

Attachment C

PROPOSAL COVER SHEET

Required from all respondents

Please complete and submit this Cover Sheet with your grant. The completed Cover Sheet can be scanned and emailed to Thomas.anderson@mass.gov. Responses can also be sent in by regular mail to Executive Office of Energy & Environmental Affairs, Division of Conservation Services, 100 Cambridge St., 10th Floor, Boston MA 02114.

Organization information to be used for the contract:

Organization Name: Hampden-Hampshire Conservation District

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Website: hampdenhampshireconservationdistrict.org

Commonwealth of Massachusetts, Vendor Code: _____
(if our organization has one)

CHIEF EXECUTIVE or authorized signatory:

Leon Ripley, Board of Supervisors Chair

PRIMARY CONTACT FOR THIS GRANT REQUEST AND POSITION (provide name, phone, e-mail and address if different from above):



Authorized Signature

Matthew Karas

Conservation Program Manager

Print Name

Title

FY 25 GRANT PROJECT INFORMATION

GRANT AMOUNT REQUESTED:

Total \$ 79,957.94

TOTAL PROJECT BUDGET (from all sources, including grant.)

\$ 156,982.34

Total project match

\$ 77,024.40

Project name: Enhancing the Healthy Soils Program to Support Farmers &
Build Soil Health in Western Massachusetts

SUMMARY OF GRANT PROJECT (limit to 75 words) (Please also forward this summary of project electronically to thomas.anderson@mass.gov so we can easily cut and paste it in summary reports :

The Hampden-Hampshire Conservation District seeks funding to sustain and expand its Healthy Soils Program, launched in 2023 to promote regenerative agriculture in Massachusetts. Through low-cost equipment rentals, free soil analysis, education, and technical support, the program boosts farm viability and improves soil health. Aligning with the Commonwealth's Healthy Soils Action Plan, it enhances agricultural productivity, sequesters carbon, mitigates climate impacts, and supports environmental sustainability through better water quality and erosion control.



***Enhancing the Healthy Soils Program to Support Farmers
and Build Soil Health in Western Massachusetts***

November 19, 2024

Challenge Grant Implementing the Commonwealth's

Healthy Soils Action Plan

Commbuys Bid # BD-25-1042-ENV-ENV01-108053

RFR ID: BID ENV 25 BCS 12

Hampden-Hampshire Conservation District
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PROJECT DESCRIPTION

Goals and Objectives

The Hampden-Hampshire Conservation District (HHCD) is applying for funding to sustain and expand our highly successful Healthy Soils Program (HSP), which we started in 2023 to promote and facilitate the adoption of regenerative agriculture practices that increase farm viability and improve soil health on Massachusetts farmland. Healthy soil is an invaluable resource for farmers, supporting nutritious and bountiful crops, increasing water holding capacity, sequestering carbon, and providing resilience from extreme weather events caused by climate change. The main components of the HSP are low-cost equipment rentals, free soil analysis, educational outreach events, and direct technical assistance. The Healthy Soils Program aligns with the objectives of the Commonwealth's Healthy Soils Action Plan (HSAP) by promoting sustainable land management practices that improve soil health and mitigate climate change impacts. Our initiatives not only enhance agricultural productivity but also contribute to environmental sustainability by sequestering carbon, reducing erosion, and improving water quality.

The second year of the HSP saw significant growth and exceeded our expectations. HHCD's Esch 5605 No-till seed drill and BCS 779E tractor and attachments were rented over twenty times on two hundred and sixty acres of farmland. Our Conservation Program Manager, Matthew Karas, conducted over fifty soil samples on sixteen farms, and held six agriculture related outreach events with two hundred total participants. In addition, we collected twenty-two soil samples as part of a new Native Plant Program. Unfortunately, the delay in the decision and disbursement of the first round of the Challenge Grant did not provide us with enough time to make the Checchi & Magli Unitrium no-till vegetable transplanter available for the 2024 growing season, but it will be available for rent starting in spring of 2025.

We can attribute some of the impressive growth with the HSP to work connections with Natural Resources Conservation Services (NRCS) and American Farmland Trust (AFT). Matthew Karas works part-time as a Conservation Planner for NRCS out of the Hadley Field Office, and colleagues from AFT and NRCS have begun connecting farmers with HHCD to receive free soil analysis and rent equipment. Indeed, the HSP grew to such an extent that it became increasingly challenging for Matthew to manage all of the Program offerings and logistics alongside his work with NRCS. For this reason, a major component of our Challenge Grant proposal for Round 2 is to build staff capacity by hiring an Equipment Manager and a Healthy Soils Program Assistant. This enhanced capacity will enable us to keep up with the increased demand for equipment rentals and soil analysis, and allow Matthew to devote more of his time to Conservation Planning with NRCS, which he is obligated to do through the funding HHCD receives from the National Association of Conservation Districts (NACD).

The responsibilities of the Equipment Manager will be to deliver equipment, inspect equipment before and after rentals, perform routine maintenance and cleaning, repair damages, assess program needs and provide guidance on equipment purchases. The Healthy Soils Program Assistant will help support HHCD's Healthy Soils Program and will work directly with the Conservation Program Manager. The primary duties and responsibilities of the Program Assistant are to help collect and process soil samples and enter soil reports into a database; conduct research on regenerative agriculture topics and report to the Program Manager; help plan, organize, and conduct outreach events, which includes the

preparation and distribution of registration forms, pre-post surveys, promotional flyers, and educational pamphlets; and attend farm visits, outreach events, and networking opportunities alongside the Conservation Program Manager.

The equipment we will purchase with this round of the Challenge Grant is a Stoltzfus multi-purpose spreader, which can be used to apply biochar, compost, poultry manure, lime, and other soil amendments to improve soil health and productivity. We have received numerous inquiries and requests for a multi-spreader, and have learned that the most rented piece of equipment in Cheshire County Conservation District's equipment program is a similar model Stoltzfus spreader. NRCS offers generous payment rates for Soil Carbon Amendment practices and AFT Implementation Specialists are busy promoting this practice, which means that demand for spreaders will continue to grow.

Demand in HHCD's free soil analysis sky-rocketed in summer of 2024, as NRCS staff began promoting the service to their clients. For this reason, we are purchasing an additional set of soil sampling equipment, purchasing more samples through UMass, and hiring a Program Assistant to help collect samples. In addition, we are adding a new piece of soil science technology, the MicroBiometer, that measures microbial biomass and fungal to bacteria ratio. Many in the world of soil science now believe that a leading indicator of soil health is the presence and composition of fungi and bacteria. The MicroBIOMETER provides a quick in-field microbial analysis that can be a helpful tool for assessing microbial balance and the impact of management practices. Reduced tillage practices lead to improvements in fungal to bacteria ratio, so the MicroBiometer will allow us to perform direct analysis on select fields where our no-till equipment is used.

Program Objectives:

- Facilitate a minimum **35 equipment rentals**, supporting farmers in implementing soil health practices on over **300 acres** of land.
- Conduct **4 agricultural soil health workshops** to educate and engage at least **120 participants**, providing practical knowledge and actionable strategies.
- Provide free soil analysis for a minimum of **35 participants**, resulting in **100 soil samples** and tailored recommendations for improved soil management.
- Expand access to information through the development of additional **web-based resources** derived from workshop insights.
- Build a dataset of soil health metrics, including **Soil Organic Carbon measurements**, to track progress and inform future programming.
- Engage with at least **200 program participants**, including farmers, presenters, and stakeholders.
- Deliver bi-annual reports summarizing program activities, outcomes, and lessons learned to ensure transparency and continuous improvement.

These goals and objectives align with the Commonwealth's Healthy Soils Action Plan by equipping farmers with the tools, knowledge, and resources necessary to adopt sustainable land management practices and address the challenges of climate change.

Areas of Alignment with the Healthy Soils Action Plan

The Hampden-Hampshire Conservation District's (HHCD) Healthy Soils Program is deeply aligned with the overarching goals and strategies of the Massachusetts Healthy Soils Action Plan (HSAP), supporting the Commonwealth's mission to protect, restore, and steward soils across diverse land uses. Through its ongoing programs, services, technical assistance, and community engagement efforts, HHCD's Healthy Soils Program directly contributes to the key priorities outlined in the HSAP, particularly in the areas of **Promoting Soil Health, Sustainable Land Management, and Community Engagement**.

Promoting Soil Health

The Healthy Soils Program helps promote soil health by facilitating the implementation of soil-smart practices that enhance soil function across agricultural, residential, and developed landscapes. In particular, the program works to:

- **Accelerate the adoption of healthy soil practices** among local farmers, a core strategy in the HSAP. By providing technical assistance, free soil sampling, low-cost equipment rentals, and outreach, HHCD reduces economic and technical barriers, making it easier for farmers to adopt sustainable practices that improve soil health, sequester carbon, and enhance ecosystem resilience.
- **Increase farmer enrollment in existing technical assistance programs**, including NRCS Conservation Planning, AFT grant programs, soil health initiatives and soil testing services. This aligns with the HSAP's recommendation to boost participation in programs that provide educational opportunities, material support, and technical guidance, as outlined in **A4** of the agricultural section of the HSAP.
- **Facilitate farmer-to-farmer knowledge exchange**, as recommended in **C.ii** of the agricultural section of the HSAP. HHCD hosts and organizes workshops, field days, and other outreach events where farmers can share best practices, discuss challenges, and learn from each other's experiences in implementing soil health practices.

Sustainable Land Management

HHCD's Healthy Soils Program supports the HSAP's goal of improving soil health across various land uses by promoting **sustainable land management practices** in agricultural, suburban, and urban settings. The program's efforts directly align with several HSAP strategies, including:

- **Supporting the sustainable management of agricultural soils**, which make up a critical part of Massachusetts' landscape. As the HSAP notes, agriculture plays a key role in both **climate change mitigation** and **local food security**. HHCD's program directly supports these efforts by providing farmers with the tools and knowledge necessary to enhance soil organic carbon (SOC) sequestration and improve the functional capacity of their soils.

Community Engagement

The Healthy Soils Program's community outreach and education efforts also align closely with the HSAP's emphasis on **community engagement** and **capacity building** for soil stewardship across diverse sectors. HHCD engages local farmers, landowners, and community members in meaningful ways to promote the benefits of soil health and foster collaboration. Specifically, HHCD's efforts include:

- **Targeted outreach and educational programs**, in alignment with **B.ii** of the agricultural section of the HSAP, that provide farmers with the knowledge and resources they need to understand the long-term benefits of healthy soils practices. This includes helping farmers navigate the **costs** and **practicalities** of soil health management.
- **Eliminating technical and knowledge barriers**, in line with **A6** of the agricultural section of the HSAP, by offering workshops, soil testing, and consultations. This helps farmers access the necessary information to implement soil-smart practices, even if they have limited prior experience with soil management techniques.
- **Building capacity within communities** to become active participants in soil health and land stewardship. HHCD works not only with farmers but also with residents in suburban and urban areas, raising awareness about soil health's impact on climate resilience, water quality, and local ecosystems.

Alignment with Key HSAP Strategies

HHCD's Healthy Soils Program also closely mirrors several key strategies and actions laid out in the HSAP:

- **Strategy 1: Limit the conversion of Forests, Wetlands, and Farmlands:** HHCD's efforts to protect and steward agricultural lands and soils help limit the loss of productive farmland. This supports the HSAP's overarching goal of no net loss of soil organic carbon.
- **Strategy 5: Expand technical, financial, educational, and material support:** HHCD directly addresses this strategy by providing farmers and landowners with technical support and educational outreach on the importance of soil management.
- **Strategy 6: Incorporate soil-based criteria into state and municipal legal and financial mechanisms:** Through its ongoing outreach efforts and collaborations with other organizations, HHCD helps ensure that soil health is integrated into local and state policy discussions, supporting the recommendations in the HSAP for stronger regulatory frameworks.

By aligning with the Healthy Soils Action Plan's goals and strategies, HHCD's Healthy Soils Program plays a crucial role in advancing soil health and sustainable land management practices across Massachusetts. HHCD's work embodies the core principles of the HSAP, supporting the continued health of Massachusetts' soils, ecosystems, and communities for the long term.

Methodology

To achieve the goals of the Healthy Soils Program (HSP) and align with the Commonwealth's Healthy Soils Action Plan, we employ a multi-faceted approach that integrates education, technical assistance, and resource accessibility for Massachusetts farmers.

1. **Low-Cost Equipment Rentals:**

The program offers affordable access to specialized equipment essential for implementing regenerative agricultural practices. Adding the Stoltzfus 4-ton Wet Lime Spreader will allow farmers to apply soil amendments efficiently, promoting improved soil health and nutrient cycling. Rentals are facilitated through a streamlined reservation system, ensuring equitable access for farmers across the region.

2. **Free Soil Analysis:**

The HSP provides complimentary soil sampling and analysis to participating farmers, enabling them to understand the current health and needs of their soils. This data informs tailored recommendations for soil amendments, cover cropping, and other regenerative practices. By subsidizing these analyses, the program removes financial barriers to critical decision-making tools.

3. **Educational Outreach Events:**

On-farm outreach events are organized to educate farmers about regenerative agriculture techniques, such as cover cropping, reduced tillage, and soil amendment application. These events feature expert presenters and local practitioners who share practical insights and success stories.

4. **Direct Technical Assistance:**

Farmers receive personalized guidance from HSP staff on implementing soil health practices. Assistance includes on-farm consultations, development of Conservation Plans, and support with equipment operation.

5. **Data-Driven Monitoring and Continuous Improvement:**

The program will collect data on soil health metrics and enter them into a database. This data can be used to measure the effectiveness of interventions and refine program offerings over time.

6. **Collaborative Partnerships:**

The HSP collaborates with local conservation organizations, extension services, and state agencies to amplify outreach and leverage additional resources. These partnerships ensure that farmers receive comprehensive support and that the program aligns with broader state and regional goals for sustainable agriculture.

By integrating these strategies, the Healthy Soils Program addresses both the immediate and long-term needs of Massachusetts farmers while advancing environmental stewardship and resilience to climate change.

Expected Outcomes and Deliverables

1. 35 Equipment Rentals
2. 300 Acres of improved land management
3. 4 Agricultural Soil Health Specific workshops
4. 120 Workshop Attendees
5. Development of additional web-based resources stemming from outreach workshops

6. 35 Soil Analysis participants
7. 100 Soil Samples
8. 100 participants (renters, workshop participants, presenters, etc...)
9. Dataset containing Soil Organic Carbon measurements
10. Bi-annual Report

ORGANIZATIONAL CAPACITY

Details of Previous Achievements

The mission of the Hampden-Hampshire Conservation District (HHCD) is to provide educational outreach, technical assistance, and financial support to communities and landowners for the protection of essential natural resources—soil, air, forests, and water. By fostering collaboration among community members, agencies, and organizations, HHCD works to preserve the ecological integrity and economic vitality of the Hampden-Hampshire region for future generations. With decades of farming experience among our board members, Conservation Districts have a long history of working alongside farmers and landowners to address critical conservation needs.

In 2012, HHCD was among the first districts in the region to offer a no-till seed drill for rent, an important initiative aimed at promoting sustainable farming practices. However, the program was temporarily discontinued due to staffing limitations. In 2023, the program was successfully revitalized with a grant from the Executive Office of Energy and Environmental Affairs (EEA). This funding allowed us to purchase an Esch 5605 no-till seed drill, a BCS 779E tractor with attachments, a trailer for equipment transport, soil analysis tools and materials, and to compensate key staff such as the delivery driver and no-till mentors. While there were delays in equipment delivery and insurance processes, the first year of the revived program was a success, fostering new connections and increasing HHCD's presence in the region.

Year two of the Healthy Soils Program marked significant growth. Our equipment was rented over twenty times, covering a total of 260 acres of farmland. Additionally, we conducted fifty-two soil samples across sixteen farms. We hosted or co-hosted six agricultural outreach events, engaging over two hundred participants. This year also saw the strengthening of existing partnerships and the formation of several new collaborations. Looking ahead, we anticipate even greater community awareness of the Healthy Soils Program and increased demand for the services we provide in year three. These achievements demonstrate HHCD's commitment to supporting sustainable land management practices and the continued success of our Healthy Soils Program in the region.

Personnel and Roles

Staff

Matthew Karas, MPA - *Conservation Program Manager*

Matthew was raised on a farm in South Deerfield, Massachusetts, where his family grew a variety of cucurbits, decorative flowers, hay and straw. Matthew studied conservation biology, botany, and sustainable agriculture as an undergraduate. During his Masters of Public Administration program, he studied water law and policy, food insecurity among SNAP-Ed participants, and environmental justice. Matthew started working from Hampden-Hampshire Conservation District in September of 2022, and is primarily responsible for developing and managing the Healthy Soils Program, conducting outreach and administration, providing technical assistance to farmers, and assisting with conservation plans. Matthew became a Conservation Planner level 1 with NRCS in February of 2024 and is receiving training to become a certified Planner level 3. He is also a member of the Diversified Agriculture and Agroforestry cohort of the Climate Adaptation and Mitigation Fellowship.

Meghan Siudzinski - *Administrative Coordinator*

Meghan Siudzinski has nearly 25 years of experience working in educational and nonprofit contexts in administrative, communications, and outreach capacities. Developing and coordinating collaborative partnerships is her favorite means to accomplish impactful outcomes. Meghan joined the Hampden-Hampshire Conservation District in November of 2021 as Administrative Coordinator to manage the District's grants and deliver public outreach programming for ages pre-K through adults. Meghan and Matthew have worked closely to design the project described in this proposal. Through the development and incremental growth of a western Massachusetts regional program based on key partnerships, the Healthy Soils Program provides much needed programs and services designed to improve soil health in the region.

Adam Goodman - *Equipment Manager*

Adam is a welder and mechanic who manages a small farm in Hampshire county, Massachusetts. He has previous work experience as a farm mechanic where he maintained a fleet of tractors and as a mechanical engineer. Adam has great technical understanding of machinery and is able to service and repair HHCD's growing fleet of equipment in his workshop.

New Hire - *Healthy Soils Program Assistant*.

HHCD is recruiting a Healthy Soils Program Assistant in November of 2024 that will be a six-month paid internship position. The Healthy Soils Program Assistant will help support HHCD's Healthy Soils Program and will work directly with the Conservation Program Manager.

Board of Supervisors

Leon K Ripley - *Chair of HHCD Board of Supervisors, Owner of Maple Corner Farm*

Leon Ripley owns and manages Maple Corner Farm, a family farm currently managed by the eighth generation with his wife Joyce and three sons. The farm produces maple syrup, blueberries, hay, and grass fed beef. Leon has had a conservation plan for the farm since the 1960's, and a Forest Management Plan since 1972. In 1986, he won the National Endowment for Soil and Water Conservation award, and the Massachusetts State Wide Tree Farmer of the Year award in 2000. Leon started volunteering with the Hampden Conservation District in 1982 and currently serves as the Chair. He is also Chair of the Granville Conservation Commission and Chair of the Hampden County Farm Bureau. Leon received the Farm Bureau's John Ognowski Award in 2007. Leon guides program development and decision making, along with the rest of the Board of Supervisors.

Connie Adams, *co-owner of Yellow Stonehouse Farm, Vice President MACD, Vice Chair HHCD*

Connie is co-owner of the USDA certified organic Yellow Stonehouse Farm in Westfield, MA, along with her husband John Keilch. Both had successful business careers before starting their farming operation in 2011. This new venture provides Connie plenty of opportunity to pursue interests in environmental conservation, herbalism, native plants, and sustainable agriculture. Connie enjoys feeding her local community through their Organic Vegetable CSA, and is thrilled to be included in the SNAP-HIP program. Connie has been on the HHCD board since 2018. She is also an environmental advocate and one of the founders of WRAFT – Westfield Residents Advocating for Themselves – a group founded at the beginning of the investigation into PFAS pollution in Westfield.

PROJECT TIMELINE

February 2025

- Purchase Stoltzfus Multi-Purpose Spreader.
- Purchase prepaid soil test kits through UMass.
- Begin training/onboarding Healthy Soils Program Assistant and Healthy Soils Equipment Manager
- Create rental procedures, protocols, and operations manuals for Stoltzfus multi-purpose spreader and Checchi & Magli Unitrium no-till vegetable transplanter. Update rental agreements for Esch 5605 No-till Seed drill and BCS 779E tractor
- Create survey forms that assess qualitative metrics listed below

March 2025

- Esch 5605 and BCS 779E available for rent.

April 2025

- Event: Introduction to Healthy Soils Action Plan and Healthy Soils Program (virtual)
- Begin soil analyses (if soil conditions are suitable)
- Checchi & Magli Unitrium Transplanter available for rent
- Purchase MicroBIOMETER starter kits and refill kits, soil sampling probe, and soil sampling supplies.

May 2025

- Event: Healthy Soils Equipment Rental Program field day
- Conduct soil analysis
- Manage rental program

June 2025

- Event: To be determined
- Conduct soil analyses
- Manage rental program

July 2025

- Event: To be determined
- Conduct soil analyses
- Manage rental program

August 2025

- Event: Climate Adaptations & Agroforestry Workshop
- Conduct soil analyses
- Manage rental program

Fall 2025

- Conduct soil analyses
- Manage rental program
- Progress Report on Healthy Soils program
- Assess equipment rental program and determine future purchases

Spring 2026

- Conduct soil analyses
- Manage rental program

June 2026

- Final Report

*****Please see aligned budget and timeline provided separately*****

PROJECT EVALUATION & MONITORING

Effective evaluation and monitoring are essential to ensure the success of HHCD's Healthy Soils Program and its alignment with the goals of the Massachusetts Healthy Soils Action Plan. HHCD will track both quantitative and qualitative performance metrics to assess program impact, participant satisfaction, and areas for improvement. These metrics will help guide program adjustments, inform stakeholders, and demonstrate the program's effectiveness in achieving its objectives.

Performance Metrics

Quantitative Metrics

HHCD will monitor the following key performance indicators (KPIs) to gauge the program's reach and impact:

- **# of Equipment Rentals:** The total number of equipment rentals will be tracked to assess demand for equipment, frequency of usage, and trends over time.
- **# of Acres under Improved Management:** We will monitor the number of acres where soil health has been improved through practices such as cover cropping, no-till farming, or application of soil amendments, as a result of program participation.
- **# of Soil Analysis Conducted:** The number of soil tests conducted will be recorded to understand the program's reach in evaluating and supporting soil health on participating farms.
- **# of Farmers Reached:** This metric will track the number of farmers who participate in any aspect of the program, including workshops, equipment rentals, or soil analysis, to gauge engagement levels.
- **# of Participants in All Activities:** We will also monitor total participation in all program activities, including workshops, field demonstrations, soil analysis events, and equipment rentals, to assess overall program engagement.

Qualitative Metrics

In addition to quantitative metrics, HHCD will gather qualitative data through surveys and feedback forms. This will allow us to assess participant satisfaction, identify barriers to program adoption, and refine the program for future success:

- **Survey for Equipment Rentals:** We will administer surveys to participants who rent equipment, assessing their experience with the rental process, the usefulness of the equipment, and their likelihood of renting again in the future. The survey will also measure participants' interest in purchasing equipment or adopting new soil management practices as a result of using the equipment.
- **Survey for Workshops:** Participants in program workshops will be surveyed to assess the quality and relevance of the information provided, the effectiveness of the presentation, and their likelihood of adopting the practices discussed. This feedback will help us continuously improve our educational programming.
- **Survey for Soil Analysis Usefulness:** After soil analysis sessions, participants will be surveyed to gauge the usefulness of the results in informing their soil management practices. This will help determine whether the soil testing led to meaningful changes in farm management and soil health practices.

Reporting and Communication

To ensure transparency and accountability, HHCD will regularly compile both quantitative and qualitative data throughout the program. We will report our findings to the Massachusetts Executive Office of Energy and Environmental Affairs (EEA) as frequently as required, providing a comprehensive analysis of program performance, successes, and areas for improvement.

In addition to formal reporting, HHCD will maintain open communication with stakeholders and the public by regularly posting program updates on social media, the HHCD website, and through our quarterly newsletter. This will ensure that the broader community stays informed about the progress of the Healthy Soils Program and the impact it is having on local farms and soil health.

Through continuous evaluation and monitoring, HHCD will be able to make data-driven decisions, adjust the program as needed, and share the outcomes of the Healthy Soils Program with key stakeholders, ensuring that the program remains responsive to community needs and contributes to the broader goals of soil health and sustainable land management in Massachusetts.

SUSTAINABILITY PLAN

Post grant project sustainability assessment

In order to assess the sustainability of the Healthy Soils Program and ensure its continued success for many years to come, we will create the following:

1. Program Sustainability Assessment

This assessment evaluates the current status of the program's achievements, resources, and the likelihood that these will continue after the grant ends. Key elements to assess include:

- **Program Impact:** Review the successes, such as increased farmer engagement, improved soil health, and adoption of soil-smart practices.
- **Resource Availability:** Evaluate ongoing funding sources (e.g., grants, donations, local partnerships) and the availability of staff or volunteers.
- **Stakeholder Engagement:** Assess the commitment of farmers, community members, and partners to continue participating in and supporting the program.
- **Infrastructure:** Evaluate the maintenance and availability of necessary equipment, technical resources, and data collection tools.

2. Sustainability Plan

This plan outlines the steps needed to ensure continued success after the grant period concludes. It includes:

- **Securing Ongoing Funding:** Identify diverse sources of funding beyond the grant (e.g., local government support, donations, cost-sharing agreements, or new grants) to support ongoing program costs such as equipment, staff, and soil testing.
- **Partnerships and Collaborations:** Strengthen relationships with local organizations, agricultural groups, universities, and government agencies to ensure continued access to technical support, educational resources, and funding.
- **Farmer Ownership and Engagement:** Empower farmers by providing them with the tools and knowledge to continue implementing healthy soils practices independently. This can include establishing farmer networks, ongoing workshops, and peer-to-peer support systems.
- **Training and Capacity Building:** Provide continued professional development to keep the team informed of new soil management practices and technologies.
- **Monitoring and Evaluation:** Continue collecting data on soil health, farmer participation, and other program outcomes to assess long-term impacts and identify areas for improvement. Use this data to refine strategies and attract further funding or support.
- **Public Awareness and Advocacy:** Continue publicizing the importance of soil health and the program's successes, which can help maintain public interest and attract additional support or funding.

Partners involved and role

HHCD is part of a growing regional coalition of organizations, service providers, and farmers, who are actively seeking solutions to the climate crisis and its impact on our shared natural resources. We work with adjacent Conservation Districts to host workshops and continue developing our regional equipment share program. Our equipment is available to farmers in adjacent districts, as is our soil analysis service.

Partners who are integrally involved in this proposal are:

- Berkshire Conservation District (BCD), Franklin Conservation District (FCD), and Massachusetts Association of Conservation District (MACD), whom we collaboratively work with towards the development of a regional Healthy Soils Program.

Additional partners who we plan to collaborate on outreach events include:

- Community Involved in Sustaining Agriculture (CISA)
- UMass Extension
- Momentum Ag

Community Engagement

HHCD's community engagement strategy is rooted in our commitment to serving as a voice for natural resource concerns and fostering projects and initiatives that promote the health and sustainability of our region's soils and ecosystems. Community engagement is a core component of our daily work, enabling us to connect directly with farmers, residents, and stakeholders through multiple avenues. We actively engage with community members by connecting directly with farmers and residents through on-the-ground outreach activities, field visits, and local meetings. These interactions allow us to understand and address the specific concerns and needs of our constituents, ensuring that the Healthy Soils Program is responsive and aligned with local priorities. We also leverage social media platforms and the HHCD website to share timely information, raise awareness, and engage the community in conversations about soil health, conservation practices, and sustainable land management.

In 2024, HHCD launched a quarterly newsletter to provide original content that highlights news, updates, and upcoming events related to our programs and services. This newsletter will serve as a valuable communication tool to share the latest information about our work, successes, and opportunities for community involvement. It will also feature stories and updates from our many partners in the region, fostering a broader understanding of collective efforts to protect and restore healthy soils.

HHCD staff and Board members play an active role in community engagement by attending workshops, conferences, and events hosted by other organizations. This presence allows us to build and maintain meaningful relationships with fellow conservationists, land managers, community leaders, and stakeholders. By participating in these events, we stay informed about the latest trends, concerns, and best practices in conservation, and we gain valuable insight into the needs of our community. These interactions also enable us to collaborate on projects, share resources, and leverage collective expertise to advance soil health and conservation efforts across our region.

Through these comprehensive community engagement efforts, HHCD ensures that community voices are heard, and that our work is guided by the needs and priorities of the region. This approach not only strengthens our relationships with community members but also enhances our capacity to deliver impactful, community-driven conservation outcomes.

Risk Assessment

1. Risk: Inadequate Farmer Participation and Engagement

- Description: Farmers may be hesitant or slow to adopt new soil health practices due to financial constraints, lack of knowledge, or skepticism about the benefits of the program.
- Mitigation Strategies:
 - Targeted Outreach and Education: Use outreach events, workshops, and peer-to-peer networks (such as farmer-to-farmer events) to build trust and provide tangible examples of the benefits of soil health practices.
 - Ongoing Technical Assistance: Provide personalized technical support to help farmers transition to healthier soils with minimal barriers.
 - Farmer Testimonials: Showcase success stories from local farmers who have seen positive outcomes from adopting soil health practices.

2. Risk: Limited Funding for Program Expansion

- Description: There may be insufficient funding to support program expansion, including the purchase of additional equipment, soil analysis, and hiring more staff.
- Mitigation Strategies:
 - Diversify Funding Sources: Actively seek out additional funding through federal and state grants, local partnerships, and private donations.
 - Leverage Partnerships: Partner with local organizations, universities, and private stakeholders to pool resources and enhance program impact without a full financial burden on HHCD alone.
 - Prioritize Spending: Carefully evaluate program spending and prioritize the most impactful components. Focus on scaling up the most successful aspects first to demonstrate outcomes and attract additional funding.

3. Risk: Resistance to Change in Soil Management Practices

- Description: Some farmers may resist adopting new practices due to traditional methods, lack of understanding of soil health, or concerns about increased costs.
- Mitigation Strategies:
 - Provide Clear Data and Results: Present clear, data-driven evidence showing how healthy soils practices can enhance farm productivity, resilience to climate change, and long-term profitability.
 - Demonstrate Quick Wins: Focus on small, incremental changes that yield visible benefits quickly (e.g., improving soil fertility or water retention), to build momentum and demonstrate immediate results.
 - Involve Trusted Advisors: Engage local agricultural extension agents or respected farm leaders to advocate for the adoption of new practices. Peer influence can often help overcome resistance.

4. Risk: Weather and Climate Variability

- Description: The success of the Healthy Soils Program depends on favorable weather conditions, which can vary and impact soil management practices.
- Mitigation Strategies:
 - Climate-Resilient Practices: Focus on soil management practices that increase resilience to extreme weather, such as cover cropping, no-till farming, and mulching, which improve soil structure and water retention.

- Farmer Education on Resilience: Ensure that farmers understand the role of soil health in building resilience against droughts and floods, encouraging them to adopt practices that can mitigate these challenges.
5. Risk: Lack of Adequate Soil Monitoring and Data Collection
- Description: Without sufficient data on soil health, the program may struggle to demonstrate its impact, and farmers may be unable to effectively track improvements in soil health.
 - Mitigation Strategies:
 - Expand Soil Testing: Provide soil testing services to farmers as part of the program, and track soil organic carbon levels and other indicators regularly.
 - Partnerships for Research: Collaborate with other organizations to improve soil monitoring methods and ensure data is consistently collected and analyzed to track long-term program impacts.
6. Risk: Inadequate Staffing Capacity
- Description: Insufficient staff or volunteer capacity could limit the ability to provide the level of technical assistance, outreach, and equipment rental services needed to scale the program.
 - Mitigation Strategies:
 - Hire Dedicated Staff: Hire additional staff members or part-time employees to manage the workload. Consider recruiting interns or volunteers from local universities or agricultural programs.
 - Training and Development: Invest in ongoing training for staff and volunteers to ensure they can effectively deliver services, especially as the program expands.
 - Outsource Non-Core Functions: Consider outsourcing non-core activities such as administrative tasks or specialized technical support to free up internal resources for direct outreach and technical assistance.
7. Risk: Regulatory Changes and Policy Barriers
- Description: Changes in state or federal policies and regulations could create barriers to the continued funding or implementation of soil health practices, especially regarding land use and agricultural practices.
 - Mitigation Strategies:
 - Advocacy and Policy Engagement: Actively participate in policy discussions at both the state and local levels to ensure the needs of farmers and conservation districts are represented in policy decisions.
 - Stay Informed on Legislation: Monitor and adapt to changes in agricultural, environmental, and conservation policies, adjusting the program's approach to remain compliant and competitive for funding opportunities.
 - Build Relationships with Policymakers: Develop strong relationships with state legislators, local officials, and relevant agencies to influence decisions and secure support for soil health initiatives.
8. Risk: Equipment Maintenance and Availability
- Description: The equipment used in the Healthy Soils Program may require maintenance and repairs, and may be unavailable when needed by farmers.
 - Mitigation Strategies:
 - Routine Maintenance Plan: Establish a clear plan for regular maintenance and repairs for all equipment to minimize downtime.

- Hire an Equipment Manager to perform routine assessments, maintenance, and repairs.
- Farmers' Equipment Scheduling: Implement a scheduling system for equipment rental to ensure that farmers can access the tools they need when they need them, reducing delays.

9. Risk: Delay of Challenge Grant decision and/or disbursement

- Description: The decision for Round 1 of the Challenge Grant was delayed. The delay did not provide us with adequate time to purchase the Checchi & Magli transplanter and make it available for rent during the 2024 growing season.
- Mitigation Strategies:
 - Maintain HSP through Spring and Summer of 2025 by using prepaid soil tests for Spring of 2025, current fleet of equipment, and current staff capacity. Though a delay in Round 2 of the Challenge Grant would create a burden and challenge HSP sustainability, programs and services will continue to be available to the community.

HHCD Challenge Grant Budget								
Item	Distributor	Quantity	Cost (\$)	Cash Match	In-Kind	Total	Spent by 6/30/2025	Spent by 6/30/2026
STAFF								
Healthy Soils Program Assistant	HHCD	780	26.00			20,280.00		20,280.00
Equipment Manager	HHCD	260	50.00			13,000.00		13,000.00
Conservation Program Manager				65894.40				
District Administrator				6630.00				
District Board Member Time					4,500.00			
EQUIPMENT & SUPPLIES								
Stoltzfus 4-ton Multipurpose Spreader	United Ag & Turf	1	29,551.00			29,551.00	29,551.00	
RIDGID 3 G Cordless Shop Vacuum	Home Depot	1	299.00			299.00	299.00	
Equipment Storage	Karas Farms	12	125.00			1,500.00		1,500.00
Soil Sample Test Kit with Organic Matter add-on (set of 50 tests)	UMass	5	1,170.00			5,850.00	5,850.00	
MicroBIOMETER Starter Kit	MicroBIOMETER	2	150.00			300.00	300.00	
MicroBIOMETER 100 Test Refill Kit	MicroBIOMETER	2	675.00			1,350.00	1,350.00	
Stainless Steel Soil Sampling Probe (7/8" x 33")	AMS, Inc.	1	137.94			137.94	137.94	
Soil Sampling Supplies (5 Gallon bucket, 1 gallon plastic bags, clipboard, measuring cups, trays)	Home Depot	1	250.00			250.00	250.00	
OUTREACH								
Workshop Host Fee	HHCD	6	300.00			1,800.00		1,800.00
Workshop Presenter Fee	HHCD	6	300.00			1,800.00		1,800.00
Workshop Supplies		6	90.00			540.00		540.00
Web-based resources & enhancements	Moo Productions	1	3,000.00			3,000.00		3,000.00
Printed outreach materials (Brochures, pamphlets, flyers)	Staples					300.00		300.00
				Cash match	In-kind		Spent by 6/30/25	Spent by 6/30/26
				72524.40	4,500.00	79,957.94	37,737.94	42,220.00
						TOTAL	TOTAL	TOTAL



Stoltz Mfg., LLC
121 Morgan Way, PO Box 527
Morgantown, PA 19543
Ph (610)350-4322 Fax (610)350-4216

Quotation

Date: 11/14/24 10:48 AM

Cust. #: Matthew
Name: Quote

Quoted by: Mike

Address:

WO#

Model #

Phone:

email:

City, ST, Zip:

Project: 4 Ton Spinner Spreader

#	Qty	Part Number	Description	Price ea.	Ext.
1					
2	1	WLS OM	4 Ton spinner spreader for dry or stockpiled materials	26,093	\$26,093
3			Hopper: 84 cubic ft. (68 bu) struck capacity		
4			PTO driven body chain		
5			24" carbon steel slat-style body chain		
6			Hydraulic spinners (15 gpm)		
7			Dual 24" four-blade spinners		
8			Walking beam suspension		
9			Tandem axle, 64" center line		
10			Tires: 11L x 15 (8-ply)		
11			Low Rate Kit for fertilizer (125 #/ac min)		
12			Light kit		
13					
14			<u>OPTIONS: only included if selected</u>		
15					
16		SPR	Spring Suspension	414	
17			Orchard & Vineyard Options:		
18		LG	Limb guards on front and sides	1,716	
19		LCD	Center Lane Limiter to prevent spreading behind spreader	406	
20		HCD	Hinged center divider for spreading left, right or both	442	
21		BD	Banding deflectors (both sides) for narrow spread patterns	532	
22		EBD	Electric actuated banding deflector (includes banding deflectors and center limiter)	4,414	
23			Wheel Track		
24		CWT	(66" - 70")	1,016	
25		CWT	(60" - 64"), 11L only.	1,016	
26		CWT	(71" - 96"), heavy axle	1,420	
27		CWT	(52" - 59") walking beam only, 11L only	1,572	
28		CWT	(48" - 51") walking beam only, narrow frame, 11L only (narrow frame requires all hydraulic unit)	3,803	
29			Tires:		
30	1	Tires	11L x 15 Highway tires.	1,641	\$1,641
31		Tires	13.5L x 15 tires	2,263	
32			Single axle:		
33		SA19	(19L tires)	884	
34		SA21	(21.5 tires)	1,853	
35		SA11	(11.2 x 24 tires)	5,805	
36			"Cor-Ten"		
37		CTP	"Cor-Ten" Steel: Pan only	720	
38		CT	"Cor-Ten" corrosion-resistant metal pan, hopper, spinners and splash shield	3,141	
39			Stainless Steel:		
40		SSP	#304 Stainless pan only	3,312	
41		SS	#304 Stainless pan, hopper, spinners and splash shield	11,301	
42			Drive Configurations:		
43	1	PTOS	PTO driven spinners	962	\$962
44		PH540	540 PTO-hydraulics (single pinion gearbox, 25 gal. reservoir)	5,702	
45		PH1000	1000 PTO-hydraulics (single pinion gearbox, 25 gal. reservoir)	5,475	
46		PH540SH	540 PTO-hydraulics for shredder (single pinion gearbox, double section pump , 40 gal. reservoir)	9,187	
47		PH1000SH	1000 PTO-hydraulics for shredder (single pinion gearbox, double section pump , 40 gal. reservoir)	8,300	
48		Plug	Tractor hydraulics on body chain (15 GPM total required, 30 GPM with shredder)	1,076	
49		1000LR	1000 rpm PTO: with Low Rate Kit (hydraulic spinners required)	1,213	
50			Miscellaneous:		
51		SEL	Slat every link on the body chain	1,515	
52		BS	Bar screen (3.5" x 6" openings)	2,923	
53	1	CP	Corner pockets for side boards (cannot be used with roll top tarp)	855	\$855
54		Tarp	Tarpaulin: fitted with bow and ties	570	
55		PF	UHMW plastic flooring (1/4" white) must add Cor-Ten pan also.	446	
56		RTT	Roll top tarp (cannot be used with corner pockets or bar screen)	3,607	
57		Shred	Hydraulic shredder to break up lumps (Hydraulic spinners required)	3,243	
58		VRT	VRT upgrade (servo & encoder) - hydraulic body chain required	3,426	
59		LC	Load cells and scale head	9,812	
60		Brakes	Brakes (2 wheel surge hydraulic)	2,782	
61					
62			List Price		\$29,551
63					
64					\$29,551
65					
66			Net FOB Morgantown, PA		\$29,551
67			Freight		
			Total Due		\$29,551

Thank You For Allowing Us to Quote Your Equipment Needs
All Prices FOB Morgantown, PA



Soil and Plant Nutrient Testing Laboratory

203 Paige Laboratory
161 Holdsworth Way
University of Massachusetts
Amherst, MA 01003
Phone: (413) 545-2311
e-mail: soiltest@umass.edu
website: <http://soiltest.umass.edu/>

USE THIS ORDER FORM FOR PREPAID KITS

<u>Contact Information:</u>	Prepaid Kits are sold in bundles of 50. To order, please send a completed order form, and your check or money order made out to the University of Massachusetts (UMass) to the address listed above. Numbered order forms with corresponding zip-lock bags, and return envelopes will be sent to you via the US Postal Service. Each Prepaid Kit order form includes the Crop Code list that corresponds to your choice below. The Crop Code tells us what you are growing, and enables us to provide lime and fertilizer recommendations when needed. Our Master Crop Code List is available at http://soiltest.umass.edu/fact-sheets/master-crop-code-list-routine-soil-testing if you wish to use a Crop Code from a different category on your Prepaid Kit.
Name: Matthew Karas	
Business Name: Hampden-Hampshire Conservation District (HHCD)	
Street Address: 195 Russell St, B6	
City, State, Zip: Hadley, MA, 01035	
Phone: 413-362-4720	
E-mail Address: MatthewHHCD@gmail.com	

Turf, Ornamentals, Landscaping, Home Grounds & Gardening

Plus Optional Analysis:

# of Bundles (50 Kits each)	Routine Analysis \$900	Organic matter \$270	Soluble salts \$270	Nitrate \$360	Result sent by US Mail Free	Subtotal: \$ _____
_____	☒	☐	☐	☐	☐	

Commercial Fruits & Vegetables

Plus Optional Analysis:

# of Bundles (50 Kits each)	Routine Analysis \$900	Organic matter \$270	Soluble salts \$270	Nitrate \$360	Result sent by US Mail Free	Subtotal: \$ _____
1	☒	☒	☐	☐	☐	1170.00

Forages & Grain Crops

Plus Optional Analysis:

# of Bundles (50 Kits each)	Routine Analysis \$900	Organic matter \$270	Soluble salts \$270	Nitrate \$360	Result sent by US Mail Free	Subtotal: \$ _____
_____	☒	☐	☐	☐	☐	1,170.00

Order Total: \$ 1,170.00



Hampden-Hampshire Conservation District
195 Russell St, B6
Hadley, MA 01330
(413) 362-4720

November 14th, 2024

To the reviewers of the Commonwealth's Challenge Grants Implementing the Commonwealth's Healthy Soils Action Plan,

This Joint Letter of Support has been signed by representatives from Momentum Ag, CISA, UMass Extension, NOFA/Mass, All Farmers, FCD, and MACD, to signify their support for the Hampden-Hampshire Conservation District's (HHCD) Challenge Grant Implementing the Commonwealth's Healthy Soils Action Plan, titled "*Enhancing the Healthy Soils Program to Support Farmers and Build Soil Health in Western Massachusetts*". Many of the organizations listed below have collaborated directly with HHCD to provide technical assistance to farmers and/or host outreach events in Hampshire and Hampden counties. Each representative has agreed to the statement in bold, and have added individual comments and signatures on the following pages.

We wholeheartedly support Hampden-Hampshire Conservation District's Challenge Grant proposal "*Enhancing the Healthy Soils Program to Support Farmers and Build Soil Health in Western Massachusetts*". HHCD's Healthy Soils Program plays an essential role in providing assistance to farmers through their equipment rentals, free soil services, technical assistance, and outreach events. HHCD's Healthy Soils Program perfectly aligns with the spirit and intent of Commonwealth's Healthy Soils Action Plan, and sustained funding for the program will allow HHCD to grow its reach and impact within Hampden and Hampshire counties.

We feel strongly that HHCD will meet the goals & objectives outlined in their proposal. HHCD is worthy of continued support from the Commonwealth to sustain their programs and build capacity. Our organization actively works with farmers to facilitate climate adaptation and mitigation practices, and we look forward to continuing our partnership with HHCD to keep farmers farming in the Commonwealth.

Note: The purpose of a joint Letter of Support is to reduce the administrative burden on the organization seeking funding, as well as the reviewers of the grant proposal, while upholding the spirit of a Letter of Support, which is a meaningful vote of confidence by respected stakeholders that attests to the proposal's worthiness and authenticates the applicant's credentials.



Hampden-Hampshire Conservation District
195 Russell St, B6
Hadley, MA 01330
(413) 362-4720

The Hampshire/Hampden Conservation District's footprint in the local agricultural community has exploded over the past few years. Many of Momentum's farmer-partners have taken advantage of the equipment-sharing program in particular. Hampshire/Hampden and Momentum have three years of sharing technical expertise and co-sponsoring very well-attended events. This proposal builds on the District's success and would be welcomed by area farmers.

A handwritten signature in black ink, appearing to read 'LSF'.

Lincoln Fishman

Director

momentum^{AG}
Farmer-Led Change.

The Massachusetts Association of Conservation Districts (MACD) works closely with HHCD and all Conservation Districts across the state. We strongly support their proposal.

A handwritten signature in black ink, appearing to read 'Michael Leff'.

Michael Leff
Executive Director





Hampden-Hampshire Conservation District
195 Russell St, B6
Hadley, MA 01330
(413) 362-4720

Community Involved in Sustaining Agriculture (CISA) has worked closely with the HHCD for the past three years and have seen their programming expand and be taken up by farms throughout Western MA. We fully support their proposal and look forward to continued and expanding collaborations.

A handwritten signature in black ink, appearing to read 'SRJ'.

Stephen Taranto

Climate Program Coordinator



I collaborated with HHCD on workshops and have found they serve an important role regionally by making reduced tillage equipment affordably available to farmers. I support their proposal and look forward to the continued expansion of their services.

A handwritten signature in black ink, appearing to read 'Arthur Siller'.

Arthur Siller

Soil Health Educator





Hampden-Hampshire Conservation District
195 Russell St, B6
Hadley, MA 01330
(413) 362-4720

Franklin Conservation District enjoys a close working relationship with HHCD. We are delighted by HHCD's plans to expand its technical assistance and regenerative agriculture equipment rental program in response to producer needs and strongly support their proposal.

A handwritten signature in cursive script that reads 'Carolyn Shores Ness'.

Carolyn Shores Ness

Chair

Franklin Conservation District

All Farmers, Inc. has benefited from being able to use the HHCD no-till grain drill and by our staff attending various workshops jointly sponsored by them.

David Tepfer

Dave Tepfer

Field Instructor

[All Farmers](#)





Hampden-Hampshire Conservation District
195 Russell St, B6
Hadley, MA 01330
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**To the reviewers of the Commonwealth's Challenge Grants Implementing the
Commonwealth's Healthy Soils Action Plan,**

NOFA/Mass strongly supports the Hampden-Hampshire Conservation District's (HHCD) Challenge Grant proposal, *"Enhancing the Healthy Soils Program to Support Farmers in Western Massachusetts."* Through our shared mission of promoting soil health and sustainable farming practices, NOFA/Mass has collaborated with HHCD to provide technical assistance, educational workshops, and outreach to farmers in the region. We believe HHCD's Healthy Soils Program is essential for equipping farmers with the tools, knowledge, and resources needed to implement regenerative practices that align with the Healthy Soils Action Plan.

We are confident that HHCD's continued leadership and funding will enhance their ability to serve the farming community, build capacity, and further advance soil health initiatives in Western Massachusetts.

A handwritten signature in black ink, appearing to read 'Rubén Parrilla', written over a large, light-colored oval shape.



Rubén Parrilla

Education Director