

Warren's Farming Future



FINAL REPORT

The Connecticut Department of Agriculture
Farm Viability Grant Program

Awardee

Town of Warren, CT

Date

April, 2021

Project Partners:

Warren Land Trust

Northwest Connecticut Land Conservancy

Lake Waramaug Task Force

Northwest Hills Council of Governments

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Agriculture through the Community Investment Act*



Northwest Connecticut
Land Conservancy

PROTECTING LAND AND WATER FOR PEOPLE, FOR WILDLIFE, FOREVER.

**Connecticut Department of Agriculture
2018 Farm Viability Grant**

Project Title: Warren’s Farming Future

Project Purpose

Since settlement in 1737, the Town of Warren primarily has been an agricultural community. Even as the industrial revolution and other economic events transformed areas around the nation, Warren remained largely agrarian, from harvesting woodlands for making charcoal during the Revolutionary War, to the long tradition of our dairy farming, to the cultivation of grapes for the production of wine. Historically, many of the farms were diversified, producing varied products used to sustain families. Excess was sold or traded locally. Farms were complete systems and were nearly self-sustaining.

In recent years, the Town of Warren has seen a resurgence of smaller farms looking to provide products to the community that are fresh and local. Local farms are moving towards producing fruits, berries, meats, dairy products, vegetables and other sustainable agricultural products.

The farming heritage and scenic beauty of Warren are part of what makes our town what it is today. Townspeople recognize this, and when the community came together to create its first Plan of Development and Conservation (POCD) in 2009, it was clear that open space and farmland preservation were among the community’s top priorities. That POCD developed long-term “agricultural strategies” to help preserve and support farms and farming in Warren:

When updating the POCD for the next ten years, the Town reconfirmed - through an online survey of its residents and feedback at a number of town meetings - that farmland preservation and farm viability remain a top priority for the community today. Results from the fall 2018 survey to inform the 2019 POCD update include:

- **What concerns you most about the future of Warren?**
 - #1 loss of young people and young families 59%
 - #2 farm loss 40%**
 - #3 declining enrollment at the Warren School 35%

- **Over the next 10 years, I would like to see Warren address the following:**
 - #1 protecting farmland and supporting farm businesses 65%**
 - #2 attracting and retaining young adults and young families 60%
 - #3 protecting water quality and dealing with invasive plants in our lakes, ponds, and streams 54%
 - #4 permanently protecting more land from development 54%

- **Of the list above, which three (3) do you think should be the town's highest priority goals?**
 - #1 attracting and retaining young adults and young families 47%
 - #2 protecting farmland and supporting farm businesses 44%**
 - #3 permanently protecting more land from development 43%

- **If you could bring something new to Warren, what would it be?**
 - #1 More shops and businesses 57%
 - #2 More young families 56%
 - #3 More farms 26%**

The community believes that thriving farms and farmland preservation are not only fundamental to Warren’s rural character, scenic beauty and environmental health but also the Town’s ability to foster economic and social prosperity. This includes creating local jobs and robust community services that will attract young people and their families. Achieving successful outcomes in agriculture will contribute significantly to addressing other top priorities for the Town. Additionally, high quality water resources are intrinsic to the town’s prosperity as a significant portion of the town is within the watershed of Lake Waramaug and a large public drinking water supply watershed.

For “Warren’s Farming Future”, the Town joined with Warren Land Trust, Northwest Connecticut Land Conservancy, the Lake Waramaug Task Force (LWTF), and Northwest Hills Council of Governments (NHCOG) to develop background information and an actionable plan for achieving our goals for farmland preservation and farm viability in Warren.

Warren’s Farming Future assessed Warren’s natural and human farming assets to identify and facilitate farmland preservation, determine the farming community’s needs, identify required resources, and to develop an overall implementation strategy. We hope this project will support the next generation of long-term Warren farming families in finding the resources and methods to sustain their farming businesses and preserve their farmland, as well as to lay the groundwork for matching (new) farmers with available farmland. The 2009 POCD and 2019 POCD update, in conjunction with overwhelming public support for farms, farming, and Warren’s rural heritage, were the roadmap and inspiration for this project.

The project will answer these basic questions: What are the current farming resources in town? How can these resources be protected? And how can the Town support farms and farmers to be more successful, while better protecting water quality? Answering these questions will benefit the economic, environmental, and aesthetic resources of the Town.

Specifically, the project has six outcomes that, combined, will be a resource and a springboard for Warren’s agriculture in the future:

Farmland Protection:

- Outcome 1: Create an inventory of all working farms and farmers in Warren, including those leased for farming, and identify those farms which are not protected.
- Outcome 2: Conduct assessment of which unprotected farms might be eligible for the Department of Agriculture's Farmland Preservation Program, Community Farms Preservation Program, and USDA-NRCS Agricultural Lands Easement Program.
- Outcome 3: Update soils testing for certain farms to determine whether current maps accurately identify prime and important farmland soils as defined by the state.

Farm Viability and Access:

- Outcome 4: Survey owners of agricultural properties and farmers in Warren to determine objectives and visions for their agricultural work and properties, as well as identify their interest in conservation.
- Outcome 5: Identify potential opportunities to provide and/or increase land access to (young) farmers in Warren.

Sustainable Farming Practices:

- Outcome 6: Identify soils and farmland properties for which water quality is or can be impacted directly by farming practices and determine strategies to support ongoing farming practices that are aligned with sustainable water-quality objectives.

ABOUT THE PARTNERS

Warren Land Trust

The Warren Land Trust is dedicated to the preservation of the rural character of the Town of Warren. The WLT works to preserve farmland, open space, natural and endangered resources such as wetlands, forests and wildlife habitats, by encouraging the gifting of land and the use of conservation easements to permanently preserve open space. To date, we have over 800 acres under our protection, 12 fee properties and 15 conservation easements

WLT brings to the project its intimate knowledge of the Warren Valley and its farming community and needs, close relationships with the producers and the community at large and its reputation for effective stewardship of conserved properties in the Town. One WLT fee property is 25 acres of active farmland leased to a local producer who also owns and farms large parcels in the Warren Valley, and two WLT conservation easement properties include farmland and, in one case, a working diverse farm. Through its ongoing stewardship of these properties, the WLT has developed experience in working with producers to balance active farming with maintaining the conservation values of the properties.

The WLT played an important role in engaging the farmland owners and producers in the WFF project, and will work closely with the Town in setting up the next steps for implementing the recommended next steps to support the farming community in Warren.

- Outcomes 1, 4, and 5
- Presentation and Final Report contributions and organization.

Northwest Connecticut Land Conservancy

Founded in 1965, Northwest Connecticut Land Conservancy is the state's largest land trust. As a guardian of natural and working lands, public recreation areas, and drinking water resources, NCLC permanently protects 12,500 acres (and growing) of vast, connected natural areas in Litchfield and northern Fairfield Counties. The organization's diverse portfolio of land holdings includes: wilderness areas, 40 working farms, stream belts, viewsheds, critical watershed lands, and 21 nature preserves open to the public. NCLC partners with the Connecticut Department of Agriculture to enroll farms in the Farmland Protection Program and guide landowners through the process towards selling their development rights. In addition to project management, NCLC had a primary role in performing the following outcomes and objectives as detailed below:

- Outcomes 1, 2, and 5
- Presentation and Final Report organization, compilation, design, and printing.

Lake Waramaug Task Force

The Lake Waramaug Task Force (Task Force) has been working with the agricultural community in the Town of Warren for over four decades. Specifically, they have been

capturing surface water quality sampling data and soil sampling data to better understand how best to assist the local agricultural community with their efforts to protect wetland soils and water quality. The Task Force has funded numerous high impact water quality projects over the years that have had documented positive effects on water quality, improving conditions throughout the Lake Waramaug basin. The Task Force has proven the effectiveness of their water quality projects by implementing comprehensive water quality sampling protocols in Lake Waramaug and throughout the watershed. In addition, the Task Force works to promote the use of many simple techniques and measures that the agricultural community can implement to protect water quality, and the Task Force is dedicated to assisting the agricultural community with farming in ways that are protective of the natural resources. The Task Force has looked at areas in the entire Town as part of their work for Warrens Farming Future.

- Outcome 6

Northwest Hill Community of Governments (NHCOG)

The NHCOG is a coordinating body for chief elected officials maintained by twenty-one municipalities in northwest Connecticut. The twenty-one members are Barkhamsted, Burlington, Canaan, Colebrook, Cornwall, Goshen, Hartland, Harwinton, Kent, Litchfield, Morris, New Hartford, Norfolk, North Canaan, Roxbury, Salisbury, Sharon, Torrington, Warren, Washington, and Winchester.

NHCOG's mission is to make Northwest Connecticut a better place to live, do business, and visit by providing a forum for local officials to discuss issues of intermunicipal concern, promote regional cooperation, and direct various regional initiatives to enhance government planning, efficiency and service delivery.

In 2018, the NHCOG played an important role in working with the Town of Warren in updating its 2019-2029 Plan of Conservation and Development that identified a prosperous farming community and preservation of farmland and open space as important priorities. Regionally, the NHCOG has been active in bringing the farming community together to collaborate and support initiatives such as the Food Hub for local farm product distribution.

PROJECT APPROACH

Outcome 1: Create inventory of all working farms and farmers in Warren, including those leased for farming, and identify those farms which are not protected.

The partners developed a database and maps which identify all farms, owners, and farmers in the Town, including those that are protected with conservation easements sold to the State of Connecticut or granted to conservation organizations like Warren Land Trust and NCLC. Landowner information was culled from publicly accessible online resources.

These maps are available in hard copy and online (links to be determined)). GIS files are available from NCLC.

The inventory of all working farms and farmers in Warren was created through a combination of efforts: a review of the Town's property records, a visual review of aerial maps that showed cropland, interviews with farmers and other Warren residents familiar with the farming community, history and landscape. Properties in our inventory include those that are crop farmland as well as animal husbandry, greenhouse, beekeeping for example.

Outlined below are highlights of Warren's farming community and assets:

- 76 individual farming properties totaling 3,620 acres
- Represents 21% of total Warren acreage of 17,155
- 84% (65 properties, 3026 acres) is actively farmed
- 20% (14 properties, 737 acres) is protected in fee or with conservation easements
- 48 individual owners of farming properties
- 25 individual farmers in Warren
- 47% of active farming properties operated by farmland owner
- 53% of active farming properties operated by farmer lessee (formal or informal)
- One 96 acre property owned by the Town of Warren (Wasley Farm)

Outcome 2:

Conduct assessment of which unprotected farms might be eligible for the Department of Agriculture's Farmland Preservation Program, Community Farms Preservation Program, and USDA-NRCS Agricultural Lands Easement Program. It is assumed that all working farms would be eligible to donate development rights/conservation easements to local non-profits like Warren Land Trust and NCLC (though standard due diligence and organizational review would be required).

There are three primary and complementary ways for landowners and farmers to protect their farms. The entire farm or property does not necessarily need to be conserved:

1. Conservation with a land trust like Warren Land Trust or NCLC. Each organization has its own criteria and processes, but most farms in the town would likely qualify for protection with a conservation easement.
2. Purchase of the development rights (conservation easement) by the State Department of Agriculture's Farmland Protection Program. The Department has a free application and criteria, but generally farms need to be approximately 50% in prime, statewide, and locally important farmland soils and have a significant percentage of the area in active agriculture. The entire farm or property does not necessarily need to be conserved.
3. USDA Natural Resources Conservation Service (NRCS) Agricultural Land Easement program. USDA NRCS ALE can provide up to 50% of the appraised fair market value to purchase the development rights over farmland. ALE funds can be matched with State Department of Agriculture and private funds. An application is required.

Related documentation and application forms are included in Appendix 5. Landowners who are interested in conservation should contact Warren Land Trust, NCLC, the Department of Agriculture, or NRCS to get started. The land trusts can assist landowners with the applications and mapping required for the State and Federal programs.

A hoped for result of the Warren's Farming Future project was generating interest with landowners in protecting their farms. The project partners are pleased to announce that an effort to acquire the Tanner Farm in the heart of the Warren Valley has been initiated as a direct result of the outreach associated with this project. \$1.2 million in Federal and State funds have been secured towards the conservation of the landmark Tanner Farm on Route 341, which required extensive applications, mapping, analysis of conservation values and, of course, negotiations with the landowners. This will result in permanent protection of over 200 acres, including 90 acres of active farm fields and 68 acres of prime, state and locally important farmland soils using a combination of agricultural easements and fee acquisition. The Warren Land Trust, NCLC, and LWTF are leading the conservation efforts, including applying for State and Federal funding for conservation.

In addition, NCLC staff have spoken directly with 4 different landowners or potential buyers of Warren farms about conservation as a result of the Warren's Farming Future project. Conversations were preceded by mapping and analysis of conservation values and assessing the properties against the State and NRCS ALE criteria for farmland protection.

Outcome 3:

Update soils testing for certain farms to determine whether current maps accurately identify prime and important farmland soils as defined by the state.

All Warren farmland owners were asked if they would like Kip Kolesinskas, Soil Scientist, to test their soils. We also followed up directly with farmland owners whose farm soils may be undercounted based on our comparison review of the farm soils maps against the map indicating actual farm activities. Kip tested soils on 4 farm parcels covering two different ownerships.

For three of them, he has submitted reports to update some soils. These updates will have the soils reclassified/upgraded to Prime/Statewide Farmland soils.

For these farms:

Parcel # 16- The soil reclassification will result in a proposed increase of about 4 acres of Statewide Important soils and 3 acres of Prime Farmland. This will bring the overall percentage of Prime, Statewide, and locally important soils on the property to over 50%. This parcel was previously enrolled in the State Farmland Protection Program but the landowners withdrew the application. The property has been sold and the new owners may be interested in re-enrolling in the Program.

Parcel # 3- The soil reclassification will result in a proposed increase of about 6 acres of Prime Farmland. As a result of our work on this project, these parcel owners have since signed a Purchase and Sale Agreement to sell the entire parcel to the Warren Land Trust, subject to a USDA-NRCS Agricultural Lands Easement (ALE), and the soil sampling was instrumental in ensuring maximum acreage was enrolled in the ALE easement. 132 acres of Parcel 3 and 4 are included in a successful ALE application to purchase the development rights on the property.

Parcel # 5/6- The soil reclassification will result in a proposed increase of about 4 acres of Prime Farmland, if NRCS recognizes effectiveness of drainage in the new 17 DR map unit, and would add about 10 acres of Statewide Important soils. This will bring the overall percentage of Prime, Statewide, and locally important soils on the property from approximately 38% to 43%.

Outcome 4:

Survey landowners of agricultural properties and farmers in Warren to determine objectives and visions for their agricultural work and properties, as well as identify their interest in conservation.

A survey entitled **Warren's Farming Future** (Appendix 3) was created by Warren Land Trust and NCLC with input from the Town's Selectmen (Nelson/Angevine), Lake Waramaug Task Force, NHCOC, and several farmers from Warren. The team identified other agricultural surveys that had been conducted by organizations such as the NHCOC to gain insight into areas and questions that would provide useful feedback for the project. The team also used *Planning for Agriculture: A Guide for CT Municipalities* to help frame the survey objectives and content.

The survey sought to reach a broadly defined group of farming interests in the Town including farmers who own and operate, farmers who lease land and farmland owners. A broad definition of agriculture was taken to include all forms of agriculture from crop based to beekeeping.

The survey asked questions about the farms and the farming operations, knowledge of state and federal resources for agriculture, awareness about farmland preservation and need for services to support farming the Town (See Appendix 3 for Sample Survey).

We utilized the Survey Monkey application for the design and implementation of the survey. In August 2020, the survey was sent to all the farmers and farmland owners that were identified through the course of our work in completing Objective 1 – the inventory of farming assets. The survey was sent by email and text, and in certain cases by hardcopy in the mail. The survey has remained open since that time as we have sought to maximize participation in order to receive as much feedback as possible, and to ensure that everyone felt that they had an opportunity to provide input.

Overview of the Warren Farming Future Survey

The Survey was sent to 50 people: those indicated by our farm property inventory as well as to farmers in Warren who do not own land, and the questions were designed for the circumstances of three groups:

- Farmers who own their farmland 43%
- Farmers who lease 7%
- Owners of farmland 50%

31 surveys were returned, representing 14 landowners and 17 farmers (multiple properties are in common ownership and farmers work multiple properties). The overall number of respondents gives the partners a high degree of confidence in the results since we captured such a large percentage of farmers and farm owners.

The nature of the farming operations as a source of income was assessed:

- 30% of Farmers who own land, rely on farming as a primary enterprise;

- 70% of Farmers who own land, rely on farming as a secondary enterprise;
- None of farmers who lease land rely on farming as a primary enterprise (3 of 3 respondents).

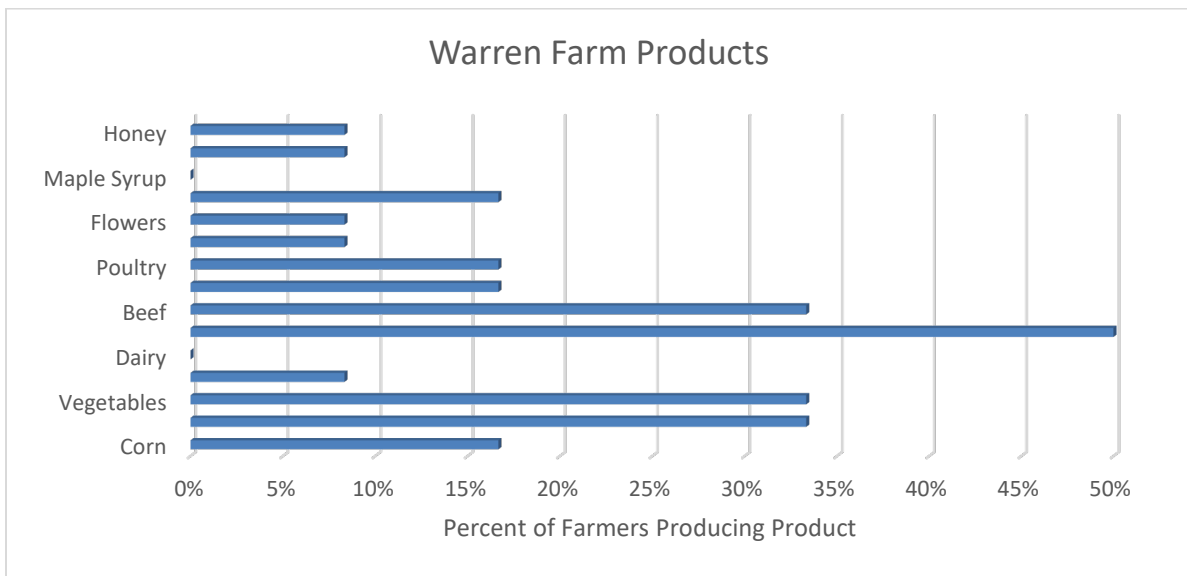
And farmers were asked how long they have been farming:

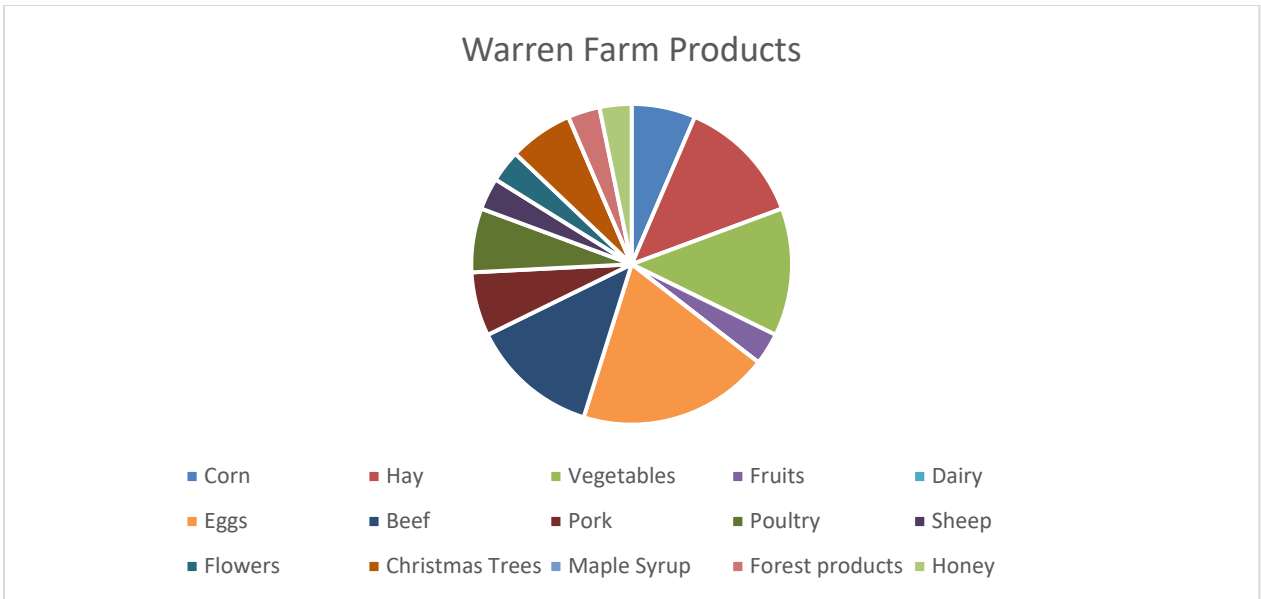
- 64% of Warren’s farmers have been in operation for 16 or more years;
- 27% of Warren’s farmers have been in operation for 6 to 15 years.

The survey also sought to understand how Warren's farmers were envisioning the future and their commitment to farming by asking how long they plan to continue farming?

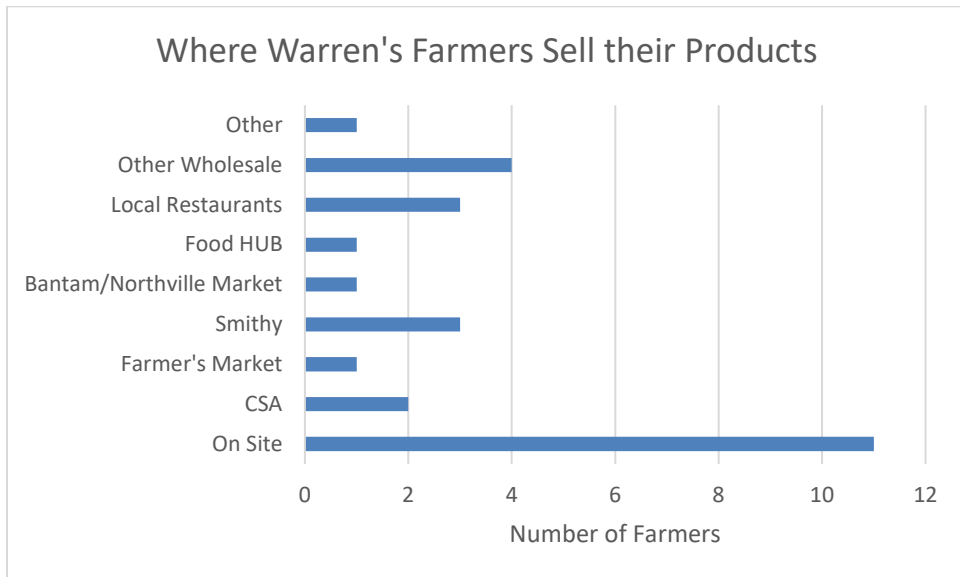
- 0 to 5 years: 27%
- 6 to 15 years: 27%
- 16+ years: 18%
- Don't know: 27%

The farms and farmers in Warren produce a diverse range of agricultural products. The most significant change in the last few years has been the reduction in dairy farming as a result of the difficult market conditions for milk. The dairy farmers have or are in the process of transitioning their fields to corn and hay.





Many farmers sell their products directly from their farm and otherwise various modes of distribution are undertaken. While most farmers were aware of the NWCT Food HUB, only two currently avail themselves of this distribution opportunity.



Trends in land use and land access

Farmers were surveyed on whether they anticipated any major changes in their operations and a variety of responses were received: Six indicated plans for expansion and adding new structures such as greenhouses, two are considering a sale of the farm, two a conversion to different crops and one is planning to retire.

Farmers who own land mostly report they have enough suitable land; Farmers who lease mostly report that they do not have enough suitable land.

- 72% of farmers who own their land say they have enough suitable land;
- 66% of farmers who lease say they do not have enough suitable land for farming.

Opportunities and resources available to support farm prosperity

Farmers identified the greatest challenges to farming in Warren:

Greatest Challenges to Farming	All Farmers
Weather	7
Pricing for products	3
Finding a market for products	3
Changing market environment	2
Regulatory requirements	0
Finding affordable labor	5
Affordable access to farm equipment	2
Access to land	2
Affordable health insurance	3
Other (barn) (good vets)	2

The survey sought to assess awareness of the many federal, state and NGO resources available to the agricultural community as well as the barriers to taking advantage of these opportunities. Knowledge of the resources, administrative burden and lack of time seemed to be the largest factors in preventing farmers from tapping into these valuable resources:

Reasons for lack of participation in available resources	All Farmers
No Need	3
Did not know about them	4
Not enough time	2
Too much paperwork	2
Not enough money/matching funds not sufficient	2
Would like more information	4
Other	1

When asked to identify what could enhance their farm businesses, farmers indicated that expertise and administrative support for fundraising and business advice would be the most helpful:

Economic viability of farming might be enhanced by the following	All Farmers
Assistance in accessing grant funding from state/federal programs	6
Admin support (e.g. grant writing, general business support)	5
Affordable access to farming equipment/infrastructure	2
Access to more farmland	3
Business educational programs	1
Agricultural educational programs	1
Warren Farm Committee/Commission	2
Finding employees	3
Affordable health insurance	3
Childcare	0
Other (Housing)	1

For farmland owners only, about 50% of the land was farmed and for those that were not farmed, three were interested in having their land farmed again.

Farmland Preservation

Preserving farmland and open space in Warren was a clear priority for the community during the recent POCD process. Already a number of agricultural properties have been preserved that serve both the purpose of sustaining the farming culture of the town in perpetuity and preserving beautiful and scenic open vistas for all to enjoy.

The survey queried farmland owners who have not protected their farmland about their potential interest in doing so as well as their awareness of the ways in which farmland can be protected. We were also interested to know why properties have chosen not to preserve their property thus far.

What are the primary reasons that you have not preserved your farmland?

- 22% Didn't make financial sense
- 14% Not interested
- 14% Still thinking about it
- 50% Other

The "Other" reasons cited for not preserving land included:

- Property is currently listed for sale without restrictions;
- It is in my beneficiary planning, but keeping options open should I need the money after retirement for any health catastrophe;
- Never thought about it;
- Not familiar enough with it, need more information.

Outcome 5:

Identify potential opportunities to provide and/or increase land access to (young) farmers in Warren.

In the survey, we asked several questions to determine whether access to farmland was an issue and/or if a farmer was seeking additional farmland or a farmland owner was seeking to lease the land.

Relevant Questions:

- Do you have enough suitable land for your farming needs?
- Are you familiar with the Connecticut FarmLink program that connects farmers with farmland?
- The economic viability of my farming activities might be enhanced by the following (check all that apply): Access to more farmland (one choice)
- What are the greatest challenges to your farming activities (check all that apply)? Access to land (a choice)

Based on the responses, it is clear that there is solid demand from farmers for additional farmland in order to meet their needs and to increase the economic viability of their business. Conversely while there was no indication from farmland owners that they were actively seeking farmers, there were a number of farmland owners that were interested in restarting farming on their land. We are in the process of following up with those landowners to determine their interest in connecting with the farmers seeking farmland.

Another potential opportunity to create access for farmers seeking land in Warren is the Wasley Farm, a 96 acre parcel purchased by the Town in 2011. There are 4 fields, one of which has several fruit crops that are well-established, and the others are farmed for hay by a local farmer. There could be an opportunity to lease out the property to one or more farmers on a long-term lease basis. The property use is now under review and a committee has been formed to develop a recommendation to the Board of Selectmen on what should be done with the property. The committee is in the process of surveying Town residents on what they would like to see happen on the property and is considering all alternatives including continued farming.

We noted that leased farmland in Warren is farmed by a small number of farmers. In the future, as some of these farmers either retire or seek to consolidate the land that they farm, opportunities will arise for farmers seeking additional land. We also noted that a good portion of farmland was subcontracted on a year to year basis to farmers outside of Warren because the Warren farmers did not have the scale to justify the investment in needed equipment e.g. corn.

Outcome 6:

Identify soils and farmland properties for which water quality is or can be impacted directly by farming practices and determine strategies to support ongoing farming practices that are aligned with sustainable water-quality objectives.

Background

A number of agricultural soil types found here in the Northeastern United States (and in Warren) are some of the most productive unirrigated soil in the world! These unique local agricultural soils have the best combination of physical and chemical properties for producing food and livestock feed. In general, they have an adequate and dependable moisture supply without irrigation (because of the underlying dense glacial till), favorable temperature and growing season, acceptable acidity and alkalinity, and few rocks. These favorable agricultural soils comprise over 10% of Warren's land area. These highly productive agricultural soils also have all the characteristics that make them attractive to development, and if these soils are developed all the properties that make them so productive will be lost forever. The unfortunate propensity for these soils to be developed just provides us with additional urgency to support farmland preservation and local agriculture to better preserve Warren's farming future.

Productive farmland soil areas have been attracting attention in Connecticut (CT) because of negative trends in both the national and global food production industries, not to mention escalating transportation costs and food processing disruptions. Extreme drought, water shortages and aquifer depletion are disrupting agriculture production in the mid and far western US, and escalating uncontrolled and unresolved food contamination issues both here and from food imported from abroad has pushed us to look more and more to our "backyards" for food production. While there is not enough farmland in all of CT to support our three million + population, we are convinced that the health and sustainability of the agricultural resources and farming community in Warren will be key to the quality of life in the region.

Task Force On Farm Soil Capabilities and Limitations Analysis.

Work accomplished for Outcome #6 included wetland delineation and mapping services, highly erodible land analysis, cornfield to hay field conversion assistance and soil nutrient sampling and testing.

Most agricultural practices (livestock grazing, food and fiber production) are limited by the presence of wetland soils. The use of wetland soils is often limited by strict municipal land use regulations. Existing wetland soil maps are often inaccurate and challenging when trying to use them in detailed farm planning and laying out the location of specific farm practices. Therefore, the Task Force provides a certified soil scientist teamed with a cartographer to field sample, delineate and map wetland boundaries. Wetlands are often difficult to locate if you are just looking at the surface

soil conditionsThe Task Force has worked with the farmers to implement wetlands friendly agricultural uses.

The Task Force provided soil sampling services including June Nitrate Testing. This required a Task Force staff member to collect soil samples in corn fields at the beginning of the growing season. The samples were then prepared and shipped to the state soil lab for analysis. This sampling is important because nitrogen compounds are often added to soil when corn is at a crucial growing point, and key nitrogen providing compounds only exist fleetingly in the soil. Proper on-demand fertilizer application rates can be calibrated to match a soil's carrying capacity and corn need, preventing off farm contamination of waterways and wetlands.

The Task Force also assisted the Warren agricultural community by collecting soil samples from fallow corn fields that were being converted to hayfields. These soil samples were collected and analyzed for a broad spectrum of growth factors as hayfield nutrient needs are very different from feed-corn soil requirements.

The Task Force also assisted the agricultural community by promoting appropriate agricultural field management practices on soil identified as highly susceptible to erosion. It takes 1,000 years for nature to create an inch of soil here in New England, and it only takes a few severe rainstorms on an exposed farm field to erode an inch of topsoil into a nearby wetland and/or watercourse. In Warren, soil erosion robs a farm of a non-renewable natural resource that is crucial to its productivity, sustainability and survival. Equally important, eroded soil is the number one cause of wetland destruction and water pollution.

GOALS AND OUTCOMES ACHIEVED

The Town of Warren has clear agreement on the big goals - preserving farmland and supporting farm viability. Achieving these goals provides numerous and far-reaching economic, cultural and environmental benefits for our town and the broader Northwest Connecticut region that contribute to long-term sustainability of our vibrant local community.

The Town updated its POCD in March 2019 and while it is clear that farmland preservation and farm viability continue to be top priorities, the main goal of this project was to develop a more specific understanding of the farming assets in the town and the needs and desires of the farming community. The desired outcome for the project is to have a plan for achieving the goals outlined in the POCD in the coming decade and that by 2029, the Town will have made material progress in meeting those goals.

As the first next step, we recommend that the Town form some kind of Agriculture Advisory Council with representation from farmers, farmland owners, Town officials and land conservation partners. We believe that it is critical for the Town to have a role in forming and supporting this group for several reasons:

1. Agriculture is core to the Town's identity and heritage;
2. The POCD has prioritized Farming and Farmland preservation as a specific Goal;
3. A vibrant farming community will help achieve many other Goals of the POCD;
4. Town involvement will create access to additional sources of assistance and funding from state and federal agencies;
5. Town liaison/resource will help facilitate the work of the Committee in terms of community communications, resources access, gathering locations and developing regulatory/policy.

New Milford and Cornwall are examples of neighboring towns that have supported their farming communities in this way.

An Agriculture Council will continue the work of this project and represent a sustainable commitment to supporting the farming community in 4 key areas:

- Supportive business environment
- Farmland access
- Sustainable farming practices
- Farmland preservation

Support Farm Economic Viability:

The Town established a right-to-farm ordinance in 2012 and is generally supportive of farming in that there are no significant local governmental barriers to farmers pursuing their business activities. Outlined below is a summary of certain criteria related to pursuing business activities and specific recommendations on how the Town could further support these efforts. Generally the Town, together with advice and support of the Agriculture Council could take more proactive steps around marketing and promotion of the local farms and their products through the Town’s existing communication and event channels such as the Town website, Park and Recreation activities and an annual festival.

Creating a Supportive Business Environment for Farming		
Farming	In Warren:	Recommendation
Economic Development	Agriculture is part of the local economic development strategy as defined in the 2019 POCD	Create more specific action items on how local farms can contribute to local economy and what kind of support required from the town
On-Farm Retail	The town allows roadside stands/pick your own by right	Allow local farms to post info on Town website Ag Page; create a farm map for Warren
Signs	The town allows off-site signs that attract and direct farm stand customers with zoning permit	
Off-Farm Sales	Farmstands can sell produce purchased elsewhere	Ag Committee may want to create standards for identifying source of produce
On-Farm Processing	Town allows on-farm processing facilities, if farm is certified by State	
Compatible Businesses	Businesses that are compatible with agriculture such a machinery repair, sawmills, b&b's, are allowed with permit	Be more specific about allowing Agritourism related businesses
Celebrate Agriculture	The town does not have an agricultural fair, sponsor farm tours or other events to demonstrate the value of local farms.	Create dedicated area at the Warren Fall Festival to highlight local farms and their products; Coordinate with Parks and Recs Dept on a local farm tour day Allow farms to "advertise" on Town communication such as newsletter; Provide or facilitate location for local farmers market; Recommend school purchase of local food; coordinate through NWCOG with neighboring towns to promote regional agritourism
Buy Local	Town has limited programmatic support for the purchase of local food e.g. farmers market, farm to school	

Farmland Access:

At the outset of the project, there was no established method outside of CT Farmlink of matching up available Warren farmland with Warren farmers looking for land and there was not a full picture of how much farmland might be available. By creating the database of farmland in Warren and asking the question of farmland owners, we have begun the process of creating more transparency about the potential for connecting new farmers with land. The greatest opportunity to increase the supply of available farmland to new farmers would be to have a more clearly identified resource - such as

the Ag Council - where farmland owners who do not farm their own land could turn to for advice on how and where to find a farmer and vice versa, especially on a local level.

Our conclusion is that the process of identifying farmland available for sale and/or lease and matching these opportunities with farmers in need of land will take time to develop specifically in Warren. We believe that the Survey and the conversations generated by the WFF project in general have started the dialogue and awareness around this topic and that, with time and continued effort, opportunities will be identified to match up Warren farmers with available farmland.

The proposed Agricultural Advisory Council would take up this continued effort to help match farmers and farmland in Town and provide ongoing resources to support these matches and work to create opportunities. The Town and local conservation organizations can also help promote and enroll farms in CT Farmlink (ctfarmlink.org) to try and match farmers seeking land and local landowners seeking farmers.

Farmland Access	In Warren:	Recommendation
Farmland Availability	There is no established way of connecting farmers with available farmland	Ag Committee could play a role in connecting farmland with farmers in need
Town-Owned Farmland	The Town does not formally lease its town-owned farmland land	Consider formally leasing Wasley Farm fields to local farmers
FarmLink	Currently there is limited knowledge of this network in Warren	Send information to farming community listserv; put link on Town Website on Ag page

Sustainable Farming Practices:

The Warren Farming Future project has given us the opportunity to create a framework that arms Warren with a road map to make choices that ensure its environmental and economic health. We are very fortunate that the Lake Waramaug Task Force (LWTF) has made its home base the Warren Town Hall, as 82% of the Lake Waramaug watershed lies in Warren. As a partner in this project, the services of the LWTF have been made available to the farming community to test their soils to ensure that their full potential for farming is recognized and to support the implementation of best farming practices.

Sustainable Farming Practices	In Warren	Recommendation
Soil Testing	Farmland soils testing offered to all farmland owners and high priority parcels	Encourage farmland owner collaboration with the Lake Waramaug Task Force on monitoring soil health through regular testing
Water and wetlands protection	Lake Waramaug provides consistent oversight of water quality and protection measures	Encourage farmland owner collaboration with the Lake Waramaug Task Force on monitoring soil health through regular testing
Best Farmland Management Practices	Implementation on a farm by farm basis	Add resources to Ag Page on Town website, encourage Ag Committee to share best practices experiences and educational programming

Soil is a vital part of Warren’s natural environment and economic well-being. It is just as important as plants, animals, rocks and landforms. Soils are important for growing food, disposing of waste, supporting smart growth and roads, growing timber, providing habitat for wildlife, and collecting and filtering all the drinking water consumed in Warren, and cleaning up regional recreational waters. Soils are always responding to changes in environmental and climate, along with the influences of humans and land use. Some changes in the soil can be short lived and reversible, others changes can permanently degrade a soil’s function, and complete soil degradation may take place in just a few large rain events if soil is not protected. Healthy soils buffer against the negative effects of climate change, preserve the excellent drinking water quality enjoyed throughout the town and the region, and they help blunt food security threats by keeping food production local. Therefore, it is in all the residents of Warren’s best interest to be protective of soil, a vital nonrenewable natural resource.

Soils not only reflect natural processes but also record human activities both at present and in the past and therefore make up part of Warren’s cultural heritage. The modification of soils by agriculture, historical settlement patterns and archeological resources are all well recorded in the soil profiles all over Warren. Soils should be a key part of sustainability planning to ensure a healthy future and the Warren Farming Future project is an important planning step to ensure that the town will thrive for many generations to come.

We recommend that the Town encourage and facilitate the use of best management practices (BMPs) on the Town’s farmland, particularly in priority areas where the impact on the Lake Waramaug watershed is most evident:

Recommended BMPs include the promotion of:

- 1) appropriate nutrient management
- 2) creating vegetated stream and wetland buffer
- 3) livestock exclusion from streams and wetland areas
- 4) agricultural field management plans
- 5) rotational grazing
- 6) pollinator plantings

- 7) cover crop
- 8) stream bank stabilization
- 9) non-native invasive species management plans

Minimizing soil erosion in all land use practices is key to water quality protection; the Task force is available to continue their work with the Warren farming community to implement practices to minimize soil erosion through one-on-one meetings as well as through sponsored educational gatherings.

Farmland Preservation:

There has been some good success in permanently protecting several large parcels of farmland in Warren over the years with the help of grant funding provided by the USDA/NRCS and the CT DoAG farmland preservation programs. Through this project, we have identified farmland parcels that are preservation priorities - particularly in the Warren Valley through which Sucker Brook runs before it flows into Lake Waramaug - and have raised awareness and initiated those discussions with farmland owners.

Farmland Preservation Strategies	in Warren	Recommendation
Prioritized Farmland	POCD has a goal to preserve farmland and open space	Continue to generally support agriculture in Warren
Farmland Preservation	Encourages the use of conservation easements or purchase of development right of farmland	Through the Ag Committee, coordinate information sessions for farmland owners to learn about preservation opportunities; Collaborate with local land trusts to help access grant funding;
Town specific support	Supports applications to state and federal farmland protection programs	Continue to support farm access to grant funding through inclusion in POCDs and formal letters of support to government agencies
Town Qualification	Does not currently meet the qualifications to participate in CT's joint state-town farmland preservation program or Community Farms Preservation Program	Consider the creation of aTown land preservation fund for match funding and designating locally important farmland soils

As a direct result of the WFF project and its related outreach and services, an effort to acquire the Tanner Farm in the heart of the Warren Valley has been initiated by the partners which will permanently protect 200+ acres, including over 90 acres of active farm fields and 68 acres of prime, state and locally important farmland soils using a combination of agricultural easements and fee acquisition. . The purchase of the farm by a land conservation organization will facilitate continued farmland soil and water quality protection efforts, as well as the preservation of the historical core of Warren’s agricultural community.

Publicity

In addition to press and an early project meeting in the town of Warren, Warren Land Trust and NCLC spoke about the Warren’s Farming Future project to the Northwest Hills Council of Governments at a “Fifth Thursday” meeting on May 30, 2019, and will

present the results on April 29, 2021. There will also be a presentation to the Warren Board of Selectman on April 20th, 2021 and at a Town-wide meeting on May 20th, 2021.

LESSONS LEARNED: CONCLUSIONS AND RECOMMENDATIONS

Presently, the farming tradition in the Town of Warren is sustained by a combination of multiple generation farming families and farmers that are new to Warren or to farming in general. The local support for farms is solid, and some positive news is that since we began this project, the support has grown even stronger due to a confluence of events. First Selectman Tim Angevine - who is also a farmer - and another farmer Bob Newton have organized some gatherings for the farming community such as social events to bring farmers together to discuss ideas. In response to the pandemic, a group of young farmers established the WarrenGrownCSA, a weekly market that sells Warren farm products and the WLT helped them to set up their website to initiate online sales. These activities were started prior to the COVID-19 crisis and their uptake has only accelerated as residents appreciated the value of locally grown food and the importance of supporting local producers.

Much of the work completed in this project fulfills many of objectives outlined in the Town's 2019-2021 POCD's *Goal 2: Protect Farmland from Development, Support Farm Businesses, Support Sustainable Farming Practices and Attract Young Farmers*. We recommend that the partners meet with the Warren's P&Z Commission to update the POCD and determine the next steps towards achieving the objectives outlined in Goal 2.

Based on our survey as well as direct conversations, it is clear that the farming community could use help in accessing the many resources that are available including those offered by state and federal agencies. As an immediate next step, we would recommend that the Town use the main elements of the WFF project as the basis for establishing a *Warren's Farming Future* page on the Town's website - see Appendix 4. This page can be a go-to for farmers and farmland owners for finding information specific to Warren's farming community, as well as links to helpful organizations providing educational information and funding, and contact information for people at these organizations that can provide assistance in accessing the resources.

As to farmland use, it is a fragmented group of property owners that have been motivated by individual objectives and circumstances. There appears to be an opportunity to provide more vision to property owners on how they can meet their individual objectives while also supporting a vibrant and sustainable farming community. We believe the Town and the partners can play a role in bringing the community together to develop ideas and programs that will further support the growth and sustainability of their farming business while encouraging best land management practices and preserving prime farmland for perpetual agricultural use.

APPENDIX 1

Database of Warren Farms

APPENDIX 2

Maps of Warren Farmland

APPENDIX 3

WFF Sample Survey - attached PDF file

APPENDIX 4

Outline for *Warren's Farming Future* page on Town Website.

APPENDIX 5

Conservation resources and applications:

1. State of Connecticut Department of Agriculture Farmland Preservation Program
2. USDA-NRCS ALE Workbook
3. Other