dcr Department of Conservation and Recreation

Massachusetts
Forest Fire Control and Forestry
Hazard Fuels Management
2009-2012
Southeast Massachusetts

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DCR
Bureau of Forest Fire Control and Forestry

Forest Fire Control Responsibilities

Providing aid and assistance in the prevention, detection and suppression of forest fires to cities and towns since 1911.

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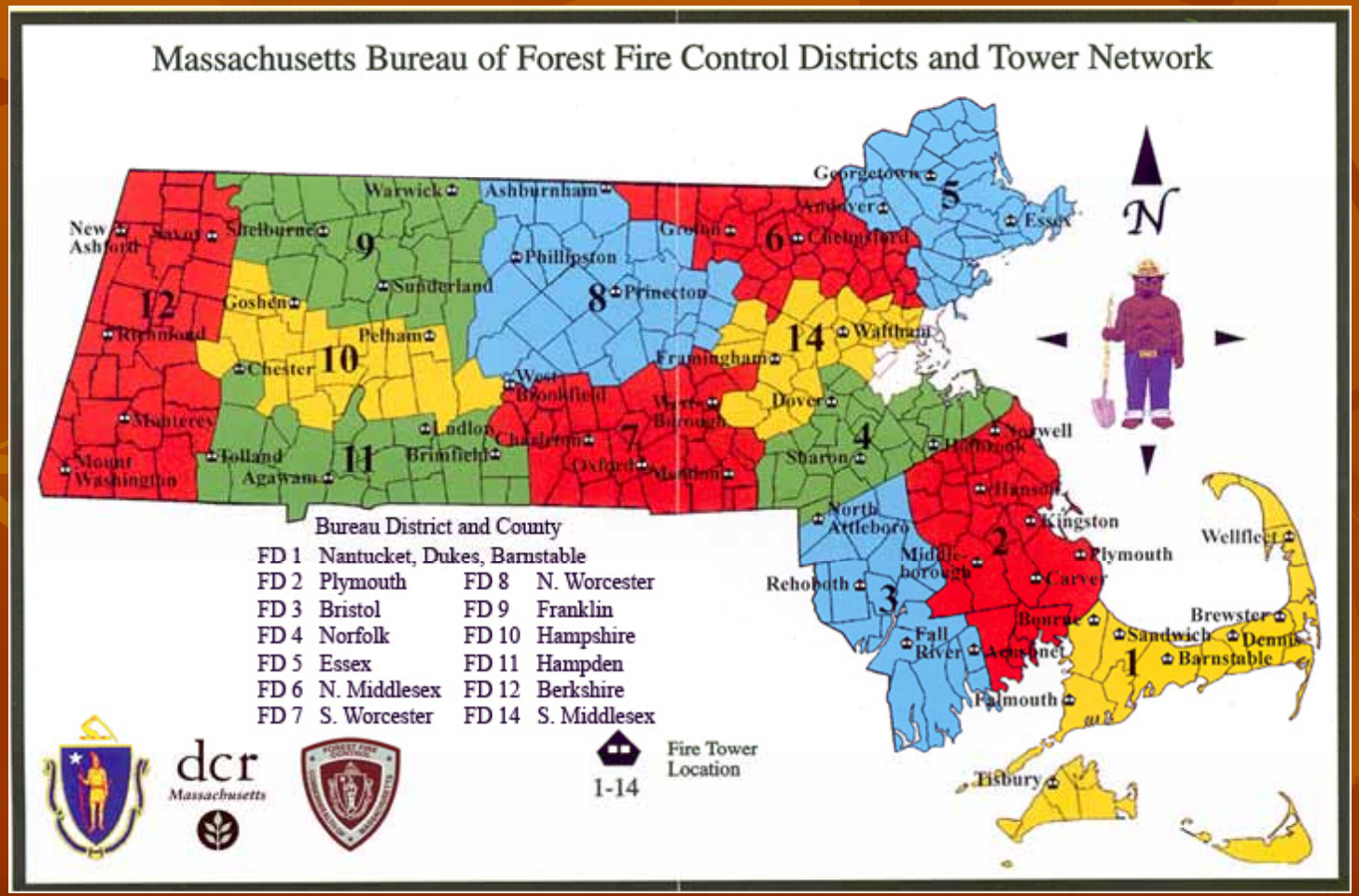


Brief Fire History of Massachusetts

1887: Bourne, 25,000 acres
1927: Townsend State Forest into NH, 16,000 acres.
1927: Erving to Wendell, 7,000 acres
1927: Montague Plains Fire Destroys Village of Lake Pleasant
1923: Bourne, 25,000 acres, 7 days
1937: Bourne, 300 acres, 2 firefighters killed
1937: Hyannis, 2000 acres
1941: Marshfield, 550 buildings destroyed
1957: Plymouth, 15,000 acres, 3000 fought fire, which had a 35 mile perimeter
1963: Plymouth, 530 acres
1964: Plymouth, 5500 acres, destroyed 26 buildings
1965: Sandwich, 5,000 acres
1966: Plymouth/Wareham 535 acres
1995: Russell, 1100 acres, Mt. Tekoa
2000: South Hadley, 310 acres, 14 days, Lithia Springs Watershed
2000: Erving, 140 acres, 7 days, Hermit Mountain
2001: Ware, 400 acres
2010: Russell, 320 acres, Mt. Tekoa

Wildfire crosses route 6 in Sandwich, during a large fire in May of 1965


Cambridge /
Boston Line
2009
7 Acres – Human
Caused

Fire History Plymouth

1957 Fire

- May 8, 1957
- 15,000 Acres
- 12 Miles End to End
- 35 Mile Perimeter

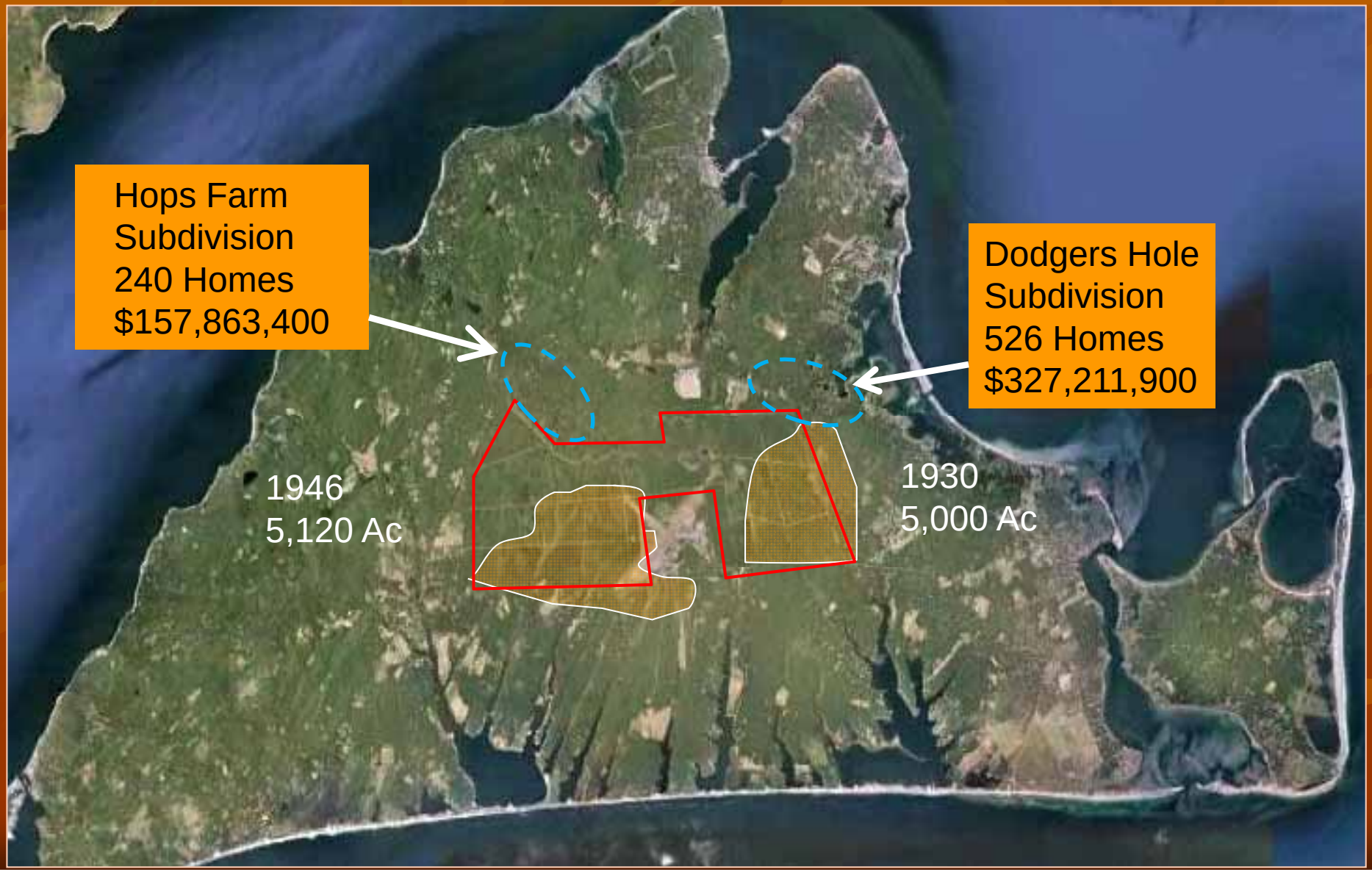
1964 Fire

- May 23, 1964
- May 25, 1964
- 5,500 Acres

Vineyard Fire History Snapshot

1875	7-10,000 Ac	Quompacha Bottom
1909	10,000 Ac	Plains
1916	12,000 Ac	W. Tisbury to Farm Neck
1927	6,400 Ac	Dr. Fisher Road
1935	4,000 Ac	Edgartown to Katama
1939	4,000 Ac	Quompacha Bottom
1946	5,120 Ac	Tisbury Great Pond
1965	1,200 Ac	Great Plains to Katama

Vineyard Fire History



Plymouth
Mast Road Subdivision


1-3
DISTRICT PATROL

Fire Behavior Potential

Fall Burn
Martha's Vineyard

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American Recovery and Reinvestment Act of 2009 (ARRA)

Southeast Mass Hazardous Fuels Mitigation and Ecosystem Restoration Project

- DCR Awarded $ 1.974 Million grant for project
- Duration of Project: July 2009 – November 2011
- Partnership with The Nature Conservancy

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Southeast Mass Hazardous Fuels Mitigation and Ecosystem Restoration Project

- **Preserved 13 DCR Fire Management Jobs**
- **Funded 5 TNC Seasonal Fire Management Jobs**
- **Supported private sector jobs through contracted mechanical fuels treatment.**

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Project Deliverables

- Wildland Fire Training for Southeast – 150 FF's
- Prescribed Fire Plans DCR and Partnership Lands 1,800 acres
- Provide 6 Firewise Community Programs
- 7 Community Wildfire Protection Plans
- Provide 20 Fire Prevention Programs
- 400 Acres of Prescribed Fire Treatment – State
- 200 Acres of Prescribed Fire Treatment - Partners
- 600 Acres of Mechanical Fuels Treatment- State

DCR Forest Fire Control

Hazard Fuels Management 2010

MSSF Objectives:

- **Hazard Fuels Reduction**

- **Ecosystem Restoration**

- **Fire Training**

Hazard Fuels Reduction

- Exclusion of fire from the environment vegetation/fuels have reached very high to extreme levels.
- Realizing the importance and need for fuel reduction, DCR has taken a pro-active approach to this very important issue.
- Prescribed fire, mechanized mowing , and removal of dead and dying vegetation are just a few methods DCR has used to mitigate this problem.

Before Fire Treatment

After Fire Treatment

Ecological Restoration

- Maintains and improves habitat quality
- Shrublands are the most important natural community for rare and endangered Lepidoptera (moth & butterflies) in MA
  - 41% of State listed moths and butterflies associated with schrubland barrens.
- Fire is a natural disturbance; it is a preferred method of habitat management in fire-adapted communities
- Frost Bottom Ecosystems

Fire Training

- DCR and local Fire Departments utilize Prescribed Burns for valuable fire training.
- Fire Behavior
- Tactics
- Equipment

- ***"95% of my firefighters have never seen the potential fire behavior out of this forest".***

Plymouth Fire Chief
2009

Fire Training

CL 415
Martha's Vineyard

Community Wildfire Protection Plans / Firewise Programs

- 6 CWPP's

- Landowners
- Town Officials
- Fire Departments
- Stakeholders

MSSF Fuels Treatment Process

- Determine needs and area
- Prescribed Fire Plan
- Permission from local Fire Department
- Department of Environmental Protection
- Natural Heritage & Endangered Species Program
- Local Conservation Commission
- Notification to public and abutting land owners

Mechanical Fuels Treatment

Before Treatment

Mechanical Fuels Treatment

Product From
Mechanical Treatment

- Firefighter Safety
- Structure Protection
- Habitat Restoration

MSSF Fuels Treatment Burn Plan

- Location and sketch map
- Purpose and objectives
- Description of the stand, fuels, and topography
- Optimum weather and fuel conditions
- Smoke management information
- Contacts
- Preparation required
- Firing techniques
- Patrol, mop up, and escaped fire procedures
- Special precautions
- Medical & emergency procedures
- Evaluation information

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Fuels Treatment Burn Plan

PRESCRIBED FIRE GO/ NO-GO CHECKLIST

SIGNED OFF BEFORE FIRE IS PUT ON THE GROUND

- **A**. Has the burn unit experienced unusual drought conditions or does it contain above normal fuel loadings which were not considered in the prescription development? If NO proceed with checklist below, if YES go to item B.
- **B**. If YES, have appropriate changes been made to the Ignition and Holding plan and the Mop Up and Patrol Plan? If YES, proceed with checklist below, if NO, STOP.

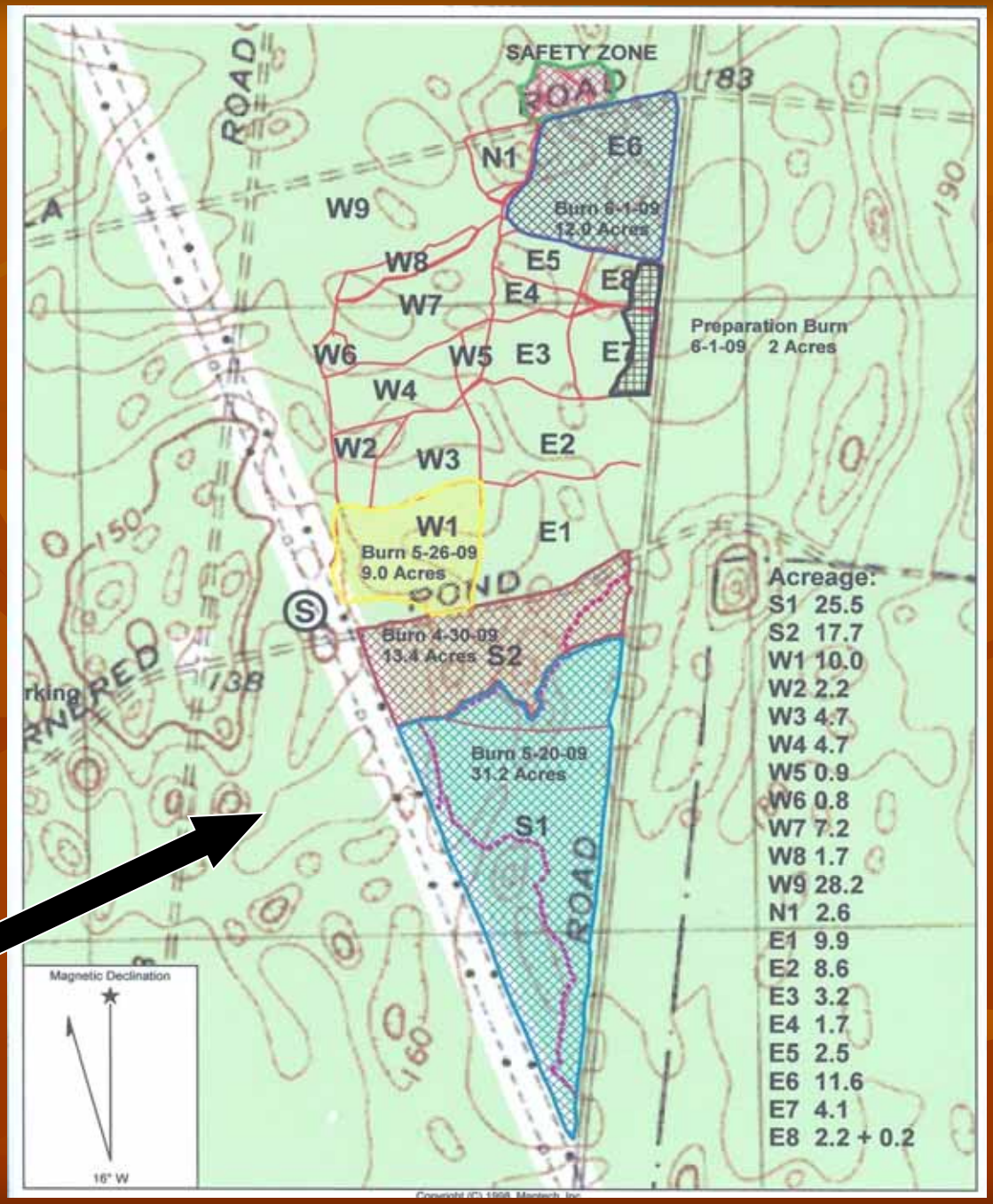
- Are ALL prescription elements met?
- Are ALL smoke management specifications met?
- Has ALL required current and projected fire weather forecast been obtained and are they favorable?
- Are ALL planned operations personnel and equipment on-site, available, and operational?
- Has the availability of ALL contingency resources been checked and are they available?
- Have ALL personnel been briefed on the project objectives, their assignment, safety hazards, escape routes, and safety zones?
- Have all the pre-burn considerations identified in the Prescribed Fire Plan been completed or addressed?
- Have ALL the required notifications been made?
- Are ALL permits and clearances obtained?
- In your opinion, can the burn be carried out according to the Prescribed Fire Plan and will it meet the planned objective?

How We Burn

Based on fire weather, fuel conditions, topography, and resource objectives, Burn Boss will:

- Determine a starting point
- Choose Ignition Patterns
- Start with a test fire

Example: 2009 Burn Units at Myles Standish State Forest



Smoke Management

- DCR Forest Fire Control Personnel are highly trained in Smoke Management techniques to minimize the impact smoke on surrounding Communities
- Each prescribed fire will have a stringent Smoke Management Plan that will adhered to through-out the burning process.
- DCR uses computer smoke modeling, observation towers and roving smoke monitors to advise of any negative smoke impacts
- In the event of any negative impact from poor smoke dispersion, the prescribed burn will be terminated immediately

Example of good atmospheric smoke dispersion

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Meeting Prescribed Fire Objectives Using Partnerships

Partnering agencies assisting DCR:

The Nature Conservancy

Mass Military Reservation

Mass Division of Fish and Wildlife

U.S. Fish and Wildlife Service

Municipal Fire Departments

NPS Cape Cod National Seashore

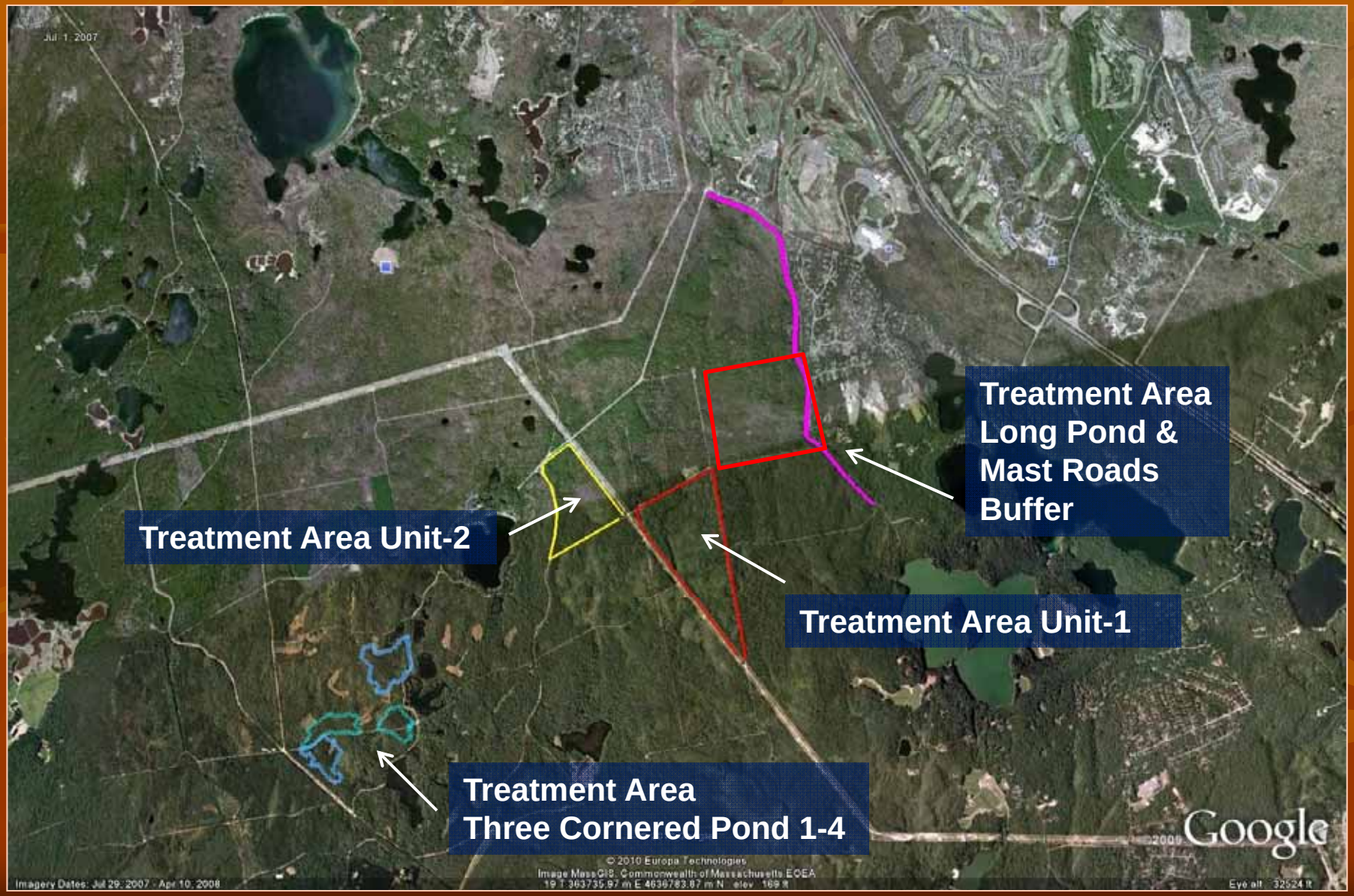
Trustees of Reservation

** Forest Service- NA

** National Weather Service - Taunton

Hazardous Fuels Mitigation and Ecosystem Restoration Project

MSSF Fuels Treatment Over View



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MCSF Fuels Treatment 2011

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Accomplishments

- ✓ 13 Public Education Programs
- ✓16 Firefighter Trainings – 170 FF's Trained
- ✓27 Fire Prevention Programs
- ✓ 6 Firewise and Urban Interface Programs
- ✓ 43 Firewise Home Assessments
- ✓ 6 Community Wildfire Protection Plans

- ✓61 Hazard Fuel Mitigation Projects
  - 617.6 Acres burned on State Lands
  - 871 Acres burned on Partnership Lands
  - 688 Acres Mechanical on State Lands