



July 19, 2021

The Honorable Michael Rodrigues
Chair, Senate Committee on Ways and Means
State House, Room 212
Boston, MA 02110

The Honorable Aaron Michlewitz
Chair, House Committee on Ways and Means
State House, Room 243
Boston, MA 02110

Re: American Rescue Plan Investments in the Green Economy

Dear Chair Rodrigues and Chair Michlewitz,

Thank you for your leadership in addressing the COVID-19 pandemic. As we look toward recovery and stimulating our economy, the Commonwealth's American Rescue Plan Act (ARPA) funds create an incredible opportunity to create jobs and make significant progress toward building a more resilient Commonwealth. We are grateful for the opportunity to weigh in how the Commonwealth might invest these funds to advance a green recovery.

Use and enjoyment of the state, local, and nonprofit outdoor spaces dramatically increased in 2020 and 2021. On average, outdoor spaces saw their visitation double, and some state parks saw a 300 percent increase in visitation.¹ Based on recent data, those trends are not slowing down (See June 7, 2021 Boston Globe, [Covid Silver Lining](#)).

According to the U.S. Department of Commerce, outdoor recreation is a significant driver of the Massachusetts economy, adding \$10.5 billion to the state's GDP, directly supporting 114,000 jobs, and resulting in \$5.5 billion in wages and salaries in 2019.² ARPA provides us with a once in a lifetime opportunity to improve and maintain critical parks, trails, and waters, while creating permanent jobs and stimulating the state's outdoor recreation economy in an equitable way to ensure that all citizens benefit, including those communities disproportionately impacted by the pandemic. ARPA funding also provides us with the chance to address climate adaptation and resilience to protect communities and create jobs at the same time.

As you know, the pandemic hit immigrant communities, people of color, and lower-income and working-class communities especially hard, which is partly why Massachusetts has higher unemployment and

¹ Google COVID-19 Community Mobility Report, June 23, 2020.

² U.S. Department of Commerce, Bureau of Economic Analysis. 2019. Massachusetts Outdoor Recreation Satellite Account. <https://outdoorindustry.org/state/massachusetts/>

slower recovery rate than neighboring states.³ The U.S. Treasury Guidance offered a pathway to target investments to these disproportionately impacted populations.⁴ We hope for Massachusetts to prioritize investments toward economic development, training, and education for these populations and to create quality green jobs in fast-growing fields and industries.

In addition to providing funds for state agencies and municipalities, we urge you to set aside grant dollars for nonprofit partners as part of any ARPA spending plan. Most state grants are available to state agencies, cities, and towns, while very few grants are available to nonprofits. Yet it is NGOs, including the state's 100+ land trusts and watershed associations, that are often responsible for leveraging significant private investments and for helping cities and towns with planning, funding, and completing complex land and water conservation and restoration projects, while welcoming millions of people to our preserves, beaches, parks, and trails each year. Moreover, nonprofits accomplish this work rapidly - we have teams of specialists with decades of experience in supporting communities and state agencies and getting deals done.

Below please find our proposals for how to stimulate the outdoor recreation industry and green economy, curb climate emissions, and protect our communities through climate resiliency and adaptation programs and projects, while leveraging public and private dollars.

Thank you for your consideration.

³ Brooks, Anthony. July 14, 2021. *Why Is The Mass. Unemployment Rate Twice As High As N.H.'s?* WBUR.

<https://www.wbur.org/news/2021/07/14/unemployment-rate-massachusetts-new-hampshire-why-different>

⁴ See page 3 of the Treasury's Fact Sheet on the Interim Final Rule (IFR): <https://home.treasury.gov/system/files/136/SLFRP-Fact-Sheet-FINAL1-508A.pdf>

American Rescue Plan Act Investments

A Green Recovery for Massachusetts

I. Outdoor Recreation

The post-COVID period is a critical time to tackle the condition of our state parks and other public and nonprofit lands and waters. We have a unique opportunity to put people to work and seize this moment to ensure the use of our natural resources becomes a lifetime healthy habit for all people.

Massachusetts benefits from a strong outdoor recreation economy, contributing \$10.5 billion annually to the state's GDP, directly supporting 114,000 jobs, and resulting in \$5.5 billion in wages and salaries.⁵ The benefits of outdoor recreation to boost physical, mental, and emotional health has become increasingly clear during the COVID-19 crisis, through high demand. However, most state parks, beaches, and trails are in disrepair. Others are threatened by climate change impacts, including flooding, heat, drought, and other risks.

Invest in Open Space: We urge you to use this opportunity to address deferred maintenance and increase climate readiness on lands and waters owned and managed by the departments of Conservation and Recreation (DCR), Fish and Game (DFG), and Agricultural Resources (DAR). Communities disproportionately impacted by the pandemic need not only better access to health care, but to open space and recreation areas, as well. We also urge you to fund the creation and improvement of parks, trails, beaches, rivers, streams, and outdoor recreation opportunities, especially in underserved communities, by providing grants to nonprofit partners.

We request at least:

- **\$100 million** for programs and grants within the Executive Office of Energy and Environmental Affairs (EEA) and agencies to maintain, restore and improve public access on state, municipal, and nonprofit parks, trails, and conservation land. Programs and grants may include, but are not limited to, DCR and DFG deferred maintenance, recreation, and wildlife habitat restoration efforts, as well as grants to nonprofits to improve the condition of, and public access to, lands and waters in all communities.
- **\$25 million** for DCR, DFG and DAR to acquire conservation land and agricultural preservation restrictions on working farms and forests.
- **\$100 million** for municipalities and nonprofits to dramatically increase the pace of new open space, including waterfront parks, urban parks, trails, bike paths, playgrounds, urban farms, community gardens, and green spaces designed to absorb heat and reduce flooding impacts. This could be through existing grant programs, like the Conservation Partnership Grant Program, the Local Acquisitions for Natural Diversity (LAND) Program and the Parkland Acquisitions and Renovations for Communities (PARC) Program, or new ones. Funding should be prioritized for environmental justice communities and those that have been disproportionately affected by the pandemic.

Create an Office of Outdoor Recreation: A new Office of Outdoor Recreation (OREC) within EEA would support, promote, and market outdoor recreational activities available throughout the state; create new opportunities for environmental justice populations to recreate outdoors; and develop and implement statewide policies, initiatives, and programs to promote outdoor recreation. The OREC would stimulate economic development, and improve the quality of life, health, and well-being of residents and visitors. EEA officials would collaborate with other secretariats from Travel and Tourism and Public Health, as well as business leaders, public health officials, and nonprofits. Massachusetts would join 15 states in establishing a statewide OREC. (See also S.560 sponsored by Senator Hinds.)

⁵ U.S. Department of Commerce, Bureau of Economic Analysis. 2019. Massachusetts Outdoor Recreation Satellite Account. <https://outdoorindustry.org/state/massachusetts/>

We request at least:

- **\$800,000** (\$200,000 annually over four years) to establish the office; leverage private contributions; coordinate agencies, convene stakeholders, and develop and distribute educational, outreach, marketing, and other communications materials for residents, tourists, and visitors.
- **\$500,000** to kick start grants for cities, towns, and nonprofits to fund outdoor recreational projects including planning; river, park, and trail creation, improvement, and maintenance; outreach and promotion; and to leverage local, federal, and private grant opportunities.

II. Nature-Based Solutions for Climate Mitigation, Adaptation, and Resilience

Nature is our ally in the fight against climate change. Natural infrastructure provides a significant opportunity to address climate mitigation, adaptation, and resiliency while also creating sustained jobs in communities across the state.

Natural Climate Solutions (NCS) are actions to protect, manage, and restore natural and working lands (like forests, farms, and wetlands) to remove and reduce carbon emissions from the atmosphere. NCS in Massachusetts can reduce and remove an additional 1-2 MMtCO₂e (million metric tons of carbon dioxide equivalent) every year,⁶ the equivalent of taking ~215,000 to 435,000 cars off the road.⁷ NCS are now part of the Global Warming Solutions Act and statutorily required to be included in EEA's updated 2030 Clean Energy and Climate Plan.

Nature Based Solutions (NBS) enable communities to enhance safety and avoid costs by protecting, restoring, and managing natural systems to reduce risks from climate hazards, such as flooding, heat, and drought. Investing in NBS now saves communities billions later.

Invest in Ecological Restoration: These NBS projects have the potential to generate significant jobs while building more resilient communities, reconnecting aquatic systems, and improving access to nature. The Division of Ecological Restoration (DER) has found that for every \$1 million spent on NBS projects, 12.5 full time jobs are created or maintained.⁸ And the National Oceanic and Atmospheric Administration (NOAA) has found that their funding for coastal habitat restoration supports on average 15 jobs per million dollars spent and up to 30 jobs per million dollars spent on labor intensive restoration projects.⁹ Additional economic benefits of NBS projects include billions in cost avoidance for disaster recovery and repairs by providing sustainable flood protection services and helping municipalities meet mandatory water quality standards. Ecological restoration projects also create new opportunities for boating, fishing, hiking, birdwatching, and swimming, which support Massachusetts' outdoor recreation industries.

Massachusetts has more than 3,000 dams, over 300 of which are considered "high-hazard" by the American Society of Civil Engineers.¹⁰ Dams are intended to control water, but can also degrade water quality, block the passage of fish and other animals, and detrimentally impact biodiversity. Removing hazardous and obsolete dams allows more natural water flow, boosts water quality and quantity, and reduces the risk of catastrophic flooding,¹¹ while providing high quality, local jobs. We urge you to invest in restoration activities like these to protect communities

⁶ Nature4Climate. 2020. See MA state profile at: <https://nature4climate.org/u-s-carbon-mapper>

⁷ EPA Greenhouse Gas Equivalencies Calculator. 2020. <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

⁸ Massachusetts Department of Fish and Game (DFG), Division of Ecological Restoration (DER). 2015. Economic Benefits from Aquatic Ecological Restoration Projects in Massachusetts: Summary of Three Phases of Investigation. <https://www.mass.gov/files/documents/2016/08/wi/summary-of-der-economic-benefits-studies-all-phases.pdf>

⁹ Samonte et al. 2017. Socioeconomic Benefits of Habitat Restoration. NOAA Tech. Memo. NMFS-OHC-1. <https://repository.library.noaa.gov/view/noaa/15030>

¹⁰ American Society of Civil Engineers. 2017. Infrastructure Report Card. <https://www.infrastructurereportcard.org/state-item/massachusetts/>

¹¹ Snyder & Associates. Dam Removal: An alternative to costly maintenance and repairs. <https://www.snyder-associates.com/dam-removal-benefits/>

and restore natural systems. Investments should include grants to cities and towns as well as nonprofit partners. There is also tremendous opportunity to leverage federal funding through NOAA, USDA, and FEMA for this kind of work.

We request at least:

- **\$45 million** to remove 25 obsolete and unwanted dams statewide.
- **\$20 million** to protect up to 2,000 acres of land and restore 1,000 acres of wetlands on cranberry farmlands taken out of production by their owners.
- **\$25 million** for coastal and tidal wetlands restoration, including salt marshes, for climate adaptation and habitat restoration benefits.

Advance Municipal Preparedness: Over 90 percent of the Commonwealth’s municipalities are enrolled in the Municipal Vulnerability Preparedness (MVP) Program and have prioritized action projects that use NBS and address equity. In the latest MVP grant round, the state received 92 applications requesting a total of \$28 million for action grants, while only having \$10 million available to distribute – there are shovel worthy projects that have far reaching benefits for the Commonwealth. Jobs associated with the kinds of projects supported by MVP action grants include planners, engineers, landscape architects, soil scientists, aquatic ecologists, construction, and more. We urge you to increase funding for the MVP program – and other adaptation/resiliency programs to support state agencies and nonprofits working on climate resiliency – and to establish new sources of funding for on-the-ground action projects; to support Sustainability Coordinators to help communities take advantage of EEA’s various climate and energy programs; and to scale matching funds for low-income communities to ensure those with fewer resources are competitive grant applicants.

We request at least:

- **\$300 million** (including at least \$28 million per year for four years for MVP) for climate resiliency projects and programs; support implementation of the State Hazard Mitigation and Climate Adaptation Plan and other state and local climate resilience plans; and to make funds available to municipalities, regional planning bodies, watershed organizations, land trusts, and conservation and community-based nonprofits.

Advance Resilient Transportation Infrastructure: Massachusetts has more than 25,000 culverts and small bridges in our transportation network, many of which have reached or will soon reach the end of their designed service life.¹² To compound the issue, many structures are undersized relative to current stream flows and climate change predictions. The Culverts and Small Bridges Working Group estimates that an approximately \$53 million investment, spread over four years, will enable more municipalities to fund culvert and small bridge projects. Currently, the Municipal Culvert Replacement Grant Program regularly receives \$6-7 million per year in requests, with only \$750,000 per year to disburse for grant support.¹³

In line with the recommendations of the Culverts and Small Bridges Working Group, we request at least:

- **\$20 million** to MassDOT’s Small Bridge Program.
- **\$30 million** for DER’s Culvert Replacement Municipal Assistance Grant Program.
- **\$3 million** for MassDEP to develop a statewide hydrology/hydraulics tool.
- **\$400,000** (\$100,000 per year over four years) for expanded training programs.

Expand Municipal Greening Programs: Trees and forests in cities reduce urban flooding, improve the quality of our air and water, and make neighborhoods more livable. Urban trees also provide measurable public health benefits, including asthma reduction, and lower energy demand, thereby saving households an average \$230 per

¹² Massachusetts Culverts and Small Bridges Working Group for Senator Hinds and the Massachusetts Legislature. 2020. Recommendations for Improving the Efficiency of Culvert and Small Bridge Replacement Projects. <https://www.mass.gov/doc/massachusetts-culverts-and-small-bridges-working-group-report/download>

¹³ Direct communication with DER.

year in energy costs¹⁴ – while also reducing greenhouse gas emissions. The successful Greening the Gateway Cities program hires and trains permanent and seasonal workers to plant trees along streets and in yards, while supporting local nurseries.¹⁵ Focusing on environmental justice neighborhoods and contracting with a local community nonprofit in each city, this program provides workforce development and job training, and has an impressive track record of seasonal tree planting staff going on to full-time employment in urban forestry and related industries.¹⁶ This program should be used as a model for new municipal programs that plant trees and create greenspace outside of the Gateway Cities as well as to address historic underinvestment. We would encourage the legislature to expand the program even further to target air quality in those communities disproportionately impacted by COVID.

Also, the state's FY22 Capital Spending Plan creates a new Greening Urban Lots and Planting River Buffers program, which could be launched with ARPA funding.

In addition to cities, there is an opportunity to increase active reforestation of streambanks and floodplains to sequester carbon, improve water quality, and decrease streambank erosion. There are 23,530 acres of reforestation opportunity on lands that are frequently flooded in Massachusetts, with a potential carbon benefit of 0.075 MMtCO₂e/yr.¹⁷ Such investments would support foresters, scientists, landscape architects, restoration ecologists, and local nurseries.

We request at least:

- **\$20 million** to expand the Greening the Gateway Cities Program to all 26 Gateway Cities (currently in 18); to support environmental justice populations living outside Gateway Cities; to green urban centers; and to reforest streambanks and floodplains.

III. Water Infrastructure

Massachusetts' antiquated water infrastructure lacks climate resilience, threatens public health, and harms the quality of our drinking water and freshwater resources. Inadequate water infrastructure poses many challenges, such as contaminants in drinking water like lead and PFAS, the discharge of three billion gallons of untreated sewage into the state's waterways each year, and occasional catastrophic water main failures creating flood hazards and service interruptions. In 2012, a bipartisan legislative commission calculated the estimated cost of capital investment, operation and maintenance, repair and replacement, and debt service for the state's water infrastructure against anticipated revenues, over 20 years.¹⁷ This report estimated the funding gap in Massachusetts to be:

- \$11.2 billion in wastewater infrastructure needs over the next 20 years.
- \$10.2 billion in drinking water infrastructure needs over the next 20 years.
- \$18 billion in stormwater infrastructure needs over the next 20 years.

¹⁴ Executive Office of Energy and Environmental Affairs. 2020. Baker-Polito Administration Announces Expansion of Greening the Gateway Cities Program. <https://www.mass.gov/news/baker-polito-administration-announces-expansion-of-greening-the-gateway-cities-program>

¹⁵ Direct communication with the program

¹⁶ Direct communication with the program

¹⁷ Cook-Patton, S, T Gopalakrishna, A Daigneault, SM Leavitt, J Platt, SM Scull, O Amarjargal, PW Ellis, BW Griscom, JL McGuire, SM Yeo, and JE Fargione. Submitted. Spatial action maps to restore forest cover and mitigate climate in the contiguous United States. One Earth. Datasets available upon request.

¹⁷ Water Infrastructure Commission. 2012. Massachusetts Water Infrastructure: Toward Financial Stability. P5. <https://www.mass.gov/doc/water-infrastructure-finance-commission-final-report/download>.

¹⁸Green For All. 2011. Water works: rebuilding infrastructure, creating jobs, greening the environment. pp. 25. Available here: https://pacinst.org/wp-content/uploads/2013/02/water_works3.pdf

¹⁹Synapse Energy Economics, Inc. 2019. Investing in public infrastructure in Massachusetts impacts of investment in clean energy, water and transportation. pp. 15. <http://greenjusticecoalition.org/wp-content/uploads/2020/02/20191022-Massachusetts-Infrastructure-Report-Final.pdf>

With a combined \$40 billion in estimated water infrastructure funding needs, municipalities and the state government cannot realistically be expected to fill this growing funding gap on their own; the federal government must be part of the solution. ARPA presents a rare opportunity to address these critical needs.

Managing our water resources with green infrastructure strategies helps ensure clean water for people and nature, while also accomplishing other priorities such as reducing urban heat, helping municipalities comply with MS4 (stormwater) permit requirements, and improving conditions for fish and wildlife. Investing in water infrastructure upgrades creates local jobs: if Massachusetts were to fully comply with the Safe Drinking Water Act, that investment would create 9,200 job-years each year for stormwater work alone, with 5,800 job-years created each year for drinking water infrastructure, and 5,600 job-years created each year for clean water infrastructure.¹⁹ Massachusetts' 199 combined sewer overflow discharge sites are concentrated in environmental justice communities, leaving families exposed to harmful bacteria in their local waterways and harming aquatic ecosystems.

We request at least:

- **\$500 million** for water and sewer infrastructure upgrades.

IV. Green Workforce Development

Green workforce development represents new opportunities to create jobs for under-resourced and marginalized communities and should be an essential part of the Commonwealth's economic response to COVID-19. The tragedy of closing businesses and laying off workers provides an opportunity for the state to tap this important source of labor by providing them with training and education needed to launch new careers. At the same time, we face urgent environmental and climate challenges that depend on constantly evolving technologies that require trained and certified workers to manage them. We urge your consideration of training and job pipeline creation in the following areas to reach the state's climate mitigation, resiliency, and adaptation goals, and to future-proof the economy by building a workforce skilled in what will be growing fields and industries:

- **Energy efficiency Jobs:** Building Operator Certification and Smart Building Technology programs can help current professionals and newly trained workers to operate and maintain increasingly automated and controls-driven energy systems (HVAC and lighting) and conservation and efficiency infrastructure.
- **Green infrastructure jobs:** National Green Infrastructure Certification can help traditional and newly-trained public works and water works employees to manage, operate and maintain green infrastructure, such as rain gardens, bioswales and stormwater wetlands, shade tree planting and management, thereby gaining the technical skills necessary to enter the green workforce and earn a livable wage.
- **Outdoor stewardship and recreation management jobs:** Bolstering equitable access to parks, natural lands, and water, as well as bike and pedestrian trail systems, will take skilled planners, builders, and stewardship managers. Well-trained stewards create lasting and broad public benefits.
- **Water systems jobs:** Municipal drinking water and wastewater systems can often cost a municipality up to 40 percent of its energy costs. Properly trained workers can better operate equipment and systems to help reduce energy usage and help install upgraded infrastructure.

Thank you for your consideration of these recommendations.

Please contact Linda Orel at lorel@thetrustees.org or Emily Myron at emily.myron@tnc.org with questions. We look forward to working with you to ensure a green and just recovery for the Commonwealth.

Sincerely,

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