Forest Health in Massachusetts

2012 Report

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Program Director

Forest Health Conditions

- Similar to 2011 weather has affected the health of the forest. This years drought will have future impacts.

- Expect early leaf drop on many tree species

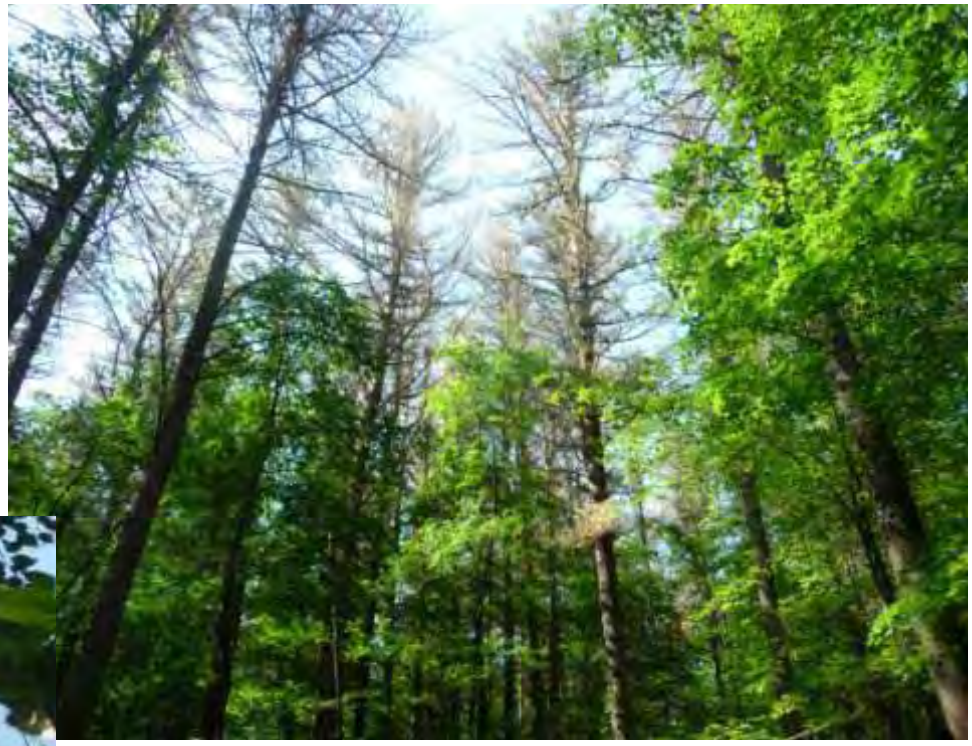
- Anthracnose and other fungal based diseases like needlecasts and tar spot were observed due to abundance of wet weather in the early spring.

- **Winter Moth**
  - Increased pockets of defoliation in Northeastern Mass. Some defoliation on Cape Cod and Martha's Vineyard. Early season weather conditions affected the population density.

- **Gypsy Moth**
  - Increases in egg masses and pupae at monitoring sites in Worcester and Central Counties

White Pine Defoliation

Areas of defoliation were seen statewide



Cynipid gall wasp

- Damage primarily seen on Black Oak
- Currently just occurring on Cape Cod and Martha's Vineyard

Lecanium scale in combination with the Cynipid gall wasp is causing Black oak tree decline

Red Pine Scale and Diplodia

Causing severe mortality across the state

Over 1,000 acres mapped annually over the last 3 years

Red Pine Mortality

Hemlock woolly adelgid

Warm winters have led to increased HWA

Elongate Hemlock Scale

This pest in combination with HWA is weakening and causing overall decline of hemlock stands around Massachusetts.

Biological Controls

Cyzenis albicans

Focuses:

- ❖ Biological Controls
  - Winter Moth
  - Hemlock Woolly Adelgid
    - Continuation of monitoring and additional releases throughout the state in heavily infested areas

Hemlock woolly adelgid

Laricobius nigrinus

Emerald Ash Borer

- Emerald Ash Borer
  - August 31st EAB found on one trap in Dalton
  - Comprehensive detection surveys in high risk zones; USDA Forest Service trap tree survey (12 locations in western Mass.)
  - Continue with public awareness educating on signs/symptoms and techniques available to slow the spread
  - USDA APHIS purple panel trap monitoring (713 locations this year)

Cooperative Emerald Ash Borer Project

Approximate range of ash species in the Continental U.S.
with EAB positives and Federal quarantines
February 1, 2012

Map facts

-Approximate area of CONUS ash range:
4172634.5 sq. kilometers
-Area of U.S. Federal quarantine:
761536 sq. kilometers
-Total area of counties where EAB is present:
414267 sq. kilometers

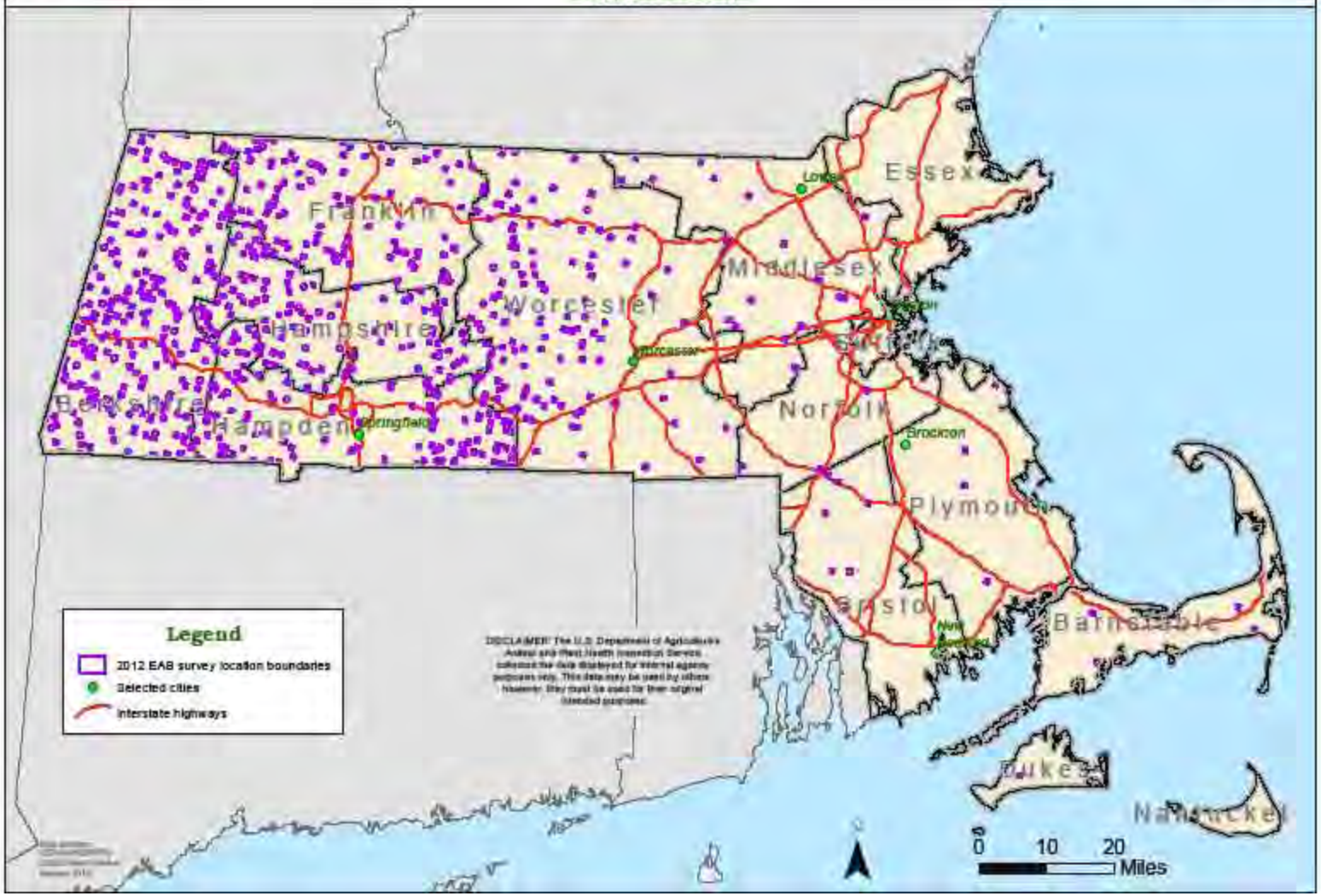
Map Key

- Approximate range of ash
- Federal EAB quarantine boundaries
- Potential urban ash locations
- Initial county EAB detection

Map ash ranges reproduced from USDA Forest Service source map

USDA

Emerald Ash Borer
2012 Survey Trap Locations
Massachusetts



USDA Forest Service
Northeastern Area, State and Private Forestry
Forest Health Protection, Durham, NH
http://www.na.fs.fed.us/fhp/index.shtml

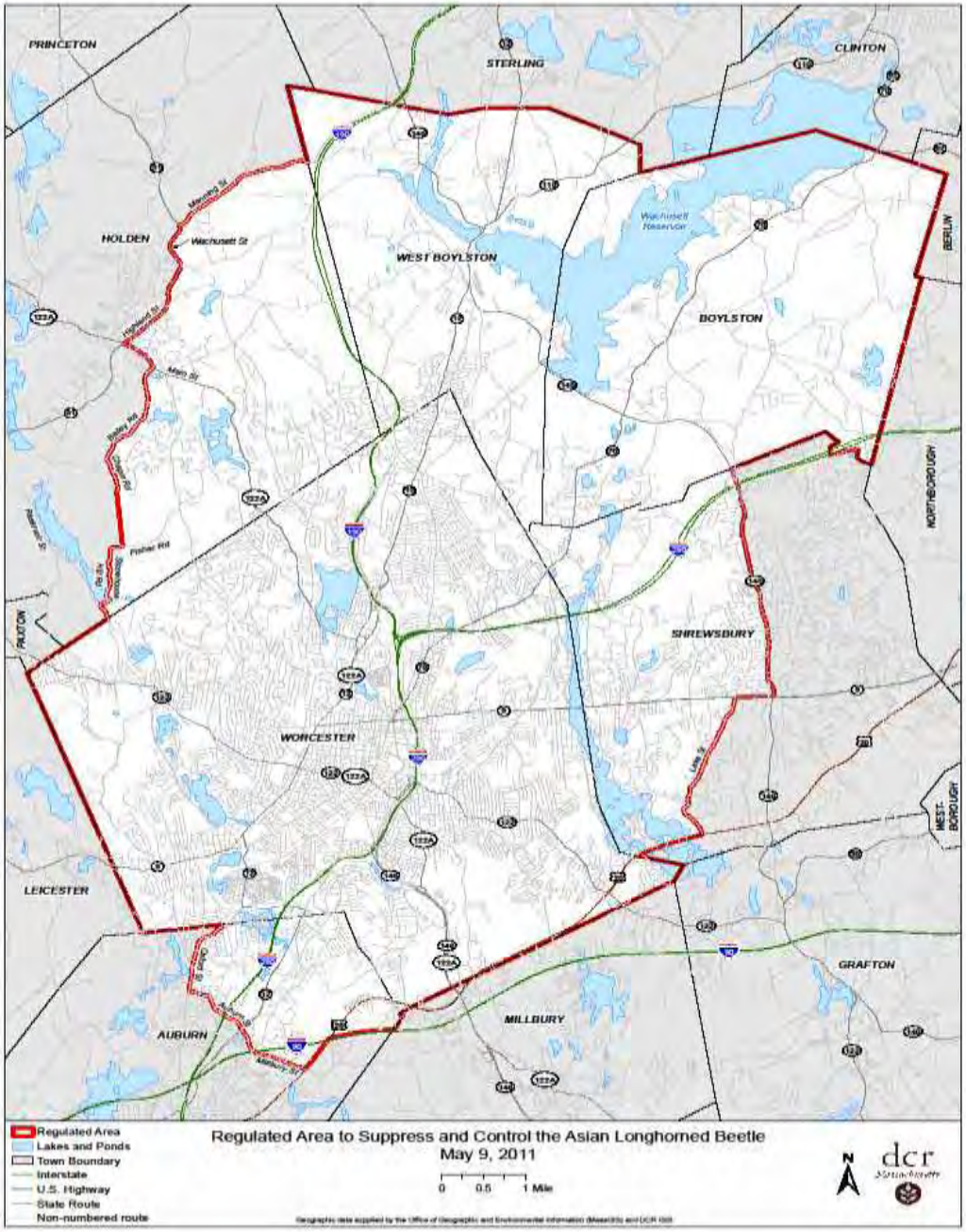
The USDA is an equal opportunity provider and employer

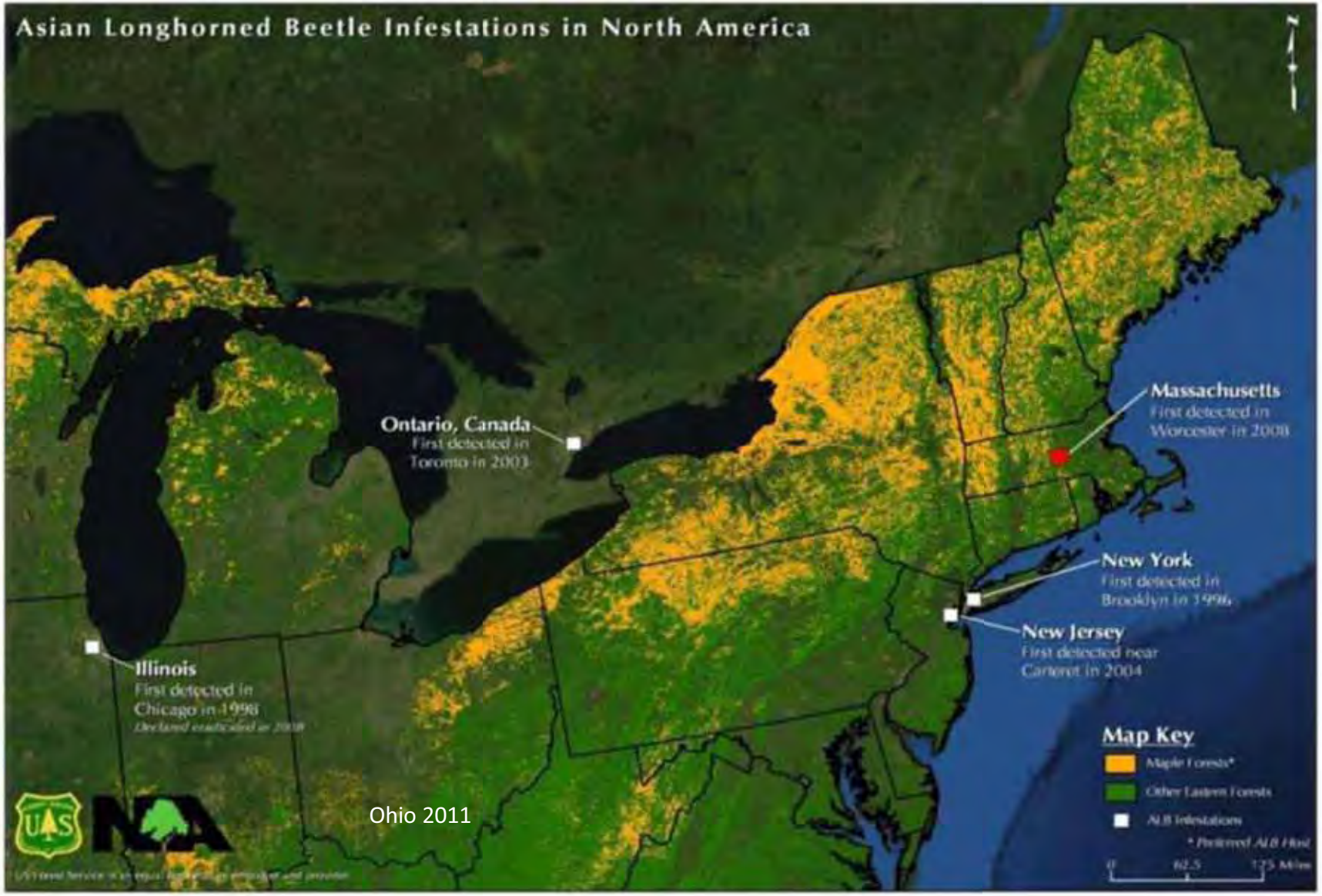
December 2010 (RL)

ALB Regulated Area Map

September 2012

Regulated area in Worcester County is currently 110 square miles




Asian Longhorned Beetle Infestations in North America
Ontario, Canada
First detected in
Toronto in 2003
Massachusetts
First detected in
Worcester in 2008
New York
First detected in
Brooklyn in 1996
New Jersey
First detected near
Carteret in 2004
Illinois
First detected in
Chicago in 1998
Map Key
Maple Forests*
Other Eastern Forests
ALB Infestations
* Preferred ALB Host
0
62.5
125 Miles
Ohio 2011

USDA Forest Service provided a grant to deploy 1000 ALB pheromone monitoring traps

2012 ALB Trap Lines

Legend

- New Trap Lines (USFS)
- DCR Trap Lines (Peter)
- DCR Roads
- Red Maple Stands
- State Lands
- Other Protected Lands (City, County, Private)

0 0.5 1 2 Miles

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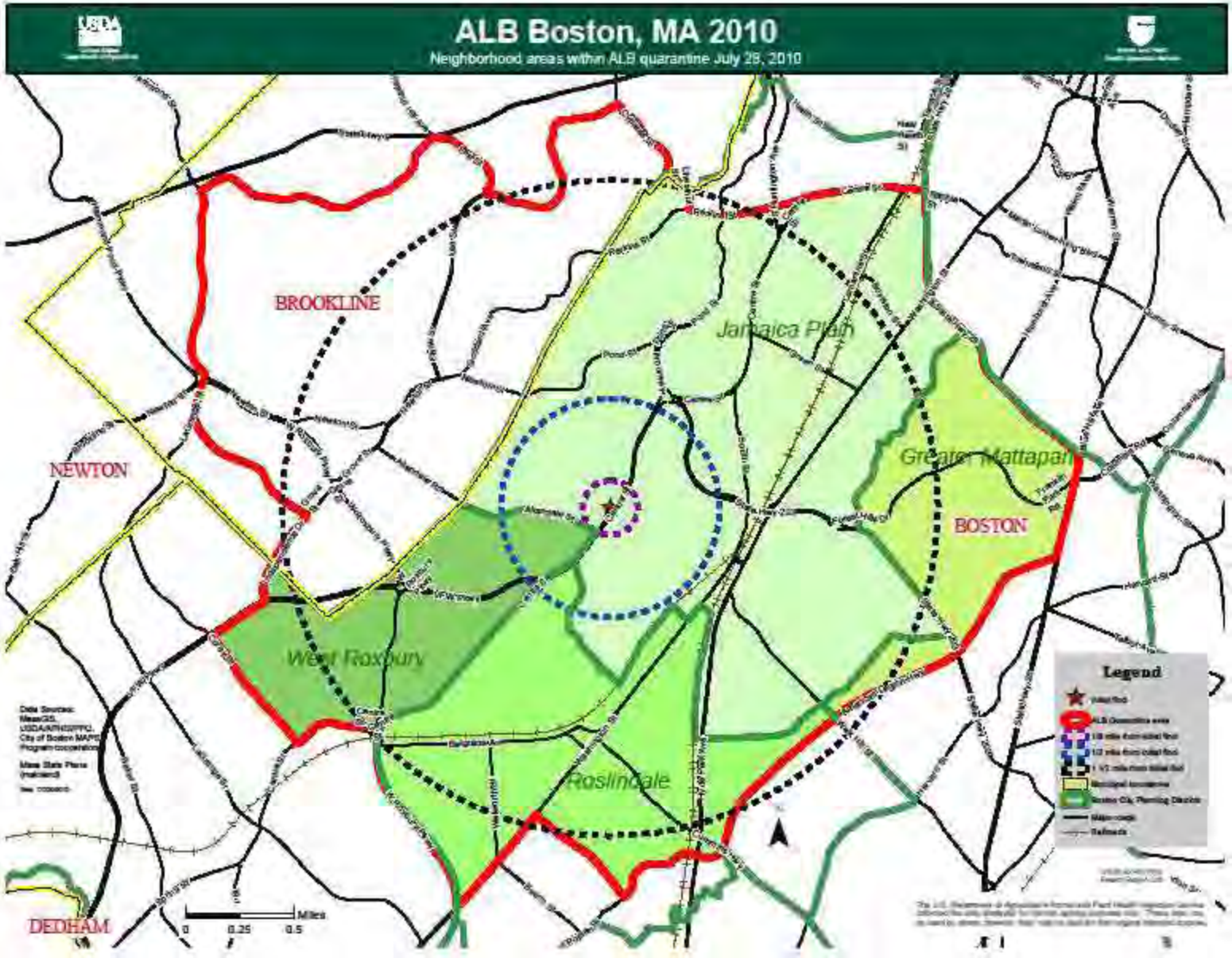
May 2012 (RL)


ALB Boston, MA 2010
Neighborhood areas within ALB quarantine July 29, 2010
BROOKLINE
NEWTON
Jamaica Plain
Greater Mattapan
BOSTON
West Roxbury
Roslindale
DEDHAM
Legend
Miles
0
0.25
0.5