

Potential Agricultural Land in Acton, MA:

Exploring Land Availability for Young & Beginner Farmers



What is the Need?

The Commonwealth is historically known and loved for its agricultural roots and small town feel. But what is the best way to ensure that the agricultural trend continues? Between 1999 and 2005, over 40,000 acres of land were converted to residential use. Of these acres, 30,000 were forested lands and 10,000 were agricultural lands¹. According to the National Agricultural Statistics Service² (NASS), the average value of farm real estate in Massachusetts in 2012 was \$10,500.00 per acre. This high price can be one of the biggest barriers to entry for young and beginner farmers seeking land in Massachusetts.

Why Acton?

The Town of Acton is in Middlesex County, northwest of Boston, MA. According to the 2010 US Census, the population of Acton is 21,924. Acton is home to many suburban families, but this town is also heavily forested, similar to much of New England. While Acton does not have an Agricultural Commission to oversee the agricultural happenings in the Town, it is geographically surrounded by several other towns that do have such committees. Because of the popularity of agriculture in surrounding towns, this made Acton a prime candidate for a land suitability analysis.

Who are the Players?

Several land matching organizations exist in New England, with one of the primary organizations being New Entry Sustainable Farming Project. New Entry works with beginner farmers to place them on small plots of land in economically viable areas. New Entry staff has employed geographic mapping systems in order to find suitable parcels of farm land across Massachusetts.

Using Technology to Find Land

The state of Massachusetts has a wealth of data in Geographic Information Systems (GIS). With this data, we are able to create maps of many attributes across the state. By combining land use data, soil data, wetland data, and a map of parcels in the town, I determined the size and location of all suitable agricultural land in Acton. First, I clipped original data from the Massachusetts GIS database to only show data for the Town of Acton. Then, I selected for or against attributes in the datasets. Finally, I selected only parcels of 2 contiguous acres or greater to ensure adequate production space.

Land Use:

- I selected *for* areas of Cropland, Pasture, Low & Very Low Residential, Brush land/Successional, Orchard, Nursery and Open Land

Prime Farmland:

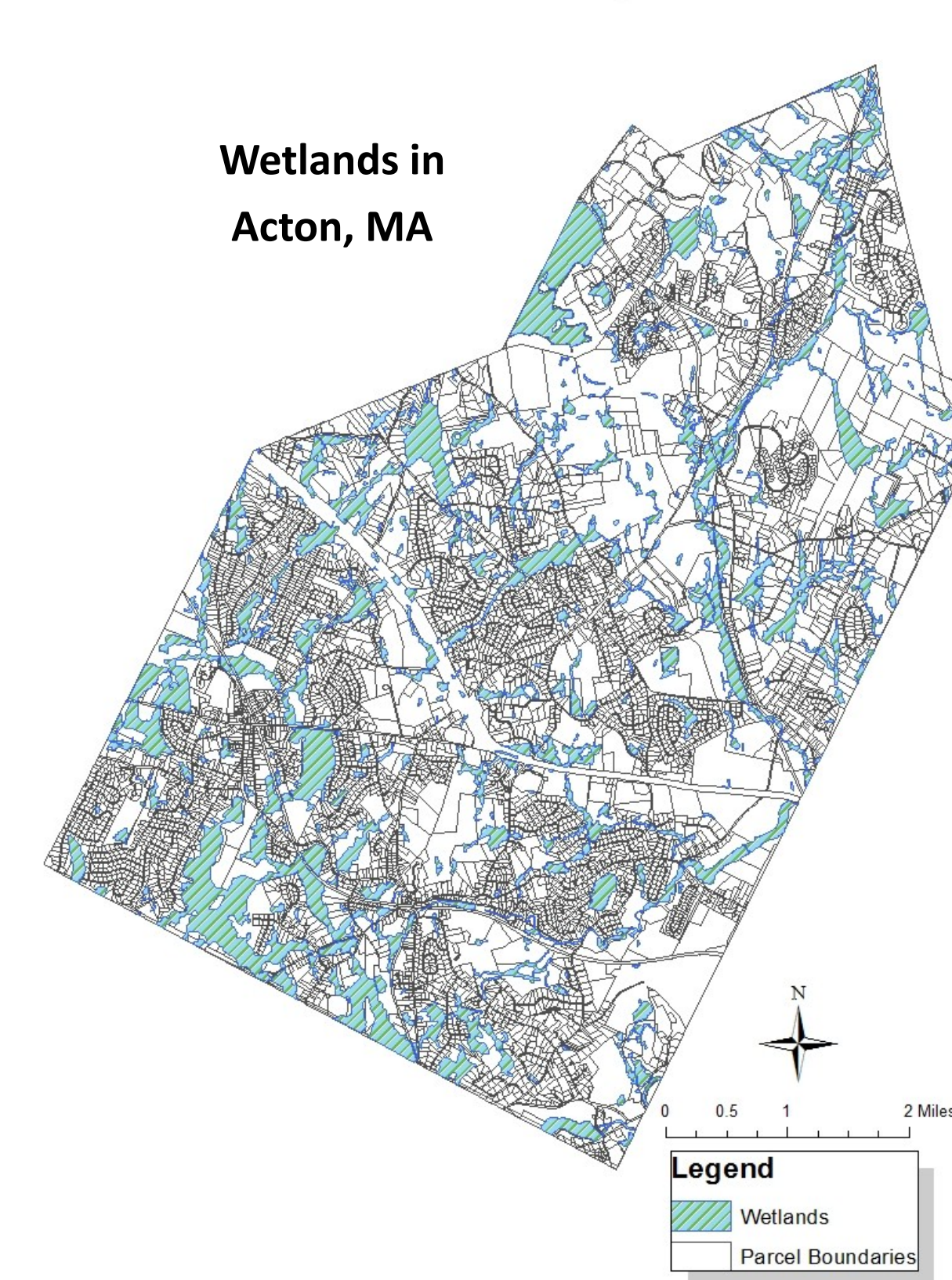
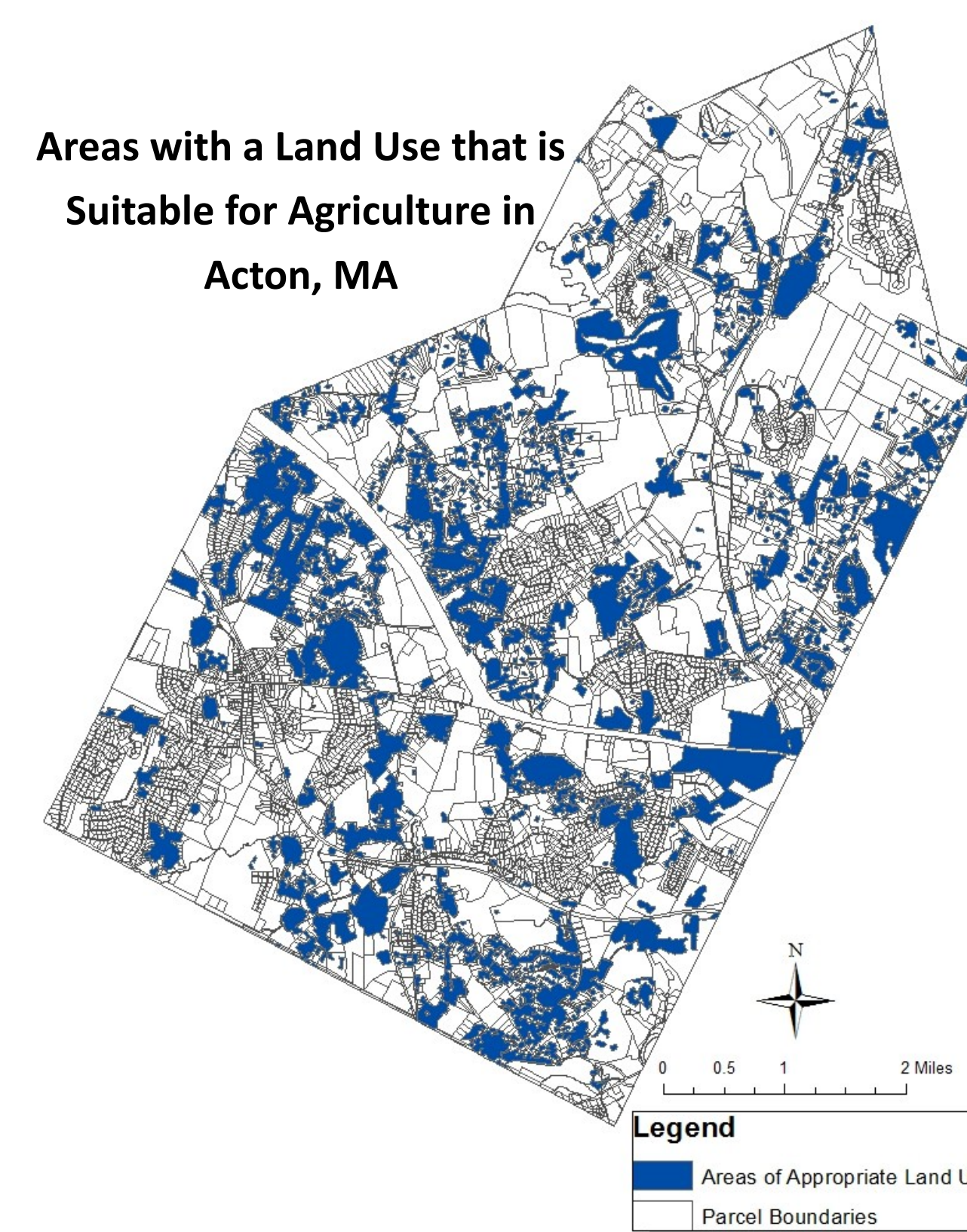
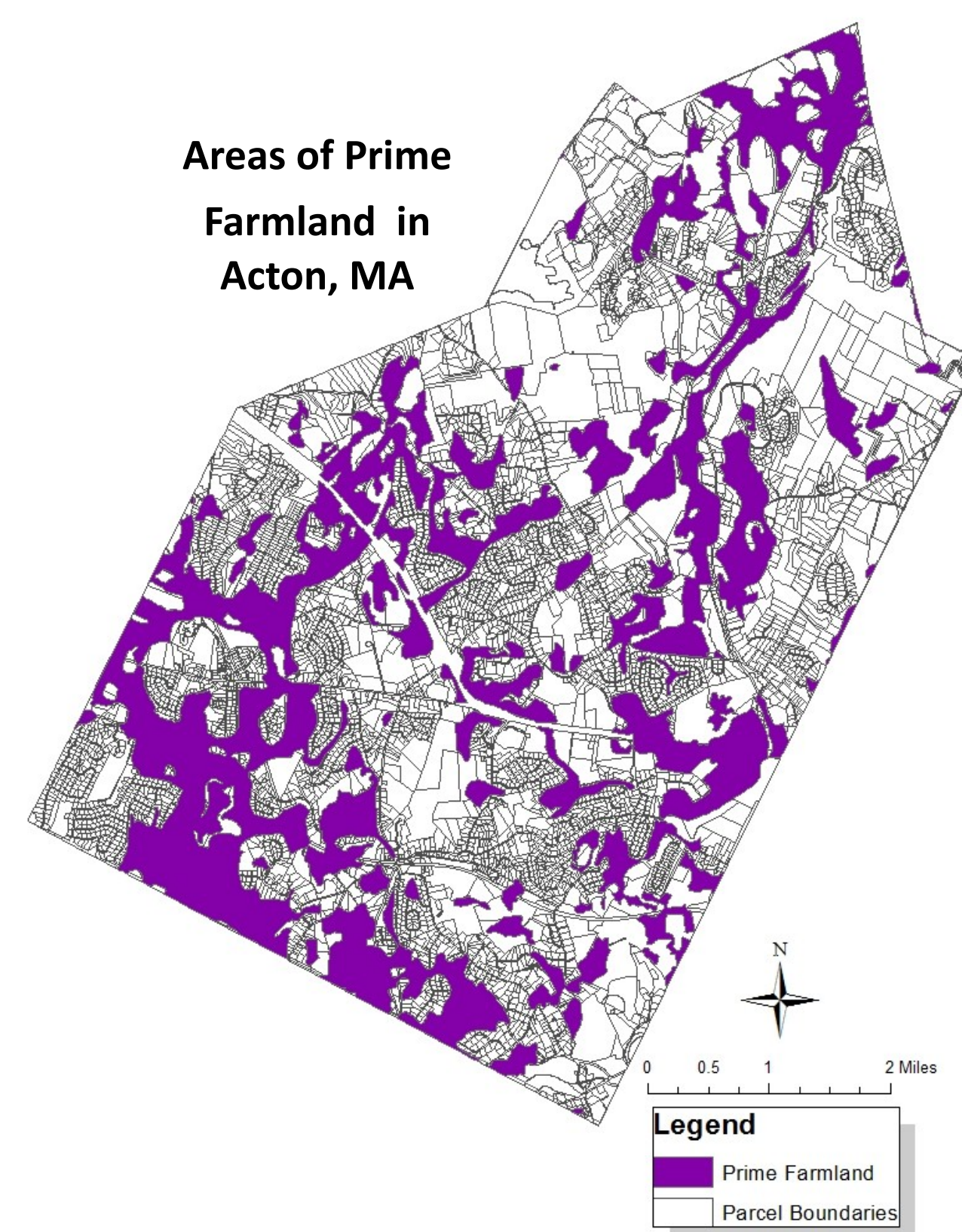
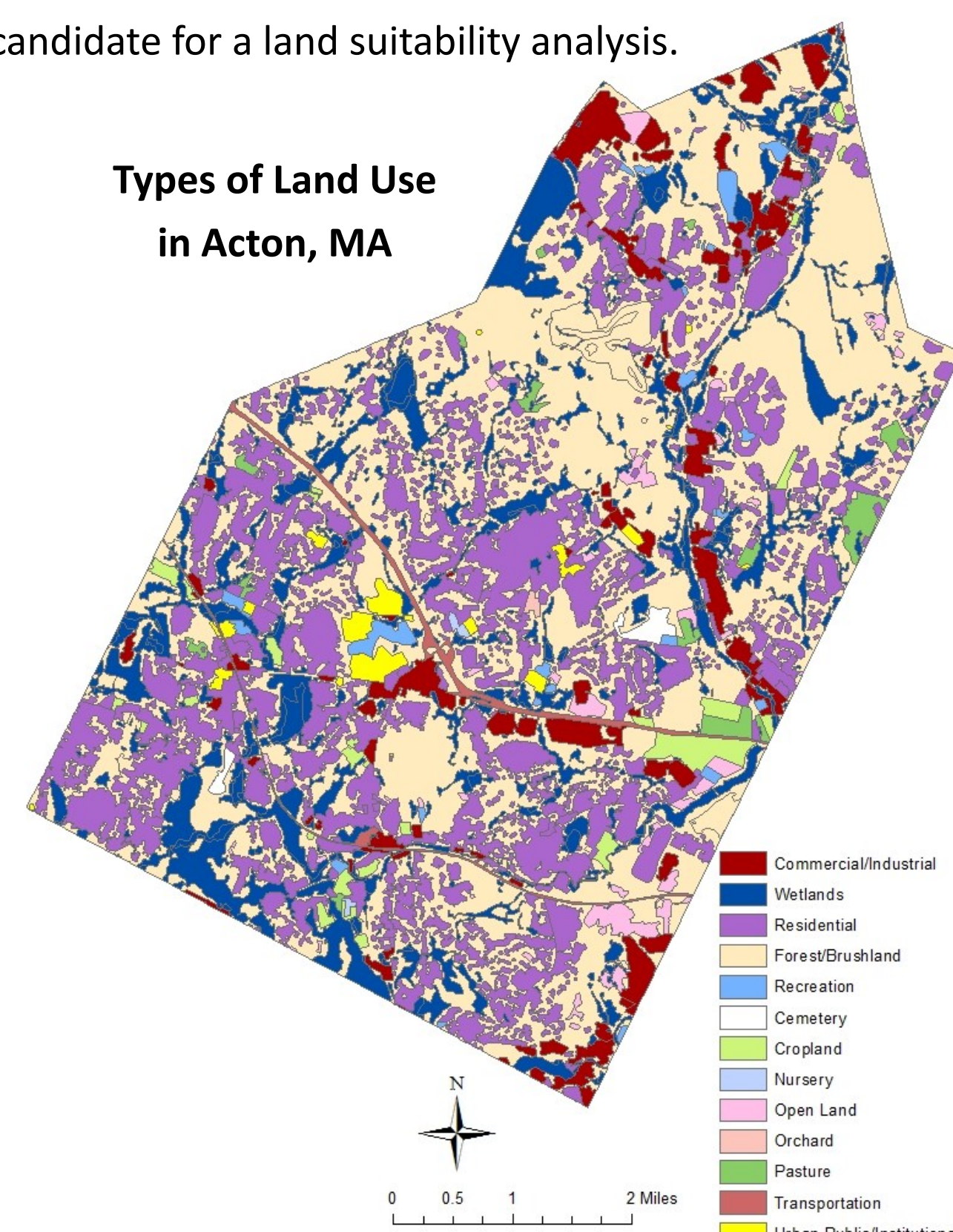
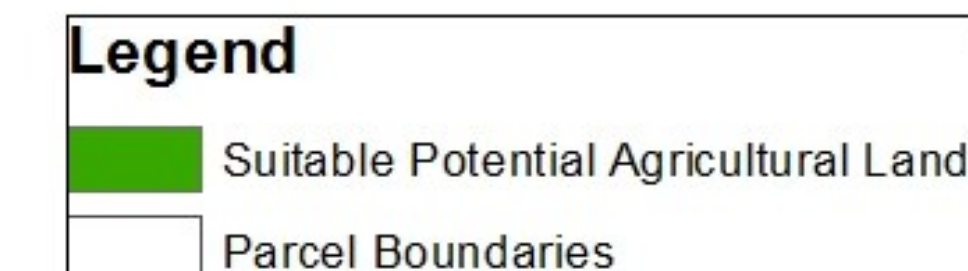
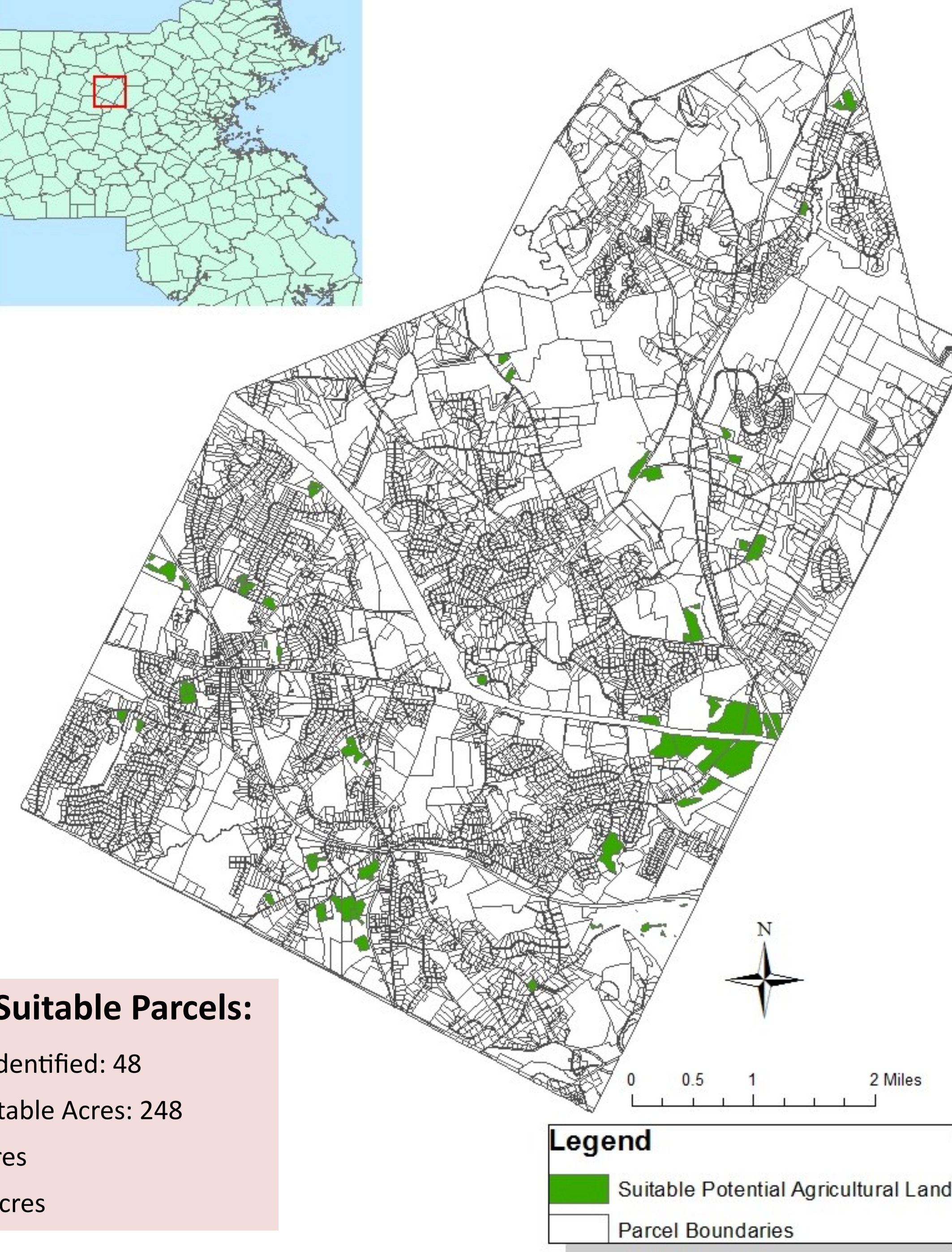
- I selected *for* land that has the best physical and chemical characteristics

Wetlands:

- I selected *against* any type of marsh, bog, open water, reservoir, or beach.

Quick Stats of Suitable Parcels:

Number of Parcels Identified: 48
Total Number of Suitable Acres: 248
Minimum Size: 2 acres
Maximum Size: 25 acres



Is there Land in Acton?

Even though Acton is surrounded by several towns that have a significant agricultural land base, Acton itself has a small number of suitable acres of agricultural land. This is due to large residential and forested areas. However, 248 acres of suitable agricultural land were identified, in 48 parcels. The largest parcel available is 25 acres, with the majority being 8 acres and smaller.

What's Next for Acton?

With this new information, the Town of Acton can reach out to young and beginner farmers. Since Acton does not have an Agricultural Committee, the Conservation Committee can bring this to the Town's, and the resident's, attention. Through individual outreach or a potential partnership with New Entry Sustainable Farming Project, young and beginner farmers could be placed on these available parcels in Acton. Any land tenure agreement then becomes the responsibility of the farmer and the land owner. Potential agreements could be:

- A formal lease with cash rent
- A handshake agreement with payment in produce

In all cases, a GIS can be used to identify available farmland in new locations.



Leigh Kalbacker, 3 May 2013

Fundamentals of GIS

Projections: NAD 1983 State Plane Massachusetts Mainland FIPS 2001

Data Sources: MassGIS, USDA Natural Resource Conservation Service GeoSpatial Data Gateway, Town of Acton Assessor's Office

Citations:

¹ DeNormandie, J. (2009). *Losing Ground Beyond the Footprint: Patterns of Development and their Impact on the Nature of Massachusetts*. MassAudubon. Retrieved from <http://www.massaudubon.org/losingground/download.php>

² http://www.nass.usda.gov/Publications/Todays_Reports/reports/land0812.pdf

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Acton Photo Credit: http://townmapsusa.com/d/map-of-acton-massachusetts-ma/acton_ma