

Slide show Presentation for
Busa Land Use Proposal Committee
November 4, 2010

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**Lexington Community Farm Coalition, Inc.
is dedicated to:**

- Farming
- Farm-Based Education
- Sustainable Land Use

My name is Janet Kern. I am President of the Lexington Community Farm Coalition, a nonprofit organization dedicated to promoting farming, farm-based education, and sustainable land use in Lexington. I am here with Derek Moody, our treasurer, to present our proposal for the nearly 8-acre Busa Farm site to be used as a community farm.

mixed use

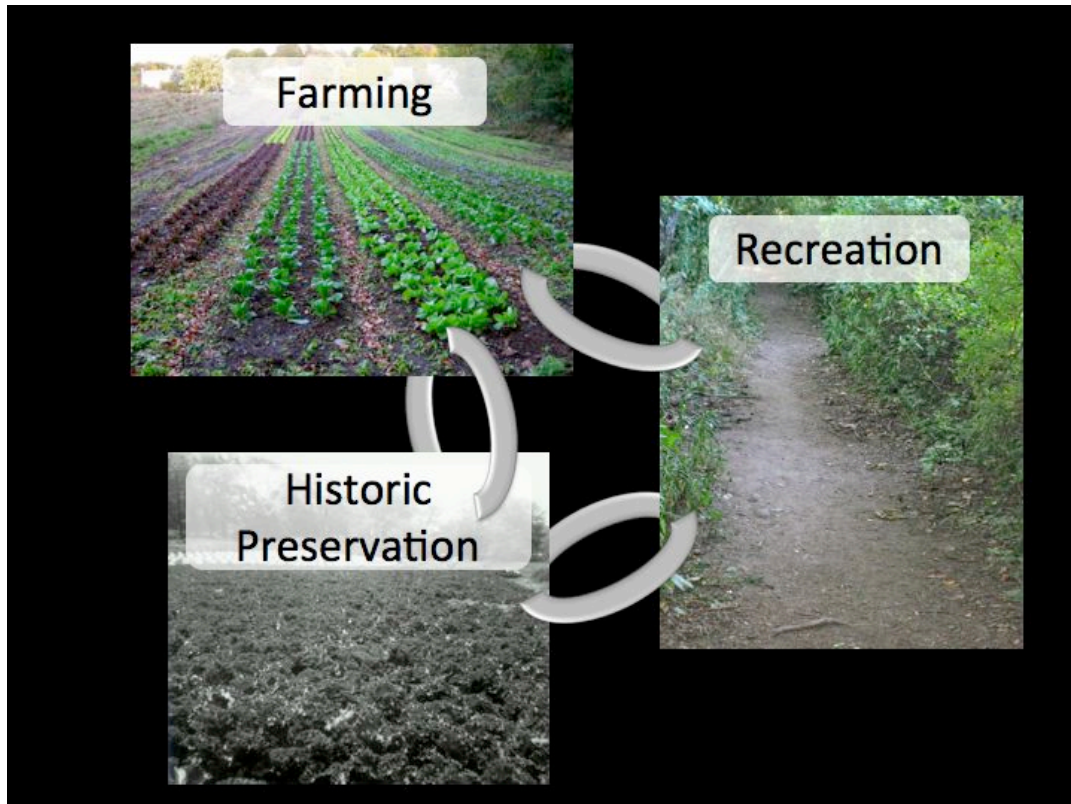
Farming

As you'll see, this proposal has a strong mixed-use component. The primary use is to preserve open space as agricultural land by operating a working farm.

Recreation

Historic Preservation

Other uses are recreation and historic preservation, which is accomplished simply by keeping the property a farm.



This proposal is real “mixed use,” in that all these uses relate to one another. And it’s the “relating to one another” that makes it a “community” farm, and not just an ordinary farm operation.

We believe this proposal offers some exciting, new opportunities for Lexington that we may never have again.



Busa Farm is one of the last vestiges of our town's farming heritage—the land has been under cultivation for nearly 400 years.



But now we are nearing the close of 2010. The Busa Farm, which the Town now owns, is one of only two working farms that remain in Lexington...and its future is very much at a crossroads. If any part of this small farm is converted to a non-agricultural use, its value will be either diminished or lost as an agricultural resource...and as a critical component of a much larger and productive ecosystem.

Furthermore, we will have lost an incredible and unique opportunity to take proactive and responsible action in the face of a very uncertain future. This proposal offers Lexington and its residents an opportunity to gain experience growing food locally and sustainably as we address real concerns and uncertainty regarding our food supply, commonly referred to as "food insecurity."



- 1. What is a community farm**
- 2. What it might look like**
- 3. What it offers the town**
- 4. How it can operate without cost to the town**

In this presentation, we will explain what a community farm is, what it might look like on the site, what it offers the town, and how it can operate without cost to the town.

A Working Community Farm



Farm-based outreach and education



Accessible community space



Sustainable Land Use

Education and Outreach

We propose that the Busa property be operated as a working farm that:

- Offers farm-based outreach and education,
- Provides accessible community space, and
- Is a sustainable farm operation

Farm-Based Outreach and Education

We'll start first with what we mean by farm-based outreach and education.



**Produce
for many**



**Education
for all**

The Busa property is a small farm. Yet, it can nourish the entire community by providing fresh produce for many and education and community-building for all.

**Town &
Residents**



Farm

With ongoing and active engagement with the Town of Lexington and its residents, a community farm can provide something for everyone.



Education related to sustainability

Our goal is to develop a rich education program that would help people of every age learn about farming, nutrition, environmental science, the long history of farming and food in this community, and a host of topics related to growing food—but beyond that...our goal is to find as many ways as possible that residents can simply have fun being on their own farm.

Hands On!



This would involve hands-on farm experiences, such as...

Preschool Farm Explorers



Farmer's Helper Program



Field Trips and Programs

- A weekly Preschool Farm Explorers program that includes structured farm exploration, stories, and craft activities.
- An after-school Farmer's Helper program for school age children that includes learning about soil, plants, nutrition, and farming practices – both current and historic.
- Field trips and programs for home schooling groups, Boy Scouts and Girl Scouts.

Community Service



For older children, the farm would offer community-service opportunities, internships with the farm manager and farm educator, on-going science research projects on the watershed system, water and soil quality, and sustainable practices and technologies.

Adult Programs



Canning...



Composting...

For adults, the farm could offer classes on subjects such as preserving and canning food, composting, ecological lawn care, backyard fruit trees, accessible gardening tools and practices for people with mobility issues, and sustainable landscape design.

Farm Blog

Land!



From the soil to our hands and through our hearts, thank you for a wonderful CSA season. You can read more about total calories we produced for your shares this season as well as our annual energy input to output calculations, our ode to squash, opportunities to help shape the future fruits of our farm and more in our [October newsletter](#). As ever, we could not have done any of this without you...Thank you! for supporting our ongoing attempts to refashion a more sustainable, sane, and efficient vision of agriculture.

[eschneider's blog](#) [Read more](#)

In a Pickle of a Jam? We Can Help...



In a pickle or a jam with the season's excess produce and want to learn how to make your own condiments? Join Farmer Erin for a Home Pickling and Canning Workshop, on **Saturday, October 30** as part of **Reedsburg's First Annual Fermentation Festival** and celebrating **Key Ingredients**.

[eschneider's blog](#) [Read more](#)

Agroforestry and Sustainable Fruit Production Field Days Successful, Connect and learn through design with us in 2011...



Thank you to all who participated in our field day and exploring ways to transition land to an agroforestry system - adding diversity, markets, and income to your farm. We look forward to co-creating future opportunities and share resources and lessons we are learning from the field as we attempt to grow uncommon yet marketable fruits such as aronia, quince, currant, saskatoon and others. In addition to expanding unique varieties of Midwest - grown fruits, these species exhibit much potential for organic production, are high yielding, environmentally friendly, and are an exceptionally nutritional food source.

[eschneider's blog](#) [Read more](#)

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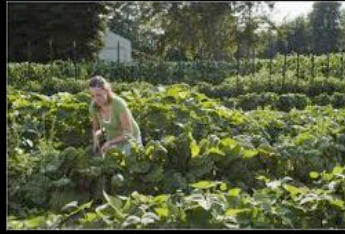
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SYNDICATE



The Lexington Community Farm website could serve as an additional resource for the community — hosting a blog for gardening advice and tips, and providing information about upcoming programs on the farm. In this way it could act as an online extension to the farm, even to those who might not be able to visit in person.

Multi-Generational Activities



The farm would also offer multi-generational activities, such as:

- Monthly volunteer work days including removing rocks, brush, and debris from the fields in spring, planting seeds in the greenhouse and mulching fields in summer, and harvesting in the fall.

- Self-guided learning backpacks focusing on different topics, such as bugs and soil, birds and wildlife, or plants.

Specialty Education Areas



We envision specialty education areas, such as a Native American “Three Sisters Garden,” a colonial garden display showing crops, techniques, and tools, and a butterfly garden with benches.



This farm, and its rich agricultural history, in what used to be known as “Cambridge Farms” also offers an opportunity for farm history programs on site. In fact, our hope would be to have the community farm established and operating by the time Lexington celebrates its 300th anniversary in 2013—a time for everyone in Lexington to reflect on the farming heritage of the former “Cambridge Farms.”

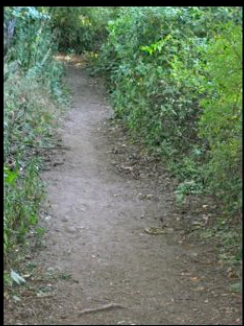


To offer this range of programming, our plan would require dedicating a half-acre of land—separate from the land in use for food production—to an educational community garden.

Educational Community Garden

Accessible Community Space

Let's talk about how we could make the space accessible for the community.



Trails...



Beds...



Picnics...

We would like to enhance the existing farm by adding walking paths, benches, picnic areas, and accessible raised beds within the educational community garden area.

Views



There would be special areas where the public can enjoy the attractive open views of farm fields and sunsets from Lowell Street. In short, the farm would invite and include the community as a part of the space.



Over time, paths would be improved to be accessible for walkers, wheelchairs, strollers, and those with mobility issues.



Special community events could take place at the farm, such as seasonal food festivals, concerts, and town celebrations, such as those being planned for Lexington's 300th anniversary.

Use of and Access to the Property

So what does this mean in terms of use and access of different areas of the property...

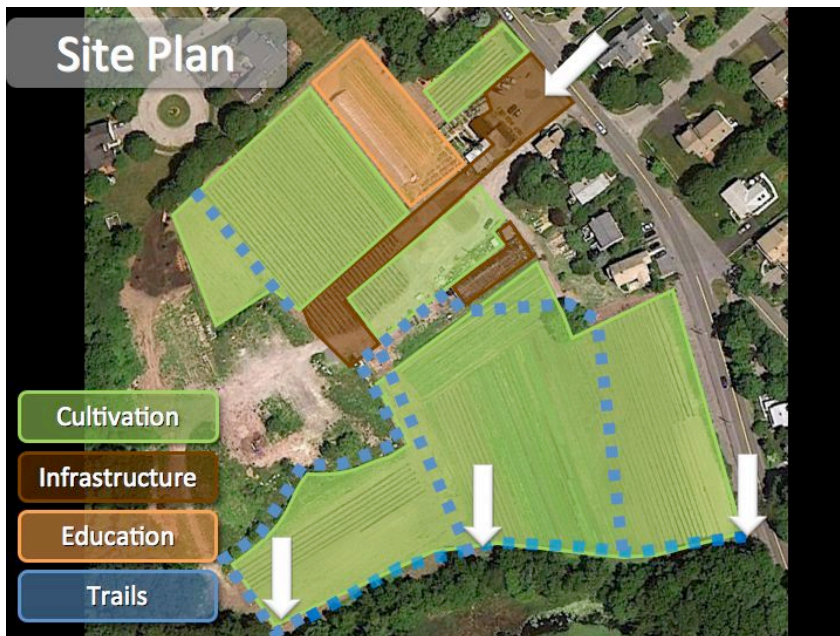
Looking at a site map: the green areas represent what would be under cultivation for food production.

The brown areas show the infrastructure—the greenhouse, well, farm stand, access road, and parking.

The orange area shows the possible location of land set aside for educational programs, and

The broken blue lines are some walking paths.

The public would have year-round access to paths on the site and would be able to access the land from multiple locations—via the parking lot by the farm stand, and via walking trails from Lowell St. and the Arlington Reservoir/Munroe Brook area.



In the spring, summer, and autumn months, the farm would be quite active: the farmer, seasonal staff and some volunteers would be outside working in the fields, and adults and children would be attending educational programs on-site. People would come to the farm to pick up their Community Supported Agriculture (CSA) shares; visitors would come to the farm to take a walk, or have a picnic overlooking the fields and Arlington Reservoir. In the winter there would be work and educational programs in the greenhouse. The farm would offer a great new place for cross-country skiers as well.



Nearby Trails



New trails through farm fields would connect with existing trails at the south edge of the farm leading to the Arlington Reservoir, Rindge Playground, and the Minuteman Bikeway.

Maintain & Improve Boundaries

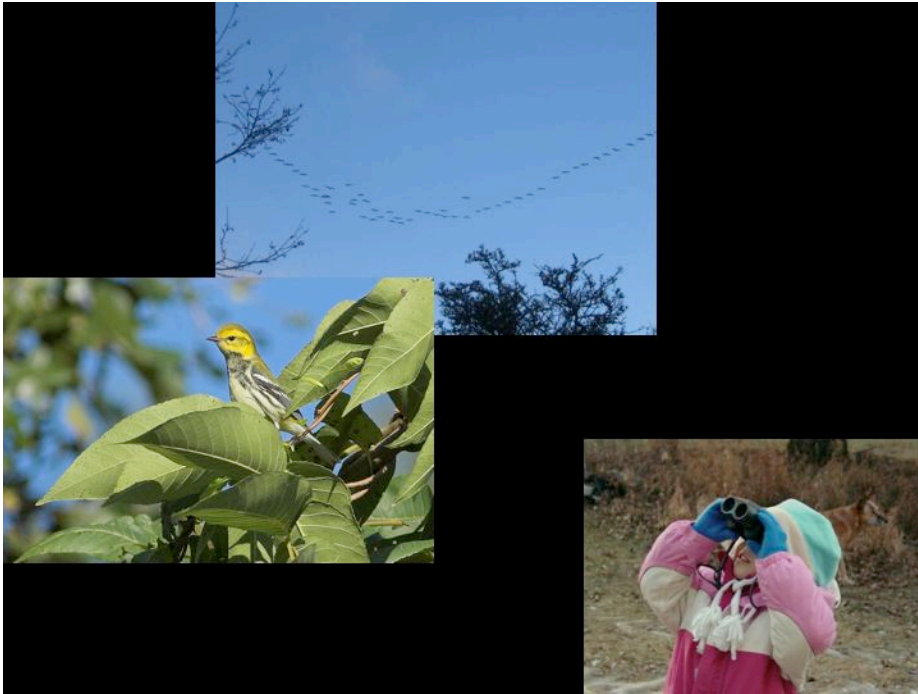


In addition, the community farm would seek to maintain and improve boundary areas with appropriate landscaping.

Maintain Edges & Ecology



We would sponsor a “Farm Stewards” program that would invite residents to help maintain the edges of the site and join with Lexington’s conservation stewards to maintain the sensitive ecological areas.



This is especially important because the area is recognized as a unique and highly desirable “go to” place for birds and birders. The Busa Farm, together with the Arlington Reservoir and the surrounding woodland comprise a fast-disappearing urban habitat for bird populations. The Lexington Community Farm could help protect this habitat.

Self-Sustaining Farm

OK, we've heard about the outreach and education that a community farm can provide, and we've heard about how accessible the space will be to everyone in the community. But how can we provide a sustainable farm for the community at no cost to the town?



Ecology



Economics

We will answer that question in two parts, because there are two important aspects to sustainability: ecological and economic.



One of the benefits this proposal offers the town is to provide a model of sustainable land management for a property that is so integrated with the sensitive wetlands of the Munroe Brook and the Arlington Reservoir.

The Lexington Community Farm would use farming practices that work in harmony with natural systems. These are practices that are well understood and taught in modern agricultural programs. In brief, it means caring for the soil, water, and air to ensure healthy land, healthy food, a healthy watershed, and a healthy wildlife corridor that supports a diversity of life, including, in this case, thriving migrant bird populations.

Busa Farm Soil Map

52 Lowell Rd.
Lexington, MA 02420
Approx. Acres: 11.1

Field Office: NRC's Westford Service Center
Agency: MA Assoc. of Conservation Districts
Assisted by: Elizabeth McGuire 10/14/2010



0 100 200 300 400 Feet
1 inch equals 167 feet

Legend

Busa Soils Map

- 253B Hinckley loamy sand, 3-8% slopes
- 36A Saco mucky silt loam, 0-2% slopes



Hinckley
Loamy
Sand

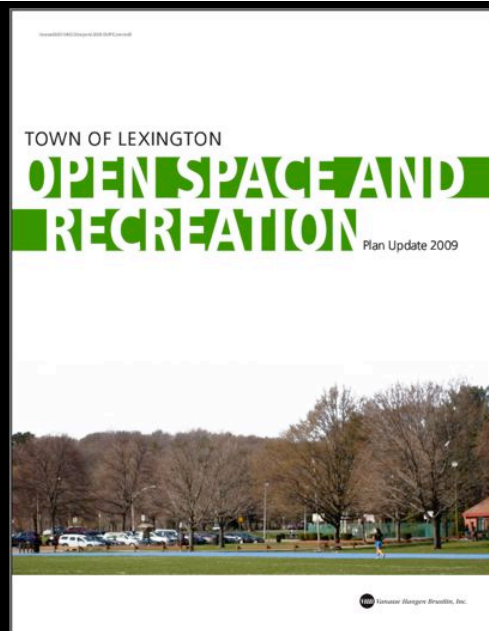
Lexington is fortunate in that all of the soil on the farm is known as Hinckley, a soil type classified by the USDA as of state and local importance for farmland.



Sustainable farming means applying organic soil amendments, composting, use of crop rotation, use of physical barriers to defend against pests and weeds, and similar practices. Carbon inputs and outputs are carefully considered in all farming decisions.



A sustainable farm would continually work to incorporate green technologies, such as gray-water management and solar-power.



Busa Farm provides

“habitat variety in Lexington and is particularly important for certain butterfly, bird, and small mammal species...”

Lexington's 2009 Open Space and Recreation Plan Update cited the Busa Farm as one of Lexington's few open meadows, which provides “habitat variety in Lexington and is particularly important for certain butterfly, bird, and small mammal species.” Continued farm use would maintain this valuable meadow habitat.



Economics

So how can a farm like this be economically sustainable while paying for a farmer, paying for supplies, and providing so many additional services to the community?

The short answer is that the land itself provides the means.

Business Model

Grow and distribute fresh produce



CSA Shares



Food Donations



Retail Sales

The CSA-based business model that we are proposing involves growing fresh produce and distributing it through multiple channels, including

- selling CSA shares,
- donating to low-income families and individuals
- and selling directly to the public

In a CSA program, shareholders pre-pay for a share of the farm's produce, usually before the growing season even begins. Then starting in June, they receive a weekly share of the harvest.

Community Supported Agriculture (CSA)

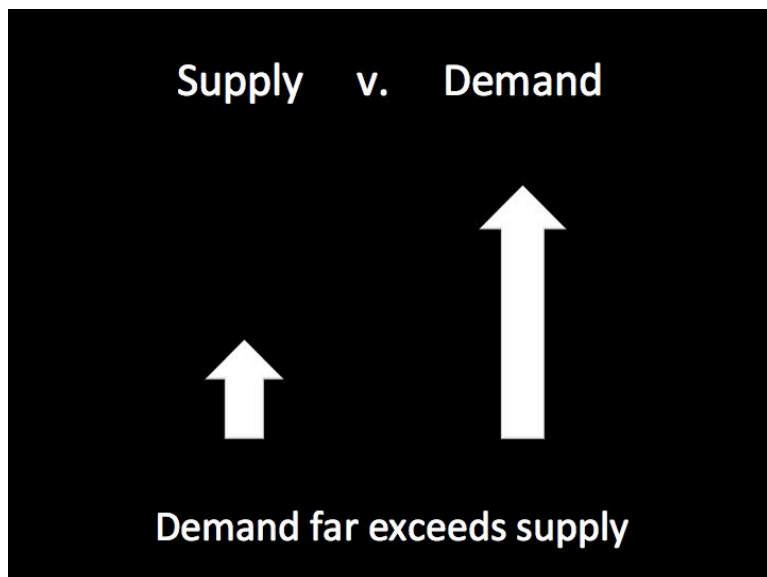


Shareholders pay before growing season

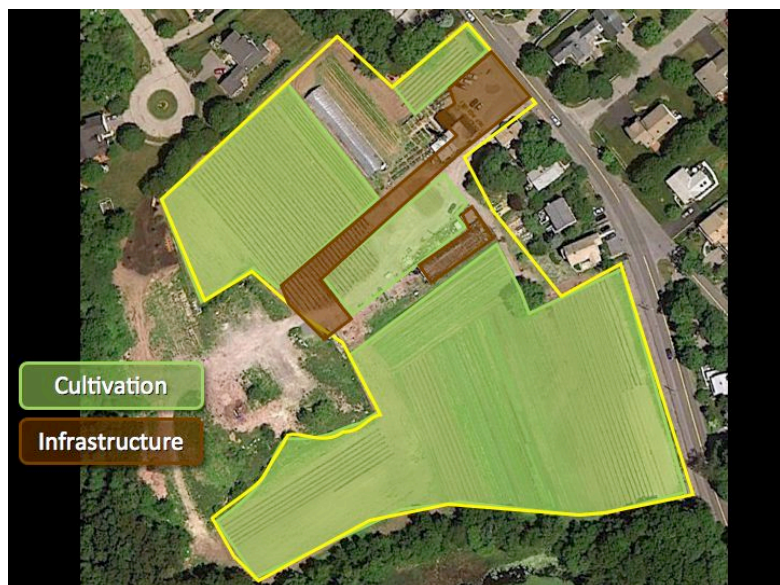
Shareholders share in risk and bounty of the farm



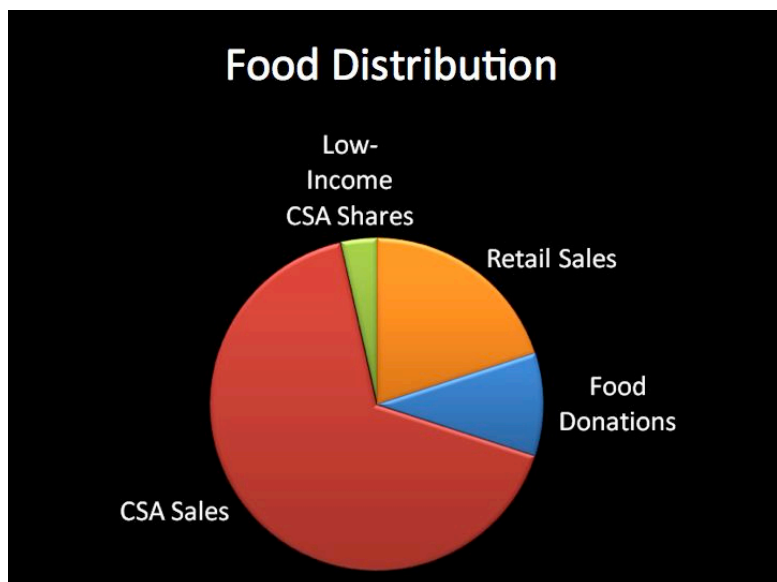
The benefit for the farm is that the CSA shareholders share in the risks and bounties of farming—good years and bad. The CSA model has proven to be a reliable and economically sustainable model for small farms, including community farms.



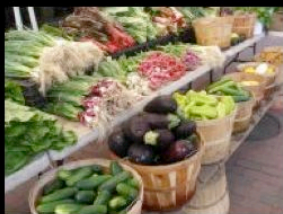
There is an extremely high demand for CSA shares in our area. Waltham Fields sells out its 300 shares a full year in advance and it has a waiting list. Smaller farms like Newton Community Farm typically sell out their CSA shares within a week. With limited land available, these farms can't keep up with demand.



This farm needs at least 5 acres under cultivation as well as the existing infrastructure of the greenhouses, the well, and the farm stand. Produce from this acreage would pay for salaries, benefits, insurance, seeds, supplies, utilities, maintenance and equipment. In this way, the farm would not need to rely on town funds to support production and distribution.



With the revenue from the CSA shares, we estimate that the Lexington Community Farm would be able to donate 10% of its produce to food banks or other food charities. In addition, 5% of the total CSA shares available would be sold at a significant discount to low-income families



Farm Stand



Pick-Your-Own



Farmers' Markets

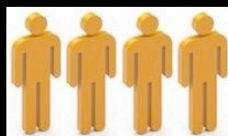
In addition to the CSA and food donations, the farm would continue to offer produce for sale to the community: at the farm stand, at farmers markets, and through pick-your-own-produce opportunities. Besides the farm's own fresh produce, farm stand sales would include seedlings, plants, produce purchased wholesale from other area farms and other locally produced goods to diversify the offerings.



For those who work or might not be able to take advantage of the farm in other ways, the farm stand still provides a community connection.



+



**Farm Manager
(+ staff)**

Volunteers

The budget summary I'm about to show you involves hiring a professional farm manager who oversees every aspect of the farm operation. That includes managing an important aspect of a community farm that doesn't appear in a budget, namely the enthusiastic volunteers who want to be actively involved in caring for a valued community resource.

Category	Year 1	Year 2	Year 3	Year 4	Year 5
Farming	(\$13,084)	(\$4,438)	\$7,813	\$3,463	\$27,337
<i>Income</i>	\$102,000	\$121,636	\$151,045	\$153,045	\$183,455
<i>Expenses</i>	\$115,084	\$126,074	\$143,232	\$149,582	\$156,118
Education	\$750	(\$9,148)	(\$18,935)	(\$19,435)	(\$19,722)
<i>Income</i>	\$750	\$852	\$1,065	\$1,065	\$1,278
<i>Expenses</i>	\$0	\$10,000	\$20,000	\$20,500	\$21,000
Events & Membership	(\$15,200)	\$21,177	\$12,845	\$16,957	\$25,682
<i>Income</i>	\$32,500	\$27,227	\$19,545	\$23,807	\$33,182
<i>Expenses</i>	\$47,700	\$6,050	\$6,700	\$6,850	\$7,500
Total	(\$27,534)	\$7,592	\$1,724	\$986	\$33,297
<i>Income</i>	\$135,250	\$149,716	\$171,656	\$177,918	\$217,915
<i>Expenses</i>	\$162,784	\$142,124	\$169,932	\$176,932	\$184,618
Cumulative	(\$27,534)	(\$19,942)	(\$18,218)	(\$17,232)	\$16,064

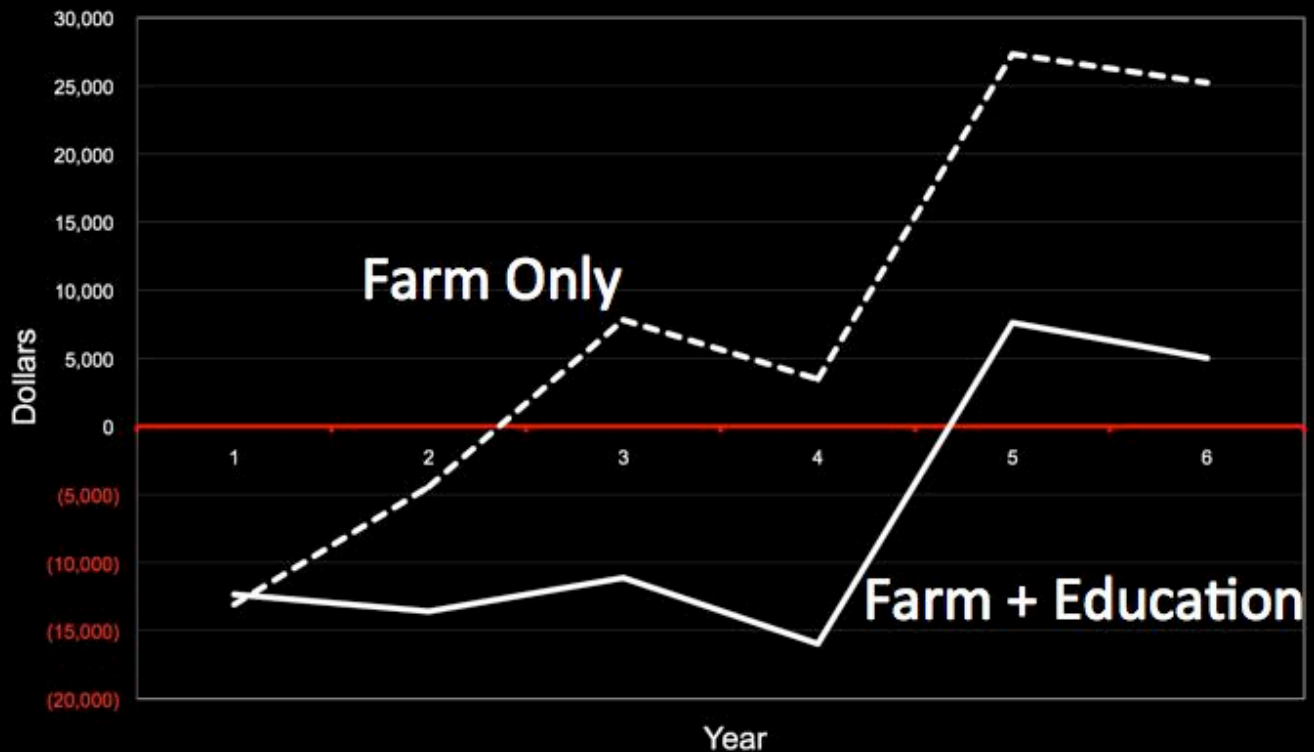
Here is the summary of a five-year business plan for the community farm model we are proposing. I just want to make a few key points.

First, this budget is broken up into three main components: the farming operations, the education programs, and events and membership. The farming operation is what makes the community farm economically sustainable.

To see this, let's look at year three. The farm operation has generated a surplus. This surplus begins to contribute towards paying for the education programs.

These first five years of the budget involve ramping up field production and educational programs, building the membership base, and paying off the startup loan. Once peak efficiency is reached, the farm is on track to show a cumulative profit after only five years in operation, as seen in the yellow box.

Annual Surplus (Loss)



The graph you now see shows the relationship between the farm operation budget alone (the dotted line) and the farm and education budgets together (the solid line) over those first five years. The point here is that at the end of year five, the farm operation is able to entirely support the education programs on an annual basis, and the combined operations have a surplus. This would continue into the future, thereby establishing an economically self-sustaining community farm.

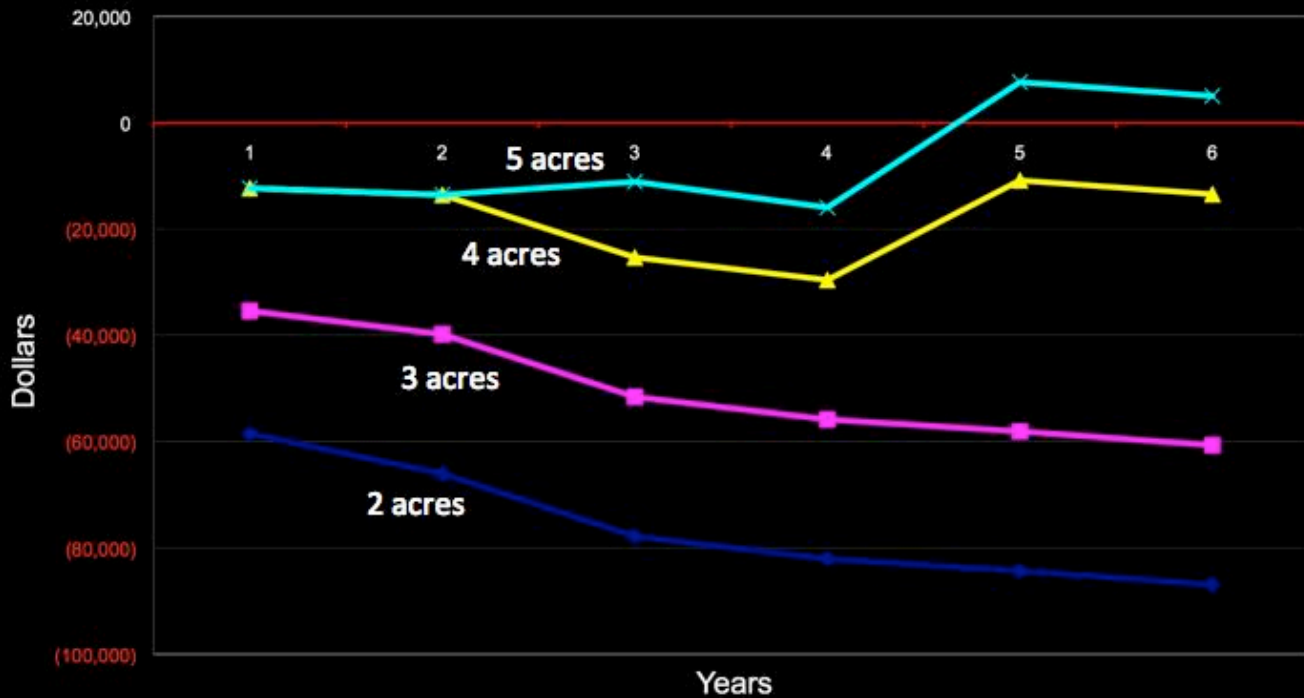


This model of a sustainable community farm works for two reasons: It is able to use the existing infrastructure on site as a base and it makes use of the land itself to provide revenue.

A minimum of five acres under production is needed to provide the revenue for a sustainable operation that will in turn allow for the food donations, education, and on-site recreational opportunities that make it a community farm.

Another community farm could certainly be imagined with only some of the infrastructure or less production acreage, but it would be a different farm – providing fewer services for fewer people and it would likely not be economically sustainable.

Effect of Number of Acres Under Cultivation on Surplus (Loss)



As production acreage of a community farm increases, the need for funding will be reduced, AND more community programs will be available.

The slide you are looking at shows what the effects are of increasing the productive acres under cultivation from a two-acre farm, similar in size to the Newton Community Farm, to the five acres we are proposing.

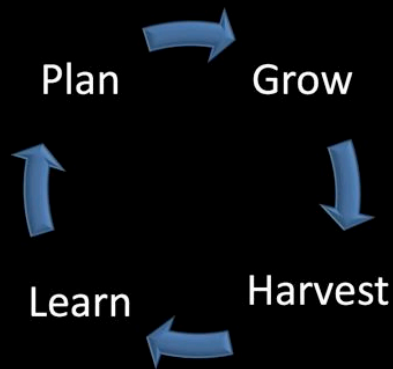
As each acre under production is added, the losses become smaller and smaller until a surplus is achieved with a five acre farm, after five years.



The differences are because most farming related expenses are fixed costs. What that means is regardless of the size of the farm, the costs to run it don't change dramatically. No matter how many acres a farm has, it needs to pay a farm manager, it must have farm equipment and infrastructure, and the equipment will always need maintenance. The main difference between a 2 acre farm and a 5 acre farm is the amount of revenue generated to pay for those costs.



A community farm is a farm that is formed to serve the needs and desires of the community, and it encourages participation and enjoyment by everyone.



Over time, we'll find ways to improve productivity and expand programs, while also protecting the local environment. The community farm will continue to grow from a cycle of shared learning among staff, volunteers, visitors and residents - everyone who chooses to be involved with the farm will make a difference in its future.



Waltham



Lincoln



Natick

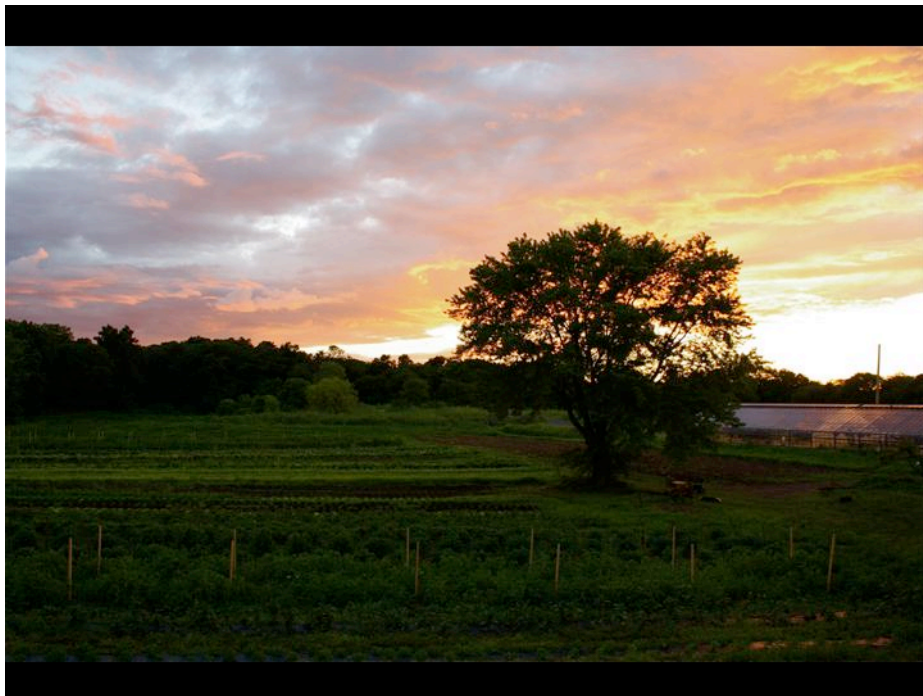


Newton

I hope you've seen from this presentation that we've done a great deal of research to determine what it takes to operate a community farm. We are fortunate to have had access to successful community farms in Waltham, Concord, Lincoln, Natick, Weston, and Newton; the farmers and board members of these farms have been very helpful in describing to us what makes their farms successful.



The primary thing we've learned is that the success of any community farm is directly related to the strong sense of pride and connection residents have to it. They see it as **THEIR** farm and they see it as a reflection of their special city or town.



We believe **Lexington** is a special town.

We also believe this is Lexington's time...and the Busa Farm land is Lexington's place - to have its own unique and wonderful community farm.