

# Agricultural Planning Program Update

## Minuteman Subregion

November 21, 2013



**MAGIC**

MINUTEMAN ADVISORY GROUP  
ON INTERLOCAL COORDINATION

**MAPC**

METROPOLITAN AREA  
PLANNING COUNCIL

**50 YEARS** 

SMART GROWTH AND  
REGIONAL COLLABORATION

# MAPC & MAGIC

Littleton

Carlisle

Boxborough

Acton

Bedford

Bolton

Stow Maynard

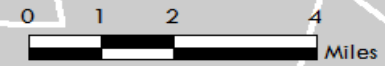
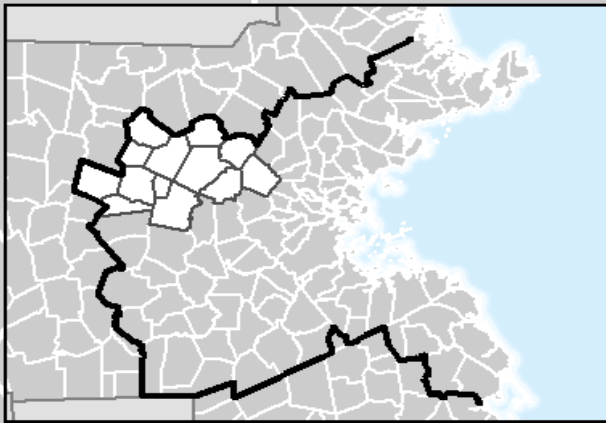
Concord

Lexington

Lincoln

Hudson

Sudbury





# Partners

- **U.S. Department of Agriculture's Natural Resource Conservation Service**
- **University of Massachusetts Extension Center for Agriculture**
- **Massachusetts Farm Bureau Federation**
- **Massachusetts Department of Agricultural Resources**
- **Massachusetts Association of Agricultural Commissions**
- **Tufts New Entry Sustainable Farming Project**
- **Town of Boxborough Agricultural Commission**
- **Town of Concord Agricultural Commission**
- **Town of Lincoln Agricultural Commission**
- **Town of Littleton Agricultural Commission**
- **Town of Stow Agricultural Commission**
- **Conservation Law Foundation**
- **Sudbury Valley Trustees**
- **Regional Farmers**
- **Land for Good**
- **MA Audubon**
- **MANY OTHERS!**



# Goals

- **Ensure Economic Viability of Agricultural Practices**
- **Protect Sustainable Food Sheds**
- **Create Positive Relationships Between Farmers/Ranchers & Municipal Officials**





# Tasks



- ✓ **Conduct Municipal Survey & Farmer Interviews**
- ✓ **Identify & Engage Stakeholders**
- ✓ **Hold Agricultural Forum**
- ✓ **Identify Barriers to Practice**
- ✓ **Develop Tools & Guidance to Overcome Barriers**
- **Identify New Agricultural Opportunities**
- **Create Guidance / Action Plan**

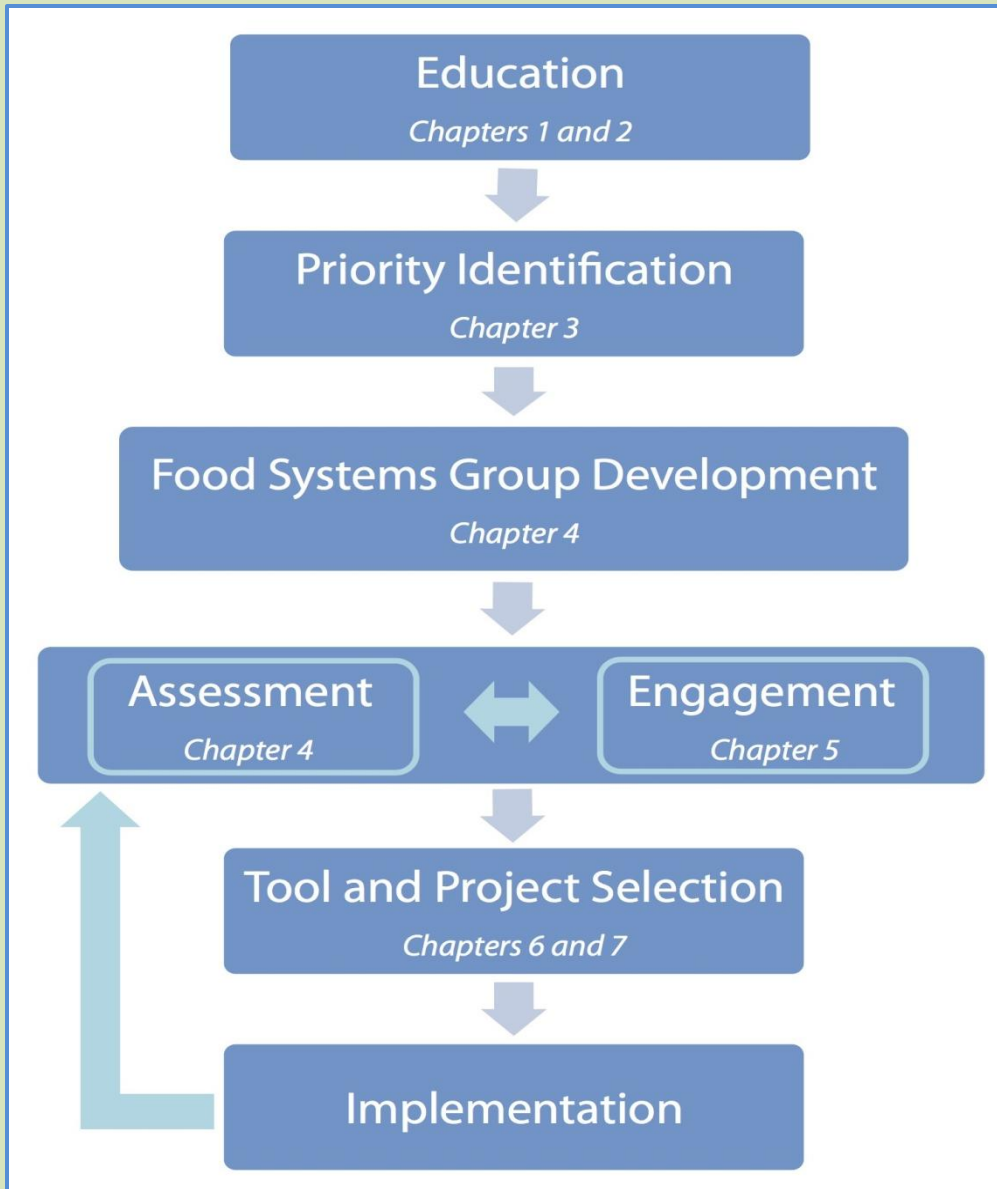




# Partners Got To Work!

Topic	Partner
Land Tenure & Access	Land For Good
Land Protection & Management	Sudbury Valley Trustees
Economic Development	Conservation Law Foundation Ventures
Zoning/Regulatory	Conservation Law Foundation
Public Education	New Entry Sustainable Farming Project
Marketing & Municipal Support	Massachusetts Farm Bureau Federation
Incorporating Agriculture Into Planning	Metropolitan Area Planning Council

# Food System Guide For Municipalities





# Project Guides

## PRODUCTION

- Urban & Peri-Urban Agriculture
- Soil Contamination & Safety

## PROCESSING

- Community Kitchens
- Health Codes for Community Kitchen and Farmers' Markets

## DISTRIBUTION

- Food Hubs

## CONSUMPTION

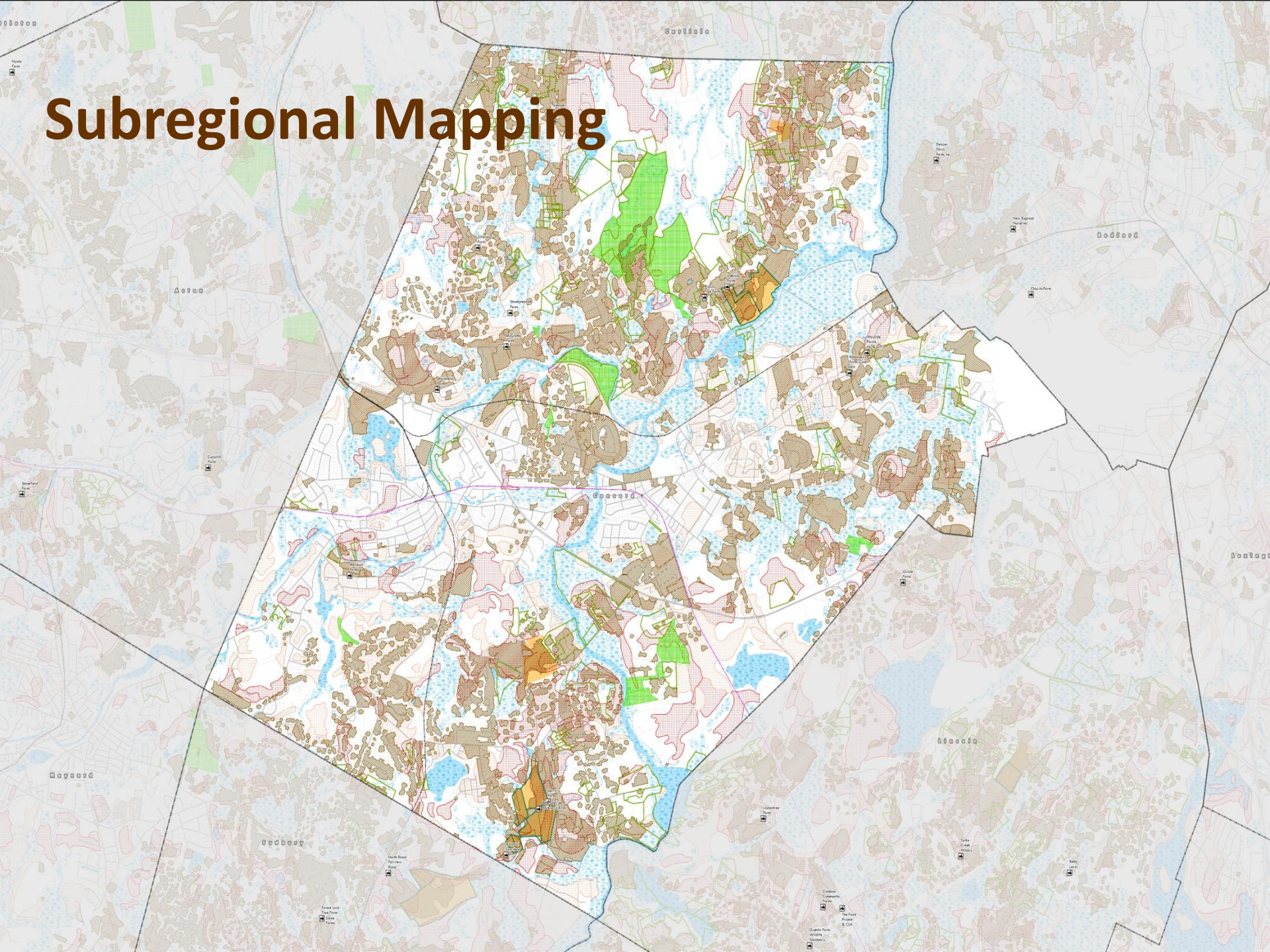
- Healthy Corner Stores
- Farmers' Markets

## WASTE

- Composting Programs



# Subregional Mapping





# Exploring Agricultural Opportunities - Spatial Analysis

- **Goal**
  - Identify land with potential agricultural opportunities in MAGIC
- **Data**
  - Parcel, soil, land use, and wetland data
- **Method**
  - MAPC develops a Geographic Information Systems (GIS) model to find parcels that contained deforested prime farmland soil greater than 2 acres in an individual parcel, and occurring outside of protected wetlands.
  - The methodology is based on prior studies in Littleton, Groton, and Hampden County, and is further revised by MAPC staff.

# GIS Tool Interface

MAGIC\_AgOpp\_Analysis - ArcMap

File Edit View Bookmarks Insert Selection Geoprocessing Customize Windows Help MAPC Data Browser

1:1.853 Drawing MAGIC\_Farm 500

10.0 North America Geococ <Type an address...> Page Text

Scenario 360 Snapping

Table Of Contents Table

**Layers**

- MAGIC\_Farm
- MAGIC AG Opportunity
- MAGIC\_Imp
- MAGIC Town
- MAGIC\_Parcel\_U2SA
- MAPC\_IMPERVIOUS\_POLY
- MAGIC\_Parcel\_U2S
- MAGIC\_Parcel\_U2
- MAGIC\_Parcel\_U
- MAGIC\_Parcel\_U
- MAGIC\_Parcel
- MAGIC\_PrimeFarmland\_diss
- MAGIC\_APR\_diss
- MAGIC\_CR\_diss
- MAGIC\_AgLU\_diss
- MAGIC\_Wetland\_diss
- MAGIC\_ForPar\_diss
- MAGIC\_AgPar\_diss
- MAGIC\_AgOpenSpace\_diss
- Parcels\_L3E
- MAGIC\_Wetland
- MAGIC\_PrimeFarmland
- MAGIC\_AgLU
- MAGIC\_AgPar
- MAGIC\_ForPar
- MAGIC\_CR
- MAGIC\_APR
- MAGIC\_AgOpenSpace
- Basemap
- World\_Imagery

**MAGIC AG Opportunity**

muni	land_value	bldg_value	othr_value	total_valu	bldg_area	res_area	MassGIS_LU	luc_adj_1	yr_built	site_addr	addr_str	addr_num	addr_zip	
Bolton	349200	0	0	349200	0	0	Open Land	911	0	0 PINE HILL	PINE HILL	0	01740	COMMONW
Concord	0	0	16869600	16869600	0	0	Open Land	919	0	58B OLD BEDFORD RD	OLD BEDFORD RD	58B	01742	MASSACH
Stow	946000	0	0	946000	0	0	Open Land	920	0	HARVARD RD	HARVARD RD		01775	OFFICE OF
Concord	2378600	2378600	520200	5277400	0	25378	Open Land	926	1971	305 WALDEN ST	WALDEN ST	305	01742	COMMONW
Boxborough	364600	0	55800	420400	0	0	Open Land	930	0	0 BARTEAU LN	BARTEAU LN	0	01719	BOXBORO
Lexington	641000	0	0	641000	0	0	Open Land	930	0	0 ROBINSON RD	ROBINSON RD			TOWN OF
Lexington	1974000	0	0	1974000	0	0	Open Land	930	0	0 NORTH ST	NORTH ST			TOWN OF
Lexington	1974000	0	0	1974000	0	0	Open Land	930	0	0 NORTH ST	NORTH ST			TOWN OF
Subbury	310300	0	0	310300	0	0	Open Land	930	0	0 IRONWORKS RD	IRONWORKS RD	0	01776	TOWN OF

226 (1 out of 419 Selected)

MAGIC AG Opportunity

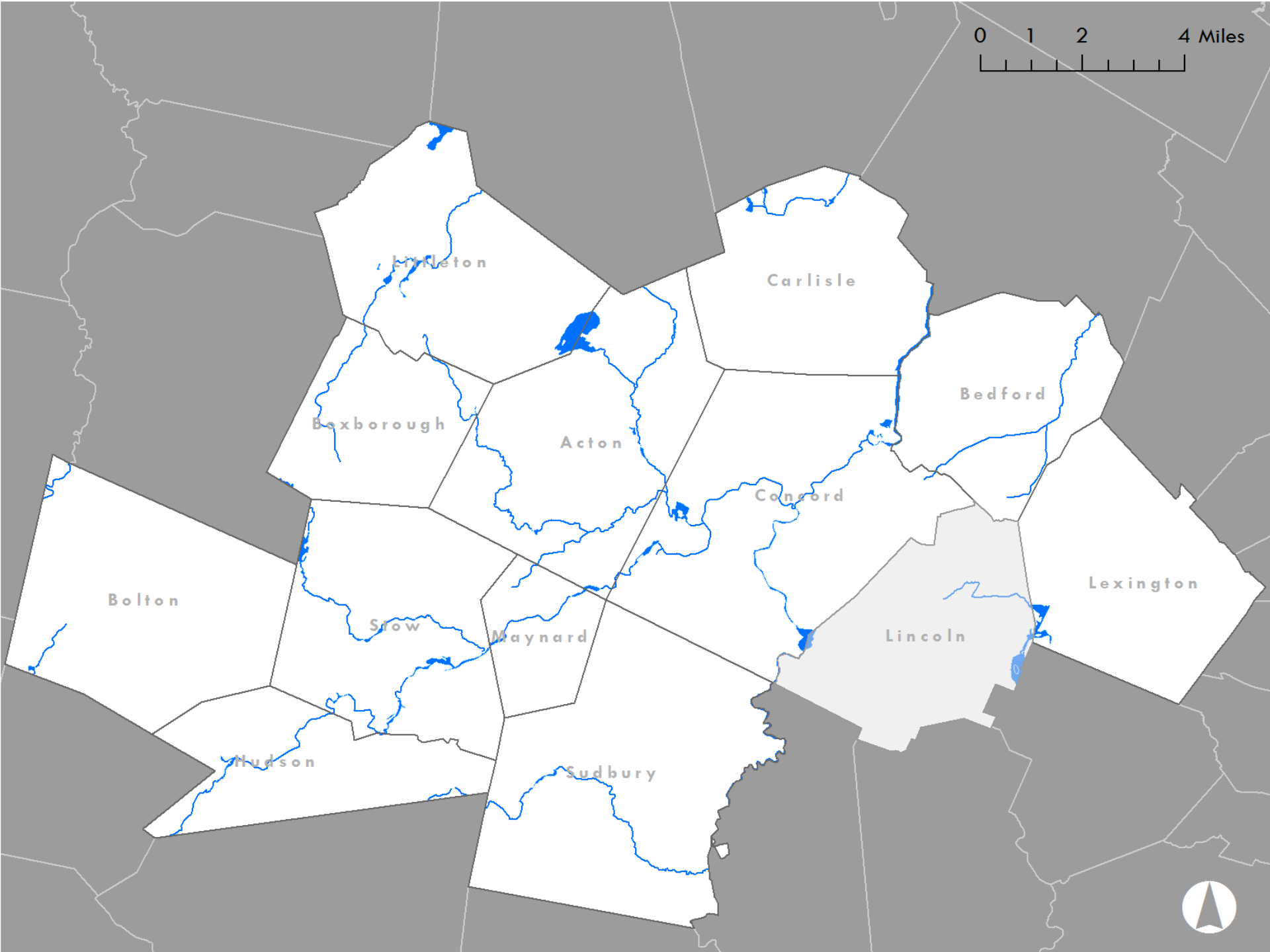
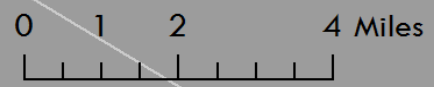
**ArcToolbox**

- ArcToolbox
- 3D Analyst Tools
- Analysis Tools
  - Extract
    - Clip
    - Select
    - Split
    - Table Select
  - Overlay
    - Erase
    - Identity
    - Intersect
    - Spatial Join
    - Symmetrical Difference
    - Union
    - Update
  - Proximity
  - Statistics
- Cartography Tools
- Conversion Tools
- Data Interoperability Tools
- Data Management Tools
- Editing Tools
- Geocoding Tools
- Geostatistical Analyst Tools
- Linear Referencing Tools
- Multidimension Tools
- Network Analyst Tools
- Parcel Fabric Tools
- Schematics Tools
- Server Tools
- Spatial Analyst Tools
- Spatial Statistics Tools
- Tracking Analyst Tools

Results ArcT... Catal... Search

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Bolton

Buxborough

Acton

Acton

Maynard

Sudbury

Concord


Lincoln

Carlisle

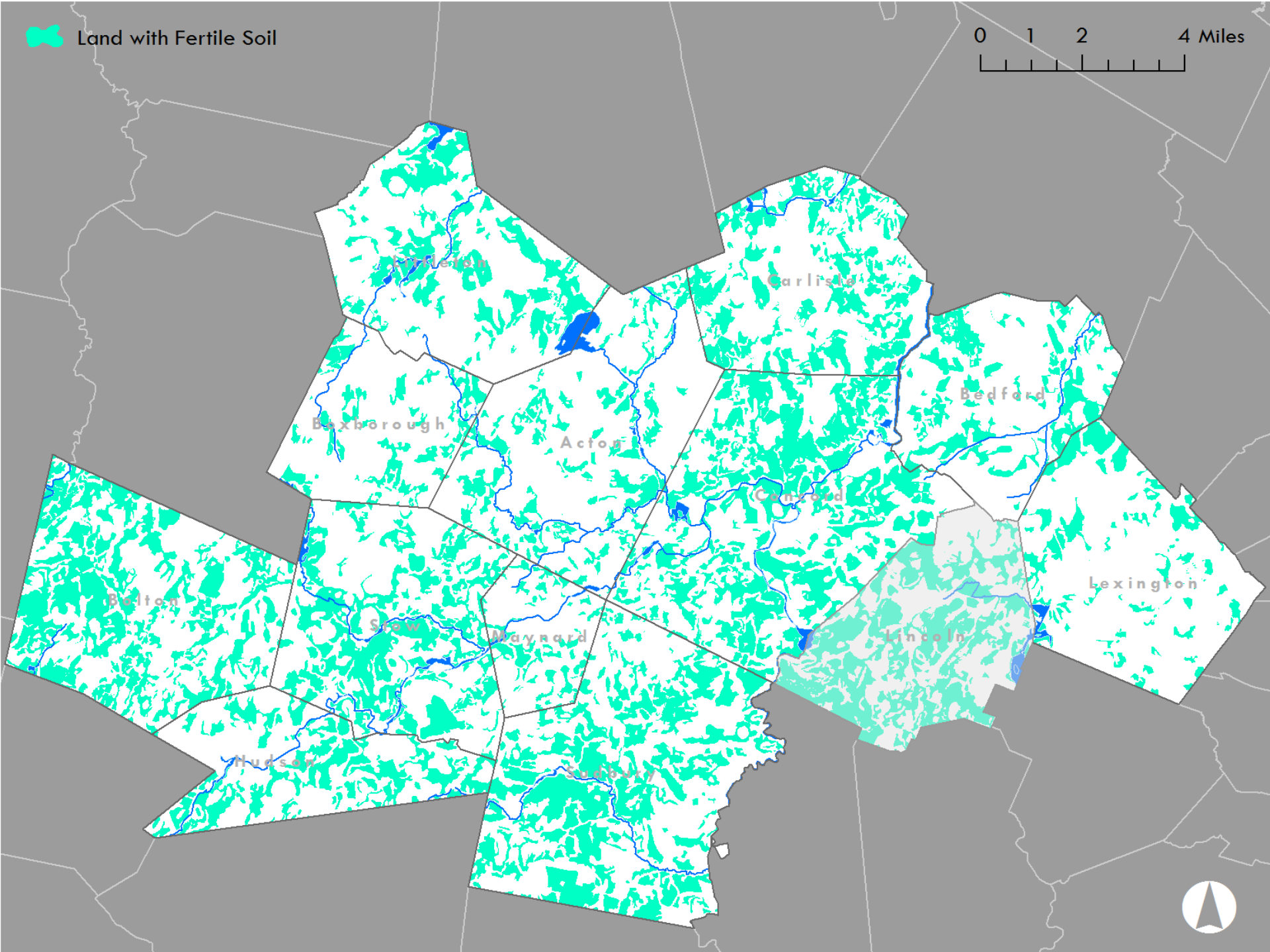

Bedford

Lexington



 Land with Fertile Soil

0 1 2 4 Miles

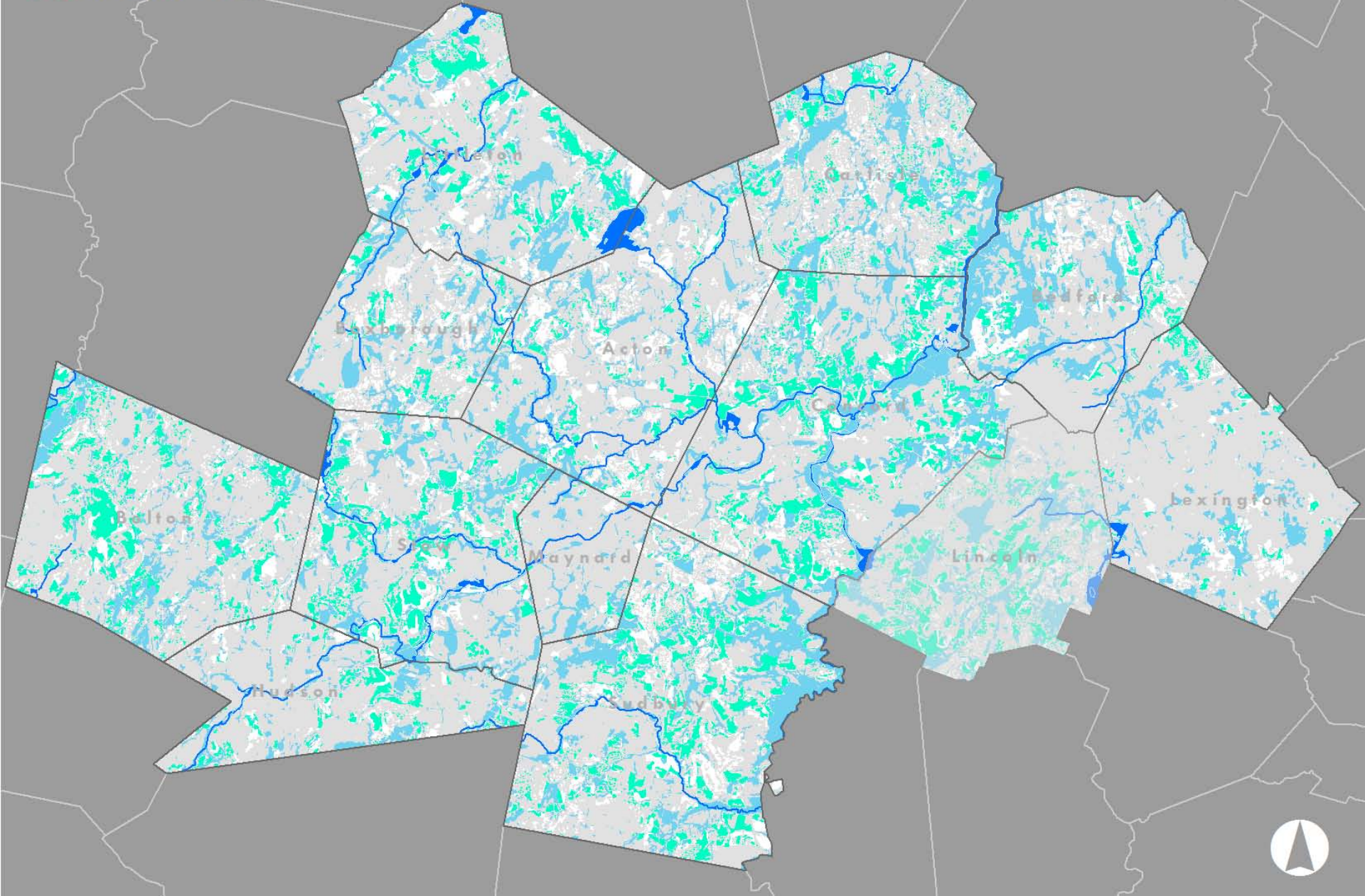
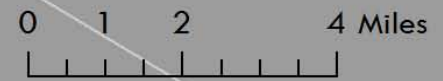









Not Suitable for Agriculture

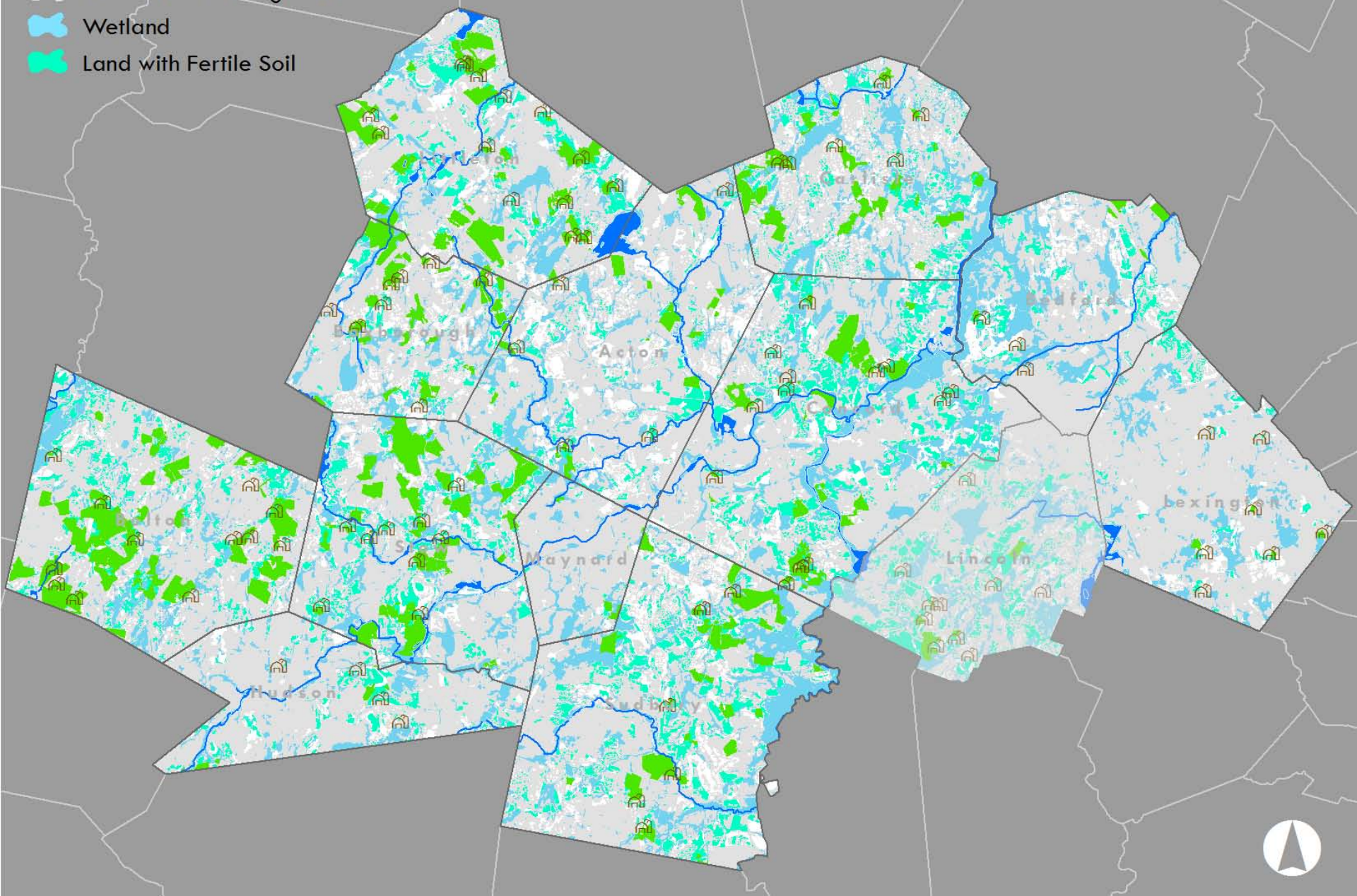
Wetland

Land with Fertile Soil



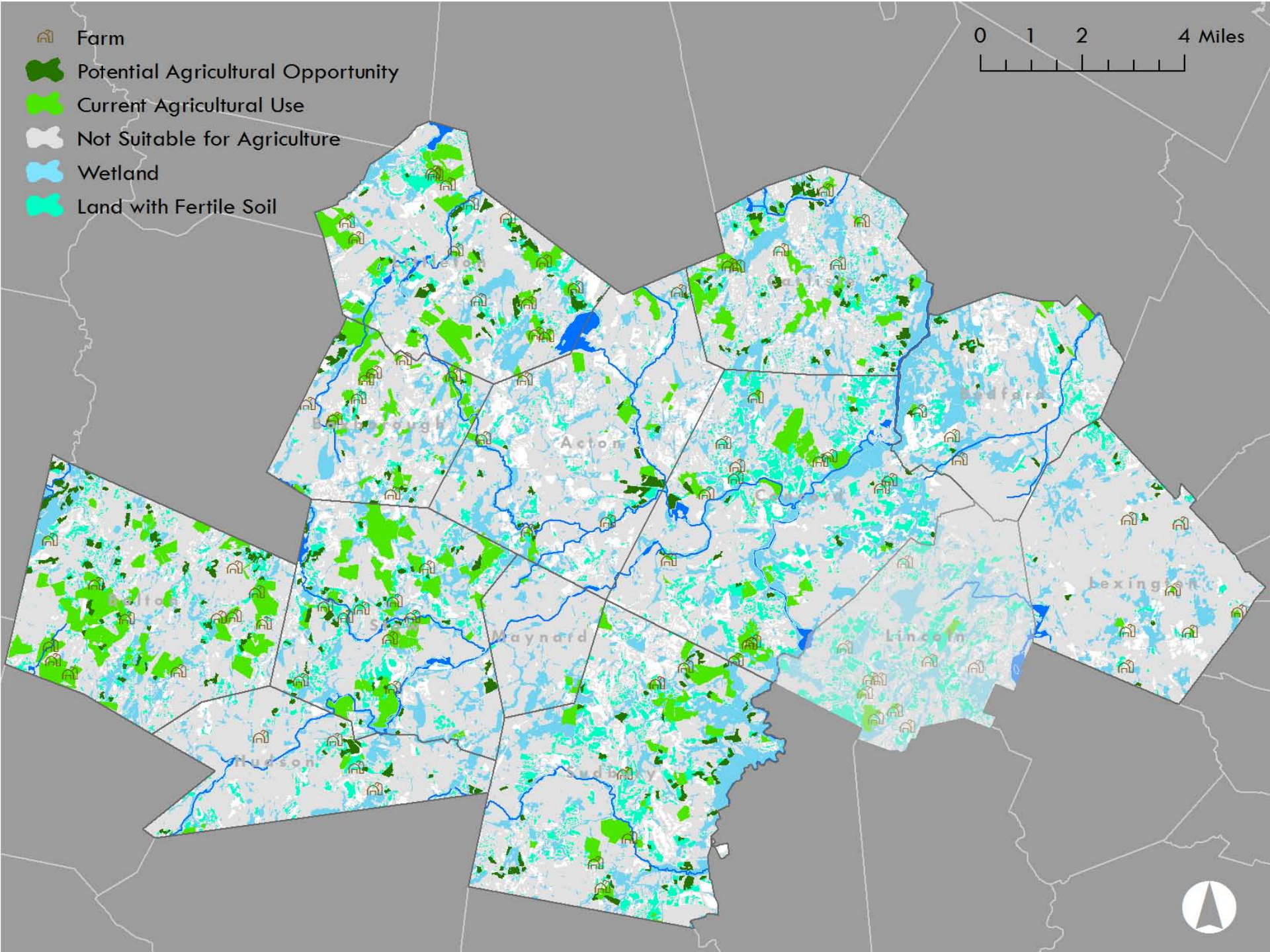
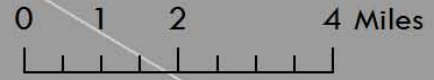



-  Farm
-  Current Agricultural Use
-  Not Suitable for Agriculture
-  Wetland
-  Land with Fertile Soil



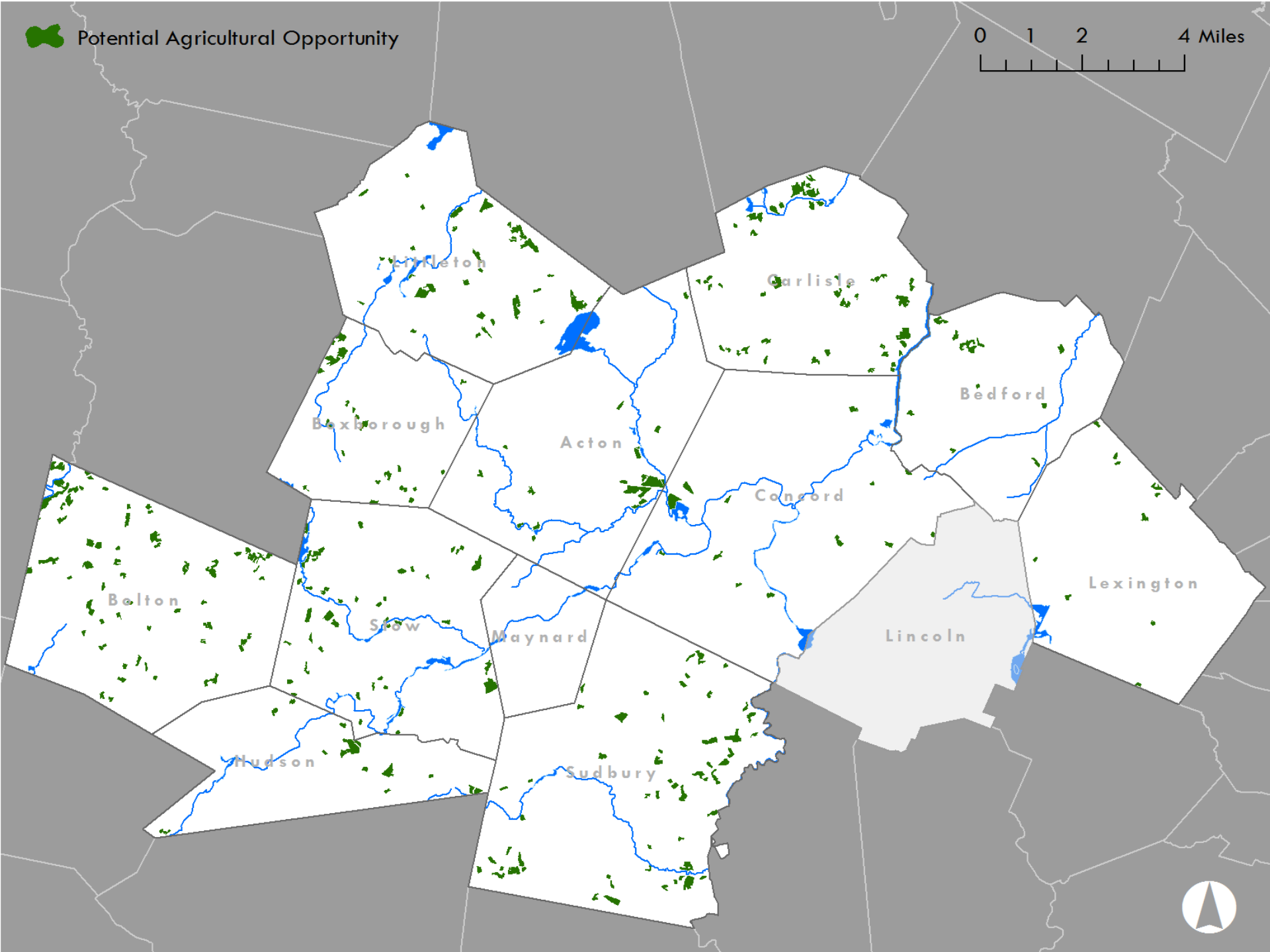



- Farm
- Potential Agricultural Opportunity
- Current Agricultural Use
- Not Suitable for Agriculture
- Wetland
- Land with Fertile Soil



 Potential Agricultural Opportunity

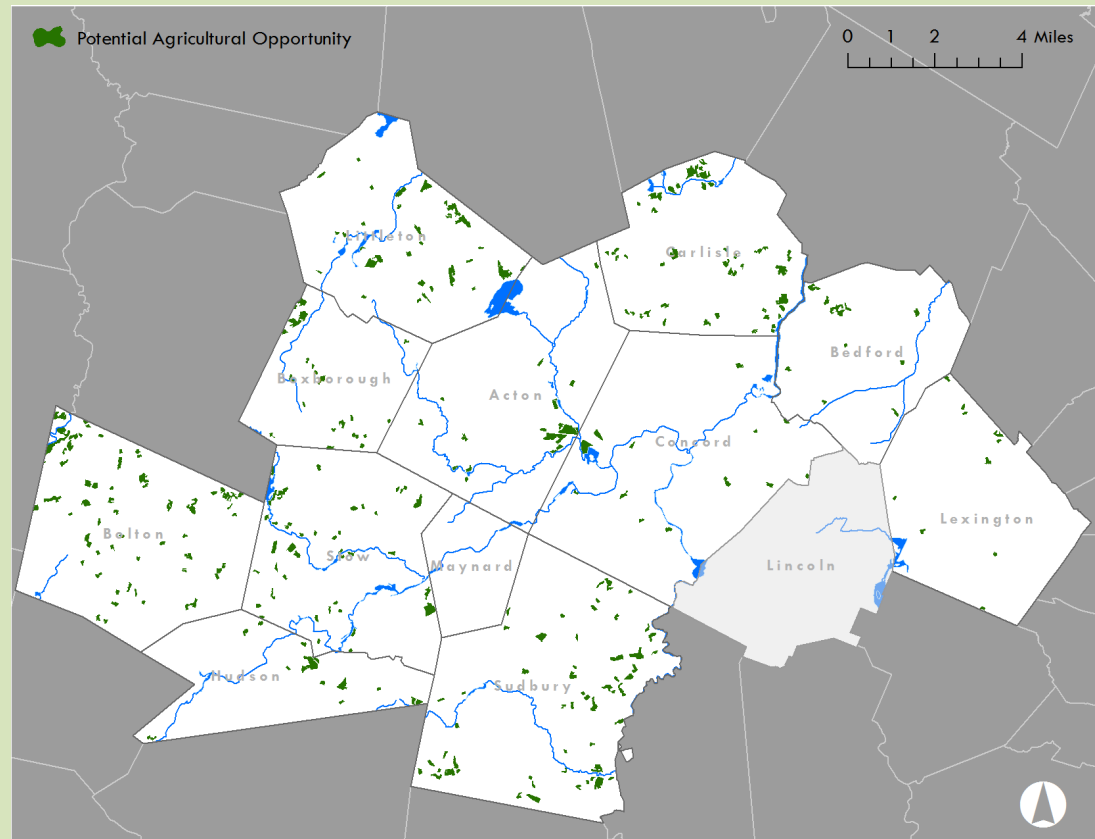
0 1 2 4 Miles





# Results

- **400+ Parcels (2,000 acres)**
- **Opportunities:**
  - **Transform Vacant Land to Cropland, Pastures or Orchards,**
  - **Family Farming**
  - **Community Gardening (Low-Density Residential Areas)**



# Findings







SUDBURY  
VALLEY  
TRUSTEES

MAPC  
METROPOLITAN AREA  
PLANNING COUNCIL  
50 YEARS   
SMART GROWTH AND  
REGIONAL COLLABORATION



# Working Land Protection and Management



*Consortium for Sustainable Communities*

# Farmland Protection – Current status

Within the MAGIC subregion, there are approximately 724 private or municipal properties permanently protected through CRs or APRs.

- 42 APR's
- 675 CRs
- 7 CR/APRs



*Wayland hayfield, protected with a CR in the 1990's*



# Potential sources of conflict

Changing nature of farming may involve more infrastructure



Balancing scenic, agricultural, and habitat resources



Use of public funds for agricultural land protection – what's expected in exchange?

# Keeping farmland affordable – do CR's and APR's help?

Farmer may be paid fair market value for development rights, retaining ownership and reserving right to farm

In expensive real estate markets, "fee" value may still be unaffordable

CR's, like APR's can include affirmative farming clauses

Towns and land trusts can work with farmers as "conservation buyers"

Include OPAV's in CR's: Options to Purchase at Agricultural Value



# Best Practice Examples



**Mount Grace Conservation Trust:** whole farm affordability.” will acquire farmland, but the farmer will own the buildings on that farmland. Mount Grace will then grant a 99-year lease on the land at a rate that keeps farming viable, and relieves the land trust from having to own and manage structures.

**Maine Farmland Trust:** “Farm Link” program links farmers with farmland, “Buy-Protect-Sell” program preserves available farmland, “Farm Viability” program provides technical assistance to farmers.



**Peconic Land Trust (NY):** Purchases and holds CR’s on farmland, provides educational programs through its Agricultural Center and farm, partners with Long Island Farm Bureau on technical support.

# Assessment & Recommendations

Adopt municipal procedures and or policies for land acquisition

Adopt policies for licensing and managing agricultural lands and restrictions

Be informed about conservation restrictions in practice

Land trusts and the state partner on outreach and training

Utilize and increase capacity of non-profit farming organizations

Create partnerships between local land trusts and municipalities

Update open space and recreation plans

Adopt the Community Preservation Act





# Local Economic Development and the Food System: Learning from MAGIC and Beyond

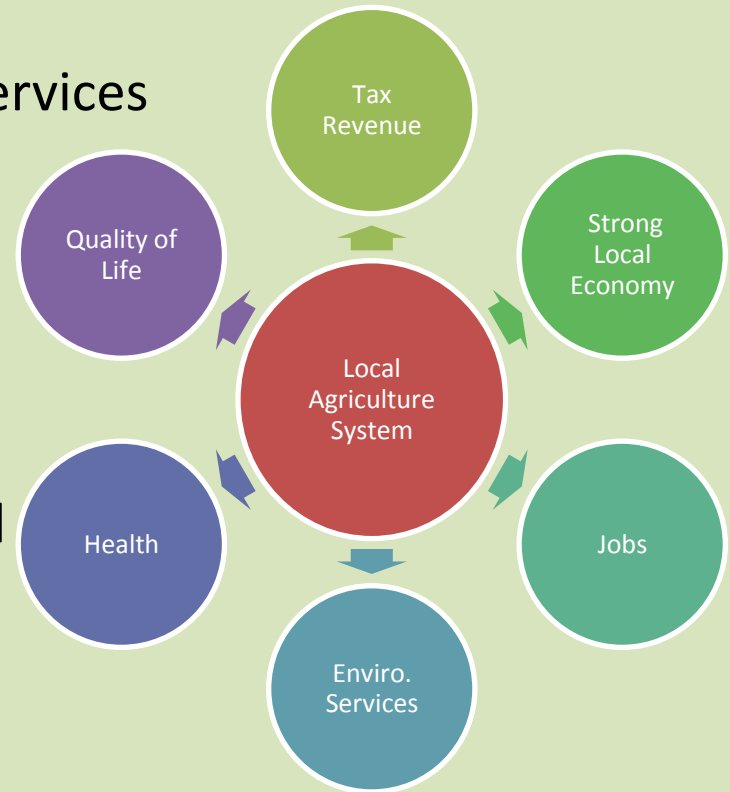


*Consortium for Sustainable Communities*

# Why should municipalities invest in agriculture and farmland protection as an economic development engine?

## *A Virtuous Cycle: Economic Benefits of Local Agriculture*

- Tax Revenue Contribution/Municipal Services
- Strong and Resilient Local Economies
- Employment
- Preserving Character and Tourism
- Environmental Services
- Healthier Residents through Local Food



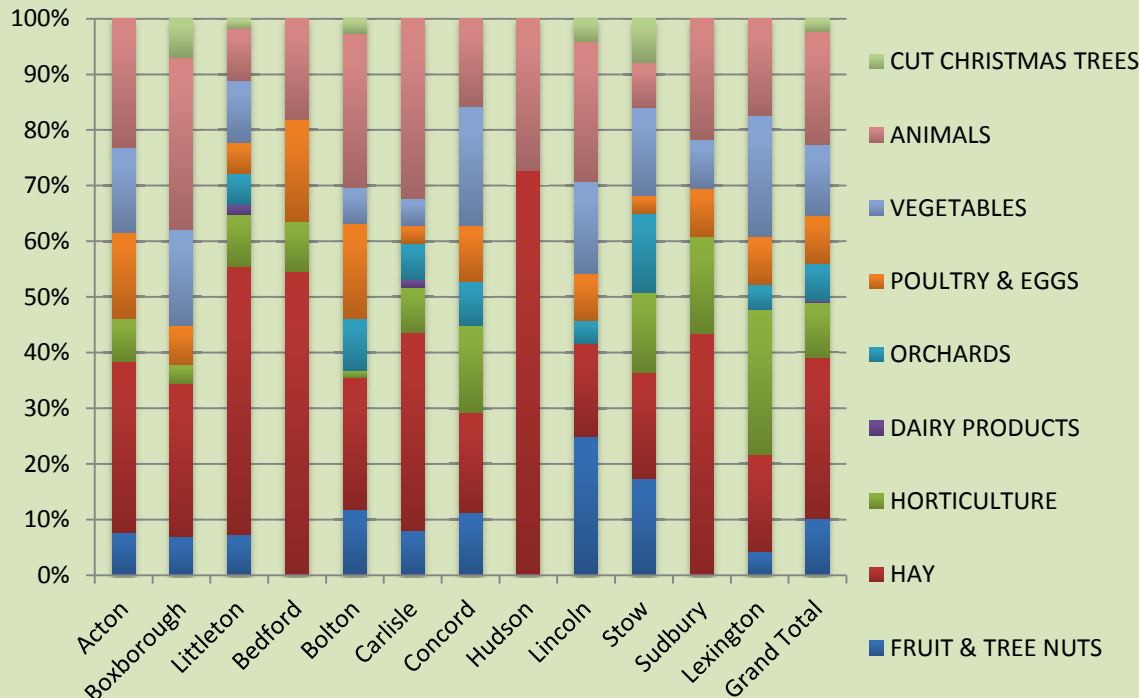


# What agricultural activities are happening here?

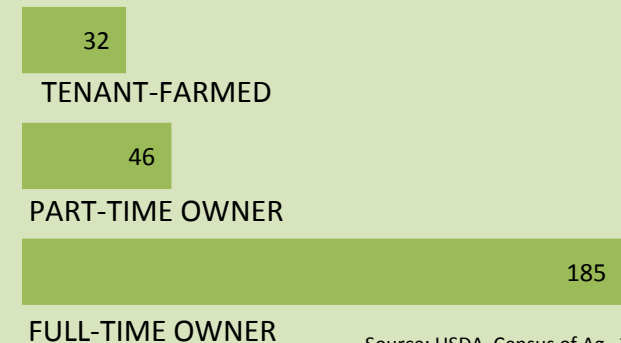
The estimated market value of agriculture products for the MAGIC subregion is \$27,899,566.00.

The average household in the Boston area spends \$8,072 on food each year. Imagine the economic benefit if only 10% of this purchasing power could be shifted to local suppliers.

AGRICULTURAL COMMODITIES ON MAGIC REGION'S FARMS



OWNERSHIP STATUS OF MAGIC FARMS



Source: USDA, Census of Ag. 2007

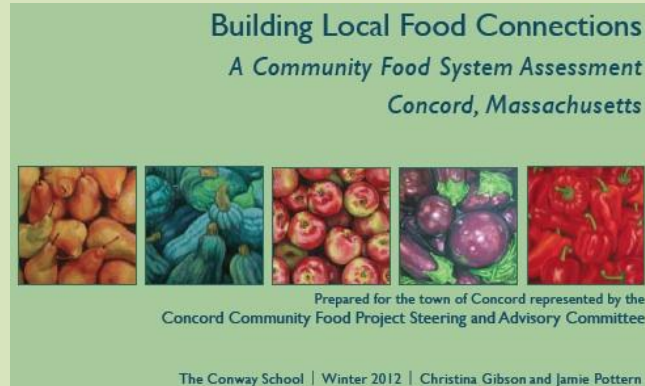
# Local Food Systems :

## Life Cycle Stages and Examples of Local Best Practices





# Best Practice Examples



**Concord Food System Assessment: How to take stock of and plan for the local food system while illustrating the benefit of numerous local agricultural businesses to the community**

**Western MA Food Processing Center:  
How to provide shared-use kitchen and business services to local farmers and food startups—as well as thousands of pounds of local vegetables to community schools**



**Caretaker Farm, Williamstown:  
How a multi-stakeholder and community financed process can protect local agriculture and help a farm family retire**

# Assessment & Recommendations

Begin with a Community Food and Agriculture Assessment for MAGIC Communities

Ensure that Traditional Municipal Tools such as Permits and Tax Rates Support the Local Food System

Implement Publicity and Recognition Efforts in Coordination with Local Groups

Cultivate Workforce Development, Training, and Education

Support Farm Viability with Supplemental Revenue Streams

Promote Community-based Agricultural Financing

Explore Possibilities for Municipal Financing of Farm Worker Housing

Look for Opportunities to Support Infrastructure Planning and Investment

Encourage School Districts to Purchase Local Food

Seek the Help of Appropriate Partners





# The Farm Friendly Neighbor Program: Creating a Farm Friendly Massachusetts



*Consortium for Sustainable Communities*

## Finding:

A lack of public knowledge of agricultural practices and benefits leads to conflicts and misunderstandings between farming and non-farming neighbors.

These conflicts drain farmers' time and decrease a farmers ability to effectively manage an agricultural operation.





## Solution:

Municipalities & farmers working together to fill the public information gap.



# Best Practices Examples

## CT AgVocate Program



Provides towns with technical assistance to:

- Initiate Ag Commissions;
- Review and implement tax reduction;
- Plan for farmland protection;
- Encourage buy local opportunities;
- Explore methods to promote farms;
- Include agriculture in town plans; and
- Pass right-to-farm ordinances.

## MA Buy Local Organizations



Regional Buy Local Groups have helped generate consumer awareness and demand for locally grown food products while at the same time improve logistical access to these important food sources.



# Assessments & Recommendations



Working in conjunction with planners and local Agricultural Commissions, the Farm Friendly Neighbor Program (FFN) will build community support for local agriculture by:

## Increasing access to knowledge about:

1. Benefits of local agriculture,
2. Common farming practices in Massachusetts, and
3. Ways residents can support working farms.

## Adjusting municipal policies and increase municipal mechanisms to

1. Support local agriculture,
2. Provide resources to residents inquiring about agricultural issues, and
3. Better deal with complaints relating to agricultural practices.

# Thank You!

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