

Monadnock Food Infrastructure

A summary of efforts within and without the Monadnock Region that could improve the availability and consumption of locally produced agricultural products



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Introduction: MFCC's Infrastructure Working Group

In March of 2016, Monadnock Farm and Community Coalition (MFCC) held the first of many forums and meetings about local food infrastructure. A wish-list began to emerge of facilities and services – infrastructure – that would be a boon to local businesses. Items included:

- food storage (variety of temperatures and humidity conditions),
- facilities for produce washing and light processing,
- commercial kitchens, animal processing equipment/facilities,
- (refrigerated) trucks, and more.

Further conversations about our needs identified other needs, such as greater consumer awareness and commitment to purchasing local foods. For many of these items, there is room for sharing resources – no one business or organization needs a whole commercial kitchen to itself, nor could they afford to build one. Instead, we began to discuss whether we could share the costs of investment, and the benefits of improved infrastructure, across a wider community or partnership of organizations.

We are now bringing this conversation to you. This packet includes some of the information we have gathered as we looked at previous ideas and conversations around building the local food system in the Monadnock Region, research and examples from our neighbors across New England and a snapshot of the components of the food system in the region. Please review these materials and join us on April 10th to discuss our needs for shared infrastructure to strengthen the local food system in our region. Your input will be critical to shaping the Infrastructure Working Group’s action over the next year or so. You will help us to identify a concrete project (or two) to implement in support of our food system. You are also invited to join our committee and together we will build concrete projects that will serve to grow and strengthen our local food system.

Relocalizing (a portion of) Our Food System

Why is it time to focus on local food production?

Our current agricultural world is based on a post-WWII model, based on economies of scale, technology, regional specialization, and global transportation systems. As a nation and as a species, we have over-invested in this model for our food systems which degrades soils, over-exploits water resources, pollutes ecosystems, creates waste, displaces communities, and leaves people hungry (despite creating more than enough consumable calories). The impacts of climate change and economic uncertainties will have an even greater negative impact. We must switch gears toward developing a vibrant, local food system that enhances the local economy and provides for basic needs while building social cohesion and expertise in the community.

What does a re-localized food system look like?

- More small- and medium-sized agricultural producers
- More value-added food businesses (cheese, baked goods, preserves)
- Shorter supply chain between producer and consumer (more direct relationship between growers and eaters)
- Tendency for more ecologically sustainable farming practices
- Higher quality food
- Positive economic impact on local region

Why do you care about a relocalized food system?

Food Solutions New England and 50 by 60 vision

Based on acreage dedicated to agriculture, New England currently produces about 10% of the food we eat. We use 5% of our land for this. Food Solutions New England’s **A Food Vision for New England** aims to increase to using 15% of our land and provide for 50% of our population’s

needs (17 million people), eliminating hunger which currently impacts 10-15% of our population, by 2060.

This means increasing the amount of **land** we use to produce food in New England by a factor of **three** while increasing the amount of **food** we produce in New England by a factor of at least **ten**.

In A New England Food Vision many moving parts need to be coordinated to achieve healthy food for all, sustainable farming and fishing, and thriving communities. To realize the vision means working with others toward larger shared goals. Whether you are engaged in food system work in a neighborhood school, on a farm or a fishing boat, at a local food pantry, or in one of a thousand other settings, your individual efforts are connected to those of others. There are ways to join with others to increase the impact of your own work while building trust and collaboration to strengthen collective work. We need to pool knowledge, insights, experience, and conviction from all parts of the system, including the most vulnerable and marginalized. The success of this vision depends on collaborative action and collective impact, which do not happen without purposeful efforts to build networks and coalitions across race, gender, geographic, and economic divides. Many such efforts are well under way. Many more are needed, binding the farthest corners of New England to its urban centers.

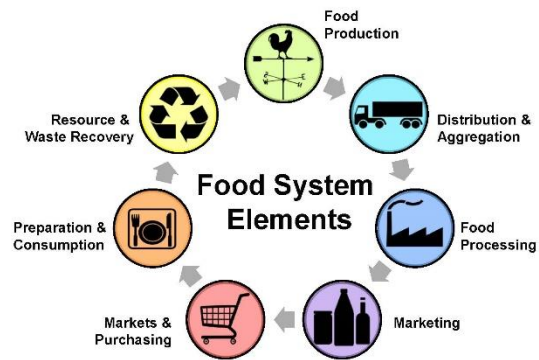
What are your roles in the New England Food System?

A Focus on *Shared* Infrastructure

We need infrastructure of all different types at all different levels in order to keep building our local food system. Current investments in infrastructure happen up and down the scale from private investments in individual food business (e.g. a farm builds a hoop house; a food truck builds a website) to government investments (e.g. a town initiates composting at the local transfer station; a state repairs a highway bridge).

Some infrastructure investments fall somewhere between the purview of the private business and the government. Storage facilities, trucking and distribution services, kitchens, and animal processing facilities, as well as consulting and branding services, are examples of food system components that can be built in a community through shared efforts. In other words, they could come in the form of private businesses, government agencies, or non-profit organizations. In some cases they are built out of formal **partnerships** with a variety of entities.

In the Monadnock Region (and neighboring counties), our rural character may make some shared food system infrastructure suitable to our needs. It will take careful planning and collaboration, however, to choose investments that make sense for current and near-term conditions, and will be accessible to enough users to make them viable businesses.



Local Food Systems and Hubs

Adapted by Christy Shi, Center for Environmental Farming Systems.
From: Wilkins, J. and Eames-Sheerly, M. *Discovering the Food System: An experiential learning program for young and inquiring minds.*
Cornell University, Departments of Nutritional Science and Horticulture. <http://www.discoverfoodsys.cornell.edu/>

As defined by the National Food Hub Collaboration, “a food hub is a business or organization that actively manages the aggregation, distribution, and marketing of source-identified food products primarily from local and regional producers in order to satisfy wholesale, retail, and institutional demand.” In our region, Monadnock Menus/Windham Farm and Food is a food hub that meets this criteria. Monadnock Food Co-op also carries many of these functions, although it is in fact a retail buyer from the food hub and its customers are individual consumers.

Although creating local food hubs sounds like a sure-fire way for a community to grow its local food system, there are downsides. Food hubs may incentivize some types of agricultural activity over others. Because food hubs serve a market of wholesale buyers they may alienate local farmers who prefer to go directly to retail. Or these local producers may simply not be ready to shift toward serving a wholesale market. Another challenge, which has been expressed to us perhaps even more strongly in the course of this inquiry, is the difficulty of growing a strong enough base of institutional buyers. Local produce is sometimes perceived as having a higher price point, less consistency, and requiring more prep work than products shipped in from farther away by larger supply companies. Food hubs across the country (including ours) struggle to secure committed buyers ready to shift to greater reliance on the local food supply.

Possible Functions and Services of a Food Hub:

- Online platforms to match local farm produce to buyers
- Transportation services
- Marketing, branding, and consumer education
- Facilities for food aggregation, sorting, and storage
- Commercial kitchens
- Incubating food businesses
- Training and education for food system workers and/or the community at large
- Facilitating communication
- Diverting quality food from the waste stream
- Ensuring access to healthy local food for all community members
- Training, support, and inspection services for farms to meet agricultural standards

So why not create a local food system that works to serve retail markets? Some ideas that have been expressed include a farmer's co-op (or store-front farmer's market), where a group of farmers share a store that is open for many more hours than a weekly farmer's market. Or a shared CSA and small-order delivery system, also run by a group of farmers.

A USDA study from 2012 called **Moving Food Along the Value Chain: Innovations in Regional Food Distribution** reviewed eight case studies of projects dedicated to aggregating, distributing, and marketing local food. They found that these organizations came in four types: retail-driven, non-profit-driven, producer-driven, and consumer-driven models. Each model had strengths and weaknesses and it was important for them to recognize these and play to their strengths. The study offered some important findings, such as:

- The level of investment in infrastructure should match the organization's stage of development and marketing capacities
- Non-profits and cooperatives can play key roles in value chain development, but should recognize their organizational competencies and partner with other value chain actors in order to share strengths
- Value chain managers must ensure identity preservation from farm to market as a way to establish marketing claims and negotiating position with buyers

Notes:

Examples and Case Studies

Vermont Food Bank & Center for an Agricultural Economy – Vermont Food Venture Center

VFVC is a food processing facility & kitchen incubator in Hardwick, VT. In 2015, Nora Leccese, an Emerson Hunger Fellow, studied options to use VFVC for processing gleaned produce to sell to institutional buyers and food banks. Her proposal would work under strict conditions. For example, the VFVC would only process only for certain crops, like winter squash, that consumers are more likely to use when minimally processed. VFVC would have to process large quantities in order to make efficient use of the facilities. Some buyers would be willing to pay a value-added processing fee, but others, like food banks, would need to get grant funding. In order to receive funding, job-training aspects of the project would need to be emphasized.

Central Massachusetts Food Hub

The CMFH is a coalition of non-profit, government, business, and agricultural interests with the mission of better connecting Worcester county farmers with markets, new customers and

products, and training food service workers. CMFH doesn't plan on creating a new building like the other 400 food hubs across USA, but uses and enhances existing partnerships. They aim to expand existing infrastructure and networks. Worcester County Food Bank in Shrewsbury is dedicating unused kitchen and storage space to aggregate, process, package, and store fresh fruits and veggies for distribution and sale. Excess produce goes to Western Mass Food Processing Center to be frozen. CMFH also uses the food bank's kitchen for food business incubator. (Moulton, 2016)

Kearsarge Food System Report

In the 2012 "Kearsarge Regional Food System Report", a Colby Sawyer students found that a "food system" consists of:

- inputs and outputs
- food production and distribution
- the roads that connect the system and the transportation methods used on those roads
- the people who participate and live within that system.

The report recommended consolidating the eight farmer's markets in the area into one to increase the number of vendors and traffic. The farmers should collaborate on marketing, focusing on use of social media and web-based ordering software (such as Harvest to Market). An intern from Colby Sawyer would help farms create their own websites and help with other collaborative marketing tools, especially through KAEL (Kearsarge Area Eat Local). Farmers were also recommended to sell produce through local supermarkets, although this requires becoming insured and meeting USDA Acceptable Farming Standards.

The report also recommended creating a Food Hub. If not possible to remodel the old Kearsarge Middle School, which would require a public vote, the report recommended buying land to build a new facility. The food hub should offer: 1) hot & cold storage, 2) a commercial kitchen, 3) milk bottling, 4) meat processing, and 5) educational space. The hub should also have a composting facility, be attractive to young farmers, promote environmentally conscious farming methods and offer marketing assistance and consumer education.

Creation of the food hub would require first creating core group of stakeholders, then a cost-benefit analysis and finally the grant proposals (such as the Rural Business Enterprise Grant or Value Added Producers Grant).

Kearsarge Food Hub and Sweet Beets Market

Out of the 2012 report above, the Kearsarge Food Hub was born. Since 2014, the KFH has worked to restore the Kearsarge/Lake Sunapee region food system efforts that in three categories:

Community "We believe that healthy communities are built around responsible agricultural practices and coming together over good, local food!"

KFH, through partnerships with local schools, has been educating the community in outreach campaigns and events. They're teaming up with other food-minded and community-minded organizations, sponsoring events and supporting others.

Access “We believe that access to adequate, healthy, culturally appropriate food at all times is a basic human right.”

KFH runs the Sweet Beet market, offering locally produced goods both retail and as a restaurant. They also are supporting local food pantries and connecting them to local produce.

Conservation “We believe that any healthy organization (especially food-related) in today's world must seek to restore and maintain environmental health, with a keen eye on protecting and managing the natural resources that sustain us.” (Kearsage Food Hub, 2017)

KFH has been pulling together traditional agricultural knowledge and combining it with modern techniques and sharing it through traditional and virtual medias. They also make sure that they have presence on local boards supporting conservation and agricultural efforts.

What take-a-ways have you found from these examples?

Summary of Key Points

Strengthening our local food system makes sense:

- Weaknesses in the global food system due to environmental and economic factors mean it is wise to have a strong local food system to fall back on
- New England-wide research and efforts to strengthen the local food system mean that there is guidance and capital opportunities for this work
- It will strengthen the local economy and local health and well-being for all

Some key infrastructure components will depend on partnerships:

- Resources can be shared
- Need to begin by building communication, trust, and shared priorities
- Play to the strengths of organizations with different legal structures and expertise

Our food hub (Monadnock Menus) is an important resource in our system

- Great potential for growth, and well positioned to grow the system around it
- Needs more commitment from institutional buyers
- Buyers would like more lightly processed produce

Some local producers are not interested in catering to wholesale markets, but are interested in partnerships and collaborative projects. This could lead to some good social entrepreneurship and innovation outside of the “food hub” model seen in most examples around the country.

There are a few models in New England that incorporate charitable food and healthy food access in their food system models. These values are a priority for our community as well.

Improving the Food System in the Monadnock Region

What follows is an incomplete summary of efforts in the region to improve the production, processing and general strength and access to the local food system. Some of the initiatives mentioned here are solely researched ideas, others are studies into feasibility. A few have become strong, established institutions. As you read through these ideas, please jot down your ideas and think about initiatives that are not on this list and should be.

Monadnock Farm and Community Coalition

The MFCC “is a regional coalition whose mission is to support a sustainable food system by cultivating community action and building collaborations to implement effective programs, projects, and policies.” (Monadnock Farm and Community Coalition, 2017)

Major goals from the MFCC Strategic Plan include: increasing the amount of food produced in the region that could be consumed here and expanding on and creating new post-production infrastructure and markets to enhance or grow the local food economy. (Monadnock Farm and Community Coalition, 2017)

In addition to many other projects, the MFCC (in cooperation with the CCCD) has available a map of the regional agricultural producers, holds events and fundraisers and has working groups on regional food infrastructure, policy and education.

Cheshire County Conservation District

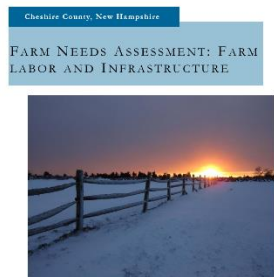
Since 1945, the CCCD has been working to preserve the land and water resources of the county (About Us, 2017). They rent farm equipment, work with the MFCC and Monadnock Menus to find markets for locally grown goods and have conducted assessments of farmers’ needs in the region (2011).



CHESHIRE COUNTY
CONSERVATION DISTRICT

2011 Farm Needs Assessment: Farm Labor and Infrastructure

The CCCD conducted the 2011 needs assessment in the form of focus groups and follow-up interviews and analyzed local farmers’ labor and infrastructure needs. Regarding infrastructure, “the main barrier for equipment is the expense of the equipment, and there was strong interest in an equipment rental program run by a non-farming entity.” (p. 5) The CCCD has since created this program (see above paragraph). The assessment also showed farmer interest in value-added products, especially in dairy (although the current infrastructure is lacking). Farmers are looking for more storage, especially on their own farms and also looking to expand their markets, especially in the form of farm stands, farmer’s markets and retail stores. (p. 5)



Report written by Cheshire County Conservation District, April 2011
Sarah Tallon, Report Coordinator

Monadnock Menus

An already existing food hub, Monadnock Menus delivers food from Monadnock region farms directly to customers and institutions like schools and hospitals. With almost four dozen producing partners, Monadnock Menus offers a variety of foods from beverages and baked goods, to eggs and dairy, fresh produce and meats. In their 5th year, they have two main routes through the Monadnock region (from west to east, one northerly and one southerly) and are close to reaching financial sustainability.



Programs and Studies from Antioch University New England

AUNE Students and alumnae have been looking into the region's food system through internships, capstone projects and classwork. For example, in 2010, a student completed as a master's project *Food System Sustainability in the Monadnock Region What Role Could Antioch University New England Play?* This needs assessment informed two AUNE initiatives including the Community Garden Connections program.

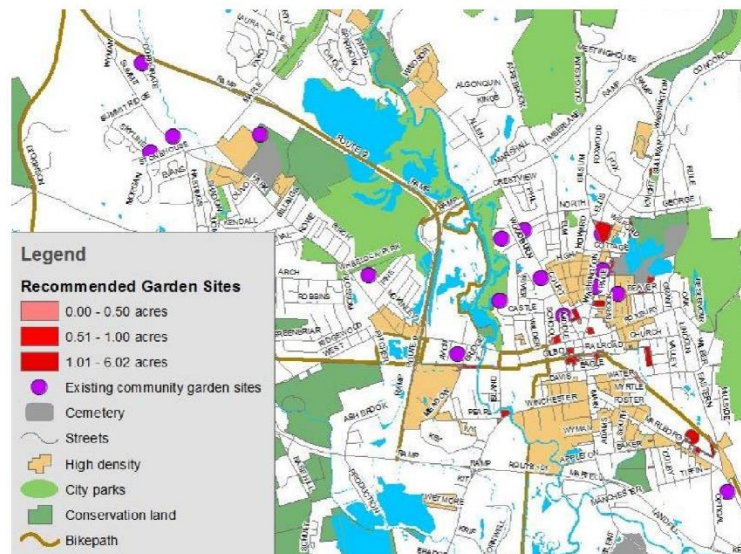
Community Garden Connections

CGC is an Antioch-based program to build the local capacity in the region to grow food. In the last five years, the program has (working with local partners) facilitated the installation of 68 garden beds at thirteen sites in the region, often schools and civic or social institutions. CGC also runs a one-acre experimental garden plot in Westmoreland from which 100% of the grown food is donated to the Community Kitchen. The program also partners with other food-connected institutions in the region for educational events and trainings. (Chitayat, et al., 2016)



CGC Education Manual

Using CGC as a starting point, Libby Weiland wrote an education manual for starting community gardens as her master's project. The manual is divided into five sections and instructs community members in how to 1) develop the group, 2) design and plan the site, 3) plan the garden, 4) building and planting the garden and 5) tending throughout the season. The manual provides lesson plans, agendas and worksheets as well as lists of resources available. (Weiland, 2012)



City of Keene, NH Community Gardens Needs Assessment

Keeping with community gardens, a group of students in 2014 developed a report for the Keene Agricultural Commission “to inform the long-term community garden efforts in Keene”. (Cherkin, et al., 2014, p. 2) The report includes the benefits of community gardening, GIS maps of current and potential sites, interviews with current gardeners and recommendations.

Growing for Good: A Community Garden Connections Manual

Another graduate student completed a manual for community gardeners specifically interested in the social justice of growing local food. The intended audience of this manual is “for people who: 1) aim to grow food with a focus on social justice, food access, and local food system, sustainability in the face of climate change, 2) have a mission of community education 3) and work with a foundation of volunteers.” (Powell, 2015)

Regional Food Suggestions in the Keene Master Plan

The Keene Master Plan, published in 2010, specifically denotes the importance of the food system to the economic welfare of the city and region. “Keene should encourage and recruit industries that are in line with building up local manufacturing and industrial economy. For example, the community should actively recruit food processing and packaging facilities that meet the needs of regional food producers.” (City of Keene, 2010, p. 72)

Under the section dealing with wellness, the plan recognizes that “local sources and sustainable agricultural practices can provide us with a high-quality, healthy, affordable and secure supply of food.” (p. 101) It also suggests establishing a permanent location for the Keene Farmer’s Market and supporting local community gardens, recognizing their impact on health, economic development and climate change mitigation effects. (p. 101)

Regional Food Suggestions in the Southwest Regional Planning Commission’s Plan

The SWRPC’s 2015 regional plan presents ideas for the region to use in facing the many challenge the region will face in the future: again population, failing infrastructure, slow economy and the loss of the region’s youth to the cities. (Southwest Regional Planning Commission, 2015, p. 4) SWRPG recommends supporting the small, independent farms and businesses of the region through shared value-added production and through the sharing of heavy farming equipment. (p. 38) An entire section of the document is dedicated to promoting working landscapes. They support the MFCC’s Strategic Plan to “[improve] the financial ability of farmers to expand production and distribute food to markets throughout the Region.” (p. 41) They recommend the creation of a food hub and the increase of agro-tourism. “Part of developing a local food system involves establishing the infrastructure needed to process, store, and transport local food and food products to markets and distributors across the Region.” (p. 41, p.93)

SWRPC makes note that the vast majority of agriculturally viable farmland in the region is unprotected and that an increasing percentage of it has already been developed. (p. 51)

They also show that 96% of the food consumed in the region comes from outside of the region and that in the event of the region being cut off from its food supplies, there would only be four days’ worth of food available in the supermarkets. (p. 68) More organizations in the region need

to be working to improve our food security, they advise, while highlighting the work of the MFCC and the CCCD (p.70)

Unimplemented Ideas

The Troy Mills Sustainable Food Center

In 2014, the Monadnock Economic Development Corporation led the creation of a feasibility study looking into the possibility of turning the 150 year old former textile mill in Troy, NH into a food hub. In the proposed project, the mill would serve as the physical location for a variety of interrelated food- and energy-minded businesses and non-profits:

- An umbrella non-profit to serve to demonstrate and facilitate the local food system through accessing grants, managing the property, plus advocating for and educating about the local food system. (Monadnock Economic Development Corporation, 2014, p. 38)
- A non-profit energy cooperative to provide the high amounts of energy needed through renewable sources while lowering the energy required (net-zero energy use). (pp. 46-48)
- An organic, hydroponic and aquaponics, interior, vertical farm built inside the Troy Mill to “[operate] like a manufacturing operation, yet [deliver] product like an organic market farm.” (p. 54)
- An on-site market and café highlighting food grown locally. (p. 64)
- A business offering technical services for the Troy Mills and other food businesses in the region. (p. 70)
- A business to process and distribute food in addition to certifying it relying on and servicing the other businesses at the Troy Mills. (p. 78)



The report sees strength in the idea behind a food hub because of the strength of the Monadnock local food market; a growing interest in small, diverse farming and a strong skills base of agriculturalists and entrepreneurs in the region. The weaknesses of the idea lies in the non-central local of the Troy Mills (Keene would probably be a better location), a lack of defined stakeholders, the high expense of building such a food hub and a lack of entrepreneurs willing to take this on. (pp. 156-7)

The Keene Energy and Agricultural Project

KEAP was an idea to turn a section of the landfill at the Keene Transfer Station into a carbon-negative aquaponics/hydroponics facility with energy generation from landfill methane and solar panels. A one-acre greenhouse would grow lettuce and herbs while an outbuilding would raise tilapia. Other buildings would process and package the food or serve as office, laboratory and educational space. (Monadnock Economic Development Corporation, 2014, p. 185) The idea was hailed by the University of New Hampshire as a “triple win” for farmers (increased market), consumers (high quality produce) and KEAP (who should be able to run a profitable business). (University of New Hampshire Sustainability Institute, 2016)

The idea however, never came into fruition. The driving force behind the project (and a similar failed project in Brattleboro) withdrew the idea in January 2016. (Audette, 2016)

Our Food System

In the 35 towns and cities of the Monadnock Region, as defined by the Southwest Regional Planning Commission, our food system has:



Of course, food systems are not an easy thing to nail down. These numbers are working numbers and do not take into account infrastructure like our road system or farms in Vermont that provide us food and they do occasionally take into account facilities that our food producers use outside of the region, e.g. meat processing.

We are still working to catalogue and list all of the food processors, food pantries, wholesalers, retailers, food coops, institutional buyers, farm stands, CSAs, caterers, entrepreneur support, non-profits, cheesemakers, bakers and restaurants in our region.

This is also a work in progress. Down the road, a project for the MFCC would be to develop a more complete, in-depth, interactive map of our regional food system.

Please help us complete the list by adding to our constantly updating Google Document: [Our Monadnock Food System](#).

Your Turn:

What initiatives and programs do you know about that are attempting to improve the food system in the Monadnock Region?

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