

Secretary Kathleen A. Theoharides
Massachusetts Executive Office of Energy and Environmental Affairs
100 Cambridge St., Suite 900
Boston, MA 02114

RE: Allocation of American Rescue Act funding to Improve Soil Health

February 8, 2022

Dear Secretary Theoharides:

We, the undersigned representatives of the environmental, agricultural, climate advocacy groups, farms, and other entities, want to thank Governor Baker for recognizing that healthy soils are a key part of our states efforts to mitigate the impacts of climate change and strengthening our local food system to weather the impacts of future COVID-19 outbreaks. As such, we respectfully request \$2 million of the American Rescue Act Fund (ARPA) directed at the Massachusetts Executive Office of Energy and Environmental Affairs *to improve Environmental Infrastructure in the Commonwealth be allocated for Massachusetts' Healthy Soils as follows:*

- \$750,000 for the Massachusetts Healthy Soils Program, administered by the [MA State Commission for Conservation of Soil, Water & Related Resources](#)
- \$1,000,000 for the [Massachusetts Coordinated Soil Health Program](#), administered by the Massachusetts Department of Agriculture and Resources (MDAR)
- \$250,000 for the [University of Massachusetts - Extension Soil and Plant Nutrient Testing Laboratory](#)

Furthermore, priority for grant funds should be given to support the state's limited number of Black, Indigenous, and People of Color (BIPOC) producers and BIPOC led organizations to continue climate-resilient farming practices¹.

Healthy Soils are Environmental Infrastructure

The American Rescue Act Plan allocation signed into law by Governor Baker in December 2021 includes an earmark for \$100 million dollars in environmental infrastructure projects that will aid the commonwealth's efforts in adaptation to and mitigation of climate change. This line item on environmental infrastructure includes a provision to promote soil health practices, which improve water quality and otherwise mitigate threats from climate change. Healthy Soils are a form of environmental infrastructure.

¹ <https://www.ucsusa.org/sites/default/files/2020-06/leveling-the-fields.pdf>

Climate destabilization threatens lives, livelihoods, food security, and our economy across the Commonwealth. Farmers, especially beginning farmers and BIPOC producers, have been on the edge of financial viability, and disruptions to the food system during the pandemic hit them hard. The significant and undeniable changes in weather patterns are impacting growing seasons, in addition to the increased threat of a natural disaster, which could destroy a producer's entire operation. Climate change is no longer a distant problem for farmers. There is no more time to waste.

The working lands of the Commonwealth and the ecosystem services they provide hold a significant place in aiding the state in mitigating, adapting, and becoming resilient in the face of the climate crisis. The Commonwealth has a goal to reach net-zero emissions by 2050. A report commissioned by the Massachusetts Executive Office of Energy and Environmental Affairs entitled "Massachusetts 2050 Decarbonization Roadmap" outlines the need for 20 percent of the state's efforts to reach this goal to include natural climate solutions such as sequestering carbon in forests, grasslands, and farmland soils.² Dr. Jennifer Moore (soil health expert, USDA-ARS scientist, and prior climate director for American Farmland Trust) testified to the U.S. House of Representatives in the fall of 2019, "If U.S. farmers adopted cover crops on 25% of our cropland and conservation tillage on 100% of tillable acres, we could potentially reduce one-quarter of the total U.S. agricultural emissions." In addition to this eye-opening opportunity, the soil is an inseparable part of our local food system, ecology, watershed, and economy.

Prioritizing support for BIPOC producers to implement healthy soil practices will create opportunities for the state's limited number of these producers to continue climate-resilient farming practices³. According to the 2017 National Agricultural Statistic Service Agriculture Census, there are 413 Black farmers, Indigenous farmers, and other farmers of color in the Commonwealth. This is in comparison to the 7,018 farmers who identify as white. This stark disparity is a result of centuries of land and agricultural policies, planning practices, and other forms of systemic racism that have prioritized white producers. Additionally, climate resiliency and/or regenerative agriculture practices are rooted and reflective of traditional Indigenous and African farming techniques. This is because the cost of the infrastructure and equipment necessary to implement these practices can be prohibitive (e.g. increased cost for use of Integrated Pest Management (IPM) practices, fair wages for increased amounts of labor to implement practices, etc.). Additionally, funding for technical assistance that will benefit BIPOC producers should be directed towards community organizations that are already serving BIPOC producers, including those located in our urban communities. This will ensure BIPOC communities are able to fully take advantage of and utilize the funds available.

Urban spaces are also an important element in the Commonwealth's food economy. Historically, urban and low-income neighborhoods have been disproportionately divested of quality public infrastructure as well as natural and financial resources which increases the vulnerability of communities to effectively mitigate the effects of climate change.⁴ Healthy soils in urban communities should be supported and

² <https://www.mass.gov/doc/ma-2050-decarbonization-roadmap/download>

³ <https://www.ucsusa.org/sites/default/files/2020-06/leveling-the-fields.pdf>

⁴ Hoffman, J.S.; Shandas, V.; Pendleton, N. The Effects of Historical Housing Policies on Resident Exposure to Intra-Urban Heat: A Study of 108 US Urban Areas. *Climate* 2020, 8, 12. <https://doi.org/10.3390/cli8010012>
<https://www.mdpi.com/2225-1154/8/1/12/html#B27-climate-08-00012>;

resourced. The funding from ARPA would enable some restitution to be allocated to urban communities to improve their ongoing climate resiliency efforts such as water remediation, healthy soil-based food production/access, and help cover the costs of soil testing and utilization. The need for targeted and specialized technical assistance, research, and solutions, specifically for urban environments is critical. Funding can strengthen the infrastructure, enabling communities to have power throughout the food chain from soil to production to access to waste alleviation. Allocating resources to increase healthy soil initiatives will not only support healthy food production in the Commonwealth's most impacted communities, but also increase the resiliency of this important element to the regional food system.

The potential economic benefits of healthy soil practices are multifaceted. Investing in soil health practices will aid farmers in managing stormwater, reducing soil erosion, and increasing water infiltration, resulting in decreased sediment and nutrient pollution in surface waters, and improved resilience to flooding events. The economic investment in soil health practices increases a farm's profitability and saves farmers money in the long term.⁵ A 2017 study by the National Association of Conservation Districts found that using cover crops and no-till can result in an economic return of over \$100 per acre.⁶

Funding Opportunity

Because of Governor Baker's commitment to Healthy Soils in the \$4 Billion American Rescue Act Plan allocation signed into law in December 2021, the Commonwealth has an opportunity to help farmers transition to climate-smart farming practices and to put in place the equipment and the infrastructure needed to do this. As we mentioned above, climate-smart agricultural practices are an investment in water and sewer infrastructure and management.

MA Healthy Soils Program - \$750,000 requested

Established by the legislature in January 2021, the Massachusetts Healthy Soils Program was created to help the Commonwealth meet its climate goals, while simultaneously promoting the local food system. This program is intended to help farmers and land managers implement soil health and climate-smart management practices. These practices can increase profit, fix atmospheric carbon into the soil, improve water infiltration and nutrient retention, and protect the Commonwealth's water quality.

We are grateful that Governor Baker approved a \$100,000 budget appropriation in the FY22 budget for the Healthy Soils Program Fund, which will support the work of the [MA State Commission for Conservation of Soil, Water & Related Resources](#) in establishing the Mass. Healthy Soils Program.

Schwarz, K.; Fragkias, M.; Boone, C.G.; Zhou, W.; McHale, M.; Grove, J.M.; O'Neil-Dunne, J.; McFadden, J.P.; Buckley, G.L.; Childers, D.; et al. Trees Grow on Money: Urban Tree Canopy Cover and Environmental Justice. PLoS ONE 2015, 10, e0122051.

⁵ <https://farmland.org/the-math-is-in-soil-health-practices-produce-real-return-on-investment/>

⁶ National Assoc. of Conservation Districts, Soil Health Research, <http://www.nacdnet.org/soil-health-research>

[The Northeast Organic Farming Association of Massachusetts \(NOFA/Mass\)](#), [American Farmland Trust](#), and other key partners are continuing to work with the commission and other allies in the development of the program. However, further funding is needed if we are to adequately address the climate crisis and continue to promote a viable agricultural sector in the Commonwealth.

Additionally, the work of the commission has been complicated by an unexpected delay in the final publication of the MA Healthy Soils Action Plan, currently under review by your office. We ask for your assistance in seeking the swift publication of this critical guiding document.

MDAR Massachusetts Coordinated Soil Health Program - \$1,000,000 requested

[The Massachusetts Coordinated Soil Health Program](#) (MCSHP) is a partnership between the [Massachusetts Department of Agricultural Resources \(MDAR\)](#), [American Farmland Trust](#), and [NOFA/Mass](#) that supports farmers throughout the Commonwealth in adopting regenerative agriculture practices with the goal of improving resiliency and viability. The program focuses on both organic and conventional farmers to better understand the current resources and practices being utilized.

The program encourages the implementation of cover crops, no-till, nutrient management, and other soil health management practices. While MDAR is a partner of MCSHP, they are also the primary funder for the project. To date, MCSHP has collected data on current soil health practices from 155 farmers across the state. This information will lay the groundwork for how the program moves forward to expand access to soil health testing, technical and financial assistance, and advance local soil health research.

Specifically, funding is needed for the MA Healthy Soils Program and the MDAR Massachusetts Coordinated Soil Health Program to do the following:

- Providing financial assistance to land managers for equipment upgrades required to implement soil health-based practices;
- Providing assistance for soil chemical analyses, technical assistance to help urban farmers adopt healthy soils practices, improve water resource management, and in the event that the soil is not safe to grow food, funds can be used to remediate or purchase clean soil;
- Target/ Prioritize farmland, forest, and wetlands conservation and restoration;
- Funding strategic partnerships with organizations providing technical, educational, and other soil health-focused support to farmers and land managers

UMass Extension Soil and Plant Nutrient Testing Laboratory - \$250,000 requested

[UMass Extension](#)'s crop-specific recommendations help farmers and horticultural businesses to maintain regulatory compliance and achieve economic and environmental goals. This includes [330 CMR 31](#), which requires regular testing of soils from agricultural and other lands to prevent excess nutrients from entering the environment, as well as new initiatives focusing on promoting soil health and carbon sequestration to combat climate

change. The Lab is the only facility providing unbiased and independent agricultural and horticultural soil and tissue sampling in Massachusetts.

Today, [UMass Extension](#) faces significant challenges in meeting public demand, due to aging instruments and information systems in the Lab, as well as personnel shortages resulting from retirements and pandemic-related restrictions. Rather than adding new testing services and offering comprehensive support for the management of soil health to practitioners, some services have been temporarily suspended in order to efficiently deliver priority test results. While revenue from the tests has enabled the Lab to remain operational, replacement of aging scientific equipment cannot be accommodated while keeping fees competitive and reasonable for the public. This funding will facilitate the purchase of new analytic instruments, which will be in service for 15-20 years, and will allow the Lab to continue to perform its vital role. Since the purchase of equipment used for fee-generating services is disallowed under guidelines for federal funds, state investment in this infrastructure is critical.

Finally, we recommend that the agency allocate additional funding to pay for the staff time and the administrative costs associated with overseeing the programs listed above.

Healthy Soils Are Key to Building Climate Resilient Infrastructure in the Commonwealth

We are confident that this request will support the economic recovery and viability of our agricultural community while continuing to promote climate-smart healthy soil practices statewide.

We, the undersigned organizations, sincerely appreciate your consideration of our request to fund the Massachusetts Healthy Soils Program at \$2 million with the American Rescue Plan Act Funding allocated to improve waste and stormwater infrastructure. If you have any further questions, we would be happy to discuss the benefits of the program in more detail. Please feel free to reach out to Marty Dagoberto L. Driggs -- NOFA/Mass Policy Director at marty@nofamass.org or Chelsea Gazillo -- American Farmland Trust's New England Policy Manager at cgazillo@farmland.org.

With sincere regards,

1. American Farmland Trust
2. Astarte Farm
3. Atlas Farm LLC
4. Berkshire Grown,
5. Bionutrient Food Association
6. Black Brook Farm
7. Bradstreet Farm
8. The Carrot Project
9. Central Mass Grown
10. Chase Hill Farm
11. CISA (Community Involved in Sustaining Agriculture)

12. City Compost
13. Eastie Farm
14. Farm to Institution New England
15. Foxtrot Farm
16. Franklin County Community Development Corporation
17. Freedom Food Farm
18. Green Cambridge
19. Greening Greenfield
20. GrowingBetter
21. HAHA URBAN FARM
22. Hart Farm
23. Hilltown Community Development
24. Holyoke Food and Equity Collective
25. Ivory Silo Farm
26. Just Roots
27. Land For Good
28. Little Black Cow Dairy LLC
29. Long Life Farm
30. Lovefield Farm, LLC
31. Many Hands Organic Farm
32. Massachusetts Food System Collaborative
33. Massachusetts Sierra Club
34. Mothers Out Front Massachusetts
35. Mount Grace Land Conservation Trust
36. Neighboring Food Co-op Association
37. New England Farmers Union
38. New Entry Sustainable Farming Project
39. Northeast Organic Farming Association/Massachusetts
40. North Quabbin Energy
41. Nutwood Farm, Cummington, MA
42. Ocean River Institute
43. Old Friends Farm
44. Potter Hill Farm
45. Pie In The Sky Berry Farm
46. Queen's Greens
47. Red Fire Farm
48. Red Shirt Farm
49. Regeneration Massachusetts
50. Sawyer Farm
51. Seeds of Solidarity Education Center
52. Simple Gifts Farm
53. Soil4Climate Inc.
54. The Nature Conservancy in Massachusetts

55. The Trustees of Reservations
56. Urban Farming Institute
57. Waltham Fields Community Farm
58. White Rabbit Farm
59. Winter Moon Roots Farm

