Southeast Land Trust of New Hampshire
BRCF Management Committee Meeting

September 30, 2025
6:00 pm – 8:00 pm
MMLA Meeting House
Join Zoom Meeting:
https://us02web.zoom.us/j/87892190203?pwd=BLCYf5xk1u4cTB9nygMLvolEbib07N.1
Meeting ID: 878 9219 0203 Passcode: 885032

1) March 2025 minutes (10 min)
   a) Introductions (for new folks in attendance)
   b) Approve minutes
   c) Update status to any actions needed (quick review)
2) Updates (15 min)
   a) Allen Williams – SELT volunteer steward for BRCF
   b) MMRG
   c) Powder Mill Snowmobile Club
   d) MC field trip (8/19)
   e) Mt. Jesse tract addition to BRCF
   f) Others?
3) Work plan for 2025 (30 min)
   a) Work done to date
      i. Burn plan
      ii. All access trail
   b) Work remaining for 2025
4) Planning for 2026 (45 min)
   a) Trails
   b) Forestry & Wildlife habitat
   c) Volunteer status and needs
   d) Events
   e) Draft Budget
   f) Other
5) Other business? (20 min)
6) Next meeting Spring 2026

Birch Ridge Community Forest
Management Committee (MC) – 12th Meeting

31 March 2025, 6:00 - 8:30pm,
New Durham Community Room - Zoom video

Draft Minutes

Participants: Charlie Bridges (Chair), (SELT), Debbie Goard (SELT), Chad Fierros (SELT), and Yohann Hanley (SELT)
Lee Alexander, Ethan Fulk, Matt Murphy, Bill Malay, Cathy Orlowicz
Lorrie Drake, Brad Helfer, Dennis Thorell, and Mike Gelinas (no one zoomed in)

1. 8 October 2024 Minutes
   a. Approved with no changes.

   b. Update status to any actions – None identified. Further discussion about some topics will be discussed in more detail during meeting.

2. Updates
   a. MMRG – Lorrie mentioned two new staff members. Abby Rummo will work with Veronica as a stewardship and community events coordinator. A new office manager has also been hired.

   b. Powder Mill Snowmobile Club – Mike reported that the State of NH Snowmobile Council had a winter ride on Corridor 22 with Executive Councilor Joe Kinney and visited the Cabin. BRCF trail conditions will be assessed post-winter. Mike will likely apply for a RTP grant next year focusing on Mt Jesse trails. The snowmobile club agreement with SELT will be reviewed and updated, if needed.

3. 2025 Budget and Work Plan for 2024
   a. Presentation of final 2025 budget
      - Debbie briefly reviewed the budget line items. Other than some minor math issues, there were no significant concerns.
      - Matt asked about a budget line item for the snow plowing that he performs at no cost. He would like to have this recognized as a donation of his time/effort for tax purposes.

   b. 2025 Work Plan – project status and expected timing
      i. EQIP funding – (see PP slide #8)
         - There will not be "new" EQIP funding for 2025. Proposed projects will be resubmitted in the Fall for funding in 2026. These include potential access road work and bronto work in old landings in MU5 and MU6.
      ii. All access trail – Yohann updated on the status – still on track to receive grant funds after June 2025 (see PP slide #11). Bids are due from prospective contractors by 25 May. Lew plans to bid. Yohann estimates 4-6 weeks to construct the trail this year.
      iii. Events – Debbie and Yohann explained (see PP slides #5 & #6)
      iv. Burn Plan – EQIP funding is secure for developing a prescribed burn plan. Chad provided a brief description (see PP slide #9). The plan will be prepared in Spring

2025 for a Spring 2026 burn. The NH Prescribed Fire Council has a site visit to BRCF planned for June 4. The USFWS Partners for Wildlife Program is interested in assisting.

vi. Mowing landings/openings - Mike currently mows ~6 landings once per year and around the cabin twice per year. Lee suggested a more comprehensive management plan be developed for maintaining landings and other openings.
[Action: Lee, Charlie and Mike will investigate, and then conduct a site visit with Chad]

vii. Scenic Views – Discussion ensued regarding rapid tree growth resulting in a loss of scenic views along trails (see PP slide #10). The challenges of maintaining views were acknowledged. {
[Action: The MC is interested in identifying significant locations to sustain scenic views].

4. Site walks for Committee

Three possible site visits were discussed:

- The Ruben Webster trail has not been seen by most. A long loop could be made from this trail to the Lookout trail, to Corridor 22 and back to the cul-de-sac.
- A recon of various trails to identify important scenic views to maintain.
- A visit to the pending Mt Jesse addition. This perhaps should wait until SELT ownership in the Fall.

[Action: A poll should be sent out with suggested options and proposed dates]

5. Mt. Jesse update

- Property has not yet been formally acquired by SELT. It is currently owned by an "intermediary" while the future of the mountain top house and potential 40 acre subdivision are decided. Several alternatives are being discussed.
- SELT anticipates owning the property before the end of this year.

6. Other business

- Management committee member Victor Piekarski has passed away. Bill Malay is replacing him on the MC representing the New Durham conservation commission.

- Matt reported that some of the SELT signs have been removed from the access trails along South Shore Rd. These signs should not have been removed and will be replaced by Chad as he monitors the South Shore Rd. boundary this summer. Also, Chad will contact some abutting landowners. Matt also stated that Kendra Drive is now private property and should no longer be used as an access point to BRCF.

- Mike reported that at least 3 of the access gates are leaning and need to be reset to function properly. Ethan has offered to help with this work. He has the equipment and necessary materials.
[Action: Mike and Ethan]

- Mike brought up the possibility of creating a reroute of a section of Corridor 22 that would directly connect the NHF&G Ellis Hatch WMA to the Mt. Jesse property and bypass the sand & gravel pit. However, Cathy noted there is a graveyard in the area that needs to be avoided. Duane Hyde will investigate the pros and cons, and involve others as appropriate, to determine if SELT wants to move forward on this.

- Education and Outreach – Debbie discussed "Forest Fridays" at BRCF. This Spring Series (see PP slide #5) has 5 sessions from April 11 through June 13. It is conducted by 4-Winds Nature Institute and SELT for children 3 to 5 years old and their parents. It

is open to the public. The kids particularly like the Cabin site. 4-Winds received a grant from Strafford County for the Forest Friday program.

- Cathy reported that the New Durham Historical Society is finalizing their fund raising to develop historical signage for the BRCF. They are looking for partners to assist in the development and installation of the signs, in particular they are hoping that scouts can and will be involved.

The next BRCF management committee meeting is TBD in September/October 2025.

Birch Ridge Community Forest 2026 Budget-Updated 9/24/2025

			Source of Funding			
Activity/Code	**Expense**	**Comments**	**SELT**	**NRCS-EQIP**	**Other Grants / Funds**	**Notes**
5210 · Printing & copying	$800	New kiosk at Jesse Tract	$800			New Kiosk at Jesse
8600 · Property Taxes	$3,200	based on assumed cost of $1.00 per acre	$3,200			
5532 – Mowing & Brush Hogging	$2,000	Mowing trails & landings	$2,000			
5533 – Snowplowing	$0	Plowing trailhead parking lots	$0			Done by volunteer(s)
5538 – Road Maintenance	$3,000	Maintenance of Birch Hill Road	$3,000			
5540 – Field Supplies & Tools	$500	Tools for tool shed	$500			
9419 – Other Professional Consultant	$25,000	Prescribed burn				Evaluating potential funding
9659 – Other Land Management Services	$7,000	Install fireline	$7,000			
9414 – Forester	$7,000	Management plan update	$7,000			
9658 – Property & Kiosk Signage	$960	Lumber and hardware for Jesse Tract kiosk	$960			
Total expenses	$49,460		$49,460			

** Note: Budget expenses do not include staff time*

Birch Ridge Community Forest
Work Plan 2025 – Updated 9/22/2025

Below is the work plan for 2025 at the Birch Ridge Community Forest with the updated status as of 9/22/2025. The work plan is driven by the Goals, Objectives & Strategies outlined in the 2023 update to the BRCF Management Plan.

General

Mow trails and landings

Update:
Trails and landings were mowed in August. On July 30th, Chad, Lee, Mike and Charlie went to all landings and clearings to discuss mowing, following up on a conversation in the Spring 2025 MC meeting about developing a mowing schedule and clearer guidelines. Notes from this visit will inform what specific areas will be mowed in coming years.

Construct tool shed in Merrymeeting Road parking lot

Update:
Most of the materials to build the shed have been purchased. Barring unforeseen circumstances, it is expected to be built after the All Access trail is completed.

Place boundary signs along boundary where they are still needed

Update:
Additional SELT boundary signs were installed, as needed, along the boundaries that were monitored during the summer (see below). Flagging along these boundaries was refreshed as well.

SELT staff conducts required annual monitoring visit as required of all fee-owned land

Update:
In late July and early August, Ellie (SELT seasonal employee) and Allen (BRCF volunteer land steward) conducted boundary monitoring and maintenance along the South Shore Road boundary and the boundary between the Birch Hill Road and Brienne Road trailheads. Several encroachments were documented; most were minor issues, such as brush piles, along South Shore Road. SELT staff will present recommended follow-up actions to reach resolutions.

MMRG conducts required annual conservation easement monitoring visit

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Property Access and Infrastructure

Evaluate the cabin and need for other public amenities – Objective V

Determine appropriate public and management uses for the cabin that are consistent with

community needs, SELT's programmatic needs, SELT policies and funding sources (Strategy 1)

Update:
No further evaluation has been done. The cabin remains in use as a place to get out of the weather as well as a warming shelter for the winter.

Assess the current condition of the cabin to support desired uses (Strategy 2)

Update:
No formal evaluation has been done.

Recreation and Public Uses

Determine locations and use of additional trails – Objective II

Explore designs & funding opportunities for creating a universally accessible trail

(Strategy 1)

Update:
The all access trail is currently being constructed and expected to be finished in October. A trail opening celebration is planned for November 1st.

Maintain cooperative working relationship with Powder Mill Snowmobile club – Objective IV

Assess post-winter trail conditions with club and identify annual work (Strategy 1)

Update:
Routine trail maintenance conducted by PMSC.

Review agreement with Club governing use and responsibilities (Strategy 3)

Update:
Yohann will be working with the club to update the agreement as needed.

Provide information to the public on recreation at the BRCF – Objective V

Update trail maps to reflect current trails (Strategy 1)

Update:
Trail map to be updated after all access trail constructed and Mt. Jesse tract is added to the community forest.

Finalize installation of trail junction signs (Strategy 1)

Update:
Trail junction signs will be updated after all access trail constructed and the Mt. Jesse tract is added to the community forest.

Update kiosk panels and other relevant information in kiosks (Strategy 2)

Update:
Kiosk materials will be updated as needed after all access trail constructed and Mt. Jesse tract is added to the community forest.

Comply with the easement terms pertaining to improvements – Objective VIII

Provide MMRG with updated trail maps, including designated snowmobile trails (Strategy 2)

Update:
MMRG will be provided with the updated trail map after the all access trail is finished.

Education and Outreach

Education and Outreach by core partners – Objective I

4-6 programs annually conducted by SELT and MMRG (Strategy 1)

Update:
Forest Fridays (11 trips) conducted during Winter 2025 and Spring 2025, as discussed at Spring 2025 MC meeting. MMRG will not be holding the hawk watch this year due to the construction of the all access trail.

A trail opening celebration will be held on Saturday, November 1 and a field trip related to the prescribed burn in the blueberry barren will be scheduled this fall.

Establish a mechanism to inform the stakeholders on BRCF activities and status – Objective III

Develop maps and information to post on SELT web page (Strategy 1)

Update:
The trail map for BRCF is available on SELT's website. News related to activities at BRCF are posted on the property specific page of the website https://seltnh.org/seltlands/birchridge/

Establish links to partner/stakeholder web pages (Strategy 2)

Update:
Links to MMRG and MMLA are on the BRCF page on SELT's website. Other groups, like the PMSC, can be added.

Scenic Views

Identify locations to establish and maintain scenic views along trails – Objective II

Maintain/create scenic views in conjunction with forestry and wildlife habitat work (Strategy 2)

Update:

Routine late-season mowing conducted to maintain views. Prescribed burn plan completed; the burn is intended to help maintain the view below Birch Ridge/Hill. Six members of MC conducted site visit on August 19th to visit current, past and potential scenic vista locations, per conversation in Spring 2025 MC meeting.

Determinations were as follows:

- Abandon the former vistas along the Scenic Loop trail. This should result in the renaming of the trail, which has consequences regarding trail signage and maps.
- The scenic view from the Lookout trail is in good condition and required only minor mowing this season, which has been conducted.
- The popular view from Birch Hill is still present, but vegetation is beginning to reach heights that diminish the view when leaves are on. This is to be addressed through burning.
- The same condition applies for the vegetation below Corridor 22, looking to the eastern side of Merrymeeting Lake, although this area will not be burned.
- The view from the cabin area is in good condition, with some minor handwork needed in the next year to supplement mowing and keep the view open.
- The site visit did not include a trip to the Rattlesnake Mountain view that Dennis and Yohann cleared in 2024, but this view is reported to be in good condition. Those in attendance did not recommend creation of additional vistas.

Forest Management

Restore the former blueberry field area – Objective III

Begin to develop a prescribed burning plan (Strategy 3)

Update:
The prescribed burn plan for Birch Ridge was completed during the summer.

Investigate the process to conduct prescribed burning (Strategy 4)

Update:
SELT staff are evaluating potential funding sources to cover the cost of the burn. The target timeframe for the burn is Spring of 2026. SELT will determine public messaging strategies (to include a field trip for the public to the burn site) this fall.

Manage and monitor condition of log landings – Objective VI

Mow landings periodically to maintain herbaceous conditions (Strategy 2)

Update:
Mike, Charlie, Lee and Chad visited the landings/openings on July 30th to determine priorities and approaches for mowing. Mike conducted annual mowing for 2025 in August.

Wildlife Habitat

Maintain old-field habitat down-slope from the cabin – Objective I

Mow to keep open after September to protect ground nesting birds

Update:
Mowing was conducted in August.

Restore the former blueberry field area – Objective II

Begin to develop a prescribed burning plan (Strategy 3)

Update:
Burn plan was completed in July.

Investigate the process to conduct prescribed burning (Strategy 4)

Update:
Partnership with USFWS Partners for Wildlife established, funding uncertain. SELT met with Ruffed Grouse Society regarding potential partnerships, which could include burning for habitat.

Manage and monitor condition of log landings – Objective III

Mow landings periodically to maintain herbaceous conditions (Strategy 2)

Update:
Mowing was completed in August.

Water Quality

Assess water quality and habitat conditions of perennial streams – Objective II

Support the existing water quality monitoring occurring on the BRCF (Strategy 1 & 2)

Update:
No work has been done by directly SELT or the BRCF Management Committee. Water quality monitoring continues to be allowed by third parties.

Identify stream crossings and culvert locations requiring repair or improvement – Objective III

Assess existing infrastructure such as culverts and water bars (Strategy 1)

Update:
A formal assessment has not yet been done.

Maintain infrastructure such as swales and ditches (Strategy 2)

Update:
Minimal attention needed in 2025.

Climate Change Mitigation

Seek opportunities to achieve connectivity to other conserved forest lands within the region to facilitate plant and animal dispersal and movement – Objective I

Update:

Mt. Jesse tract addition benefits these goals.

PRESCRIBED FIRE PLAN

Southeast Land Trust New Hampshire

PRESCRIBED FIRE PLAN

Southeast Land Trust of New Hampshire
July 2025

Prepared by:
Star Tree Prescribed Fire LLC
384 Route 9 Waretown, NJ 08758
732-407-0937
startreewfp@gmail.com
www.startreewildfire.com

Disclaimer: The following prescribed burn unit plan (the "Plan") was prepared by Star Tree Wildfire Protection LLC on behalf of The Landowner. To the extent Star Tree Wildfire Protection LLC has authorized a third party to use this Plan, the authorization is explicitly limited to the prescription set forth in the Plan. In addition, use of the Plan is not authorized if Star Tree Wildfire Protection LLC gives verbal or written indication that burning is not appropriate on any given day. Any use of this Plan is at the user's own risk. By using this Plan, the User agrees to indemnify hold Star Tree Prescribed Fire LLC and its employees harmless from any injury or loss arising from the burn activities or use of the Pla**n.**

Plan expiration: December 31, 2030

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Star Tree Prescribed Fire LLC (aka Star Tree Wildfire Protection LLC) TSP# 19-22654 (expiration 10/20/2025) has been contracted by Southeast Land Trust New Hampshire, with funding from NRCS to construct this burn plan. STPF certifies this document for the use of SELT to conduct prescribed fire for only the property listed below under the conditions listed in this plan. This plan is written to NWCG and NRCS guidleines.

William C Edwards

Star Tree Prescribed Fire LLC

ADMINISTRATIVE UNIT: Southeast Land Trust of New Hampshire
The Nan and George Mathey Center for People and Nature at Burley Farms
247 North River Road
Epping, NH 03042
603-778-6088
info@seltnh.org

PRESCRIBED FIRE:
Prescribed Fire Unit (Ignition Unit): Birch Ridge Community Forest, New Durham
PREPARED BY:
Jonas D. Glick, Star Tree Wildfire Protection LLC
Qualification: RXB2

Signature: Jonas Glick Date: 07/20/2025

TECHNICAL REVIEW BY:
William P. Edwards, Star Tree Wildfire Protection LLC
Qualification: RXB2
Signature: William P Edwards Date: 07/21/2025

COMPLEXITY RATING: Moderate

MINIMUM BURN BOSS QUALIFICATION: RXB2

NCRS REVIEW BY:
NAME:
_____Date:_

QUALIFICATION: _____

SIGNATURE:_____

Element 2A: Agency Administrator Ignition Authorization

Key Discussion Items

A. Has anything changed since the Prescribed Fire Plan was approved or revalidated? *Such as drought or other climate indicators of increased risk, insect activity, new subdivisions/structures, smoke requirements, Complexity Analysis Rating.*
B. Have compliance requirements and pre-burn considerations been completed? *Such as preparation work, NEPA mitigation requirements, cultural, threatened, and endangered species, smoke permits, state burn permits/authorizations.*
C. Can all of the elements and conditions specified in Prescribed Fire Plan be met? *Such as weather, scheduling, smoke management conditions, suitable prescription window, correct season, staffing, and organization, safety considerations, etc.*
D. Are processes in place to ensure all internal and external notifications and media releases will be completed?
E. Have key agency staffs been fully briefed about the implementation of this prescribed fire?
F. Are there circumstances that could affect the successful implementation of the plan? *Such as preparedness level restrictions, resource availability, other prescribed fire, or wildfire activity*
G. Have you communicated your expectations to the Burn Boss and FMO regarding if and when you are to be notified that contingency actions are being taken?
H. Have you communicated your expectations to the Burn Boss and FMO regarding decisions to declare the prescribed fire a wildfire?

Implementation Recommended by:
FMO or RXB: _____ Date: _____

I am authorizing ignition of this prescribed fire between the dates of _____ and _____. It is my expectation that the project will be implemented within this time frame and as discussed and documented and attached to this plan. If the conditions we discussed change during this time frame, it is my expectation you will brief me on the circumstances and an updated authorization will be negotiated if necessary.

Additional Instructions or Discussion Documentation attached (Optional): Yes ☐ No☐

Ignition Authorized by:
Agency Administrator Signature and Title: _____ Date: _____

Element 2B: Prescribed Fire Go/No-Go Checklist

Preliminary Questions	**Circle YES or NO**
A. Have conditions in or adjacent to the ignition unit changed (for example: drought conditions or fuel loadings) which were not considered in the prescription development? If **NO** proceed with the Go/NO-GO Checklist below, if **YES** go to item B.	YES NO
B. Has the prescribed fire plan been reviewed and an amendment been approved; or has it been determined that no amendment is necessary? If **YES**, proceed with the checklist below. If **NO, STOP: Implementation is not allowed. An amendment is needed.**	YES NO
GO/NO-GO Checklist	**Circle YES or NO**
Have ALL permits and clearances been obtained?	YES NO
Have ALL the required notifications been made?	YES NO
Have ALL the pre-burn considerations and preparation work identified in the prescribed fire plan been completed or addressed and checked?	YES NO
Have ALL required current and projected fire weather forecast been obtained and are they favorable?	YES NO
Are ALL prescription parameters met?	YES NO
Are ALL smoke management specifications met?	YES NO
Are ALL planned operations personnel and equipment on-site, available, and operational?	YES NO
Has the availability of contingency resources applicable to today's implementation been checked and are they available?	YES NO
Have ALL personnel been briefed on the project objectives, their assignment, safety hazards, escape routes, and safety zones?	YES NO

If all the questions were answered **YES** proceed with a test fire. Document the current conditions, location, and results. If any questions were answered **NO**, DO NOT proceed with the test fire: Implementation is not allowed.

After evaluating the test fire, in your judgment can the prescribed fire be carried out according to the prescribed fire plan and will it meet the planned objective? **Circle: YES or NO**

Burn Boss Signature:_____ Date:_____

NWCG Prescribed Fire Summary and Final Complexity Worksheet, PMS 424-1

Type the Prescribed		Quantity	Significance
Values	On-Site	Few	Mod
	Off-Site	Multiple	Mod
	Public/Political Interest	Few	Mod

Element	Preliminary Risk	Post-Plan Risk	Technical Difficulty	Calculated Rating
Safety	Mod	Mod	Low	Mod
Fire Behavior	Mod	Mod	Low	Mod
Resistance to Containment	Mod	Mod	Low	Mod
Ignition Procedures and Methods	Low	Mod	Low	Mod
Prescribed Fire Duration	Low	Mod	Low	Mod
Smoke Management	Mod	Mod	Low	Mod
Number and Dependence of Activities	Low	Low	Low	Low
Management Organization	Low	Low	Low	Low
Treatment/Resource Objectives	Low	Low	Low	Low
Constraints	Low	Low	Low	Low
Project Logistics	Mod	Mod	Low	Mod

Calculated Summary Prescribed Fire Plan Complexity

Final Complexity Determination	Final Complexity Determination Rationale
Mod	Terrain, flashy fuels and the lack of prescribed fire occurance in the burn unit area does push the complexity into the lower end of the "moderate range". Otherwise the burn units consist of a series of grass fields that can be burned with straight forward, traditional methods.

Signatures			
	Jonas Glick (Rx Burn Plan Preparer's Name)	Jonas Glick (Preparer's Signature)	07/20/2025 (Date)
	William P Edwards (Technical Reviewer's Name)	William P Edwards (Technical Reviewer's Signature)	07/21/2025 (Date)
	Agency Administrator's Name	Agency Administrator's Signature	Date

Element 4: Description of Prescribed Fire Area

A. Physical Description

- Location**: Birch Ridge Community Forest, New Durham, Strafford County, New Hampshire**
- Longitude and Latitude**: 43.28'53.6N 71.08'24.4W**
    a. **Property Owner: Southeast Land Trust of New Hampshire**
    247 North River Road
    Epping, NH 03042

Total Acreage: **29.95**

Unit 1	20.42 acres
Unit 2	9.53 acres

- Topography: The property is adjacent to Merrymeeting Lake and expands into the ridges that are present around the lake to the south. The unit topography ranges in elevation from 1100' to 1300' along a ridge oriented north-south to the south of Merrymeeting Lake. The burn unit is located in the highest elevations of the property and adjacent landscape. The steepest slope on the unit is on the northeastern aspect and will need to be considered for personnel safety.
- Project Boundaries:
    a. North: Sound Shore Road and lakeside properties along the southern shoreline of Merrymeeting Lake.
    b. West: Merrymeeting Road extending to a stepped property boundary to Coldrain Pond and private property to Birch Hill Road.
    c. South: An angular property boundary that intersects several Roads sharing Birch Hill and Webster Roads for portions of the property line.
    d. East: The town of Middleton property boundary and another angular property boundary that changes direction several times back toward Merrymeeting lake.

B. Vegetation/Fuels Description:

On-site fuels data: The primary carrier of fire in TU3 is moderate forest litter with grass and shrub components. Spread rate is high, flame length moderate.
The primary carrier of fire in TL2 is low load, compact broadleaf litter, spread rate and flame length is very low.
The primary carrier of fire in TL6 is moderate load, broadleaf litter, spread rate is moderate flame length is low.
The mixed grass and shrub types produce moderate flame lengths and spread rates.

Much of the burn units have been mechanically treated and or thinned. The understory is mostly made up of lowbush blueberry, grasses and fern. Middle height vegetation are saplings/ seedlings and contain Black Birch, American Beech, Red Maple, Gray Birch, Red Oak, and White Pine. Over story is Red Oak, Red Maple, White Pine and Black Birch.

Adjacent fuels data: The forest surrounding is made up of the same vegetation as the burn unit but has been not mechanically treated and is in mature status. 1 hour fuels consist of mostly leaf litter and fern and holds very little ladder fuels.

Percent of vegetative type and fuels model(s):

- fuels consisting of lowbush blueberry, forest litter, grasses and fern. 40%
- fuels consisting of saplings/seedlings 40%
- fuels consisting of over story 20%

C. Description of Unique Features, Natural Resources, Values: The Birch Ridge Community Forest contains hiking trails open to the public and other resources, including a cabin nearby the burn units that is open to the public. These resources will be identified and protected. The mountain is a recreation area that will need to be closed to the public during the burn operation.

Element 5: Objectives

Resource Objectives:

- Promote and maintain desired vegetative communities in the burn units, including components of abundant lowbush blueberry, huckleberry, and native grasses, which provide important wildlife habitat benefits
- Promote oak regeneration in areas with little blueberry or other understory shrubs/herbs while discouraging competition from other hardwoods
- Periodically reduce fuel loads and thatch buildup.
- Provide wildfire training through practical application in wildland fire behavior, fire suppression practices, and prescribed fire techniques.
- Greater than 80% of the substrate layer burned in moderate or higher severity
- Less than 10% damage to perennial root systems

Prescribed Fire Objectives:

- Burn each designated area in a safe manner and in a timely fashion
- Have no escapes or injuries
- Have no smoke impacts to sensitive smoke receptors. Prevent smoke impacts to off base receptors from exceeding 2.5 ppm (Environmental Protection Agency standard for "Unhealthy for Sensitive Groups") and avoid creating prolonged periods of nuisance smoke generation
- Complete operations without preventable damage to equipment
- Have no impacts on roadways, homes or community

Element 6: Funding

Cost: All resources for planned prescribed fires for this unit will be funded through SELT

Funding Source: Funding for portions or all the burn operations will be through and secured by the land manager.

(Funding for this plan is funded in part through NRCS NH)

Element 7: Prescription

A. Prescription Narrative:

1. Prescribed burn operations may continue at the discretion of the burn boss if an environmental or fire behavior parameter is outside of prescription limits, if the observed and expected fire behavior is still within and expected to remain within control capabilities of the on-site resources. Adjustments to parameters, resources, and/or tactics must be documented in the burn plan. The changed parameter, resources, and/or tactics cannot result in an increase in the complexity level of the burn.
2. If burning with a KBDI greater than 199 or a period without appreciable (>0.2") precipitation of greater than 5 days; expect fires to burn deeply and persistently, mop-up to be difficult, a need to conduct mop-up over multiple days, and increased frequency of daily unit checks until significant precipitation occurs. An additional Type 6 engine is required when the KBDI is greater than 199 (see Element 11.B). Exceptions to KBDI limit may be made in grass fields if no humus is present.

C. Prescription Parameters

Environmental Parameters	Min.	Max.	Environmental Parameters	Min.	Max.
Surface Wind Dir. (cardinal):	Any Direction		EPA PM 2.5 Index:	0	75
20 Foot Wind Sp. (mph):	3	22	EPA Ozone Index:	0	50
Mid-flame Wind Sp. (mph):	0	9	1 Hour Fuel Moisture (%):	6	16
Mixing Height (ft):	1,000	None	10 Hour Fuel Moisture (%)	8	None
Transport Wind Dir. (cardinal):	Any Direction		100 Hour Fuel Moisture (%)	10	None
Transport Wind Sp. (mph):	8	None	Live Herbaceous Fuel Moisture (%):	None	None
Keetch-Byram Drought Index (KBDI):	None	299	Live Woody Fuel Moisture (%):	None	None
Atmospheric Dispersion Index:	20	None	Air Temperature (°F):	37	90*
Low Vis. Occurrence Risk Index (Day):	None	5	Relative Humidity (%):	30	80

Allowable Wind Direction: Any

Excluded combinations of parameters:
*If predicted or measured RH is below 40% and temperature is over 70°F, the maximum midflame wind speed allowed is 8 mph.
**No Burn will occur if heat index is over 105°F
*** Any combinations of two or more of the following environmental conditions will be considered out of prescription.

- Mid-flame wind speed greater than 10 mph
- RH less than 25%
- Greater than 6 days since an appreciable (>0.2") of precipitation

Element 7: Prescription (cont)

Drying may vary by seasonal and other weather effects. Following frost, two or more hours of drying may be needed before fuels are sufficiently cured. Following rain woodlands, shrublands, and forests would likely need at least two days of drying before being available to burn. Wind, sun, shading, temperate, amount of precipitation, etc. will impact the rate of drying.

Parameter	TU3	TL2	TL6		
Max Head ROS (ch/hr)	182	29	25		
Min. Head ROS (ch/hr)	6	0.3	2		
Max Head FL (Feet)	19	12	6		
Min. Head FL (Feet)	4	0.4	1		
Max Backing ROS (ch/hr)	3	0.1	0.4		
Min. Backing ROS (ch/hr)	2	0.1	0.3		
Max Backing FL (Feet)	3	0.2	0.8		
Min Backing FL (Feet)	2	0.2	0.7		

Element 8: Scheduling

A. Implementation Schedule:

Ignition Time Frames or Season: Any season may be acceptable to reach objectives. Burning during different season will generate different vegetative responses. Spring fires can be used to favor warm season grasses, summer burns to reduce woody encroachment and fall burns to promote forbs.

For Birch Ridge Community forest, the plan preparer is suggesting a spring burn and followed by a fall. The spring burn will remove leaf litter, promote new growth by opening up the naturally stored seed bank, as well as promote blueberry growth and health. After this process, an evaluation of the units can be done and start to focus on unwanted vegetation (woodies) and may be mitigated with a growing season burn (late summer/ early fall)

Projected Duration: Duration for a single day is expected to be approximately 8 to 10 hours from arrival time to departure. Briefing and setup should be approximately 2 hours, ignition and holding will be approximately 3 to 5 hours, mop-up will be approximately 1 to 2 hours (assuming low KBDI – below 100), and de-briefing and breakdown will be approximately 1 hour.

Constraints: All ignitions must be conducted between the hours of 0900 and 1700, unless otherwise authorized. No prescribed fires are permitted during periods that ozone AQI is predicted to be greater than 50, PM 2.5 AQI is predicted to be greater than 75.

Element 9: Pre-burn Considerations and Weather

A. Considerations:

1. On-site:
   - Representative for the Landowner will be present during all fire operations (Landowner)
   - Water resources will be identified and tested prior to fire operations (Landowner and/or Burn Boss)
   - Verify drafting site located on the site. (Agency and/or Burn Boss)
   - Verify local fire dept resources, if any, that are available for water support (Agency and/or Burn Boss)
   - Property will be closed to the public during fire operations (Agency and/or Burn Boss)
   - Roads immediately adjacent to the prescribed fire unit will be posted if necessary (Burn Boss)
   - The burn plan should be reviewed and adjusted as needed based on changed objectives and conditions (Burn Boss/Technical Reviewer/Landowner)
   - Confirm staging area for prescribed fire and contingency resources (Burn Boss and/or Agency)
   - Dry fuel bed depth in logging slash, old logging decks and masticated fuels within targeted subunit(s) will be checked prior to ignition to evaluate potential for overnight smoldering. (Burn Boss)
   - Pre-Burn Line Prep
   - All fire lines for the subunit to be burned must be mowed and raked to at least 20 feet wide (Landowner)
   - All fire lines surrounding target unit and adjacent units will be passable by vehicles and mowed 20 feet wide (Landowner)

2. Off-site
   - Coordinate with participating agencies to arrange logistics concerning crew and equipment (Burn Boss)
   - Confirm local fire departments, other appropriate town agencies, and sensitive receptors are made aware of planned prescribed fire activities (Burn Boss and Agency)

B. Method and Frequency for Obtaining Weather and Smoke Management Forecast(s):

All weather sites and frequencies are recommendations; the burn boss will adjust frequency and source based on availability of forecasts, needs, and conditions.

NWS Fire Weather (Fire Weather & Red Flag Warnings), Point Forecast, and Hourly Weather Graphs are available at https://www.weather.gov/aly/fire (use: The Fire Weather forecast will be checked the day prior to the burn and the morning of the burn.

- Upper air soundings can be accessed at the NWS web page at http://www.spc.noaa.gov/exper/soundings/ . To run model data in bufkit or a similar program upper air soundings can be accessed at http://www.meteo.psu.edu/bufkit/NEUS_HRRR_06.html (use station KFMH), and run in the bufkit program (or similar program) to project winds, dispersion conditions, and other variables. If the NWS Fire Weather page is not operating, running this model can provide missing smoke management information.

- HYSPLIT Trajectory and Concentration Models can be accessed at http://www.arl.noaa.gov/HYSPLIT_info.php and can be used for day of burn smoke management considerations.

- VSmoke – Web can be accessed at http://weather.gfc.state.ga.us/GoogleVsmoke/vsmoke-Good2.html and is designed to model smoke dispersion.

- A spot weather forecast request may be made on the NWS Fire Weather Page at https://www.weather.gov/aly/fire.This forecast is not always available if so, note that spot weather forecast was not accessible. Spot weather forecasts need to be obtained by a government partner since private contractors are not authorized to obtain them. If no requester is available, the forecaster generally will welcome phone calls for information and provide it verbally to the burn boss. Some federal partner organizations require a SPOT forecast to assist.

NH DES air quality conditions and forecasts can be accessed at https://www4.des.state.nh.us/airdata/ or the US Environmental Protection Agency's AIRNOW Air

Quality Index for PM 2.5 and Ozone can be acquired at https://airnow.gov/.

D. Notifications:

Agency & Contact	Comments	Phone Numbers	Email
DNCR Forest Ranger Emily Taylor		603-451-9905	Emily.R.Taylor@DNCR.NH.gov
New Durham Fire Chief Peter Varney		603-859-3473	ndfd@newdurhamnh.us
Fire Warden David Stuart		603-859-3473	stuiedave@yahoo.com
State Police		603-679-3333	
Strafford County Sheriff		603-742-4960	
Chad Fierros SELT		301-676-5069	chad@seltnh.org
Kathleen Simmons NH DES	Air Quality	603-271-0871	

E. Fire Line Preparation:

The access road will be used for a large portion of Unit 1 for control. Other lines that will need improvement/ construction are recommended to be down to mineral soil. If this is unachievable, the burn boss will use their discretion on which method of line he or she will consider safe from escape.

- Mowed to a height of no more than 2 inches
- Wet lined with water or an environmentally safe retardant
- Leaf blown and free of any light fuels
- Mechanically constructed via heavy equipment

All lines should be patrolled by foot or engine until firing is complete and the burn is considered out. Take precautions to stay out of smoke as much as possible.

F. Element 10: Briefing

A. Briefing Checklist; including, but not limited to: (additional items may be added)

- □ Burn organization and assignments
- □ Prescribed Fire objectives and prescription
- □ Description of prescribed fire project area
- □ Expected weather and fire behavior
- □ Communications
- □ Ignition plan
- □ Holding plan
- □ Contingency plan and assignments
- □ Wildfire declaration
- □ Safety and medical plan
- □ Aerial ignition briefing (if aerial ignition devices will be used)

Element 11: Organization and Equipment

A. Positions:

Positions and number of staff are suggested for ease and efficiency of operations. The burn boss may adjust the listed positions and number of staff depending on site conditions, resources, expected fire behavior, and common crew experience levels. The minimum crew size is 10. If burning more than 30 acres at one time the minimum crew size is 12. Multiple units less than 30 acres may be burned in one day by a 10-person crew; however, each 30-acre block must be completely secured and crew re-briefed prior to igniting a subsequent unit. Any adjustment to crew size or qualifications must be of a type that will not affect the complexity of the burn and be documented in the burn plan or burn day log. Additional crew may be required for smoke patrols or to manage trail access for visitors. Number of trainees present on the burn will be determined by the burn boss.

1 Burn Boss (Burn Boss Type 2)

2 Holding Specialist (Firefighter Type 1)

1 Firing Specialist (Firefighter Type 1)

5 Prescribed Burn Crew (7 if burning >30 ac.) Firefighter Type 2

1 Fire Weather Observer (may have other responsibilities)

Fire Effects Monitor, or Firefighter Type 2

Element 11 Continued

A. Equipment

The burn boss may adjust the amount and type of equipment needed based on site conditions, resources, expected fire behavior, crew size, and crew experience. The adjustment must be of a type that will not affect the complexity of the burn and will be documented in the prescribed fire plan. Type 6 Engine may be substituted for a larger wildland capable fire engine.

5 Drip Torches
6 Backpack Pumps
9 Hand Tools
1 Weather Kit
10 Radios
1 First Aid Kit
1 Set of PPE/ Person (see below)
1 Leaf Blower
1 Type 6 Engine
1 Type 7/UTV Engine

C. Supplies:

The burn boss may adjust the amount and type of equipment needed based on site conditions, resources, expected fire behavior, crew size, and crew experience. The adjustment must be of a type that will not affect the complexity of the burn and will be documented in the prescribed fire plan. Type 6 Engine may be substituted for a larger wildland capable fire engine.

5 Drip Torches
6 Backpack Pumps
9 Hand Tools
1 Weather Kit
10 Radios
1 First Aid Kit
1 Set of PPE/ Person (see below)
1 Leaf Blower

PPE Requirement per firefighter: Fire helmet, goggles, safety glasses, wildland gloves, hearing protection, firefighting boots, nomex clothing, fire shelter (if trained in fire shelter use)

Element 12: Communication

A. Radio Frequencies:

Frequencies will be identified, verified, and adjusted as needed prior to ignition and will be based on need and attending agencies. At a minimum, a tactical frequency will be identified for prescribed fire operations.

Supervisors and any crew that will be working independently of an immediate supervisor or out of visual and verbal communication distance with an immediate supervisor with a radio or adjacent resources should be issued a radio.

Command Frequencies

Channel	Receive Freq/PL	Transmit Freq/PL	Comments

Tactical Frequencies

Channel	Receive Freq/PL	Transmit Freq/PL	Comments
NEFFPC	**159.285/000**	**159.285/000**	

Air Operations Frequencies

Channel	Receive Freq/PL	Transmit Freq/PL	Comment

B. Telephone Numbers: Notifications will be made 48 hours prior to burn.

Agency	Contact & Comment	Phone Number
SELT	Chad Fierros Forest & Wildlife Habitat Manager	301-676-5069
SELT	Debbie Goard Stewardship & Land Engagement Director	603-658-9721
New Durham Fire	Chief Peter Varney	603-859-3473
New Durham Police		603-859-2752
Fire Warden	David Stuart	603-859-3473
DNCR Forest Ranger	Emily Taylor	603-451-9905
BRCF Management Committee Chair	Charlie Bridges	603-767-8459
Star Tree Prescribed Fire	Bill Edwards	732, 407-0937
Huggins Hospital	240 S Main St Wolfesboro, NH	603-569-7500
Concord Hospital	80 Highland St Laconia, NH	603-524-3211
Air Quality	Kathleen Simmons	603-271-0871

Element 13: Public and Personnel Safety, Medical

A. Safety Hazards:

Tick-Borne Diseases
Fatigue, Heat Exhaustion, and Dehydration
Rollover Potential Smoke Inhalation
Crossing Roads Overhead Power lines
Fast-moving Fire
Holes, Uneven Terrain, and Depression
Overhead Danger
Entrapment
Tripping Hazards (Stumps, Branches, Vegetation, Barbed Wire, etc.)
Mucky Soils (Ignitors and vehicles getting stuck)

A. Mitigation: Measures Taken to Reduce the Hazards:

All crew will be briefed on tick-borne disease prevention and associated safety measures.
Supervisors will maintain accountability of crew.
Crew experiencing excessive smoke inhalation will have responsibilities rotated to give relief from smoke.
Extra drinking water will be made available to crew and crew will be briefed on symptoms and treatment of heat exhaustion, dehydration, and fatigue. Supervisors will be reminded to watch for symptoms of heat exhaustion, dehydration, and fatigue.

First Aid/CPR, EMT, and Paramedic qualified personnel will be identified during crew briefing in addition to the location and type of medical gear onsite.

Gopher holes near the firebreaks will be marked and holes will be discussed during briefing.

At a minimum, one fire resource will be First Aid and CPR certified.
Driving of UTV or engines on steep side-slope will be avoided.
Crossing roads and driving on roads with the UTV will be avoided when possible.
Power poles should be prepped so that fire is not under the lines.
Crew will be briefed on areas of wet soils where they or vehicles may get stuck.

A. Emergency Medical Procedures:

Victim will be stabilized and moved only if directly under threat that cannot be mitigated.
The burn boss will be notified of the situation, location of patient, and assign qualified medical personnel to the patient.
The burn boss or designee will activate EMS and, if possible, put a qualified burn crew member in direct communications with EMS. Follow Medical Emergency Guidelines and Procedures as outlined in IRPG.
Qualified individuals will provide immediate first aid until EMS personnel arrive and relieve the first responder.
After the incident, an accident report will be filled out and a copy provided to the burn boss, property owner/manager, and the individuals home unit.

Name of victim will not be used over radio.

B. Emergency Evacuation Methods:

The burn boss and identified on-scene medical lead will implement the medical plan to initiate EMS response and transport to the nearest appropriate treatment facility. Call 911 and provide symptoms and location. Stabilize victim in safe, accessible location. EMS dispatch will notify the appropriate FD and direct them to the patient.
In the event that an air evacuation is required for a patient the local fire department will coordinate the evacuation. The open fields are likely the best location for a helispot.

C. Emergency Facilities:

Huggins Hospital
240 S Main St, Wolfeboro, NH 03894
(603) 567-7500

Concord Hospital
80 Highland St, Laconia, NH 03246
(603) 524-3211

Element 14: Test Fire

A. Planned Location:

The test fire will be initiated in the unit on the downwind side unless otherwise determined by the burn boss. The test fire will be in representative fuels, with the burn not continuing beyond the test fire phase until the burn boss has determined that an accurate representation of expected fire behavior has been demonstrated. The burn will not continue unless objectives can be met, and the burn can be conducted within prescription limits in a safe manner. The burn boss should evaluate the unit for deep burning duff fire and if duff fire seems likely, do not burn areas with significant duff. If the unit includes both grassland and woodland test fire should include both fuel types.

B. Test Fire Documentation:

Weather conditions during the test fire will be recorded and added to the prescribed fire report package. Upon completion of the test fire, an announcement will be made to the crew stating whether the burn will continue or be shut down. This announcement should be documented in the burn day event log or by some other means.

Element 15: Ignition Plan

All elements in the Ignition Plan may be adjusted by the burn boss to meet given conditions. The adjustment must be of a type that will not affect the complexity of the burn and will be documented in the prescribed fire plan.

A. **Ignition Staffing**

1. Ignition Specialist
   Firefighter Type 1

1 Prescribed Burn Crew
Firefighter Type 2
Fusees
Other Devices as Needed and Directed by the Firing or Burn Boss

B. **Firing Devices**

Drip Torches
Launched Flares
Hand-Thrown Flares

C. **Firing Methods**

Firing will be executed in a manner that meets burn and resource management objectives while still ensuring effective and safe holding operations. Ignition methods should prevent crown fire and torching near the fire line. Firing methods should minimize re-burn potential, torching near holding lines, and spotting distance. Additionally, when using strip head firing, circular firing, and ring firing patterns, care should be taken so as to maximize the ability of wildlife to escape direct impact from flaming fronts. The ignition team will coordinate all actions with the holding resources and the burn boss so that operations do not negatively impact one another. Internal ignitions should be limited to the greatest extent feasible in established warm-season grasslands.

D. **Firing Techniques**

Backing and/or flanking fire on holding lines
Head firing using single or multiple strip or dot fires

Circular firing for completion of the unit after downwind portions have been burned out.

E. **Firing Sequences**

Establish blackline on the downwind lines.
As blackline is extended on the downwind lines, commence interior ignition.
Continue creating blackline on the downwind lines and igniting the interior until the majority of the unit is complete.
Ensure that the upwind line is not ignited until interior ignition crew is out and the downwind holding line is secure.
Continue until the unit is completed.

F. **Firing Patterns**

On the downwind lines, establish black that is adequately wide to stop a head fire when used in combination with the hard breaks (fire breaks devoid of burnable material), soft breaks (fire breaks that contain burnable material), or natural breaks (streams, wetlands or damp litter). Ensure that fire intensity near holding lines is sufficient to minimize the potential of re-burn.
Extend fire into the unit from the black using appropriate firing techniques.
Extend black along holding lines and continue igniting interior progressively as holding lines are completed.
Ensure that interior ignition does not progress faster than the blacklining of the downwind holding lines.
Complete the unit by ringing the final portion.
Other techniques or strategies may be used to achieve objectives at the discretion of the burn boss or firing boss.

Element 16: Holding Plan

All elements in the Holding Plan may be adjusted by the burn boss to meet given conditions. The adjustment must be of a type that will not affect the complexity rating of the burn and will be documented in the prescribed fire plan.

A. Holding Staff

1 Holding Specialist (Burn Boss may request 2)
Firefighter Type 1

4 or more Prescribed Burn Crew Firefighter Type 2

B. Holding Equipment and Water Resources

Water sources will be identified on the day of the prescribed burn. At a minimum, the nearest operational water source and the travel time and route will be identified in the crew briefing.

1 Drip Torch per Holding Team
2 Backpack Pumps per Holding Team
Miscellaneous Hand Tools

1 Type 7 Engine-UTV or larger

1 Type 6 Engine or larger

C. Holding Procedures

The development of the downwind holding line will be the basis for the speed of the operation. Holding teams will coordinate with each other and the ignition team to avoid negative impact on adjacent resources.

Spot fires and slop-overs will be suppressed using direct attack.

The downwind holding line crew will be responsible for establishing black to improve the line.

The upwind holding line crew will only ignite on their line when it will not negatively impact the other holding team or the ignition team. Careful coordination with the ignition team will be executed whenever igniting.

If burning in a unit with stump protection as a priority, stumps must either be pre-treated with gel or foam, or stumps must be actively protected.

Pump operations should follow best practices to prevent fuel spills near the water sources (use of sorbent pads, secondary containment, securing pump, storing fuel away from water, etc.).

Refilling of drip torches should be done away from water sources and/or in secondary containment to prevent fuel spills near fresh water sources.

D. Critical Holding Points and Actions

A downwind patrol for possible spot fires is required.

When holding on soft breaks (fire breaks that contain burnable material), care should be given to ensure that fire on the line does not rekindle or creep across the line.

All wet edges, soft breaks, and natural breaks should be walked to ensure no creeping fire can escape unit.

Element 17: Contingency Plan

Trigger Point	Action Needed
Multiple Spot Fires	Adjust ignition and increase downwind patrolling or shut down.
Slop-over	Suppress slop-over and shutdown burn if necessary
Duff is Burning Deeply	Shut down burn or exclude areas with duff. Assess potential for overnight smoke production and prepare for overnight and/or next day mop up operations.
Offsite Smoke Impacts Expected	Notify police and fire departments. Request fire department assistance if appropriate. Put overnight and/or next day mop up operations in place.
Minor Injury	Assign first aid first responder to victim, identify source of injury, and shutdown burn if required.
Significant Injury	Assign first aid first responder to victim, identify source of injury, activate EMS, and shutdown burn.
Report of Critical Smoke Sensitive Area Being Impacted	Adjust ignition and monitor results; shut down burn if required.
Smoke Impacting Roadway (nearest major road over 6 miles away)	Smoke signs will be deployed. Ignition patterns adjusted or burn will be shut down. Law enforcement contacted if needed.
Wind Shift	Determine if the burn should continue or be shut down. If the burn continues adjust holding and ignition tactics as needed
Objectives Not Being Met	Adjust ignition or shut down burn
Unit is No Longer Within Prescription	Prescribed fire operations will cease, and the fire will be suppressed or managed to reduce and/or mitigate hazards.
Escape Fire	Notify the fire department, shutdown the prescribed burn, and suppress the escape.

Element 18: Wildfire Declaration

A. Wildfire Declared By:

The burn boss will consider the prescribed fire an escape when fire leaves the unit and one or both of the following conditions exist
The fire has exceeded or is expected to exceed on-site initial attack capabilities. The fire has or is expected to leave the burn planning area.

B. IC Assignment: The burn boss will act as IC until relieved by the agency in command of the area. Prescribed burn crew as well as IC will assist in any way directed by controlling agency once chain of command has been established and new IC has been briefed.

C. Notifications: All persons listed in the "notification" chart will need to be contacted by phone or email prior to ignitions. Some may require up to 72 hours' notice and will be listed as such.

Element 19: Smoke Management and Air Quality

Compliance: No burning if ozone AQI is predicted to be greater than 50, PM 2.5 AQI is predicted to be greater than 75, and/or a Red Flag Warning has been posted.

Neighbors shall be notified of the prescribed burn activities by signage, and mass communication to members of the community.

All ignitions will be conducted between the hours of 9:00 am through 5:00 pm with all burns being in burn down mode between 5:00 pm and 9:00 am, unless otherwise authorized.

Permits to be Obtained: The person/ contractor conducting the burn, with written permission from the landowner/ manager, to apply and obtain a NH Class IV fire permit.

Smoke Sensitive Areas

Smoke management methods from "Managing Smoke at the Wildland –Urban Interface" were used to identify the following Smoke Sensitive Areas. When using this method, the maximum burn size is 50 acres at any one time. Individual burns may be over 50 acres, but the Burn Boss should make smoke impact considerations. A VSmoke Web model run is included in the smoke maps to illustrate potential smoke impacts during daytime operations for larger burn units. The 500' and 0.75-, 1.0- and 1.5-mile buffers are used to identify potential low visibility impact if the unit smolders during nighttime conditions. Fuel Category F ("Any other native understory fuel type under 3 feet high") was used for blueberry opening smoke buffers. The screening is intended to identify potential smoke impacted areas when 20-foot winds less than 5 mph. Buffers were created from the extreme edges of the burn units.

A. Smoke Management and Mitigation

Burn day notifications will be made to those individuals that have requested to be notified/agencies that require notification via email and telephone calls.
Maintain communications with fire departments in expected smoke shed.
Burn with conditions favorable to lift and dispersion.
Create a strong convective column to lift smoke above surrounding receptors.
Dilute smoke by burning only a portion of the unit if lift and dispersion are not favorable for the entire unit.
Monitor for overnight fog potential. 100% mop up should be achieved if fog is predicted.
Consider running PB-Piedmont if smolder is a possibility.
If residual smoke is present at dusk, monitor Smoke Sensitive Areas at night and be prepared to mitigate impacts.
Do not burn under an Air Quality Action Alert day.
If KBDI is 99 or greater, there is a potential for smolder.

* Smoke mitigation will be taken into consideration when deciding on potential burn days. A high lift forecast will be favorable to reduce impact on surrounding residence and roadways. Due to the proximity of the burn unit to sensitive smoke receptors and elevation of units, additional smoke modeling is not required in this plan. Smoke maps attached exhibit potential impact but if burn is conducted under the proper conditions, the impact shown may not apply

Element 20: Monitoring

All monitoring outlined may be adjusted by the burn boss and agency representative to meet given conditions. The adjustment must be of a type that will not affect the complexity rating of the burn and will be documented in the prescribed fire plan.

A Fire Weather Observer or Fire Effects Monitor assigned to the burn will use a prescribed burn event/weather form will be used to document fuels, weather, fire behavior, smoke dispersal, and burn severity information for the prescribed fire.

Vegetation monitoring has been in place for some burn units and may be established as part of the restoration process in other areas. Vegetation monitoring will be addressed in separate monitoring documents and protocols.

A. Fuels Information

At a minimum, fine dead fuel moisture will be calculated. Downed dead fuel moistures for 1, 10, and 100-hour fuels may be measured using a protimeter (if available) periodically during the burn. The KBDI for the previous day will be calculated prior to ignition.

B. Weather Monitoring

Weather will be recorded prior to the test fire. Fire weather will be recorded every 60 minutes or as directed by the burn boss. Before the test fire is ignited, probability of ignition should be calculated and should be re-calculated each time fire weather is recorded.

C. Fire Behavior Monitoring

Flame length, rate of spread, and residence time should be estimated hourly and recorded by fuel type. Photos of fire behavior should be taken periodically with the approximate location and direction recorded. Representative before and after photos should be taken.

D. Measuring Objectives

A burn summary will be completed by the burn boss using information compiled from burn day records. Burn severity index will be completed by designated crew members for interpretation and incorporation in the summary prepared by the burn boss. The summary will evaluate the success of each prescribed burn objective as related to prescribed fire operations.

E. Smoke Dispersal

Communication should be maintained with the local fire departments to ascertain if receptors are being impacted by smoke. If concerns of negative smoke impacts arise, a smoke monitor will be dispatched to check potential problem areas and inform the burn boss and the fire effects monitor of conditions.

Element 21: Post-burn Activities

All post-burn activities may be adjusted by the burn boss to meet given conditions. The adjustment must be of a type that will not affect the complexity of the burn and will be documented in the prescribed fire plan.

An After Action Review should be conducted with the crew.
The unit needs to be checked every day between 1100 and 1400 by a person briefed by the burn boss with instructions until an appreciable rain event and/or the burn boss declares the unit is 100% out. If KBDI is greater than 200 or dry conditions occur immediately following the burn, the frequency of checks should be increased.

The Fire Summary Report should be filed within 60 days of the final day of the period for which a prescribed fire or prescribed burn has been authorized: whether the prescribed fire or prescribed burn took place, including the actual days on which the action was conducted; and, if the action took place: the weather conditions that existed at the time of the action, how actual fire and smoke behavior correlated with predicted behavior, whether the objectives set forth in the prescribed fire plan or prescribed burn plan were achieved while having a minimal adverse impact on the environment, an assessment of the impact of the action on the environment including wildlife and their habitat and whether additional measures could be taken in the future to reduce this impact. The report will be filed with the appropriate permitting agency.

Prescribed Fire Plan Appendices

Appendix A: Maps: Vicinity, Project or Ignition Units (or both), Optional: Significant or Sensitive Features, Fuels or Fuel Model, Smoke Impact Areas

Appendix B: Technical Reviewer Checklist

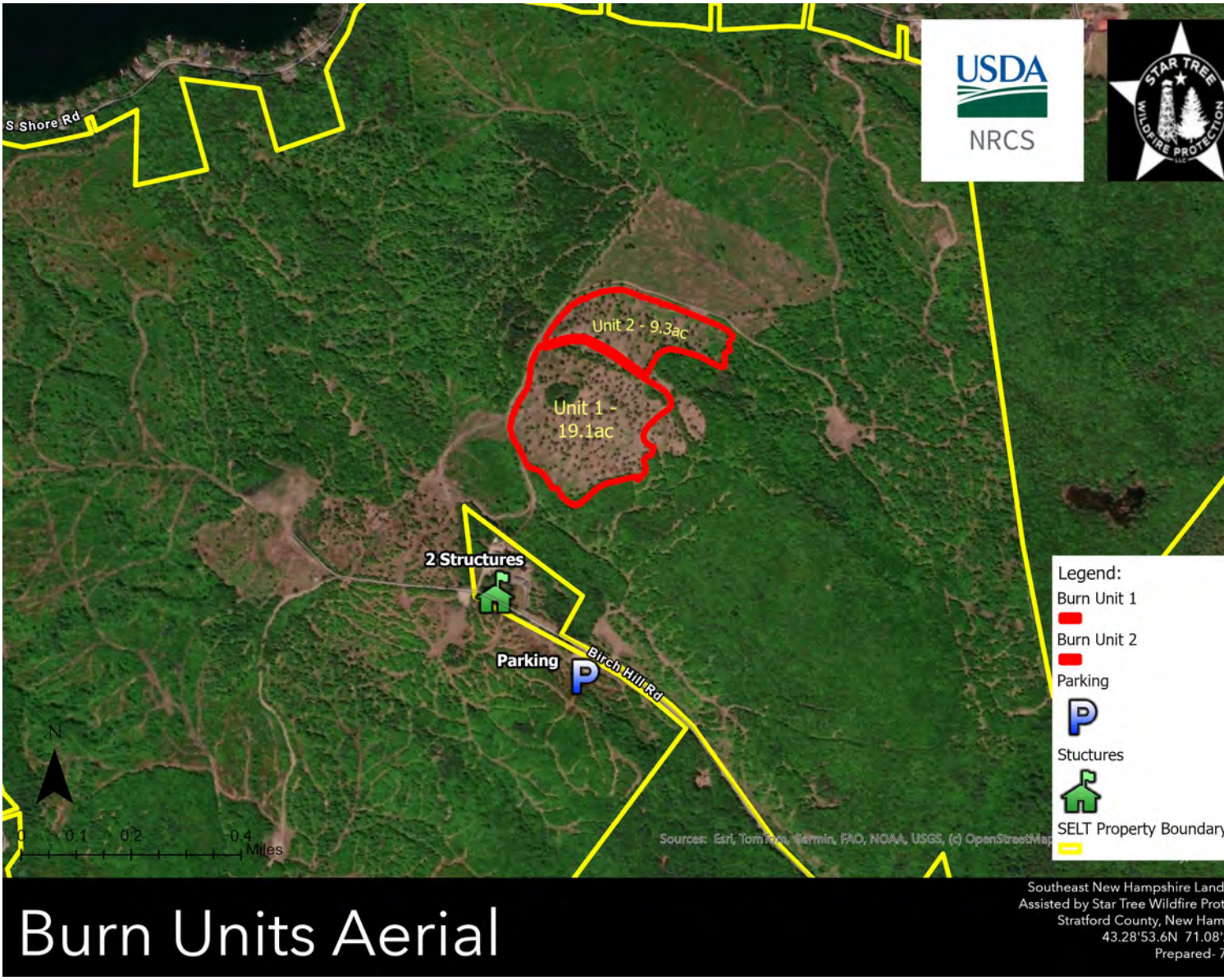
Appendix C: Complexity Analysis

Appendix D: Agency-Specific Job Hazard Analysis or Risk Assessment

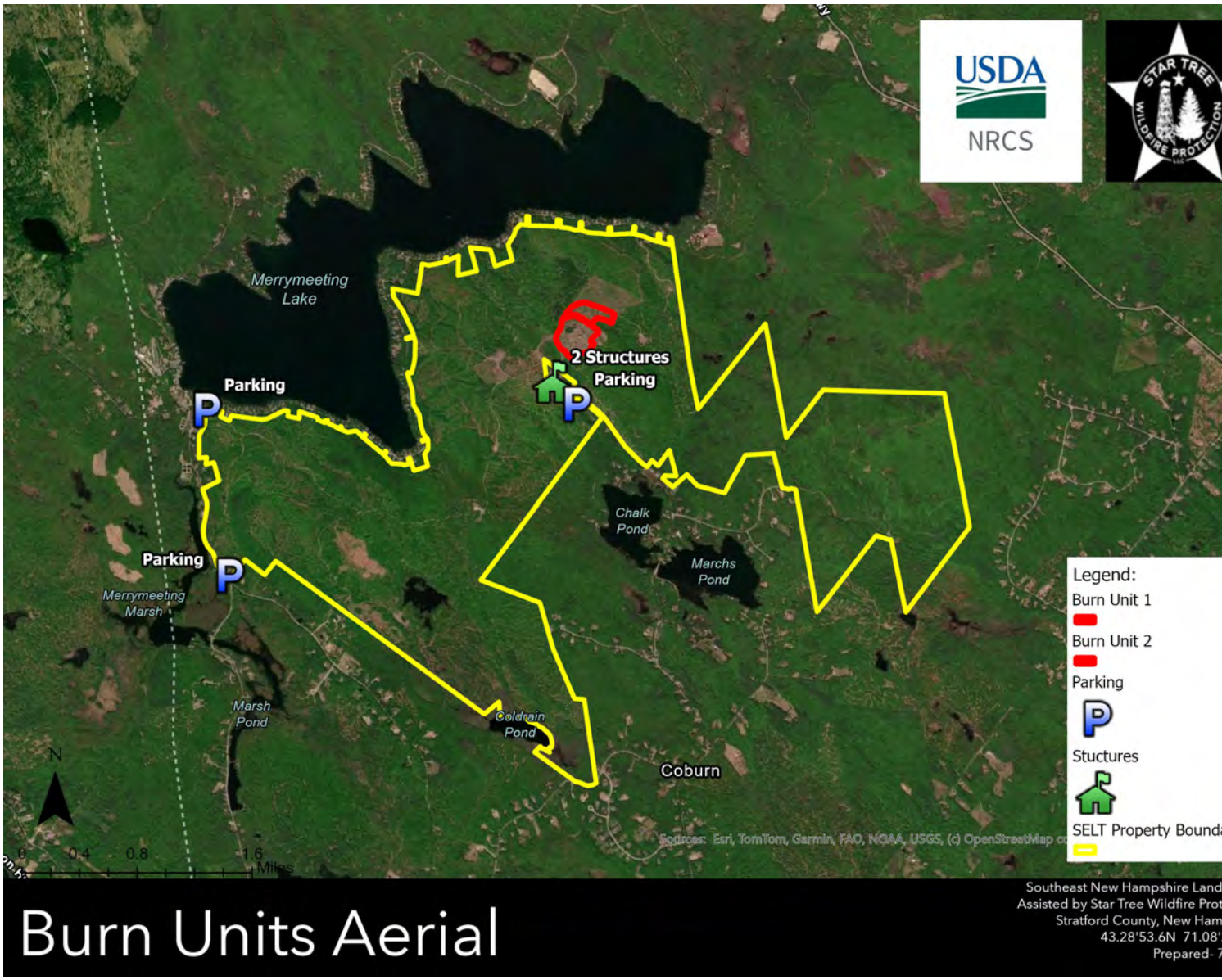
Appendix E: Fire Behavior Modeling Documentation or Empirical Documentation

Appendix F: Smoke Management Plan and Smoke Modeling Documentation (Optional)

Appendix G: Photos

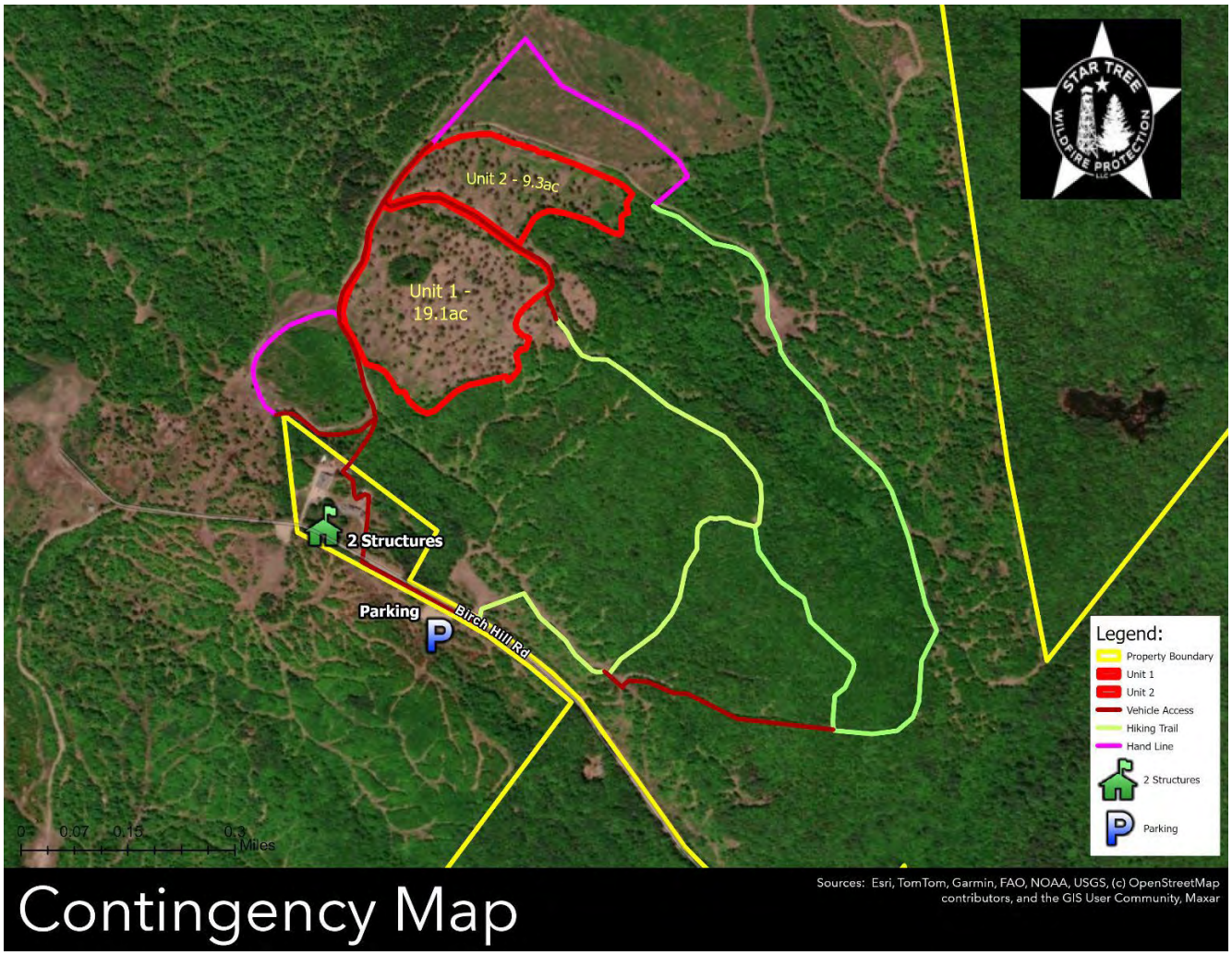


Burn Units Aerial

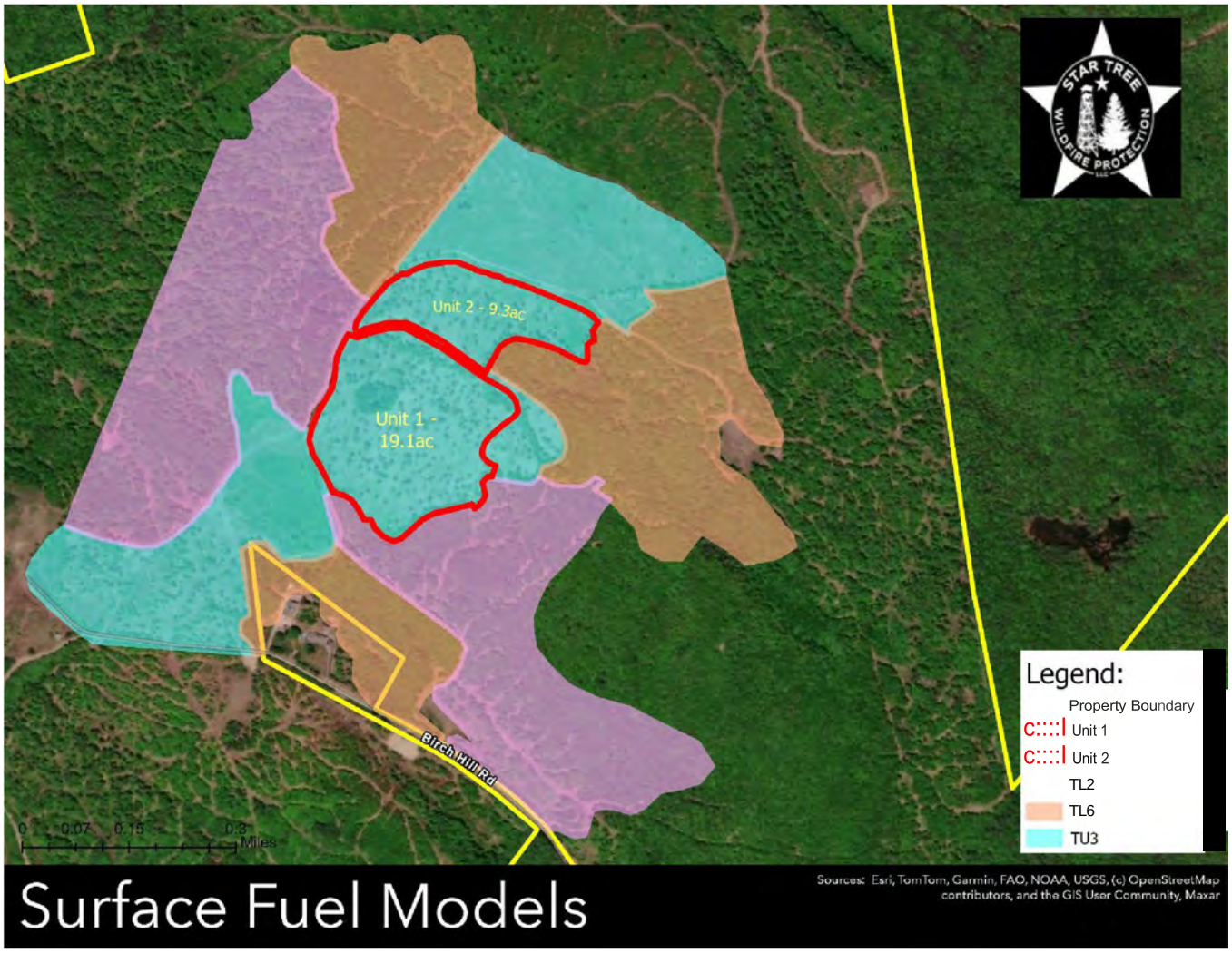


Burn Units Aerial

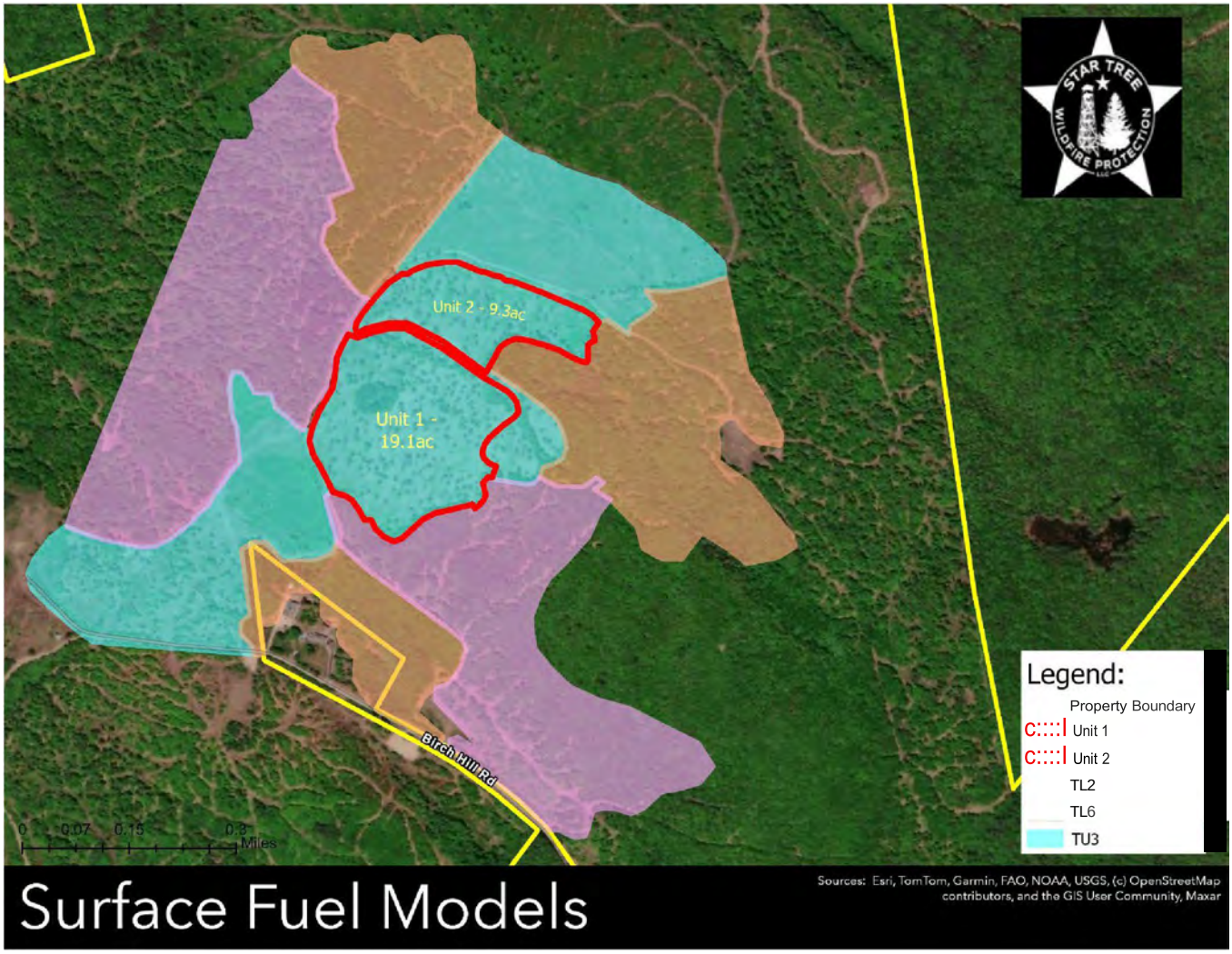
Southeast New Hampshire Land
Assisted by Star Tree Wildfire Prot
Stratford County, New Ham
43.28'53.6N 71.08'
Prepared- 7



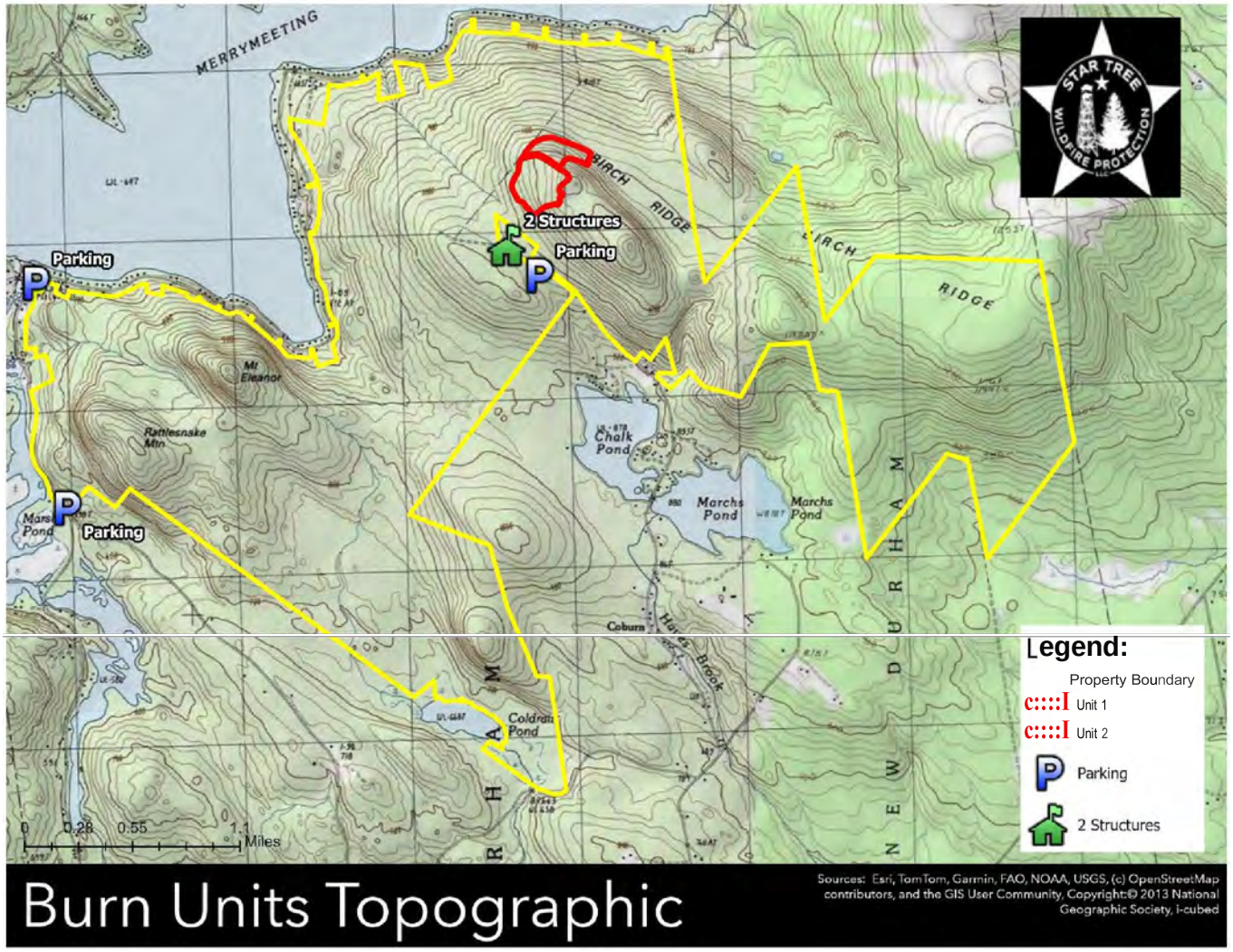
Contingency Map

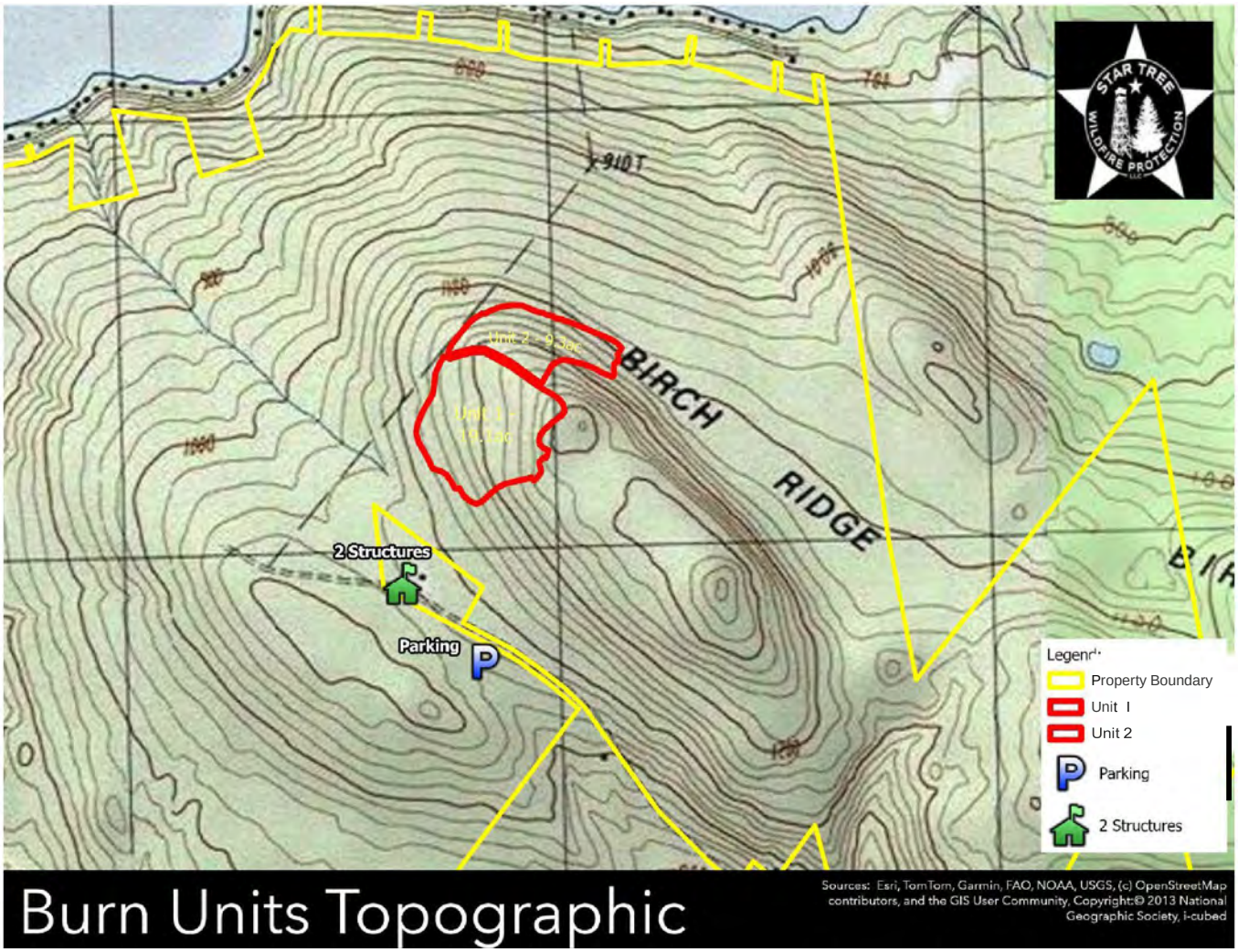


Surface Fuel Models

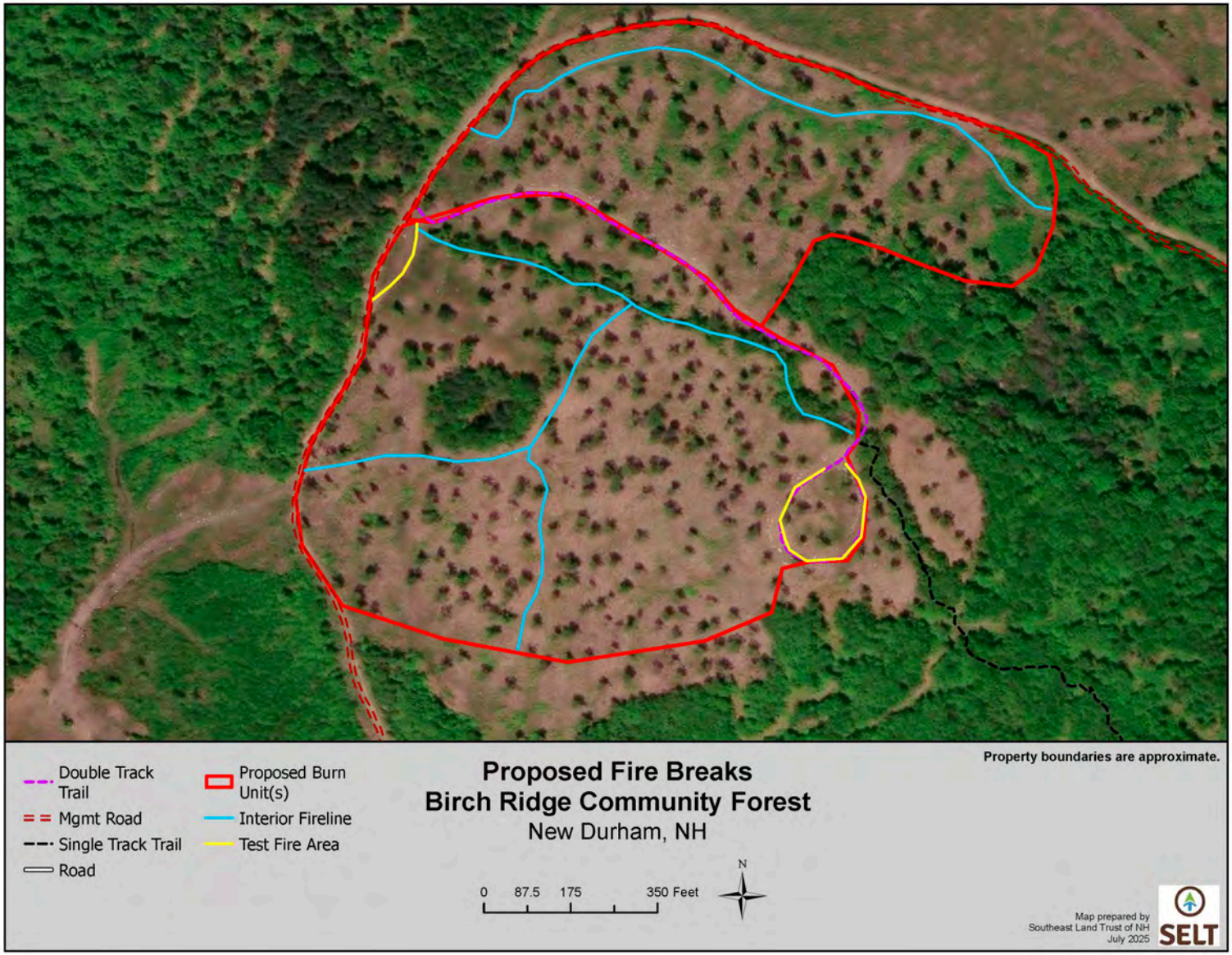


Surface Fuel Models


MERRYMEETING
BIRCH RIDGE
2 Structures
Parking
Parking
Parking
Mt Eleanor
Rattlesnake Mtn
Chalk Pond
Marchs Pond
Marchs Pond
Coburn
Hall's Brook
Coldrain Pond
NEW DURHAM
STAR TREE WILDFIRE PROTECTION
Legend:
Property Boundary
Unit 1
Unit 2
Parking
2 Structures
0 0.28 0.55 1.1 Miles
Burn Units Topographic
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, Copyright:© 2013 National Geographic Society, i-cubed



Burn Units Topographic


Double Track Trail
Mgmt Road
Single Track Trail
Road
Proposed Burn Unit(s)
Interior Fireline
Test Fire Area
Proposed Fire Breaks
Birch Ridge Community Forest
New Durham, NH
0 87.5 175 350 Feet
N
Property boundaries are approximate.
Map prepared by
Southeast Land Trust of NH
July 2025
SELT

Appendix B: Technical Reviewer Checklist

Fill out this checklist based on the guidance provided in the Technical Review section in the *Interagency Prescribed Fire Planning and Implementation Procedures Guide*, PMS 484. Rate each element in the following table with an "S" for Satisfactory or "U" for Unsatisfactory. Use Comment field as needed to support the element rating.

PRESCRIBED FIRE PLAN ELEMENTS	RATING	COMMENTS
1. Signature Page	X	
2. A. Agency Administrator Ignition Authorization	X	
2. B. Prescribed Fire GO/NO-GO Checklist	X	
3. Complexity Analysis Summary	X	
4. Description of Prescribed Fire Area	X	
5. Objectives	X	
6. Funding	X	
7. Prescription: Prescription Narrative and Prescription Parameters	X	
8. Scheduling	X	
9. Pre-Burn Considerations and Weather	X	
10. Briefing	X	
11. Organization and Equipment	X	
12. Communication	X	Discus day of the burn
13. Public and Personnel Safety, Medical	X	Discus day of the burn
14. Test Fire	X	Location determined day of the burn
15. Ignition Plan	X	
16. Holding Plan	X	
17. Contingency Plan	X	
18. Wildfire Declaration	X	
19. Smoke Management and Air Quality	X	
20. Monitoring	X	
21. Post-Burn Activities	X	
Appendix A: Maps	X	
Appendix C: Complexity Analysis	X	
Appendix D: Agency-Specific Job Hazard Analysis or Risk Assessment	X	
Appendix E: Fire Behavior Modeling Documentation or Empirical Documentation	X	
Appendix F: Smoke Management Plan and Smoke Modeling Documentation (Optional)		
Other		

X **Approval is recommended** subject to the completion of all requirements listed in the comments section, or on the Prescribed Fire Plan.

☐ **Recommendation for approval is not granted**. Prescribed Fire Plan should be re-submitted for technical review subject to the completion of all requirements listed in the comments section, or on the Prescribed Fire Plan.

Technical Reviewer Signature: William P Edwards

Qualification and Currency: RXB2

Date Signed 07/21/2025

Type the Prescribed Fire Plan Name Here		Quantity	Significance	Values Description: Describe the identified off-site, on-site, and political values
Values	On-Site	Few	Mod	There are some improvements on the property in and around camp sites which would need to be protected
	Off-Site	Multiple	Mod	There are improved properties within a mile of the burnunits. Specifically a youth camp is located 3/4 mile to the north east. There ae many homes along Merry Meeting Lake located to the north. Additional homes are located to the south west
	Public/Political Interest	Few	Mod	Not much prescribed fire has occurred historically in this area. Extra care should be made to involve local and state fire officials and town officials.

Element	Preliminary Risk	Risk Rating Descriptors	Agency Administrator/ Preparer Discussion Completed
Safety	**Mod**	• Safety issues are pronounced and require detailed briefings, with certain hazards requiring special caution. • A small organization with a single branch results in modest exposure of personnel to hazards. • Adverse impacts to public health and safety are possible. • At least one activity is low frequency/high risk. • Fatigue and extended exposure to hazards are anticipated.	**Yes**
Fire Behavior	**Mod**	• Fuels vary within the unit, both in loading and arrangement. • Fire behavior may present control challenges that are easily mitigated. • Medium fuel loadings with some high concentrations are present. • Variable terrain features may significantly affect fire behavior and present moderate ignition and control problems. • Local winds and burning conditions may vary enough to cause shifts in fire behavior that briefly exceed modeled fire behavior and threaten controllability. • Periodic torching can be expected either as isolated points or in limited areas. • Probability of ignition outside of the unit is low and any spotting is expected to be short-range.	**Yes**
Resistance to Containment	**Mod**	• Potential for multiple wildfire mechanisms such as spot fires or slopovers that can propagate at moderate rates of spread but can be held by prompt holding actions. • Some fuel concentrations or ladder fuels exist near critical holding points. • Expected fire intensities in the primary fuel type create little potential to challenge standard fire lines. • The probability of ignition in fuels outside of control lines is low to moderate. • Some dependency on natural fuel breaks to hold the prescribed fire. • Local drought and or fire indices are expected to be moderate to high.	**Yes**

Appendix C: Prescribed Fire Summary and Complexity Analysis

Element	Preliminary Risk	Risk Rating Descriptors	Agency Administrator/ Preparer Discussion Completed
Ignition Procedures and Methods	**Mod**	• Multiple firing sequences patterns and timing must be coordinated to meet project objectives and reduce the risk of an unexpected or adverse event. • Specific fire intensities or ROS are somewhat critical for meeting resource objectives but are readily attained by placing local skill sets in firing boss positions.	**Yes**

Appendix C: Prescribed Fire Summary and Complexity Analysis

Element	Preliminary Risk	Risk Rating Descriptors	Agency Administrator/ Preparer Discussion Completed
Prescribed Fire Duration	**Mod**	• Active ignition, fire spread, and patrol is expected to occur for several operational periods. • Some residual burning (heavy fuel smoldering, stump holes, etc.) is expected to occur for several days after the primary burn out of the unit. • Mop-up and patrol is typical with minimal resource and equipment needs. • Primary holding phase is expected to be completed within reasonably predictable local weather forecasts. • The prescribed fire depends on accurate forecasts through three days.	**Yes**
Smoke Management	**Mod**	• Noticeable smoke will be produced creating at least some public concern. • Short-term health or safety concerns related to smoke exposure may occur if actual weather deviates from forecasted. • Nearby communities are highly conscious of smoke from wildland fire. • Some possibility for a NAAQS exceedance violation. • The prescription or ignition portions of the plan need to consider smoke management.	**Yes**
Number and Dependence of Activities	**Low**	• Activities are mostly independent from each other. • Coordination of activities is simple and straightforward. • The project does not involve another land management agency or jurisdiction.	**Yes**
Management Organization	**Low**	• A small number of qualified people are required to implement the prescribed fire. • A single level of supervision is all that is needed (i.e. Burn Boss plus lighters and holders).	**Yes**
Treatment/ Resource Objectives	**Low**	• Few if any issues are present that hamper meeting treatment resource objectives. • Few or no adverse impacts are expected if resource objectives are not met. • No critical holding points.	**Yes**
Constraints	**Low**	• Constraints exist with little impact on implementing the prescribed fire or achieving objectives.	**Yes**

Appendix C: Prescribed Fire Summary and Complexity Analysis

Element	Preliminary Risk	Risk Rating Descriptors	Agency Administrator/ Preparer Discussion Completed
Project Logistics	**Mod**	• Some phases of the prescribed fire may require logistical support in order to safely meet project objectives. • Limited amount of special equipment or communication equipment requiring more intensive logistical support may be needed to complete the project.	**Yes**

Appendix C: Prescribed Fire Summary and Complexity Analysis

Element	Preliminary Risk	Post-Plan Risk	Risk Rating Descriptors	Elements and Actions in the Prescribed Fire Plan that Address Risk Mitigation
Safety	**Mod**	**Mod**	• Safety issues are pronounced and require detailed briefings, with certain hazards requiring special caution. • A small organization with a single branch results in modest exposure of personnel to hazards. • Adverse impacts to public health and safety are possible. • At least one activity is low frequency/high risk. • Fatigue and extended exposure to hazards are anticipated.	Terrain makes some of the unit inaccessable to vehicles. Firefighters will need to work on foot. Terrian also incresase possibility of UTV/ATV rollover, rolling material and slips and falls
Fire Behavior	**Mod**	**Mod**	• Fuels vary within the unit, both in loading and arrangement. • Fire behavior may present control challenges that are easily mitigated. • Medium fuel loadings with some high concentrations are present. • Variable terrain features may significantly affect fire behavior and present moderate ignition and control problems. • Local winds and burning conditions may vary enough to cause shifts in fire behavior that briefly exceed modeled fire behavior and threaten controllability. • Periodic torching can be expected either as isolated points or in limited areas. • Probability of ignition outside of the unit is low and any spotting is expected to be short-range.	Terrain could create uphill fire runs

Element	Preliminary Risk	Post-Plan Risk	Risk Rating Descriptors	Elements and Actions in the Prescribed Fire Plan that Address Risk Mitigation
Resistance to Containment	**Mod**	**Mod**	• Potential for multiple wildfire mechanisms such as spot fires or slopovers that can propagate at moderate rates of spread but can be held by prompt holding actions. • Some fuel concentrations or ladder fuels exist near critical holding points. • Expected fire intensities in the primary fuel type create little potential to challenge standard fire lines. • The probability of ignition in fuels outside of control lines is low to moderate. • Some dependency on natural fuel breaks to hold the prescribed fire. • Local drought and or fire indices are expected to be moderate to high.	Fire lines will need to be sufficiently constructed epeciaal since some areas will need to be fired, held and patrolled by foot. Water supply needs to be established cose to burn units
Ignition Procedures and Methods	**Mod**	**Mod**	• Multiple firing sequences patterns and timing must be coordinated to meet project objectives and reduce the risk of an unexpected or adverse event. • Specific fire intensities or ROS are somewhat critical for meeting resource objectives but are readily attained by placing local skill sets in firing boss positions.	Terrain will need to considered when firing

Appendix C: Prescribed Fire Summary and Complexity Analysis

Element	Preliminary Risk	Post-Plan Risk	Risk Rating Descriptors	Elements and Actions in the Prescribed Fire Plan that Address Risk Mitigation
Prescribed Fire Duration	Mod	Mod	• Active ignition, fire spread, and patrol is expected to occur for several operational periods. • Some residual burning (heavy fuel smoldering, stump holes, etc.) is expected to occur for several days after the primary burn out of the unit. • Mop-up and patrol is typical with minimal resource and equipment needs. • Primary holding phase is expected to be completed within reasonably predictable local weather forecasts. • The prescribed fire depends on accurate forecasts through three days.	Consideration should be given to only firing as much of units that can be burned out and mopped up in one day.
Smoke Management	Mod	Mod	• Noticeable smoke will be produced creating at least some public concern. • Short-term health or safety concerns related to smoke exposure may occur if actual weather deviates from forecasted. • Nearby communities are highly conscious of smoke from wildland fire. • Some possibility for a NAAQS exceedance violation. • The prescription or ignition portions of the plan need to consider smoke management.	Although there are no sensitive smoke receptors close to burn units smoke will need to be monitored. There is a youth camp 3/4 mile NE of the burn units. This occupancy needs to be considered if children are present
Number and Dependence of Activities	Low	Low	• Activities are mostly independent from each other. • Coordination of activities is simple and straightforward. • The project does not involve another land management agency or jurisdiction.	Good relations with state and local agencies, especially fire, will be reqired for a successful project.

Appendix C: Prescribed Fire Summary and Complexity Analysis

Element	Preliminary Risk	Post-Plan Risk	Risk Rating Descriptors	Elements and Actions in the Prescribed Fire Plan that Address Risk Mitigation
Management Organization	**Low**	**Low**	• A small number of qualified people are required to implement the prescribed fire. • A single level of supervision is all that is needed (i.e. Burn Boss plus lighters and holders).	A simple burn organization should be sufficient
Treatment/ Resource Objectives	**Low**	**Low**	• Few if any issues are present that hamper meeting treatment resource objectives. • Few or no adverse impacts are expected if resource objectives are not met. • No critical holding points.	Objectives are straight forward and obtainable
Constraints	**Low**	**Low**	• Constraints exist with little impact on implementing the prescribed fire or achieving objectives.	Local and state permits are required
Project Logistics	**Mod**	**Mod**	• Some phases of the prescribed fire may require logistical support in order to safely meet project objectives. • Limited amount of special equipment or communication equipment requiring more intensive logistical support may be needed to complete the project.	Due to terrain consideration to pre-staging supplies such as fuel mix and bladder bags. Water supply needs to be established close to the burn units

Appendix C: Prescribed Fire Summary and Complexity Analysis

Element	Post-Plan Risk	Technical Difficulty	Rating Descriptors
Safety	**Mod**	**Mod**	• Potential serious accidents/injuries or multiple accidents/injuries to personnel or public are mitigated by standard safety briefings and identified in existing risk assessments/JHA. • Special emphasis is needed for some elements of LCES. Some standard preparation work and/or project design features are required.
Fire Behavior	**Mod**	**Mod**	• Some special provisions for safety are needed to protect personnel. • Fire behavior variations are minimal and do not require multiple fuel models to account for the fire behavior. • At least one barrier or containment opportunity exists. • Fire behavior is such that holding resources may need to use indirect tactics to control some spot fires and slopovers. • Occasional on-site fire behavior assessments or calculations may be needed and can be performed as a collateral duty. • Emission Reduction Techniques (ERTs) and Smoke Management Techniques (SMTs) require a close adherence to the prescription in the Rx plan.
Resistance to Containment	**Mod**	**Mod**	• Several types of resources are involved in the holding operation. • Some portions of the burn unit and project area are not easily accessible to the holding resources. • Expected fire behavior outside the unit may require developing indirect attack options. • Areas outside of the project area have specific suppression action constraints or are on other jurisdictional lands that may limit containment efforts. • Some site prep is required. • Expected fire behavior outside of the unit requires moderate contingency planning.

Element	Post-Plan Risk	Technical Difficulty	Rating Descriptors
Ignition Procedures and Methods	Mod	Mod	• The need for multiple firing devices, sequences, techniques, or patterns has been identified. • Firing procedures are somewhat complex in at least some portions of the project area and a single Firing Boss (FIRB) is used. • Two different types of ignition devices are planned. • The ignition pattern requires direct control of the lighters to achieve project objectives and manage safety concerns. • Communications may require the use of a command (repeater) and at least two tactical frequencies will be used. • The project area is large but can be observed from high points and terrain and/or distance does not contribute to sequence and timing problems.

Element	Post-Plan Risk	Technical Difficulty	Rating Descriptors
Prescribed Fire Duration	**Mod**	**Mod**	• Ignition and mop-up operations are usually completed within 3 - 7 operational periods. • Multiple shifts may need staffing (day/night). • Required staffing may affect resource availability for other prescribed fires. • Additional dispatch support may be required. • Standard press release is sufficient for public notification. • The units Public Affairs Office (PAO) is required to be available to field questions from media and public. • Some fire behavior assessment is necessary to identify potential seasonality fire behavior. • Only a few Management action points (MAPs) are needed to identify how the fire will be managed if unfavorable events occur. • The length of time to complete the project and the size of the organization needed may increase. • ERTs and SMTs require daily attention to ensure that smoke constraints are not exceeded.
Smoke Management	**Mod**	**Mod**	• ERTs and SMTs require skilled application of the prescribed fire prescription. • Some considerations are needed in the prescription or ignition portions of the plan to employ ERTs, and SMTs. • Wind parameters are constrained but easy to achieve. • Sensitive receptors exist. • Burn window/opportunities are reduced by the required weather/dispersion conditions. • Normal coordination with air quality officials is required. • Some mitigation measures or additional smoke modeling may be needed to address potential concerns with smoke impacts. • Specific smoke monitoring may be required to determine smoke plume heights and directions. • Rotating project personnel out of dense smoke may be necessary but easy to accomplish. • Daily smoke management forecasts are adequate.
Number and Dependence of Activities	**Low**	**Low**	• Minimal difficulty in coordinating the required activities. • Holding and lighting are loosely dependent on each other. • Coordination problems or communication failures or issues will not affect the completion of the project. • No to very few pre-burn considerations are required.

Element	Post-Plan Risk	Technical Difficulty	Rating Descriptors
Management Organization	Low	Low	• All team members are available within the local unit and are familiar with local factors affecting project implementation. • Several qualified personnel are available. • The operation is carried out employing a small burn crew. • There is no special pre-burn preparation organization is required.

Element	Post-Plan Risk	Technical Difficulty	Rating Descriptors
Treatment/ Resource Objectives	**Low**	**Low**	• There are few resource objectives to meet. • Measures to achieve the objectives are easy to complete and there are few or no restrictions on techniques. • There are few or no restrictions on techniques and prescription parameters. • Basic monitoring of fire behavior and weather is needed to determine if prescribed fire objectives are being met. • Many other opportunities will exist to meet objectives in a given year. • Pre-burn site preparation is not required to meet resource objectives.
Constraints	**Low**	**Low**	• Constraints are easily accommodated and do not increase the difficulty of completing the project or achieving objectives. • Required weather and fuel conditions are locally very common.
Project Logistics	**Mod**	**Mod**	• Project implementation requires a small logistical support operation. • Logistical support may be combined with other functions. • Obtaining some personnel may require additional contacts and advanced scheduling. • Additional support may be needed for out-of-area personnel.

Job Hazard

FS-6700-7 (11/99)

Star Tree Wildfire Protection LLC JOB HAZARD ANALYSIS *(JHA)*	1. WORK PROJECT/ACTIVITY Prescribed Fire	2. LOCATION SELT	3. UNIT All
	4. NAME OF ANALYST William C. Edwards	5. JOB TITLE Company Owner	6. DATE PREPARED 7/21/2025

7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE
7. • Burn Operations • Mop-Up	Operating near busy roads (Burn personnel and other vehicles on main roads, smoke on road, poor visibility)	The Burn Boss, Holding Specialist(s), and Ignition Specialist will communicate hazards of walking or driving near or on busy roads to all crew. The following will help mitigate potential accidents. • Defensive driving • Use of emergency lights and headlights • Evaluate need of traffic detail to slow/direct traffic on main roads • Post "Smoke Ahead" and "Prescribed Burn" signs as needed • Crossing of road only to be at direction of supervisor
8. • Burn Operations	Extreme Fire Behavior	The Burn Boss, Holding Specialist(s), Ignition Specialist will communicate extreme Fire behavior controls to supervisors and crew. • Escape routes and safety zones • Crew will wear full wildland fire PPE, to include fire shelters
9. • Burn Operations • Mop-Up	Power Line and solar panel Hazard	he Burn Boss, Holding Specialist(s), Ignition Specialist will communicate power line and solar panel hazard controls to supervisors and crew. • Avoid working under power lines and near solar panels • Do not spray water on or near power lines and solar panels • Minimize heat, direct flame contact, and heavy smoke impacts on power lines and solar panels

10. LINE OFFICER SIGNATURE	11. TITLE	12. DATE

Previous edition is obsolete (over)

Job Hazard

FS-6700-7 (11/99)

Star Tree Wildfire Protection LLC **JOB HAZARD ANALYSIS *(JHA)***	1. WORK PROJECT/ACTIVITY Prescribed Fire	2. LOCATION SELT	3. UNIT ALL
	4. NAME OF ANALYST William C. Edwards	5. JOB TITLE Company Owner	6. DATE PREPARED 7/21/2025

7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls ' Substitution ' Administrative Controls ' PPE
5. • Burn Operations • Mop-Up	UTV Accident (Uneven Terrain/Rolling, Excessive Speed, & Unfamiliarity With UTV Operation)	The Burn Boss, Holding Specialist(s), Ignition Specialist will communicate motor vehicle accident controls to drivers. • Drivers will be familiar with safe operation of UTV • Driver and passenger will wear seat belts when UTV is in motion • Fireline PPE will be worn and fireline helmets will be worn with chinstrap – goggles will be worn in the absence of a windshield • UTV will be operated off-highway only, at safe speeds, and cautiously when on slopes • Backup spotters will be used • Chock blocks and/or emergency brakes will be used when parked
6. • Burn Operations • Mop-Up	ATV Accident (Uneven Terrain/Rolling, Excessive Speed, & Unfamiliarity With ATV Operation)	The Burn Boss, Holding Specialist(s), Ignition Specialist will communicate motor vehicle accident controls to drivers. • Drivers will be familiar with safe operation of ATV • Fireline PPE will be worn and fireline helmets will be worn with chinstrap – goggles will be worn • UTV will be operated off-highway only, at safe speeds, and cautiously when on slopes • Emergency brakes will be used when parked • Tanks no larger than 15 gallons will be used on ATV

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Job Hazard

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	4. NAME OF ANALYST William C. Edwards	5. JOB TITLE Company Owner	6. DATE PREPARED 7/21/2025

7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE
7. • Burn Operations • Mop-Up	Operating near busy roads (Burn personnel and other vehicles on main roads, smoke on road, poor visibility)	The Burn Boss, Holding Specialist(s), and Ignition Specialist will communicate hazards of walking or driving near or on busy roads to all crew. The following will help mitigate potential accidents. • Defensive driving • Use of emergency lights and headlights • Evaluate need of traffic detail to slow/direct traffic on main roads • Post "Smoke Ahead" and "Prescribed Burn" signs as needed • Crossing of road only to be at direction of supervisor
8. • Burn Operations	Extreme Fire Behavior	The Burn Boss, Holding Specialist(s), Ignition Specialist will communicate extreme Fire behavior controls to supervisors and crew. • Escape routes and safety zones • Crew will wear full wildland fire PPE, to include fire shelters
9. • Burn Operations • Mop-Up	Power Line and solar panel Hazard	he Burn Boss, Holding Specialist(s), Ignition Specialist will communicate power line and solar panel hazard controls to supervisors and crew. • Avoid working under power lines and near solar panels • Do not spray water on or near power lines and solar panels • Minimize heat, direct flame contact, and heavy smoke impacts on power lines and solar panels

10. LINE OFFICER SIGNATURE	11. TITLE	12. DATE

Previous edition is obsolete (over)

Job Hazard

FS-6700-7 (11/99)

Star Tree Wildfire Protection LLC JOB HAZARD ANALYSIS *(JHA)*	1. WORK PROJECT/ACTIVITY Prescribed Fire	2. LOCATION SELT	3. UNIT All
	4. NAME OF ANALYST William C. Edwards	5. JOB TITLE Company Owner	6. DATE PREPARED 7/21/2025

7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls ' Substitution ' Administrative Controls ' PPE
10. • Burn Operations • Mop-Up	Chain Saw Operation	The Burn Boss, Holding Specialist(s), Ignition Specialist will communicate Chain Saw controls to supervisors and crew. • PPE should be worn (eye protection, ear protection, hard hat, chaps, boots, and appropriate clothing) • Only qualified saw operators will be authorized to operate chain saws • Spotters will be provided for sawyers • Make location of first aid kits known to supervisors and crew
11. • Burn Operations • Mop-Up	Environmental Hazards (Burns, Poison Ivy, Bees, Tick-borne Illness, Tripping/Falling, Snags, Smoke/CO Exposure, Dehydration, Heat Injury, and Cold Injury)	The Burn Boss, Holding Specialist(s) and ignition specialist will communicate environmental hazards controls to supervisors and crew. • Identify First Aid CPR trained crew and first aid kit locations • Lyme Disease prevention • Importance of proper hydration • Other Environmental/Environment Hazards based on potential exposure
12. • Burn Operations	Ignition	The Burn Boss, Holding Specialist(s), Ignition Specialist will communicate ignition controls to supervisors and crew. • Wear appropriate PPE (gloves, eye protection, boots, and Armid clothing with sleeves down) • Use proper fuel mix

10. LINE OFFICER SIGNATURE	11. TITLE	12. DATE

Previous edition is obsolete (over)

Job Hazard

FS-6700-7 (11/99)

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	4. NAME OF ANALYST William C. Edwards	5. JOB TITLE Company Owner	6. DATE PREPARED 7/21/2025

7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE
13. Burn Operations • Mop-Up	Tool Use	The Burn Boss, Holding Specialist(s), Ignition Specialist will communicate tool use controls to supervisors and crew. • Appropriate PPE (gloves, boots, clothing, and eye protection) • Proper spacing should be maintained • Proper tool use and foot should be used
14. Burn Operations • Mop-Up	Pump Operation	The Burn Boss, Holding Specialist(s), Ignition Specialist will communicate pump operation controls to supervisors and crew. • Wear eye and ear protection • Pressurized water operations wear eye protection and gloves

10. LINE OFFICER SIGNATURE	11. TITLE	12. DATE

Previous edition is obsolete (over)

Appendix E: Fire Behavior Modeling Documentation or Empirical Documentation

Fire Behavior: TL2-Low Load Broadleaf Litter (182)

Held Constant: 10H Fuels at 8%, 100H Fuels at 10%, 30% Live Fuel Moisture (Herbaceous & Woody) and 20% Slope [Run in BEHAVEPLUS v. 6.0.0]

Green shading indicates behavior for general prescription parameters

Peach shading indicates behavior for acceptable wind speeds with temp under 70°F and Rh over 40%

Surface Rate of Spread (ch/hr) - Head Fire

1-hr Moisture	Midflame Wind Speed (mph)												
	0	1	2	3	4	5	6	7	8	9	10	11	12
4	0.3	0.5	0.7	1.0	1.4	1.8	2.2	2.7	2.9	2.9	2.9	2.9	2.9
5	0.3	0.4	0.6	0.9	1.2	1.6	2.0	2.4	2.4	2.4	2.4	2.4	2.4
6	0.3	0.4	0.6	0.8	1.1	1.5	1.8	2.1	2.1	2.1	2.1	2.1	2.1
7	0.2	0.4	0.5	0.8	1.1	1.4	1.7	1.9	1.9	1.9	1.9	1.9	1.9
8	0.2	0.3	0.5	0.7	1.0	1.3	1.6	1.7	1.7	1.7	1.7	1.7	1.7
9	0.2	0.3	0.5	0.7	1.0	1.2	1.5	1.6	1.6	1.6	1.6	1.6	1.6
10	0.2	0.3	0.5	0.7	0.9	1.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5
11	0.2	0.3	0.4	0.6	0.9	1.1	1.4	1.4	1.4	1.4	1.4	1.4	1.4
12	0.2	0.3	0.4	0.6	0.8	1.1	1.3	1.3	1.3	1.3	1.3	1.3	1.3
13	0.2	0.3	0.4	0.6	0.8	1.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3
14	0.2	0.3	0.4	0.6	0.8	1.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2

Flame Length (ft) - Head Fire

1-hr Moisture	Midflame Wind Speed (mph)												
	0	1	2	3	4	5	6	7	8	9	10	11	12
4	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.2	1.2	1.2	1.2	1.2	1.2
5	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.1	1.1	1.1	1.1	1.1
6	0.4	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.0	1.0	1.0	1.0	1.0
7	0.4	0.4	0.5	0.6	0.7	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
8	0.4	0.4	0.5	0.6	0.7	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
9	0.3	0.4	0.5	0.6	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
10	0.3	0.4	0.5	0.6	0.6	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
11	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
12	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
13	0.3	0.4	0.4	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
14	0.3	0.4	0.4	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

Surface Rate of Spread (ch/hr) - Backing Fire

1-hr Moisture	Midflame Wind Speed (mph)												
	0	1	2	3	4	5	6	7	8	9	10	11	12
4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
7	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
9	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
10	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
12	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
13	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
14	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Flame Length (ft) - Backing Fire

1-hr Moisture	Midflame Wind Speed (mph)												
	0	1	2	3	4	5	6	7	8	9	10	11	12
4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
6	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
7	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
8	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
9	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
11	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
12	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
13	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Fire Behavior: TU3-Moderate Load, Humid Climate Timber-Grass-Shrub (D) (163)

Held Constant: 10H Fuels at 8%, 100H Fuels at 10%, 30% Live Fuel Moisture (Herbaceous & Woody) and 20% Slope [Run in BEHAVEPLUS v. 6.0.0]

Green shading indicates behavior for general prescription parameters

Peach shading indicates behavior for acceptable wind speeds with temp under 70°F and Rh over 40%

Surface Rate of Spread (ch/hr) - Head Fire

1-hr Moisture	Midflame Wind Speed (mph)												
	0	1	2	3	4	5	6	7	8	9	10	11	12
4	6	12	22	33	46	60	74	90	107	125	143	162	182
5	6	12	20	31	43	56	71	86	101	118	135	153	172
6	6	11	19	30	41	54	67	81	97	112	129	146	163
7	5	11	19	28	39	51	64	78	92	107	123	139	156
8	5	10	18	27	38	49	62	75	89	103	118	134	150
9	5	10	17	26	36	47	59	72	85	99	114	129	145
10	5	9	17	25	35	46	57	70	83	96	110	125	140
11	5	9	16	25	34	44	56	67	80	93	107	121	136
12	5	9	16	24	33	43	54	66	78	91	104	118	132
13	4	9	15	23	32	42	53	64	76	88	101	114	128
14	4	8	15	23	31	41	51	62	74	86	98	111	125

Flame Length (ft) - Head Fire

1-hr Moisture	Midflame Wind Speed (mph)												
	0	1	2	3	4	5	6	7	8	9	10	11	12
4	4	6	7	9	10	12	13	14	15	16	17	18	19
5	4	5	7	8	10	11	12	13	14	16	17	17	18
6	4	5	7	8	9	11	12	13	14	15	16	17	18
7	4	5	6	8	9	10	11	12	13	14	15	16	17
8	4	5	6	8	9	10	11	12	13	14	15	16	17
9	3	5	6	7	9	10	11	12	13	14	15	15	16
10	3	5	6	7	8	10	11	12	12	13	14	15	16
11	3	5	6	7	8	9	10	11	12	13	14	15	16
12	3	4	6	7	8	9	10	11	12	13	14	14	15
13	3	4	6	7	8	9	10	11	12	13	13	14	15
14	3	4	6	7	8	9	10	11	12	12	13	14	15

Surface Rate of Spread (ch/hr) - Backing Fire

1-hr Moisture	Midflame Wind Speed (mph)												
	0	1	2	3	4	5	6	7	8	9	10	11	12
4	2	2	3	3	3	3	3	3	3	3	3	3	3
5	2	2	3	3	3	3	3	3	3	3	3	3	3
6	2	2	3	3	3	3	3	3	3	3	3	3	3
7	2	2	2	3	3	3	3	3	3	3	3	3	3
8	2	2	2	2	3	3	3	3	3	3	2	2	2
9	2	2	2	2	2	3	3	3	2	2	2	2	2
10	2	2	2	2	2	2	2	2	2	2	2	2	2
11	2	2	2	2	2	2	2	2	2	2	2	2	2
12	2	2	2	2	2	2	2	2	2	2	2	2	2
13	1	2	2	2	2	2	2	2	2	2	2	2	2
14	1	2	2	2	2	2	2	2	2	2	2	2	2

Flame Length (ft) - Backing Fire

1-hr Moisture	Midflame Wind Speed (mph)												
	0	1	2	3	4	5	6	7	8	9	10	11	12
4	2	3	3	3	3	3	3	3	3	3	3	3	3
5	2	3	3	3	3	3	3	3	3	3	3	3	3
6	2	2	3	3	3	3	3	3	3	3	3	3	3
7	2	2	3	3	3	3	3	3	3	3	3	3	3
8	2	2	2	3	3	3	3	3	3	3	3	3	3
9	2	2	2	2	3	3	3	3	3	3	2	2	2
10	2	2	2	2	2	2	2	2	2	2	2	2	2
11	2	2	2	2	2	2	2	2	2	2	2	2	2
12	2	2	2	2	2	2	2	2	2	2	2	2	2
13	2	2	2	2	2	2	2	2	2	2	2	2	2
14	2	2	2	2	2	2	2	2	2	2	2	2	2

Fire Behavior: TL6-Moderate Load Broadleaf Litter (186)

Held Constant: 10H Fuels at 8%, 100H Fuels at 10%, 30% Live Fuel Moisture (Herbaceous & Woody) and 20% Slope [Run in BEHAVEPLUS v. 6.0.0]

Green shading indicates behavior for general prescription parameters

Peach shading indicates behavior for acceptable wind speeds with temp under 70°F and Rh over 40%

Surface Rate of Spread (ch/hr) - Head Fire

1-hr Moisture	Midflame Wind Speed (mph)												
	0	1	2	3	4	5	6	7	8	9	10	11	12
4	1	2	3	4	6	8	10	12	14	17	20	22	25
5	1	2	3	4	5	7	9	11	13	15	18	20	23
6	1	2	2	4	5	6	8	10	12	14	16	19	21
7	1	1	2	3	5	6	8	9	11	13	15	17	20
8	1	1	2	3	4	6	7	9	10	12	14	16	18
9	1	1	2	3	4	5	7	8	10	12	13	15	17
10	1	1	2	3	4	5	6	8	9	11	13	15	17
11	1	1	2	3	4	5	6	8	9	11	12	14	16
12	1	1	2	3	4	5	6	7	9	10	12	14	15
13	1	1	2	2	3	4	6	7	8	10	11	13	15
14	1	1	2	2	3	4	5	7	8	9	11	13	14

Flame Length (ft) - Head Fire

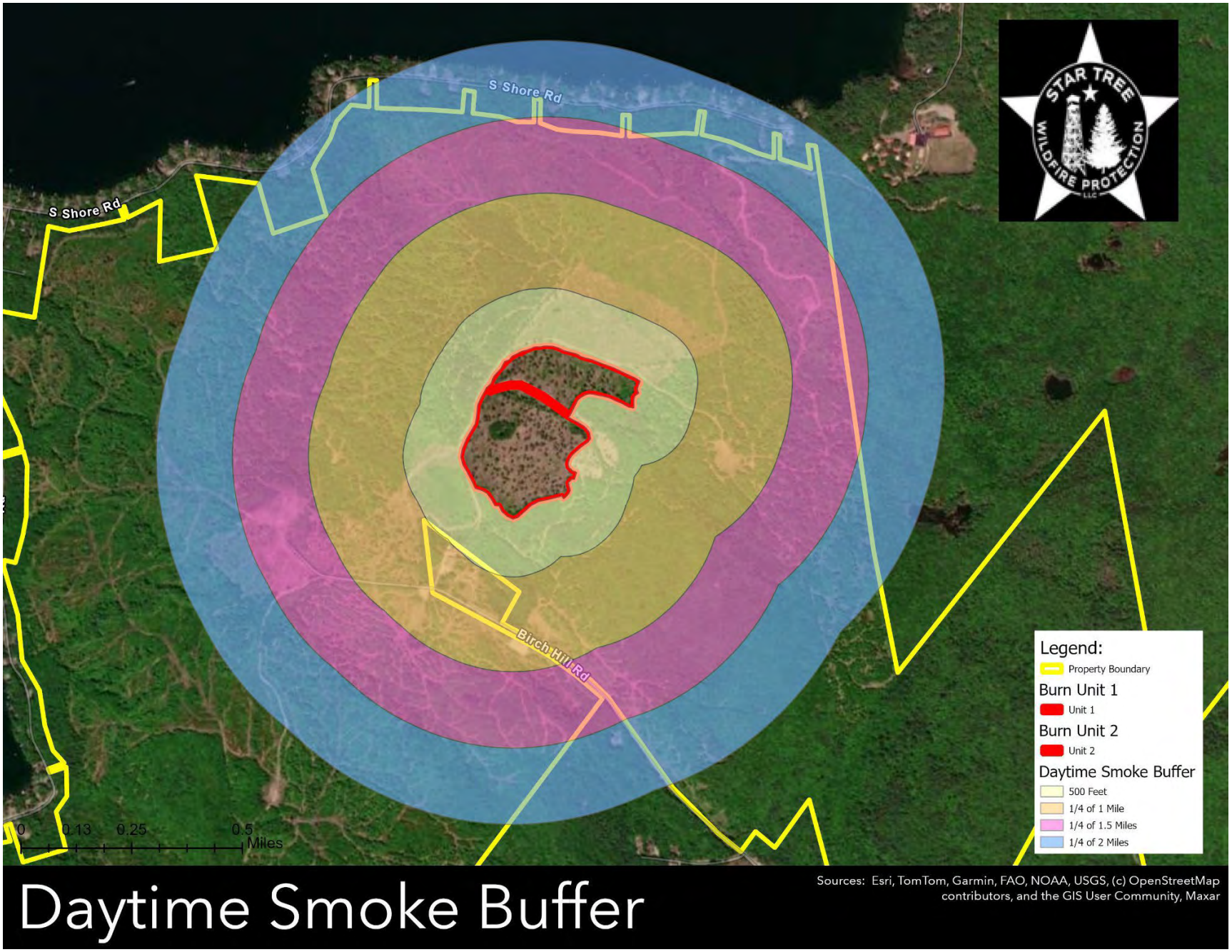
1-hr Moisture	Midflame Wind Speed (mph)												
	0	1	2	3	4	5	6	7	8	9	10	11	12
4	1	2	2	2	3	3	4	4	4	5	5	5	6
5	1	2	2	2	3	3	3	4	4	4	5	5	5
6	1	1	2	2	2	3	3	3	4	4	4	5	5
7	1	1	2	2	2	3	3	3	4	4	4	4	5
8	1	1	2	2	2	3	3	3	3	4	4	4	4
9	1	1	2	2	2	2	3	3	3	4	4	4	4
10	1	1	2	2	2	2	3	3	3	3	4	4	4
11	1	1	1	2	2	2	3	3	3	3	4	4	4
12	1	1	1	2	2	2	3	3	3	3	3	4	4
13	1	1	1	2	2	2	2	3	3	3	3	4	4
14	1	1	1	2	2	2	2	3	3	3	3	4	4

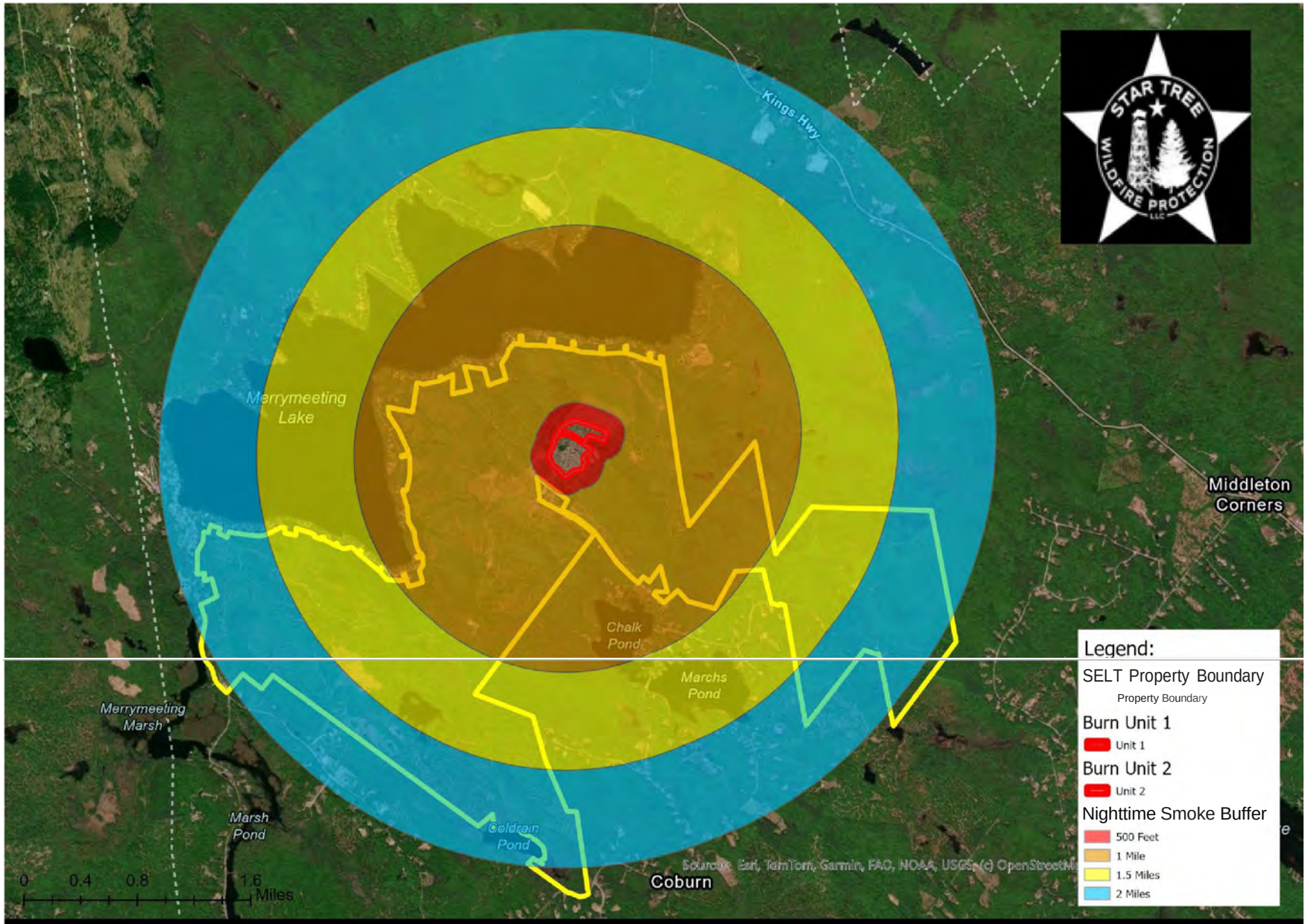
Surface Rate of Spread (ch/hr) - Backing Fire

1-hr Moisture	Midflame Wind Speed (mph)												
	0	1	2	3	4	5	6	7	8	9	10	11	12
4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
5	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
6	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
7	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
8	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
9	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
10	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
11	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
12	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
13	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Flame Length (ft) - Backing Fire

1-hr Moisture	Midflame Wind Speed (mph)												
	0	1	2	3	4	5	6	7	8	9	10	11	12
4	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
5	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
7	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
8	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
9	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
10	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
11	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
12	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
13	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
14	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6


S Shore Rd
S Shore Rd
Birch Hill Rd
STAR TREE
WILDFIRE PROTECTION
LLC
Legend:
Property Boundary
Burn Unit 1
Unit 1
Burn Unit 2
Unit 2
Daytime Smoke Buffer
500 Feet
1/4 of 1 Mile
1/4 of 1.5 Miles
1/4 of 2 Miles
0
0.13
0.25
0.5
Miles
Daytime Smoke Buffer
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, Maxar



Nighttime Smoke Buffer

Special Needs Camp falls within the 1 mile buffer on the Northeast property boundary.