

LOW COMPLEXITY PRESCRIBED FIRE PLAN: KENT'S POINT

| DESCRIPTION OF PRESCRIBED FIRE AREA (ELEMENT 4) | | | | | | | | | |
|---|----------------|--|---------------------------------|--------------------------------------|---|--|-------------|--------------|---|
| SW Corner Coordinates | | Town | | County | | State | | | |
| N 41°46'22.19" | W 69°58'20.75" | Orleans | | Barnstable | | MA | | | |
| Owner | | | Manager | | | Burn Unit Acres | | | |
| Town of Orleans | | | Orleans Conservation Commission | | | 2.0 | | | |
| Plant Communities and Fuel Models with Brief Description of Conditions and Topography | | | | | | | | | |
| Leaf/needle litter and low shrubs are the primary fire carrier (FM TL2). Predicted spread rate and flame length is low. The burn unit is flat with minimal slope. | | | | | | | | | |
| Project Boundaries: | | Burn unit bordered on the south side by a trail. Combinations of mowed fire breaks, a scratch line, and/or hose lays will make up the remaining boundaries. | | | | | | | |
| Surrounding Fuels, Vegetation, and Topography: | | Fuels and vegetation adjacent to the unit are similar to fuels in the unit. Residential development borders the burn unit to the north. The area is flat. | | | | | | | |
| Unique and Sensitive Features: | | None. | | | | | | | |
| GOALS AND OBJECTIVES (ELEMENT 5) | | | | | | | | | |
| Goals: | | <ul style="list-style-type: none"> Fuel hazard Reduction Wildland Firefighter Training Ecological Restoration | | Objectives: | | <ul style="list-style-type: none"> Burn ≥ 60% of substrate & low shrub layers with ≥ low severity. Provide training assignments for 1 to 2 fire fighters. Conduct all operations without incident (smoke impact, escape, and/or injury) | | | |
| FUNDING (ELEMENT 6) | | | | | | | | | |
| Source: | | A Barnstable County Cooperative Extension Fire Preparedness grant awarded to town. | | | | | | | |
| PRESCRIPTION (ELEMENT 7) | | | | | | | | | |
| Environmental Parameters | | Min. | Max. | Environmental Parameters | | Min. | Max. | | |
| Surface Wind Direction (cardinal): | | All | | EPA PM 2.5 Index: | | 0 | 75 | | |
| Mid-flame Wind Speed (mph): | | 0 | 8 | EPA Ozone Index: | | 0 | 50 | | |
| 20 Foot Wind Speed (mph): | | 0 | 22 | 1 Hour Fuel Moisture (%): | | 6 | 12 | | |
| Mixing Height (ft): | | 1200 | None | 10 Hour Fuel Moisture (%): | | 8 | None | | |
| Transport Wind Direction (cardinal): | | Any | | 100 Hour Fuel Moisture (%): | | 10 | None | | |
| Transport Wind Speed (mph): | | 8 | None | Live Herbaceous Fuel Moisture (%): | | None | None | | |
| Ventilation Rate (mph/ft): | | N/A | N/A | Live Woody Fuel Moisture (%): | | None | None | | |
| Atmospheric Dispersion Index: | | 20 | N/A | Air Temperature (°F): | | 35 | 90 | | |
| Low Vis. Occurrence Risk Index (Day): | | None | 5 | Relative Humidity (%): | | 30 | None | | |
| Days Since Appreciable Rain (>0.2"): | | N/A | N/A | Probability of Ignition (%): | | None | 60 | | |
| Keetch-Byram Drought Index (KBDI): | | None | 199 | | | | | | |
| Fire Behavior Parameters (TL2) | | Min. | Max. | Fire Behavior Parameters (-) | | Min. | Max. | | |
| Head Fire Rate of Spread (ch/hr): | | 1 | 3 | Head Fire Rate of Spread (ch/hr): | | - | - | | |
| Head Fire Flame Length (ft): | | .4 | 1 | Head Fire Flame Length (ft): | | - | - | | |
| Backing Fire Rate of Spread (ch/hr): | | .2 | .3 | Backing Fire Rate of Spread (ch/hr): | | - | - | | |
| Backing Fire Flame Length (ft): | | .3 | .6 | Backing Fire Flame Length (ft): | | - | - | | |
| SCHEDULING (ELEMENT 8) | | | | | | | | | |
| Expected Burn Duration (hrs): | | Setup | 1 | Operations | 2 | Breakdown | 1 | Total | 4 |
| Ignition Time Frame (Season, Growing/Dormant, Months): | | Growing season (May-Sept.) or Dormant season (Oct.-March) | | | | | | | |
| Constraints (Burn Ban, Fire Weather Watch, Days, Other): | | <ul style="list-style-type: none"> No burning will take place during a burn ban issued by the state/town or during National Weather Service issued fire weather watch. Burning will follow parameters in DEP air quality burn permit | | | | | | | |

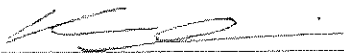


ONLY FOR USE WITH PRESCRIBED BURNS RATED AS LOW COMPLEXITY --- FEW PERSONNEL AND EQUIPMENT ARE REQUIRED, LOW NEGATIVE THREAT OR IMPACT ON AND OFF SITE, MINIMAL RISK TO THE PEOPLE INVOLVED IN THE OPERATION, AND USUALLY SMALL ACREAGE.

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| PRE-BURN CONSIDERATIONS AND WEATHER (ELEMENT 9) | | | | | | | | | | | | | |
|---|-----------------|---|---------------------------|---------|----------------------------|--|-----------------|----------------|------------------|------|--|--|--|
| On and Off Site Considerations: | | Establish working water source ≥200 gallons to re-fill backpack pumps and/or supply hose lay if needed | | | | | | | | | | | |
| Method/Frequency for Obtaining Forecasts: | | http://forecast.weather.gov/product.php?site=NWS&format=Ci&version=1&glossary=0&highlight=off&issuedby=BOX&product=FWF | | | | | | | | | | | |
| Notifications: | | <ul style="list-style-type: none"> • Orleans Fire Department • Orleans Conservation Commission • MA DEP Air Quality (email) | | | | <ul style="list-style-type: none"> • MA DCR • Neighboring residents | | | | | | | |
| ORGANIZATION AND EQUIPMENT (ELEMENT 11) | | | | | | | | | | | | | |
| Positions and Number: | | • 1 Burn Boss | | | • 1 FFT1 | | | • 3 FFT2's | | | | | |
| Equipment: | | • 2-drip torches | | | • 6-backpack pumps | | | • 4-hand tools | | | | | |
| | | • cell phone | | | • PPE for operational crew | | | • 3 radios | | | | | |
| Supplies: | | • 5 gallons torch mix | | | • | | | • | | | | | |
| COMMUNICATION (ELEMENT 12) | | | | | | | | | | | | | |
| Radio Freq: | Function | | Command/Tactical – DCR 14 | | | | | | | | | | |
| | Ch. | Mode | RX Freq. | 151.310 | RX CG/NAC | 71.9 | TX Freq. | 151.310 | TX CG/NAC | 71.9 | | | |
| | Function | | | | | | | | | | | | |
| | Ch. | Mode | RX Freq. | | RX CG/NAC | | TX Freq. | | TX CG/NAC | | | | |
| Telephone Numbers: | | <ul style="list-style-type: none"> • Orleans Fire Department: 508-255-0050 • Orleans Conservation Agent John Jannell: 508-240-3700 x425 | | | | <ul style="list-style-type: none"> • MA DCR District 1 Warden: 508-889-4094 (cell) • MA DEP Air Quality John Paino: 508-946-2744 | | | | | | | |
| PUBLIC AND PERSONNEL SAFETY, MEDICAL (ELEMENT 13) | | | | | | | | | | | | | |
| Safety Hazards: | | Tripping, bees, poison ivy, and ticks (tick borne diseases) | | | | | | | | | | | |
| Measures Taken to Reduce Hazards: | | Proper PPE worn and information regarding insects given during briefing | | | | | | | | | | | |
| Emergency Medical Procedures: | | Establish command of medical incident, initiate first aid, contact EMS if needed | | | | | | | | | | | |
| Emergency Evacuation Procedures: | | Stabilize victim in safe area, call 911 for ambulance | | | | | | | | | | | |
| Emergency Medical Facilities: | | <p>Cape Cod Hospital (no burn unit): 27 Park St, Hyannis MA (508) 771-1800 Appx. 35 min by ground</p> <p>Massachusetts General Hospital (burn center): 55 Fruit St, Boston MA (617) 726-3354 Appx. 1 hr. 50 min by ground</p> | | | | | | | | | | | |
| TEST FIRE (ELEMENT 14) | | | | | | | | | | | | | |
| Planned Location and Procedures: | | Downwind side of unit in relative fuels | | | | | | | | | | | |
| IGNITION PLAN (ELEMENT 15) | | | | | | | | | | | | | |
| Firing Methods: | | Strip head and dot firing with drip torches, fusees, and/or propane torch | | | | | | | | | | | |
| HOLDING PLAN (ELEMENT 16) | | | | | | | | | | | | | |
| General Procedures: | | Burn into wind against green and/or wet fuels. Extinguish backing fire with backpack pumps, hand tools, and hoses. | | | | | | | | | | | |
| CONTINGENCY PLAN (ELEMENT 17) | | | | | | | | | | | | | |
| <ul style="list-style-type: none"> • Fire leaves property: Notify fire department and shut down burn • Smoke impacts on sensitive or critical receptors: Shut down burn • Fire exceeds control capabilities of on-site resources: Shut down burn, notify DCR Fire Control • Objectives not being met: Shut down burn or adjust ignition tactics | | | | | | | | | | | | | |

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| WILDFIRE CONVERSION (ELEMENT 18) | | | |
|--|---|--------------------------|--|
| Wildfire Declared By: | Burn Boss | | |
| Notifications, and Possible Actions: | Notify Orleans Fire Department and request additional resources | | |
| Fire Dept. Location and Approx. Response Time: | Orleans Fire Department located 1.9 miles from burn unit, 10 min approximate response time | | |
| SMOKE MANAGEMENT AND AIR QUALITY (ELEMENT 19) | | | |
| Compliance & Permitting: | <ul style="list-style-type: none"> ▪ Fire Department notification of intent to burn prior to ignition. ▪ DEP notification of intent to burn prior to ignition. ▪ Day of burn verbal authorization from the Fire Chief or senior duty officer of the Orleans Fire Department. | | |
| Smoke Sensitive Receptors: | • Residences to the north • | | |
| Potential Impacted Areas: | • Residences to the north • Residential streets to the north and east • | | |
| Mitigation Strategies & Tactics: | Follow best management practices for smoke management and notify immediate abutters prior to burning | | |
| POST-BURN ACTIVITIES (ELEMENT 21) | | | |
| Required Post-Burn Activities: | • The unit needs to be checked every day between 11:00 and 14:00 until an appreciable rain event or the burn boss declares the unit 100% out. | | • Fire effects monitoring and post burn photos should be completed within 7 days of the burn's completion. |
| APPENDICES (*REQUIRED) | | | |
| *Ortho Photo Unit Map: | X | Fire Behavior Outputs: | Supplemental Notifications: |
| *Smoke Screening Map: | X | Emission Model Outputs: | Job Hazard Analysis: |
| Topographic Relief Map: | | Organizational Chart: | Complexity Rating Info.: |
| Vegetation/Fuel Map: | | | |
| SIGNATURES AND APPROVALS (ELEMENT 1) | | | |
| Plan Preparer: |  Kate Sullivan FEMO/ICT5 Northeast Forest and Fire Management, LLC | | Date: 11/17/2015 |
| Technical Reviewer Approval: |  Joel Carlson ICT4/RXB2 Northeast Forest and Fire Management, LLC | | Date: 11/17/15 |
| Final Complexity Rating: | LOW | Minimum RXB Requirement: | Prescribed Burn Boss Type 3 (RXB3) |
| Agency Administrator Approval: |  John Jannell Conservation Agent Town of Orleans | | Date: 11/23/15 |

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| COMPLEXITY ANALYSIS (ELEMENT 3) | | | |
|--|------|------------------------|----------------------|
| ELEMENT | RISK | POTENTIAL CONSEQUENCES | TECHNICAL DIFFICULTY |
| 1. Potential for Escape | LOW | MOD | LOW |
| 2. The Number and Dependence of Activities | LOW | LOW | LOW |
| 3. Off-Site Values | LOW | MOD | LOW |
| 4. On-Site Values | LOW | LOW | LOW |
| 5. Fire Behavior | LOW | LOW | LOW |
| 6. Management Organization | LOW | LOW | LOW |
| 7. Public and Political Interest | MOD | LOW | LOW |
| 8. Fire Treatment Objectives | LOW | LOW | LOW |
| 9. Constraints | LOW | LOW | LOW |
| 10. Safety | LOW | LOW | LOW |
| 11. Ignition Procedures/Methods | LOW | LOW | LOW |
| 12. Interagency Coordination | LOW | LOW | LOW |
| 13. Project Logistics | LOW | LOW | LOW |
| 14. Smoke Management | LOW | MOD | LOW |

| | |
|-----------------------------------|------------|
| Overall Risk: | LOW |
| Overall Potential Consequences: | LOW |
| Overall Technical Difficulty: | LOW |
| Summary Complexity Rating: | LOW |

Complexity Rating Rational: The low potential for escape due to surrounding vegetation and fuel breaks, the small size of the unit, and the low fuel loads allow this burn to be completed with minimal staffing, equipment, and supplies given desirable weather conditions.

To use the low complexity prescribed fire plan no individual element can be rated as high, no overall rating can be rated as moderate, and the summary complexity rating **MUST BE LOW**.

| SIGNATURES | |
|--|------------------|
| Prepared By:  | Date: 11/11/2015 |
| Kate Sullivan ICTS Northeast Forest and Fire Management, LLC | |
| Agency Administrator Approval:  | Date: 11/23/15 |
| John Jannell Conservation Agent Town of Orleans | |

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| TECHNICAL REVIEW | | |
|--|-----|---|
| PRESCRIBED FIRE PLAN ELEMENTS | S/U | COMMENTS |
| 4. Description of the Prescribed Fire Area | S | All comments have been addressed prior to approval/signing. |
| 5. Objectives | S | All comments have been addressed prior to approval/signing. |
| 6. Funding | S | All comments have been addressed prior to approval/signing. |
| 7. Prescription | S | All comments have been addressed prior to approval/signing. |
| 8. Scheduling | S | All comments have been addressed prior to approval/signing. |
| 9. Pre-Burn Considerations and Weather | S | All comments have been addressed prior to approval/signing. |
| 11. Organization and Equipment | S | All comments have been addressed prior to approval/signing. |
| 12. Communications | S | All comments have been addressed prior to approval/signing. |
| 13. Public and Personnel Safety, Medical | S | All comments have been addressed prior to approval/signing. |
| 14. Test Fire | S | All comments have been addressed prior to approval/signing. |
| 15. Ignition Plan | S | All comments have been addressed prior to approval/signing. |
| 16. Holding Plan | S | All comments have been addressed prior to approval/signing. |
| 17. Contingency Plan | S | All comments have been addressed prior to approval/signing. |
| 18. Wildfire Conversion | S | All comments have been addressed prior to approval/signing. |
| 19. Smoke Management and Air Quality | S | All comments have been addressed prior to approval/signing. |
| 21. Post-Burn Activities | S | All comments have been addressed prior to approval/signing. |
| 1. Signatures | S | All comments have been addressed prior to approval/signing. |
| 2. Go/No-Go Checklists A and B | S | All comments have been addressed prior to approval/signing. |
| 3. Complexity Analysis | S | All comments have been addressed prior to approval/signing. |
| 10. Briefing | S | All comments have been addressed prior to approval/signing. |
| 20. Monitoring | S | All comments have been addressed prior to approval/signing. |
| APPENDICES - Ortho Photo Unit Map | S | All comments have been addressed prior to approval/signing. |
| APPENDICES - Smoke Screening Map | S | All comments have been addressed prior to approval/signing. |
| APPENDICES - Other | N/A | N/A |
| Other | N/A | N/A |

NOTE: S = Satisfactory and U = Unsatisfactory

| SIGNATURES | |
|---|--|
| Technical Reviewer: _____ | Date: <u>11/17/15</u> |
| Joel Carlson RXB2 Northeast Forest and Fire Management, LLC | |
| Recommended for Approval: <input checked="" type="checkbox"/> | Not Recommended for Approval: <input type="checkbox"/> |
| <input type="checkbox"/> Approval is recommended subject to the completion of all listed in the above comments boxes or on the prescribed fire plan. If the plan is not re-submitted for review and signature then a copy of the review and the prescribed fire plan with any comments should be added to the project file. | |

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AGENCY ADMINISTRATOR IGNITION AUTHORIZATION (ELEMENT 2A)

PRE-IGNITION APPROVAL CHECKLIST INSTRUCTIONS: The Agency Administrator's GO/NO-GO Pre-Ignition Approval is the intermediate planning review process (i.e. between the Prescribed Fire Complexity Rating System Guide and Go/No-Go Checklist) that should be completed before a prescribed fire can be implemented. The Agency Administrator's Go/No-Go Pre-Ignition Approval evaluates whether compliance requirements, Prescribed Fire Plan elements, and internal and external notifications have been or will be completed and expresses the Agency Administrator's intent to implement the Prescribed Fire Plan. If ignition of the prescribed fire is not initiated prior to expiration date determined by the Agency Administrator, a new approval will be required.

| YES | NO | KEY ELEMENT QUESTIONS |
|-----|----|--|
| ✓ | | Is the Prescribed Fire Plan up to date? <i>Example: amendments, seasonality</i> |
| ✓ | | Will all compliance requirements be completed? <i>Example: cultural, threatened and endangered species, smoke management, NEPA</i> |
| ✓ | | Is risk management in place and the residual risk acceptable? <i>Example: Prescribed Fire Complexity Rating Guide completed with rational and mitigation measures identified and documented</i> |
| ✓ | | Will all elements of the Prescribed Fire Plan be met? <i>Example: Preparation work, mitigation, weather, organization, prescription, contingency resources</i> |
| ✓ | | Will all internal and external notifications and media releases be completed? <i>Example: Preparedness level restrictions</i> |
| ✓ | | Will key agency staff be fully briefed and understand prescribed fire implementation? |
| | ✓ | Are there any other extenuating circumstances that would preclude the successful implementation of the plan? |
| ✓ | | Have you determined if and when you are to be notified that contingency actions are being taken and will this be communicated to the Burn Boss? |
| | | Other: |

SIGNATURES


Recommended By:



Date: 11/17/2015

Kate Sullivan
FEMO/ICTS
Northeast Forest and Fire Management, LLC

Agency Administrator Approval:



Date: 11/23/15

John Jannell
Conservation Agent
Town of Orleans

Date Approval Expires:

11/23/2016

NOTE: Should not exceed 12 months from expected start of burn window.

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PRESCRIBED FIRE GP/NO GO CHECKLIST (ELEMENT 2B)

| | | YES | NO |
|--|----|--|----|
| A. Has the burn unit experienced unusual drought conditions or contain above normal fuel loadings that were not considered in the prescription development? If NO proceed with checklist, 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 Plans? If YES precede with checklist below, if NO STOP . | | | |
| YES | NO | QUESTIONS | |
| ✓ | | Are ALL fire 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? | |

If all the questions were answered "YES" proceed with a test fire. Document the current conditions, location, and results.

| SIGNATURES | |
|---|---|
| Prescribed Burn Boss: <u>Mark K. Teixeira</u> | Date: <u>3/30/16</u> |
| Print Name: <u>Mark K. Teixeira</u> | |
| Print Qualifications: <u>RXB2</u> | |
| Print Agency Name: <u>NE-FFM</u> | <u>Northeast Forest & Fire Management</u> |

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LOW COMPLEXITY PRESCRIBED FIRE PLAN: Insert Site Name and Unit Name

NOTES

None

POST BURN OBSERVATION NARRATIVE

95% + of unit burned
4 Orleans FD trained
No incident

RECOMMENDATIONS NARRATIVE

- Better access to unit needed
- Post signs describing why burned
- Good to close trails

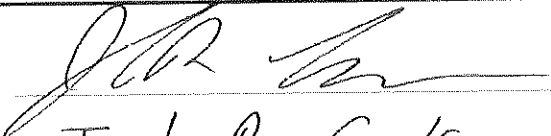
LIST ATTACHMENTS

• Sign EV sheet

• Weather Forecast

SIGNATURES

Burn Boss or Fire Weather Observer:



Date:

03/30/16

Print Name:

Joel R Carlson

Prescribed Burn Position Held:

FEMO

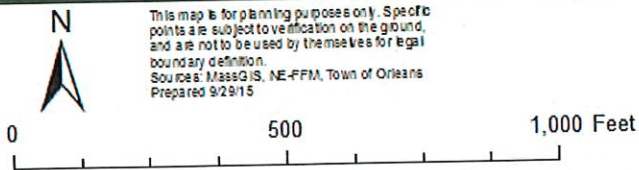
LOW COMPLEXITY PRESCRIBED FIRE PLAN: Insert Site Name and Unit Name

APPENDICES - ORTHO PHOTO UNIT MAP

NOTE: Map must include burn unit extent, north arrow (or similar), and scale bar (or scale ratio).

Kent's Point Conservation Area

**Prescribed Burn Plan
Orleans, MA**



This map is for planning purposes only. Specific points are subject to verification on the ground, and are not to be used by themselves for legal boundary definition.
Sources: MassGIS, NE-FPM, Town of Orleans
Prepared 9/29/15

Legend

| | | |
|----------------|---|-----------------------|
| — EOTROADS_ARC |  | Burn Unit Boundary |
| - - - Trails |  | Kent's Point Boundary |

LOW COMPLEXITY PRESCRIBED FIRE PLAN: Insert Site Name and Unit Name

APPENDICES - SMOKE SCREENING MAP

NOTE: Include maps for all prescribed wind directions and input data. Screenshots from are acceptable. Consider using Southern High Resolution Modeling Consortium – Smoke Products tools (Simple Smoke Screening and/or VSmoke-Web) found at <http://shrmc.ggy.uga.edu/>.

Kent's Point Conservation Area Smoke Screening Map

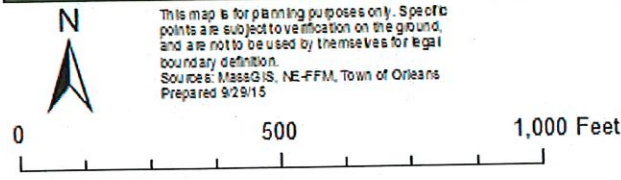
Prescribed Burn Plan
Orleans, MA



This map is for planning purposes only. Specific points are subject to verification on the ground, and are not to be used by themselves for legal boundary definition.
Source: MassGIS, NE-FFM, Town of Orleans
Prepared 9/29/15

Legend

- 500' Smoke Buffer
- Burn Unit Boundary
- Trails
- Kent's Point Boundary



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United States Department of the Interior

NATIONAL PARK SERVICE
Cape Cod National Seashore
99 Marconi Site Road
Wellfleet, Massachusetts 02667

IN REPLY REFER TO:

March 30, 2016

Commonwealth of Massachusetts
Department of Environmental Protection
Southeast Regional Office
20 Riverside Drive
Lakeville, MA 02347

RE: NOTIFICATION of Prescribed Burn

Cape Cod National Seashore (CACO) will assist the Town of Orleans with a prescribed burn at Kent's Point in Orleans on Wednesday, March 30, 2016.

Anticipated ignition time/duration is: 1000 – 1700 hrs.
Approximate Latitude/Longitude: 41° 46.344 / 69° 58.308

NPS Unit ID number: 20160330-Orleans-Assist-Kents-16A
Notes: Total Burn Acreage – Not to exceed 2.0 acres

If you have any questions please contact me at 508-957- 0716 (office) or 508-274-5221 (cell).

Sincerely,

s/
David W. Crary, Jr.
Fire Management Officer

Email routing:
diana.conti@state.ma.us, bchandy@massmail.state.ma.us, john.b.mclaughlin@state.ma.us,
John.Paino@state.ma.us, thomas.mcgrath@state.ma.us, leslie.collyer@massmail.state.ma.us,
emmy.andersen@massmail.state.ma.us, marc.bennett@state.ma.us
JFletcher@bsheriff.net
Barnstable County Dispatch Center
Eastham, Wellfleet, Truro and Provincetown Fire Departments
MA DCR District 1 Fire Control



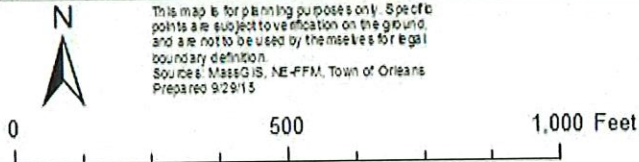
United States Department of the Interior

NATIONAL PARK SERVICE
Cape Cod National Seashore
99 Marconi Site Road
Wellfleet, Massachusetts 02667

IN REPLY REFER TO:

Kent's Point Conservation Area

Prescribed Burn Plan
Orleans, MA



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Source: MassGIS, NE-FPM, Town of Orleans
Prepared: 9/29/15

Legend

- EOTROADS_ARC
- Trails
-  Burn Unit Boundary
-  Kent's Point Boundary

HAZ022-310830-BARNSTABLE MA-INCLUDING THE CITIES OF...BOURNE...CHATHAM...FALMOUTH...HYANNIS...PROVINCETOWN...WELLFLEET
 426 AM EDT WED MAR 30 2016

| | TODAY | TONIGHT | THU |
|---------------------|-------------|-----------|-----------|
| CLOUD COVER | MCLEAR | PCLDY | PCLDY |
| PRECIP TYPE | NONE | NONE | NONE |
| CHANCE PRECIP (%) | 0 | 0 | 20 |
| TEMP /24H TREND/ | 49 (-4) | 40 (+7) | 60 |
| RH % /24H TREND/ | 31 (-2) | 89 (+13) | 64 |
| 20FT WND AM /MPH/ | NW 6 | | SW 18 G34 |
| 20FT WND PM /MPH/ | SW 11 G23 | SW 13 G24 | SW 21 G38 |
| PRECIP AMOUNT | 0.00 | 0.00 | 0.00 |
| PRECIP DURATION | | | |
| PRECIP BEGIN | | | |
| PRECIP END | | | |
| MIXING HGT /FT-AGL/ | 3380 | 410 | 1830 |
| TRANSPORT WND /KTS/ | W 6 | SW 22 | SW 27 |
| VENT RATE /KT-FY/ | 20280 | 9020 | 49410 |
| ADI EARLY | 27 FAIR | 27 FAIR | 29 FAIR |
| ADI LATE | 46 GEN GOOD | 23 FAIR | 29 FAIR |
| MAX LVORI EARLY | 3 | 3 | 4 |
| MAX LVORI LATE | 1 | 3 | 4 |
| CWR | 0 | 0 | 0 |
| LAL | NO TSTMS | NO TSTMS | NO TSTMS |
| HAINES INDEX | 5 | 5 | 5 |

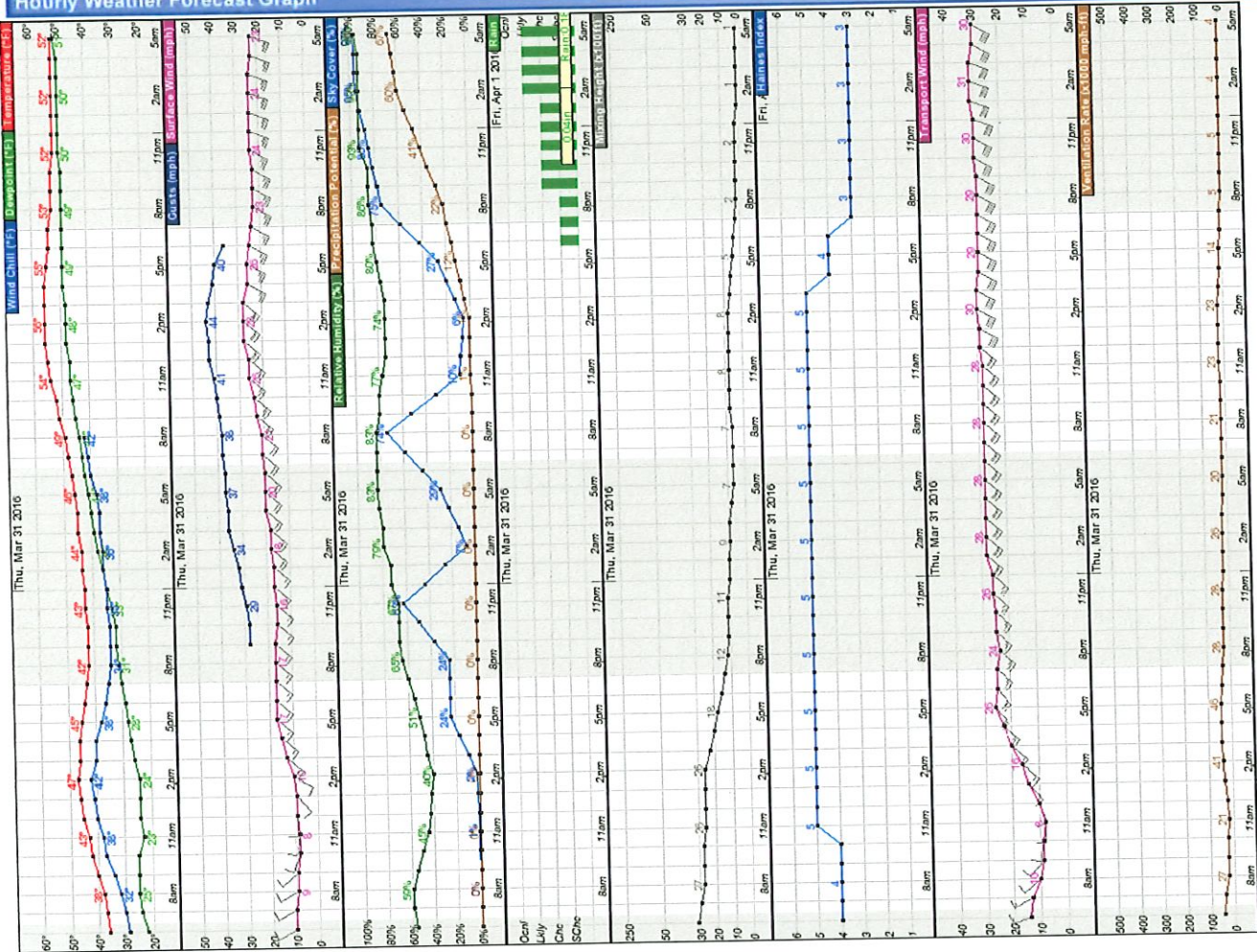
REMARKS...NONE.

.FORECAST FOR DAYS 3 THROUGH 7...
 .THURSDAY NIGHT...BREEZY. MOSTLY CLOUDY WITH SHOWERS LIKELY. LOWS IN THE LOWER 50S. SOUTHWEST WINDS 15 TO 25 MPH.
 .FRIDAY...SHOWERS. HIGHS AROUND 60. SOUTHWEST WINDS 15 TO 20 MPH.
 .FRIDAY NIGHT...MOSTLY CLOUDY WITH A CHANCE OF SHOWERS. LOWS IN THE LOWER 40S. WEST WINDS 10 TO 15 MPH.
 .SATURDAY AND SATURDAY NIGHT...BREEZY. MOSTLY CLOUDY. A CHANCE OF SHOWERS. COOLER. LOWS 36 TO 43. HIGHS AROUND 50. SOUTHWEST WINDS 20 TO 25 MPH.
 .SUNDAY...WINDY. MOSTLY SUNNY WITH A CHANCE OF RAIN SHOWERS. HIGHS IN THE LOWER 40S. WEST WINDS 20 TO 30 MPH.
 .SUNDAY NIGHT...BREEZY. MOSTLY CLEAR. COLDER. LOWS IN THE LOWER 20S. NORTHWEST WINDS 15 TO 25 MPH.
 .MONDAY...MOSTLY SUNNY. HIGHS IN THE UPPER 30S. WEST WINDS 15 TO 20 MPH.
 .MONDAY NIGHT...PARTLY CLOUDY WITH A CHANCE OF SNOW. LOWS AROUND 30. WEST WINDS 10 TO 15 MPH...BECOMING NORTHEAST 5 TO 10 MPH AFTER MIDNIGHT.
 .TUESDAY...PARTLY SUNNY WITH A CHANCE OF RAIN AND SNOW. HIGHS IN THE LOWER 40S. NORTHEAST WINDS 10 TO 15 MPH.

Point Forecast: 2 Miles NE South Orleans MA
 41.77N 69.96W (Elev. 3 ft)

Last Update: 6:34 am EDT Mar 30, 2016

Hourly Weather Forecast Graph



Point Forecast: 2 Miles NE South Orleans MA
 41.77N 69.96W (Elev. 3 ft)

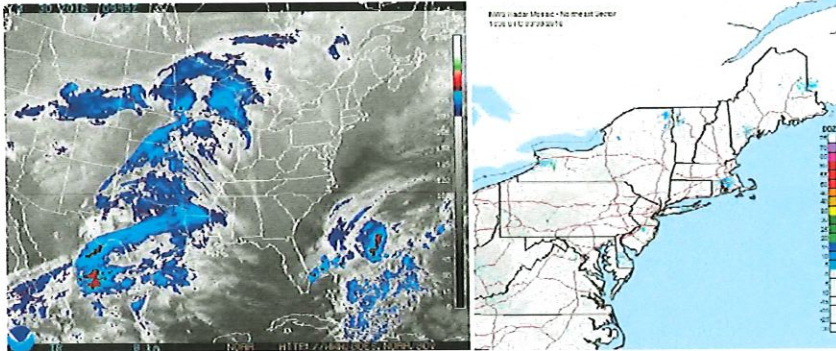
Last Update: 6:34 am EDT Mar 30, 2016

Hourly Weather Forecast Graph

| Date | 03/30 | | | | | | | | | | | | | | | | | | 03/31 | | | | | | |
|---------------------------------|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|----|----|----|----|----|--|
| Hour (EDT) | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 00 | 01 | 02 | 03 | 04 | 05 | |
| Temperature (°F) | 36 | 37 | 38 | 40 | 42 | 43 | 45 | 46 | 47 | 46 | 46 | 45 | 44 | 43 | 42 | 42 | 42 | 43 | 43 | 44 | 44 | 45 | 45 | 46 | |
| Dewpoint (°F) | 22 | 24 | 25 | 25 | 25 | 23 | 24 | 24 | 24 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 32 | 33 | 35 | 36 | 38 | 39 | 40 | 41 | |
| Wind Chill (°F) | 29 | 30 | 32 | 34 | 37 | 38 | 40 | 41 | 42 | 40 | 40 | 38 | 36 | 35 | 34 | 34 | 34 | 35 | 35 | 36 | 36 | 37 | 37 | 38 | |
| Surface Wind (mph) | 10 | 10 | 9 | 9 | 8 | 8 | 9 | 9 | 10 | 13 | 15 | 17 | 17 | 17 | 17 | 16 | 16 | 17 | 17 | 18 | 18 | 20 | 20 | 20 | |
| Wind Dir | NW | NW | NW | NW | W | W | W | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | |
| Gust | | | | | | | | | | | | | | | | 28 | 28 | 29 | 31 | 32 | 34 | 36 | 36 | 37 | |
| Sky Cover (%) | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 9 | 17 | 24 | 24 | 24 | 24 | 37 | 50 | 63 | 44 | 26 | 7 | 14 | 22 | 29 | |
| Precipitation Potential (%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Relative Humidity (%) | 56 | 59 | 59 | 55 | 50 | 45 | 43 | 42 | 40 | 45 | 47 | 51 | 55 | 60 | 65 | 67 | 67 | 67 | 73 | 73 | 79 | 79 | 82 | 83 | |
| Rain | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| Mixing Height (x100ft) | 31 | 29 | 27 | 27 | 27 | 26 | 26 | 26 | 26 | 23 | 20 | 18 | 16 | 14 | 12 | 11 | 11 | 11 | 10 | 10 | 9 | 9 | 8 | 7 | |
| Haines Index | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
| Transport Wind (mph) | 14 | 13 | 10 | 9 | 9 | 8 | 10 | 14 | 16 | 20 | 23 | 26 | 25 | 25 | 24 | 25 | 25 | 26 | 26 | 28 | 28 | 28 | 28 | 28 | |
| Transport Wind Dir | N | NW | NW | NW | W | W | W | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | |
| Ventilation Rate (x1000 mph-ft) | 43 | 38 | 27 | 24 | 24 | 21 | 26 | 36 | 41 | 46 | 47 | 46 | 39 | 34 | 28 | 28 | 28 | 28 | 27 | 27 | 26 | 24 | 22 | 20 | |

| Date | 04/01 | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|-------|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|-----|-----|-----|-----|-----|------|------|------|------|
| Hour (EDT) | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 00 | 01 | 02 | 03 | 04 | 05 | |
| Temperature (°F) | 47 | 48 | 49 | 51 | 52 | 54 | 55 | 56 | 56 | 56 | 56 | 55 | 54 | 54 | 53 | 53 | 53 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | |
| Dewpoint (°F) | 42 | 43 | 44 | 45 | 46 | 47 | 47 | 48 | 48 | 48 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 50 | 50 | 50 | 50 | 50 | 50 | 51 | |
| Wind Chill (°F) | 40 | 41 | 42 | | | | | | | | | | | | | | | | | | | | | | |
| Surface Wind (mph) | 20 | 21 | 21 | 23 | 24 | 26 | 26 | 28 | 28 | 28 | 26 | 26 | 25 | 24 | 23 | 23 | 23 | 24 | 24 | 24 | 24 | 23 | 23 | 23 | |
| Wind Dir | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | S | S | S | S | S | S | |
| Gust | 37 | 38 | 38 | 39 | 40 | 41 | 43 | 43 | 44 | 43 | 41 | 40 | 36 | | | | | | | | | | | | |
| Sky Cover (%) | 44 | 59 | 74 | 53 | 31 | 10 | 9 | 7 | 6 | 13 | 20 | 27 | 43 | 59 | 75 | 78 | 82 | 85 | 88 | 92 | 95 | 96 | 96 | 97 | |
| Precipitation Potential (%) | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 5 | 8 | 12 | 15 | 19 | 22 | 28 | 35 | 41 | 47 | 54 | 60 | 62 | 64 | 67 | |
| Relative Humidity (%) | 83 | 83 | 83 | 80 | 80 | 77 | 74 | 74 | 74 | 74 | 77 | 80 | 83 | 83 | 86 | 86 | 86 | 93 | 93 | 93 | 93 | 93 | 93 | 96 | |
| Rain | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | SChc | SChc | SChc | Chc | Chc | Chc | Chc | Chc | Lkly | Lkly | Lkly | Lkly |
| Mixing Height (x100ft) | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | |
| Haines Index | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| Transport Wind (mph) | 28 | 28 | 28 | 28 | 28 | 28 | 29 | 29 | 30 | 30 | 29 | 29 | 29 | 29 | 29 | 29 | 30 | 30 | 30 | 31 | 31 | 31 | 30 | 30 | |
| Transport Wind Dir | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | S | S | S | S | SW | SW | |
| Ventilation Rate (x1000 mph-ft) | 20 | 21 | 21 | 22 | 22 | 23 | 23 | 23 | 23 | 20 | 17 | 14 | 11 | 8 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | |

Eastern U.S. Sector Infrared: Enhancement 4 and Base Reflectivity (03/30/2016 7:00 AM)



Red Flag Warning Issued by NWS Boston, MA

None – 03/30/2016 – Today 7:00 AM

WEDNESDAY, March 30, updated on Tuesday, March 29 at 7:45am.
 SYNOPSIS: High pressure centered just south of our region provides a mostly sunny day for our area on Wednesday with seasonable temperature levels. Winds will become southwesterly at 10-15 mph. AIR QUALITY: Both fine particle levels and ozone levels should average in the good range on Wednesday. OPEN BURNING ADVISORY: Both air quality and fire safety conditions determine whether conditions are suitable for open burning. Burning is permitted ONLY when both air quality AND burning safety conditions are acceptable. From an AIR QUALITY standpoint, conditions should be ACCEPTABLE statewide on Wednesday. For Mass DEP's latest Open Burning Advisory, call 617-556-1021.

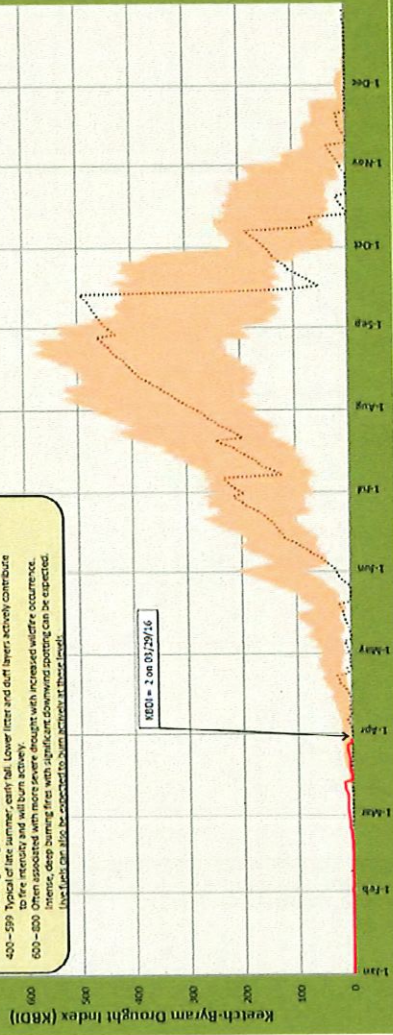
| MA DEP Air Quality Forecast Site | 11/03/2015 - Today | |
|----------------------------------|--------------------|------|
| | PM2.5-F | O3-F |
| Fairhaven Leroy Wood School | 0 | 0 |
| Fall River | 30 | 40 |
| Truro National Seashore | 0 | 40 |
| Wampanoag Tribe of Gay Head | 0 | 40 |

Current Max Pollution Level (12/7/2015 3AM ~ 4AM)

| AQI | Site | Wind | Pollutants | | | |
|-----|--|--------------|------------------------|--------|----------|-----|
| | | | Name | Actual | Unit | AQI |
| 25 | Fairhaven Hastings School (FAIRHAVEN) | (NW) 2.7 mph | Ozone | 0.032 | ppm | 25 |
| 26 | Fall River (FALL RIVER) | | Ozone | 0.034 | ppm | 26 |
| 21 | | | Fine Particles (PM2.5) | 5 | ug/m3 LC | 21 |
| - | | | Sulfur Dioxide (SO2) | 0.0001 | ppm | - |
| 35 | Truro National Seashore (TRURO) | (NW) 3 mph | Ozone | 0.041 | ppm | 35 |
| 38 | Wampanoag Tribe Of Gay Head (AQUINNAH) | | Ozone | 0.043 | ppm | 38 |

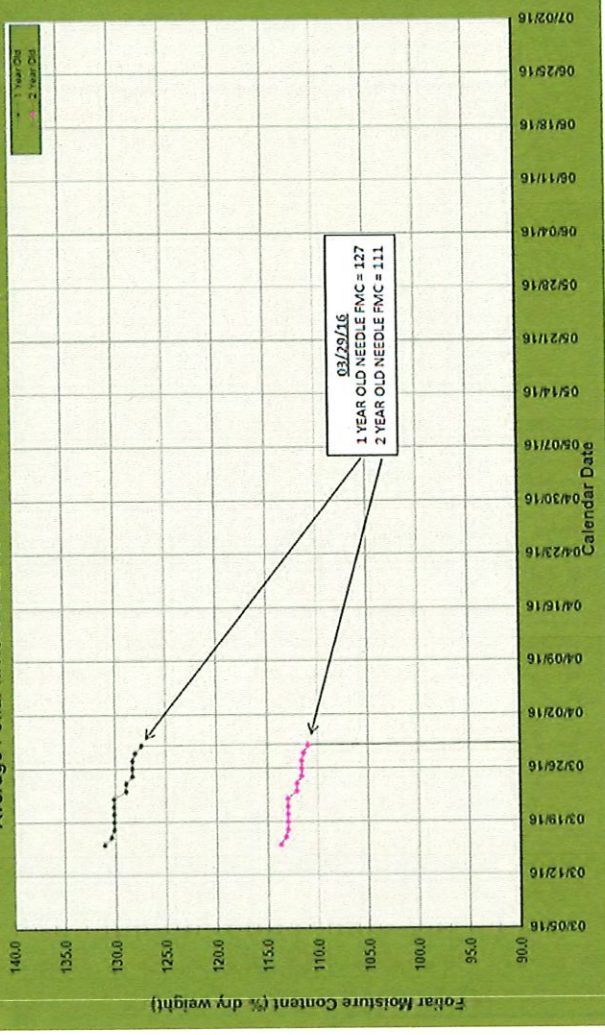
INDEX - CONDITION DESCRIPTION
 0 - 150 Soil moisture and large class fuel structures are high and do not contribute much to fire intensity. Typical of spring dormant season following winter precipitation.
 200 - 350 Typical of late spring, early summer. Lower litter and duff layers are drying.
 400 - 550 Typical of late summer, early fall. Lower litter and duff layers actively contribute to fire intensity and will burn actively.
 600 - 800 Often associated with more severe drought with increased wildfire occurrence. Intense, deep burning fires with significant downward spotting can be expected. Fuel loads can also be expected to burn directly at these levels.

Current Year KBDI - 2016
 Highest KBDI Achieved Between 2005 and 2015 - 2005
 99th Percentile of Between 2005 and 2015



Barnstable Municipal Airport (KHVA)

Average Follar Moisture Content Values for Pitch Pine by Calendar Date



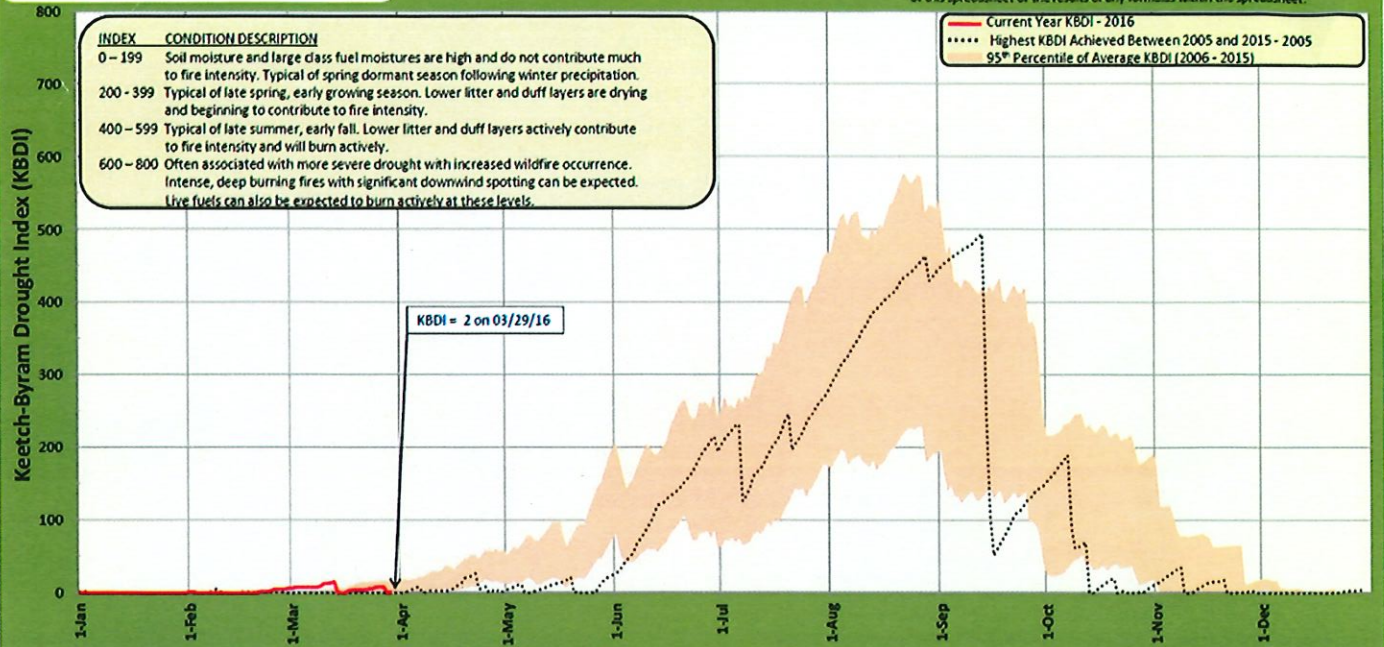
| | TODAY | TONIGHT | THU |
|---------------------|-------------|-----------|-----------|
| CLOUD COVER | MCLEAR | PCLDY | PCLDY |
| PRECIP TYPE | NONE | NONE | NONE |
| CHANCE PRECIP (%) | 0 | 0 | 20 |
| TEMP /24H TREND/ | 49 (-4) | 40 (+7) | 60 |
| RH % /24H TREND/ | 31 (-2) | 89 (+13) | 64 |
| 20FT WND AM /MPH/ | NW 6 | SW 13 G24 | SW 18 G34 |
| 20FT WND PM /MPH/ | SW 11 G23 | SW 13 G24 | SW 21 G38 |
| PRECIP AMOUNT | 0.00 | 0.00 | 0.00 |
| PRECIP DURATION | | | |
| PRECIP BEGIN | | | |
| PRECIP END | | | |
| MIXING HGT /FT-AGL/ | 3380 | 410 | 1830 |
| TRANSPORT WND /KTS/ | W 6 | SW 22 | SW 27 |
| VENT RATE /KT-FT/ | 20280 | 9020 | 49410 |
| ADI EARLY | 27 FAIR | 27 FAIR | 29 FAIR |
| ADI LATE | 46 GEN GOOD | 23 FAIR | 29 FAIR |
| MAX IVORI EARLY | 3 | 3 | 4 |
| MAX IVORI LATE | 1 | 3 | 4 |
| CMR | 0 | 0 | 0 |
| LAL | 0 | 0 | 0 |
| HAINES INDEX | NO TSTMS | NO TSTMS | NO TSTMS |

REMARKS...NONE.

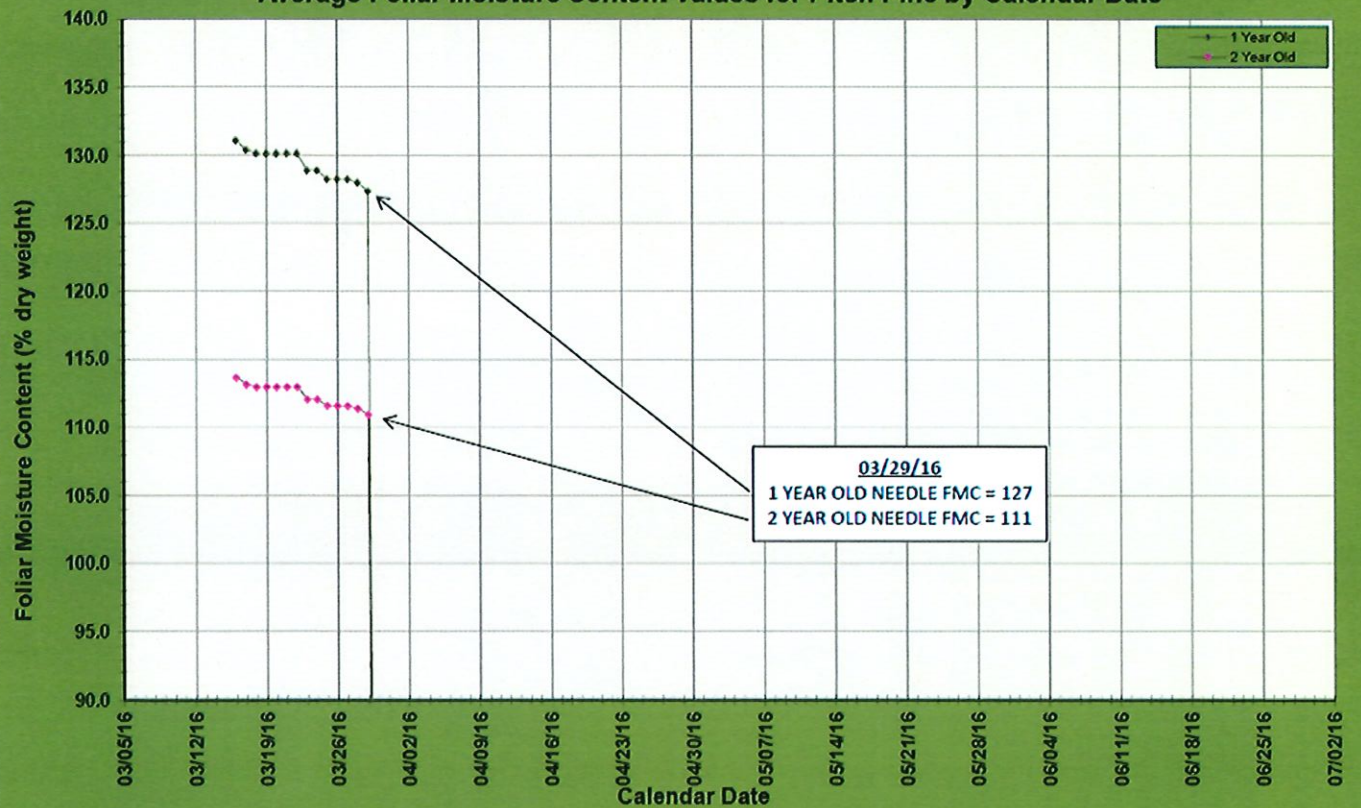
.FORECAST FOR DAYS 3 THROUGH 7...
 .THURSDAY NIGHT...BREEZY. MOSTLY CLOUDY WITH SHOWERS LIKELY. LWS IN THE LOWER 50S. SOUTHWEST WINDS 15 TO 25 MPH.
 .FRIDAY...SHOWERS. HIGHS AROUND 60. SOUTHWEST WINDS 15 TO 20 MPH.
 .FRIDAY NIGHT...MOSTLY CLOUDY WITH A CHANCE OF SHOWERS. LWS IN THE LOWER 40S. WEST WINDS 10 TO 15 MPH.
 .SATURDAY AND SATURDAY NIGHT...BREEZY. MOSTLY CLOUDY. A CHANCE OF SHOWERS. COOLER. LWS 36 TO 43. HIGHS AROUND 50. SOUTHWEST WINDS 20 TO 25 MPH.
 .SUNDAY...WINDY. MOSTLY SUNNY WITH A CHANCE OF RAIN SHOWERS. HIGHS IN THE LOWER 40S. WEST WINDS 20 TO 30 MPH.
 .SUNDAY NIGHT...BREEZY. MOSTLY CLEAR. COLDER. LWS IN THE LOWER 20S. NORTHWEST WINDS 15 TO 25 MPH.
 .MONDAY...MOSTLY SUNNY. HIGHS IN THE UPPER 30S. WEST WINDS 15 TO 20 MPH.
 .MONDAY NIGHT...PARTLY CLOUDY WITH A CHANCE OF SNOW. LWS AROUND 30. WEST WINDS 10 TO 15 MPH...BECOMING NORTHEAST 5 TO 10 MPH AFTER MIDNIGHT.
 .TUESDAY...PARTLY SUNNY WITH A CHANCE OF RAIN AND SNOW. HIGHS IN THE LOWER 40S. NORTHEAST WINDS 10 TO 15 MPH.

Hourly Weather Forecast Graph

| Date | 03/30 | | | | | | | | | | | | 03/31 | | | | | | | | | | | | |
|---------------------------------|-------|----|----|----|----|----|----|----|----|----|----|----|-------|------|------|------|-----|-----|-----|-----|------|------|------|------|---|
| Hour (EDT) | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 00 | 01 | 02 | 03 | 04 | 05 | |
| Temperature (°F) | 36 | 37 | 38 | 40 | 42 | 43 | 45 | 46 | 47 | 46 | 46 | 45 | 44 | 43 | 42 | 42 | 42 | 43 | 43 | 44 | 44 | 45 | 45 | 46 | |
| Dewpoint (°F) | 22 | 24 | 25 | 25 | 23 | 23 | 24 | 24 | 26 | 27 | 28 | 29 | 30 | 31 | 31 | 32 | 32 | 33 | 35 | 36 | 38 | 39 | 40 | 41 | |
| Wind Chill (°F) | 29 | 30 | 32 | 34 | 37 | 38 | 40 | 41 | 42 | 40 | 38 | 36 | 35 | 34 | 34 | 34 | 34 | 35 | 35 | 36 | 36 | 37 | 37 | 38 | |
| Surface Wind (mph) | 10 | 10 | 9 | 9 | 8 | 8 | 9 | 9 | 10 | 13 | 15 | 17 | 17 | 17 | 17 | 16 | 16 | 17 | 17 | 17 | 18 | 18 | 20 | 20 | |
| Wind Dir | NW | NW | NW | NW | W | W | W | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | |
| Gust | | | | | | | | | | | | | | | | 28 | 28 | 29 | 31 | 32 | 34 | 36 | 36 | 37 | |
| Sky Cover (%) | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 9 | 17 | 24 | 24 | 24 | 24 | 37 | 50 | 63 | 44 | 26 | 7 | 14 | 22 | 29 | |
| Precipitation Potential (%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Relative Humidity (%) | 56 | 59 | 59 | 55 | 50 | 45 | 43 | 42 | 40 | 45 | 47 | 51 | 55 | 60 | 65 | 67 | 67 | 67 | 73 | 73 | 79 | 79 | 82 | 83 | |
| Rain | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| Mixing Height (x100ft) | 31 | 29 | 27 | 27 | 27 | 26 | 26 | 26 | 26 | 26 | 23 | 20 | 18 | 16 | 14 | 12 | 11 | 11 | 11 | 10 | 10 | 9 | 9 | 8 | 7 |
| Haines Index | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
| Transport Wind (mph) | 14 | 13 | 10 | 9 | 9 | 8 | 10 | 14 | 16 | 20 | 23 | 26 | 25 | 25 | 24 | 25 | 25 | 26 | 26 | 28 | 28 | 28 | 28 | 28 | |
| Transport Wind Dir | N | NW | NW | NW | W | W | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | |
| Ventilation Rate (x1000 mph-ft) | 43 | 38 | 27 | 24 | 24 | 21 | 26 | 36 | 41 | 46 | 47 | 46 | 39 | 34 | 28 | 28 | 28 | 28 | 27 | 27 | 26 | 24 | 22 | 20 | |
| Date | 03/30 | | | | | | | | | | | | 04/01 | | | | | | | | | | | | |
| Hour (EDT) | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 24 | 24 | 24 | 23 | 05 | |
| Temperature (°F) | 47 | 48 | 49 | 51 | 52 | 54 | 55 | 56 | 56 | 56 | 55 | 54 | 54 | 54 | 53 | 53 | 53 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | |
| Dewpoint (°F) | 42 | 43 | 44 | 45 | 46 | 47 | 47 | 48 | 48 | 48 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 50 | 50 | 50 | 50 | 50 | 50 | 51 | |
| Wind Chill (°F) | 40 | 41 | 42 | | | | | | | | | | | | | | | | | | | | | | |
| Surface Wind (mph) | 20 | 21 | 21 | 23 | 24 | 26 | 26 | 28 | 28 | 28 | 26 | 26 | 25 | 24 | 23 | 23 | 23 | 24 | 24 | 24 | 24 | 24 | 23 | 23 | |
| Wind Dir | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | S | S | S | S | S | S | |
| Gust | 37 | 38 | 38 | 39 | 40 | 41 | 43 | 43 | 44 | 43 | 41 | 40 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 37 | |
| Sky Cover (%) | 44 | 59 | 74 | 53 | 31 | 10 | 9 | 7 | 6 | 13 | 20 | 27 | 43 | 59 | 75 | 78 | 82 | 85 | 88 | 92 | 95 | 96 | 96 | | |
| Precipitation Potential (%) | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 5 | 8 | 12 | 15 | 19 | 22 | 28 | 35 | 41 | 47 | 54 | 60 | 62 | 64 | 67 | |
| Relative Humidity (%) | 83 | 83 | 83 | 80 | 80 | 77 | 74 | 74 | 74 | 74 | 77 | 80 | 83 | 83 | 86 | 86 | 86 | 93 | 93 | 93 | 93 | 93 | 93 | 96 | |
| Rain | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | Schc | Schc | Schc | Chc | Chc | Chc | Chc | Lkly | Lkly | Lkly | Lkly | |
| Mixing Height (x100ft) | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 7 | 6 | 5 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | |
| Haines Index | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| Transport Wind (mph) | 28 | 28 | 28 | 28 | 28 | 29 | 29 | 30 | 30 | 30 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 30 | 30 | 31 | 31 | 31 | 30 | 30 | |
| Transport Wind Dir | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | S | S | S | S | SW | SW | |
| Ventilation Rate (x1000 mph-ft) | 20 | 21 | 21 | 22 | 22 | 23 | 23 | 23 | 23 | 20 | 17 | 14 | 11 | 8 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | |



Average Foliar Moisture Content Values for Pitch Pine by Calendar Date





Town of Orleans Conservation Commission

Town Hall • 19 School Road • Orleans, Massachusetts 02653-3699

Tel: (508) 240-3700 Ext. 425 / Fax: (508) 240-3388

April 8, 2016

Cape Cod Cooperative Extension
Barnstable County Land Management Grant Program
3195 Main Street
P.O. Box 367
Barnstable, MA 02630

RE: Town of Orleans, Kent's Point Conservation Area, Wildfire Grant Final Report

On behalf of the Town of Orleans, I would like to express our thanks and gratitude for the \$7,500 Wildfire Grant Award we received for work on the Kent's Point Conservation Area. The funds were used to plan for and conduct a prescribed burn on 2 acres of the Conservation Area. The goals for the burn were ecological restoration and to limit risk of wildfire by reducing fuels.

Specifically, the Barnstable County Land Management funds were used to pay the following invoices:

| | |
|---|------------------|
| Northeast Forest Fire Management: Burn Plan | \$1,500.00 |
| Orleans Fire and Rescue: 4 staff | \$641.44 |
| Orleans Police Department: 1 detail | \$388.94 |
| Northeast Forest Fire Management: Burn | \$5,000.00 |
| TOTAL | \$7530.38 |

In coordination with the work from Northeast Forest Fire Management, Town staff and equipment, we successfully burned the 2 acre risk area. The area was closed for the day to visitors while the work took place. Since completion of the work the busy conservation area has been re-opened to the public and the feedback has been overwhelmingly positive.

The Town has much to accomplish in the next year. Already we have selected another 3 acre burn unit within Kent's Point that needs the same treatment. It is our hope that continued funds will be appropriated by the County to help communities use wildfire on our public lands. This last effort would not have been possible without the County grant program.

Thank you for the award. Please call with any questions you may have regarding our use of the funds or the work we completed. As always, I would like to extend to you a standing invitation to walk the site and view this parcel first hand. Attached are a few pictures of the site and the invoices that accompany this report.

Sincerely,

John Jannell
Conservation Agent

Joel R. Carlson
Principal Consultant and Owner
Northeast Forest and Fire Management, LLC

29 Moody Drive
Sandwich, Massachusetts 02563
Work Cell Phone: (508) 274-2234
Email: joelcarlson@ne-ffm.com
www.ne-ffm.com

CAREER SPECIFIC EXPERIENCE

Consultant and Business Owner, Northeast Forest & Fire Management LLC, Sandwich - 06/06 to Present

Work with a range of client organizations including local and state agencies, non-profit groups, and private property owners. Develop management plans and studies including forest management plans, wildfire hazard assessments, fire management plans, prescribed burn plans, and monitoring protocols. Undertake ecological and forest management inventory and monitoring to evaluate fire and forest management objectives. Assist in permit application and administration. Coordinate and instruct at fire management trainings and workshops. Plan, implement, and conduct the application of prescribed fire for a wide range of resource management goals; including ecological management, forest management, fuel hazard reduction, and view shed protection.

Prescribed Fire Manager, Nantucket Conservation Foundation, Nantucket - 04/06 to 08/12

Prepare and review prescribed fire burn plans and other fire management documents. Provide technical recommendations on fire related monitoring, draft and review protocols, and assist with field monitoring. Conduct fire trainings and oversee the maintenance and administration of the training and qualifications of staff. Draft permit requests and ensure that all permits are successfully submitted and maintained. Prepare grant proposals and manage fire management projects associated with grants and other organizational tasks. Oversee fire equipment acquisition and maintenance. Provide technical input to non-fire treatments. Serve as a burn boss or crewmember on prescribed burns. Perform other ecological or land management tasks as needed.

Fire and Fuels Management Assistant, University of Massachusetts, Amherst - 02/06 to 08/06

Conducted field sampling and data analysis on the effects of treatments on fuel loads and fire behavior and assisted with research burns that compared the effectiveness of different fuels treatments as part of a Joint Fire Science funded research project. Assisted with technology transfer to practitioners, compiling reports, the training of personnel in fuel management practices and fire effects monitoring, and served as an instructor for an undergraduate fire management course.

Chief Fire Warden, Bureau of Forest Fire Control & Forestry, Department of Conservation & Recreation, Boston, MA - 09/05 to 01/06
Supervised Forest Fire Control staff located throughout the state of Massachusetts and served as the Deputy Bureau Chief of the Bureau of Forest Fire Control and Forestry. Provided oversight of the high ground and communications program, the Federal Excess Property program, the out of state wildfire crew, Forest Fire Control's response to the state's emergency management center, and representation on state and regional councils. Work with cooperators; both municipal, state, federal, and international on all aspects of the forest fire control program. Drafted and administered Forest Fire Control's fiscal budget, grants, and cooperative agreements. Administered and developed policy guidelines, operational standards, and operational procedures for fire management activities.

Fire Manager, Massachusetts Chapter of The Nature Conservancy, Plymouth, MA - 12/96 to 09/05

Provided Fire Management Program direction and managed the annual program budget. Drafted contracts, grant proposals, reviewed fire management technical documents, and drafted policies and procedures for the Massachusetts Chapter. As a Burn Boss, planned and executed prescribed burns on private, municipal, state, federal, and Nature Conservancy lands. Trained Nature Conservancy and partner staff in prescribed fire and fire management techniques and hired supervised seasonal prescribed burn crews consisting of fire management technicians and interns. Educated the public on The Nature Conservancy's prescribed burn objectives, policies, and procedures and maintained working relationships with private, municipal, state, and federal land and fire management organizations as well as permitting agencies. Served as the Training and Qualification Team Chair for the Global Fire Initiative between April of 2003 and September of 2005, and assisted with training and qualification policy development and the Conservancy wide transition to the National Interagency Incident Management System's Wildland Fire Qualification System.

MEMBERSHIPS

The Society of American Foresters

Ecological Society of America

The Wildlife Society

International Association of Wildland Fire

The Association for Fire Ecology

New England Wild Flower Society

The Association of Consulting Foresters

Carlson, Joel, R.

OTHER EXPERIENCE

Field Technician - Fire, Massachusetts Army National Guard E & RC, Camp Edwards, MA – 05/06 to 09/06
Sergeant, Massachusetts Army National Guard, MA – 09/88 to 09/05
Woodlands/Natural Areas Manager, University of New Hampshire, Durham, NH – 01/94 to 11/96
Volunteer Prescribed Fire Crewmember, MA, ME, & NY – 02/91 to 11/96
Teaching Assistant, University of New Hampshire, Durham, NH – 09/94 to 05/95
Research Technician, Harvard Forest, Petersham, MA – 06/92 to 09/92, 06/93 to 09/93, & 06/94 to 09/94
Volunteer Firefighter, Town of Amherst, MA – 09/91 to 06/93
Research & Teaching Assistant, University of Massachusetts, Amherst, MA – 06/91 to 08/91 & 02/92 to 07/92
Parking Lot Attendant, Newman Center, Amherst, MA – 09/90 to 05/91, 09/91 to 05/92, 09/92 to 05/93, & 09/93 to 05/94
Volunteer in Park, Cape Cod National Seashore, South Wellfleet, MA – 06/91 to 08/91
Warehouse Freezer Worker, Sysco-Hallsmith, Norton, MA – 10/88 to 08/90
Corporal, United States Marine Corps – 09/84 to 09/88

EDUCATION

University of Massachusetts, Amherst
 Bachelor of Science, May 1994
 Major: Forestry
 Minor: Wildlife Biology

University of New Hampshire, Durham
 Masters of Science Program
 Concentration: Forestry
 Thesis Topic: Fire History of Red Pine, Green Hills Preserve

PUBLICATIONS

Litviatis, J.A., D.F. Smith, R. Villafuerte, J. Oehler, and J. Carlson. 1996. Landscape ecology today. *Conservation Biology* 10: 306–308.

Barker Plotkin, A., D. Foster, J. Carlson, and A. Magill. 2013. Survivors, not invaders, control forest development following simulated hurricane. *Ecology* 94(2): 414–423.

Carlson, J. R. 2013. A Synopsis of Prescribed Fire in New England. July Newsletter of the Ecological Landscaping Association. [Online]. Available: <http://www.ecolandscaping.org>

TRAININGS

NWCG, S-130 Firefighting Training
 NWCG, S-133 Look Up, Look Down, Look Around
 NWCG, S-200 Initial Attack Incident Commander
 NWCG, S-212 Wildland Fire Chain Saws
 NWCG, S-230 Crew Boss
 NWCG, S-231 Engine Boss
 NWCG, S-290 Intermediate Wildland Fire Behavior
 NWCG, S-490 Advanced Fire Behavior Calculations
 NWCG, I-200 Basic ICS
 NWCG, I-400 Advanced Incident Command System
 NWCG, Rx-230 (S-234) Ignition Operations
 NWCG, Rx-340 Introduction to Fire Effects
 NWCG, Rx-510 Applied Fire Effects
 FEMA, IS-100 Introduction to ICS
 OSHA, 10 Hour Construction

NWCG, S-131 Advanced Firefighter
 NWCG, S-190 Introduction to Fire Behavior
 NWCG, S-211 Portable Pumps and Water Use
 NWCG, S-214 Southern Area Engine Operations
 NWCG, S-215 Fire Operations in the Urban Interface
 NWCG, S-281 Supervisory Concepts and Techniques
 NWCG, S-390 Fire Behavior
 NWCG, I-100 Introduction to ICS
 NWCG, I-300 Intermediate ICS
 NWCG, I-401 Multi-Agency Coordination
 NWCG, Rx-300 Prescribed Fire Burn Boss
 NWCG, Rx-450 Smoke Management
 NWCG, L-180 Human Factors on the Fireline
 FEMA, IS-700 NIMS an Introduction

LICENSES, CERTIFICATIONS, & QUALIFICATIONS

NWCG, Advanced Firefighter/Squad Boss (FFT1)
 NWCG, Incident Commander Type 5 (ICT5)
 NWCG, Incident Commander Type 4 (ICT4)
 NWCG, Prescribed Fire Burn Boss Type 2 (RXB2)
 MEDIC, First Aid - Basic First Aid/CPR with AED
 Massachusetts Licensed Forester
 Society of American Foresters, Certified Forester
 Association of Fire Ecology, Wildland Fire Manager
 Association of Consulting Foresters, Certified Forester
 NEWFS, Advanced Certificate in Field Botany
 USDA-NRCS-TSP, Prescribed Burning
 USDA-NRCS-TSP, Pest Management
 USDA-NRCS-TSP, Forestry & AgroForestry

NWCG, Firefighter Type 2 (FFT2)
 NWCG, Fire Effects Monitor (FEMO)
 NWCG, Engine Boss (ENGB)
 NWCG, Firing Boss (FIRB)
 Massachusetts Hoisting Machinery License, Class 2A & 4G
 Massachusetts Licensed Pesticide Applicator
 Society of American Foresters, Certified Forest Auditor
 Association of Fire Ecology, Wildland Fire Ecologist
 Ecological Society of America, Certified Ecologist
 MEDIC First Aid - Pediatric First Aid
 USDA-NRCS-TSP, Wildlife
 USDA-NRCS-TSP, Wetlands Biological Components

QUALIFICATIONS & CREDENTIALS

Staff Professional Licenses & Certifications:

- Society of American Foresters Certified Forester & Certified Forest Auditor
- American Tree Farm System Inspector
- Association of Consulting Foresters Certified Forester
- Massachusetts Licensed Forester
- Ecological Society of America Certified Ecologist
- Association of Fire Ecology Wildland Fire Ecologist & Wildland Fire Manager
- Massachusetts Licensed Pesticide (Herbicide) Applicators
- Massachusetts Hoisting (Heavy Equipment) License

Staff Wildland Fire Qualifications:

- Prescribed Fire Burn Boss (RxB2)
- Incident Commander Type 3, 4, & 5 (ICT3/4/5)
- Strike Team Leader Crew & Engine (STCR/STEN)
- Firing, Crew, & Engine Boss (FIRB/CRWB/ENGB)
- Firefighter Type 1 & 2 (FFT1/2)
- Fire Effects Monitor (FEMO)
- Fireline EMT (FEEMT)
- Faller Class B & A (FALB/A)

Natural Resource Conservation Service (NRCS)

Technical Service Provider (TSP) Credentials:

Conservation Action Plans

- Forest Management (MA & RI)
- Fish & Wildlife Habitat (MA & RI)
- Pollinator Habitat (MA & RI)
- Prescribed Burning (MA & RI)
- Integrated Pest Management (MA)

Conservation Services

- Forestry & Agro-Forestry (MA)
- Wildlife (MA)
- Wetlands Biological Components (MA)
- Pollinator Habitat Enhancement (MA & RI)
- Prescribed Burning (MA, RI, CT, & NY)
- Pest Management (MA & RI)

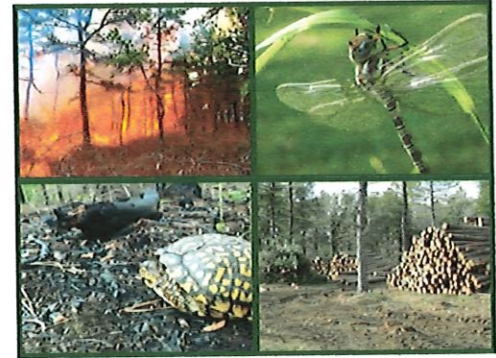
Northeast Forest and Fire Management, LLC
is fully insured, small business,
that is veteran-owned and operated.


Northeast
Forest and Fire Management, LLC
29 Moody Drive
Sandwich, MA 02563-1820



Natural Resource Planning & Management Services

Specializing in Management for Ecological
& Fuel Hazard Reduction Objectives
in Northeastern Habitats



Northeast Forest and Fire Management, LLC

29 Moody Drive
Sandwich, MA 02563-1820

(508) 274-2234

ne-ffm@ne-ffm.com

www.ne-ffm.com

Follow Us On



Northeast Forest and Fire Management, LLC

(NE-FFM) is a natural resources consulting firm that has been operating from Sandwich, Massachusetts since 2006. We work collaboratively and cost effectively with a range of clients to address ecological and resource management needs in both planning and implementation. NE-FFM offers a range of forestry, wildlife, vegetation, and prescribed fire planning, implementation, and management services. We specialize in ecological management of plant and animal communities and fire management in the northeast. From preparing forest or fire management plans to managing timber harvests and implementing prescribed burns, NE-FFM can assist you in working towards your natural resource goals.



EXAMPLE OF SERVICES:

- Forest, Fire, & Wildlife/Pollinator Habitat Plans
- Prescribed Burning & Burn Plan Preparation
- Fuel Treatment Plans and Hazardous Fuel Reduction
- Forest Inventory & Vegetation Monitoring
- Trail & Boundary Establishment and Maintenance
- Conservation Easement Reports & Monitoring
- Invasive Species Management Plans & Control
- Brush & Grassland Management & Cutting
- Rare Species Habitat, Wetland, & Burn Permitting
- Fire Management & Other Trainings & Workshops
- Land Management Project Supervision & Management



RECENT CLIENTS:

NE-FFM works with a range of client organizations including municipal, county, state, and federal agencies, non-profit groups, and private property owners.

Recent clients include the United States Fish and Wildlife Service, Narragansett Bay National Estuarine Research Reserve, Massachusetts Division of Fisheries and Wildlife, Massachusetts Army National Guard, Cape Cod Cooperative Extension, Town of Mashpee, Nantucket Memorial Airport, The Trustees of Reservations, Vineyard Golf Club, Mashpee Wampanoag Tribe.

FORESTRY & VEGETATION MANAGEMENT:

NE-FFM has expertise with the ecology and management of the forested, shrubland, and grassland systems of the northeast. We specialize in ecological management for wildlife habitat, rare species, and rare natural communities. We have the experience and tools required to prepare management plans to meet a diverse array of needs and requirements (i.e. MA Chapter 61 or NRCS formats) and can draft treatment prescriptions, mark timber, and oversee timber harvesting. We can also implement vegetation work by mechanical means or herbicide application in a comprehensive and strategic manner. NE-FFM is known for dynamic, creative solutions and high-quality results accomplished timely and efficiently.



PRESCRIBED BURNING & FIRE MANAGEMENT:

Our company has extensive experience in prescribed burning, fire ecology, fire management planning, fuels management, and smoke modeling/management. We excel in conducting prescribed burns in volatile fuels in urbanized areas with complex management objectives. NE-FFM has several qualified prescribed burn bosses on staff and can provide professional crew and specialized equipment to implement prescribed burns with the highest degree of safety. Additionally, we are experts in mapping wildland fuels, conducting wildfire hazard assessments, and generating fire behavior predictions using technical models and GIS. We have extensive experience in writing Community Wildfire Protection Plans (CWPPP), fuel treatment



plans, hazard mitigation plans, fire management plans, and prescribed burn plans.

WILDLIFE HABITAT MANAGEMENT:

NE-FFM's understanding of the ecology of rare species and habitats is extensive. We can work with you in restoring habitat for threatened or endangered species. Whether you are interested in managing for game, rare species, or a diversity of habitats on your property, NE-FFM can write plans and conduct treatments to meet your wildlife habitat objectives.



TRAINING & EDUCATION:

NE-FFM can create and present custom fire management, forestry, land navigation, chainsaw safety, or other natural resource related presentations or workshops. We draw on the diverse experience and technical expertise of our staff to coordinate trainings for a variety of agencies and present on various topics at local, regional, or national levels. NE-FFM can also provide course coordinators or instructors for many National Wildfire Coordinating Group (NWCG) trainings.



MONITORING, MAPPING, & SPECIAL STUDIES:

We are able to provide cost effective and high quality natural resources monitoring and inventory services using existing methods or by establishing customized protocols. Data analysis and results are presented in professional and usable formats. In addition to monitoring and inventories NE-FFM has experience with tree ring analysis, wind vector and velocity probability analysis, land use history, disturbance history, and fire history documentation.



PERMITTING, AUDITS, POLICIES, & GRANTS:

NE-FFM can provide clients with assistance preparing and filing timber harvest plans, wetland notices of intent, state endangered species habitat management permits, and prescribed burn permits.

We can also conduct operational audits and review and establish policies or procedures related to fire management, forestry, or similar land management activities.

NE-FFM is familiar with multiple funding sources for land management and has the ability to prepare competitive grant applications.



CONTACT US WITH QUESTIONS

Northeast Forest and Fire Management, LLC
29 Moody Drive, Sandwich, MA 02563-1820

(508) 274-2234 ♦ ne-ffm@ne-ffm.com



CAPE COD COOPERATIVE EXTENSION

Deeds and Probate Building
3195 Main Street - PO Box 367
Barnstable, MA 02630-0367
(508) 375-6690 tel - (508) 362-4518 fax
www.capecodextension.org

John Jannell
Town of Orleans
Conservation Commission
19 School Road
Orleans, MA 02653

Re: Contract

November 13, 2015

Dear John:

Enclosed, please find copies of your contract amendment with Barnstable County. Please sign all three copies. Please return two amendments. Keep one for your records.

A self-addressed, stamped envelope has been enclosed for your convenience.

Your assistance is appreciated. Thank you.

Best regards,

Kalliope Egloff
Administrative Supervisor (M & F)
Hazardous Waste Assistant (T, W, Th)

WILDFIRE CONTRACT AMENDMENT

The contract made on the 22nd day of September, 2014 by and between the Town of Orleans Conservation Commission, hereinafter called

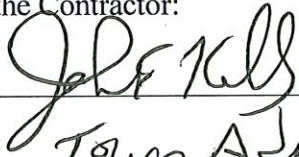
the "CONTRACTOR" and the County of Barnstable hereinafter called the "COUNTY" for the

following: " To extend the contract completion date from December 31, 2015 until June 1, 2016 for the Kent's Point Conservation Area: Wildfire Assessment and Mitigation Work," due to environmental (weather) issues.

WITNESS WHEREOF the parties hereto have executed this Amendment November 9, 2015.

For the Contractor:

By:

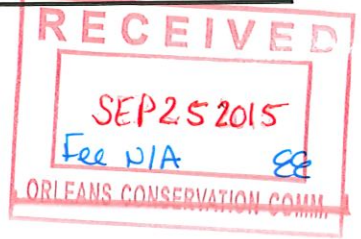

Town Admin.



Michael Brillhart
Barnstable County Administrator


Date signed

**TOWN OF ORLEANS CONSERVATION COMMISSION
ADMINISTRATIVE REVIEW OF PROPOSED PROJECTS-(VEGETATION)**



Applicant Name: Town of Orleans / Conservation Commission
Street: Kewt's Point
Mailing Address: 19 School Road Orleans, MA 02653
Phone #: 508-240-3700 Extension 425
Representative (Person/Company doing the work): Joel Carlson, Northeast Forest Fire Management

Mailing Address:

Phone #:

Description of Project: Proposed controlled / prescribed burn for Kewt's Point

- | | | | |
|-----|--|---|---|
| 1. | Will the work proposed take place <u>in</u> a resource area as defined by the Wetland Protection Act or local Wetland Bylaw? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| 2. | Will the proposed work take place <u>within 50 feet</u> of any resource areas? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| 3. | Will the work take place within the Pleasant Bay or Inner Cape Cod Bay Area of Critical Environmental Concern (ACEC)? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| 4. | Is excavation by machinery required? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| 5. | Is uprooting of vegetation or mowing to the ground proposed? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| 6. | Is tree removal proposed? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> How many? _____ |
| 7. | Is pruning of trees proposed? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> How many? _____ |
| 8. | Is cutting of shrubs proposed? What height off the ground are the shrubs to be cut? _____ | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| 9. | Is removal of briars, brambles, or bittersweet vine proposed? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| 10. | Is removal of poison ivy contemplated? How much area (approximately)? _____ | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| 11. | Is planting proposed? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> (Include Plan) |

FOR OFFICE USE ONLY:

Site inspection: Approved: Yes 10/13/15 No _____ Please File a Notice of Intent
 Conservation Administrator's comments:

APPROVAL FOR THIS WORK IS VALID FOR 1 YEAR.



Northeast

Forest and Fire Management LLC

PROPOSAL TO CONDUCT FIRE MANAGEMENT PLANNING

TOWN OF ORLEANS

BY

NORTHEAST FOREST AND FIRE MANAGEMENT, LLC

Submitted: November 25, 2014

I. SCOPE OF PROPOSAL

The following outlines proposed fire management planning for the site known as Kent's Point Conservation Area owned by the Town of Orleans (Orleans) and located in the town of Orleans, Massachusetts and consisting of approximately 27.7 acres, on Parcel Map-049 and Lot-061. This proposal is based on information provided in the Barnstable County Wildfire Preparedness Plan Site Implementation Plan for the property, dated 30 September, 2014. The proposed process will result in one prescribed burn plan covering approximately 2 acres.

The project's desired period is from 15 December, 2014 to 31 January, 2015.

II. COMPANY AND PRINCIPALS CREDENTIALS

Northeast Forest and Fire Management, LLC (NE-FFM) has extensive knowledge and experience in forestry, fire management, prescribed burning, vegetation management, complex project management, and habitat management in the Pine Barrens and Heathland systems of Southeastern Massachusetts and has extensive background knowledge of the project area as a result of past projects conducted in the area. Additionally NE-FFM has access to crew that has experience with similar projects. This coupled with NE-FFM's flexible approach to projects, extensive track record with similar projects, and intimate knowledge with fire management and the ecological systems of Southeastern Massachusetts, enables NE-FFM to provide a timely and high quality product.

The staff of NE-FFM maintains the following licenses and professional certifications to include; Massachusetts Forester License, Massachusetts Heavy Equipment Operator License (Hoisting Machinery License, Class 2A & 4G), Massachusetts Pesticide Applicator License, Society of American Foresters Forester & Forest Auditor Certification, Association of Consulting Foresters Forester Certification, Association of Fire Ecology Wildland Fire Manager & Wildland Fire Ecologist Certification, and Ecological Society of America Ecologist Certification.

NE-FFM is a veteran owned and operated entity, with a principal place of business being in Sandwich, Massachusetts.

Additional information on NE-FFM can be found in the enclosed company brochure, principal's resume, and at NE-FFM's web page at www.ne-ffm.com.

III. PROJECT RESPONSIBILITIES AND SERVICES

For all aspects of the proposed project Orleans will designate a single representative as a point of contact for NE-FFM and NE-FFM will provide Orleans with a single point of contact for the project.

- LOW COMPLEXITY PRESCRIBED BURN PLAN

Orleans will provide input on desired objectives for burn areas and upon request provide pertinent documents, data, and GIS layers for the project area. The Prescribed Burn Plan will be prepared using

the format outlined in the “Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide” (2014) found at <http://www.nwccg.gov/pms/RxFire/pms484.pdf>. The draft and final prescribed burn plan will be provided with the signature of the Prescribed Fire Plan Preparer and Technical Reviewer. NE-FFM will provide two signed hard copies (with color maps and appendices) to Orleans, in addition to one CD containing a PDF copy and a MS-Word copy of the completed plan.

Unless otherwise agreed upon, Orleans is responsible the submittal of all municipal, county, and state permits associated with projects outlined in the prescribed burn plan. Additionally Orleans is responsible for any fees associated with permitting.

In the event the planning process determines that a low complexity prescribed burn plan is not feasible for the site and a moderate complexity prescribed burn will be required, Orleans will have the option to terminate the project and reimburse NE-FFM for the draft document only or to continue with the project. If the project continues NE-FFM will prepare a moderate complexity prescribed burn plan that covers the maximum extent feasible for the property. Upon completion of the plan Orleans will be responsible for reimbursing NE-FFM for the cost of the final moderate complexity burn plan.

• **TECHNICAL SERVICES**

In place of or in addition to services outlined in this proposal and with agreement in writing between NE-FFM and Orleans; NE-FFM can provide technical assistance in for services not outlined in this proposal at agreed upon rates. These services include but are not limited to; fire, forest, vegetation, and ecological management including fire management planning, monitoring, vegetation management (herbicide application and mechanical treatments), forest management planning, project management, permit maintenance/submittal, and trainings/ workshops.

Upon termination of this Agreement, each party shall promptly return to the other all materials and other property of the other held by it.

Orleans will notify and provide a copy to NE-FFM of any noncompliance notifications issued by permitting agencies or complaints submitted by the public related to work conducted as part of this project.

NE-FFM shall retain all copyright, patents, trade secret, and other intellectual property rights for “Work Products” associated with this proposal. Orleans is granted nonexclusive worldwide license to use and sublicense the use of the “Work Products”. The license shall have a perpetual term and may not be transferred by Orleans.

IV. PROJECT COSTS AND PAYMENT SCHEDULE

| Service | Rate | Units | Line Total |
|---|------------------|---------|----------------|
| Low Complexity Prescribed Burn Plan | | | |
| DRAFT ----- | \$750/Plan | 1 Plan | \$750 |
| FINAL ----- | \$750/Plan | 1 Plan | \$750 |
| Moderate Complexity Prescribed Burn Plan | | | |
| FINAL (In Place of Low Complexity FINAL)----- | \$2,250/Plan | 1 Plan | - |
| Technical Services (DEP Permit Site Visit) | | | |
| SPECIALIST ----- | \$75/Person Hour | 3 Hours | \$225 |
| Estimated Total: | | | \$1,725 |

NOTE: Technical Services are estimated and may not be required or may require additional hours. In the event additional hours are required an estimate of the additional hours required shall be provided by NE-FFM to Orleans for approval and authorization. It is expected that a site visit will be required by the state air quality permitting entity in addition to a filing of a permit request.

Total project costs will not exceed the amount indicated in Section IV of this proposal, in a contract unless NE-FFM is provided approval in writing in advance of any work by Orleans. Work and rates outlined in this proposal for individual tasks are interchangeable with advance mutual agreement between NE-FFM and Orleans.



All rates include travel time and expenses to the project site for planning purposes and to one public meeting.

NE-FFM will invoice following the submittal or completion of each individual document. Invoices shall be submitted on NE-FFM's letterhead and will specify an invoice number, the dates that services were performed, a description of services performed (in summary), units (hours or quantity) of service, the rate for service performed, and total for each service performed during the invoice period. Orleans shall pay NE-FFM the fees invoiced for within 30 days of receipt of the invoice. Accounts not paid within 30 days of the date of the invoice are subject to a 2% monthly finance charge.

For labor, equipment, and supplies not outlined in this proposal, a written quote will be provided upon request for review and approval prior to any work being initiated.

Costs outlined in this proposal are valid for 30 days from the date of the proposal or until a contract is signed.

NE-FFM agrees to be responsible for any and all filing and payment of taxes and for compliance with any and all provisions and requirements arising under any applicable tax laws of Massachusetts. Neither federal, nor state or local income tax, nor payroll tax of any kind shall be withheld or paid by Orleans on behalf of NE-FFM or its employees. If appropriate, Orleans will report all fees paid to NE-FFM to the IRS on a Form 1099.

V. CONTRACTING AUTHORIZATION AND INSURANCE

NE-FFM and all subcontractors shall carry appropriate workers' compensation, hazard and liability insurance coverage for the term of this contract. Upon request NE-FFM will provide proof of insurance to Orleans.

NE-FFM worker's compensation coverage only applies to employees of NE-FFM. Employees of any assisting entity (government, private, or individual) on the proposed project, will not be considered an employee or agent of NE-FFM and will not be covered or fall under NE-FFM's workers compensation insurance coverage.

Work will be initiated upon finalization of a signed contract between NE-FFM and Orleans. Termination or adjustment of any agreement will be documented in writing.

Kent's Point Conservation Area
 Barnstable Co. Wildfire Preparedness Site Implementation Plan

Treatment Designations Map
 Orleans, MA








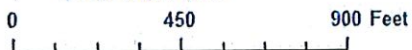
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This map is for planning purposes only. Specific points are subject to verification on the ground, and are not to be used by themselves for legal boundary definition.
 Sources: MassGIS, NE-FFM, Town of Orleans
 Prepared on 9/10/14

Legend

-  Area of Structural Ignitability Reduction
-  Firebreak
-  Potential Area for Prescribed Burn
-  Trails
-  Kent's Point Boundary



PLAN →

Keziah's Lane Road Committee

WILDFIRE

Chief William Quinn
Orleans Fire Department
Eldredge Parkway
Orleans, MA 02653

K.L.R.C. Members

April 6, 2013

Robert Baron
Mary Allen Bradley
Alan Estabrook
Pete Norgeot
Bill Wibel

Dear Chief Quinn,

The residents of Keziah's Lane are becoming increasingly concerned about the dangers, and potential dangers, of woods fires in our neighborhood community. ✓

KLRC is an advisory group of residents elected to evaluate and make recommendations to the property owners who are ultimately responsible for the safety & maintenance on Keziah's Lane.

The volume and intensity of the winds this winter brought down huge amounts of trees and branches adding to the existing deadfall of the past decades of dead and dying trees, shrubs and bushes. ✓

Our immediate neighbor to the south, the Kent property, consists of over 27 acres of dead and dying trees. It attracts all kinds of people, day and night with nearly all nighttime activity being of some type of illegal or improper nature.

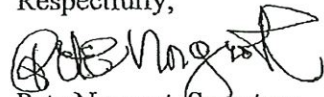
As this letter is being drafted, the weather folks have declared today a "Red Flag" day. Spring has hardly arrived and we are already facing high fire danger.

Given the prevailing southerly winds during the Spring and Summer, our residents are properly concerned. Not only with the possibility that their property might be adversely affected by fire, but of equal or greater importance is the fact that a fast moving fire originating at the Kent property could cut off the only exit from their property, (from Frost Fish Lane easterly, there is but one way in or out) endangering their lives as well.

We see this as a genuine safety hazard and would appreciate it if you would inspect and evaluate this area, including Kent's Point, advising us what our options might be, and perhaps assisting us with a satisfactory resolution.

Thanks very much for your time and cooperation.

Respectfully,



Pete Norgeot, Secretary
Keziah's Lane Road Committee

Ps: Enclosed is a "birds-eye" view of our concerns.

RESPONSE:
ASSESS !!

BARNSTABLE COUNTY WILDFIRE PREPAREDNESS PLAN

SITE IMPLEMENTATION PLAN

| Property Name: Kent's Point Conservation Area | | | | | |
|---|-------------------|-----------|---|---------------------|-----------------------------|
| Property Owner: Town of Orleans | | | | | |
| Mailing Address: 19 School Road, Orleans, MA 02653 | | | | | |
| Contact Person: John Jannell | | | Position Title: Conservation Administrator | | |
| Email: jjannell@town.orleans.ma.us | | | Phone: 508-240-3700 ext. 425 | | |
| Managing Agency: Town of Orleans Conservation Division | | | | | |
| Mailing Address: 19 School Road, Orleans, MA 02653 | | | | | |
| Contact Person: John Jannell | | | | | |
| Plan Preparer: Kate Sullivan | | | | | |
| | | | Position Title: Consultant | | |
| Agency: Northeast Forest and Fire Management, LLC | | | | | |
| Mailing Address: 29 Moody Drive, Sandwich, MA 02563 | | | | | |
| Contact Email: katesullivan@ne-ffm.com | | | Contact Phone: 508-274-2234 | | |
| Town Property is Located: Orleans | | | | | |
| Assessor's Map No. | Lot/Parcel No. | Deed Book | Deed Page | Lot/Parcel Acres | Acres Covered in Plan |
| 049 | 061 | 6575 | 248 | 27.7 | 27.7 |
| Total Acres: | | | | | 27.7 |
| Date of Draft Plan Completion: | | | 9/25/2014 | | |
| Date of Plan Approval: | | | | | |
| <p>This Site Implementation Plan is intended to be used in conjunction with the 2012 Barnstable County Wildfire Preparedness Plan found on the Cape Cod Cooperative Extension web page. The Barnstable County plan contains information regarding fire history, fuel types, and wildfire hazard ratings for all of Cape Cod and provides direction to homeowners and officials on fuel treatments and reducing wildfire risk to structures.</p> | | | | | |

| |
|---|
| Existing Management Plans Pertaining to Planning Area |
| Plan 1. Barnstable County Wildfire Preparedness Plan |
| General Management Goals for Planning Area |
| Goal 1. Maintain open space for recreation and wildlife habitat. |
| Wildland Fire Hazard Reduction Goals |
| Goal 1. Reduce the threat of wildfire to property and life on lands adjacent to the planning area using hazardous fuel reduction and education and awareness programs. |
| Goal 2. Reduce wildfire hazard within the planning area using an integrated and proactive land management approach. |
| Goal 3. Increase firefighter and public safety by decreasing wildland fire risk in and around the planning area. |
| Planning Area Overview |
| <p>General Description of Planning Area: Kent’s Point Conservation Area is one parcel on a peninsula owned by the Town of Orleans and maintained as open space for recreation. The 27.7-acre site and the surrounding planning area fall entirely within the Town of Orleans Fire Management Focus Area 5 as designated by the 2012 Barnstable County Wildfire Preparedness Plan. <u>The property and adjacent parcels have been rated as having a high wildland fire hazard.</u></p> <p>The majority of Kent’s Point consists of a mixed pitch pine – black oak overstory with an understory of grass and low shrubs like poison ivy and wintergreen. The western edge of the property has an eastern red cedar overstory with a dense understory of honeysuckle and other invasive species. Salt marshes border the property on three sides but no phragmites is present.</p> <p>No structures are located in the planning area.</p> <p>None of the planning area is designated as priority habitat by the Massachusetts Natural Heritage and Endangered Species Program. There are no Massachusetts Department of Environmental Protection identified wetlands on the property. Two wetlands border the property to the north and northwest. No potential or certified vernal pools fall within the planning area.</p> |
| General Description of Surrounding Landscape |
| <p><u>NORTH</u> Frostfish Cove and a salt water marsh border Kent’s Point to the north on the east side. Residential properties off Frostfish Lane/Keziah’s Lane border the northern edge of the property on the western side. The Town of Orleans Fire Management Focus Area 5 as identified in the 2012 Barnstable County Wildfire Preparedness Plan extends north to Keziah’s Lane. This area is rated as having a high wildfire hazard.</p> <p><u>EAST</u> Frostfish Cove borders Kent’s Point to the east. Across the inlet, which is approximately 0.1 miles wide, is a densely populated neighborhood accessed off of Barley Neck Road. The areas east of the planning area have been rated as having extreme and high wildfire hazards in the 2012 Barnstable County Wildfire Preparedness Plan and are included in the Town of Orleans Fire Management Focus Area 4.</p> |

SOUTH

Open water lies to the south of the planning area. On the western edge of the property a 100-foot wide tidal stream flows into Kescayo Gansett Pond. On the south side of the stream are residences accessed off Kescayogansett Road.

WEST

Kescayo Gansett Pond borders the property to the west. Wildfire hazard transitions from high to low immediately west of Frost Fish Lane.

Approximate Percentage of Planning Area in Wildland Fire Hazard Category

| Low | Moderate | High | Extreme |
|-----|----------|------|---------|
| 0% | 0% | 100% | 0% |

Approximate Number of Improvements Within Planning Area

(Include areas not under ownership but targeted for education and awareness)

| Residential | Commercial | Industrial | Other |
|-------------|------------|------------|-------|
| 20 | 0 | 0 | 0 |

Treatment Area Designation, Description, and Recommended Management Action(s)
(In order of priority)

Designation: 1. Public Education on Fuel Treatments and Structural Ignitability Reduction

Current Conditions: N/A

Acres: N/A

Management Objective: Establish an understanding of the importance of management actions to be taken in the planning area.

Management Actions: Establishing a public understanding of the importance of fire management in the planning area is important to ensuring acceptance of proposed treatments targeted at reducing fire hazard and maintaining ecological integrity. Public meetings, brochures, and other methods can share fire management recommendations and their justifications with key residences adjacent to the property.

Designation: 2. Structural Ignitability Reduction

Structures: 20

Current Conditions: N/A

Management Objective: Educate property owners on the concept of defensible space, the hazards of wildfire, and the measures they can take to prevent damage to life and property in neighborhoods that surround the planning area.

Management Actions: Educating property owners adjacent to the planning area will enable them reduce the likelihood of property loss during catastrophic wildfires. Measures taken to mitigate wildland fire risk also improve firefighter safety and effectiveness. The national FIREWISE program and the Massachusetts Department of Conservation and Recreation's Bureau of Forest Fire Control (DCR) produce educational materials and have well-established resources and programs. DCR Forest Fire Control often provides guidance and assistance in administering these programs. Towns, counties, and the state have assisted private property owners in property hazard assessments, treatment planning, and the application of treatments through technical assistance and/or by subsidizing work through small community grants. Such incentives may be beneficial to the area.

Designation: 3. Firefighter Access

Location: Entire property

Current Conditions: The main road/trail bisecting Kent's Point is in satisfactory shape for vehicle passage. No limbs, downed logs, or encroaching vegetation currently blocks access to the property for fire apparatus.

Management Actions: Ensure that the road/trail remains accessible for vehicle passage by

NATIONAL PROGRAM



removing overhanging limbs and downed trees and mowing encroaching brush. This road would be essential for firefighter access and egress if a wildland fire occurred on the property. Maintaining the road in its current state would allow access, egress, and turn-arounds for fire apparatus.

Designation: 4. Fuel Treatment – Prescribed Burn | **Acres:** ~ 2

Current Conditions: Vegetation in the surface fuel layer consists of grass and scattered shrubs (black huckleberry, poison ivy, and lowbush blueberry) less than 1 foot in height. The primary fire carrier is oak and pine litter.

Management Objective: Establish surface fuel reduction in the strip between the walking trail and the property boundary to slow a wildfire driven by a southwest wind that could threaten private properties.

Management Actions: Based on prevailing winds that occur during wildfires, reducing surface fuels in this area could reduce the possibility of a fire leaving the property and threatening adjacent properties. This can be accomplished with a small prescribed burn. A burn would reduce fuel loads and fuel continuity more than a mechanical treatment. Additionally, many ecological benefits can be derived from the use of prescribed fire in oak woodlands under appropriate conditions. All prescribed fire should be coordinated and approved by the fire department and include a qualified burn boss in planning and conducting the prescribed burn.

Additionally, other oak woodland areas of the property would benefit from prescribed fire for ecological management and habitat restoration. Burns in other areas of Kent's Point would reduce fuel hazard on the property and reduce fire behavior of a potential wildfire.

An alternative to prescribed fire would be a mechanical treatment for hazard fuel reduction. This would involve mowing shrubs and limbing trees that can serve as ladder fuels. While not as effective in this fuel type as a prescribed burn, a fuel treatment could also reduce fire behavior and buffer adjacent properties if prescribed fire is not feasible.

Designation: 4. Fuel Treatment - Firebreak | **Acres:** ~ 0.5

Current Conditions: Vegetation in the surface fuel layer consists of grass and scattered shrubs (black huckleberry, poison ivy, and lowbush blueberry) less than 1 foot in height. The primary fire carrier is oak and pine litter.

Management Objective: Create and maintain a fuel break that would slow fire spread off the property.

Management Actions: Creating a firebreak on the northwestern edge of the property would reduce the risk of a fire that originates on Kent's Point threatening adjacent parcels. A firebreak would aid in slowing fire spread and improve firefighter access to the property boundary.

This firebreak should be approximately 200' long and 5' wide and can be created without removing any overstory trees. The firebreak would have to be re-evaluated annually for the need for maintenance mowing.

List of Attachments

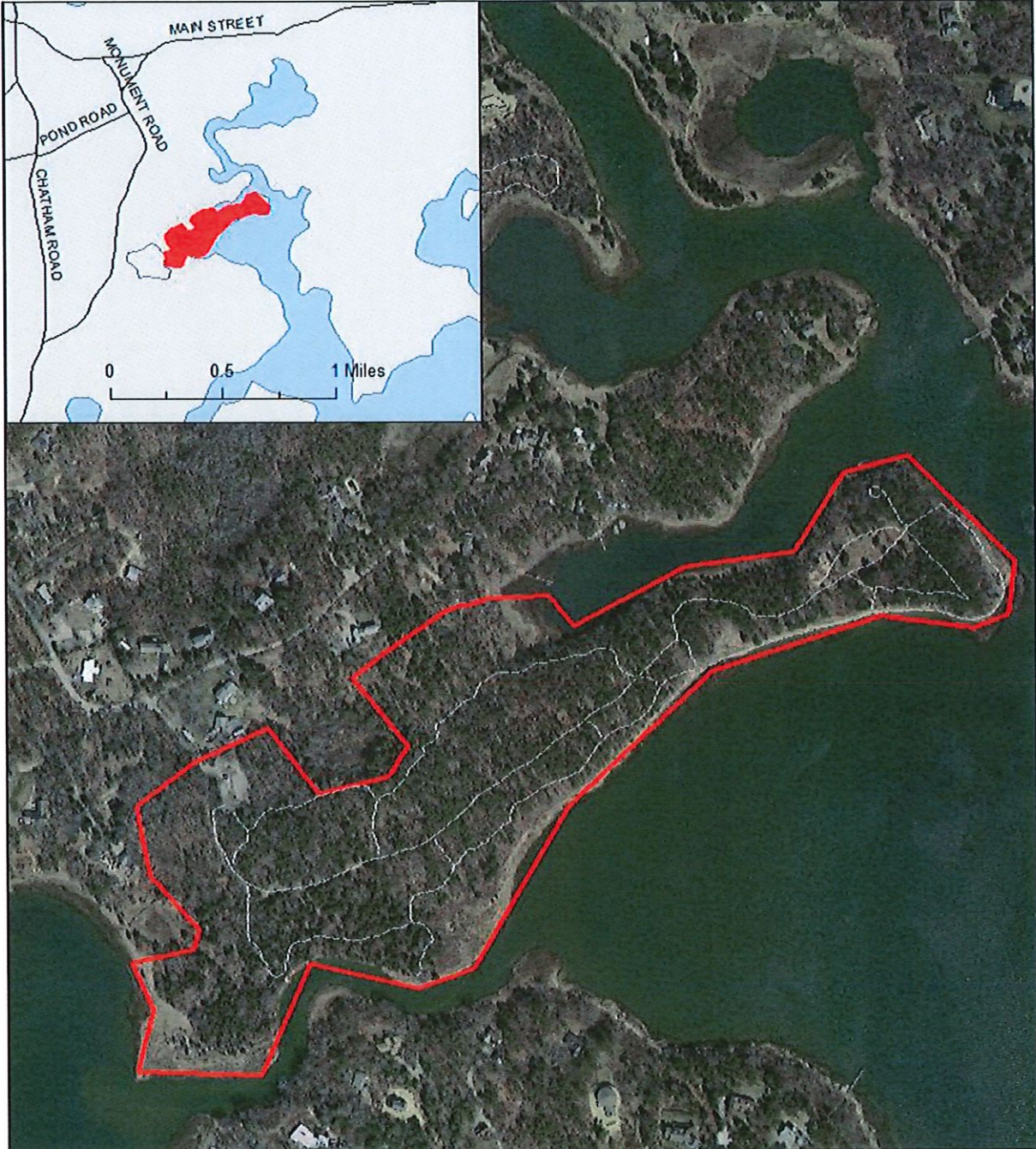
- Attachment 1.** Planning Area Photo & Locus Map
- Attachment 2.** Planning Area Wetlands & Priority Habitat Map
- Attachment 3.** Current Fuels
- Attachment 4.** Planning Area Treatment Designations
- Attachment 5.** Firefighter Access Map

- MOWED to
 MAY
 - FIRE
 PLAN.

Kent's Point Conservation Area

Barnstable Co. Wildfire Preparedness Site Implementation Plan

Locus Map
Orleans, MA



0 500 1,000 Feet

N

This map is for planning purposes only. Specific points are subject to verification on the ground, and are not to be used by themselves for legal boundary definition.
Sources: MasGIS, NE-FFM, Town of Orleans
Prepared on 9/10/14

Legend

- Trails
- ▭ Kent's Point Boundary





Kent's Point Conservation Area
Barnstable Co. Wildfire Preparedness Site Implementation Plan

Wetlands & Priority Habitat Map
Orleans, MA



N
0 400 800 Feet
This map is for planning purposes only. Specific points are subject to verification on the ground, and are not to be used by themselves for legal boundary definition.
Sources: MasGIS, NE-FFM, Town of Orleans
Prepared on 9/10/14

Legend

-  NHESP Priority Habitat
-  DEP Wetlands
-  Trails
-  Kent's Point Boundary

Kent's Point Conservation Area



Barnstable Co. Wildfire Preparedness Site Implementation Plan



Fuels Map
Orleans, MA





Legend



 Pitch Pine/Oak Woodlands (TU2)
 Dense Shrubs (SH3)

 Mowed Field (SH3)
 Salt Marsh (GR5)

 Trails
 Kent's Point Boundary



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Sources: MasGIS, NE-FFM, Town of Orleans
Prepared on 9/10/14

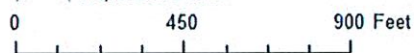
Kent's Point Conservation Area

Barnstable Co. Wildfire Preparedness Site Implementation Plan

Treatment Designations Map
Orleans, MA



This map is for planning purposes only. Specific points are subject to verification on the ground, and are not to be used by themselves for legal boundary definition.
Sources: MassGIS, NE-FFM, Town of Orleans
Prepared on 9/10/14



Legend

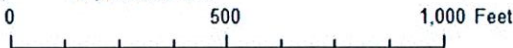
- Area of Structural Ignitability Reduction
- Firebreak
- Potential Area for Prescribed Burn
- Trails
- Kent's Point Boundary

Kent's Point Conservation Area
Barnstable Co. Wildfire Preparedness Site Implementation Plan




Firefighter Access Map
Orleans, MA



This map is for planning purposes only. Specific points are subject to verification on the ground, and are not to be used by themselves for legal boundary definition.
Sources: MassGIS, NE-FFM, Town of Orleans
Prepared on 9/10/14



Legend

-  Drivable Road
-  Non-drivable Trails
-  Kent's Point Boundary



Established in 1916

CAPE COD COOPERATIVE EXTENSION

Deeds and Probate Building

P.O. Box 367

Barnstable, MA 02630-0367

www.capecodextension.org

(508) 375-6690

(508) 362-4518 fax

John Jannell
Town of Orleans
Conservation Department
19 School Road
Orleans, MA 02653

October 3, 2014

Dear John:

Enclosed, please find copies of your contract with Barnstable County. Please sign all three copies of the. Keep one copy for your records and return the remaining 2 contracts.

Additionally, please sign and return the enclosed invoices.

A self-addressed, stamped envelope has been enclosed for your convenience.

Your assistance is appreciated. Thank you.

Best regards,

Kalliope Egloff
Administrative Supervisor

AGREEMENT between BARNSTABLE COUNTY and the Town of Orleans

This Agreement is made this 22nd day of September in the year of Two-Thousand and Fourteen by and between the Town of Orleans, hereinafter called the "CONTRACTOR" and the County of Barnstable, hereinafter called the "COUNTY."

WITNESSETH, that the Contractor and the County for consideration hereinafter named agrees as follows:

ARTICLE 1. SCOPE OF WORK:

The Contractor shall perform the scope of services as set forth in their FY 15 Barnstable County Cape Cod Cooperative Extension's Wildfire Assessment and Preparedness Program Land Management and Wildfire Mitigation Grant Application and/or in a revised version of the scope of services (Attachment A). The Contractor shall furnish all of the materials and/or services called for in the proposal. The contractor is also bound to the terms and conditions outlined in Attachment B (Barnstable County Terms and Conditions).

ARTICLE 2. TIME PERIOD:

- A. Work in connection with the Agreement shall begin upon execution of this Agreement, as indicated by the date of signature of the Barnstable County Commissioners, and be completed with the submission of the final report and evaluation form on or before **June 1, 2015** unless an extension in time is agreed to in writing by both the Commissioners and the Grantee.
- B. The work to be done in the tasks outlined in Amendment A shall be completed by **June 1, 2015**.
- C. Barnstable County may require changes in the Contractor's Scope of Services as outlined above. Such changes would be mutually agreed upon by and between the County and the Contractor, and shall be incorporated in written amendments to this Agreement.

ARTICLE 3. THE CONTRACT SUM:

The COUNTY shall pay the CONTRACTOR for the performance of the contract sum of no more than \$7,500.00 in the form of two separate invoices.

ARTICLE 4. TIME OF PAYMENT:

The County shall provide the Contractor 75% of the total award in the sum of \$5,625.00 upon contract execution. Pending completion of:

- 1. the project as outlined in scope of work
- 2. the Barnstable County Wildfire Assessment and Preparedness Grant Program final report
- 3. the Barnstable County Wildfire Assessment and Preparedness Grant Program evaluation form

The remaining 25% of the total award, a sum of \$1,875 .00, will be provided to the Grantee.

ARTICLE 5. PUBLICITY:

In all printed matter, press releases, publications, and other local announcements regarding this project, the Contractor shall acknowledge the funding support provided by the Barnstable County Wildfire Assessment and Preparedness Grant Program.

ARTICLE 6. THE CONTRACT DOCUMENTS:


"Kent's Point Conservation Area: Wildfire Assessment and Mitigation Work" Plan of Work (Article One and Attachment A) together with this agreement, form the contract, and they are as fully a part of the contract as if hereto attached or herein repeated and incorporated herein by reference.

ARTICLE 7. EVALUATION OF SERVICES:

Previous to the Time Period (see above) and again at the end of the Time Period, site visits may be conducted by a committee of the Barnstable County Wildfire Assessment & Preparedness Program to assess the proposed project and outcome. Working in coordination with the County, the Contractor will arrange for committee members to visit the project location/facility and be available to discuss the project with committee members. A final report (including three to five pictures of the project) documenting whether or not the goals and objectives of the grant were satisfied and describing the status of all deliverables (quantifying them whenever possible) is required within on or before **June 1, 2015** unless an extension in time is agreed to in writing.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, on the day and year written below.

CONTRACTOR:

Signature: 
Printed Name and Title: John F Kelly, Town Admin.
Date: 10/8/14

COUNTY OF BARNSTABLE:


Michael Brillhart
Barnstable County Administrator

9/24/14
Date


William F. Clark
Director, Cape Cod Cooperative Extension

9/29/14
Date

Attachment B: Barnstable County Terms and Conditions

Contract Effective Start Date. The effective start date of performance under this contract shall be the date the contract has been signed by the Barnstable County Commissioners, irrespective of any other verbal or written communications. The County assumes no liability for any preparation or work done prior to the start date.

Permitting. The award of this contract does not imply any level of regulatory approval, and each Contractor is responsible for obtaining any necessary or appropriate permits prior to the start of the funded project.

Indemnification. Unless otherwise exempted or stipulated by law, the Contractor shall indemnify and hold harmless Barnstable County including all its agencies, officers and employees against any and all claims, liabilities and costs for any personal injury or property damages sustained by the Contractor or any other parties used by the Contractor, in conjunction to performance under this contract.

Copyright and Patents. Grant awards made through the Barnstable County Wildfire Assessment and Preparedness Grant Program are funded through Barnstable County, and as such, any and all deliverables under this contract cannot be privately copyrighted or patented.