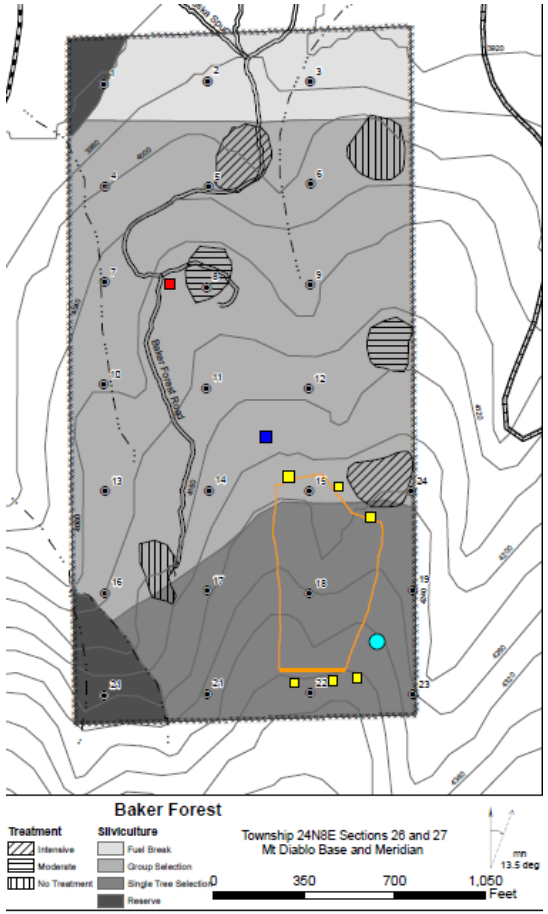
Rx burn plans

Small landowner
~One page



Private larger burn
~10 pages

UC CE

Prescribed Fire Plan

Name of Landowner or Land Manager: U.C. Berkeley Forests

Prescribed Fire Supervisor/Burn Boss: Ariel Roughton

Landowner Phone Number: (530) 333-4475, Cell (530) 613-9161

Prescribed Fire Supervisor Phone Number: (530) 334-3386

Burn Plan Developer: Perry Scott

Burn Plan Checked By: Ariel Roughton, Rob York

Location of Prescribed Fire (*Legal Description*) Section: 26 Township: 24N

Range: 8E Latitude: 39°55'04.6"N Longitude: 121°03'46.1"W County: Plumas

Distance and direction from nearest town/landmark: Meadow Valley is one mile North of the Prescribed Fire

Volunteer Fire District: Meadow Valley Fire Department

Fire Chief Name: Ron Heinbockel Fire Chief Phone Number: _____

Air Quality District: Northern Sierra Air Quality Permit Number: _____

Air Quality Contact: Northern Field Office Air Quality Phone Number: (530) 832-0102

Cal Fire Battalion: _____ Cal Fire Phone Number: _____

Forest Service Battalion: _____ Forest Service Phone Number: _____

Forest Service Dispatch Phone Number: _____

Size of Prescribed Fire: 4 acres

Prescribed Fire Objectives.

Recognizing that fire was a critical process that maintained Sierra Nevada mixed conifer forests for millennia, the primary objective is to utilize fire at Baker Forest in a way that is consistent with the overall goal of reintroducing and sustaining fire's positive ecological and human benefits, while facilitating present and future educational opportunities. The three prescribed fire compartments have been prepped to burn in conjunction with a private landowners workshop demonstrating the use of various types of prescribed fire and other fuel management treatments. Two of the burn units were prepped as broadcast burns while the third was prepped as a pile burn with multiple hand piles spread throughout it. An additional objective is to reduce fire hazard, primarily via the reduction of surface fuel in strategic locations across the forest without unacceptable tree mortality.

Agency burn (NWCG)
~100 pages

PRESCRIBED FIRE PLAN

ADMINISTRATIVE UNIT(S): SEQUOIA & KINGS CANYON NATIONAL PARKS

PRESCRIBED FIRE NAME: WHITAKER

PREPARED BY: _____ **DATE:** _____
Name & Qualification/Currency

TECHNICAL REVIEW BY: _____ **DATE:** _____
Name & Qualification/Currency

RECOMMENDED BY: _____ **DATE:** _____
Parks Fuels Management Specialist

RECOMMENDED BY: _____ **DATE:** _____
District Fire Management Officer

RECOMMENDED BY: _____ **DATE:** _____
Park Fire Management Officer

RECOMMENDED BY: _____ **DATE:** _____
Chief Ranger

RECOMMENDED BY: _____ **DATE:** _____
Hume Lake District Ranger

COMPLEXITY RATING: HIGH

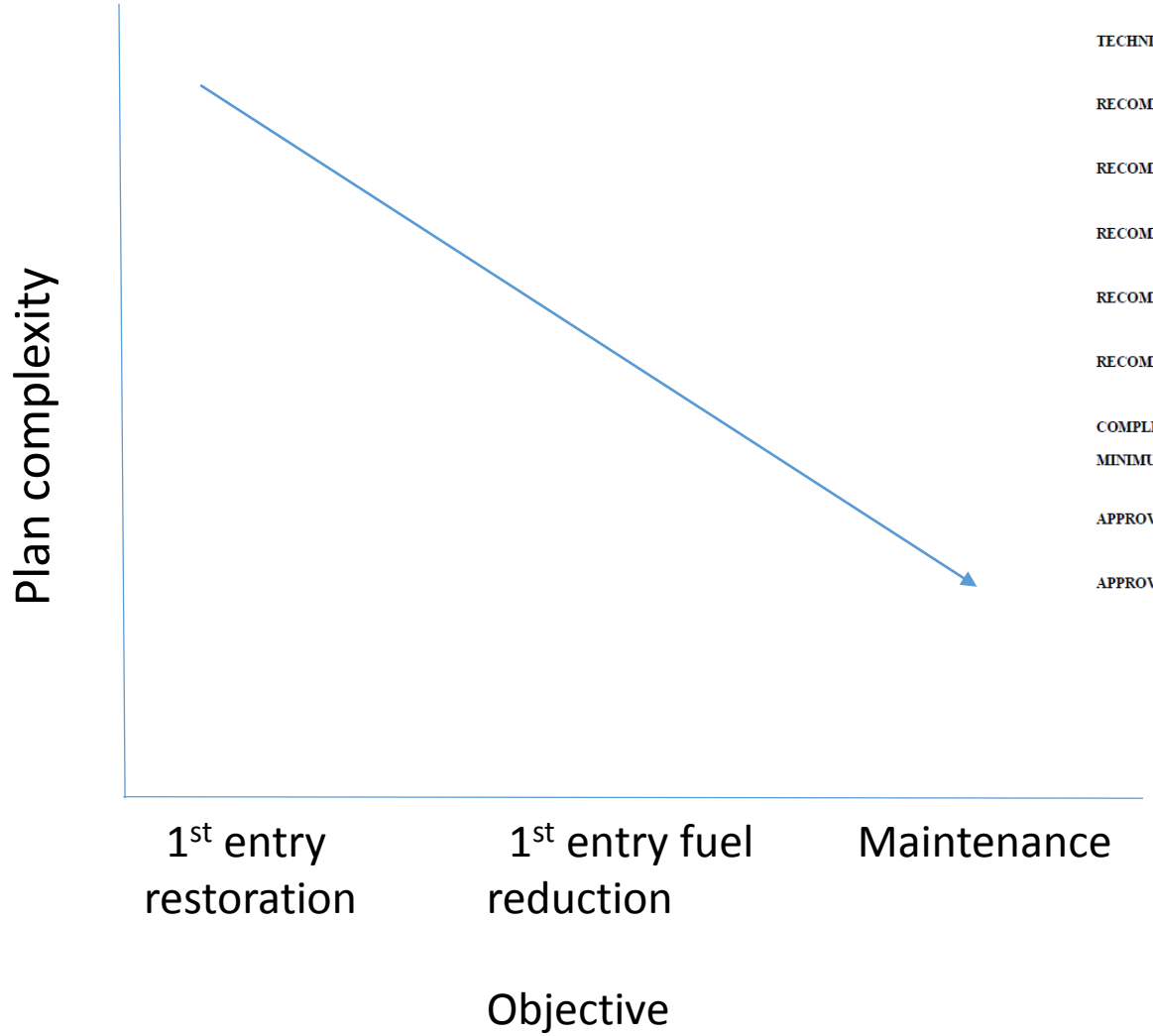
MINIMUM RXB REQUIREMENT: RXB1

APPROVED BY: Robert York **DATE:** 6/7/12
UC Berkeley Center for Forestry Research Stations Manager

APPROVED BY: _____ **DATE:** _____
Agency Administrator

Burn plan from Feb, 2018- a one page map

- Winter burn (no permit)
- 7 acres
- $50/acre



PRESCRIBED FIRE PLAN

ADMINISTRATIVE UNIT(S): SEQUOIA & KINGS CANYON NATIONAL PARKS

PRESCRIBED FIRE NAME: WHITAKER

PREPARED BY: _____ **DATE:** _____
Name & Qualification/Currency

TECHNICAL REVIEW BY: _____ **DATE:** _____
Name & Qualification/Currency

RECOMMENDED BY: _____ **DATE:** _____
Parks Fuels Management Specialist

RECOMMENDED BY: _____ **DATE:** _____
District Fire Management

RECOMMENDED BY: _____ **DATE:** _____
Park Fire Management Officer

RECOMMENDED BY: _____ **DATE:** _____
Chief Ranger

RECOMMENDED BY: _____ **DATE:** _____
Hume Lake District Ranger

COMPLEXITY RATING: HIGH

MINIMUM RXB REQUIREMENT: RXB1

APPROVED BY: ROBERT YORK **DATE:** 6/7/12
UC Berkeley Center for Forestry Research Stations Manager

APPROVED BY: _____ **DATE:** _____
Agency Administrator

UC CE

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Prescribed Fire Supervisor/Burn Boss: Ariel Roughton

Landowner Phone Number: (530) 333-4475, Cell (530) 613-9161

Prescribed Fire Supervisor Phone Number: (530) 334-3386

Burn Plan Developer: Perry Scott

Burn Plan Checked By: Ariel Roughton, Rob York

Location of Prescribed Fire (*Legal Description*) Section: 26 Township: 24N

Range: 8E Latitude: 39°55'04.6"N Longitude: 121°03'46.1"W

Distance and direction from nearest town/landmark: Meadow Valley is one mile North

Volunteer Fire District: Meadow Valley Fire Department

Fire Chief Name: Ron Heinbockel Fire Chief Phone Number: _____

Air Quality District: Northern Sierra Air Quality Permit Number: _____

Air Quality Contact: Northern Field Office Air Quality Phone Number: (530)

Cal Fire Battalion: _____ Cal Fire Phone Number: _____

Forest Service Battalion: _____ Forest Service Phone Number:

Forest Service Dispatch Phone Number: _____

Size of Prescribed Fire: 4 acres

Prescribed Fire Objectives.

Recognizing that fire was a critical process that maintained Sierra Nevada mixed conifer forests
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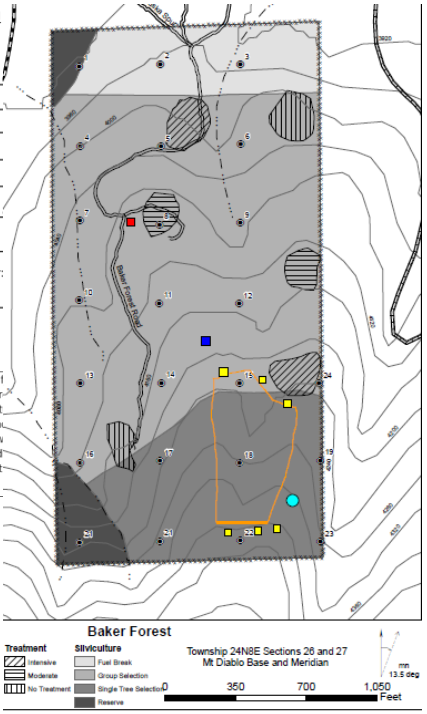

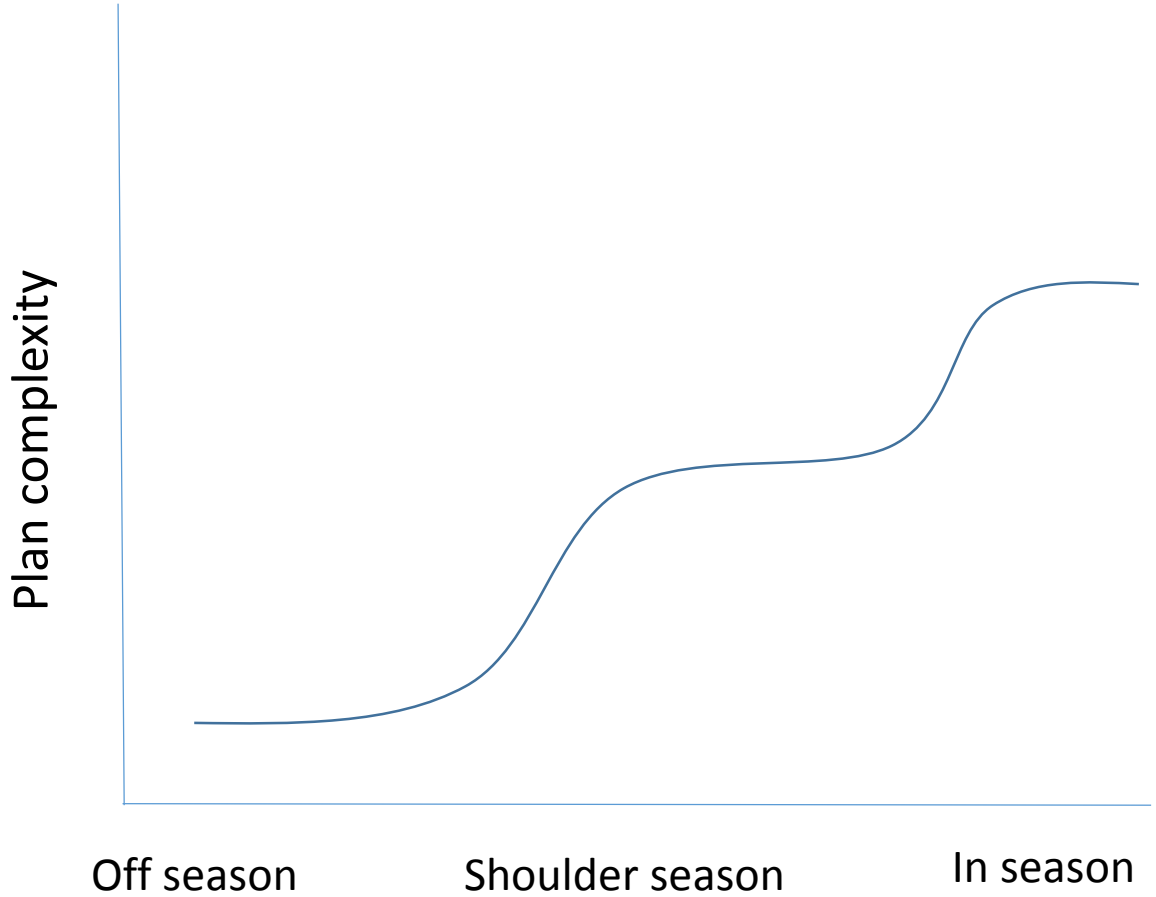

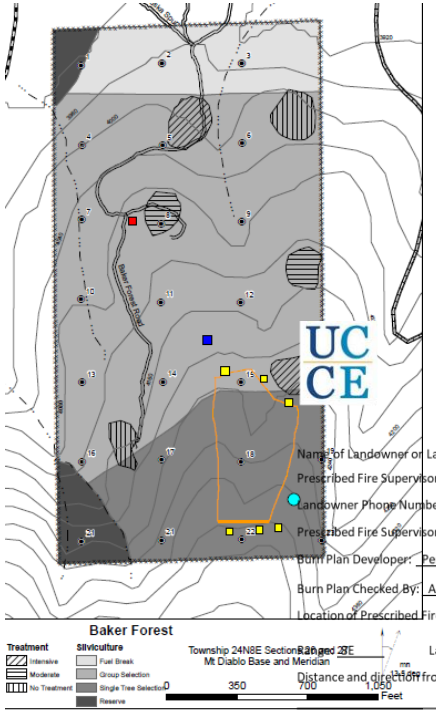

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Burn Plan Developer: Perry Scott

Burn Plan Checked By: Ariel Roughton, Rob York

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Latitude: 39°55'04.6"N Longitude: 1

Distance and direction from nearest town/landmark: Meadow Valley

Volunteer Fire District: Meadow Valley Fire Department

Fire Chief Name: Ron Heinbockel Fire Chief Phone N

Air Quality District: Northern Sierra Air Quality Permi

Air Quality Contact: Northern Field Office Air Quality Phone

Cal Fire Battalion: Cal Fire Phon

Forest Service Battalion: Forest Servi

Forest Service Dispatch Phone Number:

Size of Prescribed Fire: 4 acres

Prescribed Fire Objectives.

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ADMINISTRATIVE UNIT(S): SEQUOIA & KINGS CANYON NATIONAL PARKS

PRESCRIBED FIRE NAME: WHITAKER

PREPARED BY: _____ DATE: _____
Name & Qualification/Currency

TECHNICAL REVIEW BY: _____ DATE: _____
Name & Qualification/Currency

RECOMMENDED BY: _____ DATE: _____
Parks Fuels Management Specialist

RECOMMENDED BY: _____ DATE: _____
District Fire Management Officer

RECOMMENDED BY: _____ DATE: _____
Park Fire Management Officer

RECOMMENDED BY: _____ DATE: _____
Chief Ranger

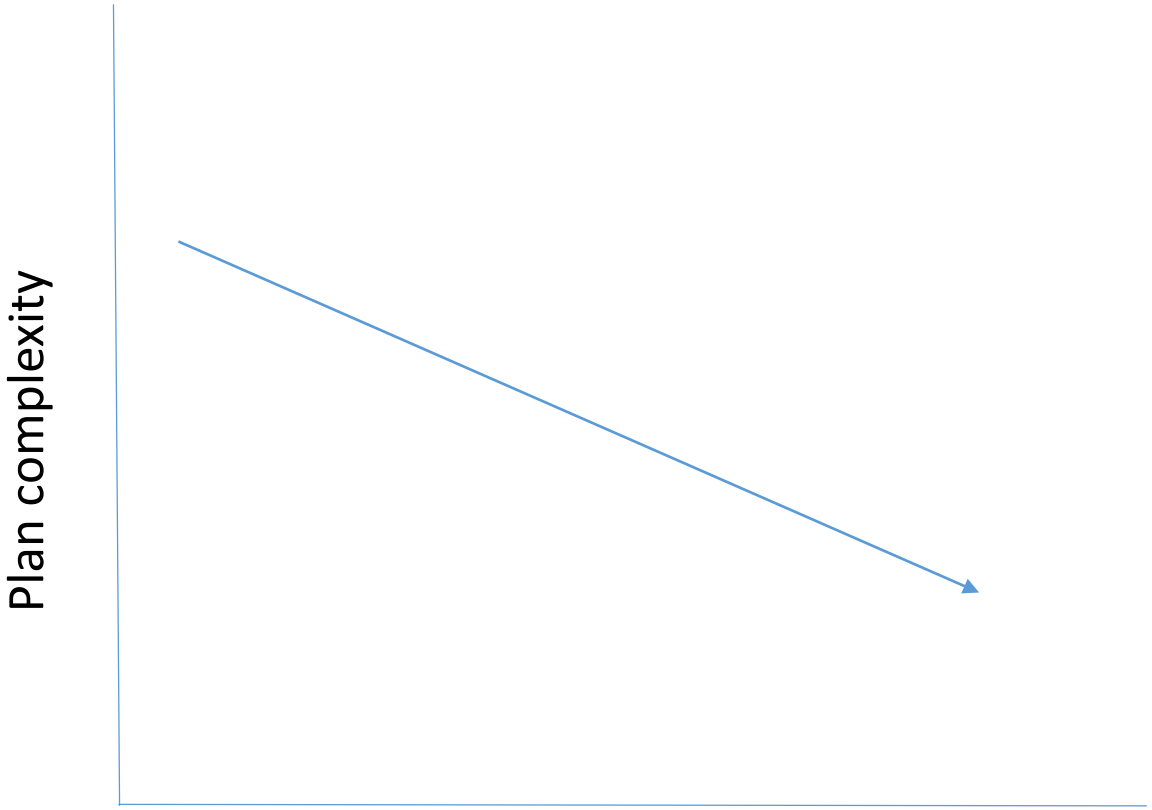
RECOMMENDED BY: _____ DATE: _____
Hume Lake District Ranger

COMPLEXITY RATING: HIGH

MINIMUM RXB REQUIREMENT: RXB1

APPROVED BY: Robert York DATE: 6/7/12
UC Berkeley Center for Forestry Research Stations Manager

APPROVED BY: _____ DATE: _____
Agency Administrator



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COMPLEXITY RATING: HIGH

MINIMUM RXB REQUIREMENT: RXB1

APPROVED BY: ROBERT YORK **DATE:** 6/7/12
UC Berkeley Center for Forestry Research Stations Manager

APPROVED BY: _____ **DATE:** _____
Agency Administrator

UC CE

Prescribed Fire Plan

Name of Landowner or Land Manager: U.C. Berkeley Forests

Prescribed Fire Supervisor/Burn Boss: Ariel Roughton

Landowner Phone Number: (530) 333-4475, Cell (530) 613-9161

Prescribed Fire Supervisor Phone Number: (530) 334-3386

Burn Plan Developer: Perry Scott

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Location of Prescribed Fire (*Legal Description*) Section: 26 Township: 24N

Range: 8E Latitude: 39°55'04.6"N Longitude: 121°03'46.1"W

Distance and direction from nearest town/landmark: Meadow Valley is one mile North

Volunteer Fire District: Meadow Valley Fire Department

Fire Chief Name: Ron Heinbockel Fire Chief Phone Number: _____

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Air Quality Contact: Northern Field Office Air Quality Phone Number: (530)

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Forest Service Dispatch Phone Number: _____

Size of Prescribed Fire: 4 acres

Prescribed Fire Objectives.

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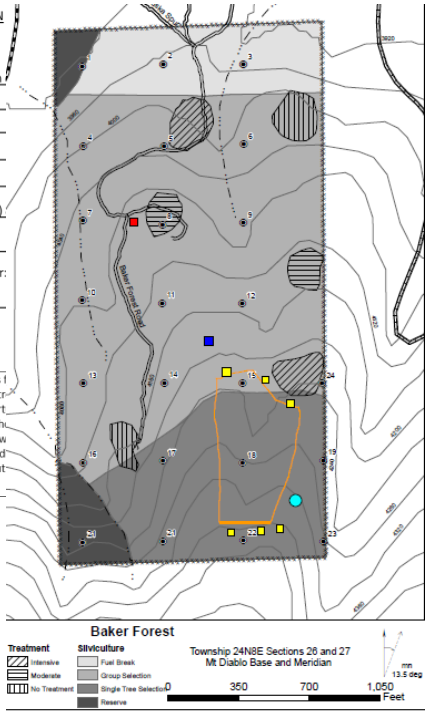


Elements of a burn plan

- Statement of objectives, e.g.
  - Restoration
  - Hazard reduction
  - Fuelbreak maintenance
  - Fuel consumption
  - Etc.

PRESCRIBED FIRE PLAN

ADMINISTRATIVE UNIT(S): Blodgett Forest Research Station

PRESCRIBED FIRE NAME: 2017 Fall/2018 Spring Burns

COMPLEXITY RATING: LOW

BURN OBJECTIVES: Recognizing that fire was a critical process that maintained Sierra Nevada mixed conifer forests for millennia, the primary objective is to utilize fire at Blodgett Forest Research Station (BFRS) in a way that is consistent with the overall goal of reintroducing and sustaining fire's positive ecological and human benefits, while facilitating present and future research. Three of the four stands planned for burning have been burned twice in the last 15 years (in 2002 and 2009) as part of the Fire & Fire Surrogate (FFS) study at BFRS. The FFS study is expired and has not been formally extended. However, the plots in the FFS were measured in 2016 by BFRS, providing a pre-treatment measurement of structure and composition. Burning these stands will both maintain the effectiveness of the "burn-only" fire hazard reduction treatments and provide additional research opportunities in the future. The fourth stand has not received fuel treatments (mastication or fire) in recent history, and will provide an opportunity to study emissions from fires in the long-unburned forest structure common in the Sierra Nevada. A secondary objective is to continue the consistent use of prescribed fire at Blodgett, building capacity and experience for future management and research projects. A final objective is to reduce fire hazard, primarily via the reduction of surface fuel in strategic locations across the forest.

GONO-GO checklist

PRESCRIBED FIRE GO/NO-GO CHECKLIST FOR FOREST MANAGER

	YES	NO
A. Has the burn unit experienced unusual drought conditions or does it contain above normal fuel loadings which were not considered in the prescription development? If NO proceed with checklist below, if YES go to item B.		
B. Has the prescribed fire plan been reviewed and an amendment and technical review been completed; or has it been determined that no amendment is necessary? If YES to any, proceed with checklist below, if NO, STOP.		

YES	NO	QUESTIONS
		Are ALL pre-burn prescription parameters met?
		Are ALL smoke management specifications met?
		Have ALL required current and projected fire weather forecasts been obtained and are they favorable?
		Are ALL planned operations personnel and equipment on-site, available, and operational?
		Has the availability of ALL contingency resources been checked and are they available?
		Have ALL personnel been briefed on the project objectives, their assignment, safety hazards, escape routes, and safety zones?
		Have all the pre-burn considerations identified in the Prescribed Fire Plan been completed or addressed?
		Have ALL the required notifications been made?
		Are ALL permits and clearances obtained?
		In your opinion, can the burn be carried out according to the Prescribed Fire Plan and will it meet the planned objective?

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

Complexity analysis and rating

Is it worth it?

COMPLEXITY ANALYSIS SUMMARY

BLODGETT FOREST 2017/18 PRESCRIBED FIRE			
ELEMENT	RISK	POTENTIAL CONSEQUENCE	TECHNICAL DIFFICULTY
1. Potential for escape	Low	Low	Low
2. The number and dependence of activities	Low	Low	Low
3. Off-site Values	Moderate	Moderate	Moderate
4 On-Site Values	Moderate	Moderate	Moderate
5. Fire Behavior	Low	Low	Low
6. Management organization	Low	Low	Low
7. Public and political interest	Low	Low	Low
8. Fire Treatment objectives	Low	Low	Low
9 Constraints	Low	Low	Low
10 Safety	Moderate	Moderate	Moderate
11. Ignition procedures/ methods	Low	Low	Low
12. Interagency coordination	Low	Low	Low
13. Project logistics	Low	Low	Low
14 Smoke management	Low	Low	Low

COMPLEXITY RATING SUMMARY	
	OVERALL RATING
RISK	Low
CONSEQUENCES	Low
TECHNICAL DIFFICULTY	Low
SUMMARY COMPLEXITY DETERMINATION	Low

RATIONALE:

1) Resources at risk both on and off site are primarily vegetation.
2) Structures near burn units are separated by road system, fire line, and/or are located in previously treated low fire hazard areas.
3) Ignition pattern does not require special equipment and can be implemented with the required ignition crew.
4) Safety can be mitigated by using standard procedures.
5) Potential smoke impacts can be mitigated using procedures outlined in the smoke management plan.
6) Technical difficulty is low for the planned burn.

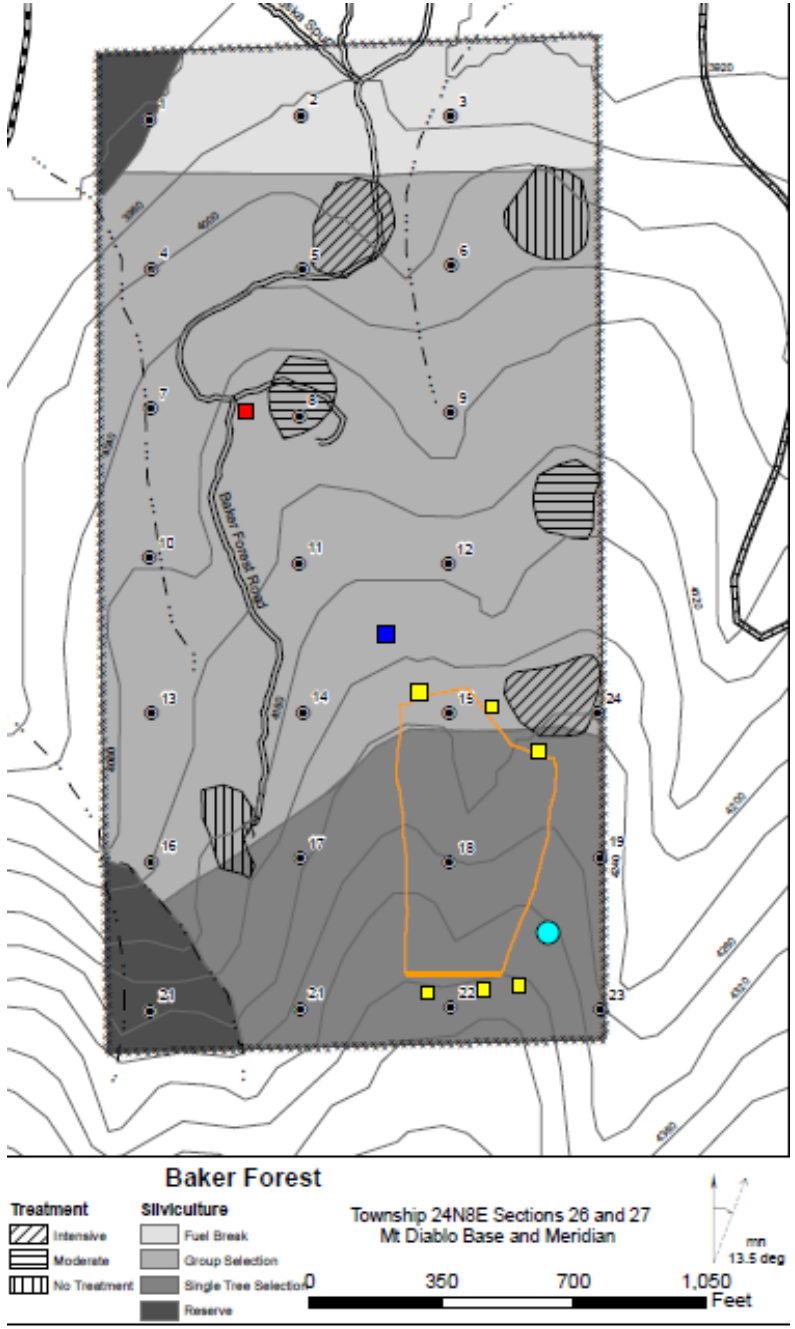
Area description

DESCRIPTION OF PRESCRIBED FIRE AREA

A. Physical Description: (*see attached maps*)
All units are located on land owned by the UC Regents, within the boundaries of Blodgett Forest Research Station: 4501 Blodgett Forest Road, Georgetown, CA 95634

	Compartment 60	Compartment 340	Compartment 400	Compartment 101 & 130
Location:	T 12N, R 12E, SW ¼ of Section 5	T 12N, R 12E, SW ¼ of Section 8	T 12N, R 12E, SE ¼ of Section 8 & SW ¼ of Section 9 & NE ¼ of Section 17 & NW ¼ of Section 16	T 12N, R 12E, SW ¼ of Section 5. Burn unit includes portion of Compartment 130 west of Middle Loop Road.
Size:	59.9 acres	42.7 acres	43.9 acres	17.2 acres (divided into sub-units of 5.1, 4.6, and 7.5 acres)
Topography:	West aspect; 13% average slope, 44% max slope; no perennial streams or wet areas	North aspect; average slope 27%, max slope 50%; no perennial streams or wet areas	South aspect; average slope 15%, max slope 50%	East and SE aspects; slopes of 10-30%; no perennial streams or wet areas
Project Boundary (see attached maps):	East and west unit boundaries are easily accessed dirt roads (Middle Loop Road and Section 5	North and south unit boundaries are easily accessed dirt roads (Mainline Road and	South, east, and west boundaries are easily accessed dirt roads (Skyline Spur Road, Stoodley	East and west boundaries are easily accessed dirt roads (Middle Loop Road and Section 5 Road, respectively); Northern boundary

Map


Baker Forest
Treatment
Intensive
Moderate
No Treatment
Silviculture
Fuel Break
Group Selection
Single Tree Selection
Reserve
Township 24N8E Sections 26 and 27
Mt Diablo Base and Meridian
mn
13.5 deg
0
350
700
1,050
Feet
Baker Forest Road

Rx

Allowable low/high ranges of environmental parameters

Essentials:
Relative Humidity
10-hr fuel moisture content
Mid-flame wind speed

PRESCRIPTION

A. Environmental Prescription:

	Environmental Prescription Range									
	Compartment 60		Compartment 340		Compartment 400		Compartments 101 & 130		Forest Matrix (Outside Burn Units)	
Parameter	Low	High	Low	High	Low	High	Low	High	Low	High
Fuel Model*	TU1 & TL8	TU1 & TL8	TU1 & TL8	TU1 & TL8	TU1 & TL8	TU1 & TL8	10	10	10	10
Relative Humidity (calculated)	70	20	70	20	70	20	70	20	70	20
20' Wind Speed (estimated)	5	10	5	10	5	10	5	10	5	10
Mid-flame Wind Speed (measured)	1.5	3	1.5	3	1.5	3	1.5	3	1.5	3
Surface Wind Direction (Estimated)	W (upslope) winds ideal*	W (upslope) winds ideal*	NW to NE (upslope) winds ideal*	NW to NE (upslope) winds ideal*	SE (upslope) winds ideal*	SE (upslope) winds ideal*	E to NE (upslope) winds ideal*	E to NE (upslope) winds ideal*	Modeled as upslope	Modeled as upslope
Transport Wind Direction	SW to NW	SW to NW	SW to NW	SW to NW	SW to NW	SW to NW	SW to NW	SW to NW	SW to NW	SW to NW
Temperature (Dry Bulb) (Measured)	38	85	38	85	38	85	38	85	38	85
1 Hour Fuel Moisture (Dead Fuel) (estimate)	13	5	13	5	13	5	13	5	13	5
10 Hour Fuel Moisture (Dead Fuel) (Measured using fuel stiks)	14	5	14	5	14	5	14	5	14	5
Terrain slope%	13	13	27	27	15	15	14	14	17	17
Season	Fall or Spring	Fall or Spring	Fall or Spring	Fall or Spring	Fall or Spring	Fall or Spring	Fall or Spring	Fall or Spring	Fall or Spring	Fall or Spring

* Other surface wind directions will be considered within prescription at the discretion of the burn boss

Inventory of “resources”

- Equipment
  - Backpack pumps, tools, water sources, hose, etc.
- People
  - Number
  - Responsibilities- firing, holding, engine

Contingency
Fire behavior Rx

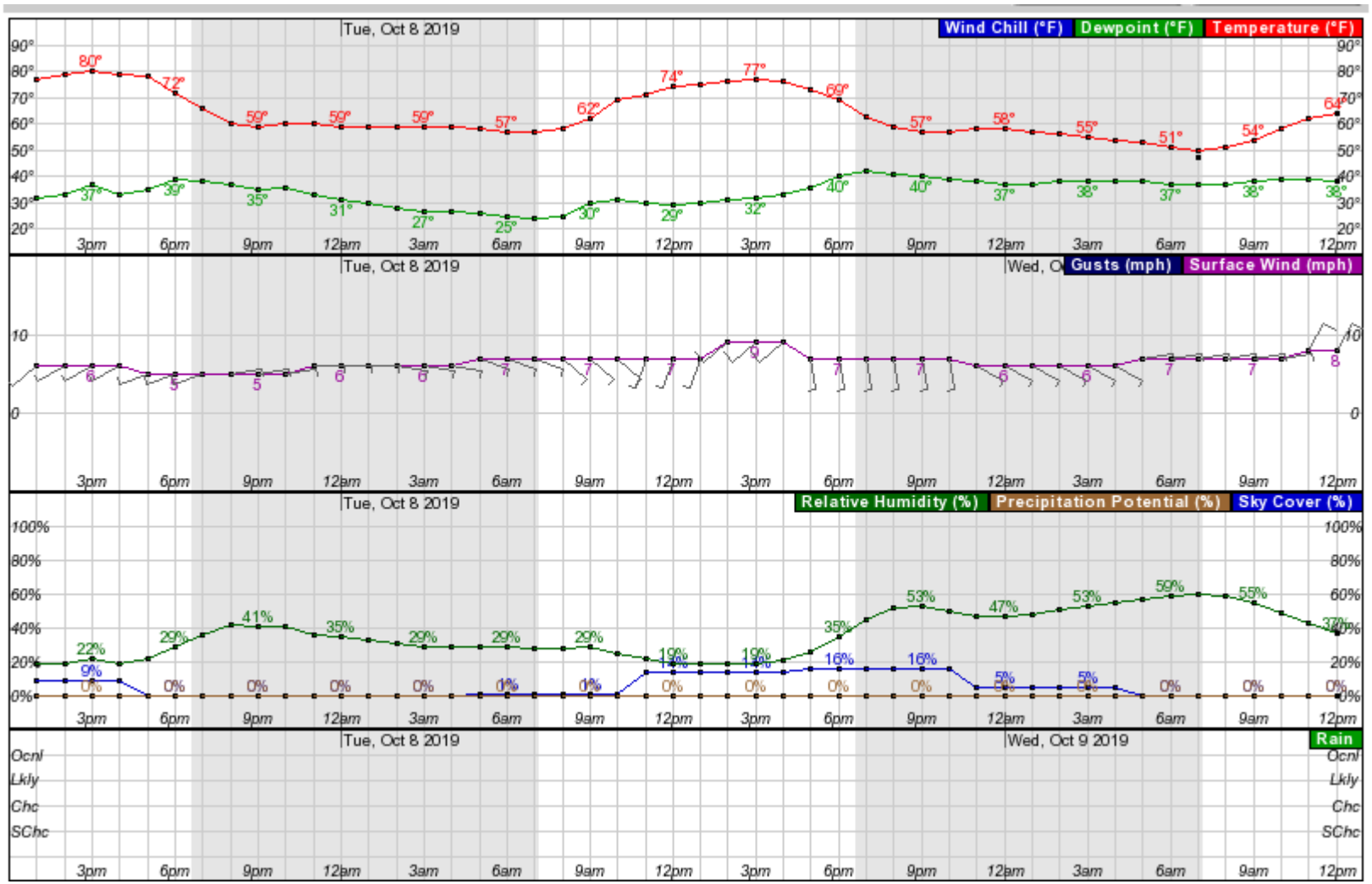
Contingency:
In the event of the environmental conditions exceeding the High end of the prescription by an increase in the 20' wind speed to 15 miles per hour, an escape outside of the unit boundaries could be contained at less than 2 acres in approximately 1.1 hours without additional resources above what is available at Blodgett Forest.

The Georgetown Fire Department maintains 2 fire stations at 11, and 13 miles west of Blodgett Forest. The U.S. Forest Service maintains fire stations at 1 and 9 miles west of Blodgett Forest. Response times for these stations are estimated at approximately 20-35 minutes. It is anticipated that a minimum of 5 persons plus two slip on units, a brush rig, water tender and/or existing hose lays should be adequate to contain an escape under low, high, and contingency conditions (See Behave outputs). The resources on site (hand crews and excavator) are capable of constructing at least 20 chains of fire line/hour in the dominant fuel types both in and outside the project boundaries.

B. Fire Behavior Prescription:

	Fire Behavior Prescription Range					
Parameters	**Low**			**High**		
Fuel Model (partial costume fuel loading)	Inside 60, 340, 400	Inside 101/130	Outside Burn Units	Inside 60, 340, 400	Inside 101/130	Outside Burn Units
	TU1 (50%) TL8 (50%)	10	10	TU1 (50%) TL8 (50%)	10	10
Flame Length (feet)	1.5-1.7	1.6	1.7	2.8-3.0	3.5	3.6
Rate of Spread (chains/hr)	0.7-0.9	0.9	1	2.1-2.5	3.7	3.9
Torching Tree Spotting Distance (miles)	0.1	0.1	0.1	0.3	0.3	0.3
Firebrand Ignition (%)	15	10	10	64	64	64

Weather forecast



Other elements

- Scheduling
- Pre-burn considerations (prep to do)
- Weather forecast method
- Notification list
- Briefing plan
- Organization and equipment
- Communication plan
- Safety plan/emergency procedures
- Ignition plan
- Holding plan
- Smoke/air quality
- Post-burn activities
- Appendices: maps, complexity analysis, technical review, JHA, Fire behavior modeling documentation