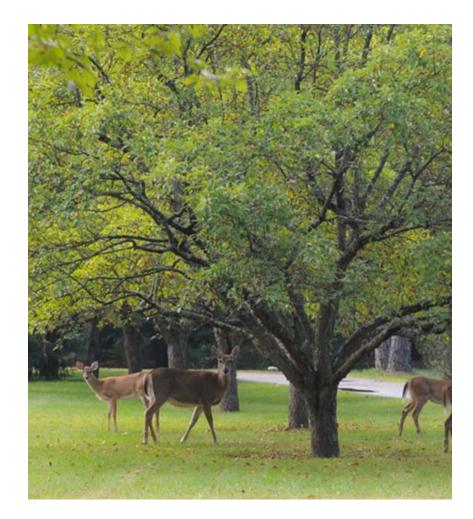


### Collaborative Deer Management in Massachusetts

Susan McCarthy Wildlife Biologist

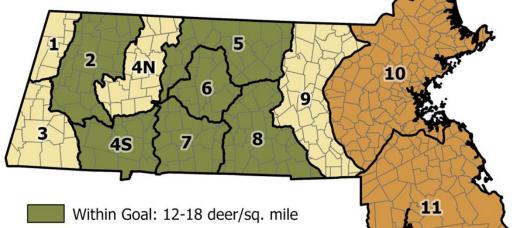
### White-tailed Deer in Massachusetts

- Common & abundant throughout
- Habitat generalists
  - Very successful in suburban areas
  - Ample high-quality habitat
  - High survival & reproductive rates, low mortality



### **Deer Management & Monitoring**

Deer Abundance by Wildlife Management Zone (WMZ)



Within Goal: 12-18 deer/sq. mile Exceeds Goal: 18-30 deer/sq. mile Well Exceeds Goal: 30-40 deer/sq. mile Significantly Exceeds Goal: 50+ deer/sq. mile

- 15 Wildlife Management Zones
- Regulated hunting
- Issue antlerless deer permits (females)
- Goal to keep densities of 12-18 deer/mi<sup>2</sup> of forest

**Goal** management range of 12-18 deer/mi<sup>2</sup> of forest statewide.

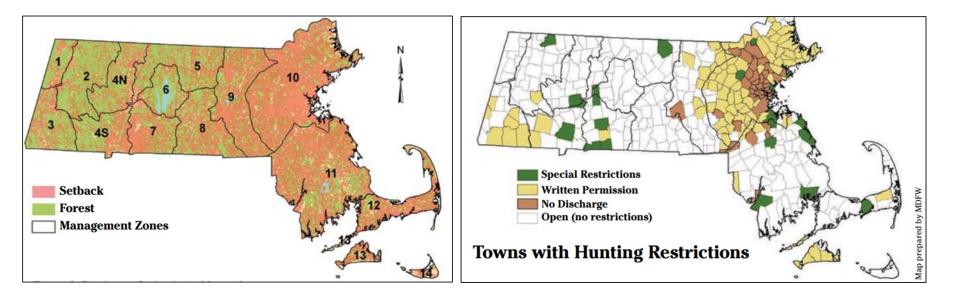
# Why Hunting?

- The <u>only</u> method of population management that is
  - Effective
  - Permissible
  - Practical
- Every state in the country relies on hunting to manage deer abundance
- Incredible Safety Record in MA
  - 0 Non-hunters have been killed by hunting
  - O Non-hunters have been injured by archery hunting



# Management Limitations

- Regulated hunting is only impactful in areas with hunting access
- Lots of suitable habitat is closed to hunting statewide
- Firearms and archery discharge setbacks
- Local bylaws further restrict hunting





• Above management goals

# Deer Overabundance

- Exceeded ecological carrying capacity
- Exceeded cultural carrying capacity

# What ecological damage?

Deer diet and browse behavior

- What they eat
- How they eat





## **Ecological Impacts**

- Negatively impact ecosystem @ ~20 deer/mi<sup>2</sup>
- Decrease in plant diversity
- Increase in most invasive plants
- Decreased forest regeneration
  - Reduced understory
- Soil erosion, siltation, reduced water quality
- Wildlife habitat degradation
  - Reduced biodiversity



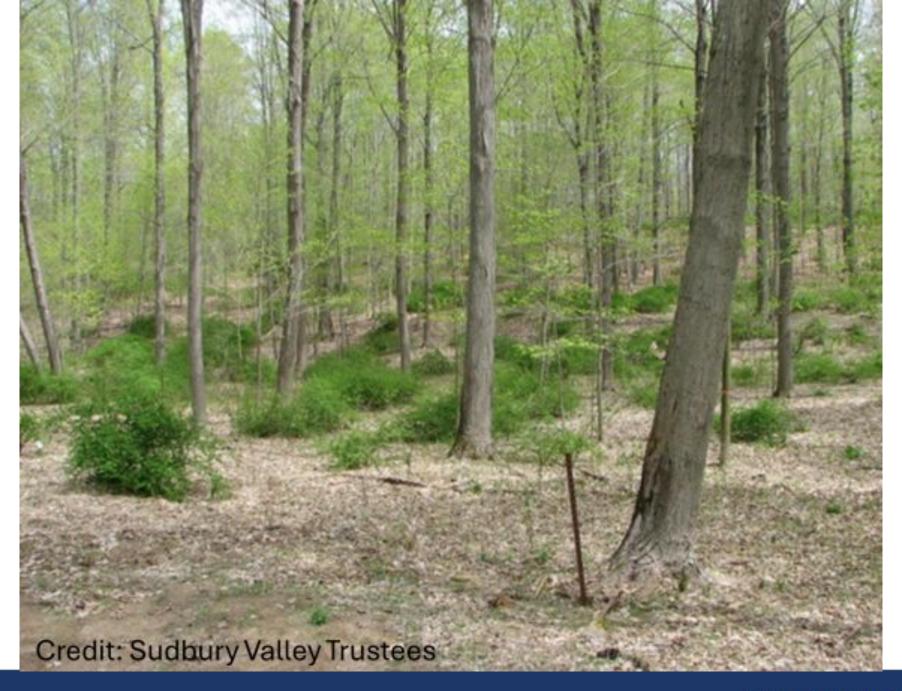












# **Addressing Deer Overabundance**





Mass Audubon



















# **Expanding Collaborative Efforts**

- Support one another
- Share stories & experiences
- Communicate effectively about hunting



#### Deer Hunting in Massachusetts

#### Hunting is safe for both hunters and non-hunters

#### There have been <u>0 non-hunters</u> killed due to hunting in Massachusetts. There have been <u>0 non-hunters</u> injured in Massachusetts from archery hunting.

- · Hunting is a highly regulated, safe activity and all hunters must be properly licensed.
- · All first-time hunters are required to complete a Hunter Education course that teaches safety and laws.
- Hunting laws are strictly enforced by the Massachusetts Environmental Police.
- Deer hunting typically occurs in the early morning hours in the fall and winter when fewer other people are outdoors.
- Hunting and other outdoor recreation activities like birdwatching and hiking have taken place concurrently throughout Massachusetts for decades without issue.

#### Hunting is an important conservation tool

- Deer are common and abundant in Massachusetts.
  In areas where hunting is limited, deer populations
- In areas where hundrig is limited, deer populations exceed management goals set by biologists.
- Many towns in eastern Massachusetts have more deer than the habitat can sustainably support.
- Without population management, deer become overabundant, increasing habitat damage and risks to public safety from vehicle collisions.
- Each year, approximately 1 out of every 115 drivers is involved in a deer-vehicle collision in Massachusetts.
   Far more human injuries and deaths occur from deer-vehicle collisions than from hunting.
- Every state in the country relies on legal, regulated hunting to manage deer populations.
- Revenue from hunting licenses is used to conserve all wildlife species and their habitats.

#### Hunting provides food for families



When there are too many deer on the landscape, they overbrowse tree saplings and seedlings. This degrades forest health and negatively impacts many other kinds of wildlife and plants.

- · Deer are harvested for a legitimate purpose and do not go to waste.
- · Free range, organic venison is a healthy protein with a low carbon footprint that feeds many families.

## Massachusetts' Hunters Share the Harvest Program

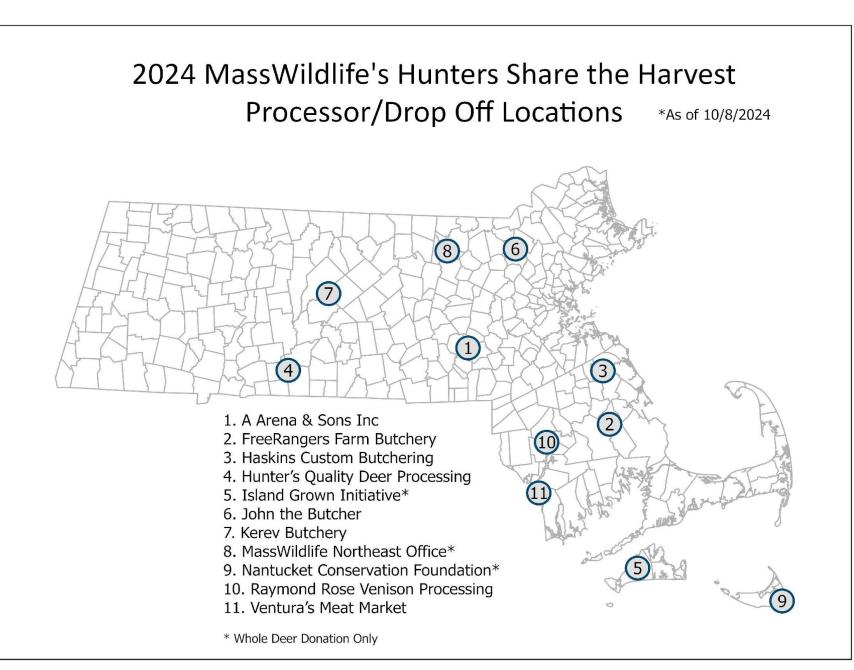
UNTERS

ting hunger in Massachuset



Collaboration with Mass Audubon & Daniel's Table

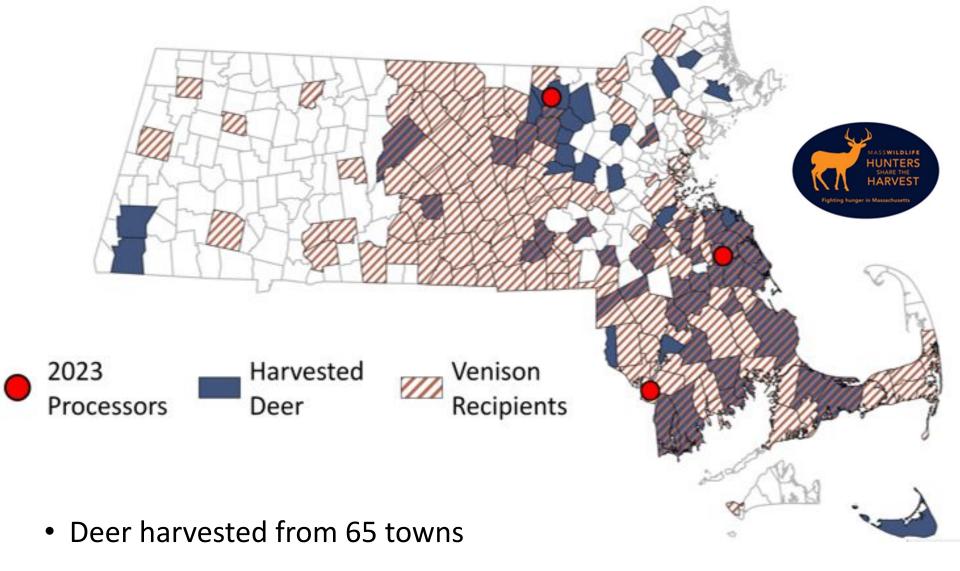




# **Expanding the Program's Impact**

- Mass Military Support Foundations' Food4Vets
- 2. Nantucket Food, Fuel, & Rental Assistance
- 3. Food Bank of Western Massachusetts
- 4. Daniel's Table
- 5. Herring Pond Wampanoag Tribe
- 6. Wampanoag Tribe of Aquinnah
- 7. IGI Island Food Pantry
- 8. Kinship Heals
- 9. Loaves & Fishes Food Pantry
- 10. Ludlow Veterans Center
- 11. Worcester County Food Bank
- 12. Northampton Survival Center





• Distributed to >5,200 families from 157 towns

# **Points for Discussion**

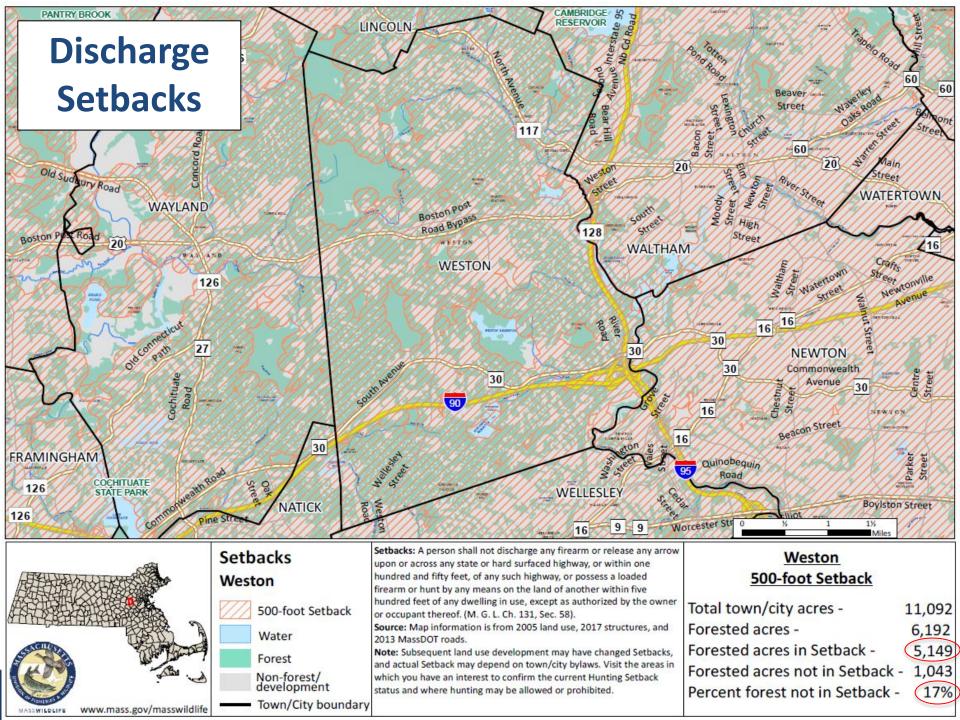
- Advice to offer
- Identify barriers preventing hunting access
- What do you need to affect change?
  - Specific resources, tools, or assistance
  - From whom?
- Communication and messaging
  - How to effectively communicate about hunting
  - Who is the appropriate messenger?
  - What's the message?





# **Deer Management Key Messages**

- Regulated hunting is the most effective method
  - More restrictions = less effective
- It's a long-term commitment
- It doesn't have to be expensive, complicated, or time-consuming
- It may be controversial
- The more careful, planning, coordination, and communication, the better



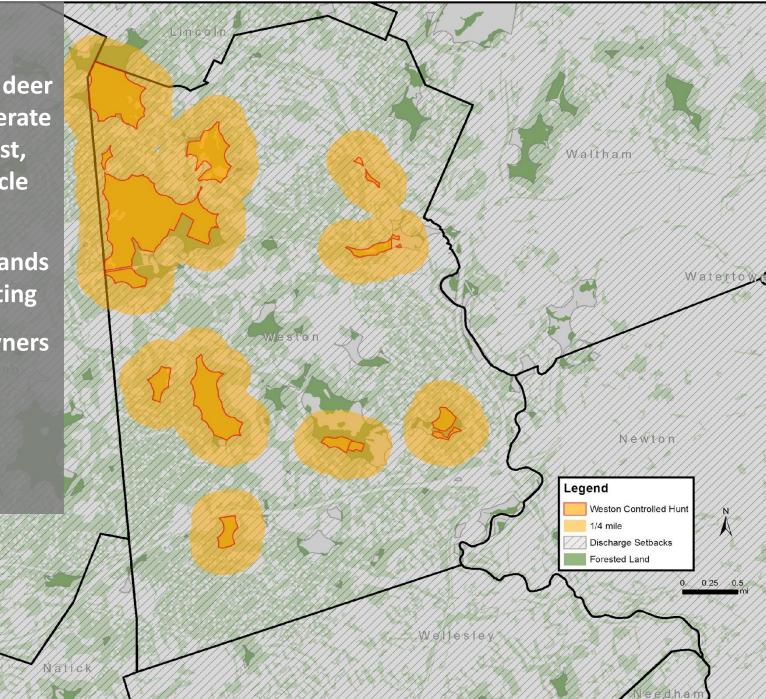
### Weston:

Saw increasing deer numbers, moderate impacts to forest, increasing vehicle collisions, etc.

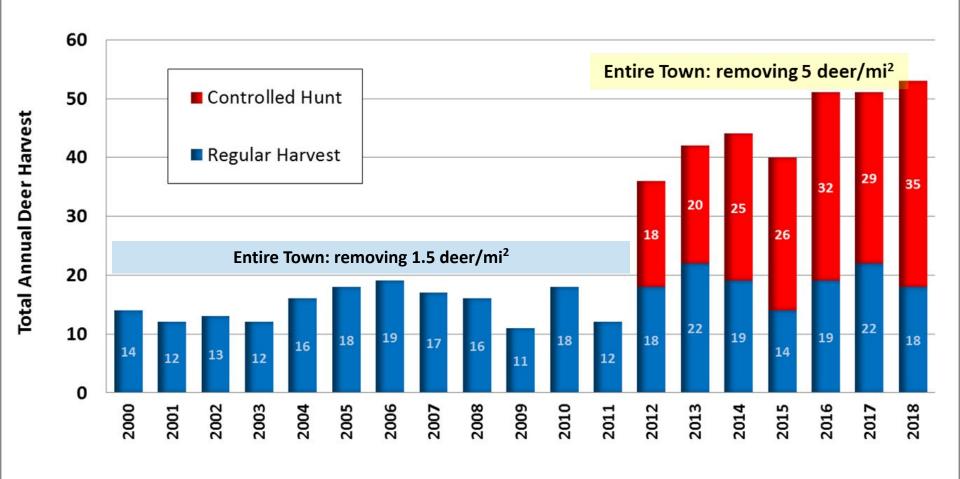
Opened town lands to archery hunting

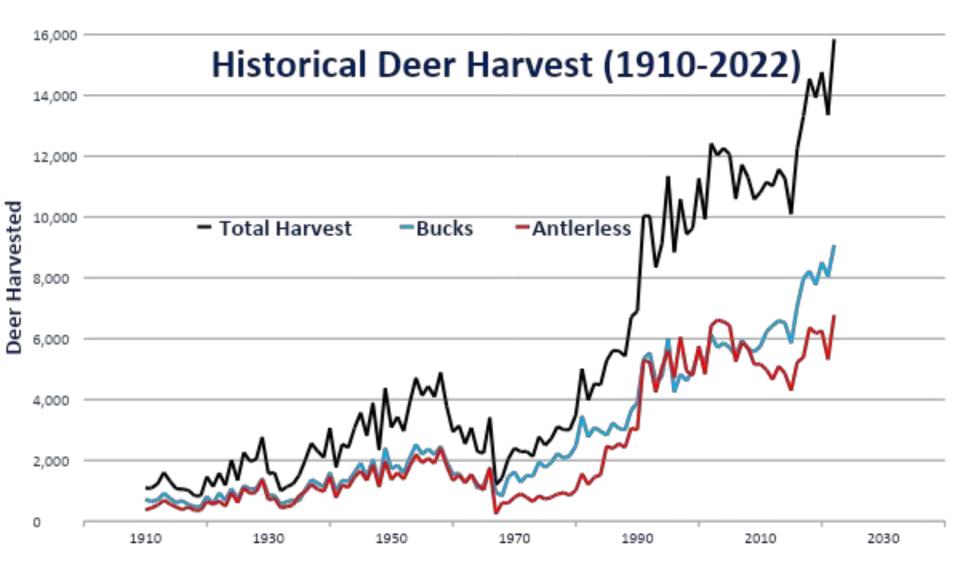
Nearby landowners have given permission to hunters to be within 500ft.

aminaham



### **Total Annual Deer Harvest: Weston**





## Are there any non-lethal options?

### Contraception

- Surgical Sterilization
  - Near 100% effective at preventing pregnancy
- Chemical contraception
  - Near 80% effective at preventing pregnancy with boosters

### • Research conclusions

- Can be effective at preventing pregnancy
  - May not be feasible (difficult and expensive to treat all females)
- Does not reduce deer numbers because deer have to die
  - Adult females can live over 10-20 yrs
  - Research in MA found adult female survival rates above 90%
  - Not shown to significantly reduce high deer numbers
  - Can potentially stabilize deer numbers if you can keep out new deer



#### Original Article

Efficacy of surgical sterilization for managing overabundant suburban white-tailed deer

Jason R. Boulanger 🖾, 🛛 Paul D. Curtis

First published: 26 October 2016 Full publication history