of educational events for hundreds of municipal staff, NGO staff, and government employees, on river- and water quality-related issues.
- Successful interventions in state and federal government efforts that would have negatively changed water management for rivers and for water supplies.
- Appointments as the "voice for rivers" on many statewide committees, commissions, task forces, and other advisory bodies.

LOOKING AHEAD

Our team is energized by our many achievements and we look forward to translating our momentum into even greater benefits for our communities, our rivers, and our environment.

With your support, Mass Rivers will:

- Hire and retain top talent. We will continue to invest in staff with the necessary specialized skills. We commit to recruiting, hiring, and retaining staff and providing them with pathways for professional growth and career advancement within the organization.
- Continue to nurture a welcoming organizational culture with an eye to diversity and equity.
- Offer salaries and benefits that are competitive with larger organizations, including other nonprofit organizations, government agencies, and consulting firms.
- Expand our staff to add program and administrative staff as needed to support Mass Rivers' policy, technical, and educational programs, as well as capacity-building programming for our member groups.
- Recruit and elect a diverse group of board members who bring a variety of skills, talents, and experience, who hail from all corners of the Commonwealth, who possess a passion for our mission, and who are committed to helping the organization grow and thrive.
- Keep the organization financially healthy by raising sufficient funds to meet current needs and anticipate future growth. This includes building a healthy operating reserve to finance growth and withstand cash shortfalls. We therefore aim to double operating revenues within the next five years.
- Periodically review and update bylaws, policies, and committee structures.

ISSUE #1

Healthy Rivers

OVERVIEW

Massachusetts is blessed with over 8,000 miles of rivers ranging from large interstate waterways to small cold-water streams to four federally designated Wild & Scenic river systems. Keeping these rivers flowing has been the first priority of Mass Rivers since our inception in 2007.

PROBLEM STATEMENT

Healthy rivers and their watersheds sustain humans, wildlife, and plants. However, we face many obstacles to attaining river health in our state such as:

- Eighteen municipalities have sewage conveyance systems that combine stormwater and sewage. When these systems overflow due to heavy rainfall (called Combined Sewage Overflows or CSOs) untreated sewage pours into rivers.
- Massachusetts has over 3000 obsolete dams and the majority of our 25,000 culverts and small bridges are undersized (Source: MA Division of Ecological Restoration). Antiquated dams and culverts disrupt river continuity, risk public safety, and inhibit fish passage.
- Contaminated stormwater, pesticides, fertilizers, oil, plastic, pet waste, and trash run off the land into our waters.
- Industrial pollution such as mercury, PCBs, dioxins, DDT, pesticides, and metals continues to impact nearly all of Massachusetts's rivers.

All of these challenges are exacerbated by the extremes of climate change – droughts, intense storms, lack of winter snowpack, and high temperatures.

Mill Brook in Arlington, MA by Bas Swaving, 2024

How Mass Rivers will Make a Difference:

The good news is that rivers are resilient and healthy rivers foster climate resilience. Over the next five years, the Massachusetts Rivers Alliance is committed to improving the water quality and stream flow of the Commonwealth's rivers to achieve healthy, vibrant rivers for all people and wildlife.

With our partners and supporters, **Mass Rivers will:**

- Advocate for climate-smart legislation and regulations to achieve healthy rivers.
- Work to reduce, and eventually eliminate, combined sewer overflows.
- Collaborate with our members and partners to maximize the use of regulatory tools to reduce stormwater runoff pollution.
- Advocate for investment in state programs critical to protect river health.
- Promote water conservation statewide.
- Provide hands-on technical guidance to organizational members on accountability and equity in water distribution, dam removal, stormwater management, and other water infrastructure improvements.
- Act as a watchdog for pollutant loads for rivers and streams statewide.
- Educate municipal officials and community-based NGOs to help improve their river stewardship.

Concord River by Tom Henell

ISSUE
#2

Rivers as Habitat & Natural Systems

OVERVIEW

Massachusetts's rivers exemplify biodiversity with their intricate food webs of native flora and fauna. Rivers are the key biome for aquatic life: a diverse array of environments exists down the length of a river, connecting land environments to ocean environments. Many land-based species rely on rivers as foundations for their habitats. Degraded rivers lead to habitat loss and loss of biodiversity.

As the changing climate intensifies weather extremes, and as biodiversity retreats, it becomes clear that our own resilience depends on our rivers' ability to support life.

PROBLEM STATEMENT

Of the 432 endangered species in Massachusetts, over half rely on rivers and streams for their habitats. Man-made infrastructural disruptions of river environments jeopardize unique ecosystems and compound the effects of climate change. Impervious surfaces transmit polluted waters to rivers, worsening floods and decimating habitats for native species. Streams disconnected by dams and poor culverts eradicate or endanger important migration paths for native species. Dam ponds capture polluted sediment, prompt algal growth, and become hosts for invasive species. Careless development standards and practices remove tree and shrub cover, a key to maintaining cold water fisheries. Invasive species thrive in these disturbed habitats, crowding out the plants and animals that are critical to biodiversity and maintaining the ecosystem.

How Mass Rivers will Make a Difference:

With our partners and supporters, **Mass Rivers will:**

- Create programs that accelerate the removal of obsolete dams to enable migration and wildlife connectivity.
- Catalyze statewide efforts to upgrade or replace culverts to strengthen river connectivity and improve flood control.
- Advocate for the restoration of priority habitat areas such as wetlands, river corridors, and floodplains.
- Work with our member organizations to protect cold water habitats.
- Work with the state and with municipalities to minimize development impacts on river corridors.

Rick Olick, 2018

Mark Lindhult

scottbeard, 2011

ISSUE
#3

Connecting People to Rivers

OVERVIEW

People need their rivers and now, more than ever, rivers need their people. Creating the political will to eliminate threats to the Commonwealth's rivers and water supply begins with public engagement. For too long, degraded rivers left behind by the economy of the past century have affected too many people's present-day quality of life. Successfully connecting people to their rivers will lead to improvements for rivers, and will also result in improvements in the quality of life in communities, an outcome that every person in Massachusetts deserves.

PROBLEM STATEMENT

In Massachusetts, issues related to rivers rarely capture the public's attention, and communities are often disconnected from their local waterways. As a result, there is sparse political pressure to change the systems and policies that manage our water. Public disengagement also means that policy initiatives and fiscal resources that benefit rivers can take a back seat to other, more well-known causes. Ultimately, the disconnection between people and rivers in our state raises the likelihood that unchanged water management practices will lead to dwindling water supplies, and that we will be left vulnerable to climate change.

Westfield River by Bill Parker, 2015

How Mass Rivers will Make a Difference:

The fast-changing climate gives us an unprecedented opportunity to demonstrate that making rivers healthy is a foundational step in building a secure future with a thriving economy.

With our partners and supporters, **Mass Rivers will:**

- Promote public enjoyment of river recreation, wildlife, and natural beauty.
- Broaden our network to reach more communities across the state including municipalities, river recreation groups, public health advocates, wildlife organizations, and land-protection organizations that face river protection challenges.
- Ensure that equity is a first principle in all projects we undertake.
- Expand and improve our use of media to inform and educate the public about their rivers, the climate, and river-related problems.
- Improve our website to be more accessible, informative, and user-friendly.
- Promote and expand the "Explore Your Rivers" section of our website.
- Collaborate with environmental justice communities, Indigenous peoples, and their allies to connect people to their rivers, engage them in river protection, and increase healthy recreational opportunities.
- Increase opportunities for the public to access information and data via thoughtful, effective information dissemination practices.
- Develop and share information on the public health impacts of degraded rivers, including river pollution and the public health benefits of healthy rivers.

ISSUE
#4

Resources for Rivers

OVERVIEW

Rivers rely on us to provide the resources that will keep them healthy and able to serve the needs of people and wildlife. Mass Rivers is recognized as the statewide voice for rivers. Legislators, government leaders, the media, academia, our colleagues, and the general public see us as the leading authority on river needs. We are a strong and consistent presence whenever statewide river and water management discussions are held and decisions are made.

PROBLEM STATEMENT

Massachusetts has a severe funding gap in water infrastructure. The American Society of Civil Engineers estimates that $15.2 billion is needed to bring our drinking water facilities up to current standards, and $8.4 billion is needed to upgrade our stormwater management and wastewater treatment facilities. (Source: American Society of Civil Engineers 2021 Report Card for America's Infrastructure) These figures do not include the enormous investments required to prevent catastrophic infrastructure failure, stop sewage from spilling into rivers, remove defunct dams, and create the kind of climate-resilient water infrastructure that will make Massachusetts less susceptible to droughts, floods, and other effects of climate change. Such state and federal investments are unlikely to happen without unified and persistent calls for action from river- and water-connected NGOs and changes in the public's attitude towards water infrastructure.

Recently built culvert that serves flood and habitat protection needs. Photo by Amanda Siow, 2024

Ballou Dam in Becket 2006 pre-dam removal and 2007 post-dam removal. Photos courtesy of MA Division of Ecological Restoration

How Mass Rivers will Make a Difference:

Mass Rivers has already proven its effectiveness in increasing state budgets to protect rivers. In 2022-2023 alone, we successfully advocated for over $40 million of increased funding for Massachusetts state environmental agencies. We must continue to leverage our standing as the unified and persistent voice for over 85 member organizations. The larger and stronger our alliance, the more likely we are to secure the resources needed to protect and restore rivers, and to demonstrate the power of rivers to make Massachusetts climate resilient.

With our partners and supporters, **Mass Rivers will:**

- Engage with state and federal legislators and agency staff to propose and support policies that are beneficial to rivers and water.
- Strengthen our member organizations by providing training, funding information, and increased opportunities for capacity building and information-sharing.
- Increase the number of organizations in our alliance.
- Access state and federal funding for our work and for the work of our alliance members.
- Continue to organize one Lobby for the Rivers Day per legislative session and to host legislative and budget advocacy workshops.
- Develop and share expertise on best river protection practices.
- Organize, inform, and collaborate with allies.
- Continue the Mass Rivers Connects peer-to-peer support programs; tailor them to create communities of practice on a wide variety of river- and water-related challenges.
- Publicize allies' efforts to protect rivers and address climate and EJ impacts – in MA and nationwide.
- Continue and expand training for municipalities on stormwater, flooding, and drought management.
- Develop statewide convenings focusing on climate impacts, policy developments, environmental justice, and state regulatory program effectiveness.

Our Theory of Change:
The Mass Rivers Ripple Effect

MASS RIVERS INPUTS

Statewide Alliance Building
Legislative Advocacy
Technical Analysis
Government Action Monitoring
Training and Education
Cross-Sector Collaboration

We use our principles and expertise to propel and achieve change for the Commonwealth's rivers and people.

Increasing River Awareness

Generating Political Will

Increased Funding for State Agencies

Strong River, Wetlands, and Habitat Management Policies

Best-in-the-Nation River and Water Management

Resilient, Clean, Healthy Flowing Rivers for All

SYSTEMIC CHANGE OUTPUTS

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Photo: Neponset River Estuary, by Amanda Siow, 2024.
Layout design by Amanda Siow