



# Coalition Building: Advancing the Aims of Urban Agriculture



Brett Otis | Abby Hardy-Moss | Rebecca Smalley



## About Greenbelt

Greenbelt protects natural land and working farms across Essex County forever, helping to conserve healthy ecosystems, clean water, local food supplies, scenic landscapes, and free, accessible places for all to benefit from nature.

Since 1961, we've protected over 22,500 acres and opened more than 50 public properties



# Growing a Coalition on Massachusetts' North Shore

## NORTH SHORE FARM & FOOD COALITION

The goal of the North Shore Farm and Food Coalition (NSFFC) is to build collaboration among food, farming, educational, and municipal partners to help identify and develop regional opportunities and actions for expanded food production capacity, increased local food security, and reduced carbon emissions.



# Foundational Research (2020)

## UPPER NORTH SHORE FOOD SYSTEM STUDY

PREPARED FOR: THE THREE SISTERS GARDEN PROJECT



**GALEN HAMMITT, ALLISON MASON, & BRADY POWELL**

**THE CONWAY SCHOOL | WINTER 2020**

Community Partners: The Open Door, Nourishing the North Shore, & Acord Food Pantry

For the towns of Salem, Salisbury, Beverly, Gloucester, Rockport, Hamilton, Wenham, Topsfield, Ipswich, Rowley, Newbury, West Newbury, Newburyport, Amesbury, Essex, Peabody, & Manchester

### Key Recommendations Included:

- Increase farmland preservation and local food production
- Identify urban land appropriate for community food production
- Encourage use of sustainable agricultural techniques
- Expand upon Food Hub Services to support local food distribution
- Expand mobile market programs
- **Establish a Food Policy Council for the North Shore area**

### Caught the attention of:



# Our Call to Action

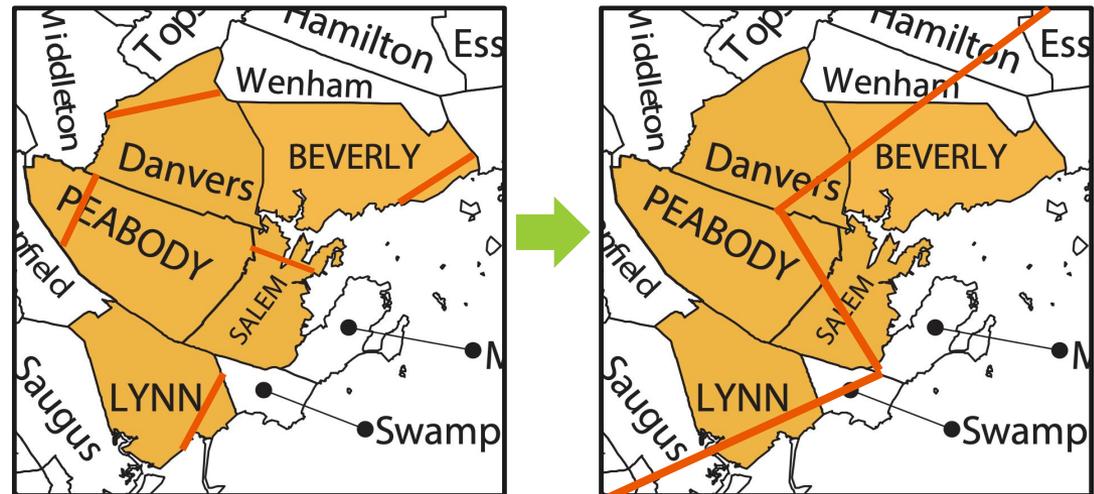


*Grant Submissions*

- Massachusetts' North Shore communities desire **increased availability of fresh, locally grown food that is accessible and affordable to all residents while providing a fair standard of living to the farmers.**
- A coordinated approach could **bring more farmland into production, stem the loss of existing farmland, explore new growing opportunities**, and support consistent zoning laws, agricultural overlay districts, and municipal policies that are conducive to increasing urban and localized food production across the region.
- More localized urban agriculture production can meet the needs of residents to grow food **closer to where they live**, adopt emerging and **innovative production practices**, produce **culturally preferred crops**, expose young people to potential **careers in agriculture**, and **build food security and resilience** in the face of climate change and future supply chain disruptions.

# USDA Urban Agriculture and Innovative Production Planning Project Grant (2022)

- Awarded \$200K through end of 2024
- Focus area: 5 densely-populated neighboring communities: Beverly, Danvers, Peabody\*, Salem\*, Lynn\* (*\*high concentration of Environmental Justice Populations*)
- Already a lot going on! Active community-based organizations, established community and educational farms, relatively supportive municipalities, active farm-to-school support, and multiple food and agriculture training programs.
- Not reinventing the wheel but enhance coordinated efforts
- *Rails to Trails analogy:* Without proper input from every single connection, the goal cannot be achieved. Need sustained commitment, connections, and similar approaches for a high functioning system.



# Planning Project Core Member Organizations



## Farms and Agricultural/Culinary Education/Training Programs



## Municipal Food Policy Councils



## Food Assistance Services



+ Networking beyond  
the North Shore



# Developing Our Structure

Formed four interconnected core working groups to focus our research and planning efforts. Community engagement central to most activities...



**GROWING  
SPACES**



**COMMUNITY  
ENGAGEMENT**



**BUSINESS +  
TRANSPORTATION**



**POLICY**





# Gathering Resident Insights

If you want to grow or work with local food, what types of support would you want?

Training / Education (Growing)

Access To Land (Growing)

Financial Support

Mentorship/Networks

Access to Processing Facilities

Training/Education (Business)

Loans/Grants (Business)

Transportation Assistance

Childcare

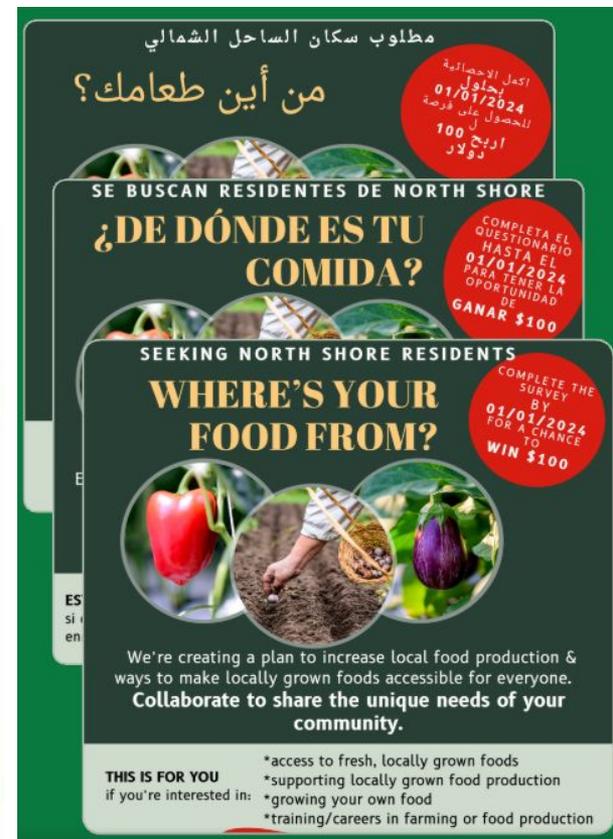
Physical Accessibility Support

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Number of Responses

“I don’t have the money, but I have ideas and desires, and I have to see the opportunities and see how it is possible to make them true.”  
- Peabody Resident

“I think everybody should volunteer at Mack Park Food Farm if they want to learn how to farm or garden or grow their own food.”  
- Salem Resident

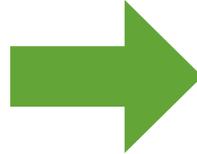
- Survey in 10 languages; qualitative interviews with select participants
- As we look to nurture and expand the pipeline for farming and food system careers, continued engagement with interested residents will be crucial





# Growing Spaces Working Group

- Defining the various **types**
- Developing an **inventory of existing spaces**
  - Conducting site visits and interviews with owners/organizers to better understand funding approaches, community participation, and other operational insights
- Identifying **potential growing spaces** for the future



Individual  
Garden

Institutional  
Garden

Social/Pollinator  
Garden

School Garden

Food Forest

Commercial  
Farm

Community  
Garden

Indoor/Rooftop

Community  
Farm

Other Ag Use



**Greenbelt**  
Essex County's Land Trust



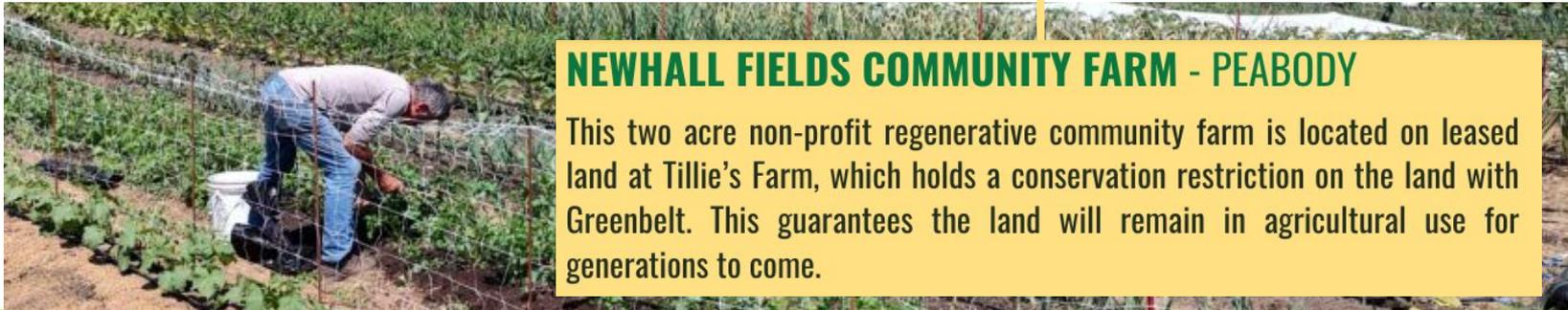
The Food Project



Salem  
**FOOD  
POLICY**  
Council



Newhall Fields  
Community Farm



## **NEWHALL FIELDS COMMUNITY FARM - PEABODY**

This two acre non-profit regenerative community farm is located on leased land at Tillie's Farm, which holds a conservation restriction on the land with Greenbelt. This guarantees the land will remain in agricultural use for generations to come.

# Project Context

- Farmland conservation is core mission area
- Completed 85+ farmland projects totalling 5,500 acres (1700 of which are active farmland)
- 2022 strategic plan:
  - Expand work in communities with less access to open space
  - Farmland conservation & farm affordability
  - Commitment to action and accountability around DEI



Iron Ox Farm, Hamilton



Newhall Fields Farm, Peabody

# Project Funding

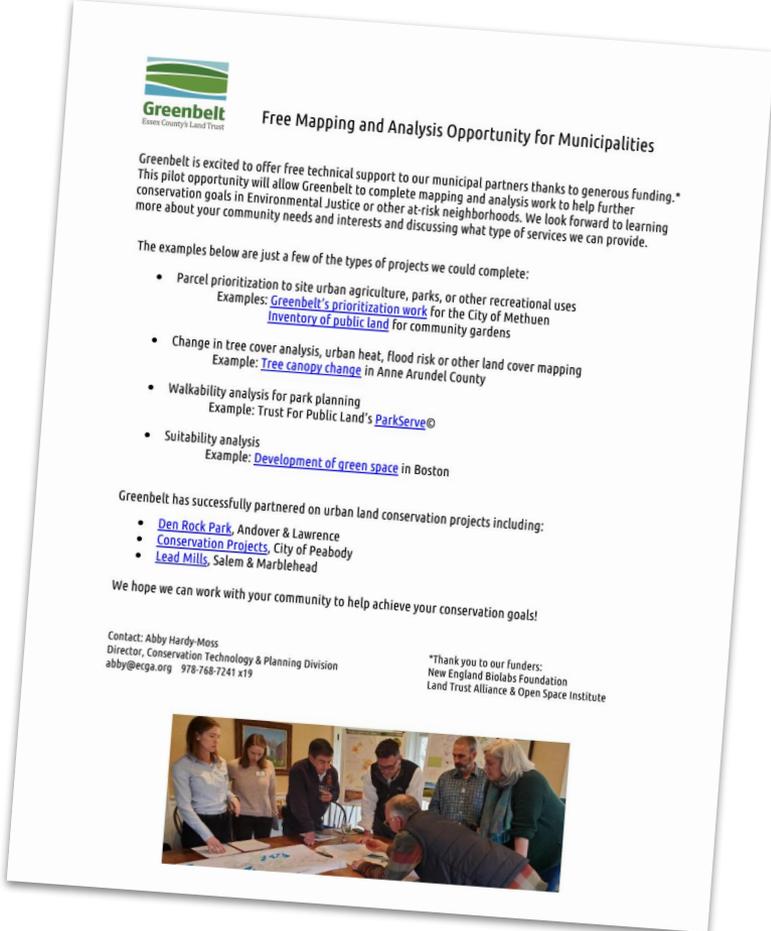
- Local foundation - historically small grants (\$5k), inconsistent funder
- Found their niche with tech projects
- 2022 - approached Greenbelt with \$50k/2 year grant idea centered around climate, land conservation, & DEIJ
- Bundled this project with a few other technology projects to bring in a total of \$78,000 from 3 funding sources



Mack Park Farm, Salem

# Project Goals

- Support the work of partner organizations to expand our reach and impact
- Advance action around diversity, equity and inclusion
- Engage with stakeholders from new communities
- Develop and execute a project driven by comprehensive research and information gathering



 **Free Mapping and Analysis Opportunity for Municipalities**

Greenbelt is excited to offer free technical support to our municipal partners thanks to generous funding.\* This pilot opportunity will allow Greenbelt to complete mapping and analysis work to help further conservation goals in Environmental Justice or other at-risk neighborhoods. We look forward to learning more about your community needs and interests and discussing what type of services we can provide.

The examples below are just a few of the types of projects we could complete:

- Parcel prioritization to site urban agriculture, parks, or other recreational uses  
Examples: [Greenbelt's prioritization work](#) for the City of Methuen  
[Inventory of public land](#) for community gardens
- Change in tree cover analysis, urban heat, flood risk or other land cover mapping  
Example: [Tree canopy change](#) in Anne Arundel County
- Walkability analysis for park planning  
Example: Trust For Public Land's [ParkServe](#)®
- Suitability analysis  
Example: [Development of green space](#) in Boston

Greenbelt has successfully partnered on urban land conservation projects including:

- [Den Rock Park](#), Andover & Lawrence
- [Conservation Projects](#), City of Peabody
- [Lead Mills](#), Salem & Marblehead

We hope we can work with your community to help achieve your conservation goals!

Contact: Abby Hardy-Moss  
Director, Conservation Technology & Planning Division  
abby@ecga.org 978-768-7241 x19

\*Thank you to our funders:  
New England Biolabs Foundation  
Land Trust Alliance & Open Space Institute



## Project Goals

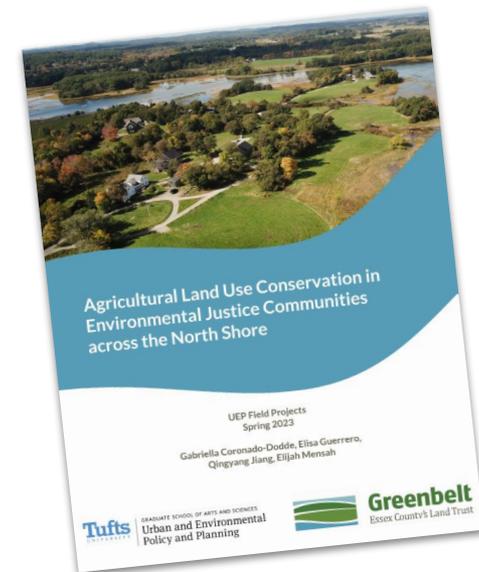
- Map existing 'growing spaces'
- Develop community profiles
- Examine the intersection of DEI & urban agriculture

## Methodology

1. **Literature review** - EJ populations, impacts of climate change in MA/Essex County, and current land use patterns
2. **Survey** - Collect info on location of ag land, types of produce grown, land ownership structure, management structure, and on-site infrastructure
3. **GIS Dataset** - generated an Agriculture Land Inventory for Beverly, Danvers, Lynn, Peabody, and Salem by collecting data with a survey and institutional knowledge from NSFFC & Greenbelt staff

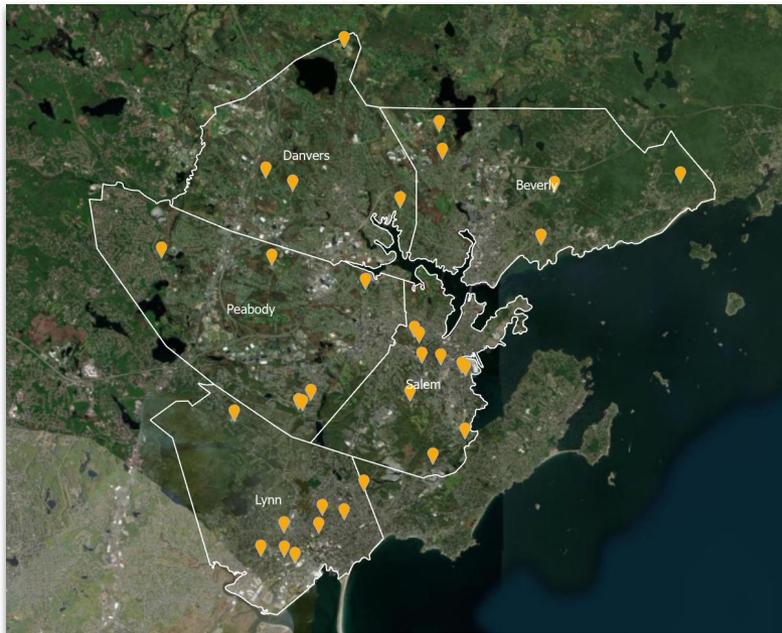


The Tufts Field Projects team at Greenbelt's Sagamore Hill Reservation

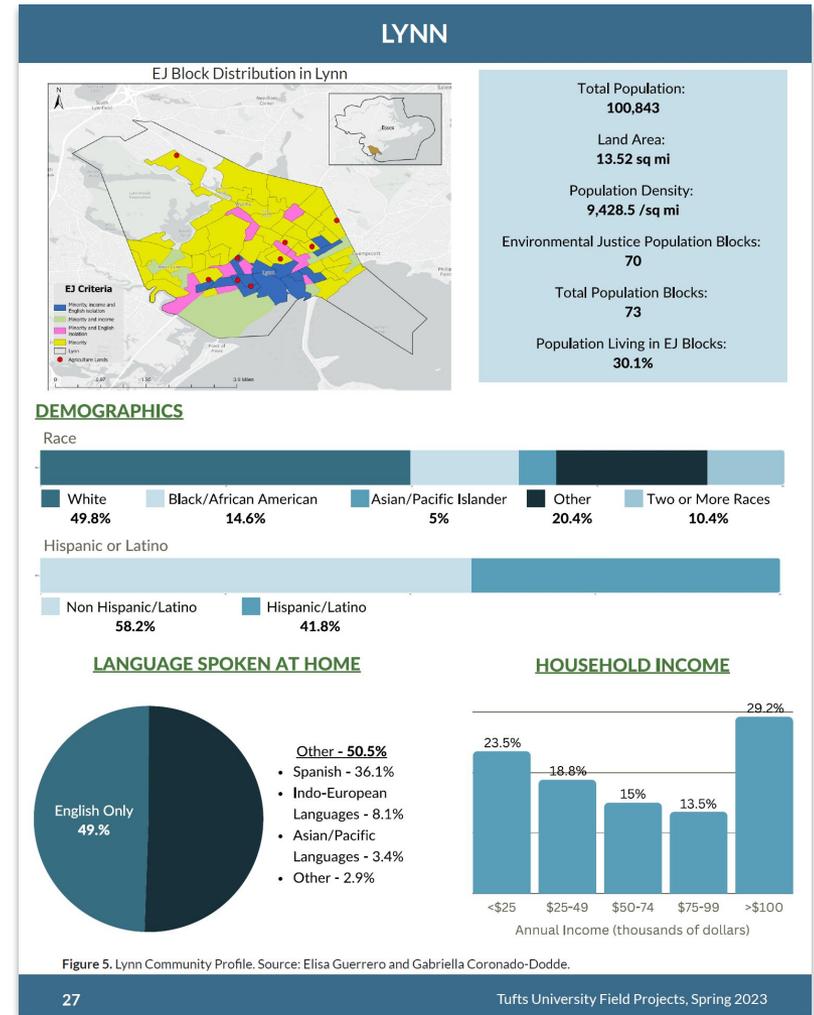


## Final Products

- Survey results
- Growing Spaces GIS dataset
- Final report with community profiles



Map of the Tufts student's Agriculture Land Inventory data



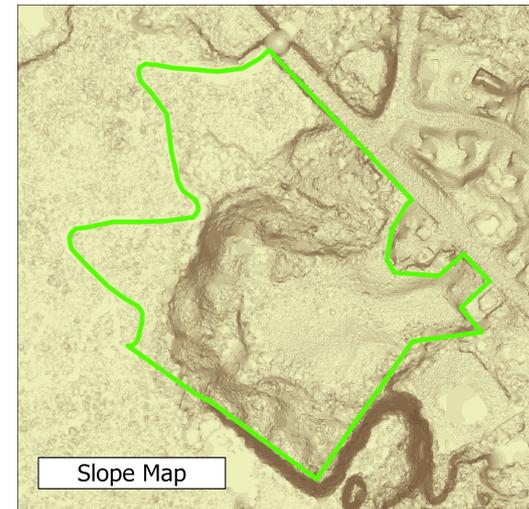
Community Profile for the City of Lynn

# Greenbelt Urban Ag Potential GIS Analysis

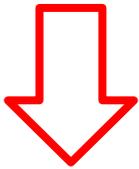
The methodology was developed after an extensive literature review and conversations with members from the coalition

## Steps:

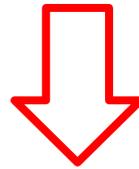
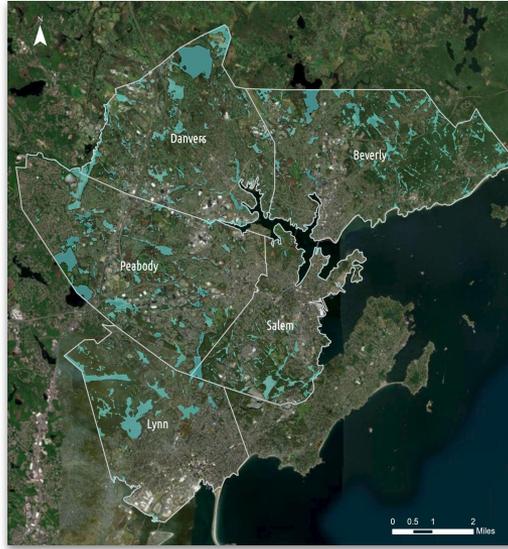
1. Parcels used for analysis:
  - Vacant parcels
  - Parcels with 200 sq ft building or less
  - Parcels owned by municipalities, state, religious organizations, schools, and colleges/universities
2. Parcel elimination:
  - Wet
  - Forested
  - Sloped
  - Shady
3. Manual Review of parcels



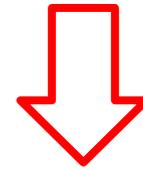
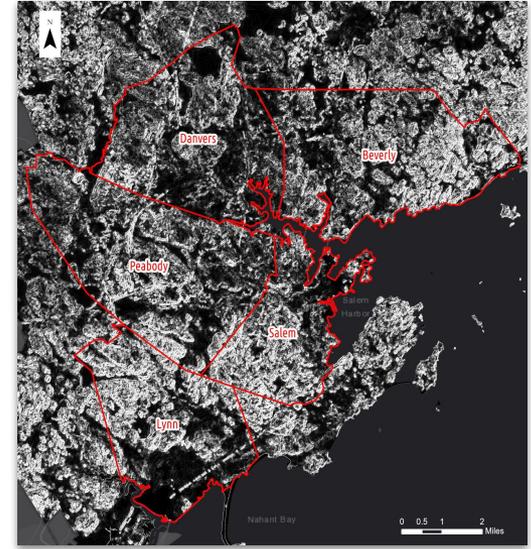
# Parcel Elimination



**Removed  
100%  
Forested**



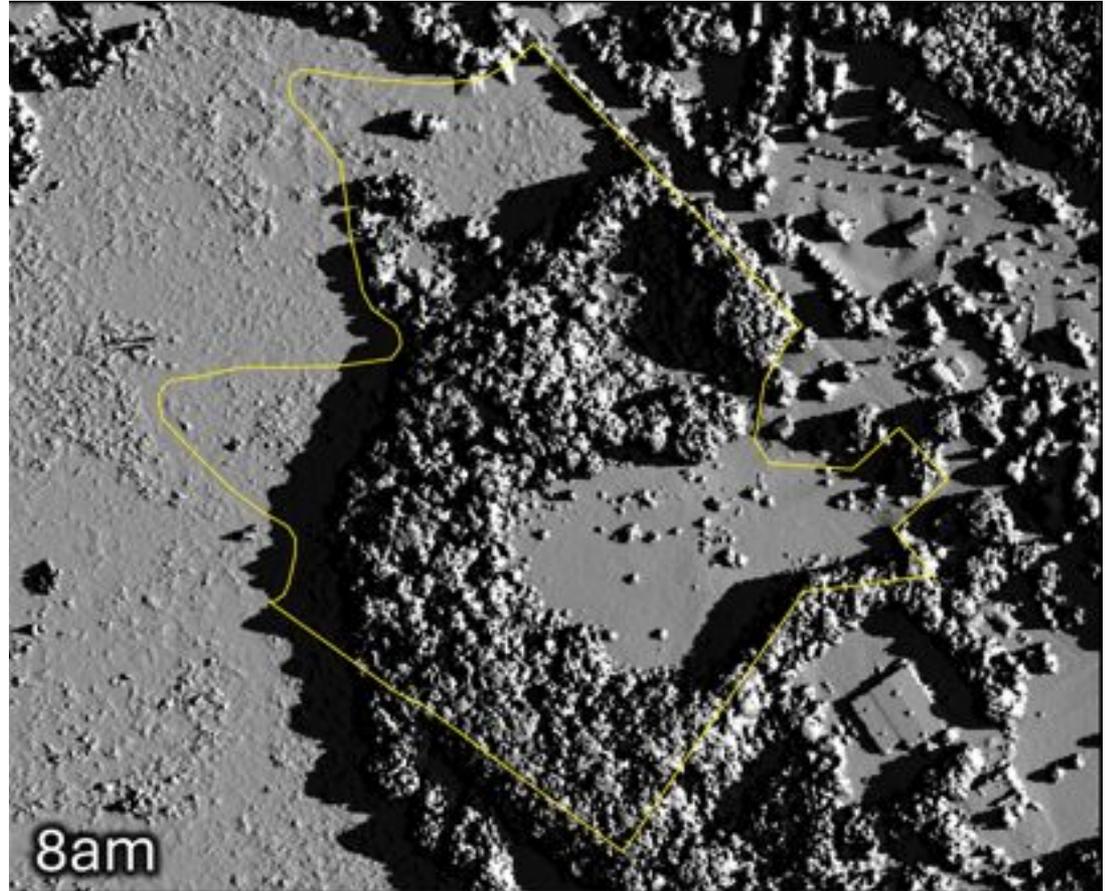
**Removed  
100%  
Wetlands**



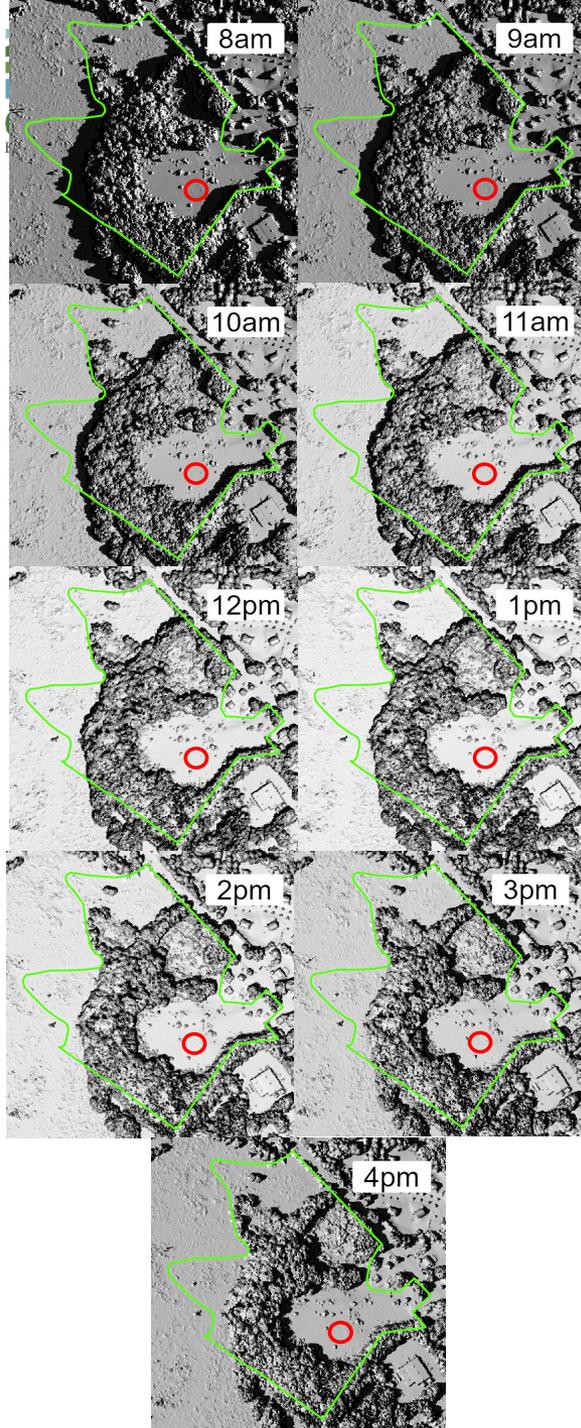
**Removed  
15% or more  
Sloped**

# Full Sun Analysis

- Confirmed with farmers in the coalition that 8 hours of sun/day is ideal for growing conditions
- Used lidar data from USGS to generate shade maps
- Shade maps generated from 8am - 4pm for July 15th
- Identified areas with at least 8 hours of sun
- Parcels too shady for agriculture were removed



# Areas with 8 Hours Sun Generated from Lidar



# Manual Review of Parcels

## Methodology

- Reviewed over 1,000 parcels with high resolution orthoimagery
- Account for factors unable to be analysed by parcel elimination process (e.g. lawns, driveways, etc.)
- Parcels ranked from high to low potential

High Potential



### High potential parcel

- Owned by public college
- Entire area covered by sun
- Within EJ area
- Easy walk from downtown

Medium Potential



### Medium potential parcel

- Entire area is covered by sun
- Used to be a restaurant
- Vacant for years
- Within EJ area

Low Potential



### Low potential parcel

- Owned by international corporation
- Surrounds private home
- Within EJ area

# Food Hub Data Development

## Greenbelt developed a “food hub” dataset:

- Includes farmers markets, farm stands, grocery stores, local markets, and small shops such as greengrocers, butchers, etc.
- Verified smaller stores that sell food & identified location of food pantries

## Data Sources

MassGIS Farmers Markets

MassGIS Land Cover/Land Use

USDA Local Food Directories

USDA SNAP Retailer Locator

Level III Assessors Data

Open Street Map

General Google Search - Food Pantry/Food Banks

Local Knowledge - NSFFC members, Greenbelt staff



# 10 Minute Walk Analysis

Created areas that are a ten minute walk from existing food hubs by looking at roads & existing infrastructure

**North Shore Farms & Food Urban Agriculture Dashboard**

**Urban Ag Potential**

All High Medium Low

**Ag Lots by Owner Type**  
Click to Select

**Eight Hours Sun**  
On Off

**Existing Growing Spaces**  
On Off

**Produce / Food Hubs**  
On Off

**10 Minute Walk to Food Hubs**  
On Off

**Foot Traffic**  
On Off

**Chapter 21E Sites**  
On Off

**Brownfields**  
On Off

**EJ Areas**  
On Off

**North Shore Farms & Food Data Project**

**Urban Agriculture Potential**

- High
- Medium
- Low

**Eight Hours Sun**

**Chapter 21E Tier Classified Sites**

- TIER I
- TIER II
- TIER 1D

**EPA Brownfields - Assessment Cleanup and Redevelopment Exchange System (ACRES)**

**Growing Spaces**

**Produce / Food Hubs**

- Stores/Supermarkets
- Farms / Farm Stands
- Food Pantry
- Farmers Markets

**10 Minute Walk to Food Hubs**

10.0 Minutes

**Environmental Justice Populations 2020**

Earthstar Geographics | MassGIS, MassDOT - Highway Division, MassDEP, MWRA | Mass. Executive Office of Energy and Environmental Affairs (EEA) | This EPA Geospatial data set is generated by the U.S. EPA FRS Support team from the following national environments... Powered by Esri

Total Parcels With Ag Potential

## 214

Lots With Ag Potential in Map View

Potential Level	Count
High	9
Medium	41
Low	95

Urban Ag Potential

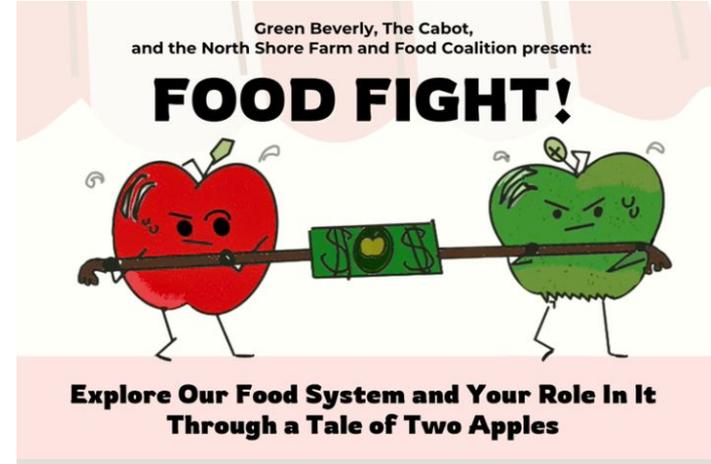
Town	High	Medium	Low
Beverly	~2	~10	~20
Danvers	~2	~10	~20
Lynn	~5	~15	~25
Peabody	~2	~10	~25
Salem	~5	~15	~25

Environmental Justice Areas in Map View

Category	Percentage
Minority	61%
Minority and income	13%
Minority, income and English isolation	6%
English isolation	1%
Minority and English isolation	8%
Income	11%

# Bringing It All Together

Capstone engagement and educational activity of our planning project: A community conversation event to unpack our local food system



WAYS YOU CAN HELP GROW **OUR LOCAL FOOD SYSTEM**

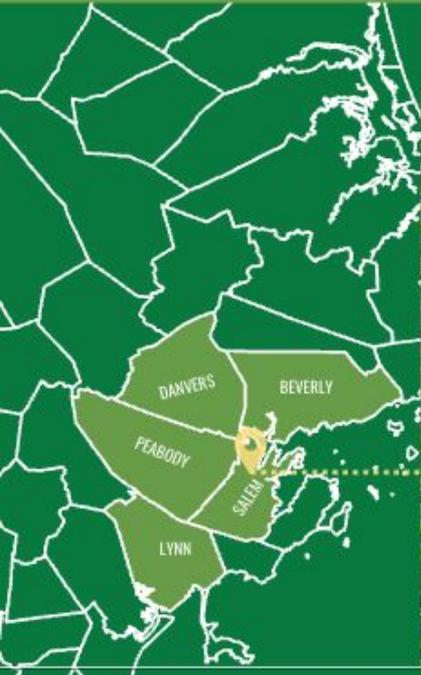
- 1 PURCHASE FROM LOCAL FARMS**  
Start with \$10/wk at Farmers Markets or subscribe to CSAs
- 2 ASK YOUR WAITER**  
Do they use locally grown ingredients?
- 3 PLAN YOUR MEALS**  
Avoid over shopping & throwing out food
- 4 GROW YOUR OWN PRODUCE**  
microgreens, herbs, pots, backyard garden, community garden
- 5 VOLUNTEER**  
At food pantries, farms or with Green Beverly's food rescue program
- 6 STAY INFORMED ABOUT LOCAL FOOD LEGISLATION**  
Take NSFFC survey & visit MA Food System Collaborative





# PLANNING PROJECT

Summary Report 2023-2024



## Project Outcomes

- 12-page summary report overviews project efforts and outcomes; plans for implementation
- Greenbelt's data viewer shared with NSFFC members for continued conversations
  - Presentation to Salem Food Policy Council subcommittee on Urban Agriculture
- Coalition continues to grow and engage, even without funding
- Onboarding new members outside of initial five communities

Access report:



"I really enjoy participating in the Coalition. I love hearing updates from others and getting to connect with likeminded folks and help move progress forward in the food system."  
-Coalition member

# Next Steps

- Organizational Capacity Building
- Grant proposals for 2026 staff time
- Engaging with existing municipal partners to develop projects
- Evaluating adding new cities to this effort
- Goal of 2027 or 2028 larger grant proposal/projects



Coalition Members at Newhall Fields Community Farm



Lynn Grows

# Key Takeaways

- Advancing organizational DEI efforts
- The power of effective partnerships
- Build off of existing organizational strengths
- Finding innovative ways to serve communities & partners
- Creative capacity building
- Bringing along/cultivating funders



Newhall Fields Farm, Peabody

- [North Shore Farm & Food Coalition \(NSFFC\) website](#)
- [NSFFC Planning Project Summary Report](#)
- [Tufts Field Project Report](#)
- [Urban Agriculture Methods Documentation](#)
- [Dashboard Tutorial](#)



Lynn Grows

**Thank you! Questions?**



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