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Description of document: National Park Service (NPS) Records re: Fire Damage and Risks to the Sequoia Trees in Sequoia National Park and Sequoia National Monument 2021

Requested date: 15-October-2021

Release date: 12-November-2021

Posted date: 22-November-2021

Source of document: FOIA Request
National Park Service
12795 W. Alameda Parkway
P.O. Box 25287
Denver, CO 80225
Fax: Call for options - 1-855-NPS-FOIA
Email: npsfoia@nps.gov
[FOIAonline](#)

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OFFICIAL CORRESPONDENCE SENT VIA EMAIL
NO HARD COPY TO FOLLOW

National Park Service
in Reply Refer to:
DOI-NPS-2022-000245

November 12, 2021

Via email

This is our final response to your Freedom of Information Act (FOIA) request submitted to and received by the National Park Service (NPS) on October 15, 2021. The Department of the Interior (DOI) FOIA tracking number for this request is DOI-NPS-2022-000245. Please cite this tracking number in any future communications with our office regarding your request.

In your request you stated:

"A copy of each internal National Park Service report or memo or assessment or analysis or discussion about (fire) damage or (fire) risks to the sequoia trees in the Sequoia National Park and/or the Sequoia National Monument. I agree to limit this request to records dated between September 1, 2021, and the present. I agree to limit this request to records at the offices at the National Park Service Headquarters which would be most likely to hold these records, and/or at the applicable NPS regional office where records are most likely to be found for the Sequoia National Park and/or Sequoia National Monument. You may omit reports that have been posted on the National Park Service public website. I agree to exclude news articles and compilations of news articles from the scope of this request. I agree to limit this request to records that can be located within a four-hour searching time."

Park staff have completed their four hours of search time of NPS files for responsive records. In this release, we have attached a total of 293 pages which are being released to you in full.

We have classified you as an "other-use" requester. As such, we may charge you for some of our search and duplication costs, but we will not charge you for our review costs; you are entitled to up to 2 hours of search time and 100 pages of photocopies (or an equivalent volume) for free. See 43 C.F.R. § 2.39. You have agreed to pay up to \$140 for the processing of your request.

We have reached the four-hour search limit you stated in your request. The fee for processing the records we are releasing to you is \$96.00, calculated as follows: Two hours of professional Search Time at \$48.00. Please note that you have not been charged for the first two hours of search time. This letter also serves as your bill for collection for \$96.00. Please send your payment to Attention: FOIA Account Receivables, Sequoia and Kings Canyon National Parks 47050 Generals Hwy, Three Rivers, CA 9327. Be sure to reference your FOIA number DOI-NPS-2022. Please note that, if the

fees are not paid within 30 calendar days of the date of the bill, you will owe interest under federal law; we will use our debt collection authorities, as appropriate, to collect fees; and we may not be able to process other FOIA requests from you.

-
For your information, Congress excluded three discrete categories of law enforcement and national security records from the requirements of FOIA. *See* 5 U.S.C. §552(c). This response is limited to those records that are subject to the requirements of FOIA. This is a standard notification that is given to all our requesters and should not be taken as an indication that excluded records do, or do not, exist.

The 2007 FOIA amendments created the Office of Government Information Services (OGIS) to offer mediation services to resolve disputes between FOIA requesters and federal agencies as a non-exclusive alternative to litigation. Using OGIS services does not affect your right to pursue litigation. You may contact OGIS in any of the following ways:

Office of Government Information Services (OGIS)
National Archives and Records Administration
8601 Adelphi Road - OGIS
College Park, MD 20740-6001

E-mail: ogis@nara.gov
Web: <https://ogis.archives.gov>
Telephone: (202) 741-5770
Fax: (202) 741-5769
Toll-free: (877) 684-6448

Please note that using OGIS services does not affect the timing of filing an appeal with the Department's FOIA & Privacy Act Appeals Officer. If you have any question about the processing of your FOIA request, you may contact us by email at seki_superintendent@nps.gov.

Contact information for the Department's FOIA Public Liaison, who you may also seek dispute resolution services from, is available at <https://www.doi.gov/foia/foiacenters>.

Sincerely,

Jodi Gover
Executive Assistant
Superintendent's Office
Sequoia and Kings Canyon National Parks

Attachments

cc: Regional FOIA Office, NPS Interior Regions 8, 9, 10, 12



Colony Incident Decision

Draft created
10/02/21 18:01

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1. Decision

1.1. Incident Information

Fire burning at night on the KNP Complex



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Downed trees and ground fuels burning



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Incident Information

NAME	VALUE
Incident Name	Colony
Unique Fire Identifier	2021-CAKNP-000116
Responsible Unit Name	Sequoia & Kings Canyon National Parks
FireCode	N9RE
P-Code	
Point of Origin	36.56688N / 118.8115 W
Incident Size	58,272acres
Latest WFDSS Perimeter Size	58,272acres
Incident Cause	Natural
Incident Type	Wildfire
Incident Discovery	09/10/2021 07:20
Contained	
Controlled	
Out	
Jurisdictional Unit	CAKNP - Sequoia & Kings Canyon National Parks
Jurisdictional Agency(s)	BIA/Tribal, BLM, NPS, USFS
Geographic Area (prep level)	Southern California (3)

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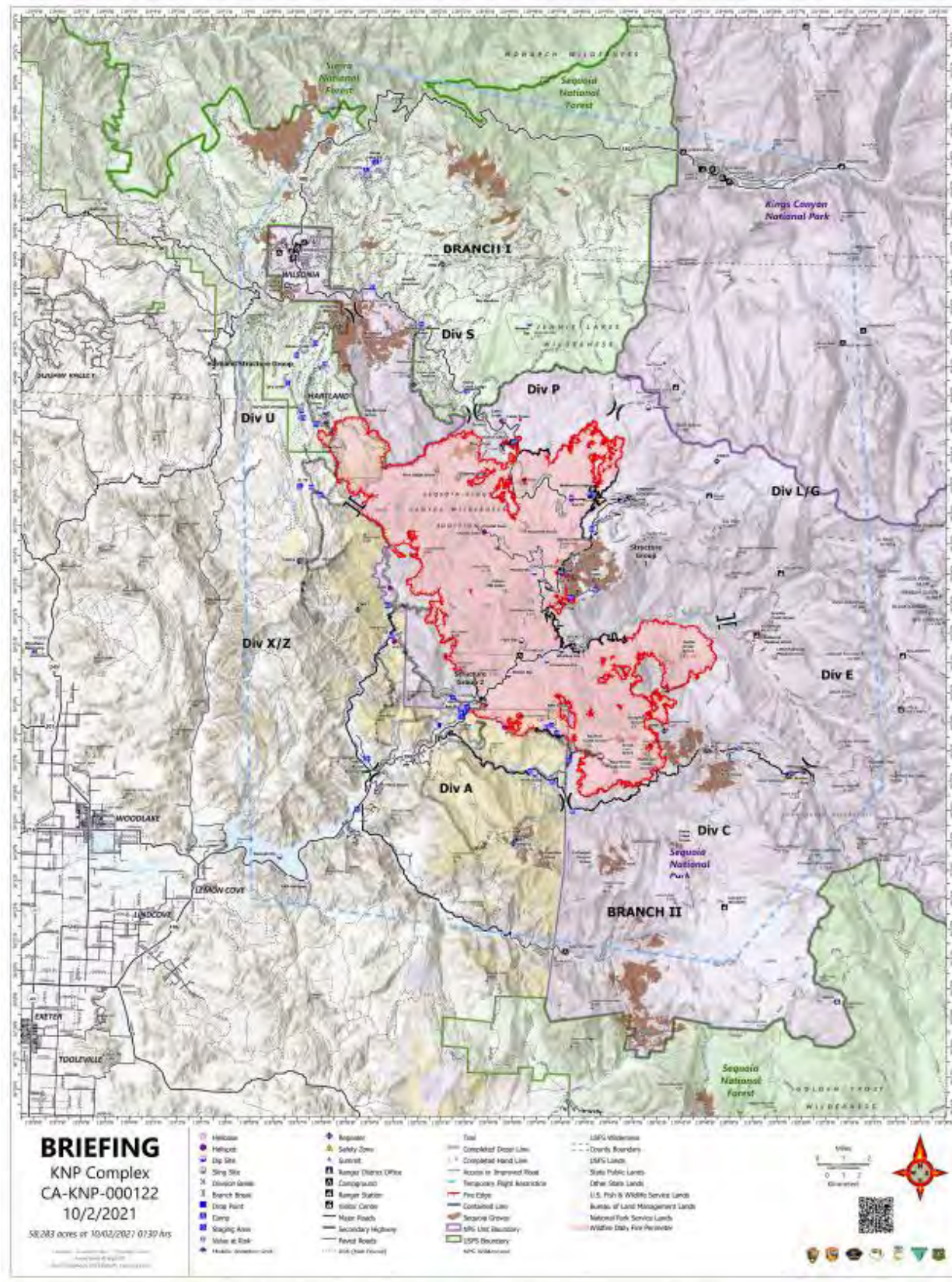
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Incident Information

Owner Name(s) Amy Ziegler, Leif Mathiesen, Andrew Cremers, Eamon Engber, Gabriel Garcia, Judy Forbes, John Ziegler, Dana Bagnoli

October 2nd Fire Briefing Map



October 2nd IR

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OVERWATCH IMAGING
Using the World's Best
Aspen Helicopters
MSRC
Marine Spill Response Corporation

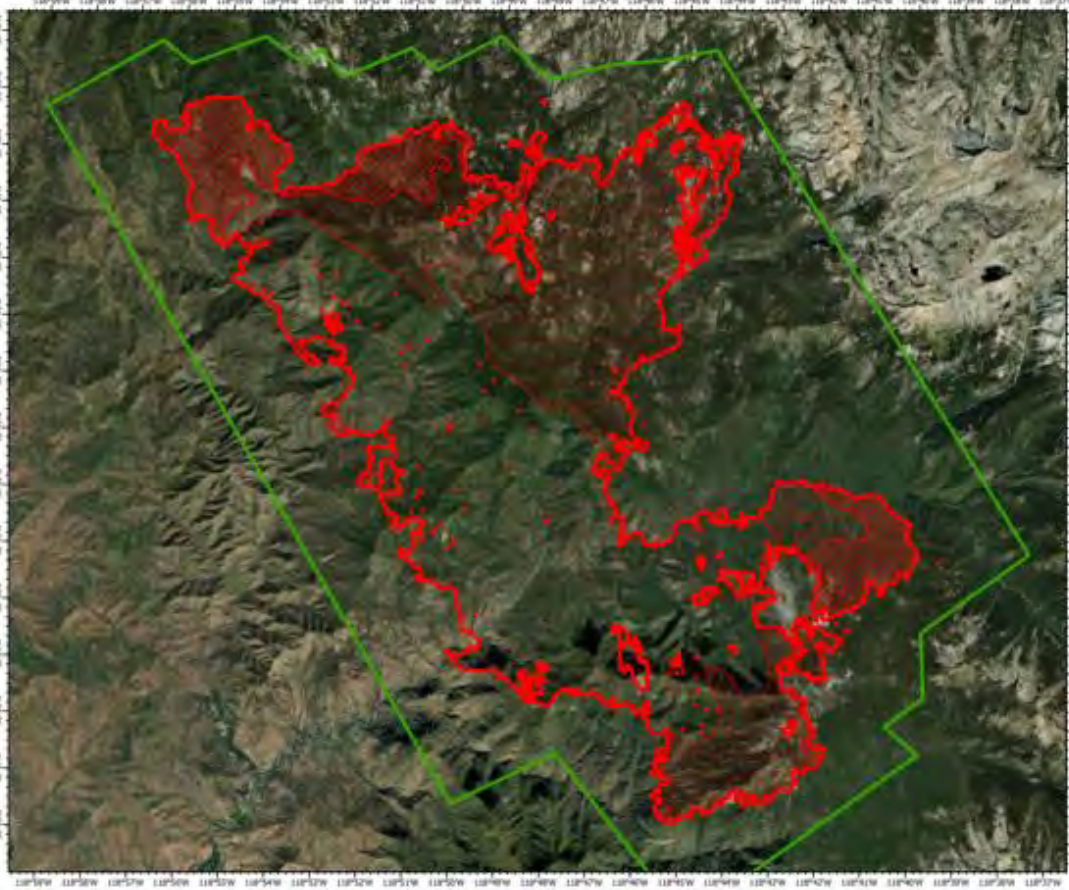
Fire: KNP Complex
Briefing Date: 20211002
Imagery Date: 20211002
Imagery Time: 0130MDT
IR Analyst: Kaohie Saechao
Interpreted Acreage: 58273

- Heat Perimeter
- Intense Heat
- Scattered Heat
- Isolated Heat Source
- Possible Heat Source
- Cloud Cover
- Area Covered by IR Flight

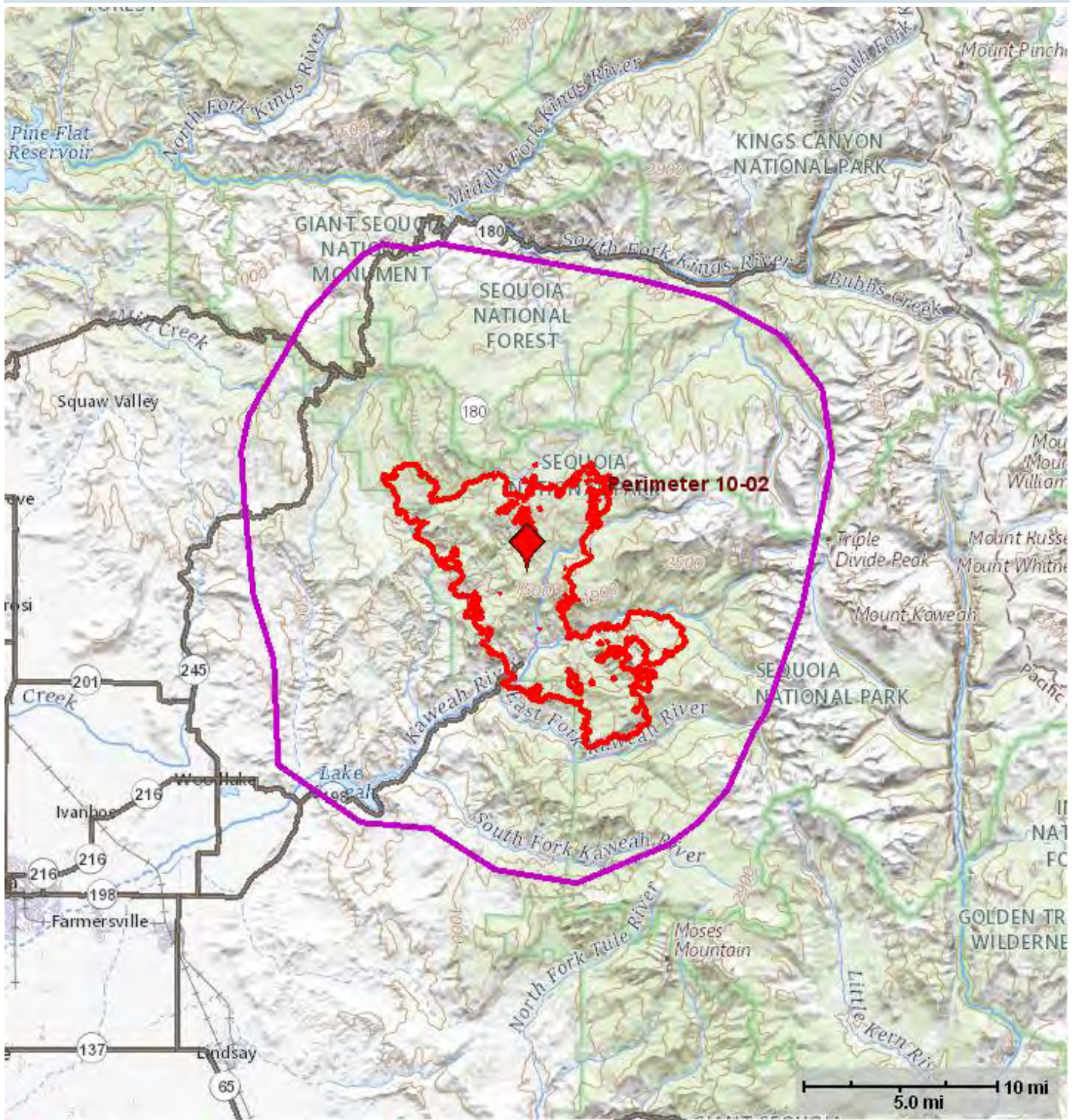
Imagery Location

NAD 1983 UTM ZONE 11N
SCALE: 1:110,500
0 1 2 4 Miles

Barbair Geographics, Inc. 4000, 5000, 6000, 7000, 8000, 9000, 10000, 11000, 12000, 13000, 14000, 15000, 16000, 17000, 18000, 19000, 20000, 21000, 22000, 23000, 24000, 25000, 26000, 27000, 28000, 29000, 30000, 31000, 32000, 33000, 34000, 35000, 36000, 37000, 38000, 39000, 40000, 41000, 42000, 43000, 44000, 45000, 46000, 47000, 48000, 49000, 50000, 51000, 52000, 53000, 54000, 55000, 56000, 57000, 58000, 59000, 60000, 61000, 62000, 63000, 64000, 65000, 66000, 67000, 68000, 69000, 70000, 71000, 72000, 73000, 74000, 75000, 76000, 77000, 78000, 79000, 80000, 81000, 82000, 83000, 84000, 85000, 86000, 87000, 88000, 89000, 90000, 91000, 92000, 93000, 94000, 95000, 96000, 97000, 98000, 99000, 100000

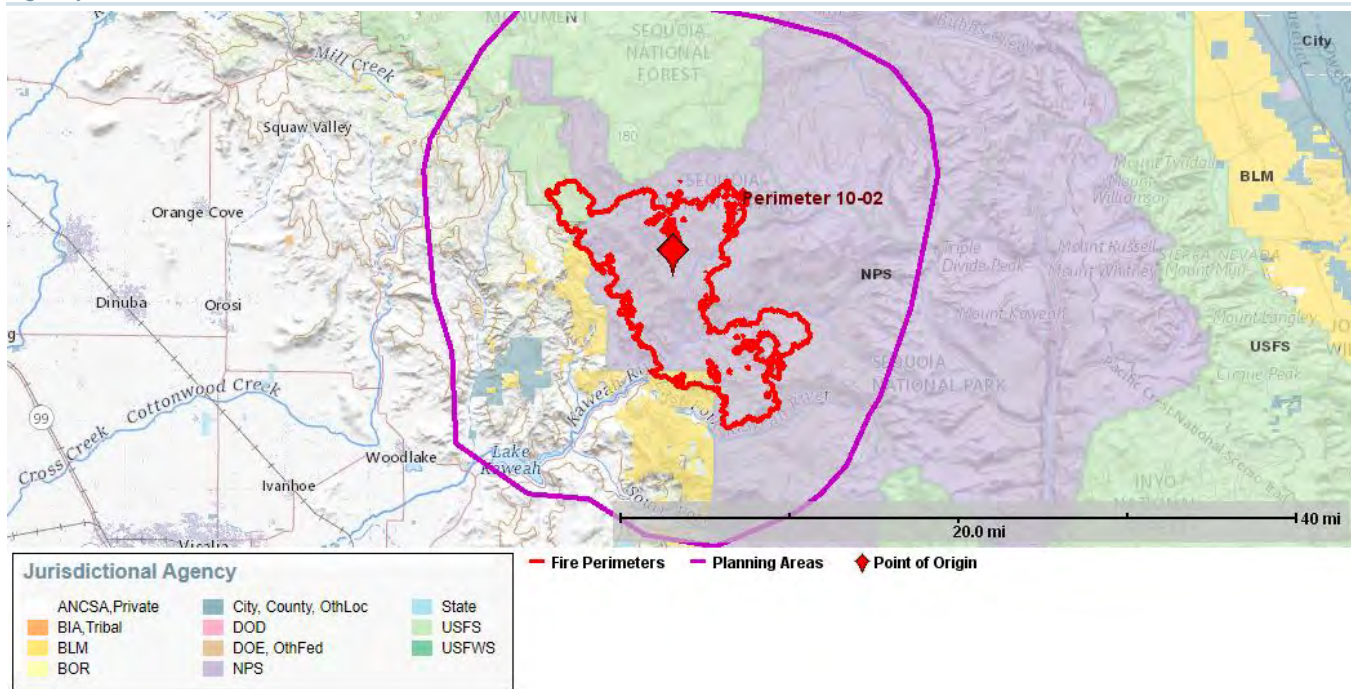


Incident Map

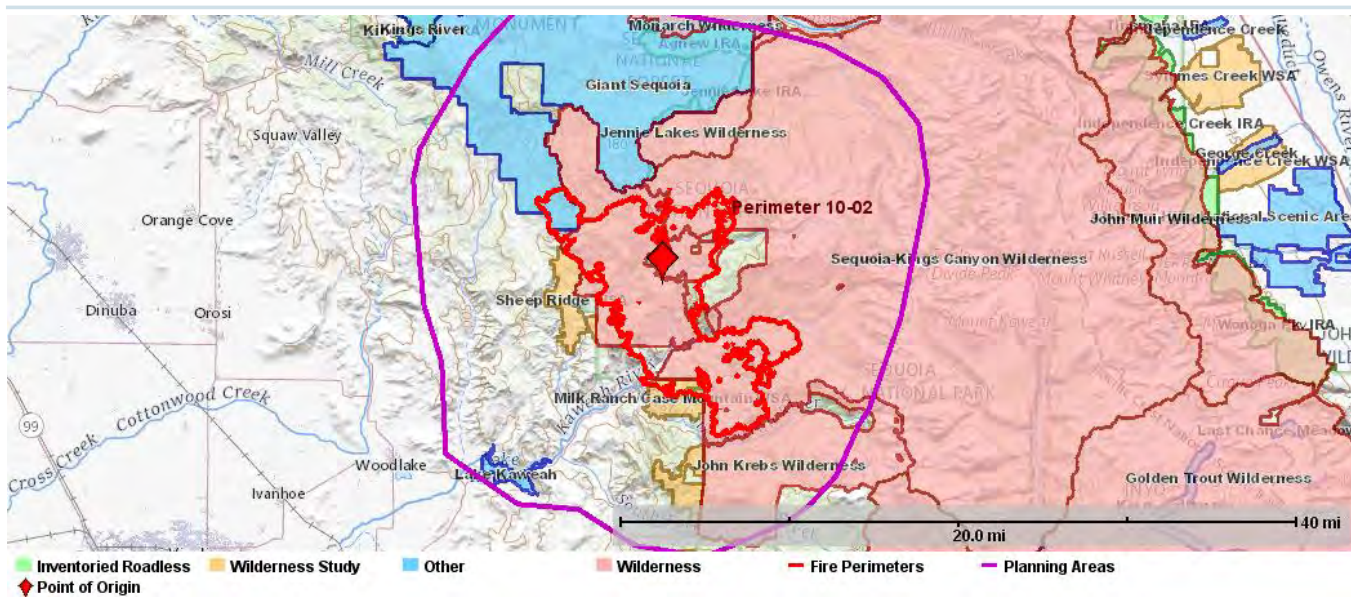


— Fire Perimeters — Planning Areas ◆ Point of Origin

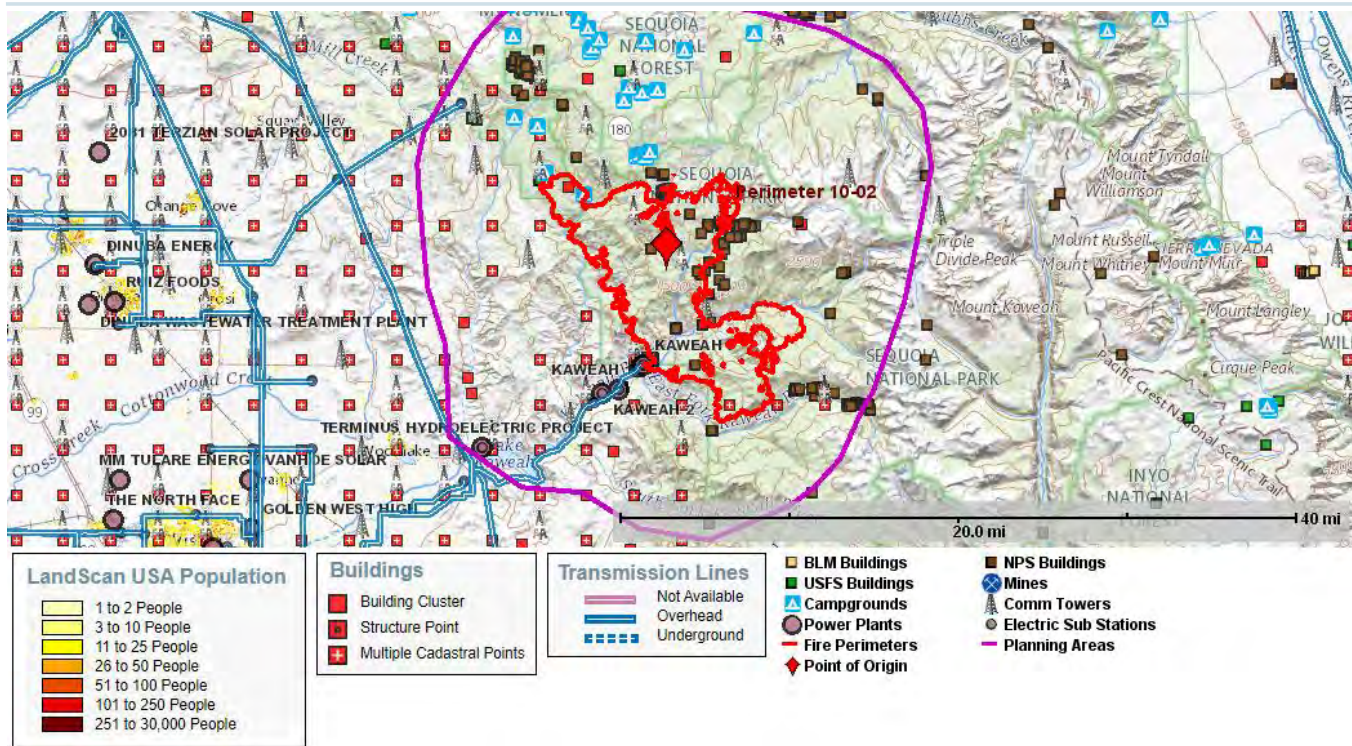
Agency Jurisdiction



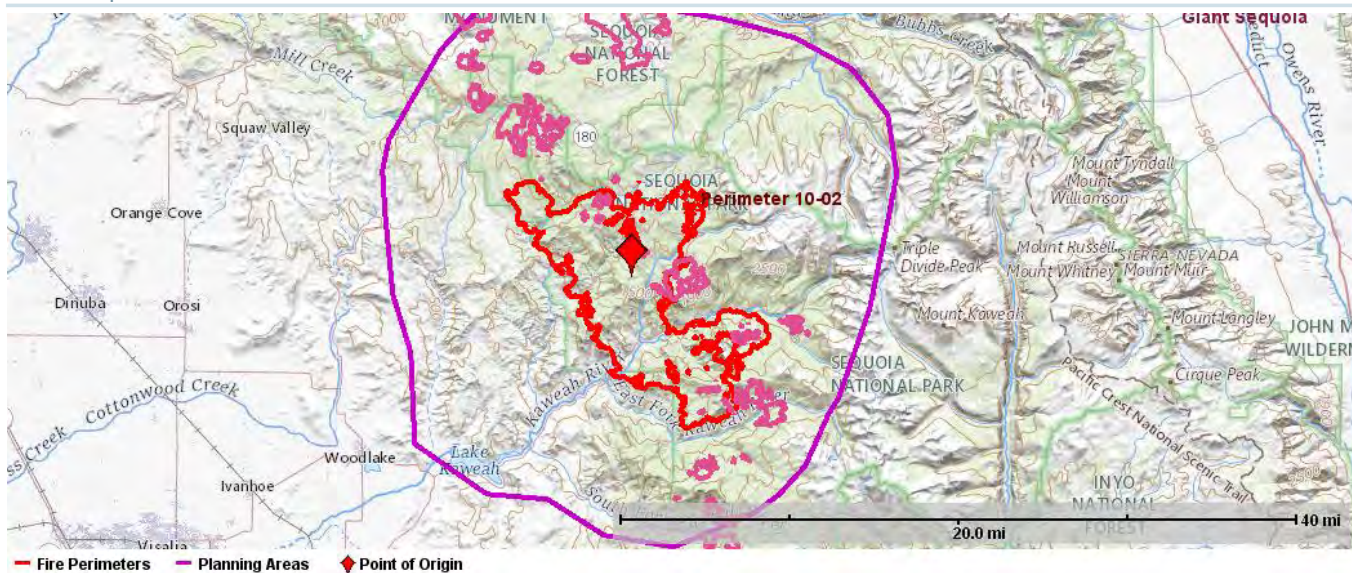
Wilderness Areas and GSNM



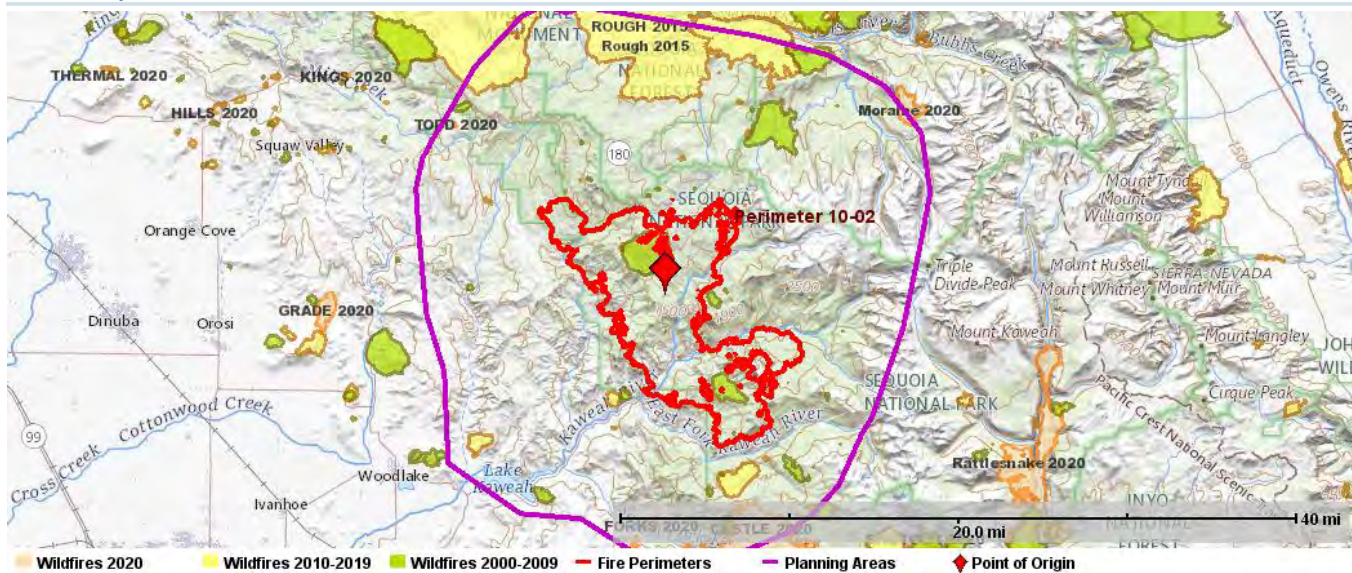
Critical Infrastructure



Giant Sequoia Groves



Fire History 2000 to 2021



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1.2. Weather

Fire Weather Zone Forecast

000
 FNUS56 KHNX 022141
 FWFPHNX
 Fire Weather Planning Forecast for Interior Central California
 National Weather Service San Joaquin Valley - Hanford CA
 241 PM PDT Sat Oct 2 2021
 .DISCUSSION...High pressure will remain over the region through the weekend with a continuation of dry conditions and warmer than normal temperatures. A weak low pressure system will then pass through the area and lower temperatures back to near normal by the middle of next week, with continued dry conditions.
 CAZ594-031545-
 Sequoia Kings-
 241 PM PDT Sat Oct 2 2021
 .TONIGHT...
 Sky/weather.....Mostly clear. Haze and areas of smoke in the evening.
 Min temperature....
 5000 Feet.....53-58.
 8000 Feet.....40-45.
 24 HR Trend.....Little change.
 Max Humidity.....
 5000 Feet.....24-34 percent.
 8000 Feet.....26-36 percent.
 24 HR Trend.....Down 2-4 percent.
 Wind - 20 Foot (10 Minute Average)
 Slopes.....Downslope 2-10 mph.
 Ridges.....East 6-12 mph.
 LAL.....1.
 Chc Wetting Rain....0 percent.
 .SUNDAY...
 Sky/weather.....Sunny.
 Max temperature....
 5000 Feet.....73-78.
 8000 Feet.....62-67.
 24 HR Trend.....Little change.
 Min Humidity.....
 5000 Feet.....10-19 percent.
 8000 Feet.....10-18 percent.
 24 HR Trend.....Up 1-3 percent.
 Wind - 20 Foot (10 Minute Average)
 Slopes.....Upslope/upvalley 3-9 mph.
 Ridges.....East 6-12 mph in the early morning shifting to the south 4-8 mph by afternoon.
 LAL.....1.
 Ventilation.....Excellent.
 Mixing height.....11500 ft AGL.
 Transport Winds....East around 5 mph in the morning shifting to the south in the afternoon.
 Chc Wetting Rain....0 percent.
 .SUNDAY NIGHT...
 Sky/weather.....Partly cloudy.
 Min temperature....
 5000 Feet.....54-59.
 8000 Feet.....41-46.
 24 HR Trend.....Little change.
 Max Humidity.....
 5000 Feet.....32-42 percent.
 8000 Feet.....35-45 percent.
 24 HR Trend.....Up 3-9 percent.
 Wind - 20 Foot (10 Minute Average)
 Slopes.....Downslope 2-12 mph.
 Ridges.....East 5-10 mph.
 LAL.....1.
 Chc Wetting Rain....0 percent.
 .MONDAY...
 Sky/weather.....Partly sunny.
 Max temperature....
 5000 Feet.....70-75.
 8000 Feet.....60-65.
 24 HR Trend.....Down 2-4 degrees.
 Min Humidity.....
 5000 Feet.....18-28 percent.
 8000 Feet.....16-26 percent.
 24 HR Trend.....Up 5-11 percent.
 Wind - 20 Foot (10 Minute Average)
 Slopes.....Upslope/upvalley 3-10 mph.
 Ridges.....Southeast 6-12 mph in the early morning shifting to the south by afternoon.
 LAL.....1.

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Fire Weather Zone Forecast

Ventilation.....Excellent.
 Mixing height.....10600 ft AGL.
 Transport Winds.....East around 5 mph in the morning shifting to
 the south in the afternoon.
 Chc Wetting Rain....0 percent.
 .EXTENDED...
 .TUESDAY...
 Partly cloudy. Temperatures down 3-5 degrees. Minimum RH up 3-9
 percent.
 20-Foot Winds...
 Slopes.....Upslope/upvalley 7 mph.
 Ridges.....Northwest 7 mph.
 .WEDNESDAY...
 Partly cloudy. Temperatures down 2-4 degrees. Minimum RH up 3-5
 percent.
 20-Foot Winds...
 Slopes.....Upslope/upvalley 3-8 mph.
 Ridges.....Southwest 3-8 mph.
 .THURSDAY...
 Partly cloudy. Temperatures down 2-4 degrees. Minimum RH up 1-3
 percent.
 20-Foot Winds...
 Slopes.....Upslope/upvalley 3-7 mph.
 Ridges.....Southwest 5-14 mph.
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 weather.gov/hanford

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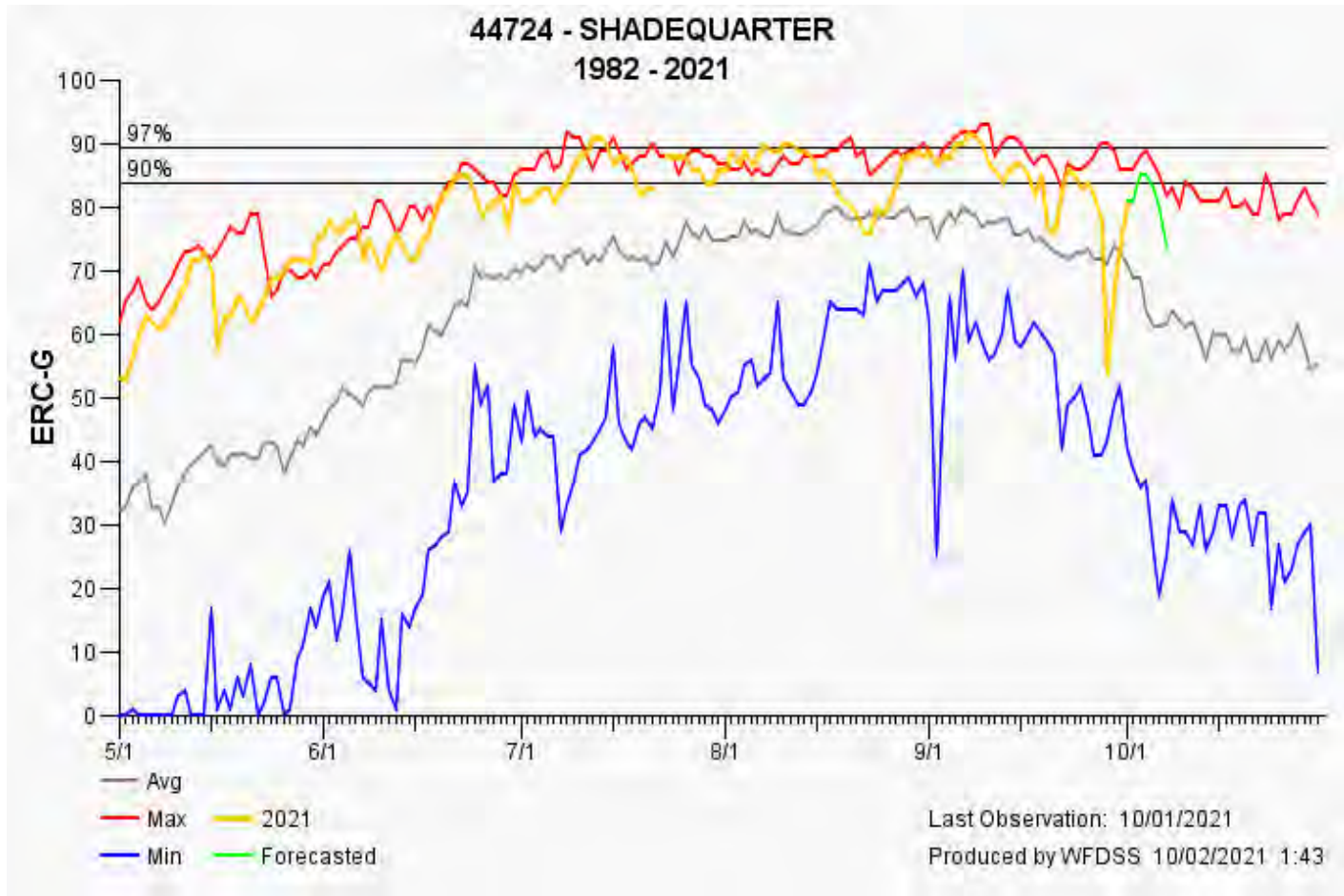
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[Shadequarter ERC](#)

Fire Danger Rating

Latitude Longitude Elevation
 36.56707 N 118.95788 W 1,323 m, 4,340 ft



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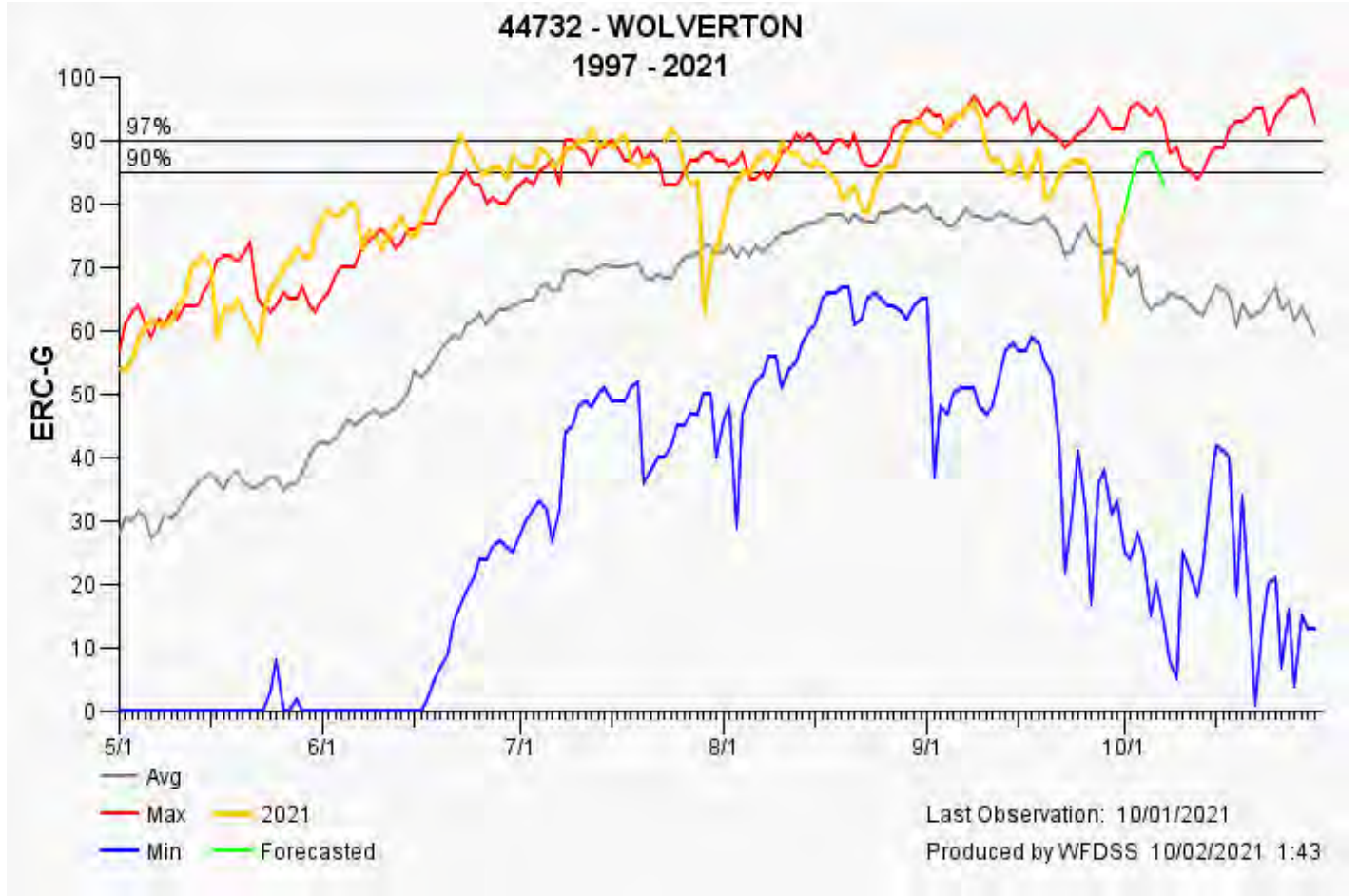
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[Wolverton Energy Release Component](#)

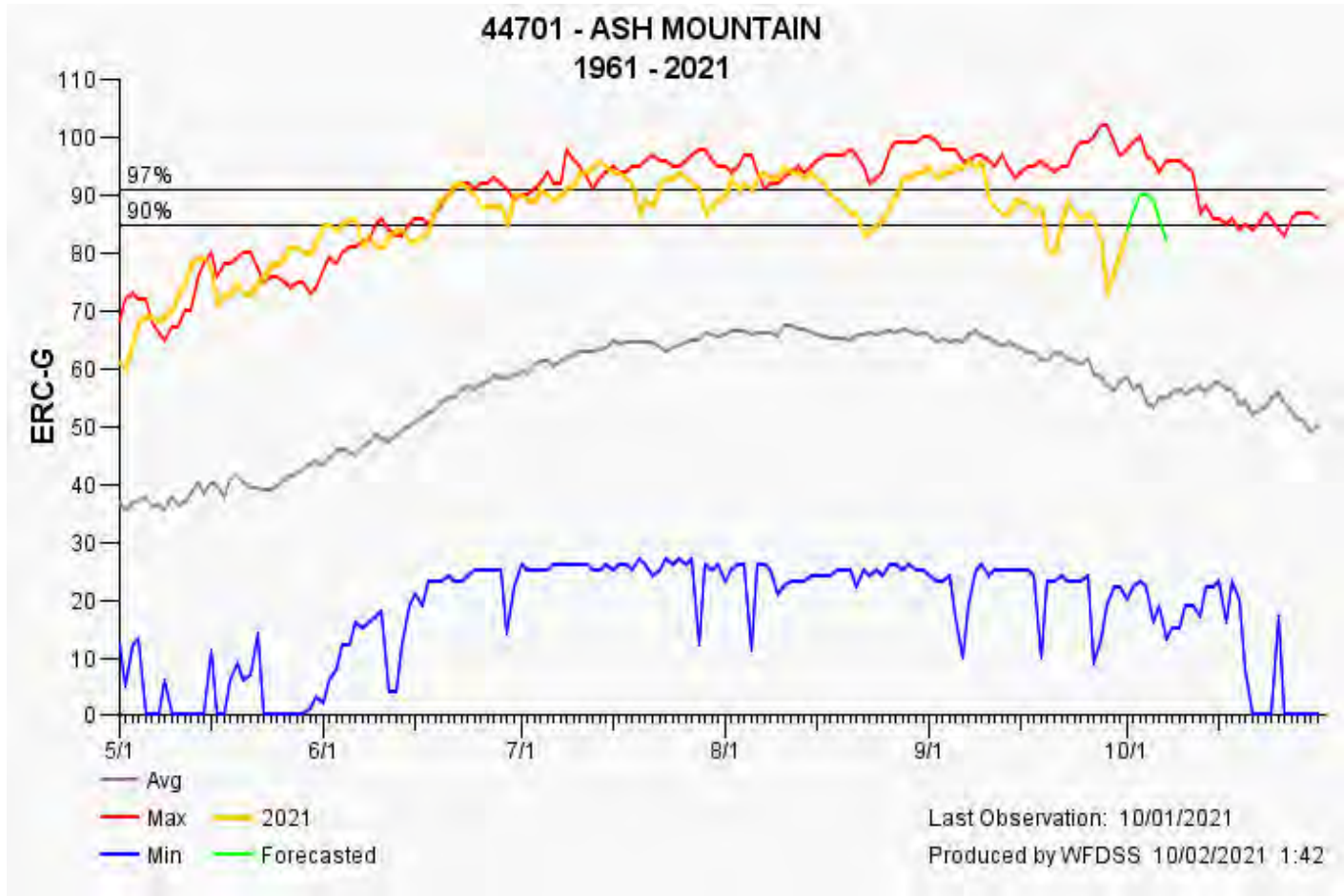
Fire Danger Rating

Latitude 36.44500 N Longitude 118.70333 W Elevation 1,598 m, 5,240 ft



[Ash Mountain Energy Release Component](#)

Latitude 36.49139 N Longitude 118.82528 W Elevation 527 m, 1,730 ft

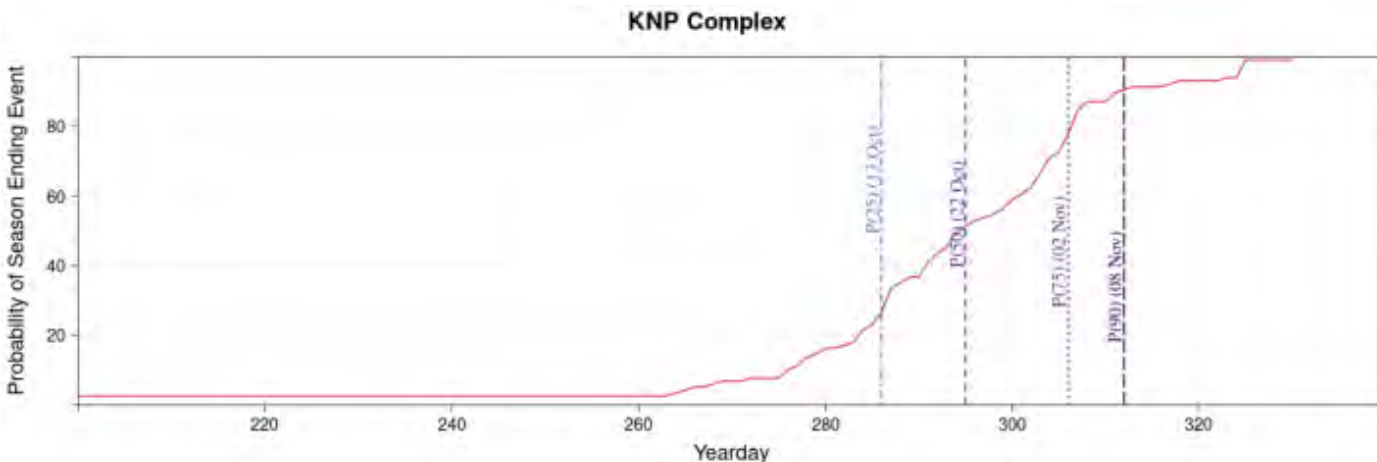


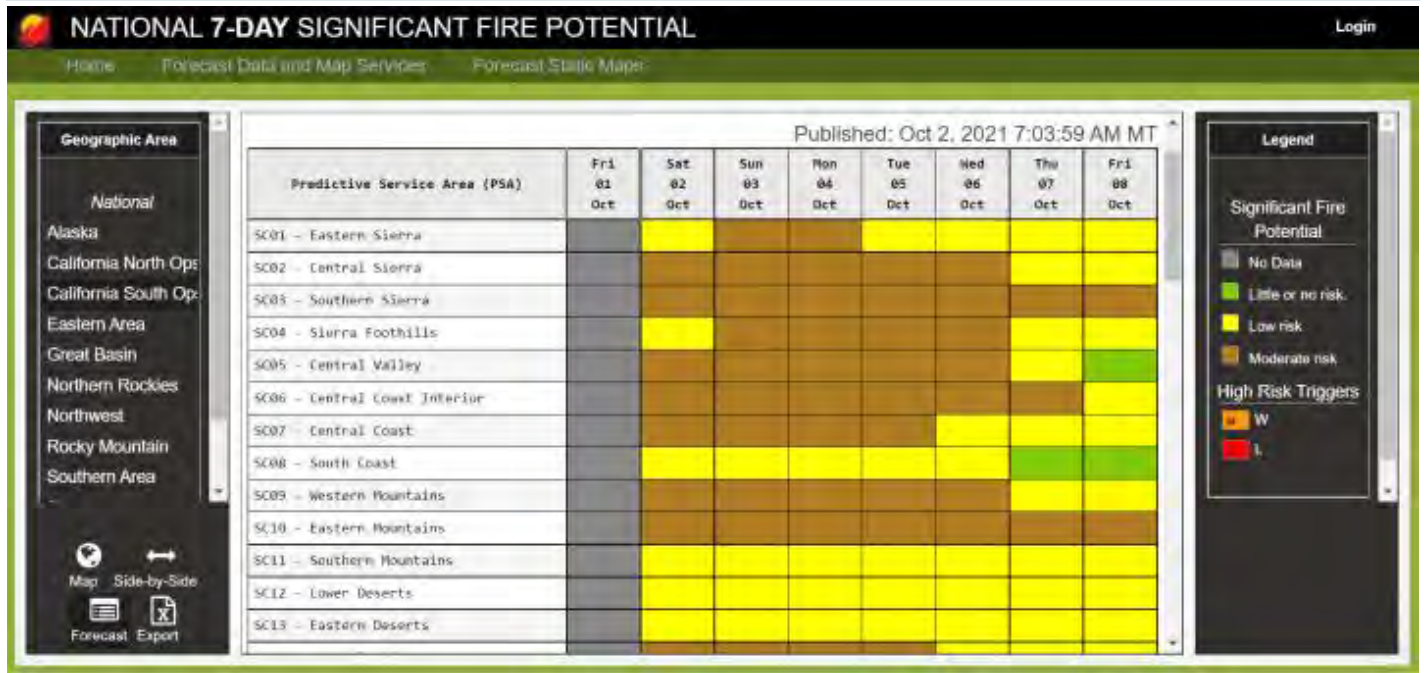
Season Ending Event

Below is a season-ending graph for the Colony and Paradise fires of the KNP Complex. A season-ending event consists of a fire-stopping-sometimes referred to as a fire-slowing event(s)-followed by a persistent combination of environmental factors that mark the end of the fire season. These factors can include subsequent pulses of rain or snow, lower temperatures, higher relative humidity, a lower sun angle, and/or a shorter photo period. The season-ending tool is under development by Dr. Matthew Jolly of the Fire Sciences Laboratory, Rocky Mountain Research Station. It is based on 21 years of gridded weather data (2000-2020), and instead of the nearest Remote Automated Weather Station (RAWS) or a group of RAWS (a Special Interest Group [SIG]), it uses a recent fire perimeter.

The graph is interpreted as follows: October 13th there is a 25% probability for a season-ending event, October 22nd, a 50% probability, November 2nd a 75% chance and by November 8 a 90% chance.

Season Ending Event RMAT





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1.3. Modeling

FSPRO Analysis 'FSPRO 7 Day - 09-28 rerun'

Time (CDT)	User	Note
09/28/2021 15:59	Hall, Wesley	This is a valid FSPRO run given the current and predicted fire behavior and growth across the fire. Intense heat from 9-28 IR flight was used and all other edits are consistent from previous runs

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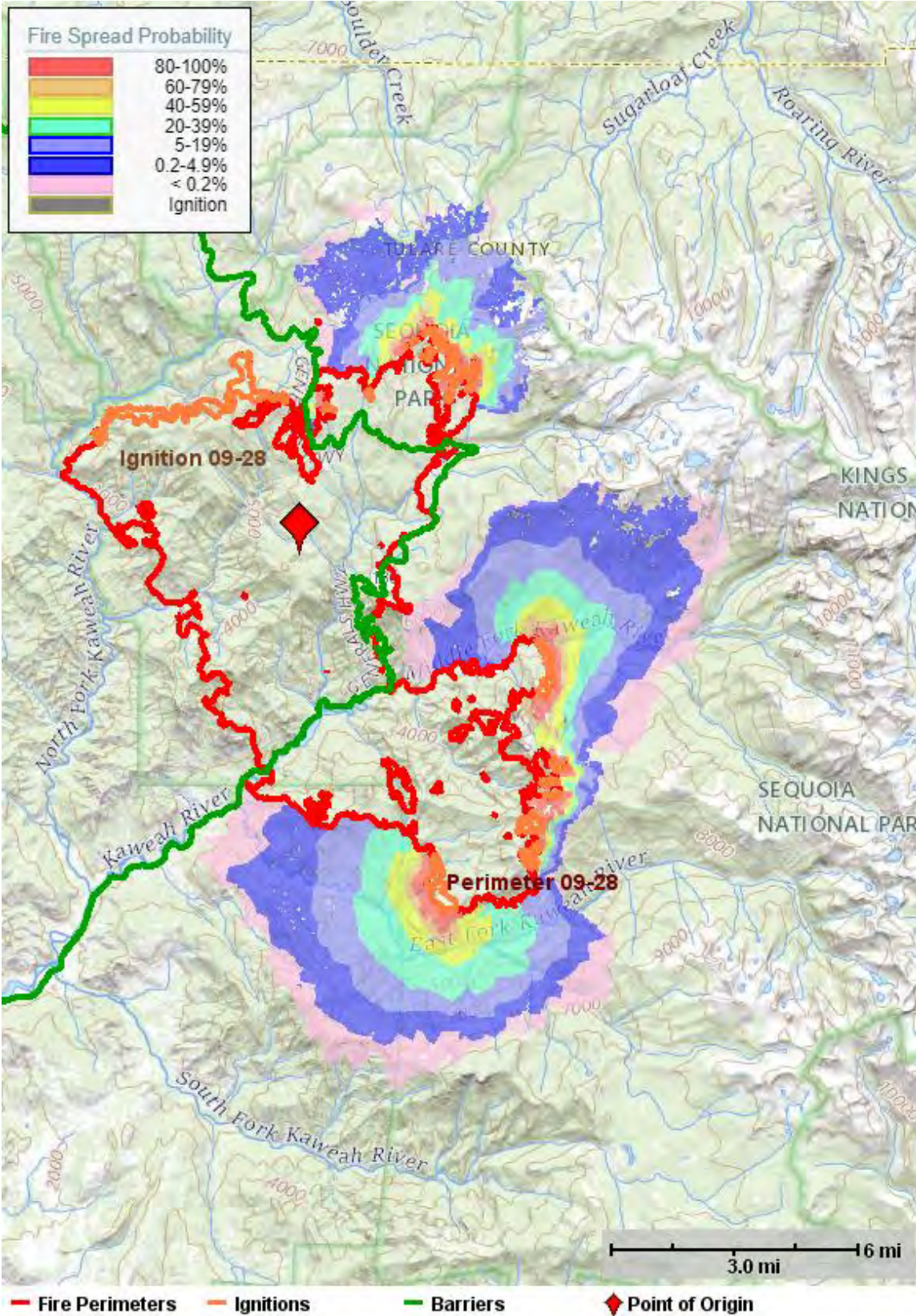
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1.4. Risk

Relative Risk

NAME	VALUE
Relative Risk	High
Duration	High
Saved By	Forbes, Judy
Completed	10/02/2021 17:44 CDT

Relative Risk Notes

This fire has a high probability of being a long duration fire with potential impacts to significant park infrastructure and natural and cultural resources. This fire has shown a high resistance to control. Direct attack efforts are not an option given the significant loading of snags and dead and down fuels. National PL5 is causing significant challenges in getting requested resources. An Type 1 ICT is now assigned and resources are becoming available and used. Significant threats are still present with forecast winds and continued difficulty in line placement in hazardously high fuel loads.

Values Notes

The fire threatens values in all directions, within and outside the Sequoia National Park. The fire is near multiple natural and cultural values including Crystal Cave and the Marble Fork of the Kaweah River, the Giant Forest and the General Sherman Tree, the General Grant Tree, and Colony Mill trail and cabin. Park infrastructure including the Wuksachi Lodge, Lodgepole Campground and Market, Giant Forest Visitor Center and Museum and employee and concession housing, campgrounds, and trailheads have potential to be impacted as the fire progresses uphill and towards the N and E. Multiple communities are increasingly threatened and evacuations are now in effect for Ash Mtn, Mineral King, Silver City, Wilsonia, Grant Grove, and Cedar Grove. Park is closed to visitors. Fire has moved on to the Sequoia National Forest threatening critical values and communities. There are multiple natural and cultural values in North Fork and Kaweah Fork tributaries. Infrastructure threatened in this area includes Montecito Sequoia and Stony Creek resorts; Far Horizons, Pythian and former Camp San Joaquin organization camps; Fir, Cove, Stony Creek, and Eshom Campgrounds; and Communication sites on Big Baldy and Eshom Point as the fire progresses uphill and towards the N and W. Multiple private homes on inholdings and communities includes Weston Meadows, Big Meadows, Hartland Christian Camp, UC Berkeley Whitaker Forest housing. Portions of the Hume Lake Ranger District are closed to visitors.

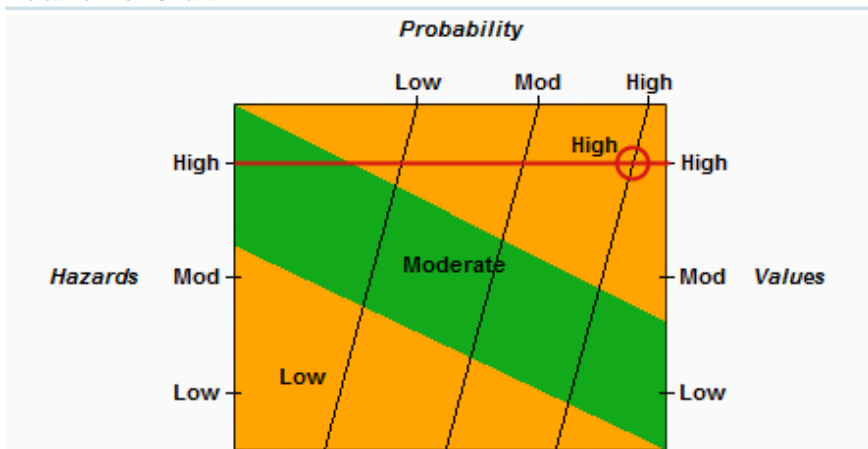
Hazards Notes

Current fire behavior is problematic. Fuel loading of standing and down snags pose significant control challenges for ground personnel. All fuels are available to burn. ERC's above 97th percentile. Fire is fuels driven and burning actively on entire perimeter. Available fuels are abundant. No natural barriers near fire. Fire has a very high potential for growth.

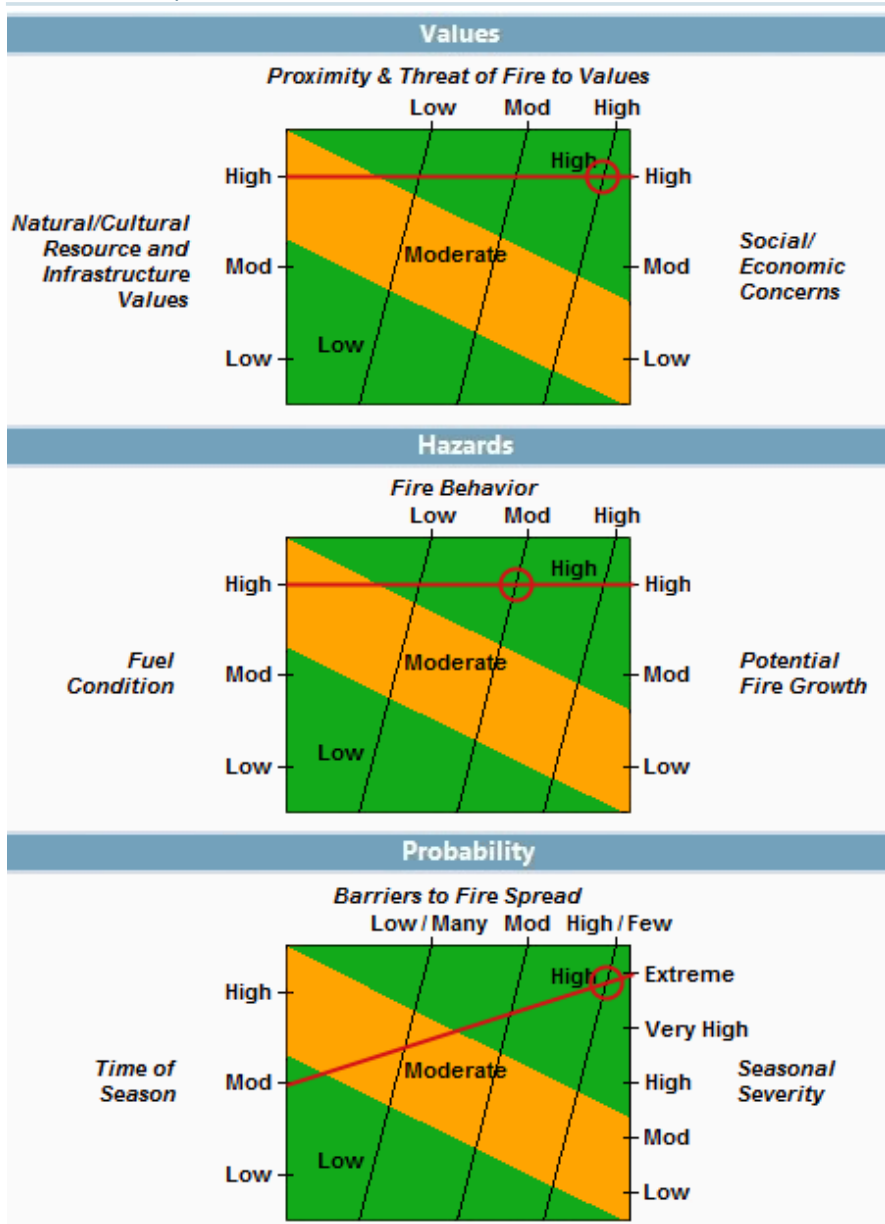
Probability Notes

Few barriers to fire spread. Fire is burning in an area with abundant dead and down fuels and drought stressed fuels. Few natural barriers to check fire spread. We are entering into the latter third of the traditional fire season. Seasonal severity is extreme. All measurable criteria for fire danger are high to extreme. New records are being set for fuel dryness and ERC's. Season ending event is another month- month and a half out.

Relative Risk Chart



Relative Risk Inputs



Organization Assessment

NAME	VALUE
Unit Recommended Org Type 1	
Saved By	Forbes, Judy
Completed	10/02/2021 17:45 CDT

Organization Assessment Notes

Complexity indicates a continued need for Type 1 team assigned. SW IMT 2 (Bales) assumed command on September 26th at 1800.

Relative Risk Notes

This fire has a high probability of being a long duration fire with potential impacts to significant park infrastructure and natural and cultural resources. This fire has shown a high resistance to control. Direct attack efforts are not an option given the significant loading of snags and dead and down fuels. National PL5 is causing significant challenges in getting requested resources. An Type 1 ICT is now assigned and resources are becoming available and used. Significant threats are still present with forecast winds and continued difficulty in line placement in hazardously high fuel loads.

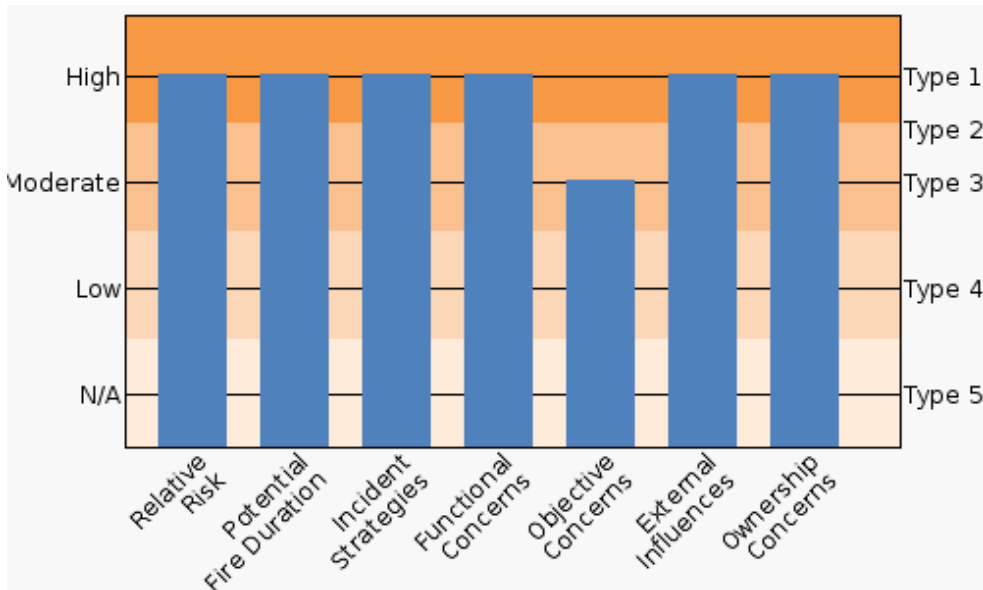
Implementation Difficulty Notes

Active fire spread is supported by fuel type and condition, weather, and time of year. Season ending event is not predicted to occur for a number of weeks. Fire environment is very dynamic, restrictions and closures in place and evacuations in place for many communities. As the fire progresses, special functional positions or units may be needed to support structure protection operations within park infrastructure, and protection of Giant Sequoia groves. Significant amount of time and resources are anticipated to achieve a successful outcome. Aircraft has been utilized to assist in checking spread while the ground strategies are limited.

Socio/Political Concerns Notes

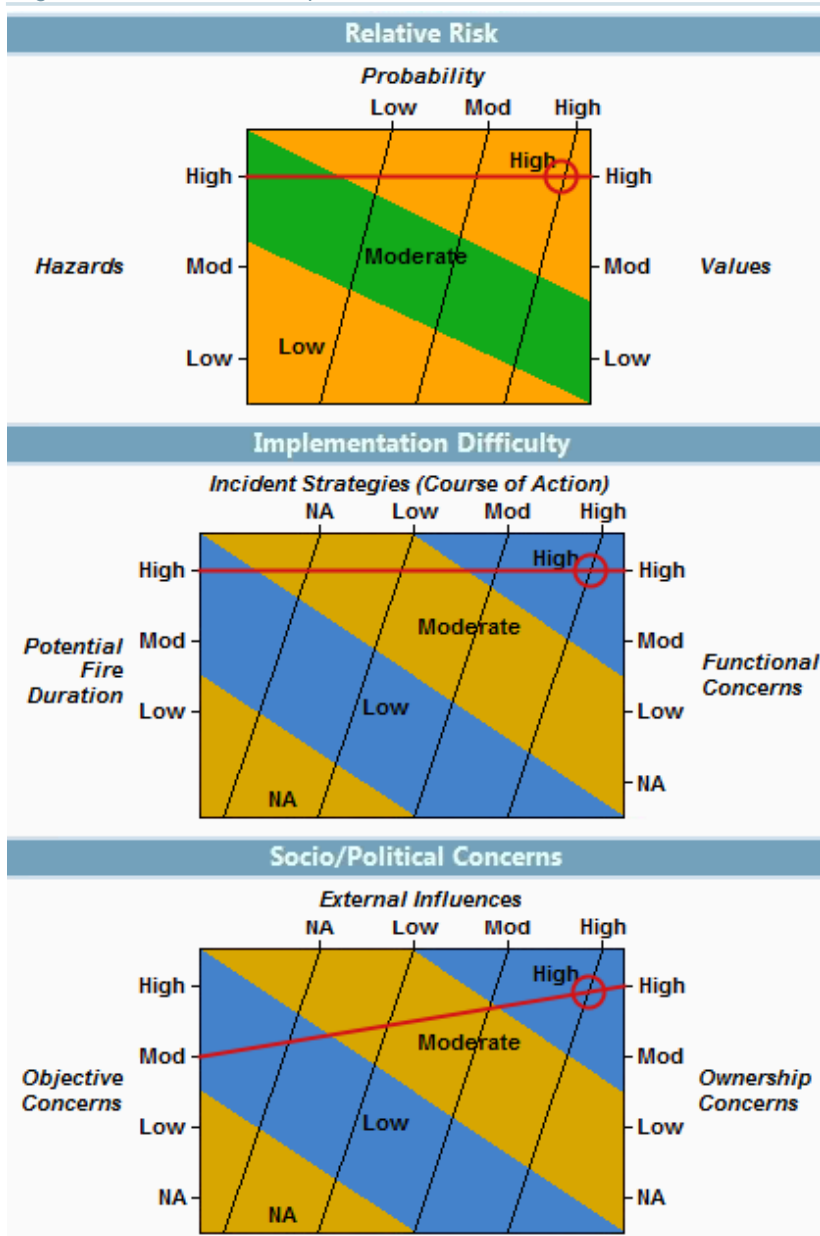
Multiple objectives are being implemented simultaneously. Objectives are moderately hard to achieve and success is dependent of a significant commitment of air and ground resources. The fire is burning on NPS, BLM and private lands and threatens USFS lands. This area has been victim to recent multiple large fire events, and the public and surrounding communities continue to feel the trauma of past events. This area is the last of the public land front country that hasn't burned in the last decade. This fire will have a high impact on neighbors and visitors. Smoke continues to impact communities, park and forest closures continue to impact visitors, public, and the local economy.

Organization Assessment Chart



Unit Recommended Org:Type 1

Organization Assessment Inputs



Planning Area Values Inventory Generated at 10/02/2021 16:52

NAME	VALUE
Planning Area Name	Current
Incident Name	Colony
Planning Area Size	500,217 acres

Category	Value	Data Source	Currency	Coverage
BLM Range Allotments	29,314 acres	BLM National Operations Center (NOC)	04/01/2020	National
Building Clusters: Fresno, CA	528	Various	Various	Available counties
Building Clusters: Tulare, CA	1,741	Various	Various	Available counties
CACND - Bakersfield FO / ACEC Cultural & Bio	30,972 acres	CASQF		Unit
CACND - Bakersfield FO / Sequoia Groves	460 acres	CAKNP		Unit
CAKNP - Local Values / Karst Watersheds	75,740 acres	CAKNP		Unit

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Planning Area Values Inventory Generated at 10/02/2021 16:52

Category	Value	Data Source	Currency	Coverage
CAKNP - Local Values / Powerline	13.2 miles	CAKNP		Unit
CAKNP - Local Values / Sequoia Groves	8,429 acres	CACND		Unit
CAKNP - Local Values / WaterSource Protect	7,734 acres	CAKNP		Unit
CAKNP - Local Values / Wilderness	233,118 acres	CACND		Unit
CASQF - Forest wide / Giant Sequoia	8,454 acres	CAKNP		Unit
CASQF - Forest wide / Private Lands	5,261 acres	CASQF		Unit
Campgrounds	25	BLM/USFS	2020	National (BLM and USFS only)
Class 1 Airsheds	255,998 acres	NPS Air Resources Division	Various	National
Communication Towers	98	HIFLD	02/20/2020	National
County: Fresno, CA	69,363 acres	US Census Bureau - TIGER	02/02/2021	National
County: Tulare, CA	430,853 acres	US Census Bureau - TIGER	02/02/2021	National
Electric Power Plants	4	Homeland Security Open Data	07/09/2020	CONUS, AK, HI, Puerto Rico, Guam, N. Marian Islands, and US Virgin Islands
Electric Sub Stations	6	Homeland Security Open Data	07/08/2020	CONUS, AK, HI, Puerto Rico, Guam, N. Marian Islands, and US Virgin Islands
Electric Transmission Lines	16.8 miles	Homeland Security Open Data	07/08/2020	CONUS, AK, HI, Puerto Rico, Guam, N. Marian Islands, and US Virgin Islands
Est Ground Evac Time: 1-2 Hrs	132,058 acres	National Park Service NIFC	11/01/2012	CONUS
Est Ground Evac Time: 2-4 Hrs	126,628 acres	National Park Service NIFC	11/01/2012	CONUS
Est Ground Evac Time: 4-6 Hrs	56,388 acres	National Park Service NIFC	11/01/2012	CONUS
Est Ground Evac Time: 6+ Hrs	135,351 acres	National Park Service NIFC	11/01/2012	CONUS
Estimated Population	2,445	LandScan USA	2018	CONUS, AK, HI, PR
Habitat: California Condor	4,837 acres	US Fish and Wildlife Service	02/10/2021	National
Habitat: Mountain Yellow-Legged Frog	9,026 acres	US Fish and Wildlife Service	02/10/2021	National
IRA: Agnew IRA	6,774 acres	PAD-US 2.1	09/15/2020	National
IRA: Jennie Lake IRA	2,388 acres	PAD-US 2.1	09/15/2020	National
Landowner Category: BIA	157 acres	PAD-US 2.0, AICC, BIA/ WFDSS, Census	10/09/2020	National
Landowner Category: BLM	29,268 acres	PAD-US 2.0, AICC, BIA/ WFDSS, Census	10/09/2020	National
Landowner Category: NPS	256,220 acres	PAD-US 2.0, AICC, BIA/ WFDSS, Census	10/09/2020	National
Landowner Category: OthLoc	6,424 acres	PAD-US 2.0, AICC, BIA/ WFDSS, Census	10/09/2020	National
Landowner Category: Private	120,701 acres	PAD-US 2.0, AICC, BIA/ WFDSS, Census	10/09/2020	National
Landowner Category: State	84 acres	PAD-US 2.0, AICC, BIA/ WFDSS, Census	10/09/2020	National

Category	Value	Data Source	Currency	Coverage
Landowner Category: USFS	87,363 acres	PAD-US 2.0, AICC, BIA/WFDSS, Census	10/09/2020	National
NPS Buildings	701	National Park Service	01/01/2021	National
Natl Scenic Byways	15.1 miles	National Park Service	02/28/2019	National
Other Areas: Giant Sequoia	82,439 acres	PAD-US 2.1	09/15/2020	National
Other Areas: Lake Kaweah	1,864 acres	PAD-US 2.1	09/15/2020	National
Ozone Non-Attainment	500,216 acres	EPA	06/05/2012	National
Particulates Non-Attainment	500,216 acres	EPA	08/24/2011	National
Protecting Unit: C&L	91 acres	Various	01/01/2020	AK, CA, ID, MT, NM, MN
Protecting Unit: NPS	264,910 acres	Various	01/01/2020	AK, CA, ID, MT, NM, MN
Protecting Unit: State	145,839 acres	Various	01/01/2020	AK, CA, ID, MT, NM, MN
Protecting Unit: USFS	89,457 acres	Various	01/01/2020	AK, CA, ID, MT, NM, MN
Roads	49.1 miles	NAVTEQ	11/2012	National
USFS Buildings	29	USFS (EDW)	2020	National
WSA: Milk Ranch/Case Mountain WSA	8,779 acres	PAD-US 2.1	09/15/2020	National
WSA: Sheep Ridge WSA	5,017 acres	PAD-US 2.1	09/15/2020	National
Wilderness: Jennie Lakes Wilderness	10,501 acres	Wilderness.net & National Wilderness Preservation System	03/22/2021	National
Wilderness: John Krebs Wilderness	29,907 acres	Wilderness.net & National Wilderness Preservation System	03/22/2021	National
Wilderness: Monarch Wilderness	3,494 acres	Wilderness.net & National Wilderness Preservation System	03/22/2021	National
Wilderness: Sequoia-Kings Canyon Wilderness	199,989 acres	Wilderness.net & National Wilderness Preservation System	03/22/2021	National

Coverage of Values Queried that Produced No Results

BLM Buildings (National), BLM Horse and Burro (National), BLM Oil / Gas Leases (National), Mines (National), NRA (National), Natl Historic Trails (National), Natl Recreation Trails (National), Natl Scenic Trails (National), Natl Wild Scenic Rivers (National), Oil and Gas Pipelines (National), Sage Grouse Habitat (National), TNC Lands (National), USFS Trails (CONUS, AK, HI, PR), USFWS Trails (CONUS, AK, HI, PR)

Suppression Difficulty Index:

The Suppression Difficulty Index is a rating of the relative difficulty in performing fire control work. It is based on topographic conditions, fuels, expected fire behavior under prevailing conditions, firefighter line production rates in various fuel types, and accessibility (distance from roads/trails). Colors denote different levels of difficulty. Red zones are "watch out" situations where control efforts are likely encounter greater difficulty. Blue zones indicate areas of higher likelihood of success due to low fire behavior as a result of gentle terrain, low to moderate fuel conditions, and better access. SDI does not account for standing snags or other non-fire hazards to firefighters, so it is not a firefighter hazard map. It is only showing in relative terms where it is harder or easier to perform work. High SDI indicates extreme difficulty, and low SDI indicates more reasonable conditions. From this information, decision-makers can factor in least difficult locations for establishing firelines.

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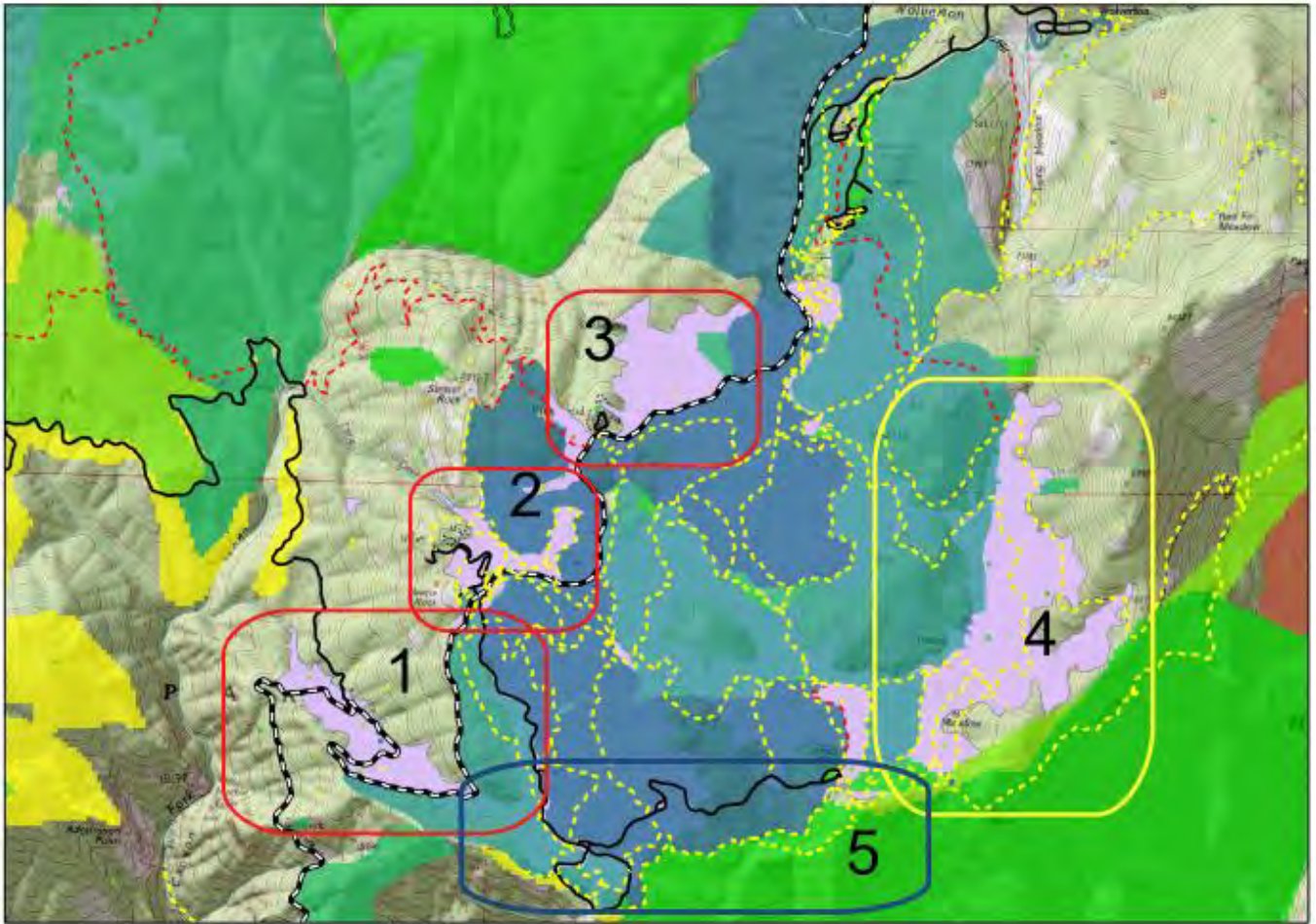
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0 0.125 0.25 0.5 0.75 1 Miles

Colony/Paradise READ Giant - Fire History & Sequoia Grove (purple)



1.5. Benefits

Benefits

Last updated by Leif Mathiesen on 09/10/2021 22:55



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1.6. Objectives

Incident FMU/Strategic Objective Code List

Unit	FMU/Strat Obj Code	Acres
CACCA	Central Cal General	157
CACND	Three Rivers	29,261
CAKNP	Kaweah_5000_ft	43,935
CAKNP	SEKI_above_5K	212,170
CASQF	GSNM	78,936
CASQF	WILD	14,013

Spatial Fire Planning Inventory

Category	Value	Data Source	Currency	Coverage
Aqua Retardant Avoidance	13,755 acres	USDA FS Enterprise Data Warehouse	07/26/2021	National (USFS Units only)
Mgmt Req: CA Spotted Owl	8,046 acres	CASQF	Current	Unit Level
Mgmt Req: CARS	6,421 acres	CASQF	Current	Unit Level
Mgmt Req: GSNM	82,438 acres	CASQF	Current	Unit Level
Mgmt Req: Goshawk PACs	1,185 acres	CASQF	Current	Unit Level
Mgmt Req: RLS	9,357 acres	CASQF	Current	Unit Level
Mgmt Req: WLD	14,008 acres	CASQF	Current	Unit Level
Retardant Avoidance	254 acres	USDA FS Enterprise Data Warehouse	07/27/2021	National (USFS Units only)

Incident Objective List

Activated	Incident Objective
09/12/2021	<p>Firefighter and Public Safety Objectives</p> <ul style="list-style-type: none"> • Provide for firefighter and public safety as the highest priority through sound risk management and Life First Principles. The safety of fire personnel, the public, and employees is the highest priority during all phases of the incident. • Fire management operations will not be initiated until all personnel involved have received a safety briefing describing known hazards and mitigating actions, current fire season conditions and current and predicted fire weather and behavior. • Identify site specific hazards and mitigations to reduce firefighter exposure to environmental conditions • Ensure public safety through appropriate implementation of trail, road, recreation, and area closures. • Ensure aviation operations comply with aviation safety procedures. <p>Property Protection Objectives</p> <ul style="list-style-type: none"> • Minimize impacts and protect life and property in the fire area including park visitor centers, concessions, and visitor interest areas, the communities of Three Rivers, Ash Mountain, Wilsonia, Grant Grove, and Cedar Grove. As the fire progresses north, Montecito Sequoia and Stony Creek resorts; Far Horizons, Pythian and former Camp San Joaquin organization camps; Fir, Cove, Stony Creek, and Eshom Campgrounds; Communication sites on Big Baldy and Eshom Point; and the multiple private homes on inholdings and communities including Weston Meadows, Big Meadows, Hartland Christian Camp, and UC Berkeley Whitaker Forest. • Protect to the extent possible and minimize damage to Park Headquarters in Ash Mountain, \$100 million in infrastructure, including important and valuable cultural archives and repository. • Defend permittee structures and infrastructure within the fire area and in the path of the fire, including corral and loading shoot, fencing around apiary sites and water tank and other campground facilities. • Protect Pacific Gas and Electric powerlines (eshom) • Protect to the extent possible and minimize damage to Pinehurst Workcenter and barracks in the community of Miramonte. • Sequoia Guard Station (trees have broken thru roofs) per Zone Archaeologist, it would not be safe to wrap. If feasible reduce fuels as much as we can around the cabin and install sprinklers if possible.
09/15/2021	<p>Sequoia Grove Priorities for Management Action Objectives</p> <p>General Guidance:</p>

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Activated	Incident Objective
	<p>Almost all giant sequoia groves can benefit from backing fires. Actions such as aerial firing at night, lighting of backing fires, and other firing operations under favorable weather conditions are all great management options for most groves. Use of dozer lines as a Management Action should be avoided in all giant sequoia groves. The trees, stumps and logs of special interest GIS layer should be used to identify individual resources that need point protection to prevent their loss to fire. This is not a management category but applies to all groves. For detailed grove by management category information see Colony/Paradise Fires WFDSS Reports Section.</p> <p>Prioritization Categories for Management Action: High Priority These groves have the greatest potential for loss if burned under head fire. Prevent head fire from entering the grove through backfiring or exclude fire all together through use of line, sprinklers, or other management options. High Priority Groves listed in priority order:</p> <ul style="list-style-type: none">• Giant Forest• Suwanee Grove• Muir Grove• Redwood Mountain Grove• Big Stump Grove
09/15/2021	<p>Sequoia Grove Priorities for Management Action Objectives Continued: Medium Priority These groves are not as high value as the groves in category 1 but still contain significant resources. Backfire if possible. The majority of groves are in this category and are further divided into tier 1 and tier 2 with tier 1 being higher priority for executing backfire. Medium Priority Tier 1 Groves: Medium Priority Tier 2 Groves:</p> <ul style="list-style-type: none">• Redwood Meadow Grove• Lost Grove• Cedar Flat Grove• East Fork Grove• New Oriole Grove• Oriole Grove• Castle Creek Grove• Skagway Grove• Pine Ridge Grove
09/23/2021	<p>Natural Resource Protection Objectives</p> <ul style="list-style-type: none">• Minimize adverse effects from suppression actions on riparian areas, watersheds, California Spotted Owl and Great Gray Owl PACs, Fisher and western pond turtle habitats.• To protect key endangered species (fisher) habitat components modify firing operations when feasible to result in mixed severity surface fire.• Minimize the spread of invasive bullfrogs or other non-native aquatic species to other waterbodies, especially perennial streams and wilderness lakes like Weaver and Jennie Ellis by limiting dipping from Hume Lake and Lake Homovalo (Montecito resort) when applying water to Wilderness waterbodies.• Minimize the spread of invasive plants by setting power washing stations as needed.• During fire suppression activities, consider impacts to aquatic- and riparian-dependent resources. Where possible, locate incident bases, camps, helibases, staging areas, helispots, and other centers for incident activities outside of RCAs or CARs.<ul style="list-style-type: none">◦ Protect perennial streams and meadows by keeping heavy equipment at least 300 feet from edge of riparian area.◦ Keep future retardant plants at least 300 feet away from meadow and/or water sources, and have all tanks, etc. that carry/mix retardant placed in an industry-standard spill containment basin.◦ Ensure any fueling sites for over 500 gal. have spill containment so all tanks, etc. are placed in an industry-standard spill containment basin.• Any water drafting site needs to be approved by district veg/soil personnel, and:<ul style="list-style-type: none">◦ Maintain a minimum flow of 1.5 cfs downstream of all drafting locations.◦ Drafting pumps must be placed a minimum of 5 feet from the top of the stream bank OR be placed in a spill containment tray. They must have a low entry velocity and be fitted with a 2mm screen.◦ Designate drafting sites in locations where vehicle approach and water removal have minimal effects on the stream. There are several existing developed drafting sites located within and adjacent to the fire area.◦ Where overflow may enter the stream, erosion control devices shall be installed.◦ Water drafting vehicles must carry spill kits including petroleum-absorbent pads. Drafting vehicles would be inspected daily for leaks and repaired when needed to prevent petroleum leaks in the SMZ.◦ Use pumps with low entry velocity to minimize removal of aquatic species, including juvenile fish, amphibian egg masses and tadpoles, from aquatic habitats.• Confirm bridge weight limits prior to driving large heavy equipment across them.• Consult with resource advisor and cultural resource specialist.

Incident Objective List

Activated	Incident Objective
09/12/2021	Information Sharing Objectives <ul style="list-style-type: none"> • Provide accurate and timely information to agencies, stakeholders, back country users, and the public.
09/12/2021	Suppression Cost Objectives <ul style="list-style-type: none"> • Effectively manage costs of the incident by planning strategies and tactics toward a high probability of success in meeting incident objectives. • Monitor all on-going operations to assure compliance with incident objectives.

Incident Requirement List

Activated	Incident Requirement
09/12/2021	Sequoia Kings Canyon National Park Incident Requirements BLM- Get prior approval for dozer use from the BLM Agency Administrator for dozer work in BLM Wilderness Study Area on the south side of Salt Creek Ridge NPS - Get prior approval for dozer, road grader and other ground disturbing equipment within the park, and any motorized vehicles off of maintained roads in park Work with the Parks' Fire Agency Representative and Parks Fire Information Officer as outlined in Delegation letter.
09/23/2021	Giant Sequoia Trees Incident Requirement Minimize impacts to Giant Sequoia Groves and individual trees by following the Fire Prep Standards Report in WFDSS and IAP. The purpose of these standards are to provide some measure of protection for large sequoias (36 inches dbh or larger) that are likely to be impacted by fire by reducing impacts to the lower bole, particularly catfaces, and prevent fire from climbing ladder fuels into the tree crown. Removal of litter from catfaces (in bold) is particularly important as this is the area most likely to let fire into the tree bole. Focus on those trees that are feasible to access, and could pose a falling hazard to roads or facilities if damaged or killed by fire.

Strategic Objective List

Unit	Shape/ FMU	Activated	Strategic Objective
CACND	Three Rivers	05/02/2019	<ul style="list-style-type: none"> • Minimize adverse effects of fire management activities on natural and cultural resources. • Implement fire management activities so that soil is adequately protected against accelerated erosion. • Actions in response to wildland fire will maintain or enhance healthy, productive and diverse populations of native species, including special status species; and prevent establishment or spread of invasive, non-native species to the extent possible. • Manage and protect Wilderness Study Areas in such a manner as to leave them unimpaired for future use and enjoyment as wilderness by minimizing surface disturbance and alterations of the natural landscape.
CAKNP	<Unit>	02/07/2011	Optimize the use of Wildfire consistent with fire management resources, interagency concerns, and air quality issues.
CAKNP	<Unit>	02/07/2011	Fire management activities will be accomplished in a manner that is compatible with wilderness management policy and objectives.
CAKNP	<Unit>	04/30/2015	Avoid aerial application of retardant or foam within 300 feet of waterways, or within karst watersheds.
CAKNP	<Unit>	04/19/2016	Manage smoke for minimal impact to adjacent communities.
CASQF	<Unit>	09/18/2021	Forest Wide (UNIT) Strategic Objectives: <ul style="list-style-type: none"> • Provide adequate fire protection at a cost that is commensurate with the resource values being protected (LRMP-Chapter 1 Section B Pages 1-2) • Meet visual quality objectives established by this plan. (Nothing specific to wildfires) (LRMP-Chapter 4 Section B.9 Pages 4-2) • With natural and prescribed fire the Forest objective is to maintain 35 percent of the chaparral in young seral stage, 35 percent in middle seral stage and 30 percent in older mature seral stage (LRMP-Chapter 2 Section XIV.B Pages 2-12) • Aerial retardant drops are not allowed in mapped avoidance areas (on National Forest system lands) for threatened, endangered, proposed, candidate or sensitive (TEPCS) species or in waterways. This national direction is mandatory and would be implemented except in cases where human life or public safety is threatened and retardant use within avoidance areas could be reasonably expected to alleviate that threat. Nationwide Aerial Application of Fire Retardant on National Forest System Land; Record of Decision; December 2011; page 2

Strategic Objective List

Unit	Shape/ FMU	Activated	Strategic Objective
CASQF	GSNM	09/18/2021	<p>Giant Sequoia National Monument (GSNM) Strategic Objectives:</p> <ul style="list-style-type: none"> • Manage vegetation to change approximately 6 percent of the chaparral vegetation types to an early seral phase outside of [sequoia] groves per decade. GSNM, Part 2, Table 15, Strategy 6, p.47. • Promote a range of natural fire effects by allowing low, moderate, and high intensity fires to burn in the Monument. GSNM, Part 2, Table 18, Strategy 3, p.48. • For fires started by natural ignitions (lightning strikes), determine whether to allow them to burn on a case-by-case basis. GSNM, Part 2, Table 18, Strategy 4, p.48. • Avoid aerial application of retardant or foam within 300 feet of waterways. This does not require the helicopter or air tanker pilot in command to fly in such a way as to endanger his or her aircraft, or other aircraft or structures. Or compromise ground personnel safety. GSNM, Part 2, Table 18, Strategy 6, p.48. • Allow low, moderate, and high intensity fires to burn in the Monument, including within giant sequoia groves. GSNM, Part 2, Table 21, Strategy 14, p.49. • As part of managing prescribe fire and wildfire, develop actions with local air pollution control district that minimize public exposure to atmospheric pollutants. GSNM, Part 2, Table 26, Objective 1, p.53. • Maintain or create scenic vistas as necessary to meet the needs of the public and improve scenery in areas of high public concern. (Nothing specific to wildfires) GSNM, Part 2, Table 37, Strategy 9, p.56. • Protect cultural resources from wildfires and management activities associated with fuels reduction. GSNM, Part 2, Table 39, Strategy 5, p.59.
CASQF	WILD	09/18/2021	<p>Wilderness (WILD) Strategic Objectives:</p> <ul style="list-style-type: none"> • Wilderness is a unique and vital resource. Natural conditions are protected and preserved; fire is restored as a natural process through wildland fire use. Sierra Nevada Forest Plan Amendment ROD, 2004 Page 36. • Prescribed fire will be used in all wildernesses to enhance wilderness values by maintaining long-term plant diversity. Planned and unplanned ignition will be used. LRMP-Chapter 2 Section A. 1 Pages 2-1.

Management Requirement List

Unit	Shape/FMU	Activated	Management Requirement
	Aqua Retardant Avoidance	06/18/2013	The aerial application of fire retardant is allowed for fighting fires. Aerially delivered fire retardant should not be applied to any mapped aquatic avoidance area, waterway or buffer. The only exception to using aerially applied fire retardant in avoidance areas is for the protection of human life or public safety . The Incident Commander is the decision maker. Information concerning the Record of Decision for the Aerial Application of Fire Retardant is available at https://www.fs.fed.us/fire/retardant/index.html
	Retardant Avoidance	05/31/2012	The aerial application of fire retardant is allowed for fighting fires. Aerially delivered fire retardant should not be applied to any mapped terrestrial avoidance area, waterway or buffer. The only exception to using aerially applied fire retardant in avoidance areas is for the protection of human life or public safety . The Incident Commander is the decision maker. Information concerning the Record of Decision for the Aerial Application of Fire Retardant is available at https://www.fs.fed.us/fire/retardant/index.html
CACND	<Unit>	07/14/2013	<p>Firefighter and public safety will be the number one concern in all fire management activities.</p> <ul style="list-style-type: none"> • Provide for the safety of all personnel assigned to the incident. • Assure that safety of firefighter, aviation, support personnel, and public is the highest priority at all times for the duration of the incident.
CACND	<Unit>	07/14/2013	The highest priority is to protect the safety of fire personnel and to protect human life followed by the protection of private property and structures. All strategic and tactical decisions on this will be based on sound risk management principles.
CACND	<Unit>	07/14/2013	Develop and implement suppression strategies and tactics that will safely, effectively, and efficiently address fire spread commensurate with values at risk.
CACND	<Unit>	07/14/2013	Provide aggressive initial attack along the wildland urban interface to protect life and property, and for in-holdings throughout the FMU.
CACND	<Unit>	07/14/2013	Provide protection to values at risk that will be potentially impacted by the fire, regardless of ownership.
CACND	<Unit>	07/14/2013	Tailor strategies and tactics to avoid areas with significant constraints including critical wildlife habitat, T&E species, areas of soil instability, areas with cultural resource value and sensitive plant communities.

Management Requirement List

Unit	Shape/FMU	Activated	Management Requirement
CACND	<Unit>	07/14/2013	Monitor the incident to provide for timely and informed decision making as the incident changes.
CACND	<Unit>	07/14/2013	Fire managers will request and work closely with a BLM Agency Representative and a Resource Advisor for all wildland fires that exceed initial attack, or are located in a Wilderness, Wilderness Study Area (WSA) or Area of Critical Environmental Concern (ACEC).
CACND	<Unit>	07/14/2013	Large islands of remaining vegetation between the fire line and already burned areas will not be "burned out", as these areas become extremely important to wildlife and for post fire seed sources for years following a large fire. This same rationale can be applied to snags and logs which are used by many birds and small mammals. Cold trail and leave intact wherever possible.
CACND	Three Rivers	05/02/2019	For all ACEC's within the Three Rivers FMU, the following constraints apply: Dozers will only be used to protect life or property. Vehicles will be restricted to designated roads. Handcrews will use minimum impact tactics in handline construction. With the exception of medical emergencies/Medi-Vac, Helicopter landing areas (Helispots) will be limited to existing sites. Newly constructed Helispots will be rehabilitated. Minimize loss of snags in the Blue Ridge ACEC, which is critical habitat for the California condor.
CAKNP	<Unit>	02/07/2011	Keep costs commensurate with values at risk and natural resource benefits gained.
CAKNP	<Unit>	02/07/2011	Prevent non-native species introduction into the Wilderness.
CAKNP	<Unit>	02/07/2011	Provide for firefighter and public safety.
CAKNP	<Unit>	02/07/2011	Provide quality and accurate information and education to the interested and effected public.
CASQF	<Unit>	09/18/2021	<p>Forest Wide (UNIT) Management Requirements:</p> <ul style="list-style-type: none"> We will consult with appropriate tribal governments and tribal communities regarding fire protection and fuels management activities that potentially affect rancherias, reservations, and other occupied areas (SNFPA ROD, 2001 and 2004 Page 52 and 25) Maintain cooperative agreements and/or operating plans with all neighboring fire protection agencies. These agreements provide for coordinated fire management planning and the sharing of fire protection resources, thus augmenting the fire suppression and management capabilities of each agency. Fires that threaten lands of more than one jurisdiction are jointly managed. Initial attack planning is based upon using the nearest suppression force (LRMP-Chapter 3 Section C.7 Pages 3-16) Fire Suppression will be done with minimum ground disturbance in the following areas: Bodfish Piute Cypress 310 acres, Ernest C. Twisselmann 860 acres, Bald Mountain 440 acres, Baker Point 780 acres, Slate Mountain 490 acres, Inspiration Point 270 acres, and Packsaddle Cave 40 acres. Established pursuant to 36 CFR 294.1(a) Regional Forester direction (LRMP-Chapter 4 Section G.2. Pages 4-90) The Forest Service will report to FWS and NOAA fisheries (as appropriate) all misapplications of aerially applied fire retardant (on National Forest system lands). The report and assessment of impacts will determine necessary mitigation measures, remediation action, monitoring needs, and whether there is a need for reinitiation of formal consultation. Reporting and monitoring of misapplications of fire retardant is outlined in the Implementation Guide for Aerial Application of Fire Retardant. https://www.fs.fed.us/fire/retardant/afr_handbook.pdfNationwide Aerial Application of Fire Retardant on National Forest System Land; Record of Decision; December 2011; page 4
CASQF	CA Spotted Owl	09/18/2021	<p>CA Spotted Owl Management Requirements:</p> <ul style="list-style-type: none"> In CA spotted owl PACS: Maintain large diameter trees, multi layer canopy throughout the PAC. If at all possible protect nest trees, minimize nest site disturbance, and protect at least 50 acre nest sites from both mechanical activities, and the on coming fire. If feasible, avoid high intensity and crown fire within the 300 acre PAC. Sierra Nevada Forest Plan Amendment 2004, pg. 59-61
CASQF	CARS	09/18/2021	<p>Critical Aquatic Refuges (CARS) Management Requirements:</p> <ul style="list-style-type: none"> During fire suppression activities, consider impacts to aquatic and riparian dependent resources. Where possible, locate incident bases, camps, helibases, staging areas, helispots, and other centers for incident activities outside of RCAs or CARs. During pre-suppression planning, determine guidelines for suppression activities, including avoidance of potential adverse effects to aquatic and riparian dependent species as a goal. Sierra Nevada Forest Plan Amendment ROD, 2004 RCO#4.115 page 65. Use screening devices for water drafting pumps. (Fire suppression activities are exempt during initial attack.) Sierra Nevada Forest Plan Amendment ROD, 2004 RCO#4.110 Page 64.

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Management Requirement List

Unit	Shape/FMU	Activated	Management Requirement
CASQF	Goshawk PACs	09/18/2021	Goshawk PACs Management Requirements: <ul style="list-style-type: none">In northern goshawk PACS: Maintain large diameter trees, multi layer canopy throughout the PAC. If at all possible protect nest trees, minimize nest site disturbance, and protect at least 50 acre nest sites from both mechanical activities, and the on coming fire. If feasible, avoid high intensity and crown fire within the 200 acre PAC. Sierra Nevada Forest Plan Amendment 2004, pg. 59-61
CASQF	RLS	09/18/2021	Roadless (RLS) Management Requirements: <ul style="list-style-type: none">The Responsible Forest Service Line Officer for the Wildfire incident has the authority to approve: Any necessary timber cutting or removal or any road construction or road reconstruction in emergency situations involving wildfire suppression, search and rescue operations, or other imminent threats to public health and safety in inventoried roadless areas. In this context timber is the dominant/codominant overstory trees. SECRETARY'S MEMORANDUM 1042-156May 30, 2011 Authority to Approve Road Construction and Timber Harvesting In Certain Lands Administered by the Forest Service. Joel Holtrop June 10, 2011 Memo: Secretary's Re-delegation of Authority for Certain Activities in Inventoried Roadless Area.Use fire management strategies that will protect and preserve the Roadless area characteristics and minimize the impacts to potential wilderness designation. Some resources or features that are often present and should be considered in developing your strategies are: high quality or undisturbed soil; Natural appearing landscapes with high scenic quality, free from modern human control or manipulation; an area void of the evidence of modern human presence or occupation and are possible reference landscapes. Reminder: A road is a motor vehicle travelway over 50 inches wide, unless designated and managed as a trail. A road may be classified, unclassified, or temporary. (36 CFR Part 294.11 Definitions. Roadless Area Conservation - Final Rule (66 Federal Register 3272, January 12, 2001).
CASQF	WLD	09/18/2021	Wilderness (WLD) Management Requirements: <ul style="list-style-type: none">In wilderness limit the use of unplanned natural ignition prescribed fire to meeting planned objectives when fuel loading and natural barriers will limit final fire perimeter to planned boundaries under the most severe weather conditions. LRMP - Chapter 4 Section F. Pages 4-39.Authorization for use of Mechanical equipment and aircraft use must be obtained prior to use. FSM 2326 Page 21-24.

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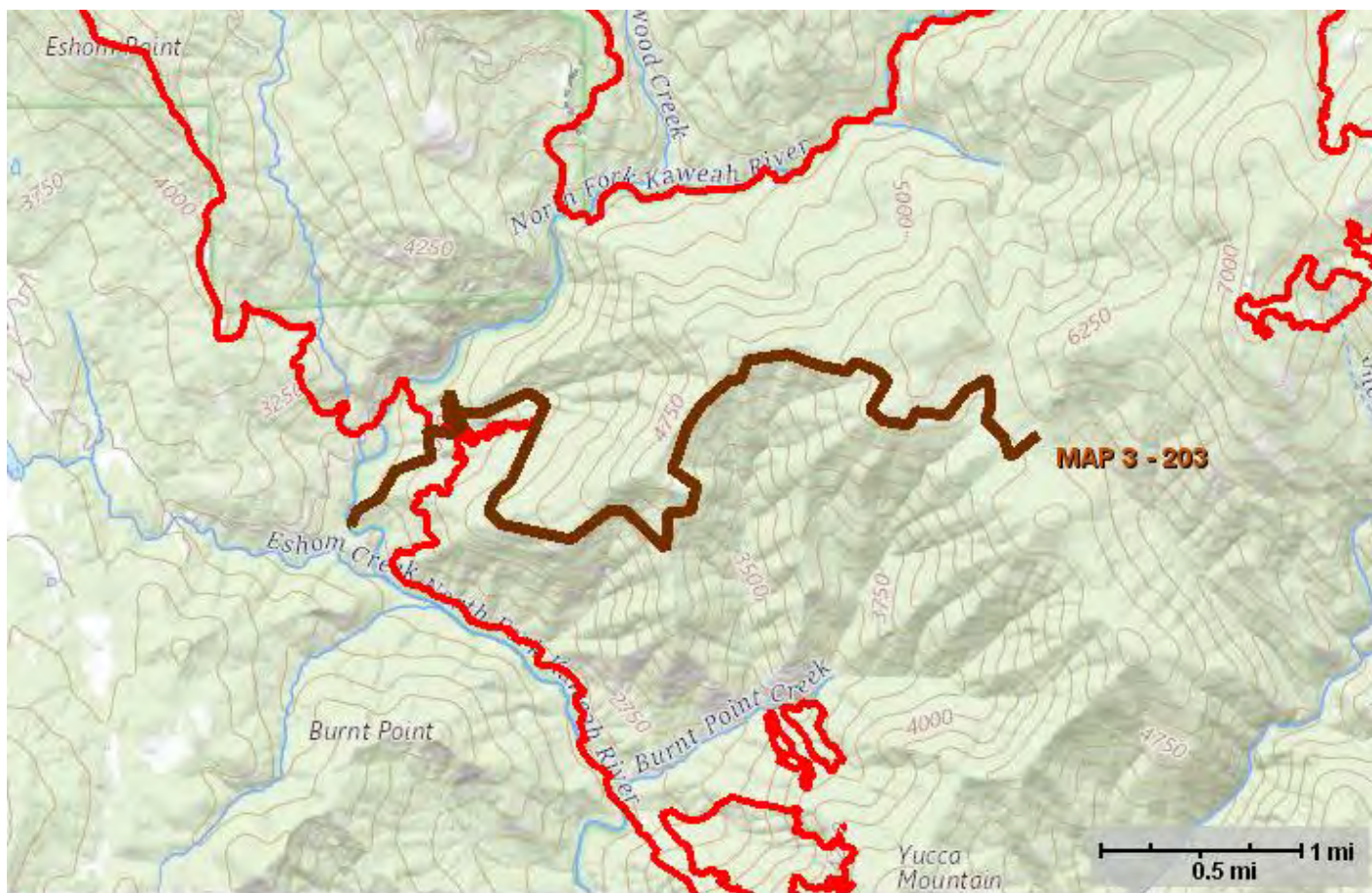
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1.7. Course of Action

Course of Action

Active	Inactive	Action Item
09/23/2021		<p>Utilize the best combination of point protection, direct, and indirect tactics with mindful consideration of the values at risk and the probability of success of firefighting actions in order to meet the incident objectives to keep the fire within the defined planning area. Suppression efforts are focused on controlling the fires at the smallest size possible. Specific strategies and tactics will be developed and briefed through the IAP. Prepare structures for protection in developed areas and prepare giant sequoias to mitigate fire impacts and improve survival.</p> <p>Look for areas in the planning area to reduce fire sizes and protect values at risk. In general the course of action is to keep fire spread</p> <ul style="list-style-type: none"> • North of Mineral King Rd, • East of Ash Mt headquarters and east of the North Fork Kaweah River that parallels the western park boundary, • South of Jennie Lake Wilderness and south of the North Fork Kaweah drainage that parallels the Sequoia NP boundary to the north. • West of Lodgepole and west of the Castle Rocks.

Management Action Point 3



— Fire Perimeters — Planning Areas — M.A.P. Active

NAME	VALUE
Incident Name	Colony
Cost	
Shape	203
Activated	09/23/2021
Deactivated	
Status	Active

Condition

Condition:

When fire crosses the M.A.P. or it is anticipated it will cross the MAP within the next 24-hour period. Consider current and forecasted fire weather/fire behavior and time of season.

Location:

Starting at North Fork Kaweah River extending to Burnt point Creek at the edge of the 2008 Hidden burn Scar.

Management Intent:

Discuss the potential with Agency Administrators for the fire to move towards the Big Baldy area and Wilderness boundary. Assess and implement the possibility of structure protection activities in the communities of Hume, Grant Grove Village and protecting the Jennie Lake Wilderness and Sequoia Kings Wildness areas. Possibly a burn out operation along the North Fork Kaweah and dry creek drainage area and Hwy 180 transportation corridors in a timely manner.

Actions

Recommended Action(s):

Probability of Success:

Consequences of Not taking Action:

Delayed response implementing evacuation orders

1. Assess and/or implement a burn out operation along the North Fork Kaweah and dry creek drainage area, Hwy 245 and 180 transportation corridors and constructed line along the Jennie Lake Wilderness and Sequoia Kings Wildness.
 2. Assess and implement structure protection activities and possibility protections for inholdings in and along the Hwy 245 and 180 transportation corridors and communities of Hume Grant Grove Village.
 3. Work with Resource Advisors to identify, assess, and implement protection measures for dispersed recreation sites.
 4. Coordinate with Resource Advisors to identify and mitigate potential impacts to archaeological and cultural values.
 5. Consider evacuation protocols for the zones identified by the Tulare emergency management personnel.
 1. High
 2. High
 3. High
 4. High
 5. High
1. Potential for loss or damage to private inholdings and/or Historical Sites.
 2. Potential for damage or loss of Park/Forest recreation infrastructure.
 3. Potential for damage or loss of historical or cultural resources.

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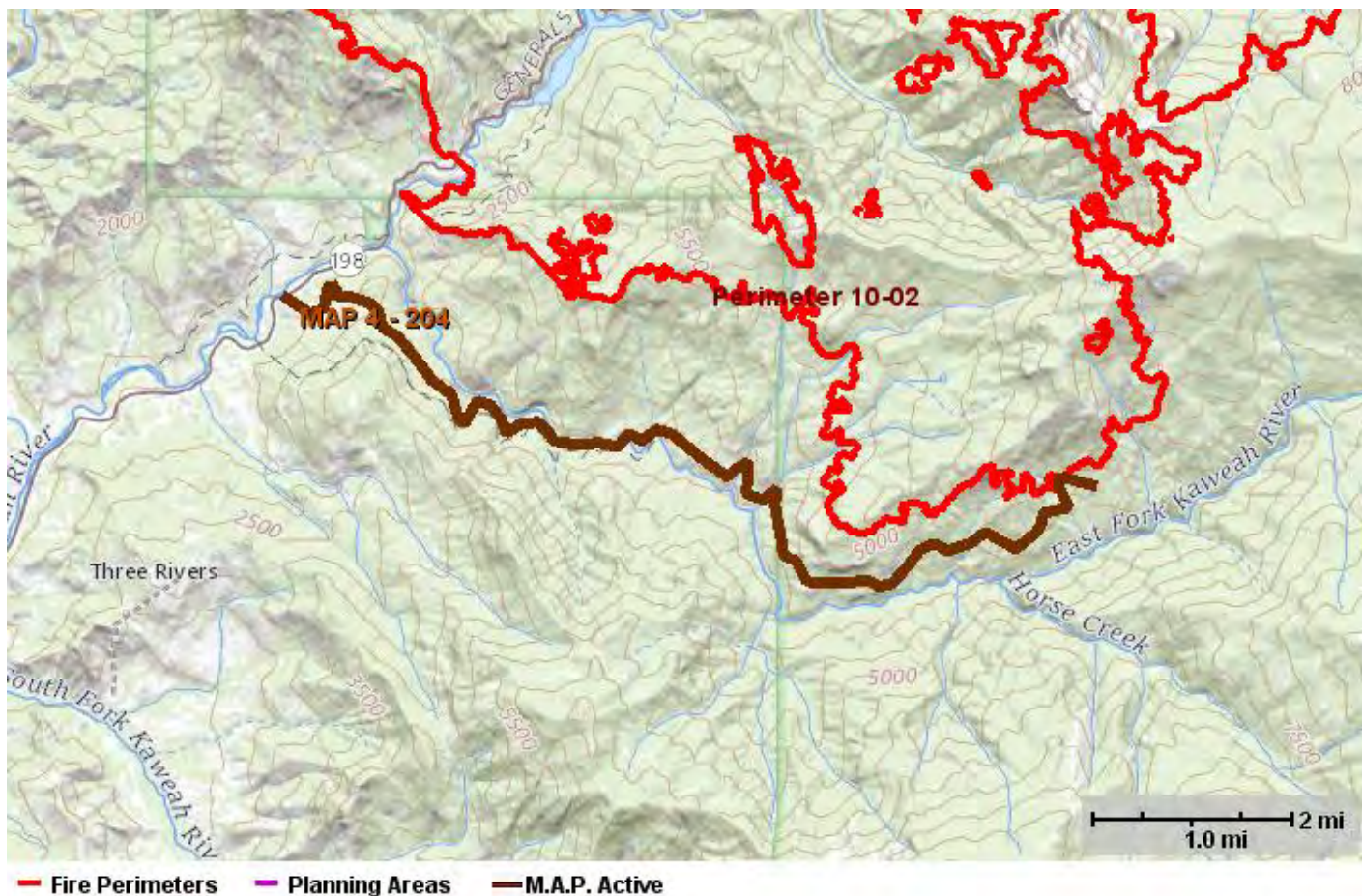
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Management Action Point 4



NAME	VALUE
Incident Name	Colony
Cost	
Shape	204
Activated	09/23/2021
Deactivated	
Status	Active

Condition

MAP 204: Mineral King

Condition:

When fire crosses the M.A.P. or it is anticipated it will cross the MAP within the next 24-hour period. Consider current and forecasted fire weather/fire behavior and time of season.

Location:

Starting at Highway 198 near Red Hill along the East Fork Kaweah River to the community of Silver City.

Management Intent:

Assessing, and implementing a burn out operation along consider burning out along the Cal Fire Constructed lines and South Fork road along the Kaweah River. Structure protection activities and possibility protections for inholdings in and along the Mineral King, Hwy 198 transportation corridors and the Community of Three Rivers in a timely manner.

Actions

Recommended Action(s):

Probability of Success:

Consequences of Not taking Action:

1. Assess and/or implement a burn out operation along the Cal Fire Constructed lines and South Fork road along the Kaweah River.
2. Assess and implement structure protection activities and possibility protections for inholdings in and along the Mineral King road, Hwy 198 transportation corridor and the Community of Three Rivers.
3. Work with Resource Advisors to identify, assess, and implement protection measures for dispersed recreation sites.

- 4. Coordinate with Resource Advisors to identify and mitigate potential impacts to archaeological and cultural values.
- 5. Consider evacuation protocols for the zones identified by the Tulare emergency management personnel.

- 1. High
- 2. High
- 3. High
- 4. High
- 5. High
- 1. Potential for loss or damage to private inholdings and/or Historical Sites.
- 2. Potential for damage or loss of Park/Forest recreation infrastructure.
- 3. Potential for damage or loss of historical or cultural resources.
- 4. Delayed response implementing evacuation orders.

Resources

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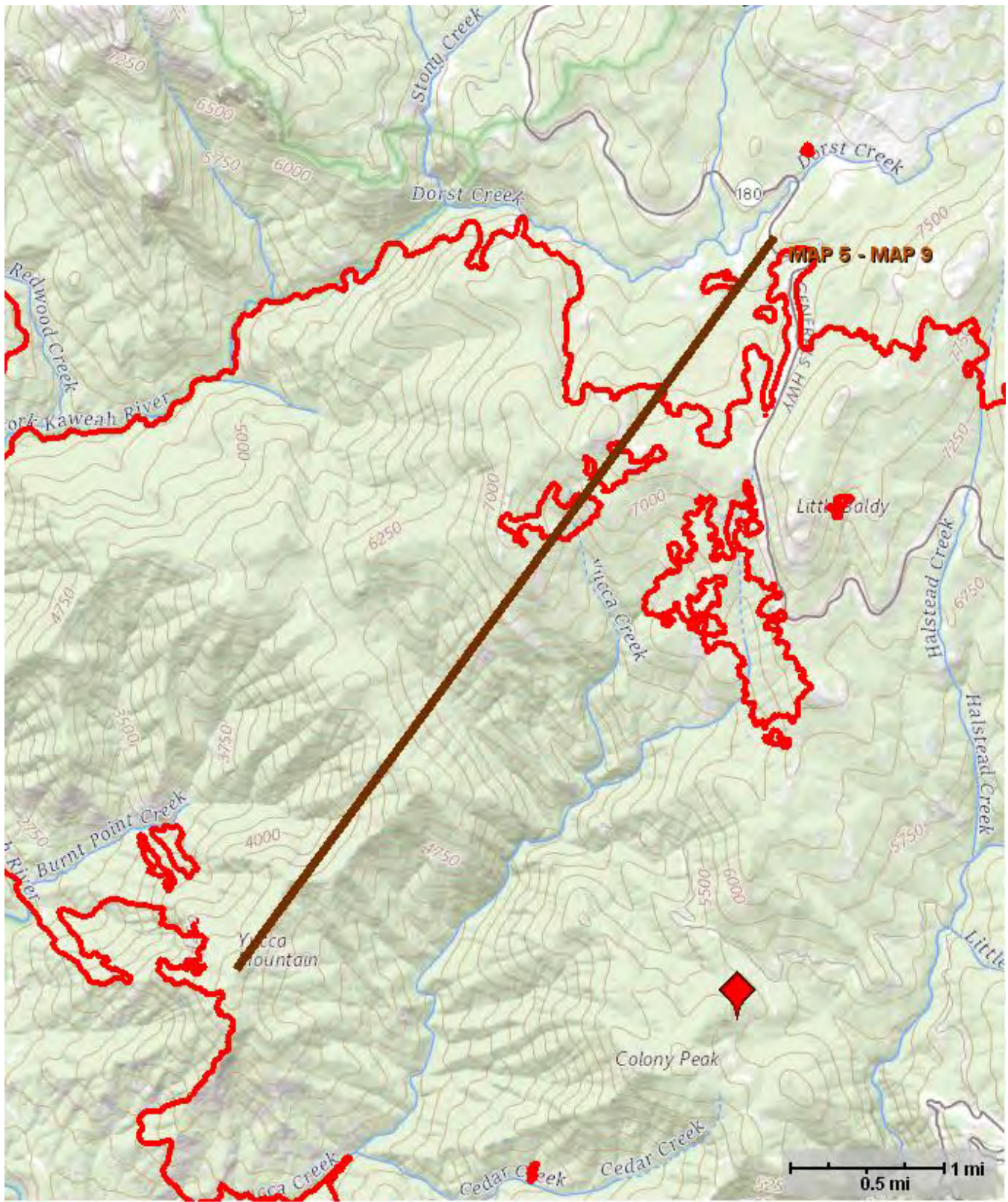
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Management Action Point 5

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— Fire Perimeters
 — Planning Areas
 ◆ Point of Origin
 — M.A.P. Active

NAME	VALUE
Incident Name	Colony
Cost	
Shape	MAP 9
Activated	09/23/2021

Deactivated
Status Active

Condition

MAP 9: NPS

Dorst Creek to Yucca Peak. Warning to Kings Canyon Park.

Actions

Zone 9:

Eshom Hartland Warning. If the fire reaches MAP 9, Evac Warning issued to Eshom and Hartland Community. Evacuation Warning for Eshom Valley Drive, from Fresno County Line, South to Tarbell Pocket on Eshom Valley Drive, and North Mountain road 468 North to the County line. Including all structures, side roads, associated roads, forest service roads. Fire reaches MAP 9 its and Evac Warning for Eshom and heartland.

Resources

Management Action Point 6

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- Fire Perimeters
- Planning Areas
- M.A.P. Active

NAME	VALUE
Incident Name Colony	
Cost	
Shape	MAP 10

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Activated	09/23/2021
Deactivated	
Status	Active

Condition

MAP 10: Chimney Rock

If the fire reaches Chimney Rock, Evac Warning to Eshom and Hartland Community.

Actions

Zone 10:

Big Baldy

If the fire reaches MAP 10, evac warning for the North Tulare County Boundary, including Whittaker Forest Road, hogback Road, CA245, Dry Creek, Sierra Glenn, all the way to Wild Hog Canyon. Then South to Deep trail, Shadley Jeep Trail. Then East to Eshom Valley Road and North to the Tulare County Boundary. Including all structures, side roads, associated roads, and forest service roads.

Resources

Management Action Point 7

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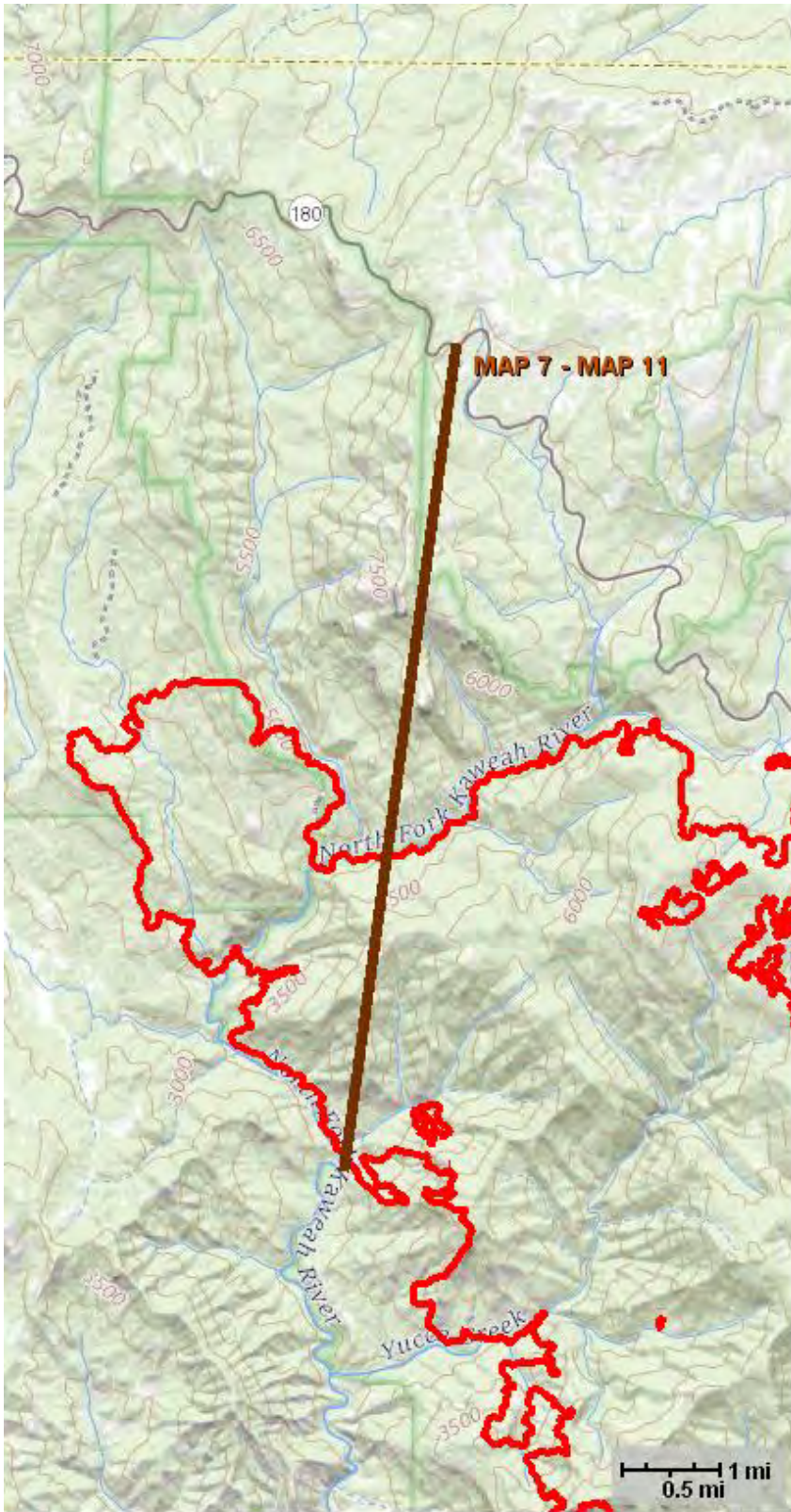
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— Fire Perimeters
 — Planning Areas
 — M.A.P. Active

NAME	VALUE
Incident Name Colony	
Cost	
Shape	MAP 11

Activated	09/23/2021
Deactivated	
Status	Active

Condition

MAP 11: Big Baldy

If Fire Reaches MAP 10: Oder for Eshom and Hartland Communities and Kings Canyon National Park. Warning for Hogback and the Community of Badger.

Actions

Zone 11: Wilsonia

If the fire line reaches MAP 9 NPS, warning to Kings Canyon National Park. When the Fire reaches MAP 11, becomes an Order.

Resources

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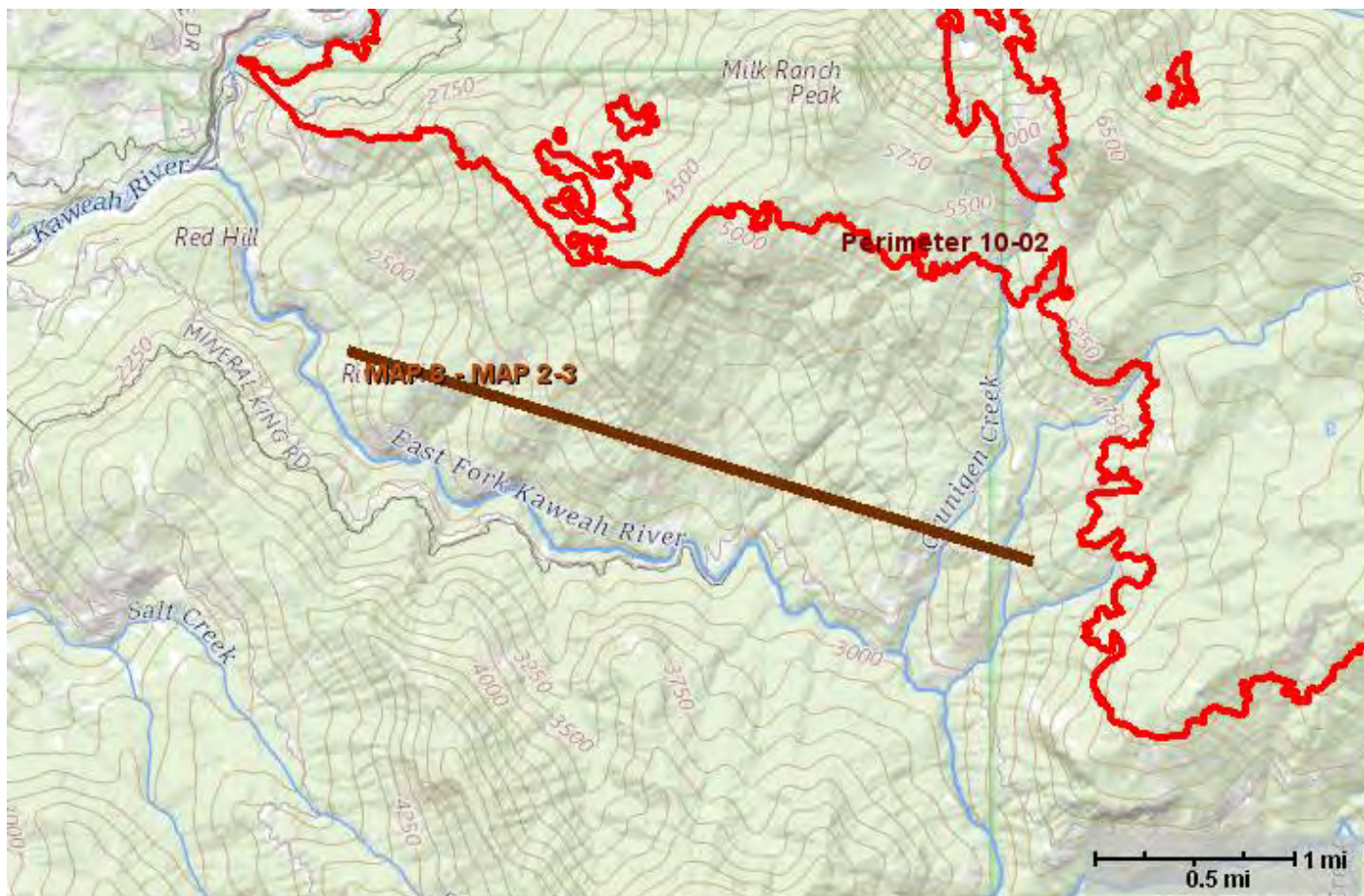
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Management Action Point 8



— Fire Perimeters
 — Planning Areas
 — M.A.P. Active

NAME	VALUE
Incident Name	Colony
Cost	
Shape	MAP 2-3
Activated	09/23/2021
Deactivated	
Status	Active

Condition

MAP 2-3

Section 11 & 12

Map 4:

If the fire become established at Mineral King Rd, Zone 4 will take effect.

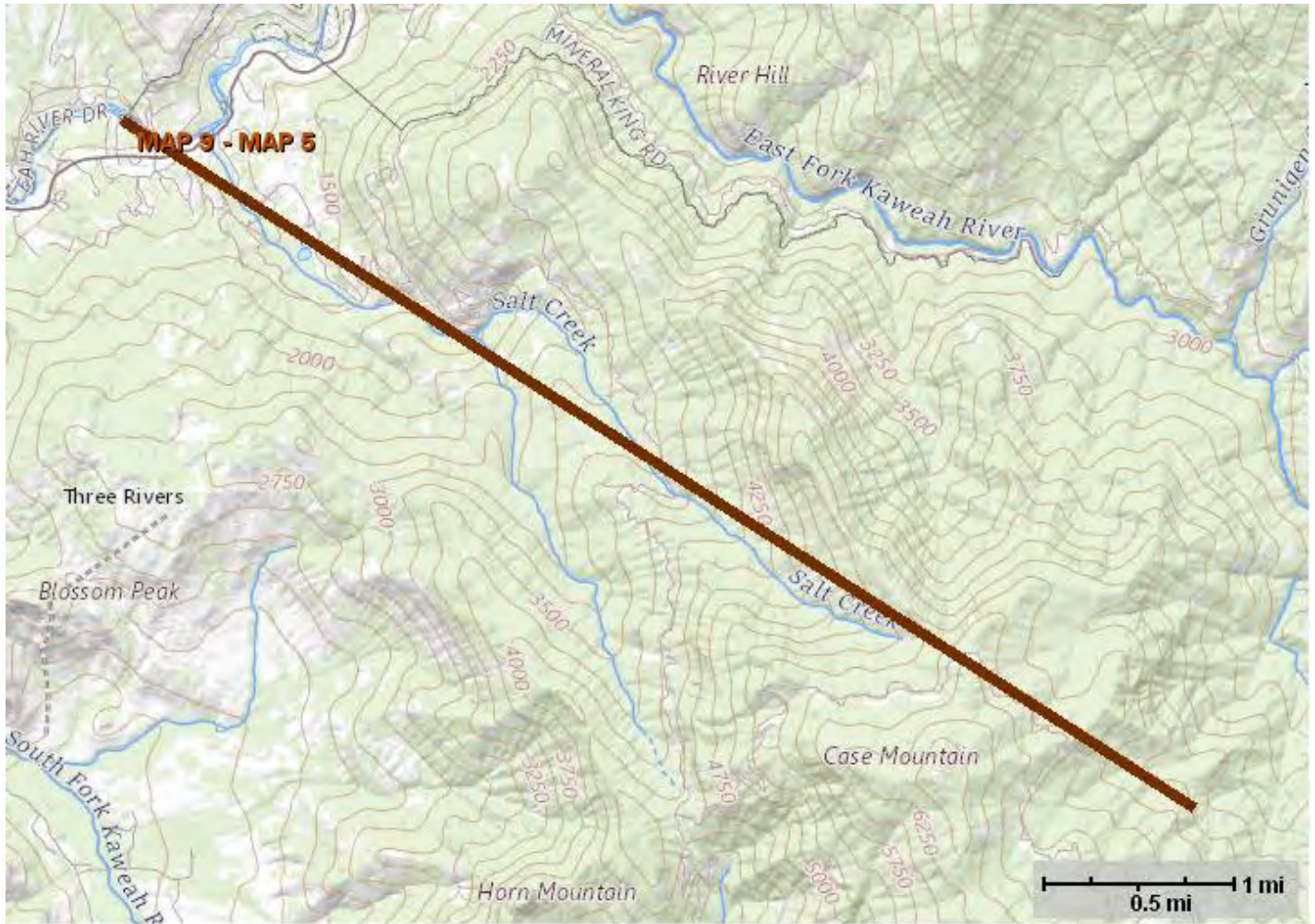
Actions

Zone 4:

This new order will now include Dinely Drive as well as all existing structures, sideroads, and attached roads. It will also include Canyon View Drive, Edison Drive, Quail Run, Washburn Drive, Oakleaf Trail, North Kaweah River Drive, Redstone, Granite oaks Lane, Alta Akers Drive, East of Skyline Drive, Manzanita, Oak Drive, Craig, Crag Ranch Road, August, and Noel.

Resources

Management Action Point 9



— Fire Perimeters
 — Planning Areas
 — M.A.P. Active

NAME	VALUE
Incident Name	Colony
Cost	
Shape	MAP 5
Activated	09/23/2021
Deactivated	
Status	Active

Condition

MAP 5:

If the Fire becomes established in line with the Memorial Build and HWY 198, Zone 5 will take effect.

Actions

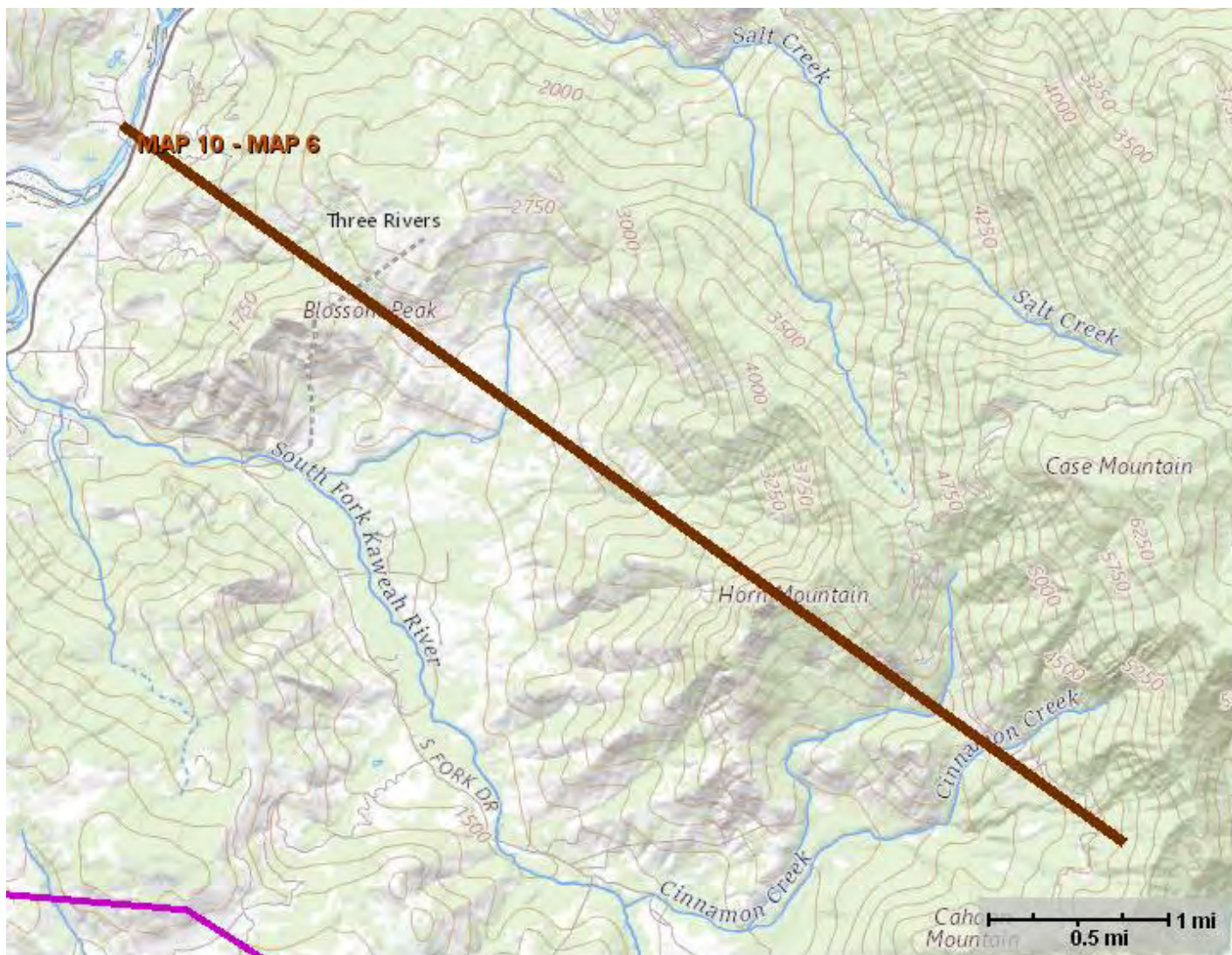
Zone 5:

This new evacuation order will include all the previously set Evacuation Orders.

The New Mandatory Evacuation areas will be all of Skyline Drive, Alta Akers Drive, La Cieniga Drive, Encia Court, Sunset Drive, Hawk Hollow Drive, Eggers Drive, Mynat Drive, and All of North Fork Drive. This will continue to include all structures, side roads, and attached roads.

Resources

Management Action Point 10



— Fire Perimeters
 — Planning Areas
 — M.A.P. Active

NAME	VALUE
Incident Name	Colony
Cost	
Shape	MAP 6
Activated	09/23/2021
Deactivated	
Status	Active

Condition

MAP 6:

If the Fire is established at North Fork and HWY 198, Zone 6 will take effect.

Actions

Zone 6:

This Evacuation Order will include all previous evacuation orders. New evacuation orders will include Sierra Drive both sides of the river, from North Fork Drive to Old Three Rivers Road. Including all of Blossom Drive, to South Fork Drive, up to Quail Run Drive, and Black Oak Drive, as well as Corral Drive. This will Continue to include structures, side roads, and attached roads.

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Management Action Point 11

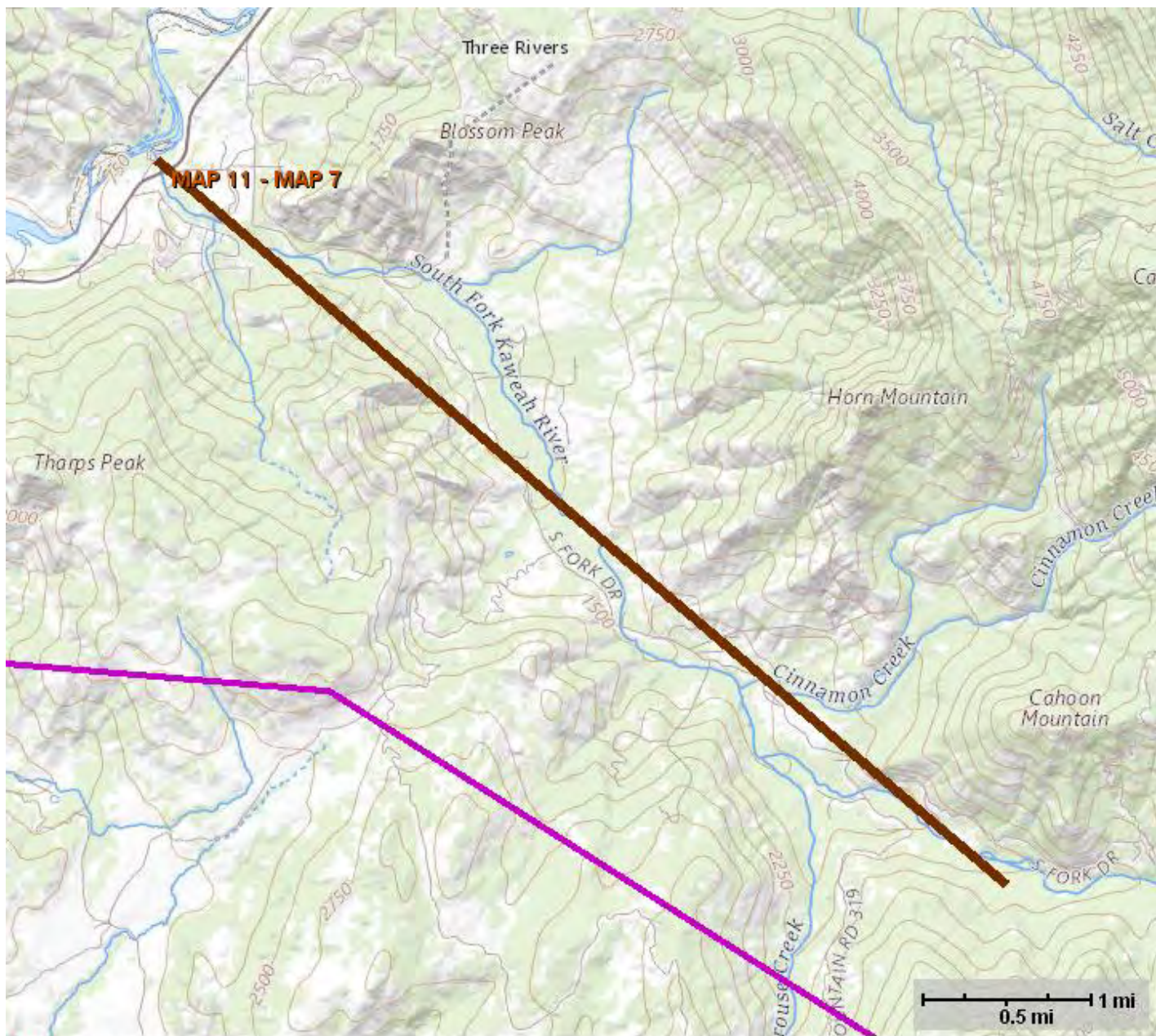
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— Fire Perimeters
 — Planning Areas
 — M.A.P. Active

NAME	VALUE
Incident Name	Colony
Cost	
Shape	MAP 7
Activated	09/23/2021
Deactivated	
Status	Active

Condition

MAP 7:

If the Fire is established at Old Three Rivers Dr and HWY 198, Zone 7 will take effect.

Actions

Zone 7:

This Evacuation Order will include all previous evacuation orders. New evacuation orders will include Sierra Drive, on both sides of

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the river, from Old Three Rivers Road, down to Pierce Drive. Including Edison Drive, Mountain Road 349, Cherokee Oaks Drive, Crystal Drive, Grouse Drive, Ferndale Drive, Quail Drive, Meadow Drive, Elk Drive, Oakridge, all of South Fork Drive, Heidi Drive, Mountain Spur Drive, Sequoia Oaks Drive, Redbud Trail, Buckhorn Trail, and Cinnamon Drive. This will continue to include structures, side roads, and attached roads.

Resources

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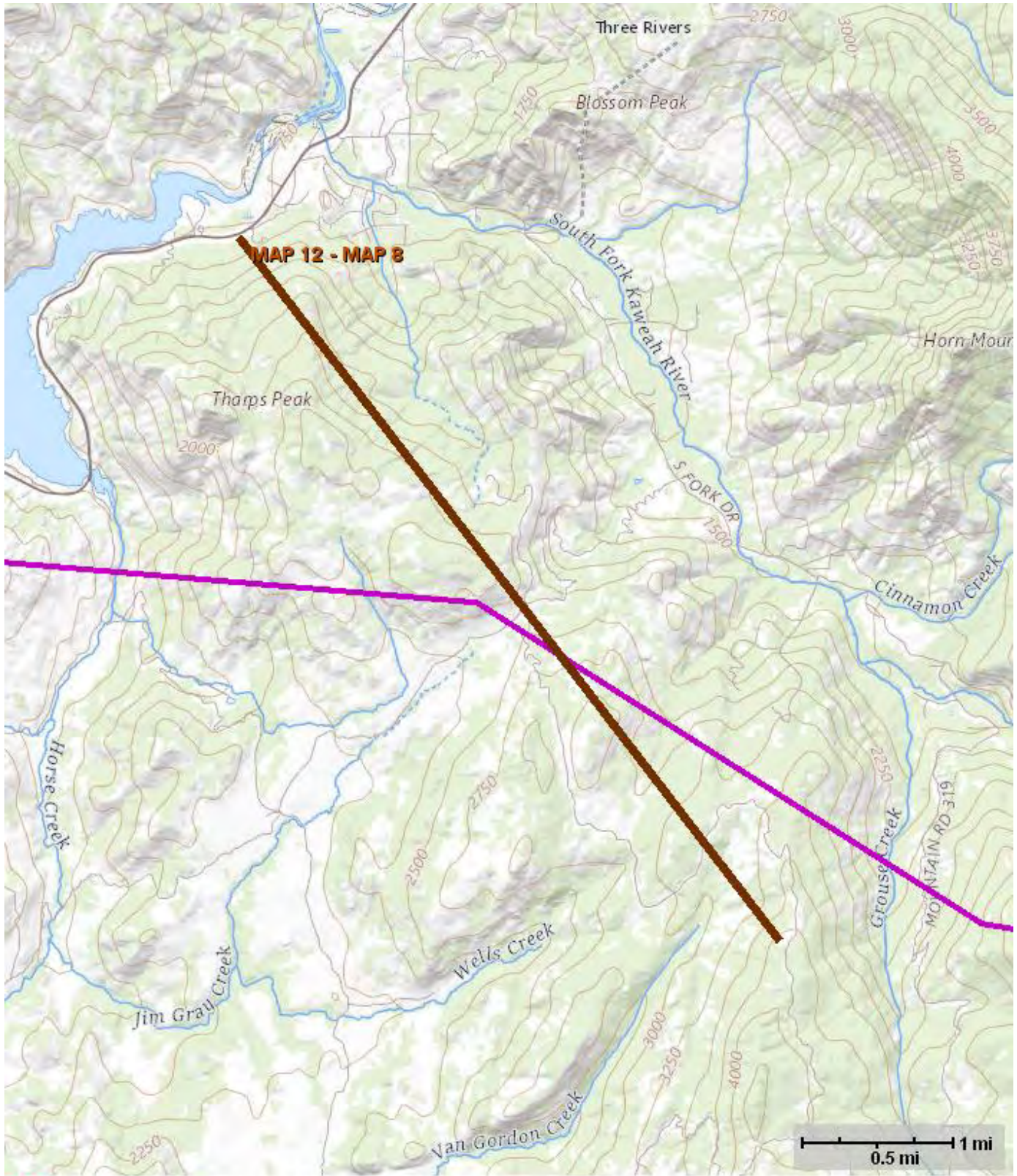
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Management Action Point 12

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— Fire Perimeters — Planning Areas — M.A.P. Active

NAME	VALUE
Incident Name	Colony
Cost	
Shape	MAP 8
Activated	09/23/2021

Deactivated
Status Active

Condition

MAP 8:

If the Fire gets established at Slick Rock, Zone 8 will take effect.

Actions

Zone 8:

This Evacuation Order will include all previous evacuation orders. New evacuation orders will include Sierra Drive, both sides of the river, from pierce Drive to Horse Creek Road, and Whitney Creek Road. Order will also include all of Slick Rock Recreation Area. This will continue to include structures, side roads, and attached roads.

Resources

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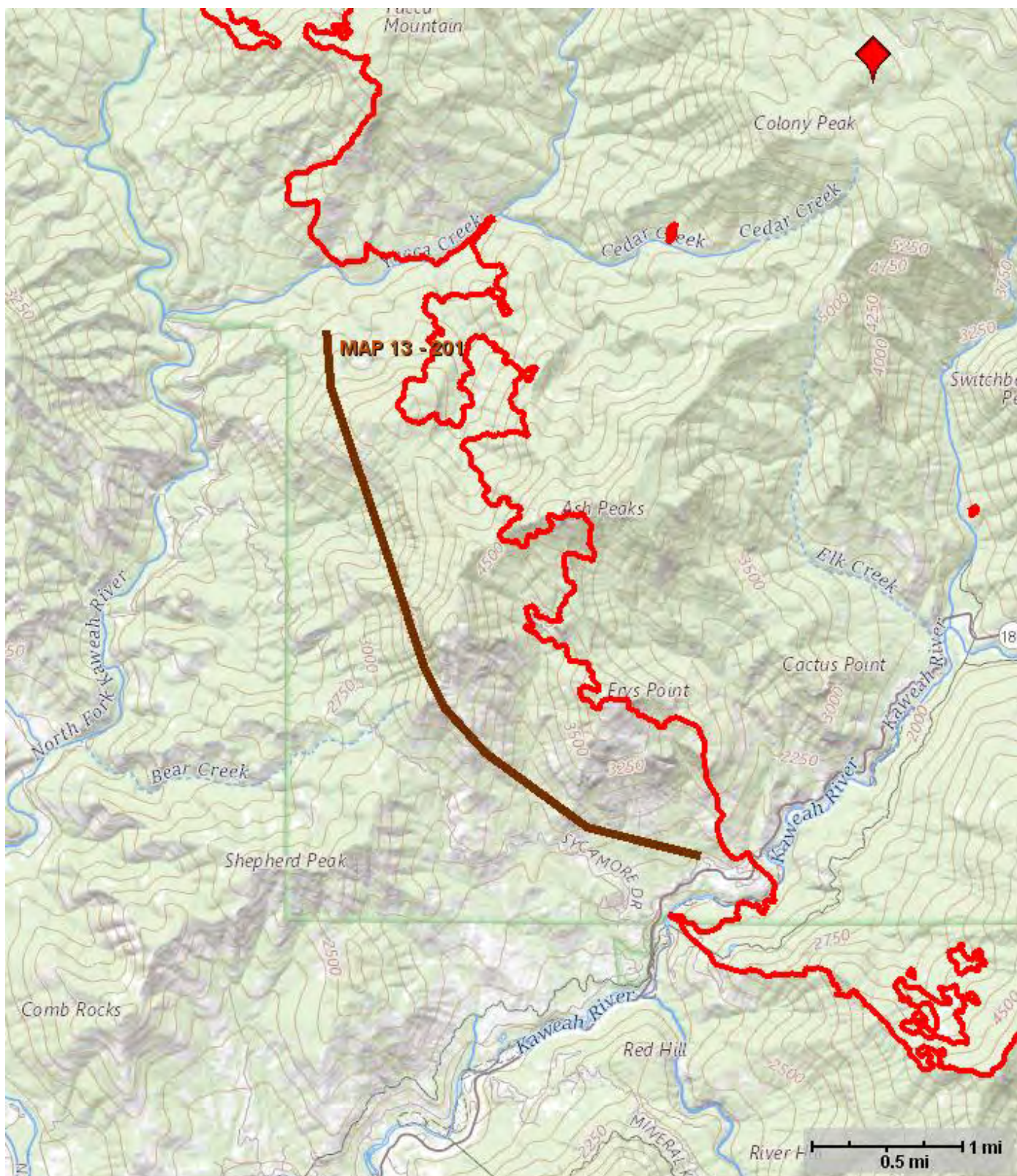
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Management Action Point 13



— Fire Perimeters — Planning Areas ◆ Point of Origin — M.A.P. Active

NAME	VALUE
Incident Name	Colony
Cost	
Shape	201
Activated	09/23/2021

Deactivated
Status Active

Condition

Condition

MAP 201: Maple Creek

Condition:

When fire crosses the M.A.P. or it is anticipated it will cross the MAP within the next 24-hour period. Consider current and forecasted fire weather/fir behavior and time of season.

Location:

Starting at Highway 198 near the Foothills Recreation Center extending over the western portion of Colony Peak ridge down along Maple Creek to Colony Mill Road.

Management Intent:

Assessing, and implementing a burn out operation along the Sycamore road along Shepard Saddle and Shepard Peak. Structure protection activities and possibility protections for inholdings in and along the Hwy 198 transportation corridor and the Community of Three Rivers in a timely manner.

Actions

Recommended Action(s):

Probability of Success:

Consequences of Not taking Action:

1. Assess and/or implement a burn out operation along the Sycamore road along Shepard Saddle and Shepard Peak.
2. Assess and implement structure protection activities and possibility protections for inholdings in and along the Hwy 198 transportation corridor and the Community of Three Rivers.
3. Work with Resource Advisors to identify, assess, and implement protection measures for dispersed recreation sites.
4. Coordinate with Resource Advisors to identify and mitigate potential impacts to archaeological and cultural values.
5. Consider evacuation protocols for the zones identified by the Tulare emergency management personnel.

1. High
2. High
3. High
4. High
5. High

1. Potential for loss or damage to private inholdings and/or Historical Sites.
2. Potential for damage or loss of Park/Forest recreation infrastructure.
3. Potential for damage or loss of historical or cultural resources.
4. Delayed response implementing evacuation orders.

Resources

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Management Action Point 14

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— Fire Perimeters
 — Planning Areas
 — M.A.P. Active

NAME	VALUE
Incident Name	Colony
Cost	
Shape	MAP 202

Activated 09/23/2021

Deactivated

Status Active

Condition

MAP 202: North Fork

Condition:

When fire crosses the M.A.P. or it is anticipated it will cross the MAP within the next 24-hour period. Consider current and forecasted fire weather/fir behavior and time of season.

Location:

Starting at Colony Mill Road extending parallel to North Fork/Kaweah River drainage over Yucca Mountain, across burnt point creek to Hidden Springs Road.

Management Intent:

Assessing, and implementing a burn out operation along the North Fork/Kaweah drainage. Possible structure protection activities in the communities of Three Rivers and Elder Wood and Hwy 198 and 245 transportation corridors in a timely manner.

Actions

Recommended Action(s):

Probability of Success:

Consequences of Not taking Action:

1. Assess and/or implement a burn out operation along the North Fork/Kaweah drainage.
 2. Assess and implement structure protection activities and possibility protections for inholdings in and along the Hwy 198 and 245 transportation corridor and the Community of Three Rivers and Elder Wood.
 3. Work with Resource Advisors to identify, assess, and implement protection measures for dispersed recreation sites.
 4. Coordinate with Resource Advisors to identify and mitigate potential impacts to archaeological and cultural values.
 5. Consider evacuation protocols for the zones identified by the Tulare emergency management personnel.
1. High
 2. High
 3. High
 4. High
 5. High
1. Potential for loss or damage to private inholdings and/or Historical Sites.
 2. Potential for damage or loss of Park/Forest recreation infrastructure.
 3. Potential for damage or loss of historical or cultural resources.
 4. Delayed response implementing evacuation orders.

Resources

Management Action Point 15



— Fire Perimeters — Planning Areas -- M.A.P. Pending

NAME	VALUE
Incident Name	Colony
Cost	
Shape	12
Activated	
Deactivated	
Status	Pending

Condition

If the Fire line reaches MAP 12 suggest an Order will be issued for the upper area of Zone 5 (North Fork)

Actions

Zone 5:

This new evacuation order will include all the previously set Evacuation Orders.

The New Mandatory Evacuation areas will be all of Skyline Drive, Alta Akers Drive, La Cieniga Drive, Encia Court, Sunset Drive, Hawk Hollow Drive, Eggers Drive, Mynat Drive, and All of North Fork Drive. This will continue to include all structures, side roads, and attached roads.

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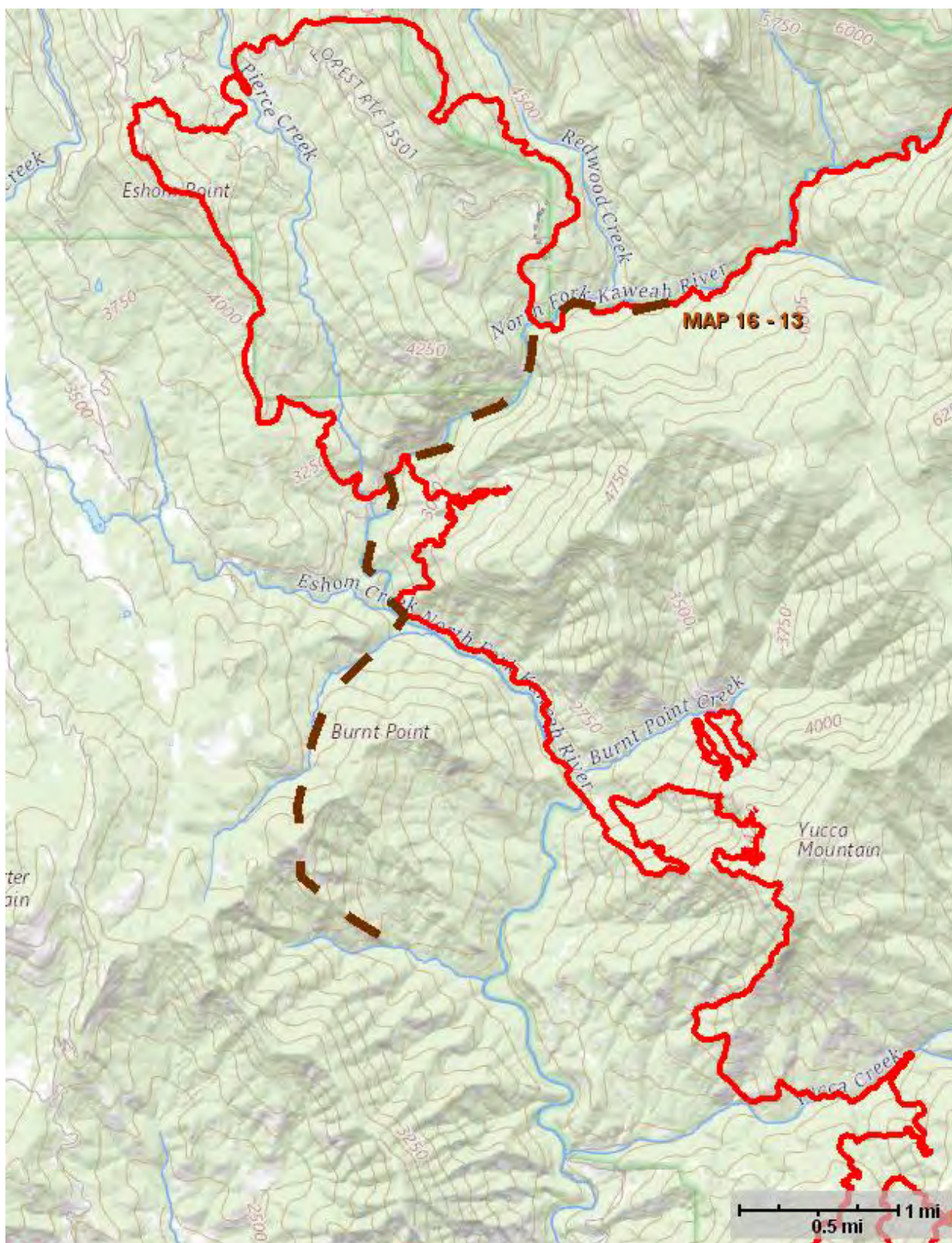
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Management Action Point 16



— Fire Perimeters — Planning Areas - - M.A.P. Pending

NAME	VALUE
Incident Name	Colony
Cost	
Shape	13
Activated	

Deactivated
Status Pending

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Condition

If the Fire aggressively crosses North Fork River at MAP 13:
Order for Eshom and Hartland Communities
Warning for Hogback and the Community of Badger

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Actions

Order for Eshom and Hartland Communities
Warning for Hogback and the Cummunity of Badger

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Resources

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1.8. Cost

Stratified Cost Index Results

Acres Burned	25%	50%	75%	90%
30000	\$64	\$247	\$956	\$3,232
60000	\$54	\$210	\$812	\$2,743
75000	\$51	\$199	\$770	\$2,602
124000	\$46	\$177	\$683	\$2,311

25 percent of historical fires with similar characteristics had a cost per acre less than the value displayed in the 25% column of the table. Likewise, 50, 75, and 90 percent of fires with similar characteristics had a cost per acre less than the values displayed in their respective columns.

Estimated Final Cost

NAME	VALUE
Estimated Final Cost	\$57,750,000
Method(s) Used	SCI

Comments

Stratified cost index based on FSPro high probability areas (75K-120K acres) and 75% Stratified Cost Index.

1.9. Rationale

Introduction

This decision is for the Colony and Paradise fires of the KNP Complex. The lightning ignited fires were discovered on September 10th and current fire for both incidents is estimated to be over 25,020 acres and burning actively in heavy fuels with high resistance to control. Fires are burning in an area with no recent fire history in steep terrain, heavy fuels, and exhibiting resistance to direct attack. National PL5 and now 4 had caused significant challenges in getting requested resources, while multiple significant values were at risk. Multiple closures are in place including highway, NPS visitor facilities and concessions, park headquarters, and administrative facilities. Potential for long duration incident with potential to impact multiple communities.

My Decision Is

Suppression efforts are focused on controlling the fires at the smallest possible. A Type 1 incident management team (SE Blue Team) was ordered and was in-briefed on September 15th. Direction for this incident is to employ an appropriate combination of point protection, direct, and indirect tactics with mindful consideration of the values at risk and the probability of success of firefighting actions in order to meet the incident objectives of keeping the fire as small as possible and within the defined planning area.

On September 26th with continued Type 1 incident complexity, SW IMT 2 (Bales) assumed command at 1800.

Critical Values of Concern:

The fire is burning near multiple natural, cultural, and infrastructure values including NPS assets, local communities and critical utility infrastructure. Crystal Cave and Giant Forest and the General Sherman Tree, the General Grant Tree, Colony Mill trail and cabin, and Marble Fork of the Kaweah River are in proximity to current activity.

Park infrastructure, campgrounds, and trailheads have potential to be impacted as the fire progresses uphill and towards the N and E. NPS Assets in Lodgepole and Giant Forest are considerable, including Wuksachi Lodge, Lodgepole Market, Lodgepole Visitor Center, Lodgepole housing area, Lodgepole Campground, two water and wastewater plants, Lodgepole maintenance complex, Giant Forest Museum, and numerous historic structures and cabins. General Sherman Tree is the largest tree in the world.

Fire is also threatening critical infrastructure (SCE hydropower, SCE 12Kv transmission line, NPS telecommunications). Anticipated threats after include the communities south and north of the fire (Oak Grove, Silver City, Mineral King, Pinehurst, Heartland). The community of Three rivers is approximately 6 miles from the fire location. Fire has potential to negatively impact designated Wilderness and high value giant sequoia groves. Closure of NPS visitor facilities and concessions (lodging, retail, food service) fire and closure of park headquarters (Ash Mountain) currently in place. Ash Mountain visitor center is valued at nearly \$100 million.

Infrastructure threatened on the Sequoia National Forest include Montecito Sequoia and Stony Creek resorts; Far Horizons, Pythian and former Camp San Joaquin organization camps; Fir, Cove, Stony Creek, and Eshom Campgrounds; Communication sites on Big Baldy and Eshom Point; multiple private homes on inholdings and communities including Weston Meadows, Big Meadows, Hartland Christian Camp, UC Berkeley Whitaker Forest, and Pinehurst Workcenter and barracks in the community of Miramonte. Pacific Gas and Electric powerlines (eshom). Permittee infrastructure including corral and loading shoot, fencing around apiary sites and water tank and other campground facilities. Multiple natural and cultural values in tributaries to North Fork of the Kaweah River.

Towns threatened and Evacuations:

The Paradise Fire initially burned east and southeast entering the East Fork of the Kaweah River. Trigger points were reached for issuing evacuation orders and warnings.

- Mineral King is under an evacuation order. There are approximately 50-75 private cabins and a private mountain resort complex (Silver City Resort). NPS assets include a seasonal visitor center, seasonal housing units, water and wastewater plant, and two seasonal campgrounds. Approximately 5 employees and volunteers are being evacuated from Mineral King. All private cabin owners are being evacuated.
- Ash Mountain is under an evacuation warning. This includes the entire administrative headquarters (offices, fire and LE dispatch centers, maintenance complex and fleet, heliport, curatorial building, fire operations center, fee remittance and admin offices). There are also two employee housing areas. The warning impacts approximately 40-50 housing residents and 150 employee offices.
- The gateway community of Three Rivers is under evacuation warning. This impacts approximately 75-85 employee residents (private).
- Sequoia National Park is closed to public entry. Closures are staffed at the Ash Mountain Entrance Station.
- An all-risk team is managing the evacuations and closures with assistance from Tulare County Sheriff. The PWR SETT team has been deployed to help the park with closures and to give employees relief as they prepare for evacuation from their homes.

On October 1st fire spotted across the North Fork of the Kaweah River on the northwest portion of the KNP Complex spreading onto the Sequoia National Forest. Additional evacuation orders and warnings have been issued for the following areas:

- Grant Grove, Wilsonia, and Cedar Grove in Kings Canyon National Park.
- The communities of Eshom and Hartland Camp.
- Miramonte and Pinehurst areas.
- Big Meadows, Weston Meadows and Quail Flat in the Giant Sequoia National Monument.
- Hogback and Badger areas.

Stakeholders

The fire is currently burning mostly on NPS lands but has entered BLM and private lands (SRA) in the southwest, and USFS lands to the north. Utilities (SCE hydropower and 12Kv transmission line) are at risk. Concessionaires are unable to operate due to closures.

Risk Assessment

This fire has shown a high resistance to control. Direct attack efforts are not an option given the significant loading of snags and dead and down fuels. Regional and National PL4 is causing significant challenges in getting requested resources. Resource orders have

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started to be filled. Fuel loading of standing and down snags pose significant control challenges for ground personnel. Fire is burning in an area with abundant dead and down fuels and drought stressed fuels. All fuels are available to burn, with ERC's above 97th percentile. Fire is fuels driven and burning actively on entire perimeter, with abundant dead and down fuels and areas of drought mortality. No natural barriers exist near fire, so fire has a high potential for growth.

Major Concerns and Operational Challenges

Terrain, hazards, fuels, and fire behavior preclude direct line construction in many locations. Exposure to firefighters is high in many locations with hazardous dead standing trees, heavy fuel accumulations, and very high evacuation time, should a firefighter get injured. There is significant concern from adjacent landowners over potential for spread of fire and smoke into adjacent communities, SRA, USFS, and BLM lands. Potential for long duration fire with risk and exposure to communities and critical values.

Direct attack made difficult by fire behavior, snags, terrain, and lack of manmade or natural barriers. 16 miles of Generals Highway closed. Evacuation orders and warnings have been issued for Mineral King, Silver City, the East Fork Kaweah River, Ash Mountain, Grant Grove, Wilsonia, Cedar Grove, Eshom, Hartland Camp, Miramonte, Pinehurst, Big Meadows, Weston Meadows, Quail Flat, Hogback and Badger areas.

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KNP Complex (Colony & Paradise Fires), East Fork – North, Atwell Silver City Area – Sensitive Resources Information

Prepared on 9/12/2021 by T. Caprio

Current Fire Summary:

This area resource summary covers the area on the south side of Paradise Ridge and the north side of the East Fork of the Kaweah R. It covers the area north of the East Fork- from Slapjack Creek north to Conifer Ridge, then east over Paradise Peak, and follows the ridgeline to a point above Faculty Flat, and then drops back down to the East Fork below the Mineral King Valley. The area is approximately 6,826 ac in size.

There are no current threats to human life or property, however, due to the fire spread potential of the Paradise Fire up the Paradise drainage and south over Paradise Ridge, sensitive resources in the area are being evaluated. This report is based on a summary developed for the 2018 Horse Creek Fire.

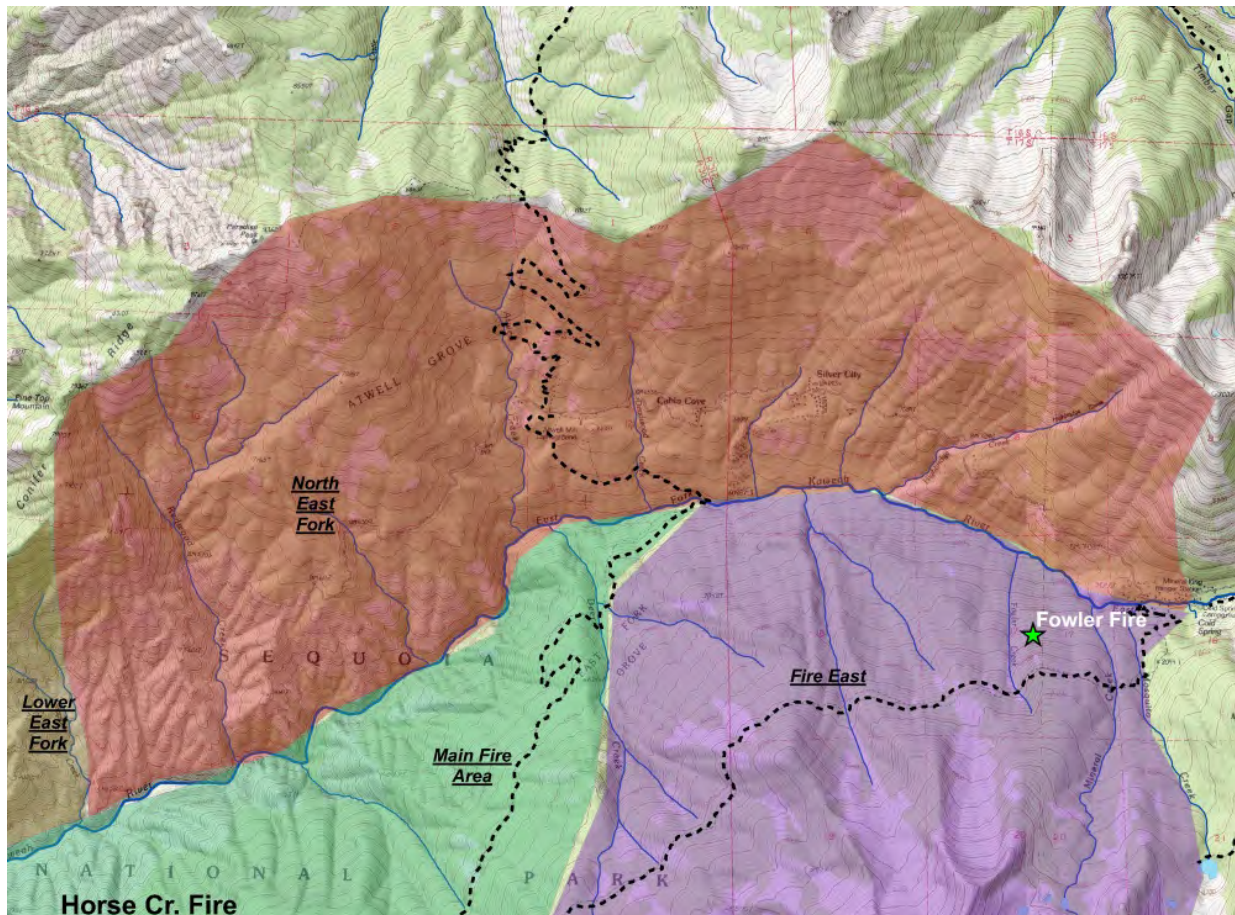
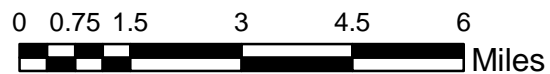
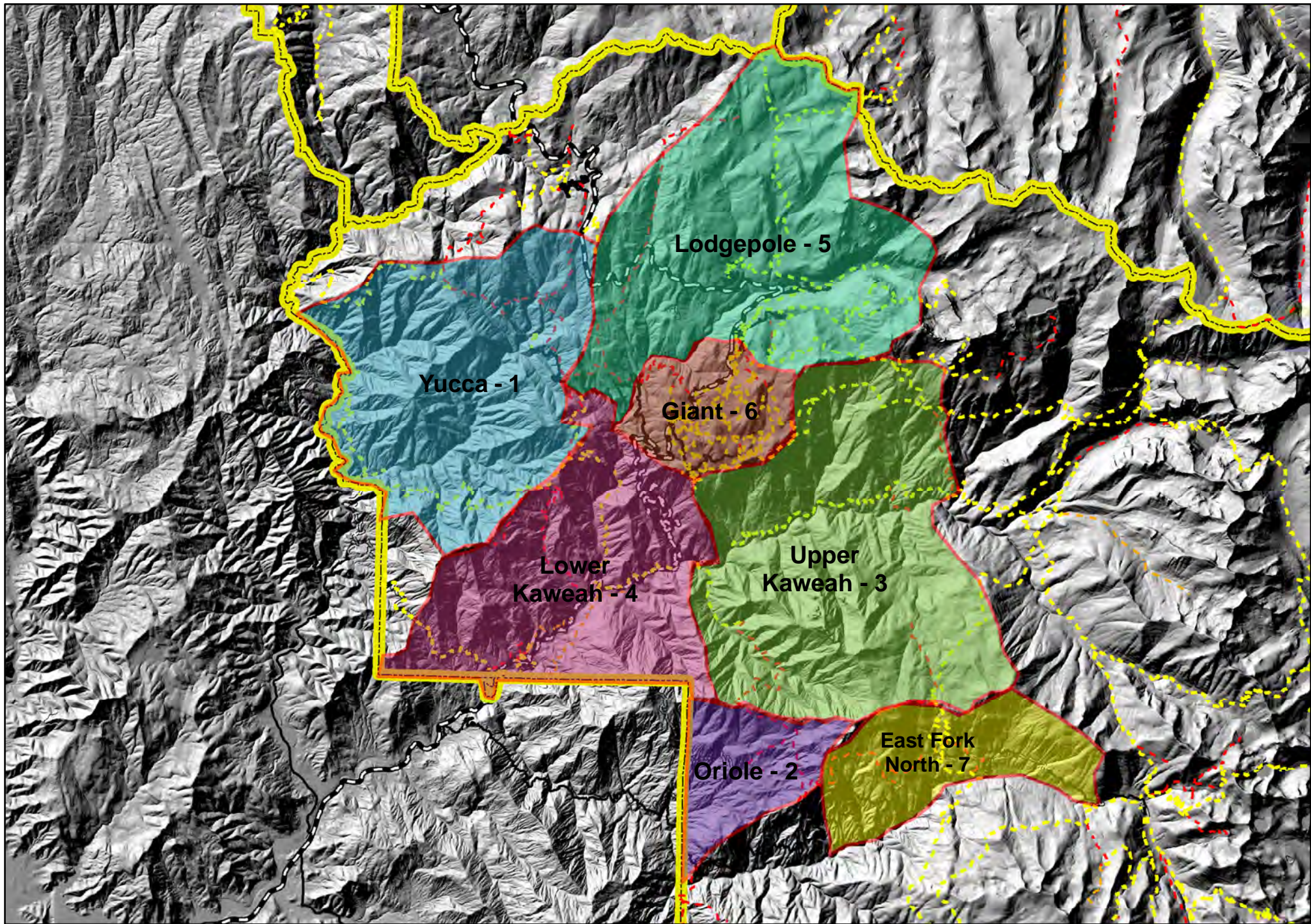


Figure 1 East Fork North zone.



Colony/Paradise READ Sensitive Resources Map Zones



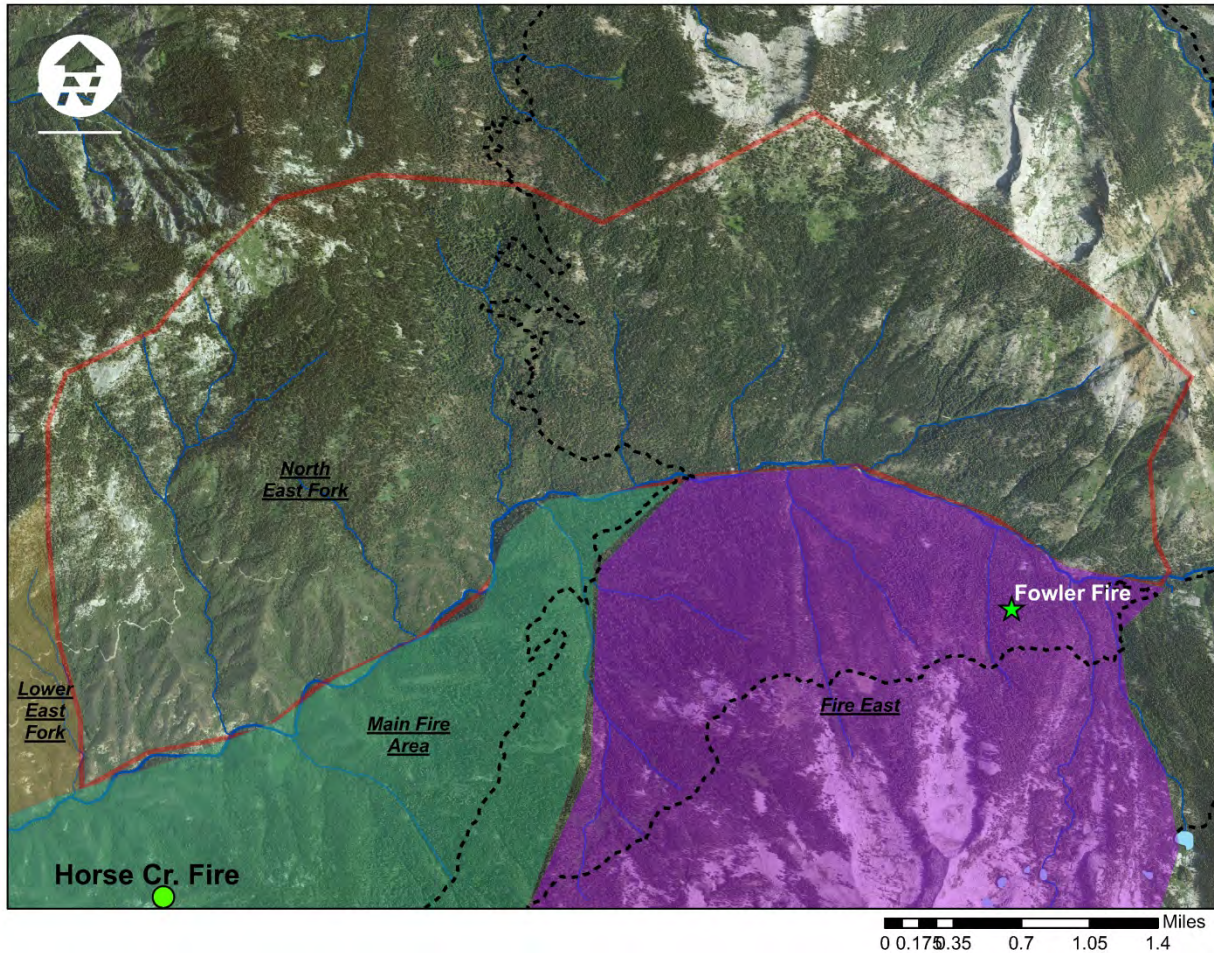


Figure 2 NAIP imagery of zone.

Cultural Resources

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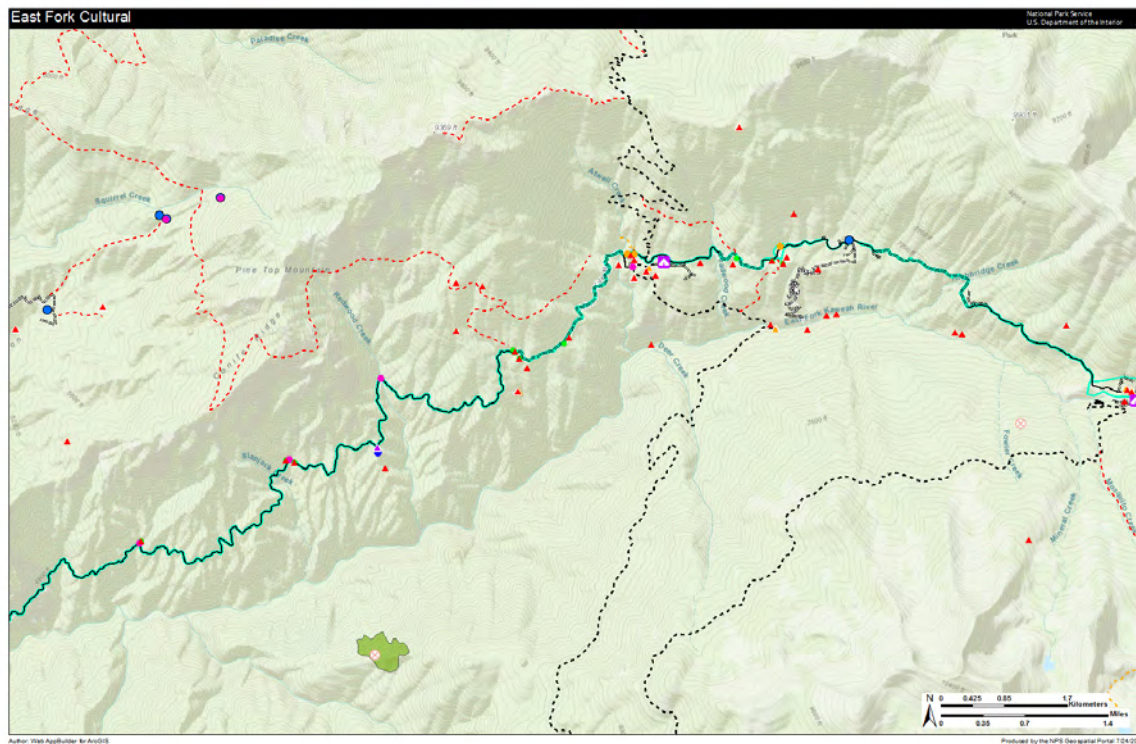


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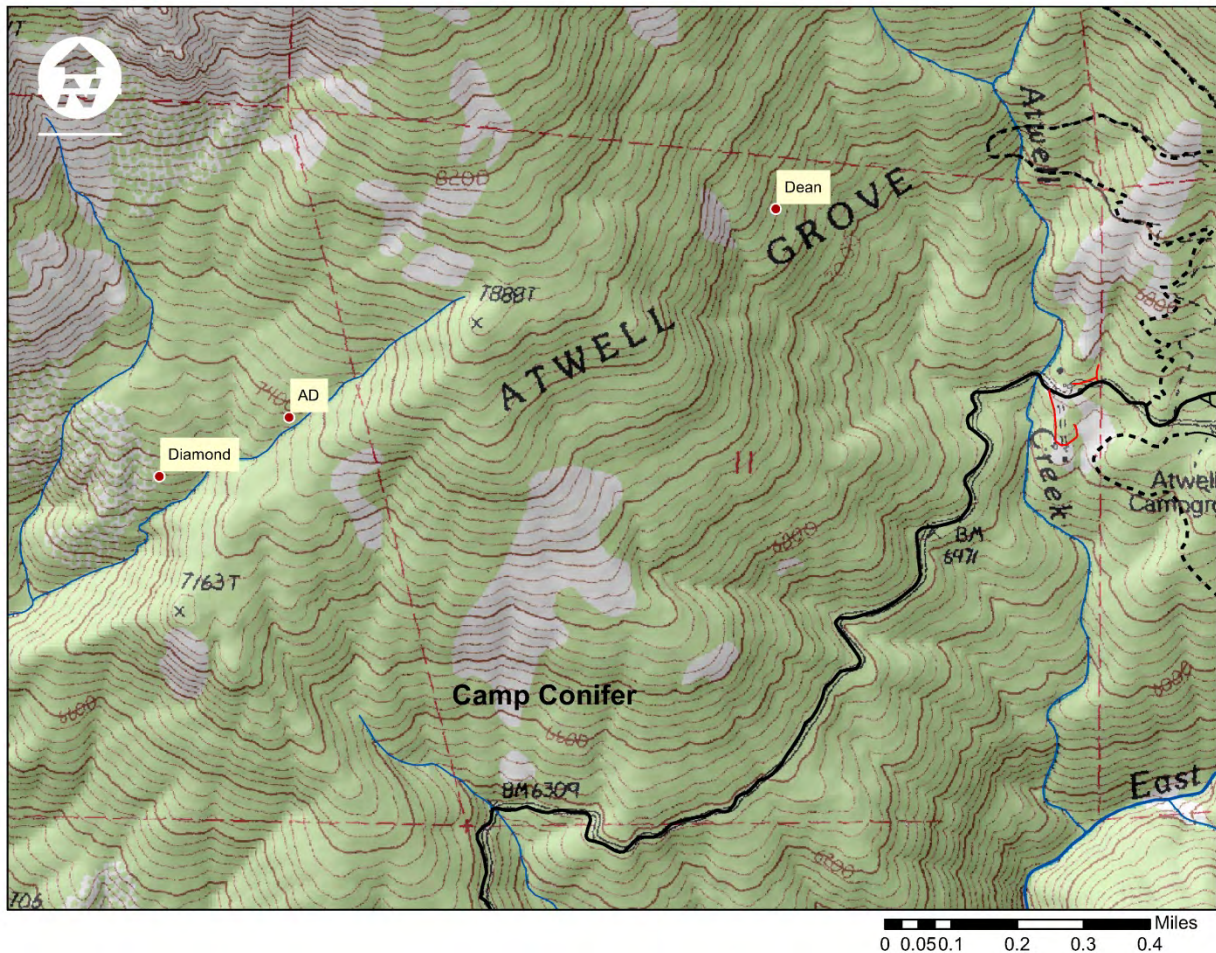


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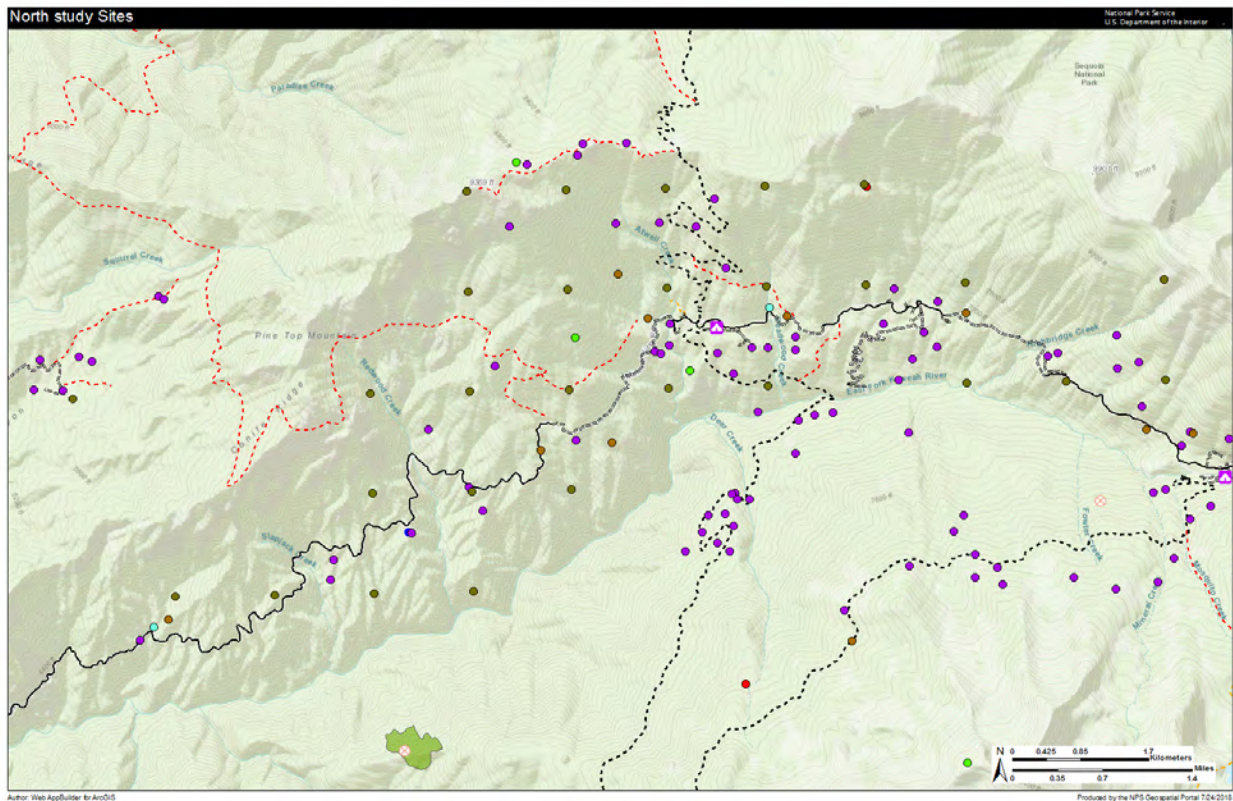


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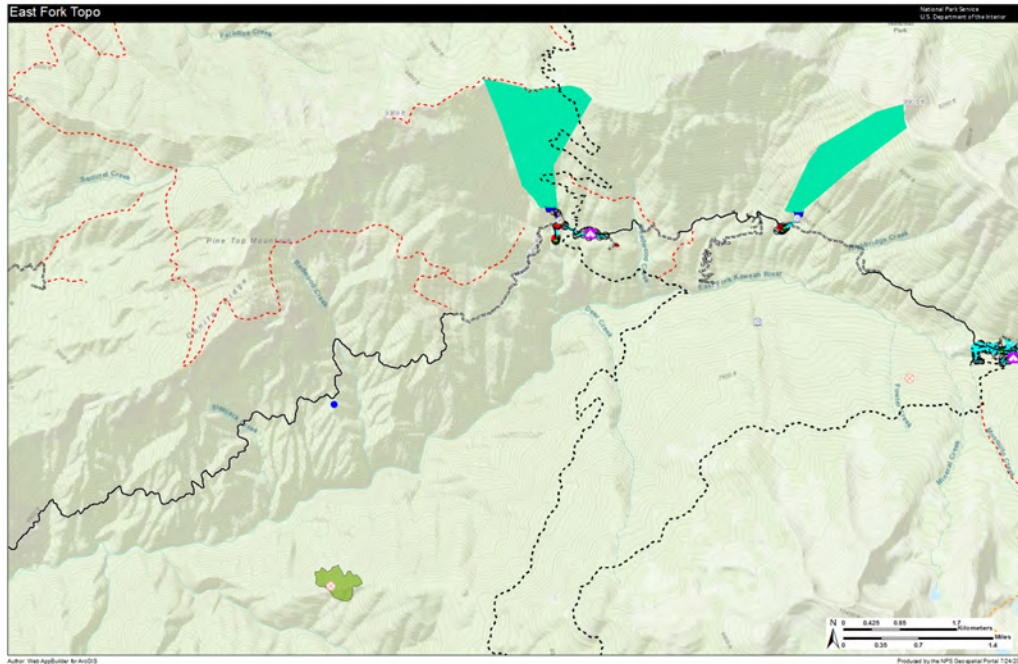


Figure 6 Water source subwatersheds (green).

Wolverton Station Information

Location Wolverton California
Latitude 36° 26' 42" NESS ID FA60B3B8
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Atwell Camp Station Information

Location Atwell Camp (near maintenance barn)
Station ID ATW Elevation 6400.0 ft
River Basin KAWEAH R County TULARE
Hydrologic Area TULARE LAKE Nearby City SILVER CITY

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Operator US Army Corps of Engineers

Recommendations

- Follow Minimal Impact Suppression Tactics (MIST), particularly in establishing and setting up camp and helispot construction. Pay particular attention to weed/invasive plant introduction – brush out packs, gear, shoes and vehicles, and dispose of seeds into trash receptacle before and after incident. Allow enough time to thoroughly check through all tools, supplies and belongings for unwanted seed.
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KNP Complex (Colony & Paradise Fires), East Fork – North, Atwell Silver City Area – Sensitive Resources Information

Prepared on 9/12/2021 by T. Caprio

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This area resource summary covers the area on the south side of Paradise Ridge and the north side of the East Fork of the Kaweah R. It covers the area north of the East Fork- from Slapjack Creek north to Conifer Ridge, then east over Paradise Peak, and follows the ridgeline to a point above Faculty Flat, and then drops back down to the East Fork below the Mineral King Valley. The area is approximately 6,826 ac in size.

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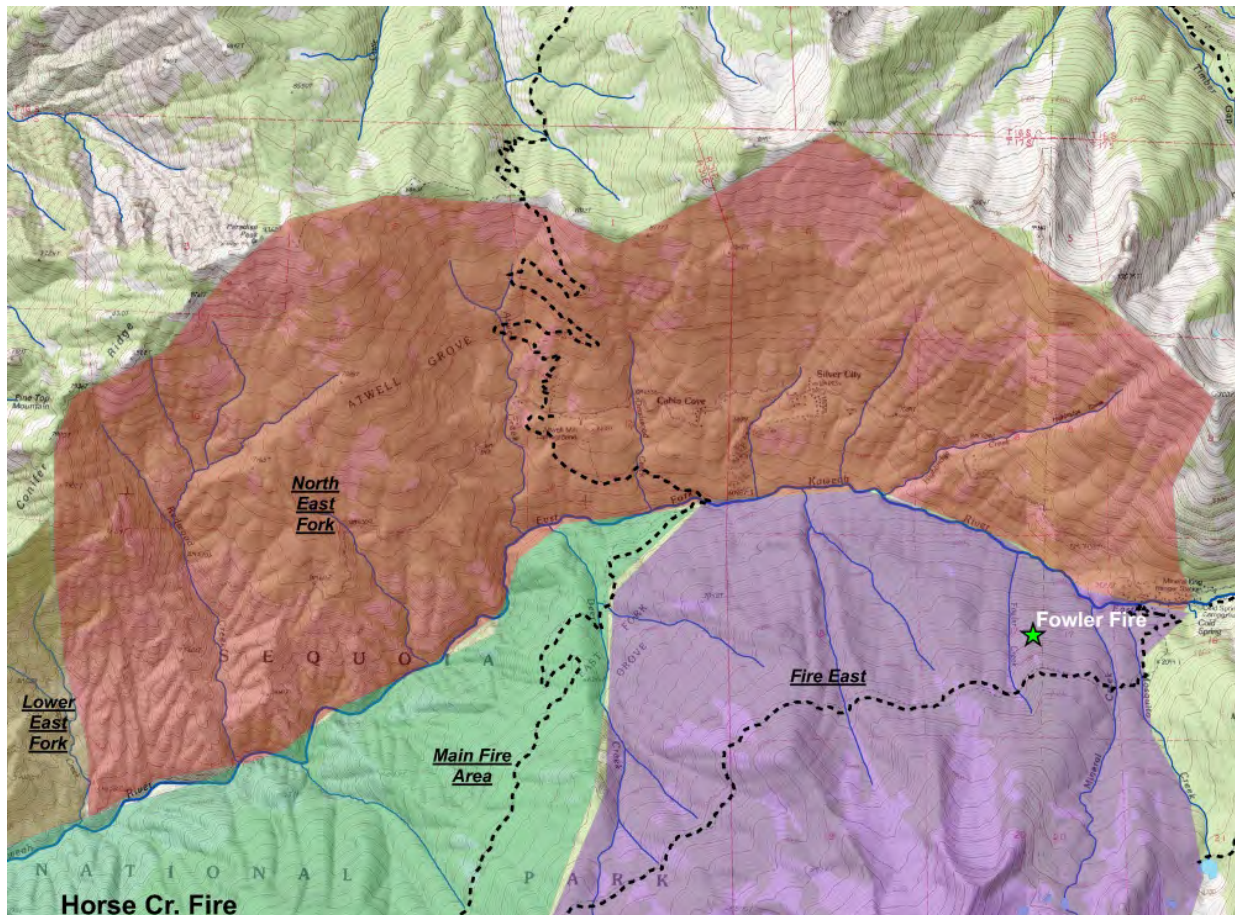
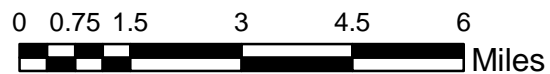
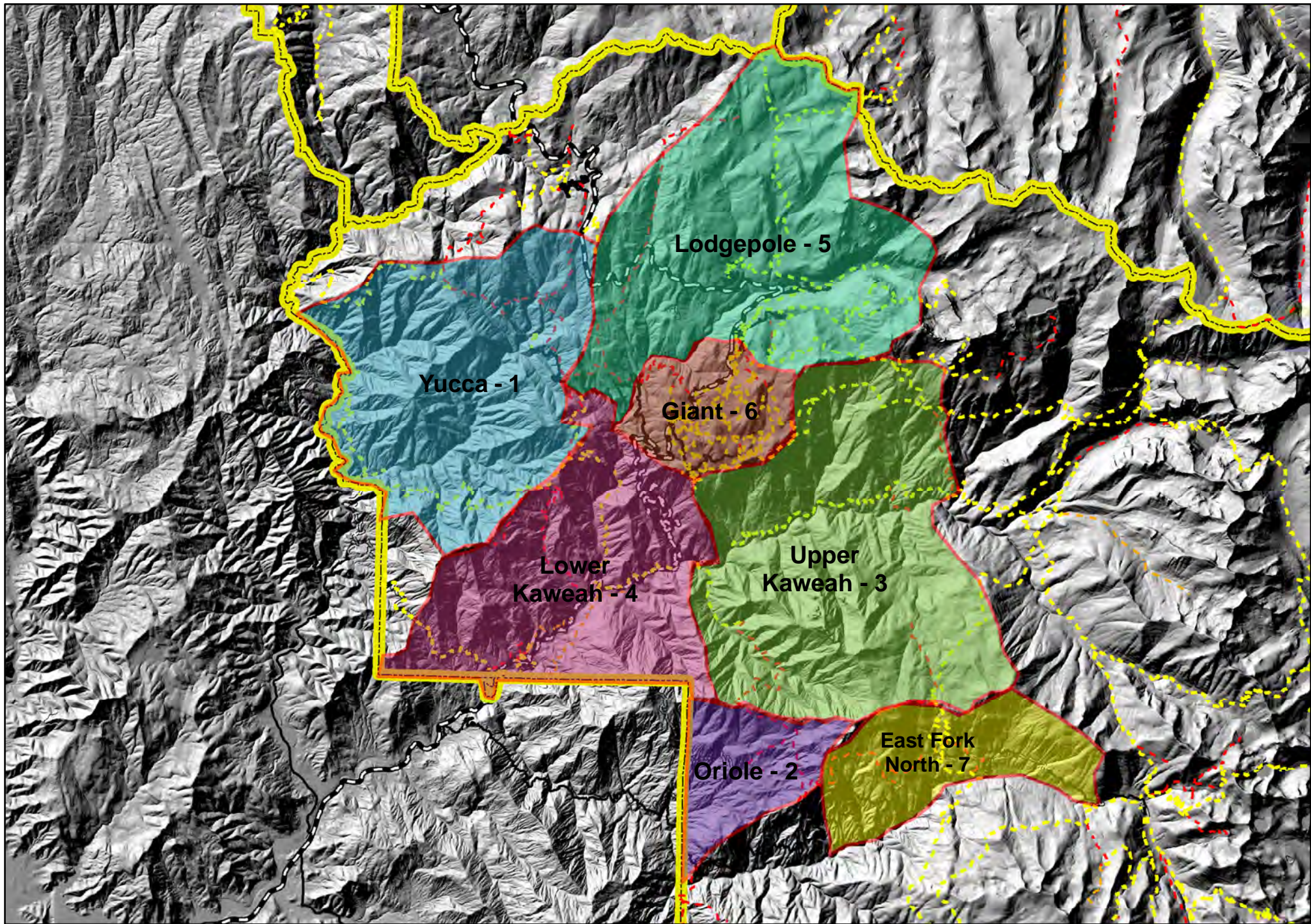


Figure 1 East Fork North zone.



Colony/Paradise READ Sensitive Resources Map Zones



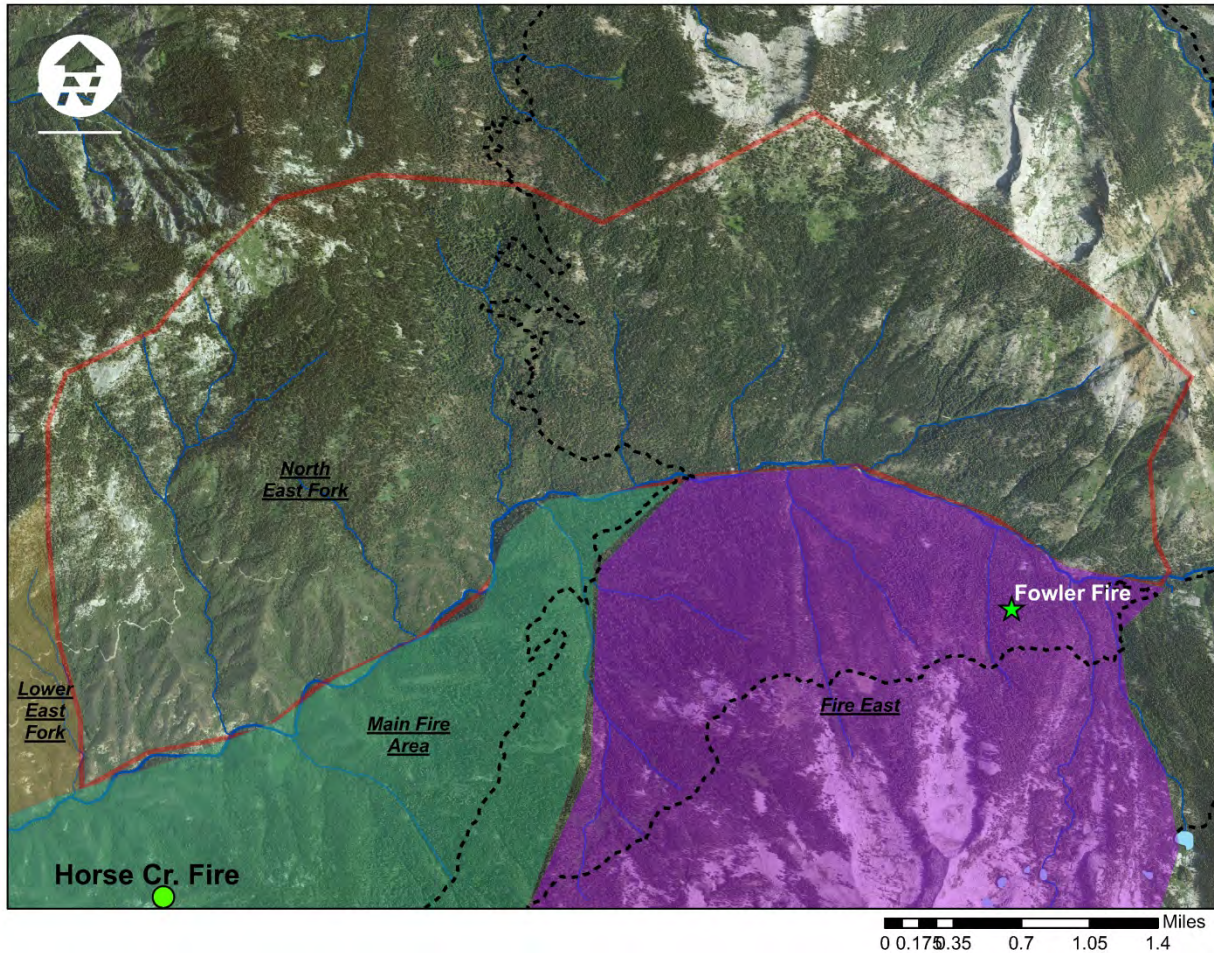


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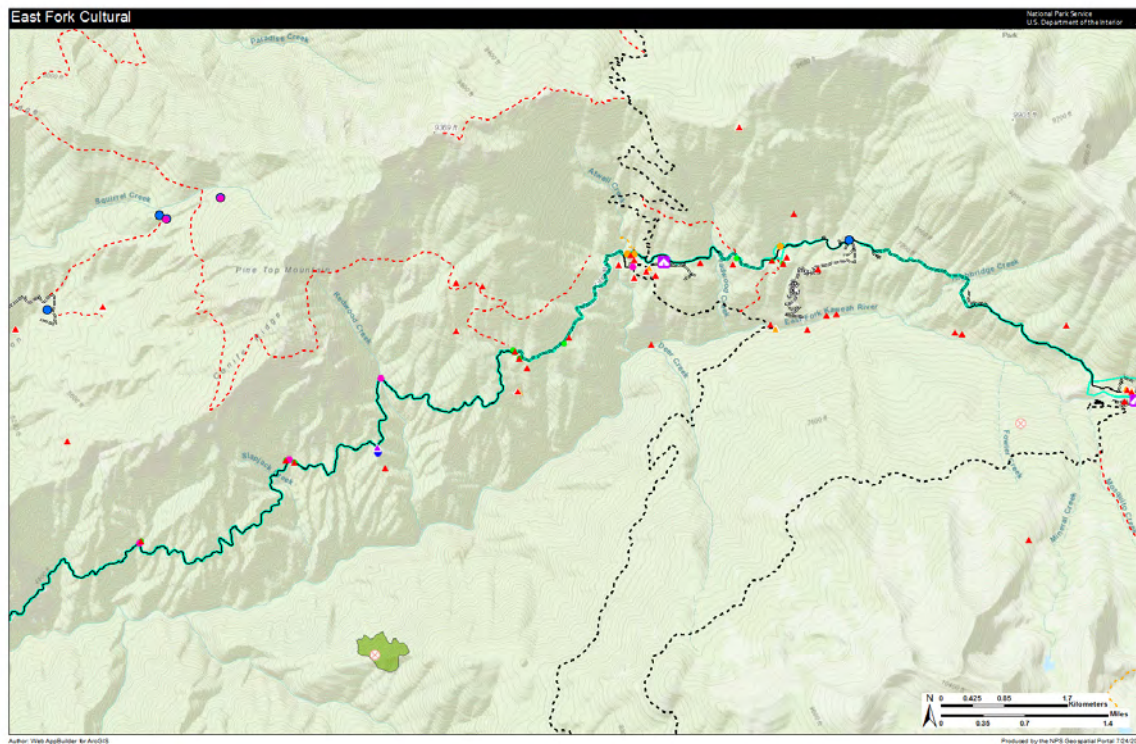


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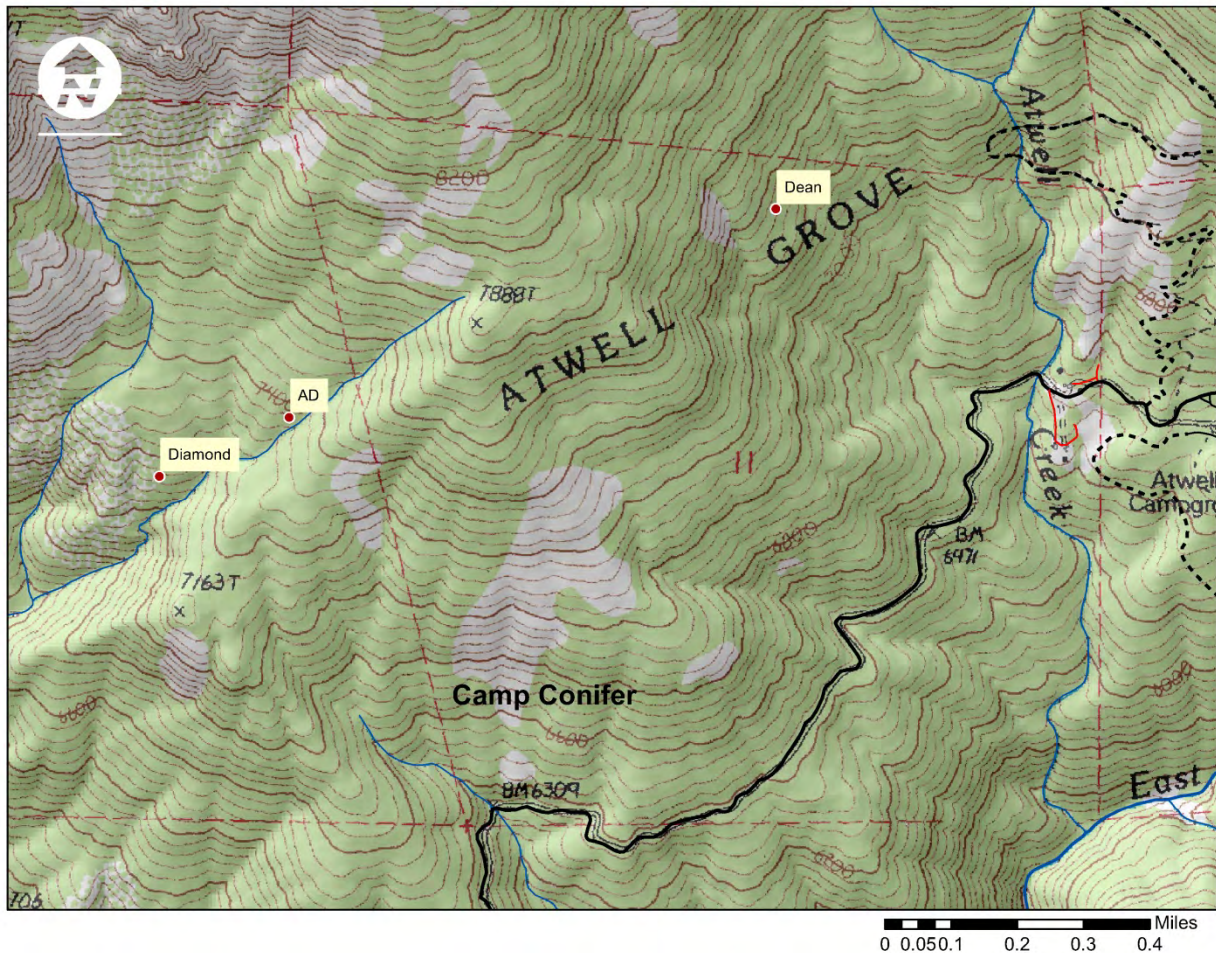


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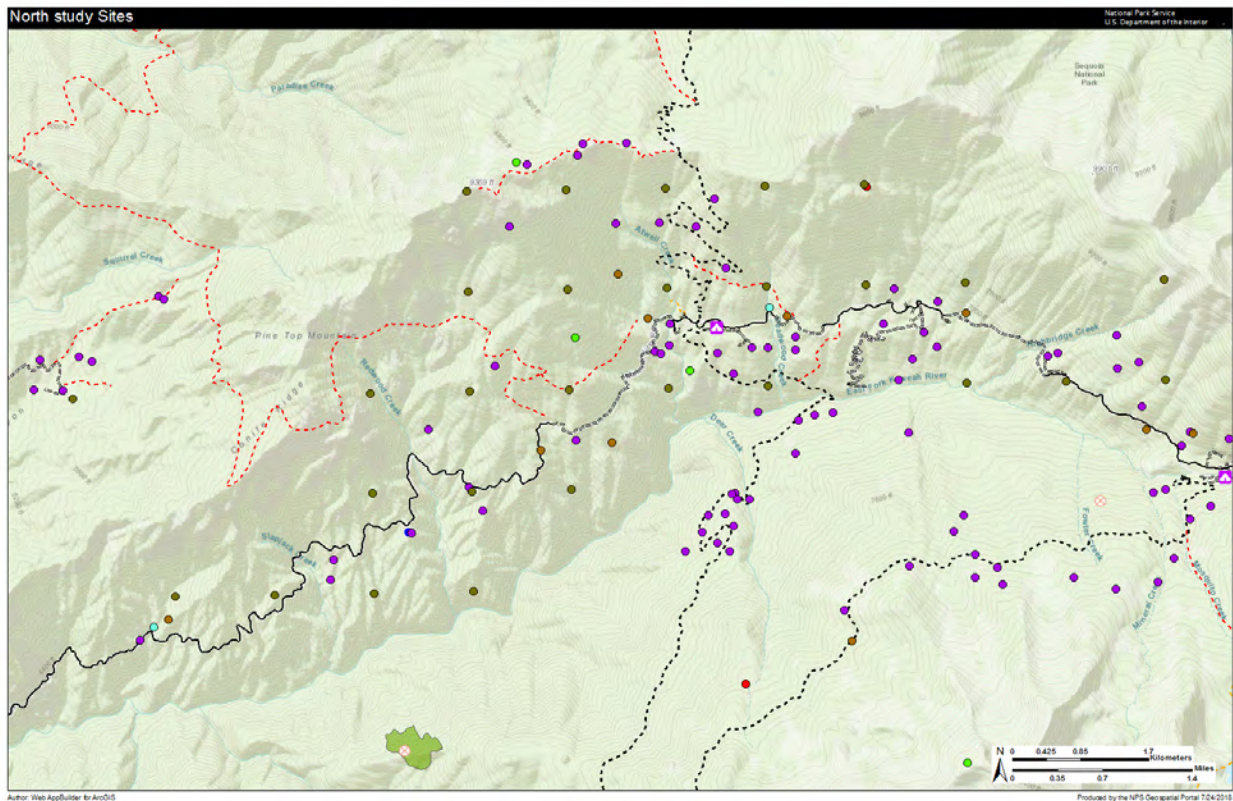


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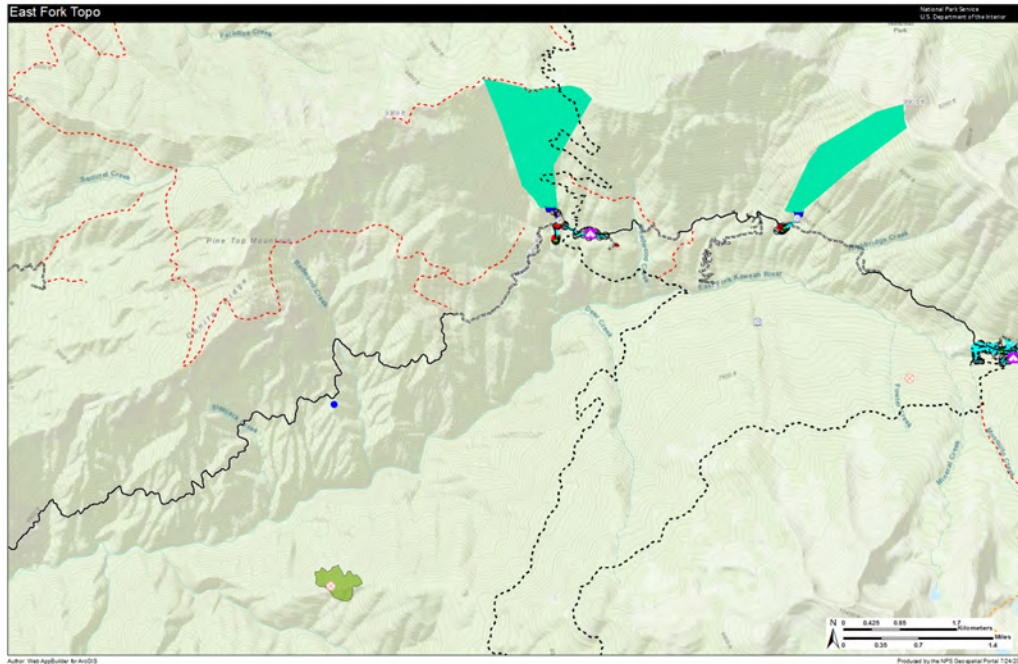


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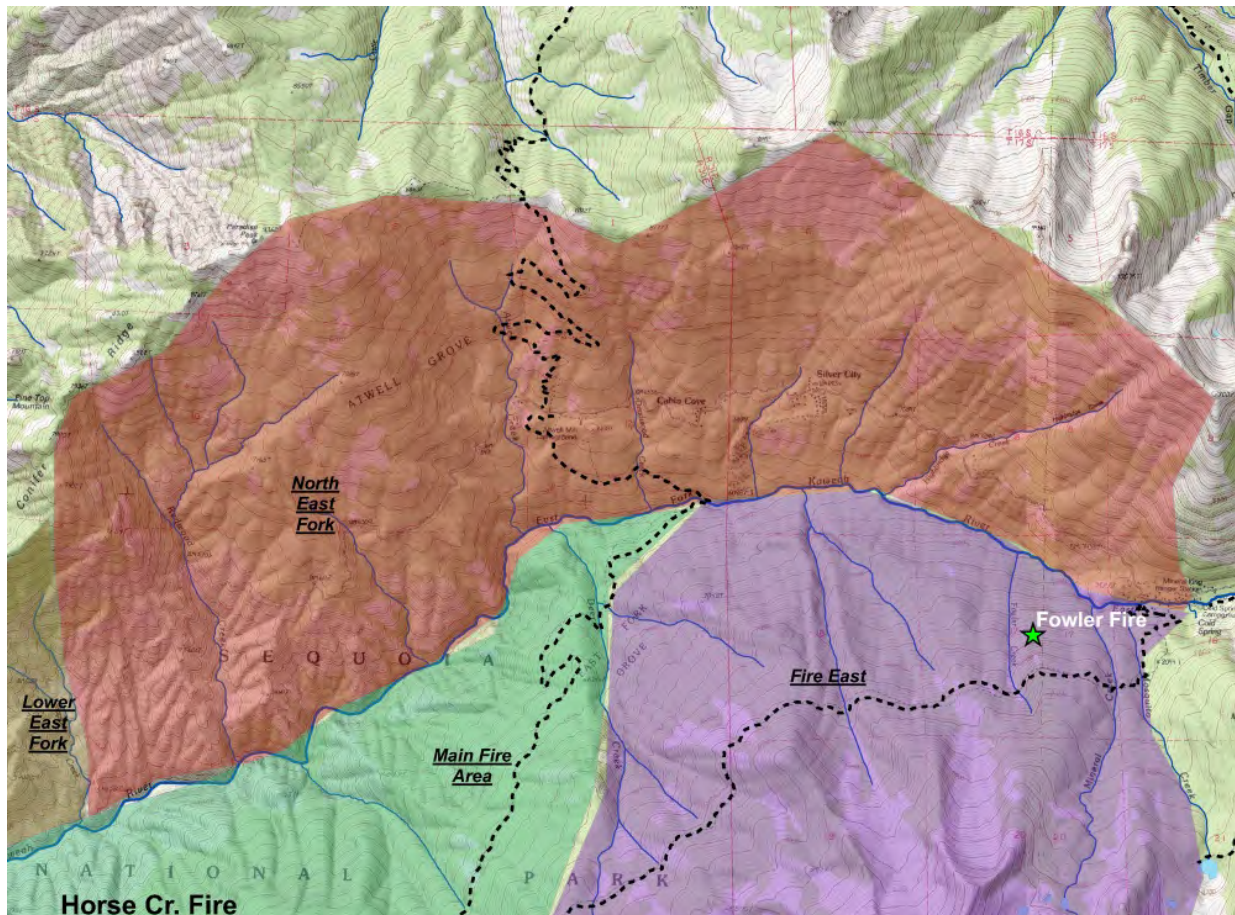
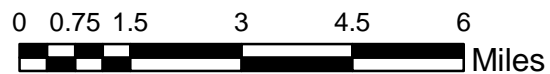
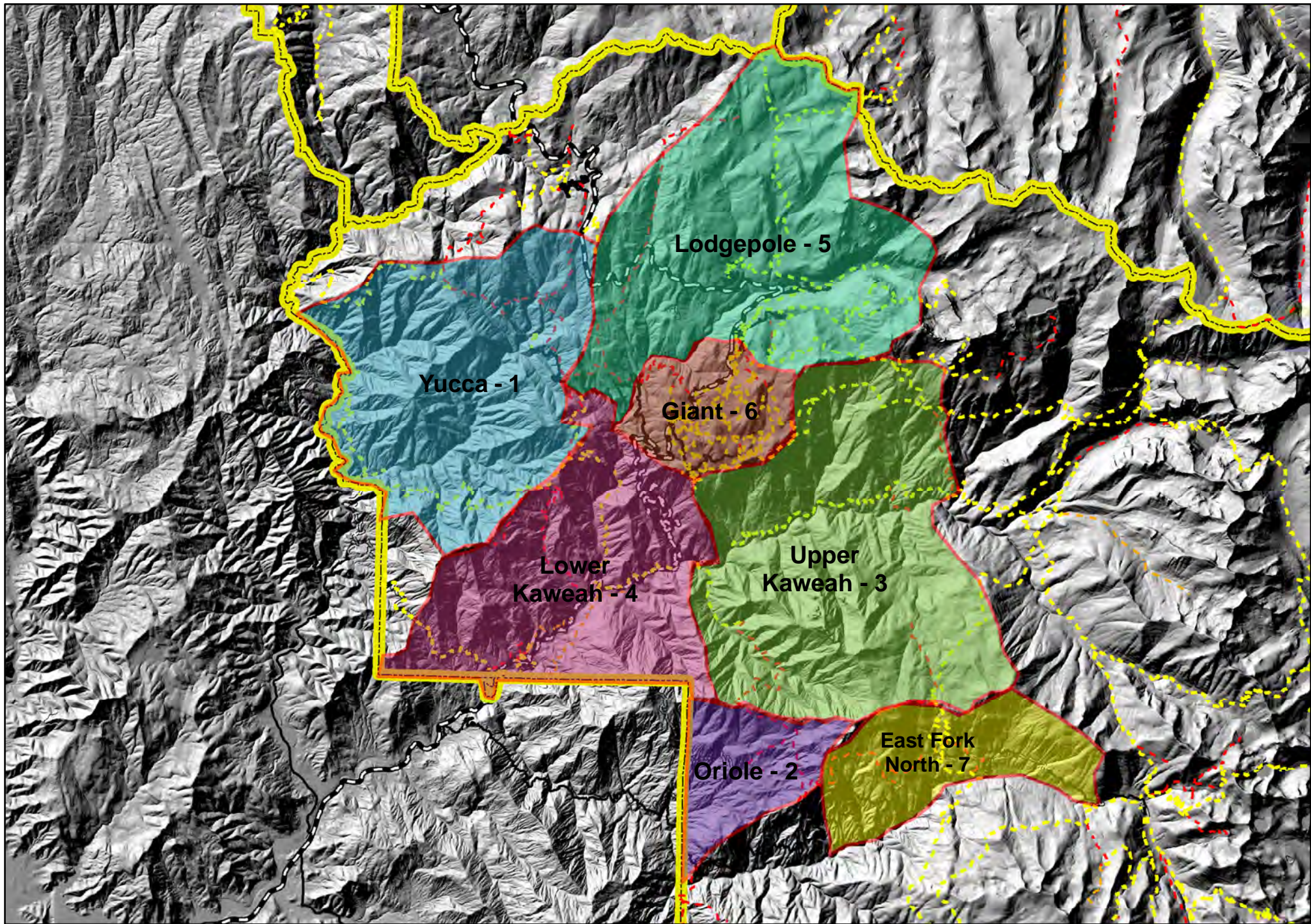


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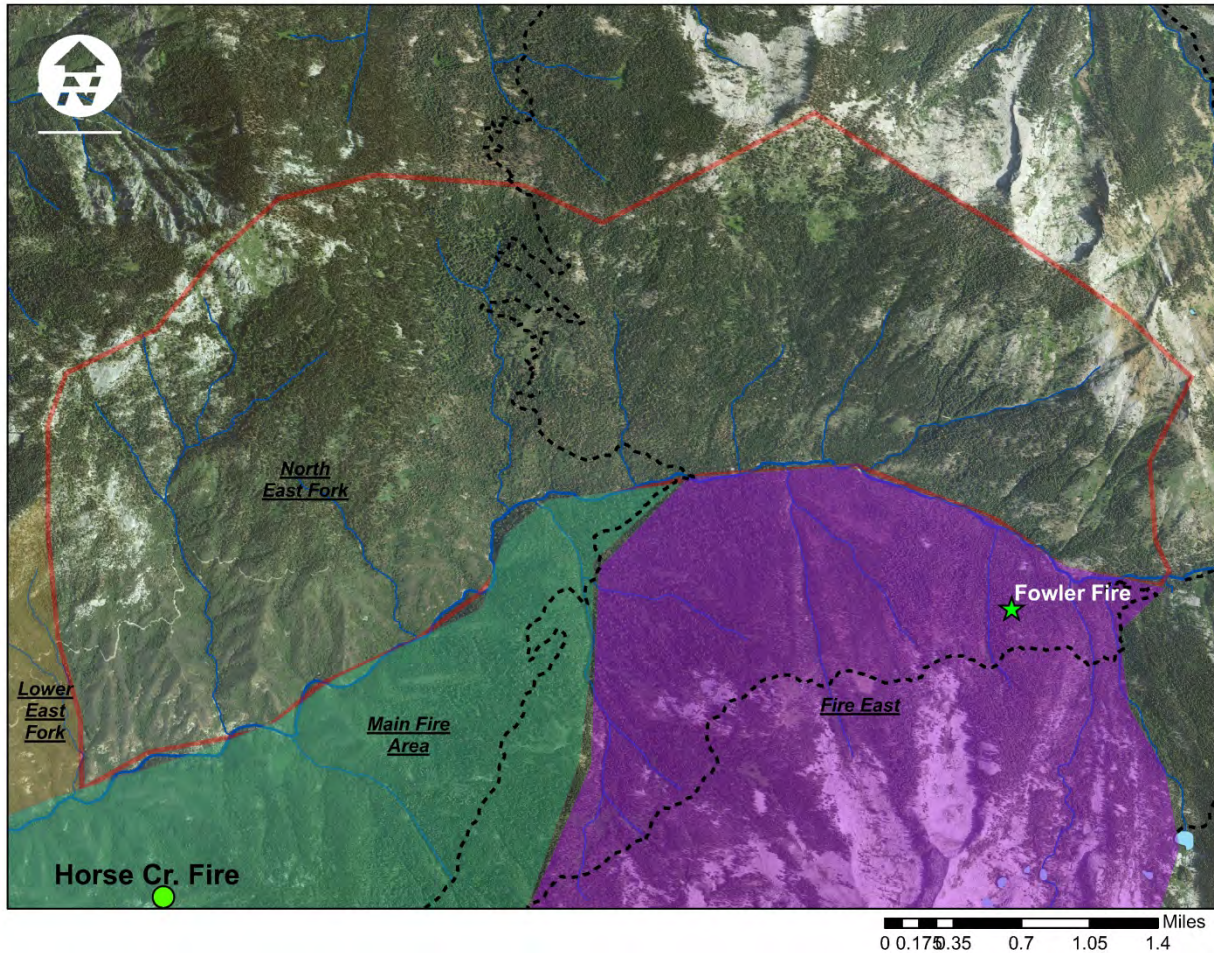


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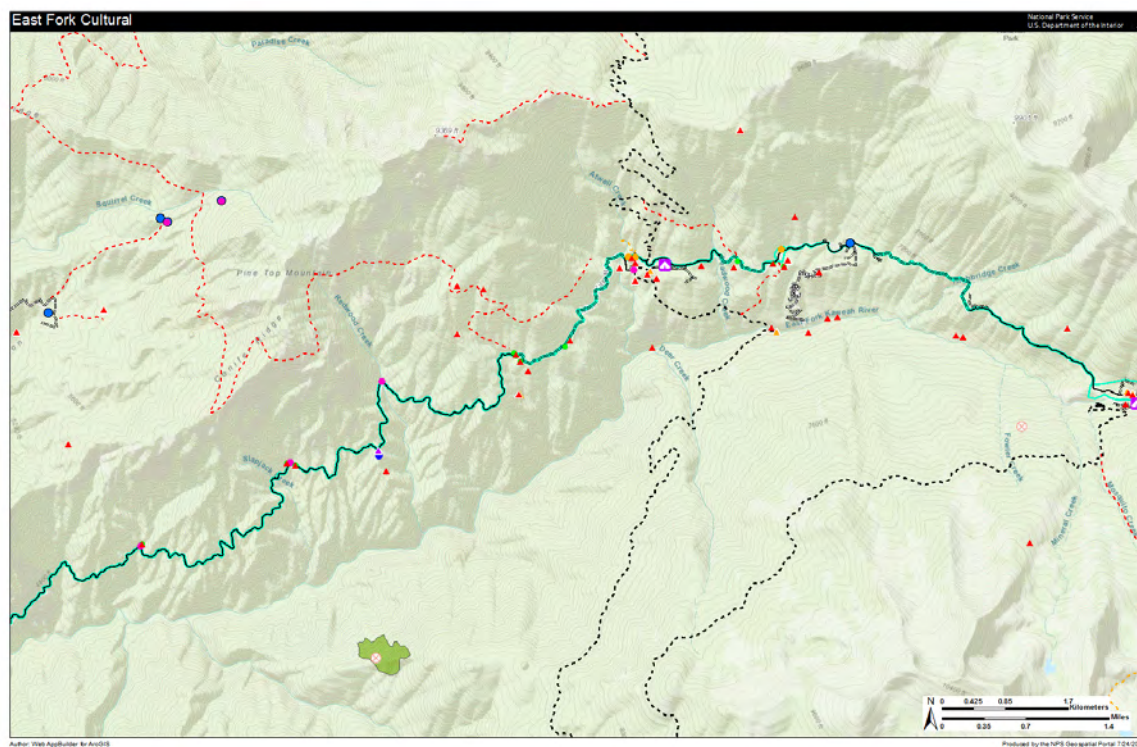


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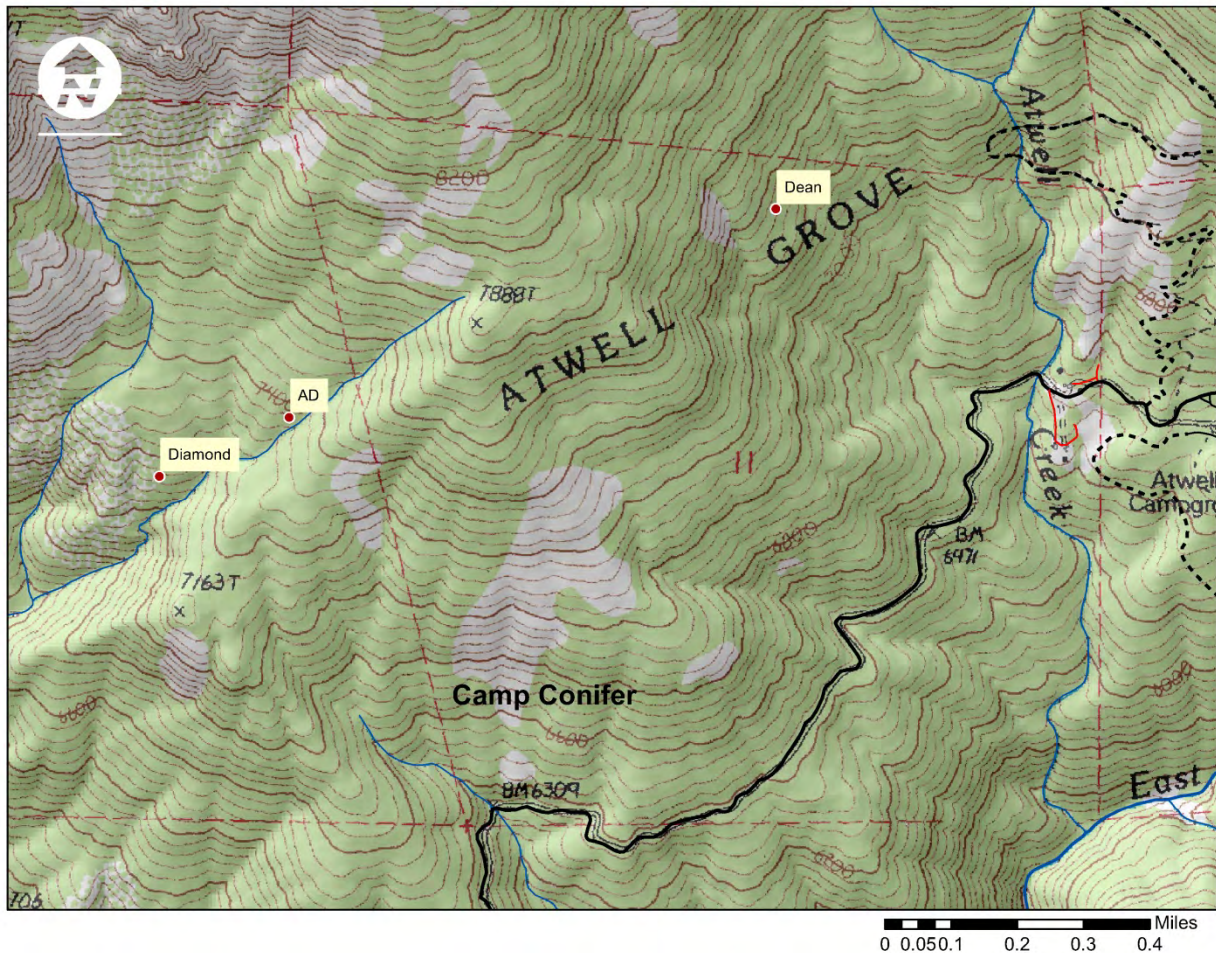


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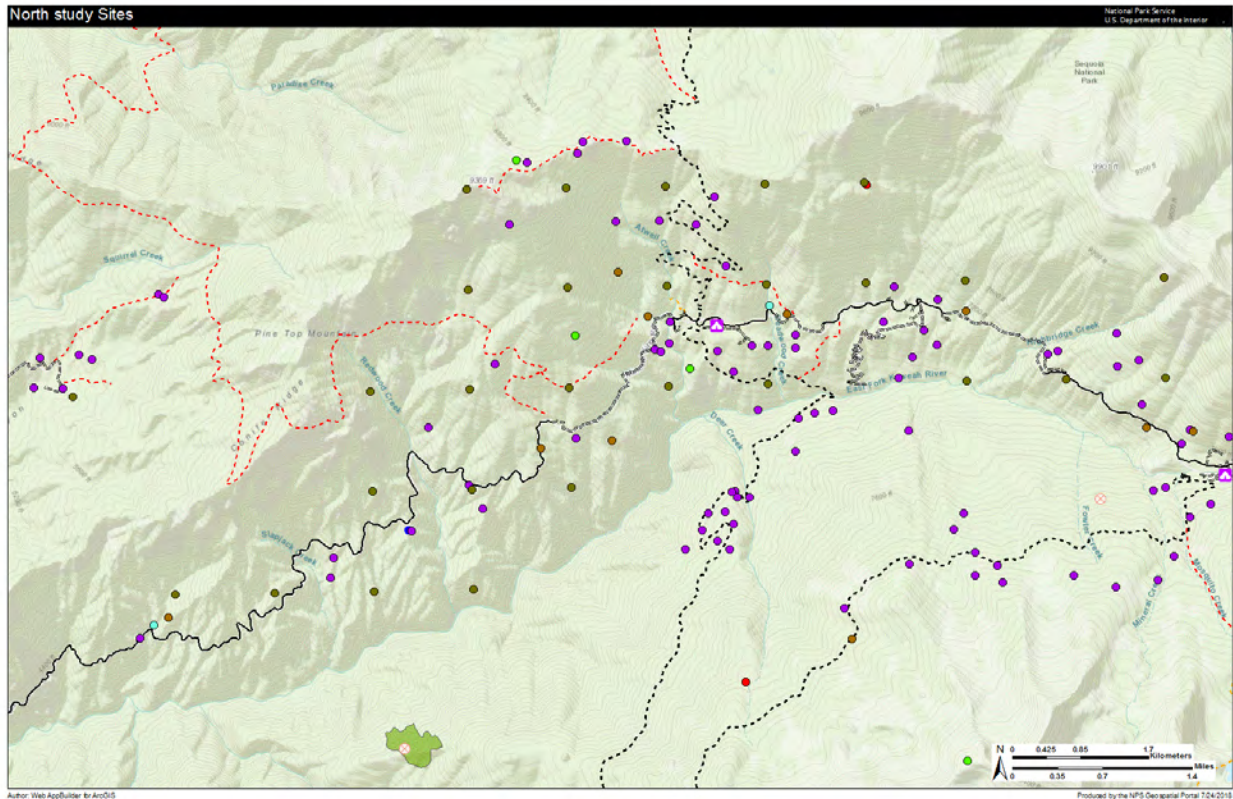


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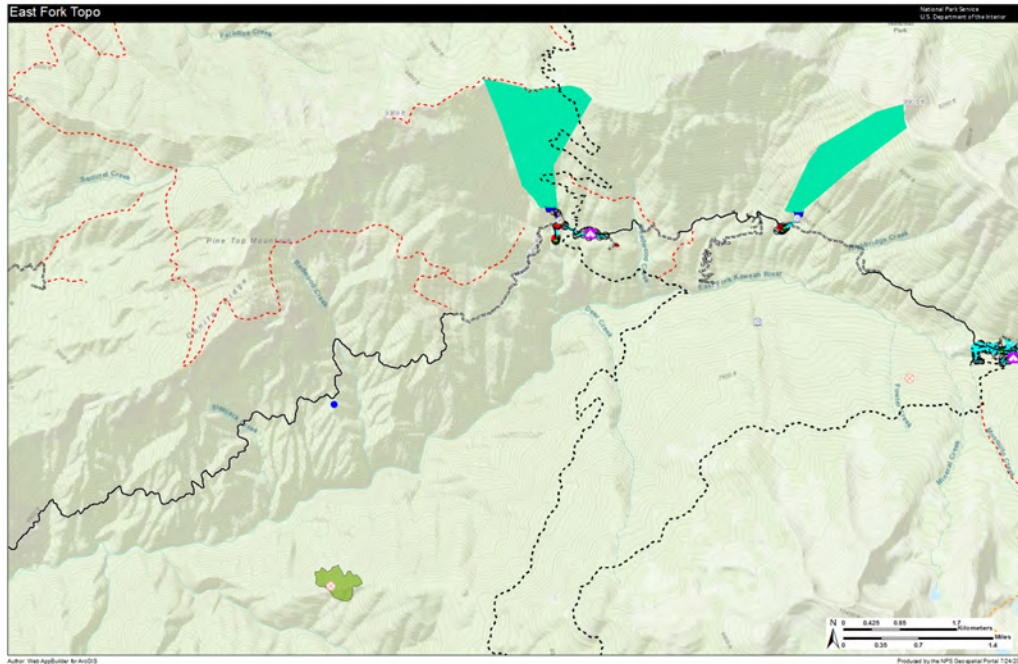


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Prepared on 9/12/2021 by T. Caprio

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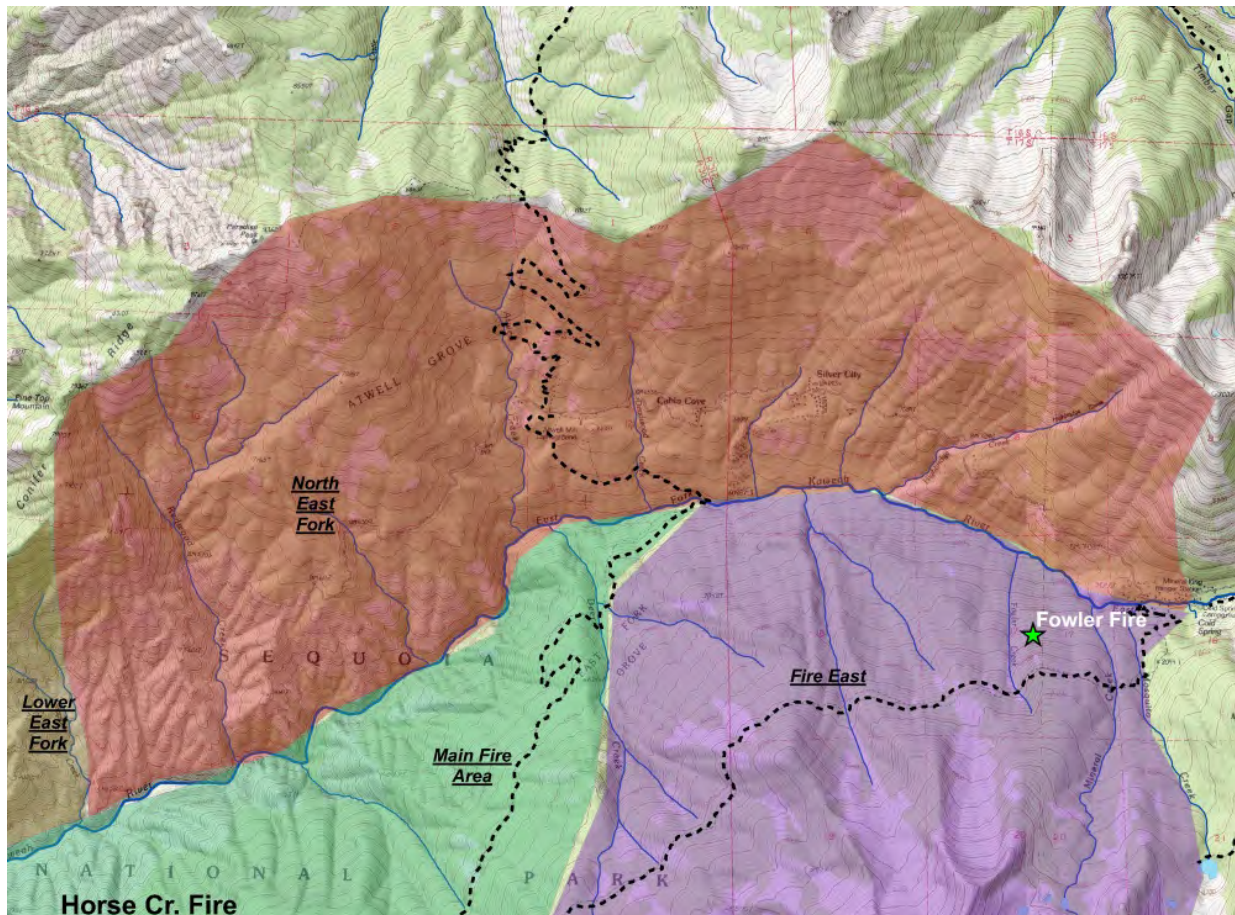
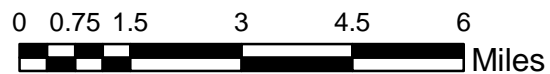
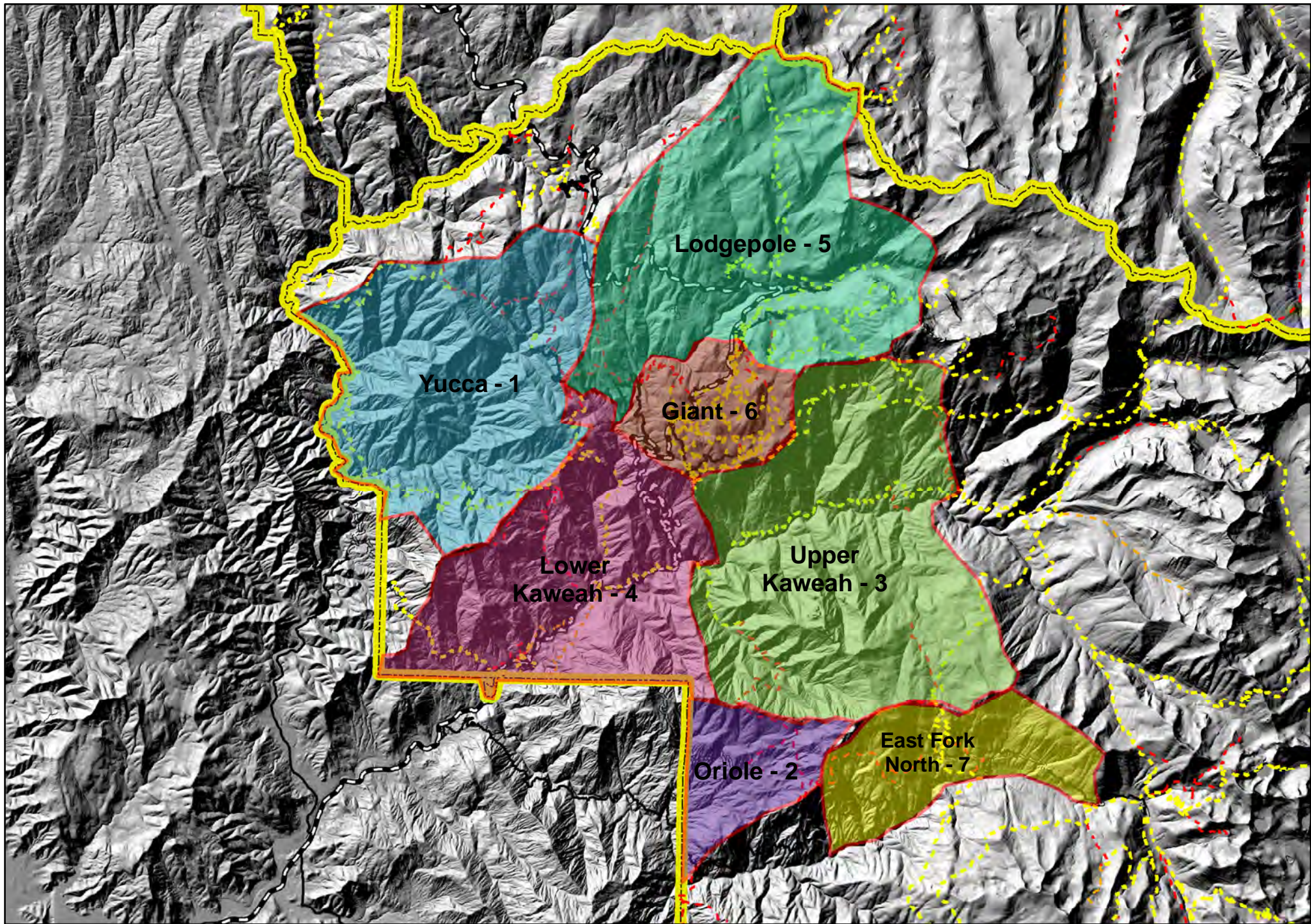


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Colony/Paradise READ Sensitive Resources Map Zones



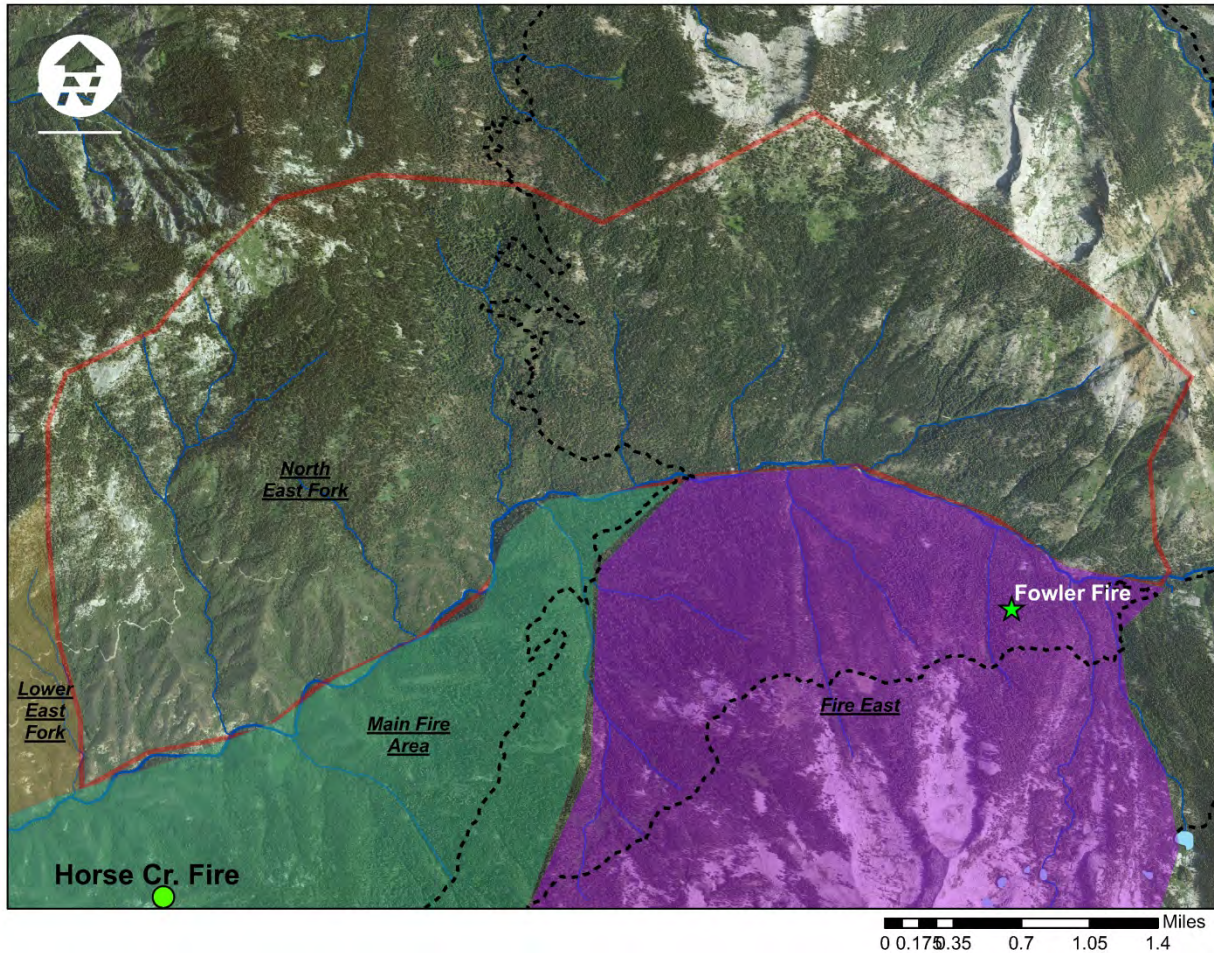


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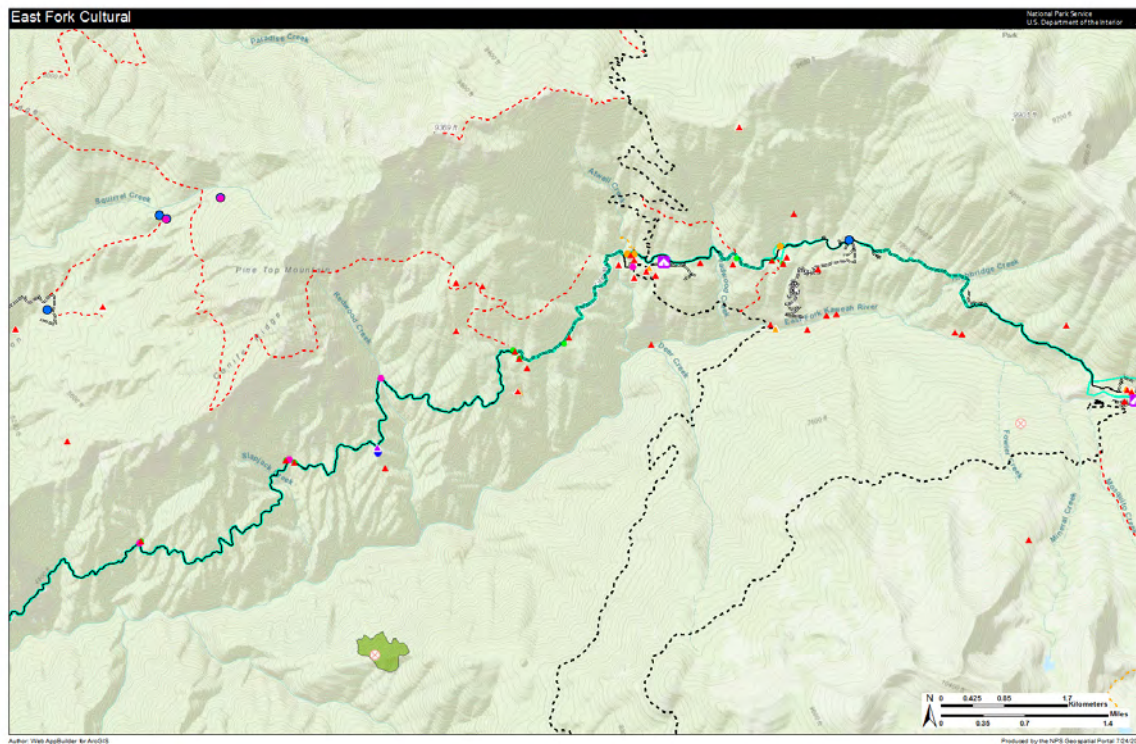


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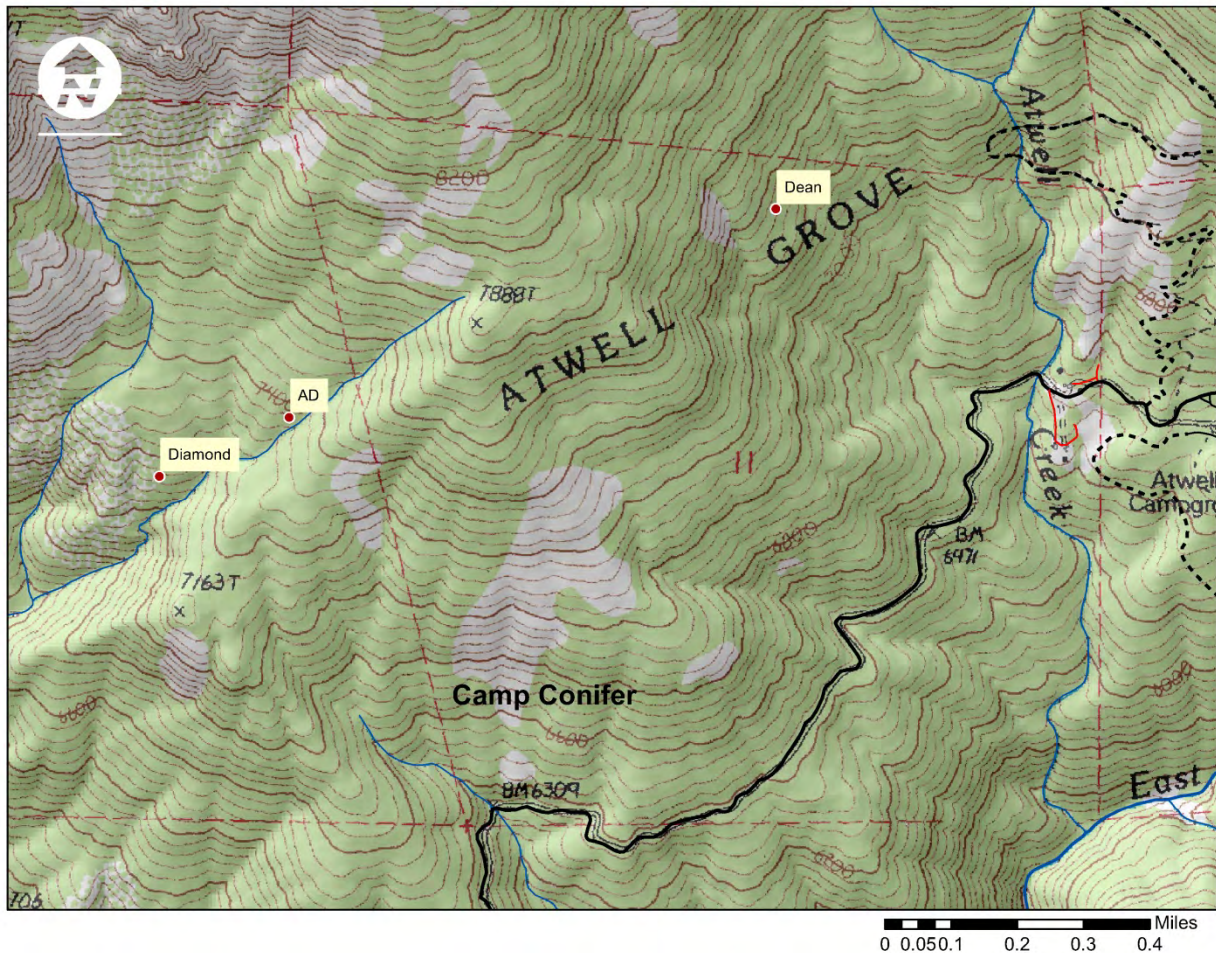


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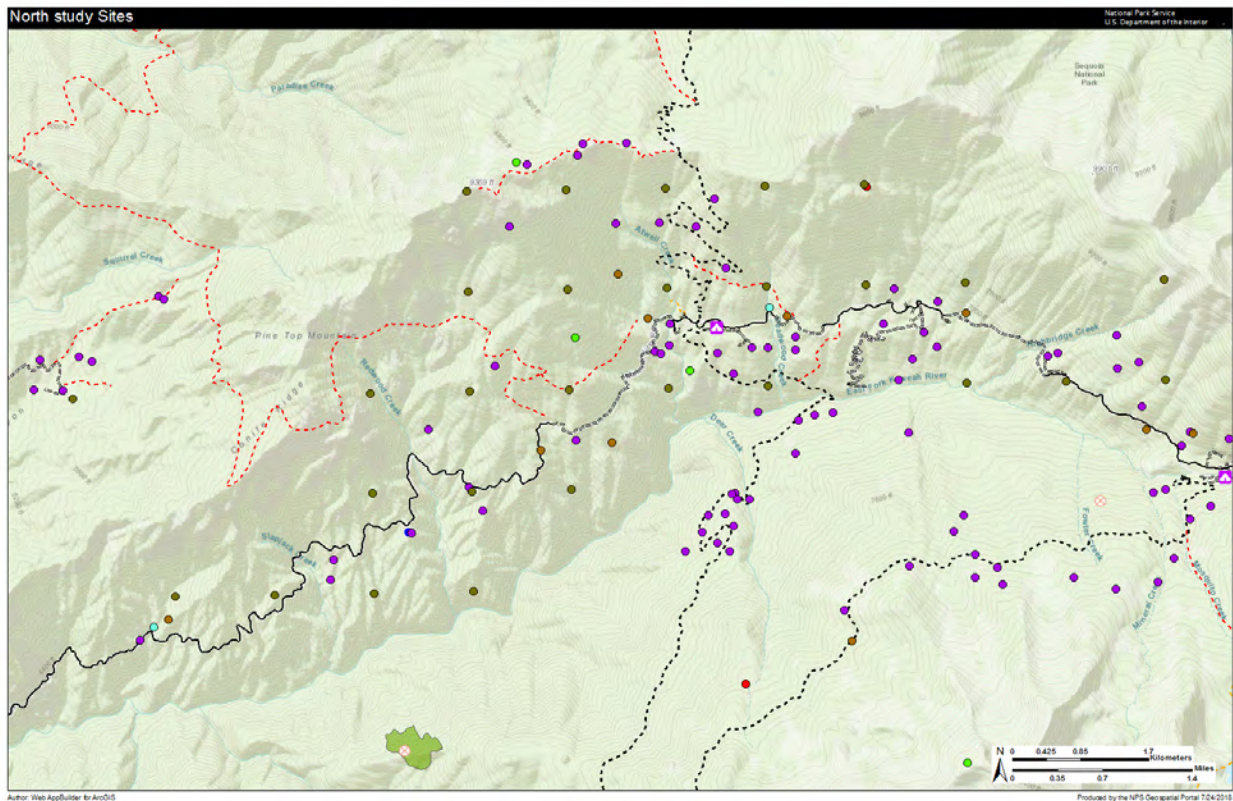


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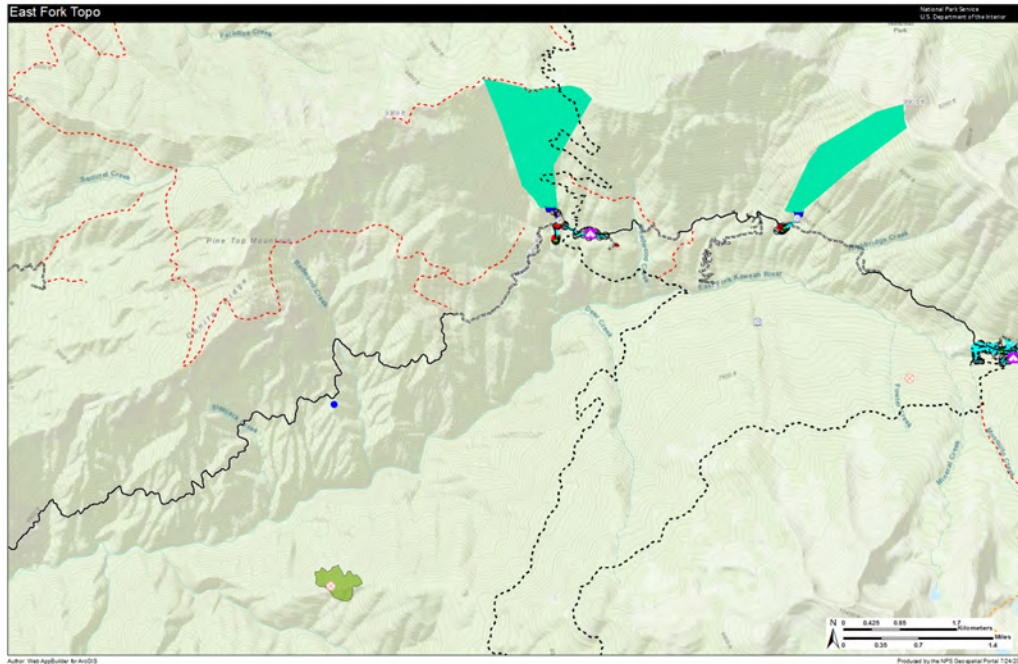


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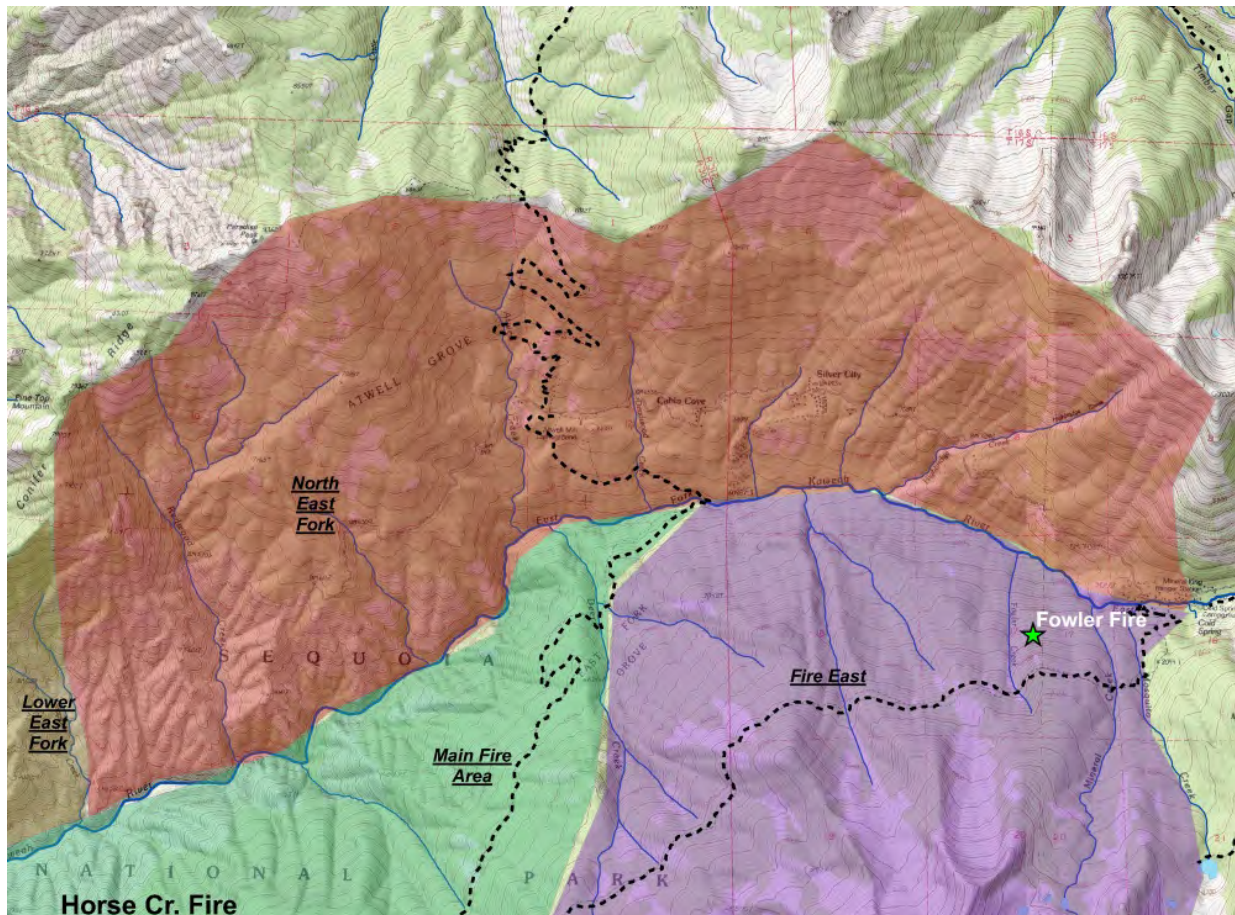
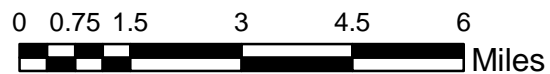
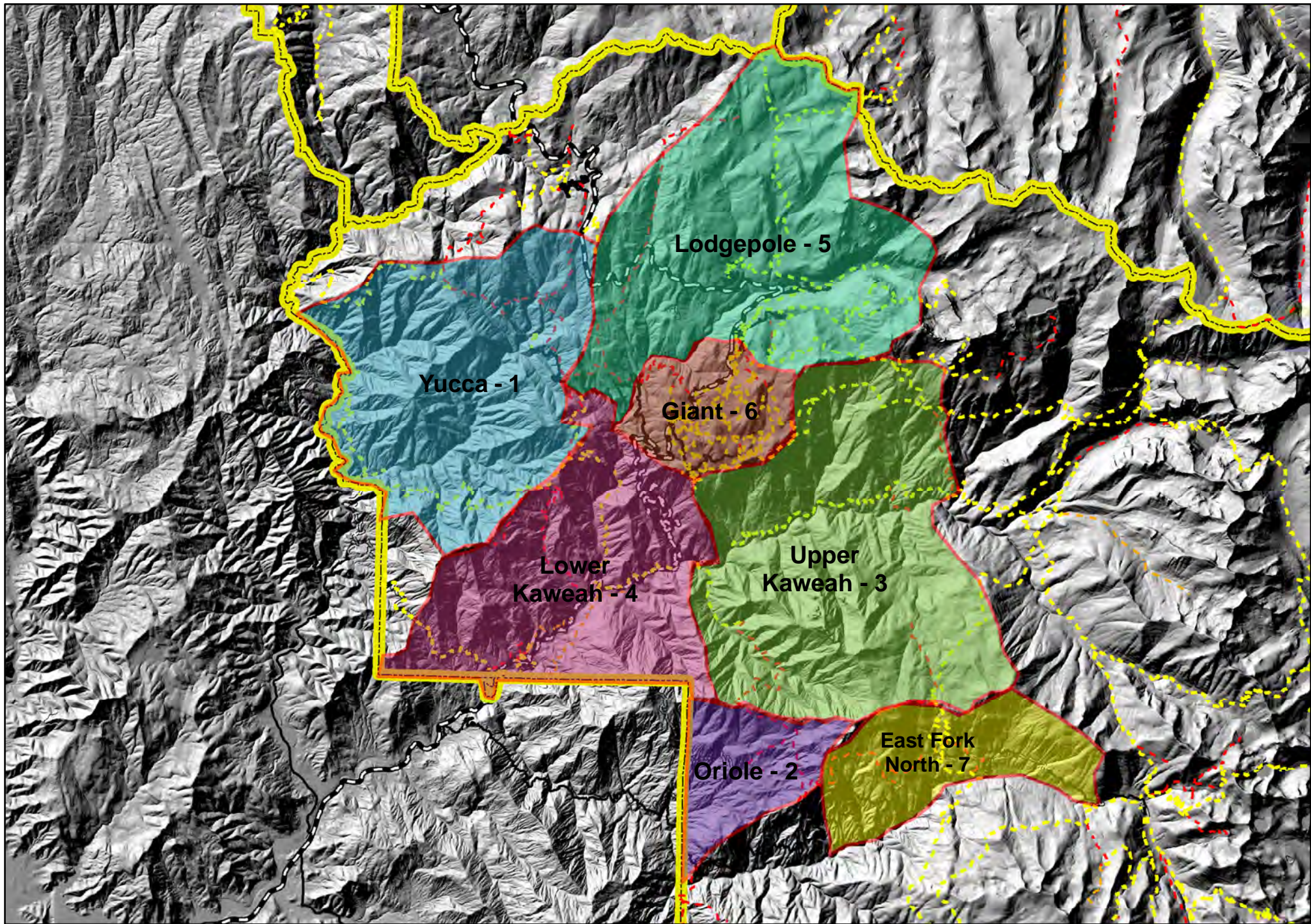


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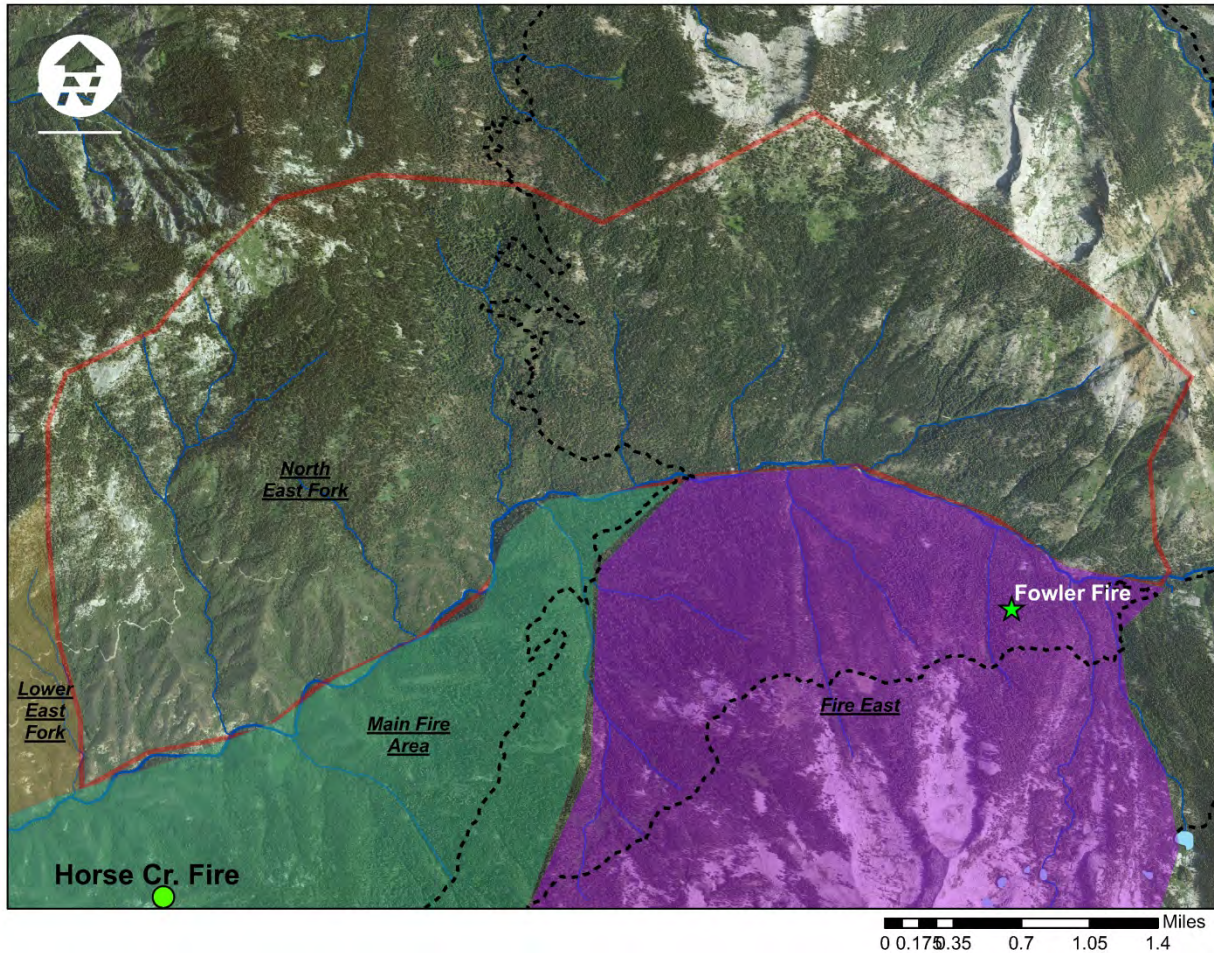


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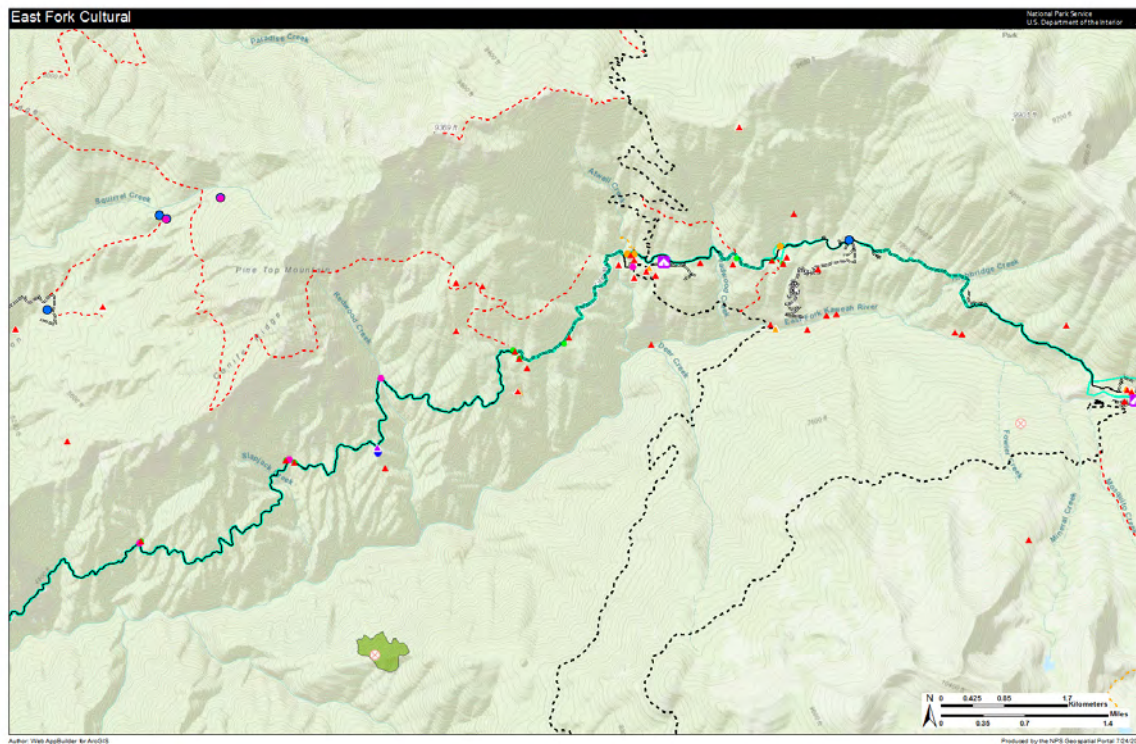


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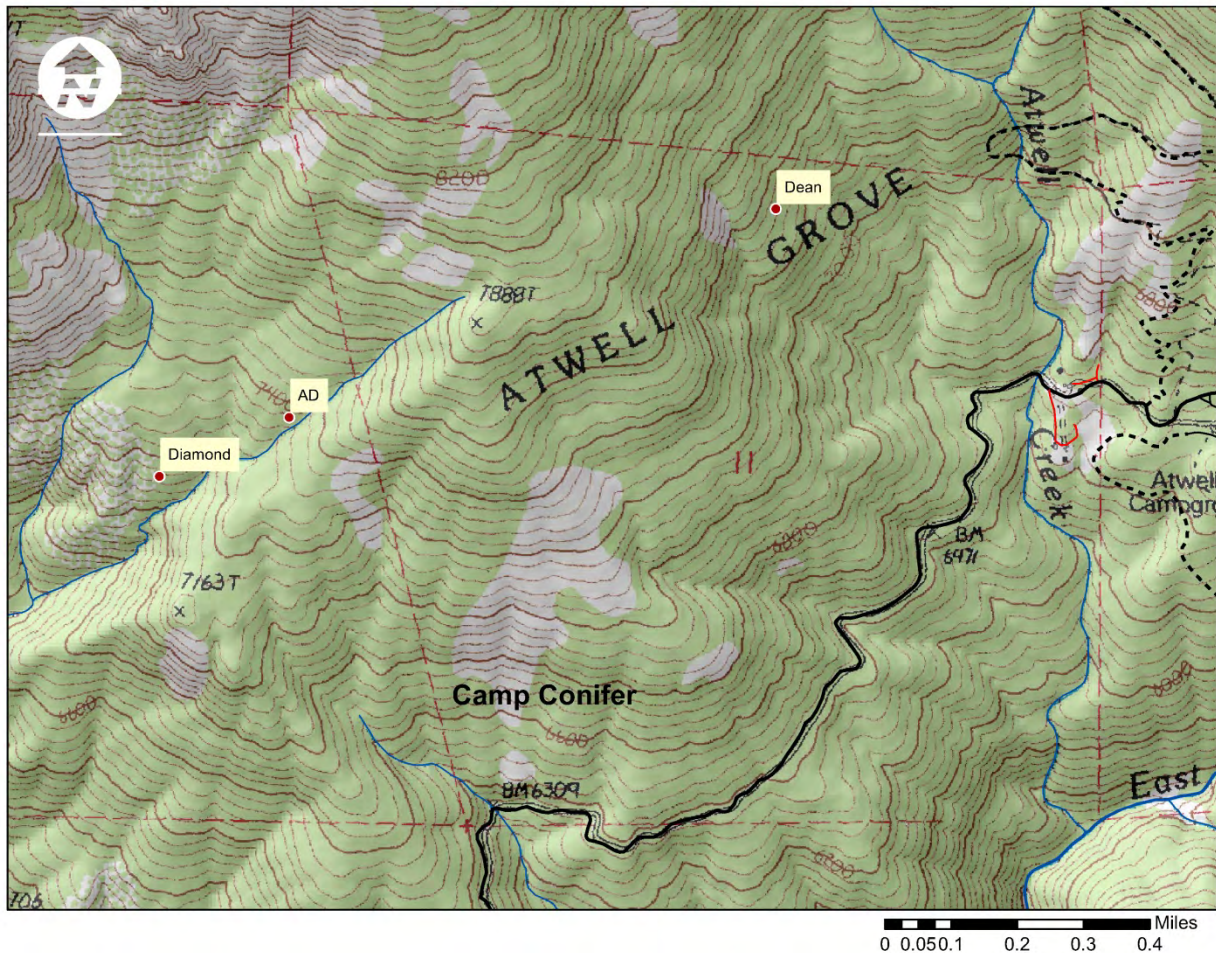


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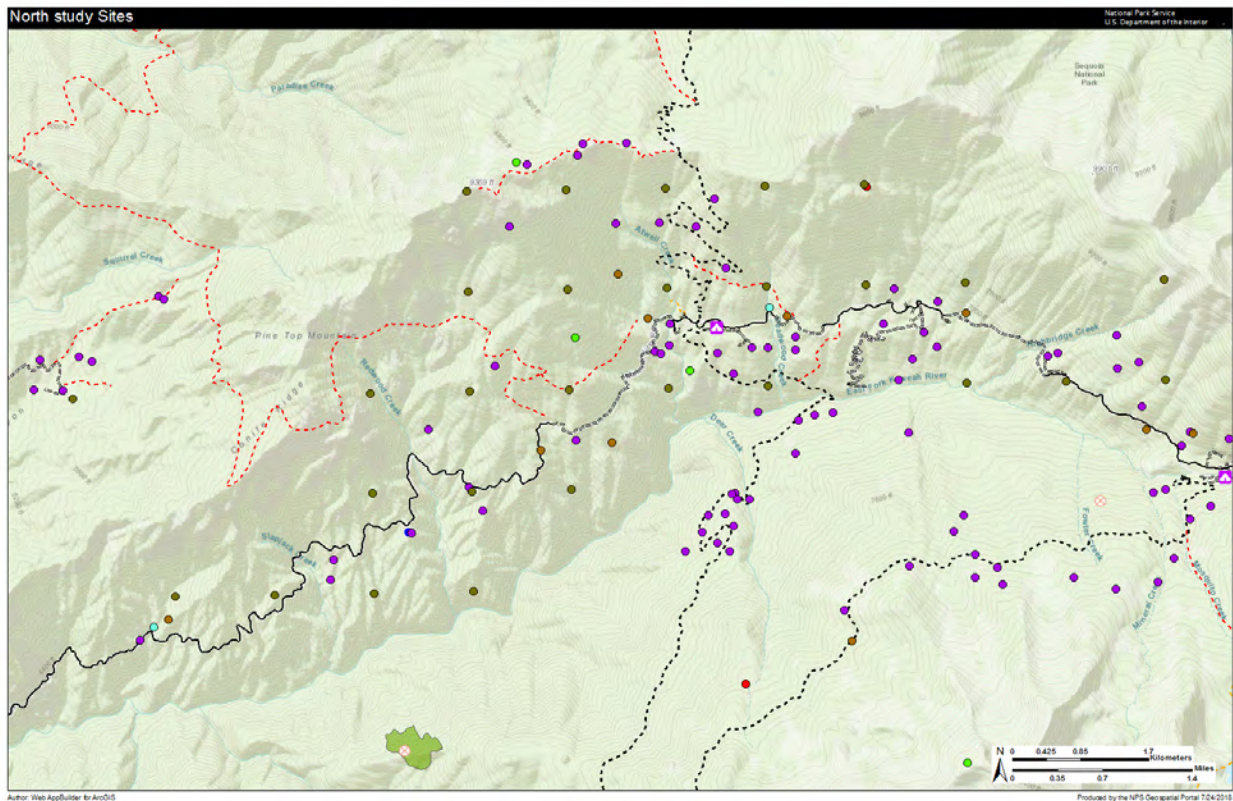


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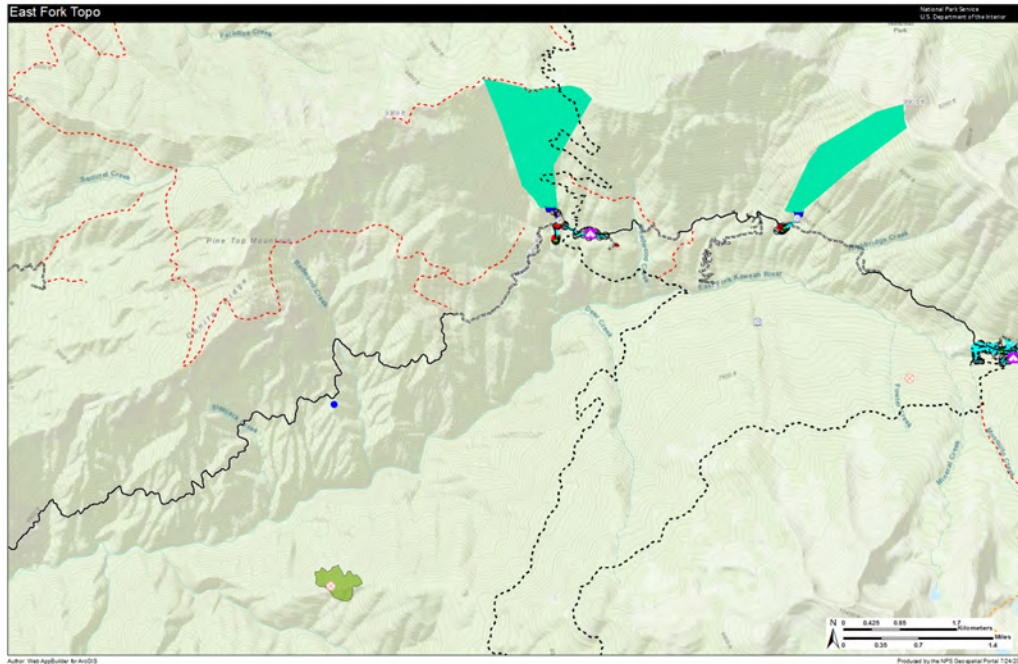


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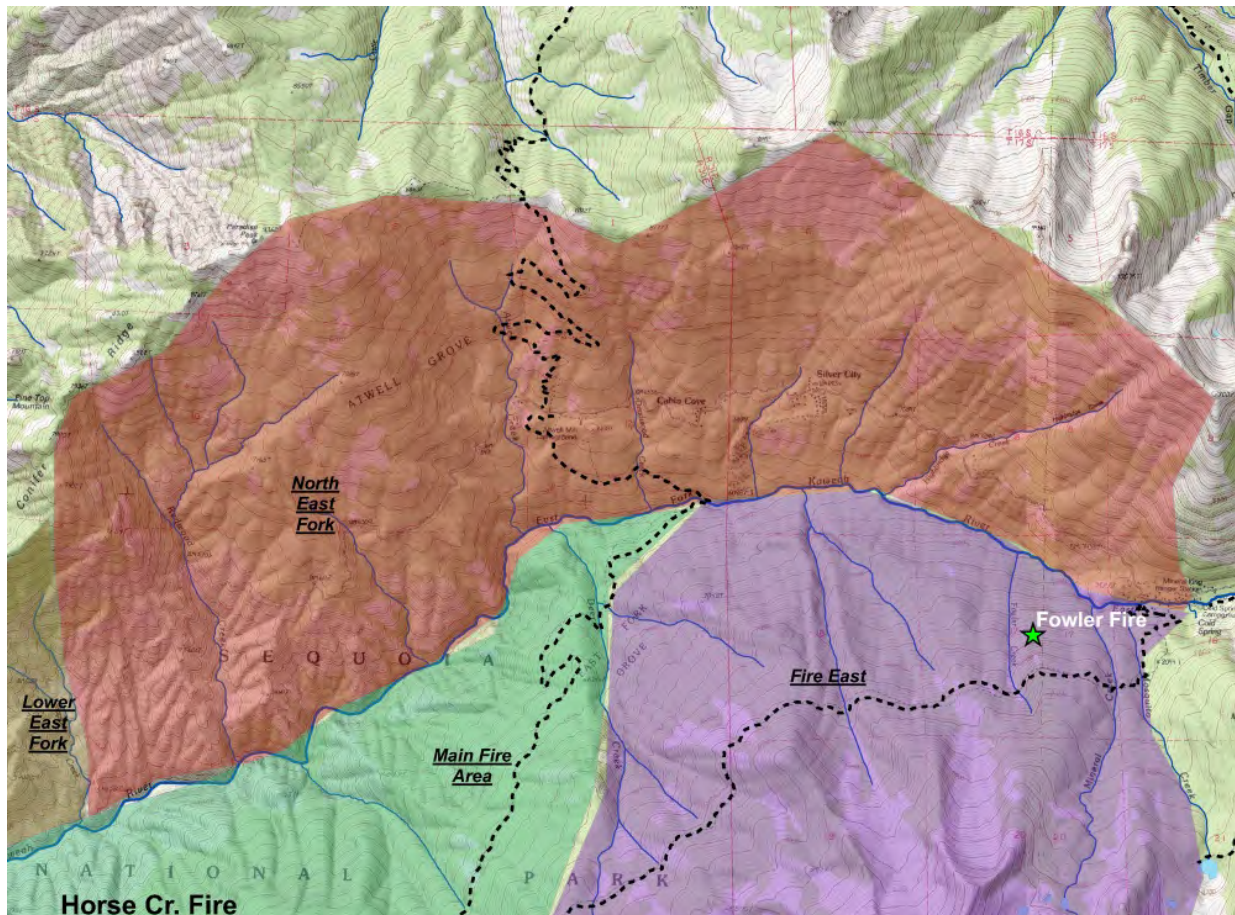
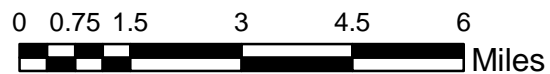
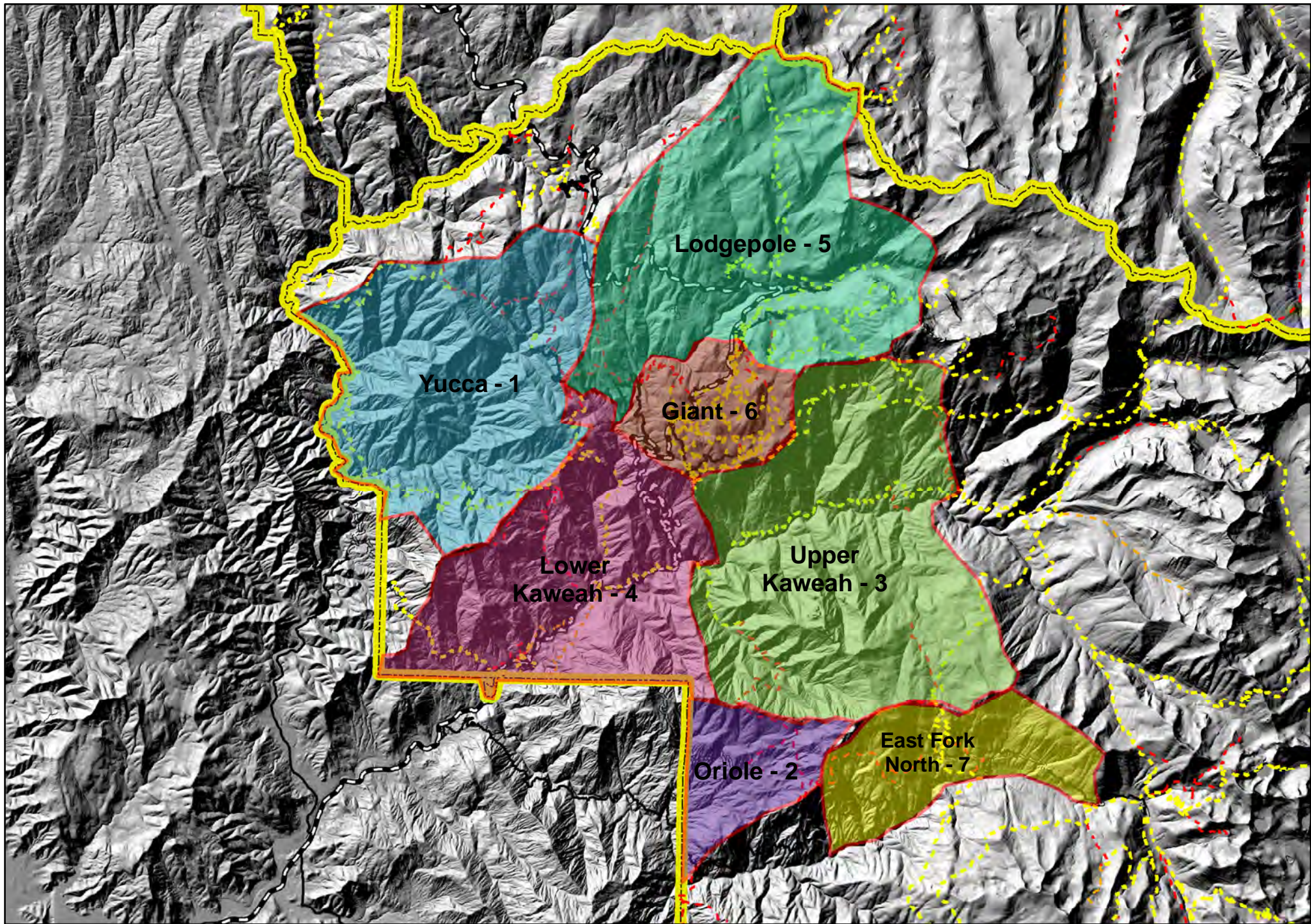


Figure 1 East Fork North zone.



Colony/Paradise READ Sensitive Resources Map Zones



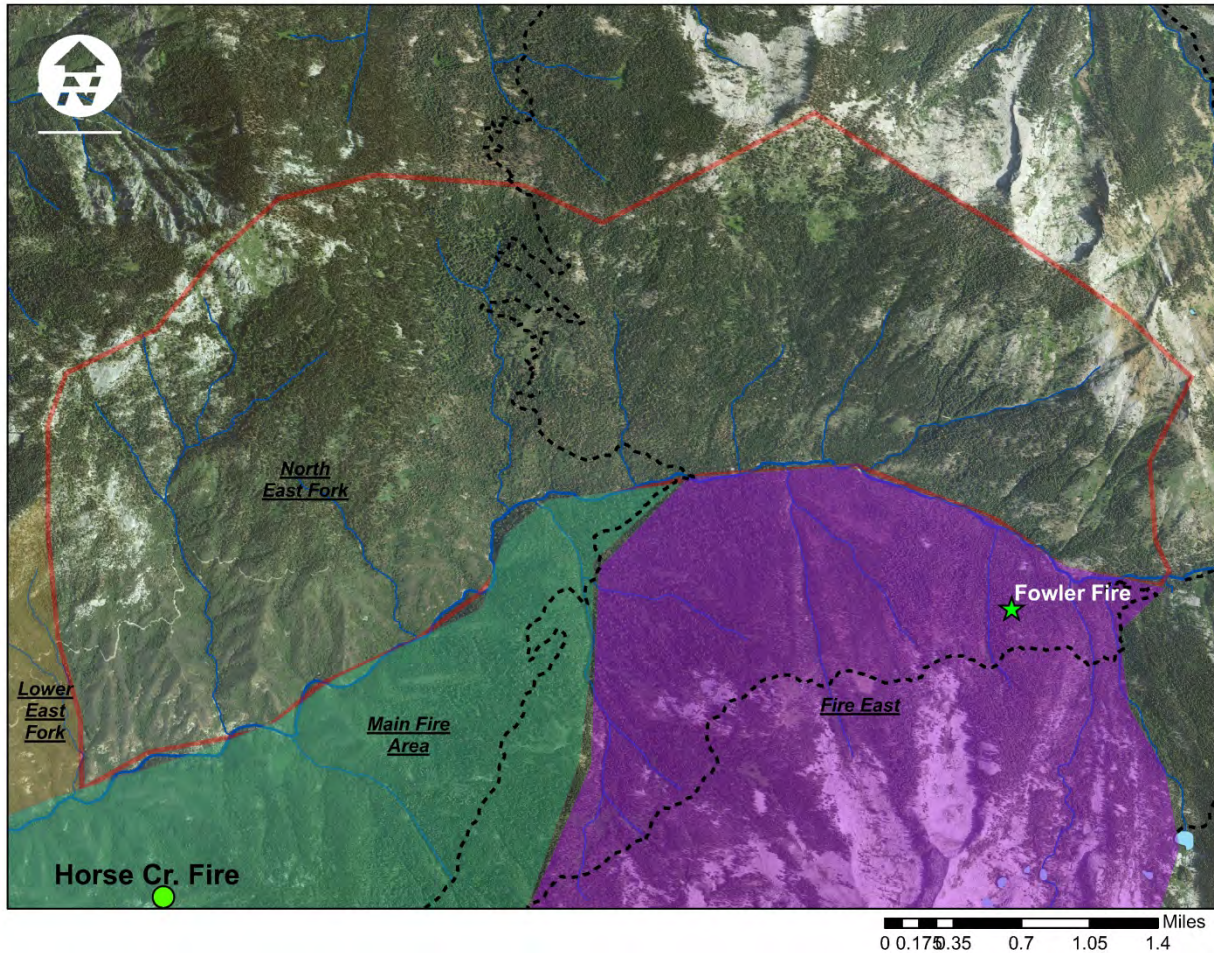


Figure 2 NAIP imagery of zone.

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There are a considerable number and types of cultural resources within this zone, both historical and prehistoric. However, the current fire location does not pose an immediate threat to any of the known sites within this area (zone 7). The zone also contains portions of the Mineral King Road Cultural Landscape District. Other areas of historical importance include the Atwell Mill Site and area (Alice, ranger Cabin, Atwell Mill Steam Engine, and 9 site records) and Atwell Mill CCC camp. Other recorded sites include Davenport homestead structural pad, old Silver City Dump,, Camp Conifer Recreation and logging site, sites in Redwood Creek (milling basin and quartz crystal),two sites below Silver City on the East Fork, and Cabin Cove Cabin #2.

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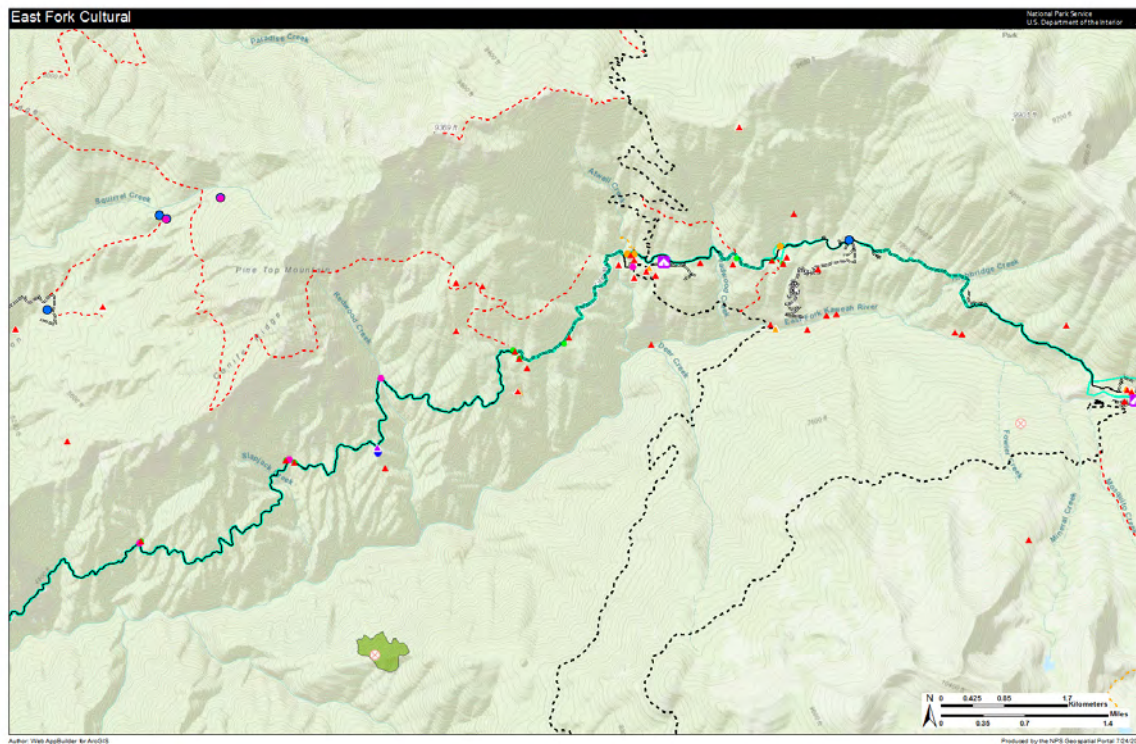


Figure 3 Overview of cultural resource site locations and extent of historical district.

Natural Resources

Natural resources of concern in the area include the large Atwell sequoia Grove and the smaller Redwood Creek west of the large grove. Portions of the Atwell grove were logged 100+ years ago with many large stumps still in existence and moderate sized post logging reproduction in most of these areas. Most of the Atwell Grove has had fire restored to some extent in the last 30 years during different prescribed fires with much of the grove having had a second entry burn. Giant sequoias are very tolerant of fire and fire is important factor for its regeneration. In contrast at higher elevations (>~9,600 ft) foxtail pine stands occur. Unlike giant sequoias this species is intolerant of fire and occurs in areas where fire occurs infrequently. Mechanical treatment have been implemented around Atwell (2011) and Silver City (2003 to 2006). There is an area below Silver City and burned in 1926 that does have a dense stand of tree reproduction.

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There are three trees of special interest within Atwell Grove. These named trees are the Dean Tree (STI ID = NE111730-A19 at UTM coordinates 349,309mE, 4,037,319mN), the AD Tree (STI ID = NE101730-N93[?] at UTM coordinates 348,127mE, 4,036,813mN), and the Diamond Tree (STI ID = NE101730-O122 at UTM coordinates 347,811mE, 4,036,670mN). The latter two are located above the Camp Conifer area and the former in the main portion of the grove northwest of Atwell.

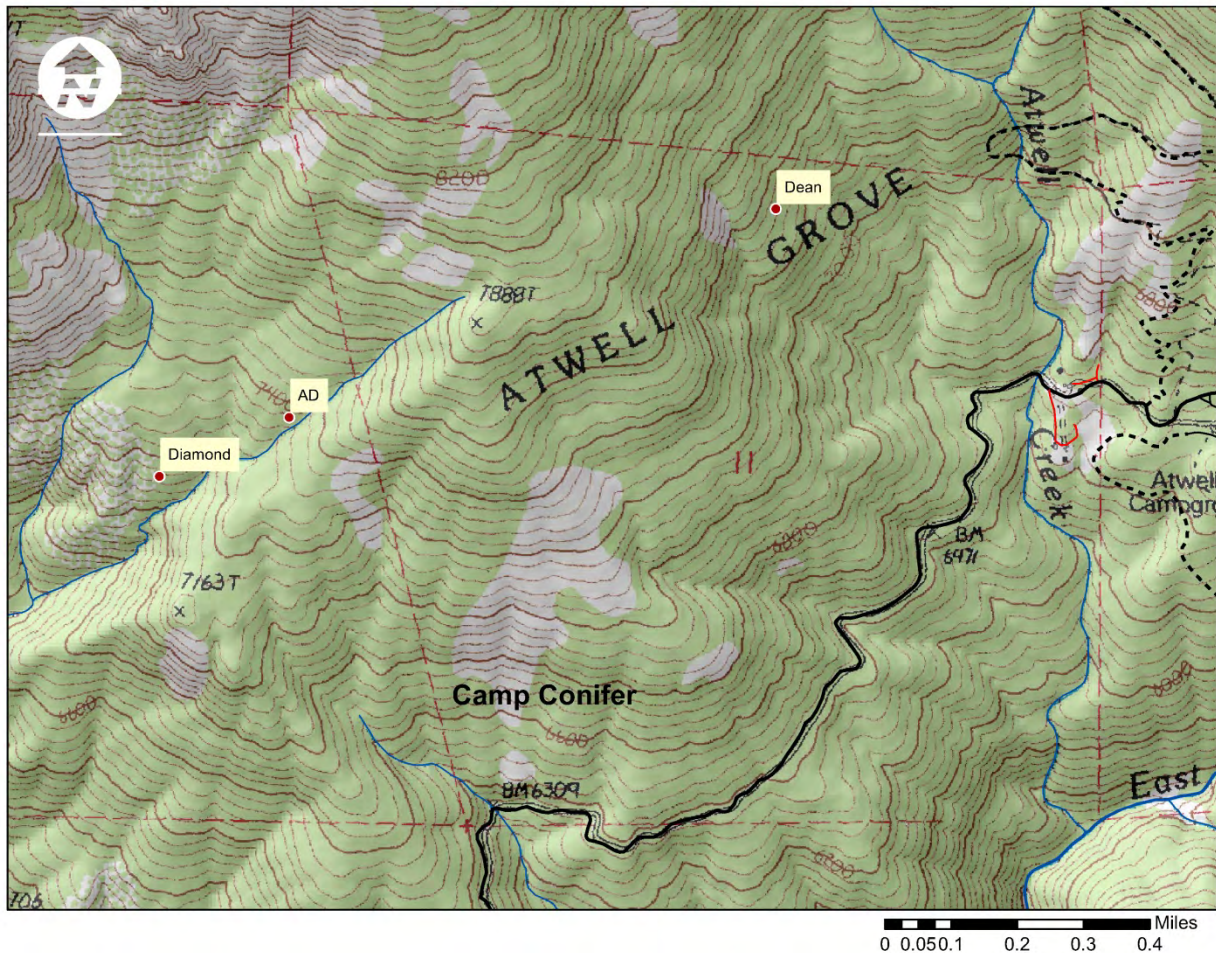


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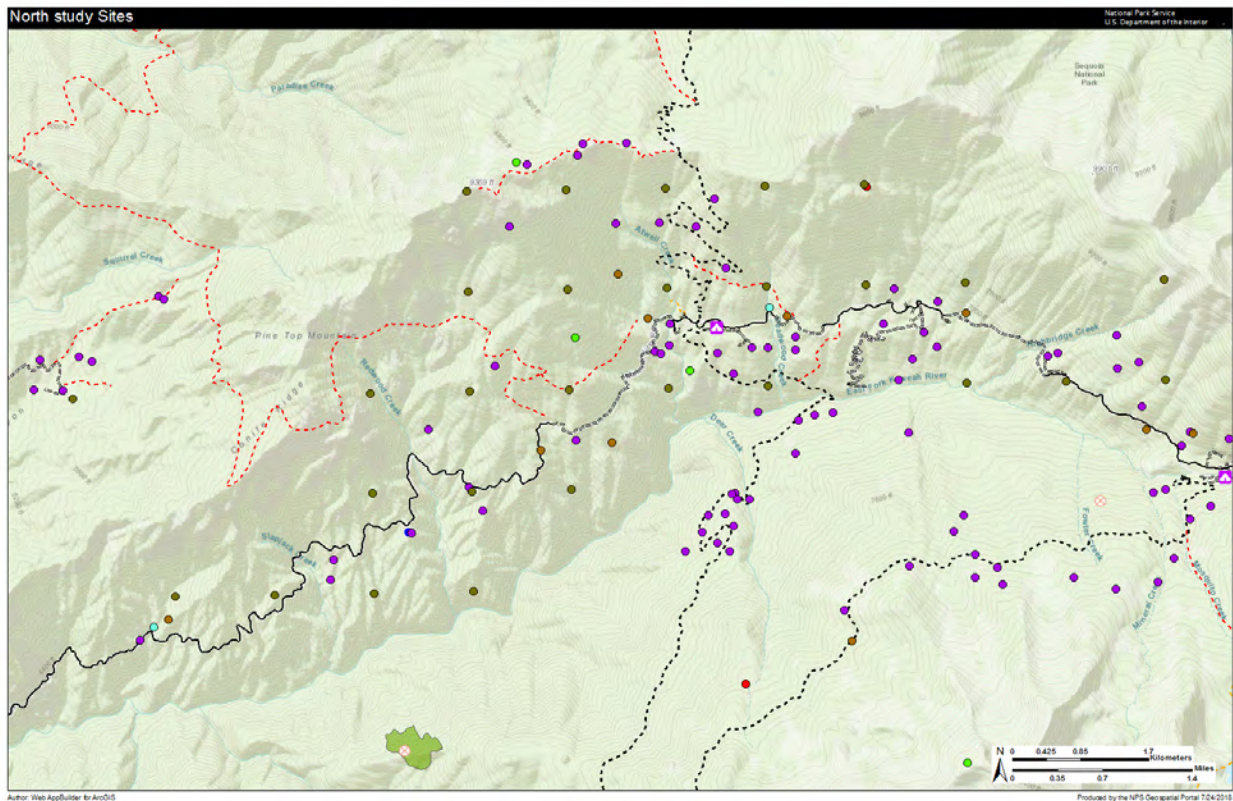


Figure 5 General locations of study sites in zone 4.

Physical Resources

No physical resources have been identified within this zone as being of concern. However, there are two subwatersheds that are sources of water for Atwell and Silver City identified. Additionally, while not within the East Fork Drainage, immediately to the northeast of the zone, on the north aspect of the Paradise Ridge, karst geology exists with identified cave locations.

There are two weather stations within the zone, the RAWS at Wolverton (adjacent to the helispot) and a USACE operated station at Atwell.

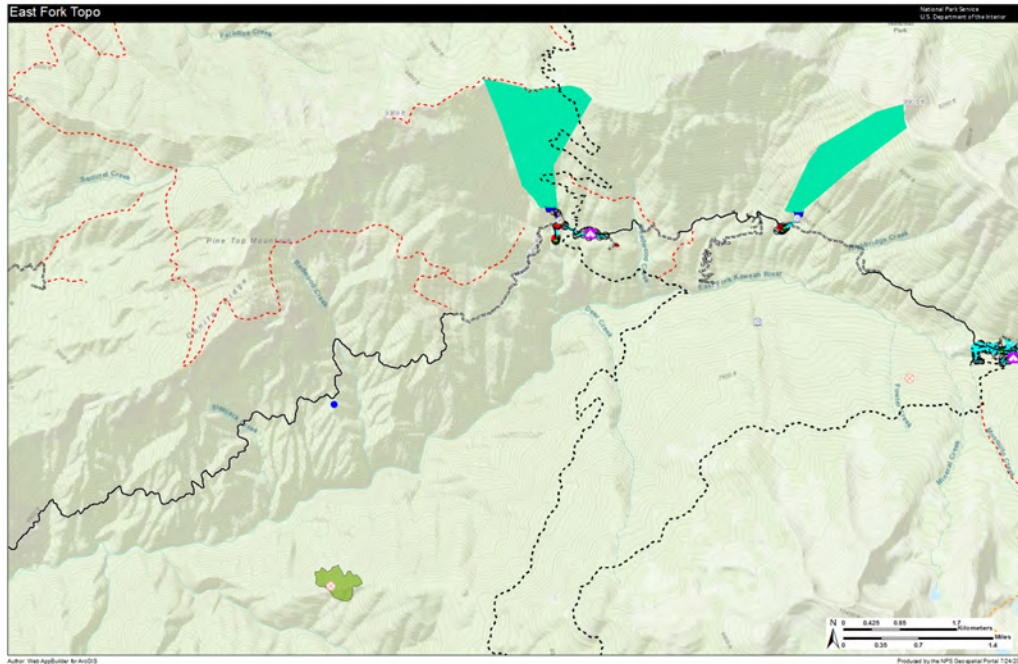


Figure 6 Water source subwatersheds (green).

Wolverton Station Information

Location Wolverton California
Latitude 36° 26' 42" NESS ID FA60B3B8
Longitude 118° 42' 12" NWS ID 044732
Elevation 5240 ft. Agency NPS

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Location Atwell Camp (near maintenance barn)
Station ID ATW Elevation 6400.0 ft
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Operator US Army Corps of Engineers

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- Follow Minimal Impact Suppression Tactics (MIST), particularly in establishing and setting up camp and helispot construction. Pay particular attention to weed/invasive plant introduction – brush out packs, gear, shoes and vehicles, and dispose of seeds into trash receptacle before and after incident. Allow enough time to thoroughly check through all tools, supplies and belongings for unwanted seed.
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Prepared on 9/12/2021 by T. Caprio

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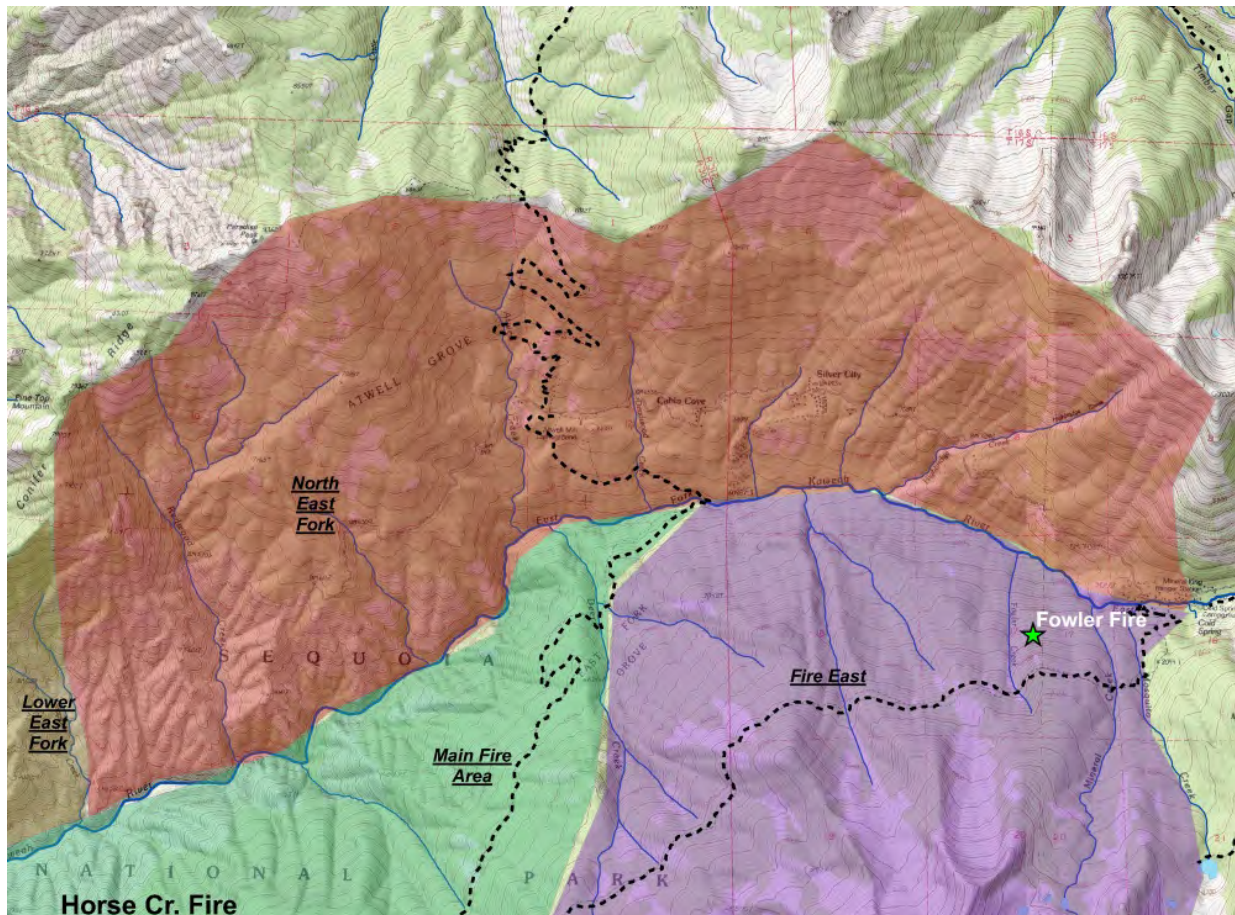
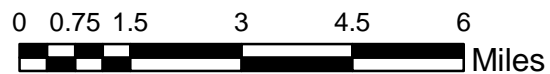
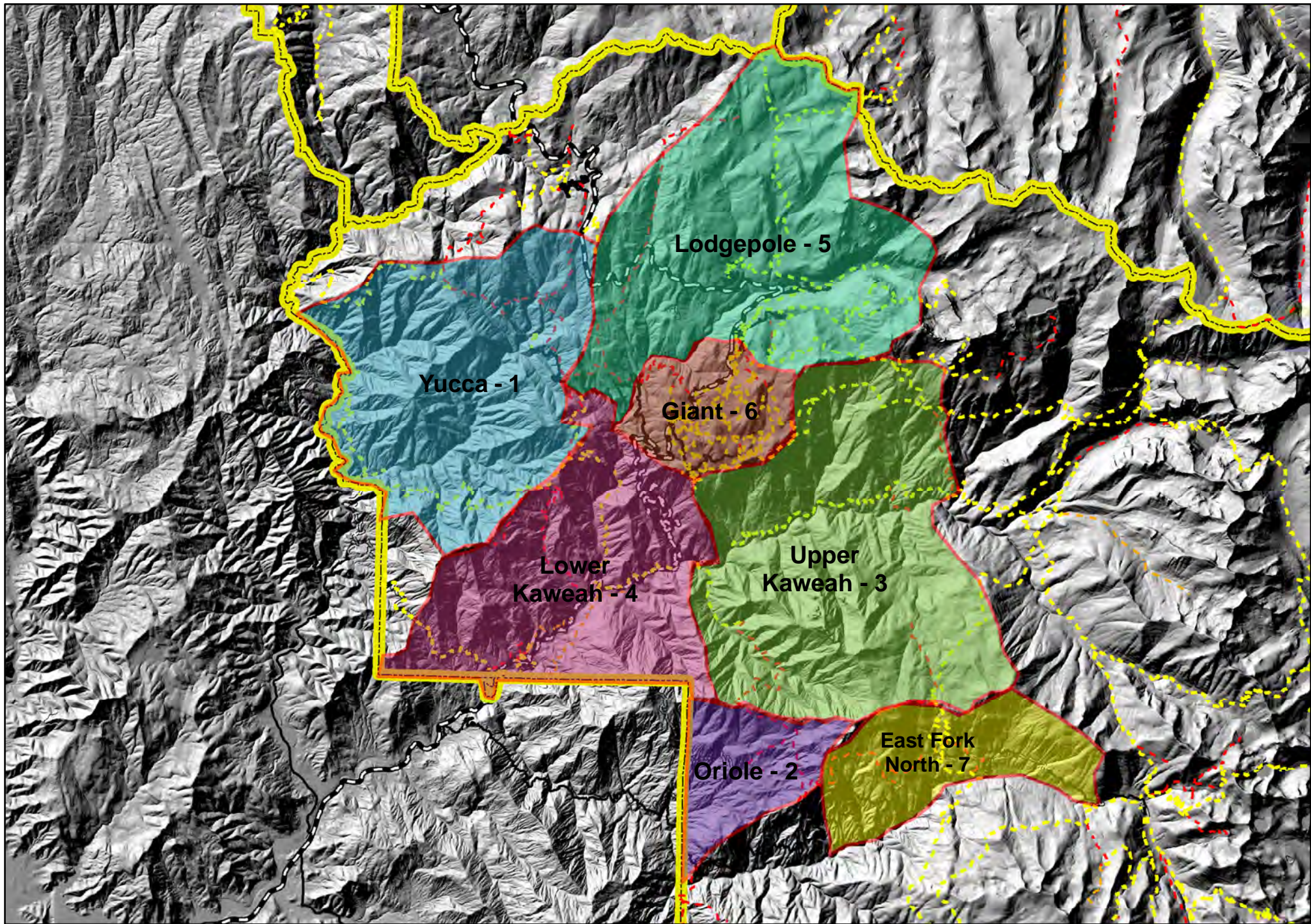


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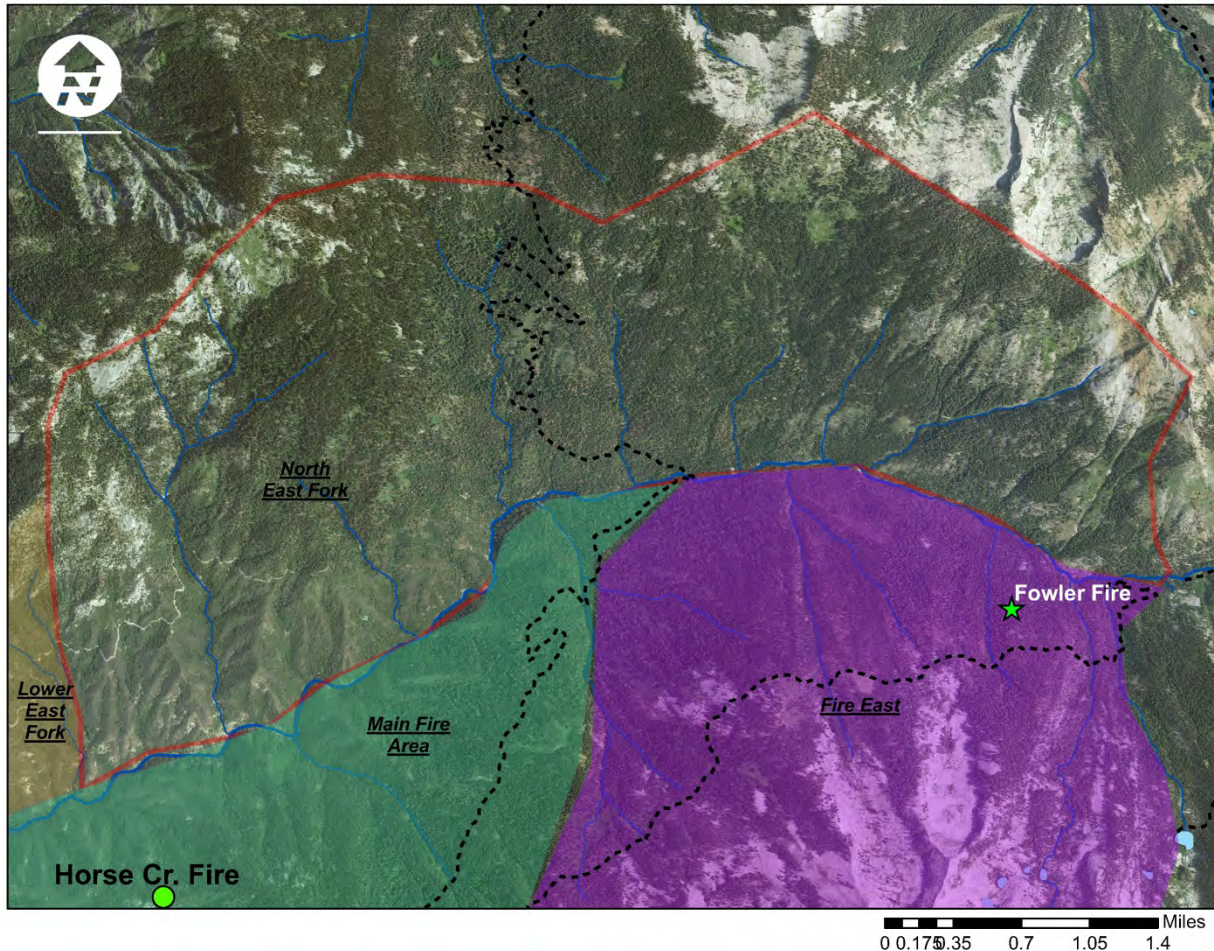


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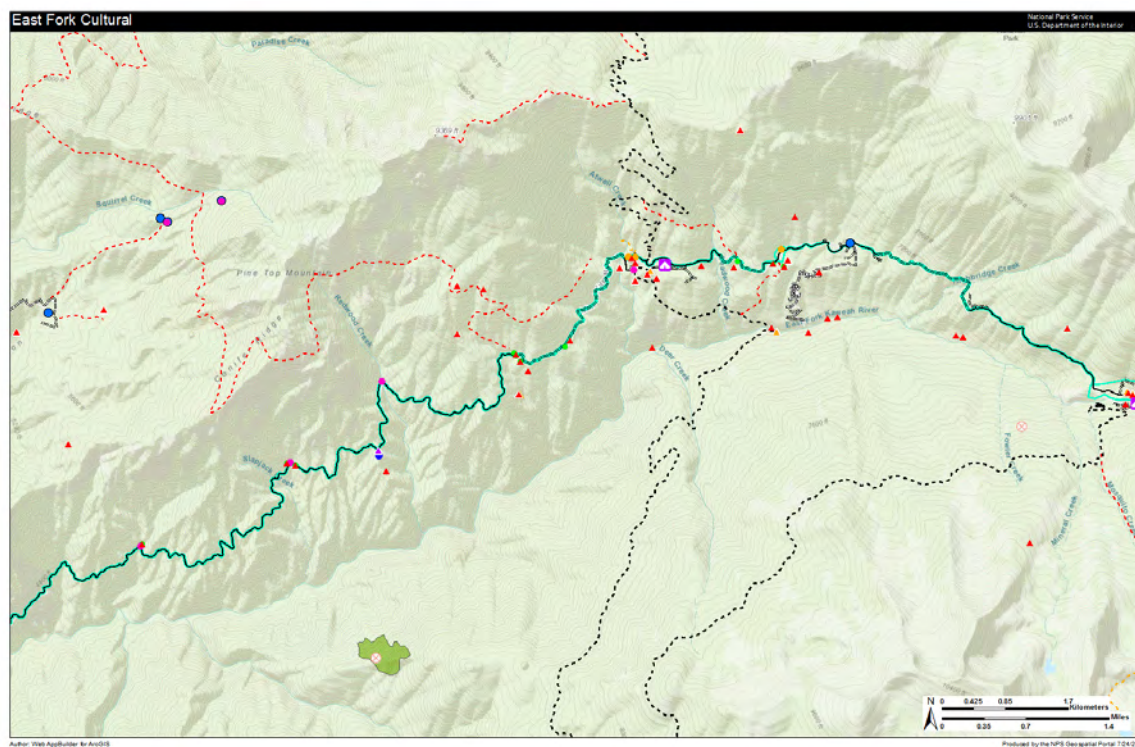


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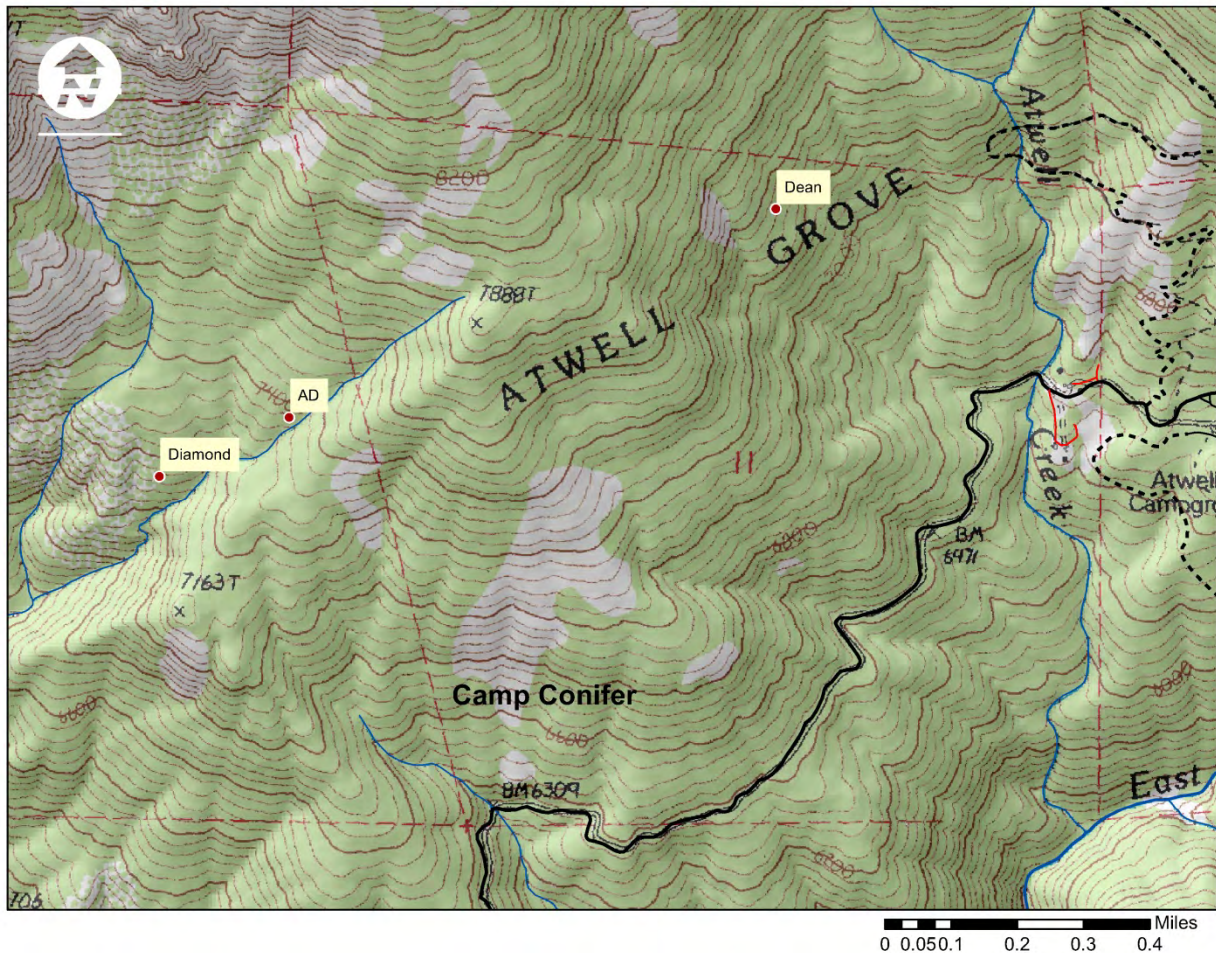


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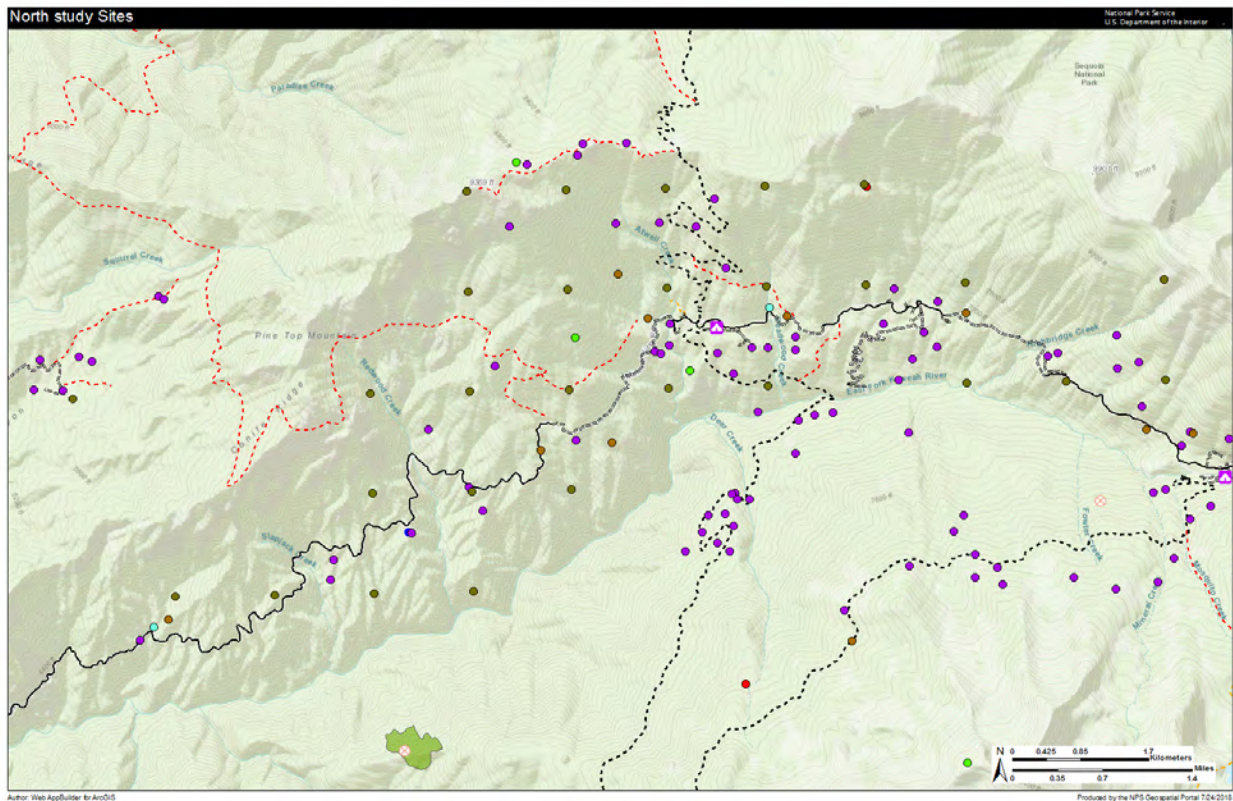


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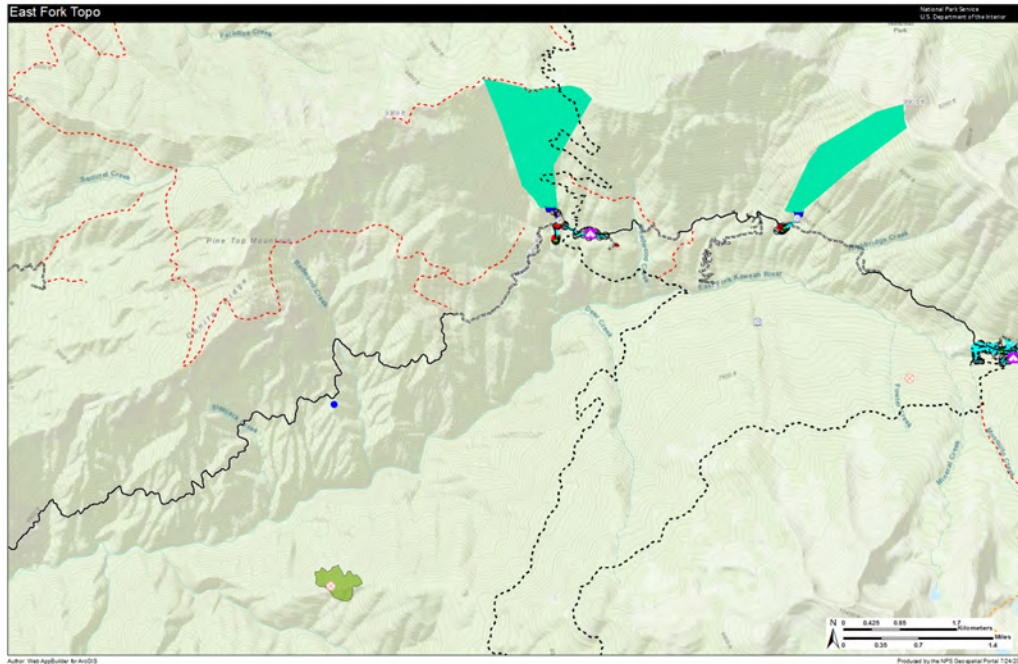


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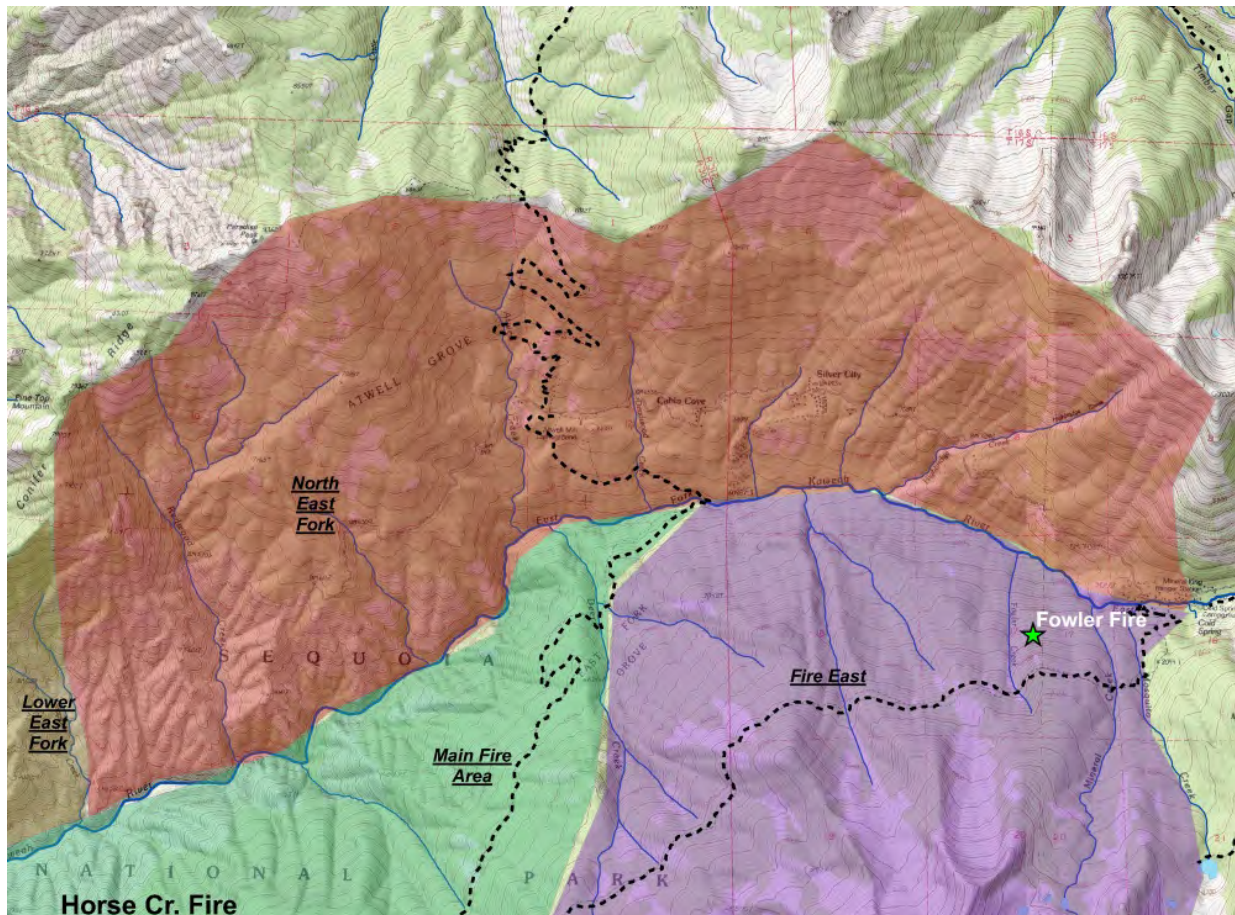
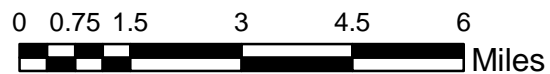
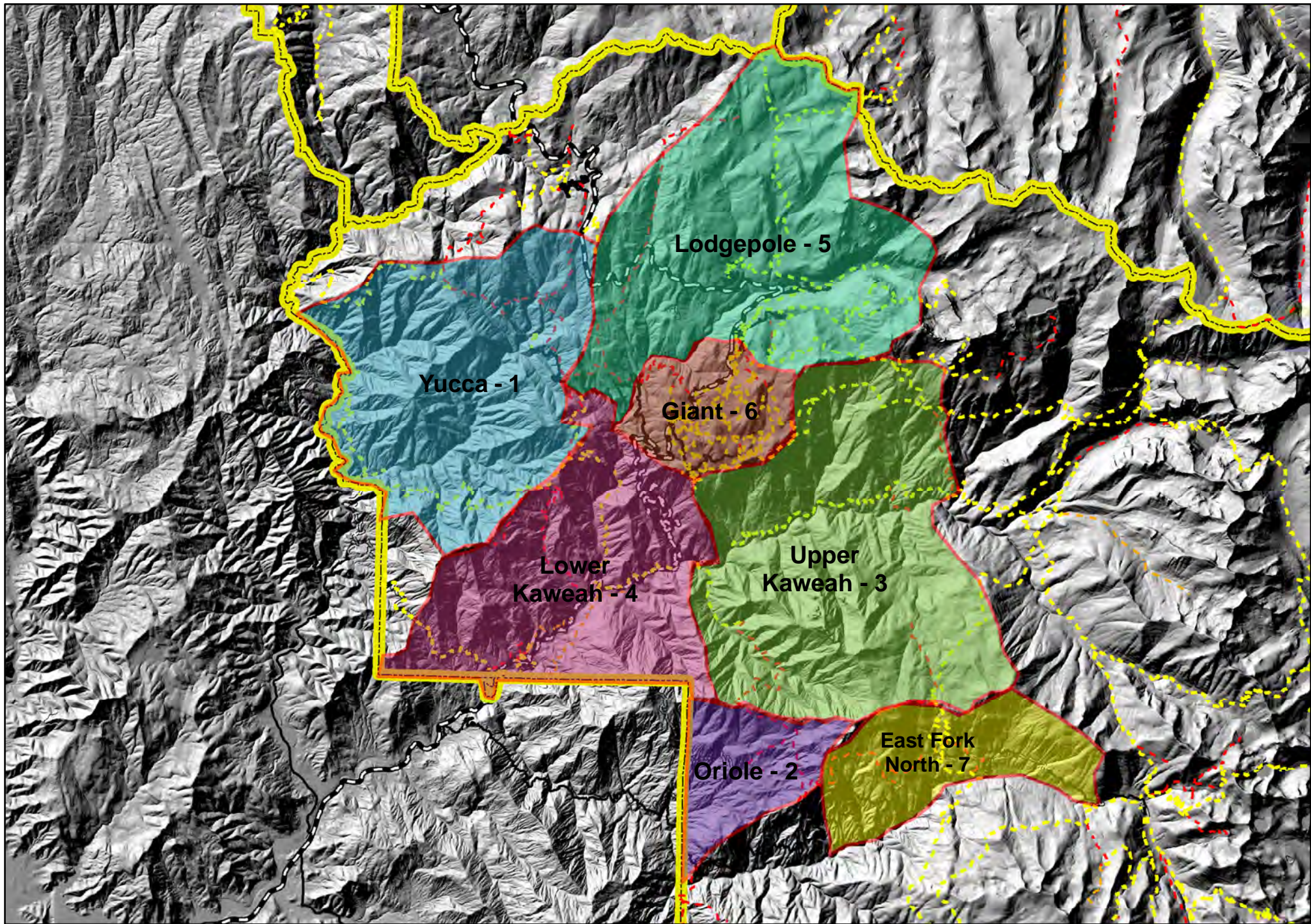


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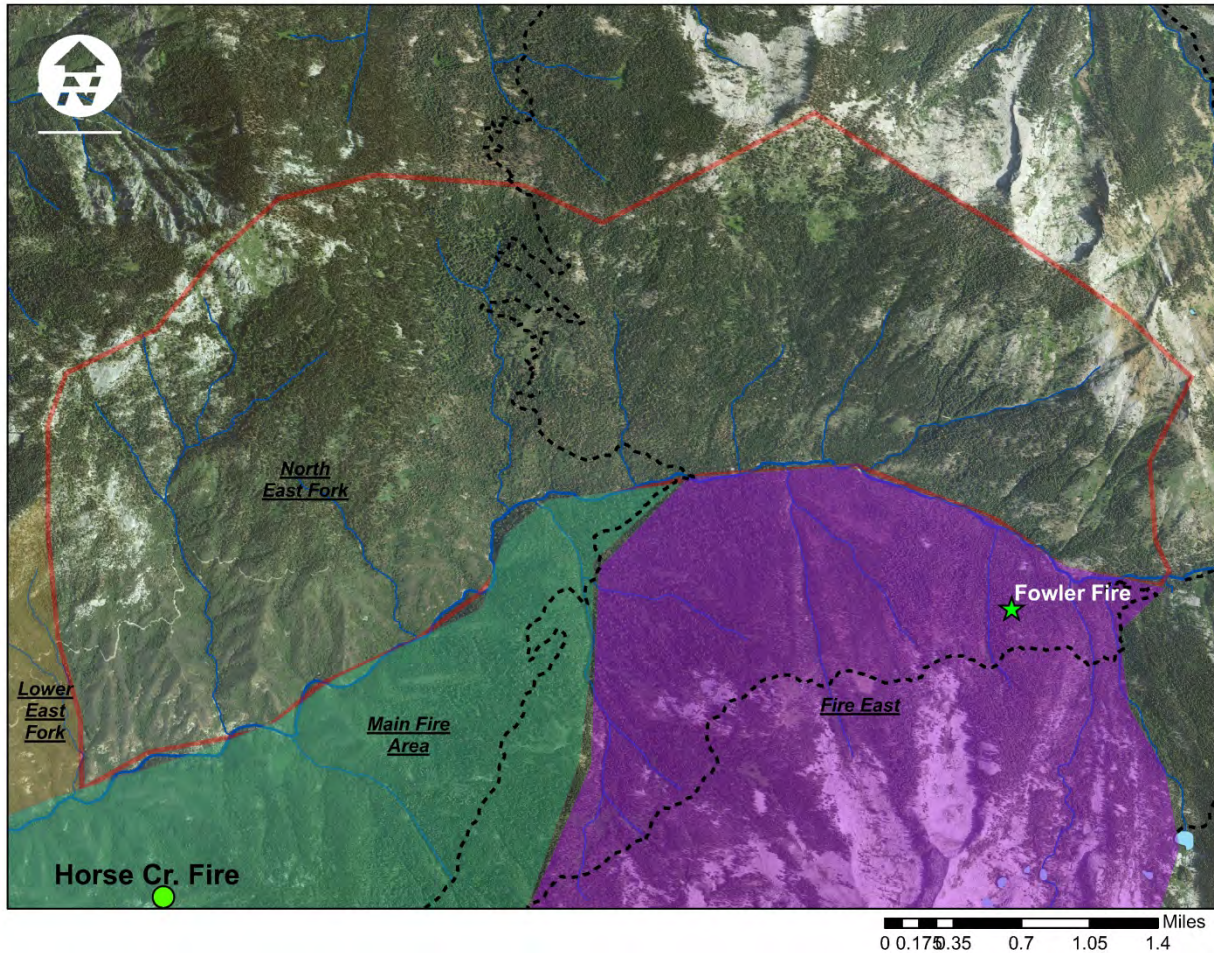


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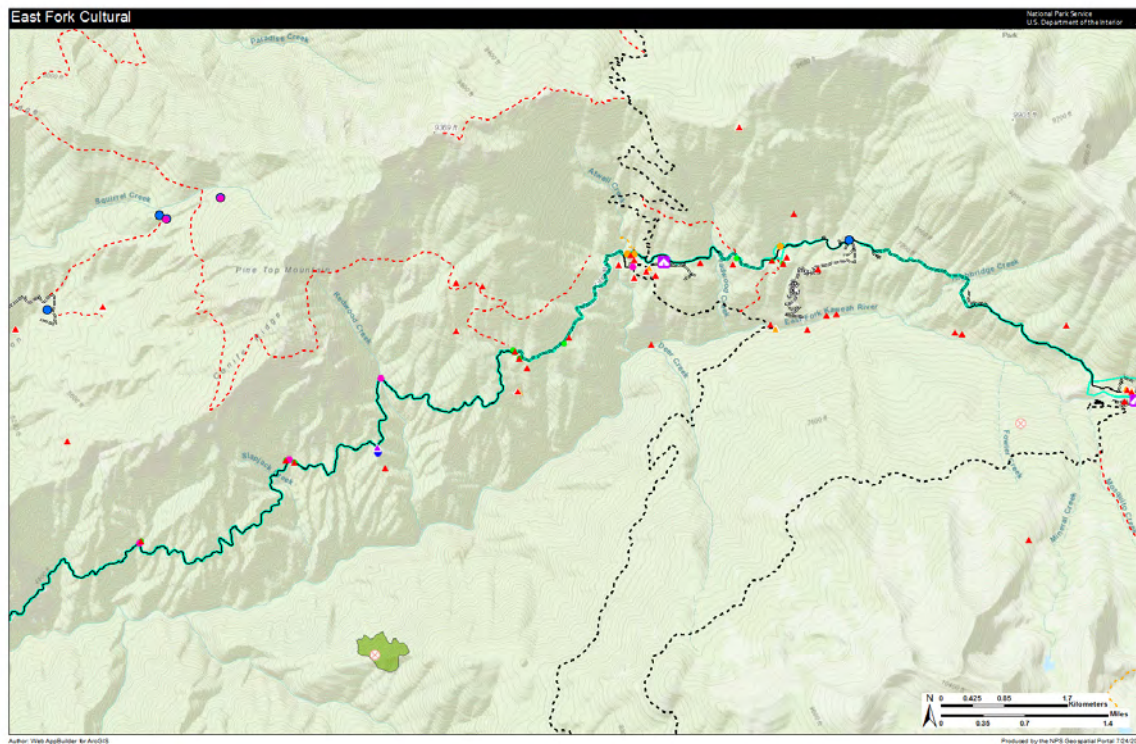


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Rx 1997, Davenport Rx 2008, Deadwood Rx 1999, 2000 and 2016, Highbridge Rx 2005, Highbridge East Rx 2005, Silver Rx 2006, Lookout Rx 1999 (east end) or one of several prescribed fire 2002 to 2014.

There are no lakes within this zone and generally minor waterways.

There are three trees of special interest within Atwell Grove. These named trees are the Dean Tree (STI ID = NE111730-A19 at UTM coordinates 349,309mE, 4,037,319mN), the AD Tree (STI ID = NE101730-N93[?] at UTM coordinates 348,127mE, 4,036,813mN), and the Diamond Tree (STI ID = NE101730-O122 at UTM coordinates 347,811mE, 4,036,670mN). The latter two are located above the Camp Conifer area and the former in the main portion of the grove northwest of Atwell.

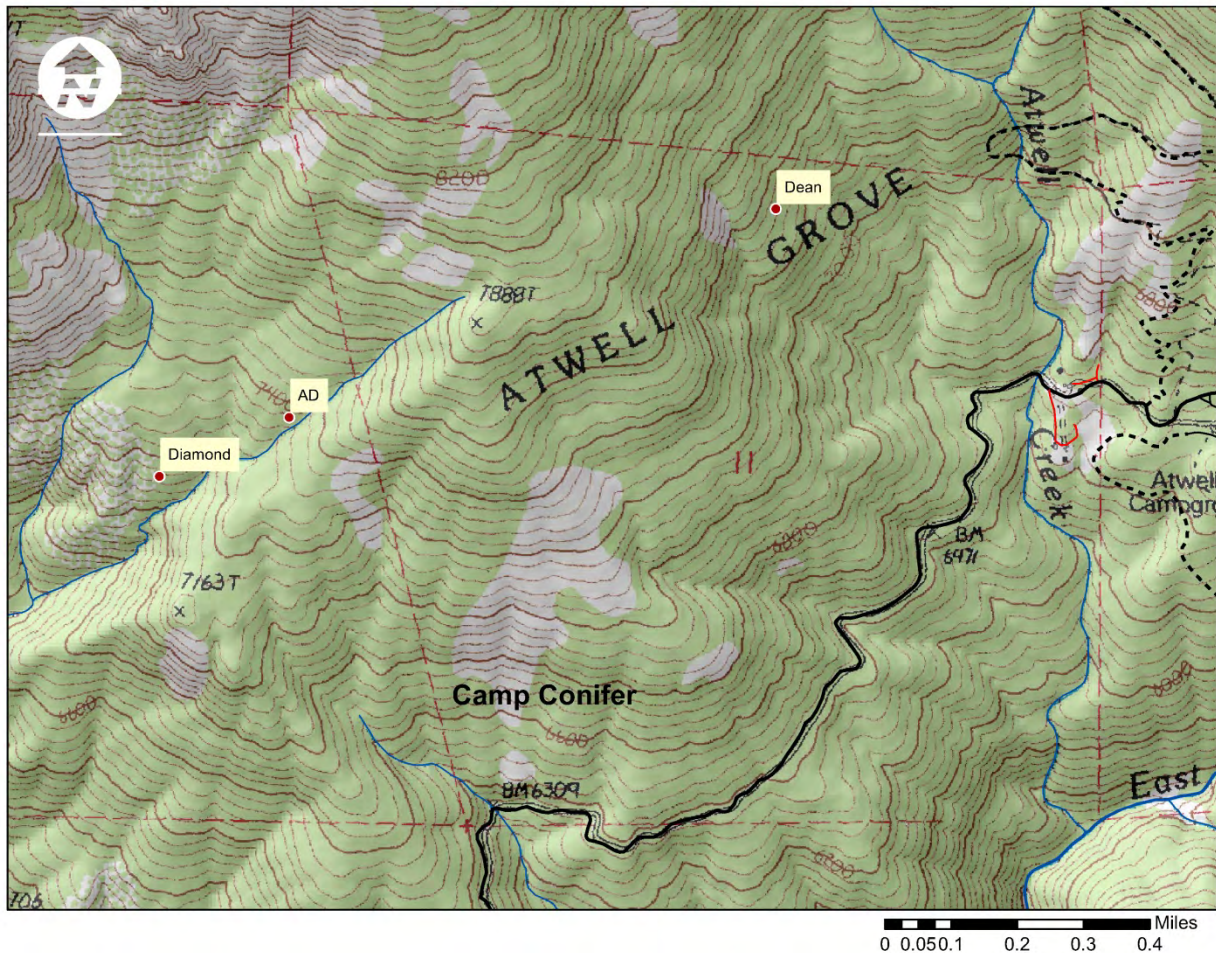


Figure 4 Location of named three named sequoias in Atwell Grove.

Plants of conservation concern - Species of concern that are recorded for the zone include Call's angelica (*Angelica callii*), Mineral King draba (*Draba cruciate*), clustered-flower cryptantha (*Cryptantha glomeriflora*), rock goldenrod (*Petroradia pumila* ssp. *pumila*), short-bracted bird's-beak (*Cordylanthus rigidus* ssp. *brevibracteatu*), southern Sierra woolly sunflower (*Eriophyllum lanatum* var. *obovatum*), western campion (*Silene occidentalis* ssp. *occidentalis*), Sierra bleeding heart (*Dicentra nevadensis*).

Non-native plants - There are a number of weedy species that have been found in this area that are of concern. Cheatgrass (*Bromus tectorum*) has been found at multiple locations, particularly at lower

elevations. It is common along the Mineral King roadway, which is a concern when vehicles park along the roadway. This species is highly invasive with drier lower elevation sites prone to invasion. Beside direct competition with natives this species can alter the fire regime, creating fuel conditions that make more frequent fires possible, which in our shrub systems would be detrimental to native species. Additionally, bull thistle (*Cirsium vulgare*), woolly mullien (*Avena fatua*), Himalayan blackberry (*Rubus armeniacus*), and wild oats (*Avena fatua*) are found at multiple locations. The former two are both prone to invade recently disturbed areas including those areas that have burned.

Study Sites – There are a wide variety of study sites within this zone because of easier access from the Mineral King Road. These include Natural Resource Inventory (NRI) plots, fire effects monitoring plots (FMH – both forest and shrub plots), long-term fuel monitoring plots, white pine blister rust plots (WPBR), a wetlands monitoring well above Silver City, Menning plots (not in study sites database), deer pellet transects, and a long-term fuel moisture monitoring site near the ATT repeater station. Vegetation plots are usually marked in the field with rebar, often with tags on the trees, or monument tag mounted on a rock. Most plots are marked with rebar with tags and frequently with tags on individual trees.

The Sierra Nevada Network (SIEN) Wetland Monitoring site with a groundwater well and measures about 10 meters by 10 meters. It is located above Silver City and **should not be burned**. Contact SIEN Program Manager Sylvia Haultain (x3788) if any issues arise.

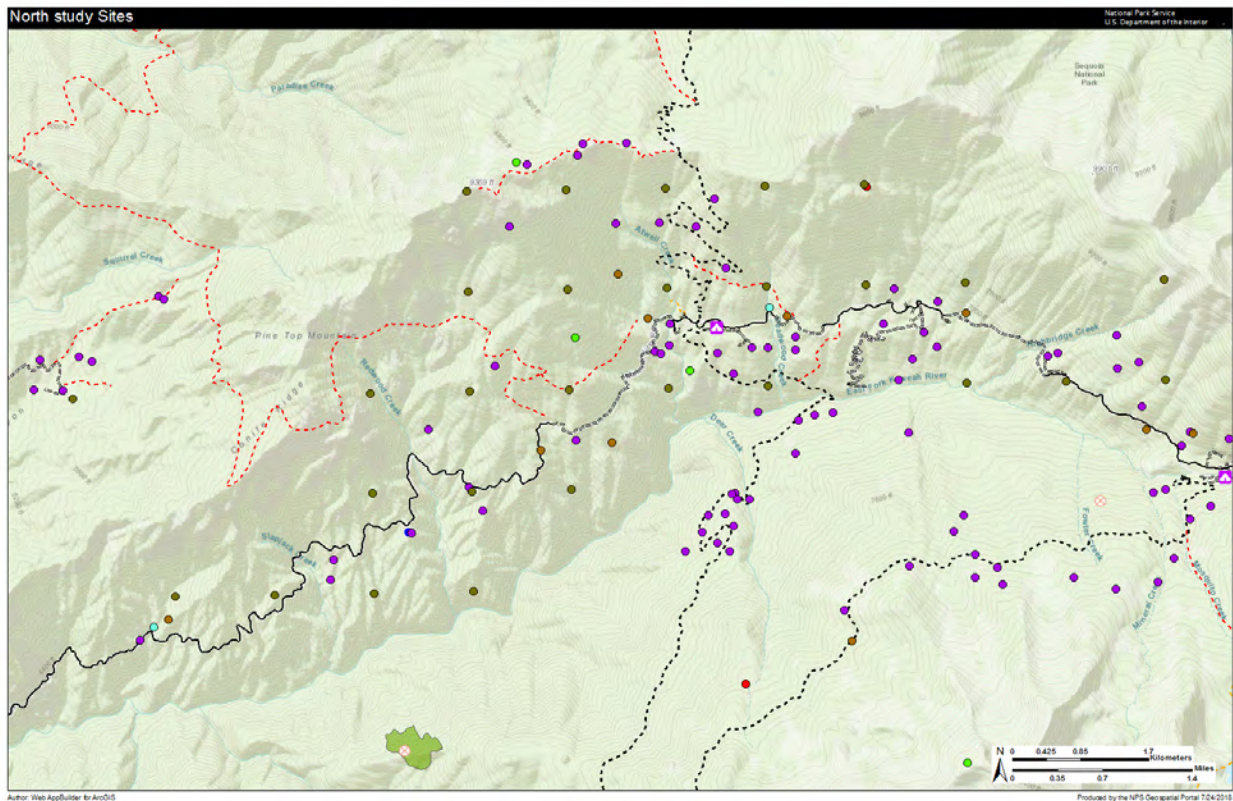


Figure 5 General locations of study sites in zone 4.

Physical Resources

No physical resources have been identified within this zone as being of concern. However, there are two subwatersheds that are sources of water for Atwell and Silver City identified. Additionally, while not within the East Fork Drainage, immediately to the northeast of the zone, on the north aspect of the Paradise Ridge, karst geology exists with identified cave locations.

There are two weather stations within the zone, the RAWS at Wolverton (adjacent to the helispot) and a USACE operated station at Atwell.

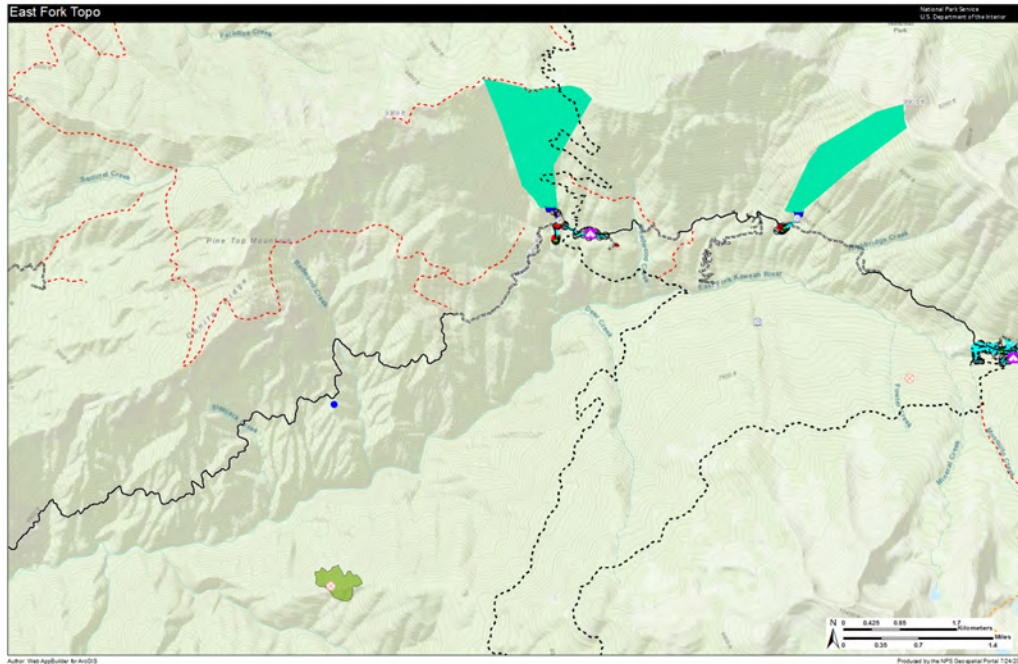


Figure 6 Water source subwatersheds (green).

Wolverton Station Information

Location Wolverton California
Latitude 36° 26' 42" NESS ID FA60B3B8
Longitude 118° 42' 12" NWS ID 044732
Elevation 5240 ft. Agency NPS

Atwell Camp Station Information

Location Atwell Camp (near maintenance barn)
Station ID ATW Elevation 6400.0 ft
River Basin KAWEAH R County TULARE
Hydrologic Area TULARE LAKE Nearby City SILVER CITY

Latitude 36.464° Longitude -118.631°
Operator US Army Corps of Engineers

Recommendations

- Follow Minimal Impact Suppression Tactics (MIST), particularly in establishing and setting up camp and helispot construction. Pay particular attention to weed/invasive plant introduction – brush out packs, gear, shoes and vehicles, and dispose of seeds into trash receptacle before and after incident. Allow enough time to thoroughly check through all tools, supplies and belongings for unwanted seed.
- Limit mechanical disturbance in areas with Species of Conservation Concern, particularly within meadow areas. READ personnel should be consulted if line through these sensitive areas has been deemed necessary.
- Limit soil disturbance in sequoia groves if possible. Fire in the groves is more acceptable than disturbance. Fireline should be constructed outside groves when possible. Special attention should be given to trees of special interest impacts if possible.
- Fireline construction through plots should be avoided as much as possible (plots coordinates can be provided to field crews as needed). It is generally preferable to have a plot burned than to have it disturbed by fire suppression activities.
- In areas with foxtail pine, because they are sensitive to fire, firing ignitions into stands of this species are undesirable because of the negative impacts. However, fire carrying into these stands on its own is not a concern and should not be prohibited unless it's part of an overall fire suppression effort.
- Spike camps need to be located out of meadows and travel and LZs should avoid wet meadows and stream banks, since these areas are highly susceptible to trampling and erosion.
- Cultural resources should be protected with appropriate site preparation (line, dispersal of flammables, etc.). Consult READ or Archeological personnel to determine proper course of action.
- Do not burn aluminum/plastic/other trash, or introduce soaps/shampoos/personal grooming chemicals into waterways. Pack it in, pack it out.
- Store food and any scented items to prevent animals from getting them.

MANAGEMENT DIRECTIVES/OBJECTIVES

- Notify the Chief of Resources Management and Science, Christy Brigham (x3120), as soon as practical if a natural or cultural resource value at risk is discovered in or in the potential trajectory of the fire. **Do not hesitate to make this call because of uncertainty.**
- Notify Cultural Resource Program Manager, Juanita Bonnifield (x3139), immediately upon the discovery of any cultural resource. **Do not hesitate to make this call because of uncertainty.**

Employee Update 10/5

Paterson, Rebecca E <Rebecca_Paterson@nps.gov>

Tue 10/5/2021 12:47 PM

To: NPS SEKI All Employees <SEKI_all_employees@nps.gov>

Hello everyone,

Dry weather and winds led to an active fire day yesterday, especially at the northern edge in the Redwood Canyon area. We are hoping to get in there soon to assess conditions but need to stay focused on how to protect areas that are not burned. In the meantime, we're working on protecting lands north of the fire. We've wrapped over 100 trees on NPS and USFS lands. A decision was made today to assign two Type 1 teams to the fire, with one team on the northern half and the second team on the southern half. More details on this to come.

Today is expected to be an active fire day but hopefully not an extreme fire day. Increasing humidity is reducing the likelihood of spot fires. Humidity will continue to improve through the week, and there's a chance of a small amount of rain on Friday. Let's keep our fingers crossed for rain and the improved air quality that it will bring. But even if the rain doesn't fall, the increased humidity will help.

Woody Smeck, previous SEKI Superintendent, and current Deputy Regional Director, is in the area and met with our leadership team today. He will be here until Thursday. He's already supporting us at a national level and will be a great advocate for us as we work to recover from fire impacts.

Our park managers are starting planning for what comes next. While it's difficult to decide on details until we can assess damage, they're starting to identify and prioritize the work that's ahead, with employee health and wellness as the top priority.

Community Meeting Today

There will be a community / public meeting tonight Tuesday, October 5 at 7:00 PM.

[Sequoia and Kings Canyon NPS Facebook Live](#)

The team is working on establishing a new YouTube channel specifically for the fire, which will hopefully streamline the process of making the morning briefings and community meeting videos available on a platform other than Facebook in a timely manner. We'll send out the link as soon as we have it.

The team will make the video of tonight's meeting available on the new channel after it is recorded. The plan is for future community meetings to be livestreamed from there as well (in addition to Facebook), but that is not possible tonight as there is a 48-hour turnaround before livestreaming can happen from new YouTube account.

Employee Centers

Our employee centers have workspaces and can receive packages.

- **Bear Mountain Library multi-purpose room in Squaw Valley**
Open starting today! Hours will be 7:00 am to 5:30 pm, Mon through Fri
For details, email Barnaby Fisher.

Desktop workstations will not be available until tomorrow (Tuesday) but if you have a laptop you use it there starting today.

Grant and Cedar Supervisors: UPS and FedEx packages sent to the maintenance building at the 83715 Park Rd address will be delivered to the Library. If you want UPS or Fed Ex deliveries expected at other Grant and Cedar addresses to be routed to the library, please contact Barnaby and he will provide you with further details.

- **Three Rivers Memorial Building**

Monday - Friday, 7:00 am - 6:00 pm, Mon - Fri

43490 Sierra Dr, Three Rivers, CA 93271

For details, email Tony Fiorino.

EAP for Departing Seasonal Employees

Departing seasonal employees can continue to utilize the EAP to get access to their six free counseling sessions after they are no longer employed at SEKI. If you want to take advantage of this, or think that you might in the coming months, make sure to call the EAP hotline while you are still a SEKI employee, to get yourself added to the system, even if you do not intend to actually schedule your sessions for a while.

Blood Drive in Three Rivers

The Central California Blood Center will be having a blood drawing sponsored by the Three Rivers Lion Club at the Valley Oak Credit Union in Three Rivers on Thursday, October 7 from 2:30 to 6pm.

For Evacuated Park Housing Residents

We had two successful trips for evacuated park housing residents to get into their homes to retrieve high priority personal belongings that were left when they evacuated and we're looking for opportunities to schedule more. As conditions allow, we will escort a few cars at a time into housing areas and allow folks 2-3 hours to retrieve any high priority items. This is intended for folks who are ending their seasons to get all their belongings out of their residence and for permanent residents to retrieve high priority items. If you do not need to go to your residence, please do not sign up.

During the trips, we coordinate about ten cars in a caravan that meet at an established point, escort the cars into the residential area and allow 2-3 hours for the folks in the caravan to retrieve and load belongings. The escorted caravan then leaves the area.

Please fill out this form so we can schedule these trips:

<https://forms.office.com/Pages/ResponsePage.aspx?id=urWTBhhLe02TQfMvQApUIMbWarlqDW5Dr0Ei7paNuyZUQzVXWk82NzhaNDJFUzRFQTVQVIVBUEdLUC4u>

Employee Resources

The team is working on establishing a new YouTube channel specifically for the fire, which will hopefully streamline the process of making the morning briefings and community meeting videos available on a platform other than Facebook in a timely manner. We'll send out the link as soon as we have it.

Our wonderful web team continues to maintain the employee website at:

<https://sequoiasforever.org/>

Password: SEKI#1.

If you don't see a category that specifically pertains to the info that you want, look at the Q&A section.

Daily All Employee Calls

New Call-In Info Below

Microsoft Teams meeting

Join on your computer or mobile app

[Click here to join the meeting](#)

Or call in (audio only)

[+1 202-640-1187,,369100674#](#) United States, Washington DC

Phone Conference ID: 369 100 674#

[Find a local number](#) | [Reset PIN](#)

[Learn More](#) | [Meeting options](#)

Erika Williams

Visual Information Specialist

Sequoia and Kings Canyon National Parks

559-565-3729

Some draft preliminary reopening language based on conversation in 0800 meeting this morning

Paterson, Rebecca E <Rebecca_Paterson@nps.gov>

Fri 10/8/2021 10:13 AM

To: NPS SEKI Leadership Team <SEKI_Squad@nps.gov>; Williams, Erika <Erika_Williams@nps.gov>; Brigham, Christy M <Christy_Brigham@nps.gov>; Rinne, Monica N <Monica_Rinne@nps.gov>; Carl, Andrew A <Andrew_Carl@nps.gov>; Waldschmidt, Chris C <Chris_Waldschmidt@nps.gov>; Bonnifield, Juanita T <Juanita_Bonnifield@nps.gov>

Hi all, here are some notes I've put together based on what we discussed this morning. Not sure if I've gotten the mailing group quite right so feel free to share with others if I missed anyone. Monica also mentioned that Clay had some good messages in a meeting with DNC this morning. Maybe tomorrow we can have a little discussion about what would be the right forum for this messaging.

- The National Park Service is acutely aware that local communities, such as the community of Three Rivers, rely on visitation to Sequoia and Kings Canyon National Parks to support their economies and countless livelihoods. When the parks are closed, this leaves many without or with a drastically reduced source of income.
- NPS employees and their partners want nothing more than to resolve this crisis and reopen the parks. Not only is providing access to public land an essential part of the NPS mission, but we are also members of our local communities, and personally invested in their wellbeing. The closure also means that many of us are furloughed or laid off, displaced from our homes, or otherwise living highly disrupted versions of our lives.
- The parks are not providing a timeline for when reopening, because simply, not enough is known about when this will be possible, even in a general sense. It is crucial that we avoid making commitments that we may not be able to honor.
- The KNP Complex is still an actively evolving and complex fire fight. We are still responding to an emergency that threatens lives, property, and the natural and cultural treasures that people come from all over the world to see. When the firefighting eventually deescalates, there will be other critical safety concerns that must be addressed before reopening. The most obvious of these is an extraordinary number of hazard trees, but others have been and will continue to be identified.
- Sequoia and Kings Canyon National Parks leadership commits to transparency with local communities throughout what will likely be a lengthy and complicated process of returning to a normal level of operations.

Rebecca Paterson
Public Affairs Specialist
Sequoia and Kings Canyon National Parks
(559) 565 4257
Remote work number: (559) 702-3400
Pronouns: she/her

Employee Update 10/11/2021

Paterson, Rebecca E <Rebecca_Paterson@nps.gov>

Mon 10/11/2021 10:41 AM

To: NPS SEKI All Employees <SEKI_all_employees@nps.gov>

Hi friends,

What a relief to have a few days running of relatively little fire growth to report! There is some snow and rain predicted at the fire's higher elevations today, and with containment up to a new high of 30%, progress is looking really good on the suppression operation in general. As we all know, containment is only the first benchmark on what is going to be a long path back to something like normalcy, but we can still all take a moment to feel good about where we are today versus one week ago.

Here's a photo of Oriole Grove taken by our fire ecologist, Tony Caprio, on an aerial recon flight two days ago. You can see fire effects in some but not all of the trees, including the many "broccoli tops." As we have opportunities to explore more of what has happened out there, we expect to see a broad spectrum of fire effects across the footprint of the complex, from seriously denuded landscapes to islands where fire didn't encroach at all.



Cedar is not yet ready for repopulation, but we expect that it will be tomorrow - stay tuned for updates. No updates from yesterday on Grant Grove utilities (water, power, propane), but we may have more news later today. Per maintenance staff, please do not try to turn on propane to your residence in Grant Grove yourself, as propane lines may connect to multiple buildings and you might be causing an issue somewhere else without knowing it. Maintenance employees will be up there to help, but remember that these folks may be moving back into housing themselves, so please be patient.

Per Ned, go ahead and use your wood burning stoves in Grant if you wish.

For everyone at Grant Grove transitioning from hotels to their homes, please fill out this form for April Stowell. It is needed to help us anticipate our housing contract needs. https://forms.office.com/Pages/ResponsePage.aspx?id=urWTBhhLe02TQfMvQApUIM-LJeis_ZxOr3ZVnmK9kRUMUIPN0QyUFpLRjhHSUs0Rlg2NjJDUUxMVi4u If you live in Grant Grove and will be unable to check out of your hotel on Tuesday, October 12, please contact your supervisor and April Stowell via email to discuss arrangements for check-out.

For Evacuated Park Housing Residents

We are coordinating trips of about ten cars in a caravan that meet at an established point, escort the cars into the residential area and allow 2-3 hours for the folks in the caravan to retrieve and load belongings. The escorted caravan then leaves the area. This is intended for folks who are ending their seasons to get all their belongings out of their residence and for permanent residents to retrieve high priority items. If you do not need to go to your residence, please do not sign up.

Please fill out this form so we can schedule these trips:

<https://forms.office.com/Pages/ResponsePage.aspx?id=urWTBhhLe02TQfMvQApUIMbWarlqDW5Dr0Ei7paNuyZUQzVXWk82NzhaNDJFUzRFQTVQVIVBUEdLUC4u>

Employee Website

We continue to maintain the employee website at: <https://sequoiasforever.org/>

Password: SEKI#1.

If you saw something in a recent email that isn't here anymore, you can find it there! If you don't see a category that specifically pertains to the info that you want, look at the Q&A section.

Daily All Employee Calls

Microsoft Teams meeting

Join on your computer or mobile app

[Click here to join the meeting](#)

Or call in (audio only)

[+1 202-640-1187,,369100674#](tel:+12026401187369100674) United States, Washington DC

Phone Conference ID: 369 100 674#

[Find a local number](#) | [Reset PIN](#)

[Learn More](#) | [Meeting options](#)

I hope everyone has a good day.

Rebecca Paterson
Public Affairs Specialist
Sequoia and Kings Canyon National Parks

(559) 565 4257

Remote work number: (559) 702-3400

Pronouns: she/her

Revised talking points for KNP Complex/sequoias

Paterson, Rebecca E <Rebecca_Paterson@nps.gov>

Sat 10/9/2021 6:49 PM

To: NPS SEKI Interp Staff <SEKI_Interp_Staff@nps.gov>

Hi friends,

A lot of you have already received some version of these talking points that were generated for the teams' PIO shops, but here is a cleaned up and somewhat revised version. They may be helpful to you as you do your work.

Additionally, we're keeping a running list of what is going on with individual groves (mostly maintained by Christy B and Paul H). While the fire is still active, this has been a highly dynamic document, so I haven't felt inclined to share it widely as the info is likely to become outdated very quickly. However, if you have a need for a snapshot of this type info on a given day, let me know and I'll get it to you.

Thanks for all you do.

Rebecca Paterson
Public Affairs Specialist
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(559) 565 4257
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A few talking points to help respond to hazard tree inquiries

Paterson, Rebecca E <Rebecca_Paterson@nps.gov>

Sun 10/24/2021 12:54 PM

To: knpfireteam_contact <2021.knp@firenet.gov>; Stephanie_bishop@firenet.gov <Stephanie_bishop@firenet.gov>; kimberly_kaschalk@firenet.gov <kimberly_kaschalk@firenet.gov>

Cc: Kawasaki-Yee, Sintia C <Sintia_Kawasaki-Yee@nps.gov>

Hi all, here are a few talking points to help you respond to all the media inquiries you're getting about hazard trees along the Generals Highway. Please let me know if anything requires clarification, and otherwise pass along to anyone who might find them useful. I'm happy to field some inquiries myself if needed, as well. Thanks for all that you do!

Rebecca

- The parks are in the early stages of assessing fire effects within the footprint of the KNP Complex, with the help of a Burned Area Emergency Response (BAER) team. The parks expect to have more detailed data to report by mid-November.
- Almost the entirety of the Generals Highway, the main road that leads between the parks, has had fire from the KNP Complex on at least one side.
- There are many hazard trees, which were weakened, damaged, or killed by the KNP Complex, along the Generals Highway.
- Between Grant Grove and Lodgepole, preliminary estimates indicate that there are as many as 10,000 such hazard trees along the Generals Highway. Hazard trees along other parts of the Generals Highway, and along other roads in the parks, also likely number in the thousands. These estimates will be refined in the coming weeks.
- These trees are located in mixed conifer woodlands, and include pine, fir, cedar, and other tree species, in addition to sequoias in some areas.
- These preliminary estimates show the large scale of the work that must be done before the parks can responsibly restore a normal level of public access.
- While all of these hazards will need to be mitigated, this doesn't necessarily mean that the entire area will be clear cut, or that every single tree must be addressed before the road can be reopened. The need to cut and remove trees will be determined area by area, and will vary based on how intensely each area burned, and other factors like slope in relationship to the roadway.

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Employee Update 9/16 KNP Fire Complex

Kawasaki-Yee, Sintia C <Sintia_Kawasaki-Yee@nps.gov>

Thu 9/16/2021 12:50 PM

To: NPS SEKI All Employees <SEKI_all_employees@nps.gov>

Good morning all,

Here are some updates for today. Today is a heavy transition day between SEKI and the new Type 1 team. Ash Mt. HQ and housing are still intact and not on fire. Here are a couple photos from yesterday afternoon and Leif has confirmed a moment ago that not much has changed. We are working to define roles and functions for the SEKI team.





We know some mapping is showing fire around park housing and HQ at Ash Mt, it seems to be satellites picking up heat from smoke. As always, please refer to the many fire sites for more detailed information.

In Giant Forest, fire may reach Crescent Meadow/Moro Rock Road in the next day, and sequoias of special significance are being wrapped and treated like structures to protect them. More fire updates will be provided on the 3pm Employees call.

All Employees Call

Today at 3pm

Ideally, we can keep these calls on the calendar daily moving forward, but I will confirm that in tomorrow's update.

Tentative Agenda

Intro and updates by Superintendent Clay Jordan

Fire update by Fire Chief John Ziegler

Park Operations by Chief Ranger Ned Kelleher

Lodging and Time Keeping by Administrative Officer April Stowell

Air Quality by Chief Scientist Christy Brigham

Q&A

Employee Assistance

NPS, SPC, and DNC employees who need assistance finding lodging or meeting other critical needs can fill out [this form](#). A small team will respond as soon as possible. As a reminder, the park cannot pay for lodging for people who do not live in government housing. Note that the small team assisting you are generally available to respond from 9 am to 5 pm. For emergencies call 9-1-1. For other urgent needs call 2-1-1.

If you have other, less critical, needs or have resources to offer to others, we're interested in those, too! You can either fill out the form linked above or email Emily_Zivot@nps.gov.

Lodging and Leave

We know these are stressful and challenging times and people have a lot of questions. In this rapidly changing environment, here are some updates for employees in lodging and on leave:

Lodging update: We will be reaching out to employees that have been assigned lodging to verify the needs for rooms from the 18th to the 24th.

Supervisors- If you have any employees that live in government housing and is not currently in lodging but needs a room, please send that information to Elly Boerke and April Stowell by 3pm today Thursday September 16th.

The lodging is being procured through a contract and we at the park are not able to reach out to hotels directly but rather this must go through a Contracting Officer. This is not a flexible process, and the rooms are reserved in blocks by date, and we are not able to accommodate everyone arriving on different days.

Leave:

Weather and safety leave (code 061) can be used for employees under an Evacuation Warning to prepare personal belongings in case a Mandatory Evacuation Order is issued. A person can continue to use that leave category while they travel to a safe location. Once they have arrived and get settled and the employee is able to telework then they must. If an employee is able to telework and chooses not to then they need to use their own leave (annual leave, comp or credit hours) for that time and that needs to be arranged with your supervisor as you normally would. If an employee does not have work suitable for telework or cannot be provided the necessary equipment to telework then they would continue to use the weather and safety leave. Please work with supervisors to identify jobs that you can do remotely such as data cleanup projects or creating SOP's for positions that do not have logical telework eligible duties.

It has been great to see how the community has really been there for each other! Stay safe and keeping looking out for each other.

Drop Zone for NPS Files and Critical Items

If you are under mandatory evacuation, or evacuation warning, and you took home any NPS files or critical items for protection, you can now drop those off in a GOV van at the Three Rivers Memorial Building. We'd like to take these off your hands so you can focus on personal arrangements. This is available, but not required. Contact Sintia at 559-679-2866 if you have items you'd like to drop off before 5pm today.

Gathering and Workspaces

Visalia Convention Center

These spaces are available today but may change in the coming days.
Wi-Fi is available for free

Quiet Space To Work

Grand Board Room- holds 18 people.

Social Space to Gather

San Joaquin Room- holds ~150 people

Animals: Are welcome!

-Animals should stay with their owner in a carrier or on leash.

-Need to remain in the San Joaquin Room while indoors. (There is another group meeting at the Conv Center.) but are welcome to walk around outside.

-They can walk to the Visit Visalia office (112 E Main St) They have pet water bowls outside and dog treats!

The Fairfield Fresno Yosemite International Airport

This space is available through Friday night.

Wi-Fi is available for free

Mixed Use Space

Yosemite Room- 1st floor of hotel

Tables, chairs, and a big TV that can connect a laptop to for teams calls.

Thinking of you all, please stay safe.

Sintia

Sintia C. Kawasaki-Yee | She, Her, Ella

Public Affairs Officer

Acting Management Assistant

Sequoia and Kings Canyon National Parks

Department of the Interior, Region 10

47050 Generals Highway

Three Rivers, CA 93271

Office: 559-565-3131 | Mobile: 559-679-2866 | Main Park Line: 559-565-3341

Find us online: www.nps.gov/seki | Facebook, Twitter, Instagram: @SequoiaKingsNPS

Employee Update- 9/17/21 KNP Fire Complex

Kawasaki-Yee, Sintia C <Sintia_Kawasaki-Yee@nps.gov>

Fri 9/17/2021 2:38 PM

To: NPS SEKI All Employees <SEKI_all_employees@nps.gov>

Cc: Garcia, Thomas A <Tom_Garcia@nps.gov>; Nagle, Shawn K <Shawn_Nagle@nps.gov>

Hi all,

We are going into week two, so much has happened, and more to come, I'm sure. The fire is now at over 11K acres, still zero percent containment. Sounds like the two fires have now connected, but still south of Giant Forest.

For great daily fire briefings from the Type 1 Operations Section Chief check SEKI's Facebook page: <https://fb.watch/84MRTb7tmv/>

There is a Public Meeting today at 5pm at the Three Rivers Memorial Building

Some excellent work has gone into protecting some our majestic giant sequoias, but of course we can't wrap them all.





All Employees Call

Daily at 3pm

Agenda

Intro and updates by Superintendent Clay Jordan

Fire update by Acting Fire Chief Tom Garcia

Park Operations by Chief Ranger Ned Kelleher

Lodging and Time Keeping by Administrative Officer April Stowell

Air Quality by Chief Scientist Christy Brigham

Q&A

New External Website

[Employee Resources during KNP Complex Wildfires \(sequoiasforever.org\)](https://sequoiasforever.org)

Password: SEKI#1

All the information that is being shared daily through these emails is now also available on this new site!

Employee Assistance

NPS, SPC, and DNC employees who need assistance finding lodging or meeting other critical needs can fill out [this form](#). A small team will respond as soon as possible. As a reminder, the park cannot pay for lodging for people who do not live in government housing. Note that the small team assisting you are generally available to respond from 9 am to 5 pm. For emergencies call 9-1-1. For other urgent needs call 2-1-1.

If you have other, less critical, needs or have resources to offer to others, we're interested in those, too! You can either fill out the form linked above or email Emily_Zivot@nps.gov.

Mail and Packages

Mail and packages are not being delivered to Ash Mt.

For mail: It is being held at the Three Rivers US Post Office

For UPS Packages: They are being held at the Visalia holding center for 3 days.

Lodging and Leave

We know these are stressful and challenging times and people have a lot of questions. In this rapidly changing environment, here are some updates for employees in lodging and on leave:

Lodging update: We will be reaching out to employees that have been assigned lodging to verify the needs for rooms from the 18th to the 24th.

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The lodging is being procured through a contract and we at the park are not able to reach out to hotels directly but rather this must go through a Contracting Officer. This is not a flexible process, and the rooms are reserved in blocks by date, and we are not able to accommodate everyone arriving on different days.

Leave:

Weather and safety leave (code 061) can be used for employees under an Evacuation Warning to prepare personal belongings in case a Mandatory Evacuation Order is issued. A person can continue to use that leave category while they travel to a safe location. Once they have arrived and get settled and the employee is able to telework then they must. If an employee is able to telework and chooses not to

then they need to use their own leave (annual leave, comp or credit hours) for that time and that needs to be arranged with your supervisor as you normally would. If an employee does not have work suitable for telework or cannot be provided the necessary equipment to telework then they would continue to use the weather and safety leave. Please work with supervisors to identify jobs that you can do remotely such as data cleanup projects or creating SOP's for positions that do not have logical telework eligible duties.

It has been great to see how the community has really been there for each other! Stay safe and keeping looking out for each other.

Gathering and Workspaces

Visalia Convention Center

The larger gathering space will not be open available after today. The board room will remain open until further notice. You may need to ask someone to unlock the room if it is locked.

Wi-Fi is available for free

Animals: Are welcome!

-Animals should stay with their owner in a carrier or on leash.

-Need to remain in the San Joaquin Room while indoors. (There is another group meeting at the Conv Center.) but are welcome to walk around outside.

-They can walk to the Visit Visalia office (112 E Main St) They have pet water bowls outside and dog treats!

Quiet Space To Work

Grand Board Room- holds 18 people.

Social Space to Gather

San Joaquin Room- holds ~150 people

The Fairfield Fresno Yosemite International Airport

This space is available through Friday night.

Wi-Fi is available for free

Mixed Use Space

Yosemite Room- 1st floor of hotel

Tables, chairs, and a big TV that can connect a laptop to for teams calls.

Thinking of you all, please stay safe.

Sintia

Sintia C. Kawasaki-Yee | She, Her, Ella

Public Affairs Officer

Acting Management Assistant

Sequoia and Kings Canyon National Parks

Department of the Interior, Region 10

47050 Generals Highway

Three Rivers, CA 93271

Office: 559-565-3131 | Mobile: 559-679-2866 | Main Park Line: 559-565-3341

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Re: [EXTERNAL] Re: General Sherman Tree

Kawasaki-Yee, Sintia C <Sintia_Kawasaki-Yee@nps.gov>

Thu 10/21/2021 11:54 AM

To: Paterson, Rebecca E <Rebecca_Paterson@nps.gov>

Great!

Erika can't do tomorrow, going to CECH, but asked if she can find us someone.

Participants so far: Clay, Teresa, Christy, You, Andrew Cremers as escort. I am sending an invite to Garrett, Tony, Nate, and one of the READs that helped wrap it per Clay's request.

Once announcement goes out, I think just a matter of getting the list together. Assuming Clay will have his vehicle that you and Christy and photographer can ride in. Teresa should have hers that maybe any other NPS folks or Clay can ride with.

We need to have a plan for the actual unwrapping. I have a chat going with John and Leif and just asked if we need anything to do that, Leif is asking Andrew. Andrew should be able to help us. My vision was to have Andrew sort of get it started or figure out how to start, and then Clay, Christy, Andrew?, READ?, anyone else Clay thinks is appropriate go up to the tree for the "moment" and photo op of the unwrapping. Sort of like a ribbon cutting. But only have them do a portion of it, and then provide interviews maybe as Andrew and others complete the unwrapping in the background. That's as far as I got, and maybe we can finalize some of these details with Clay before/after the public meeting. I want it to be as organized and thought out as we can make it.

Please bring your camera even if we have a backup in case you can capture some stuff. And if you think you may need help with the media side of things, maybe Pablo or someone can join you to help? Maybe Leah from Jenny's team, since she'll be working with us soon.

I think that should be everything, but we can iron things out tonight.

Thanks!

Sintia

Sintia C. Kawasaki-Yee | She, Her, Ella

Public Affairs Officer

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From: Paterson, Rebecca E <Rebecca_Paterson@nps.gov>

Sent: Thursday, October 21, 2021 11:32 AM

To: Kawasaki-Yee, Sintia C <Sintia_Kawasaki-Yee@nps.gov>

Subject: Re: [EXTERNAL] Re: General Sherman Tree

Yeah, if it's okay with you, I'd rather have a designated NPS photo/video person, so I can focus on being the public affairs person. I can't remember if Erika said she was available herself tomorrow, but she could certainly use our new camera if she wanted to join.

Changed the first sentence of the pool paragraph to "An NPS photographer will capture photos and videos that will be made available to all outlets upon request."

Can you refresh me on the participants that we have lined up for this, what still needs to be confirmed, and the various logistical bits I need to make sure are ironed out?

Rebecca Paterson
Public Affairs Specialist
Sequoia and Kings Canyon National Parks
(559) 565 4257
Remote work number: (559) 702-3400
Pronouns: she/her

From: Kawasaki-Yee, Sintia C <Sintia_Kawasaki-Yee@nps.gov>
Sent: Thursday, October 21, 2021 11:20 AM
To: Paterson, Rebecca E <Rebecca_Paterson@nps.gov>
Subject: Re: [EXTERNAL] Re: General Sherman Tree

Thank you!

- On September 15, fire crews prepared the General Sherman Tree for the possibility of fire from the KNP Complex burning into to the area.

Can we not do the pool, if we plan to capture photos and footage that we can provide?

Would you like me to ask Erika to reach out to her local contacts to see if someone can join to help do photos/video?

Thanks!
Sintia

Sintia C. Kawasaki-Yee | She, Her, Ella
Public Affairs Officer
Acting Management Assistant
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From: Paterson, Rebecca E <Rebecca_Paterson@nps.gov>
Sent: Thursday, October 21, 2021 11:12 AM
To: Kawasaki-Yee, Sintia C <Sintia_Kawasaki-Yee@nps.gov>
Subject: Fw: [EXTERNAL] Re: General Sherman Tree

Here's the draft media advisory, for your approval.

Rebecca Paterson
Public Affairs Specialist
Sequoia and Kings Canyon National Parks
(559) 565 4257
Remote work number: (559) 702-3400
Pronouns: she/her

From: Stephanie Bishop <stephanie_bishop@firenet.gov>
Sent: Thursday, October 21, 2021 11:05 AM
To: Kawasaki-Yee, Sintia C <Sintia_Kawasaki-Yee@nps.gov>; Paterson, Rebecca E <Rebecca_Paterson@nps.gov>
Cc: Mike Nobles <michael.nobles@usda.gov>; Funderburk, Greg R <Greg_Funderburk@nps.gov>
Subject: Re: [EXTERNAL] Re: General Sherman Tree

Hey Sintia,

After meeting with Greg, my IC and operations they have approved the event and route of traffic, understanding the risks have been advised.

Have a great event and thank you for your patience.

Steph

Stephanie Bishop,

Public Information Officer
California Interagency Incident
Management Team 12

Stephanie_Bishop@firenet.gov
303/961-5540



From: Kawasaki-Yee, Sintia C <Sintia_Kawasaki-Yee@nps.gov>
Sent: Thursday, October 21, 2021 1:43 PM
To: Stephanie Bishop <stephanie_bishop@firenet.gov>; rebecca_paterson@nps.gov <rebecca_paterson@nps.gov>
Cc: Mike Nobles <michael.nobles@usda.gov>; greg_funderburk@nps.gov <greg_funderburk@nps.gov>
Subject: Re: [EXTERNAL] Re: General Sherman Tree

According to our team the tree felling wasn't going to be an issue as long as we let them know what time we'd be coming through. I brought it up to them yesterday morning as a concern mike Theune had mentioned.

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From: Stephanie Bishop <stephanie_bishop@firenet.gov>

Sent: Thursday, October 21, 2021 10:31:37 AM

To: Kawasaki-Yee, Sintia C <Sintia_Kawasaki-Yee@nps.gov>; Paterson, Rebecca E <Rebecca_Paterson@nps.gov>

Cc: Mike Nobles <michael.nobles@usda.gov>

Subject: Re: [EXTERNAL] Re: General Sherman Tree

Afternoon Sinita,

The route of travel per our Operations is a no go, due to the heave tree falling in that area. You will only be able to travel from the north.

I am also waiting to get confirmation on how extensive the snags and hazards are in the parking lot of the tree area. As soon as Operations gets back to me with that I will advise.

Thanks,
Steph

Stephanie Bishop,

Public Information Officer

California Interagency Incident
Management Team 12

Stephanie_Bishop@firenet.gov
303/961-5540



From: Kawasaki-Yee, Sintia C <Sintia_Kawasaki-Yee@nps.gov>

Sent: Thursday, October 21, 2021 1:28 PM

To: Stephanie Bishop <stephanie_bishop@firenet.gov>; rebecca_paterson@nps.gov
<rebecca_paterson@nps.gov>

Subject: Re: [EXTERNAL] Re: General Sherman Tree

Hi Steph,

I sent you responses at 10:06 this morning, not long before you sent your email. Carpooling was used for some media trips, not all, and due to COVID I would like to not require that if they aren't comfortable. Other responses to other questions below.

Per Safety & Operations if you are planning to come up from the south on the General Hwy please be aware that there is falling work occurring in the area.

We'll drive up from Ash Mt.

If you are coming from the north, please be aware of fire personnel in the roadway removing any debris.

N/A

Also, Safety mention possibility of black ice on roadways due to cooler temps.

We're driving up at 1pm, but they'll keep that in mind.

Operations also mentioned that there were several snags and hazards in the parking lot area of the General Sherman Tree they have not been able to get to and work on. That is a big hazard to really make sure if you do have media and others out there that PPE is being worn.

This was discussed on our LT meeting this morning, our team is not sure what snags the team is referring to, we've done multiple media events at this location. If there are any hazard trees, they'd be tracked by NPS. There was no fire in this area that would have caused hazards other than pre-existing things. PPE will be worn as usual.

Thanks!

Sintia

Sintia C. Kawasaki-Yee | She, Her, Ella

Public Affairs Officer

Acting Management Assistant

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From: Stephanie Bishop <stephanie_bishop@firenet.gov>

Sent: Thursday, October 21, 2021 10:11 AM

To: Kawasaki-Yee, Sintia C <Sintia_Kawasaki-Yee@nps.gov>

Subject: [EXTERNAL] Re: General Sherman Tree

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hi Sintia,

Just doing a follow-up regarding the General Sherman Tree and our conversation.

Were you able to get responses for the following questions:

Time frame of the event?

How many vehicles do you anticipate?

How many media outlets?

PPE required?

Also, one I forgot is just the route you plan on taking to the tree?

Again, on the previous media events Team 2 coordinated they limited the media to 5 max and had them carpool to limit the number of vehicles in the fire operations areas.

I also meet with and spoke to my Safety and Operations this morning and received some intel that I wanted to pass on to you for consideration as well as information:

Per Safety & Operations if you are planning to come up from the south on the General Hwy please be aware that there is falling work occurring in the area.
If you are coming from the north, please be aware of fire personnel in the roadway removing any debris. Also, Safety mention possibility of black ice on roadways due to cooler temps.
Operations also mentioned that there were several snags and hazards in the parking lot area of the General Sherman Tree they have not been able to get to and work on. That is a big hazard to really make sure if you do have media and others out there that PPE is being worn.

Let me know if you have any questions. I'll keep an eye out for your email and get it to my IC, Operations, and safety as soon as I get it.

I do have the production company prepared for this evening to assist with the meeting and an Operations Chief who will be able to do the briefing on the fire.

Thank you,
Steph

Stephanie Bishop,

Public Information Officer
California Interagency Incident
Management Team 12

Stephanie_Bishop@firenet.gov
303/961-5540



From: Stephanie Bishop
Sent: Wednesday, October 20, 2021 4:33 PM
To: sintia_kawasaki-yee@nps.gov <sintia_kawasaki-yee@nps.gov>
Subject: General Sherman Tree

Sintia,

For our reference and a good tracker for us here is the information I am requesting to keep the team informed of the event the National Park is coordinating on Friday.

Time frame of the event?

How many vehicles do you anticipate?

How many media outlets?

PPE required?

On the previous media events Team 2 coordinated they limited the media to 5 max and had them carpool to limit the number of vehicles in the fire operations areas.

I'll keep an eye out for your email and get it to my IC, Operations, and safety as soon as I get it.

Thank you,
Steph

Stephanie Bishop,

Public Information Officer

California Interagency Incident
Management Team 12

Stephanie_Bishop@firenet.gov
303/961-5540



Re: Structure wrap around General Sherman

Kawasaki-Yee, Sintia C <Sintia_Kawasaki-Yee@nps.gov>

Fri 10/22/2021 8:51 AM

To: Singer, Jeff X <Jeff_Singer@nps.gov>

I emailed you late last night, so it was tomorrow for me 😊

Sintia C. Kawasaki-Yee | She, Her, Ella

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Acting Management Assistant

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From: Singer, Jeff X <Jeff_Singer@nps.gov>

Sent: Friday, October 22, 2021 6:49 AM

To: Kawasaki-Yee, Sintia C <Sintia_Kawasaki-Yee@nps.gov>; Brigham, Christy M <Christy_Brigham@nps.gov>

Subject: Re: Structure wrap around General Sherman

I believe you meant today. Before noon, I have heard on my end. Great, thanks.

js

Sent from my phone -

From: Kawasaki-Yee, Sintia C <Sintia_Kawasaki-Yee@nps.gov>

Sent: Thursday, October 21, 2021 9:55:43 PM

To: Singer, Jeff X <Jeff_Singer@nps.gov>; Brigham, Christy M <Christy_Brigham@nps.gov>

Subject: Re: Structure wrap around General Sherman

Hi Jeff, I just heard a bit ago! Sounds like the READs may be going up tomorrow to fix it. Adding in Christy in case something changes.

Thanks!

Sintia

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From: Singer, Jeff X <Jeff_Singer@nps.gov>

Sent: Thursday, October 21, 2021 9:21 PM

To: Kawasaki-Yee, Sintia C

Subject: Structure wrap around General Sherman

FYI, the structure wrap around the base of the General Sherman tree is sloughed off. I believe you have been told this information already, I'm following up. I'm currently assigned to the incident as

Sequoia Protection Group Supervisor (t), let me know if I can support your work.

js

Sent from my phone -

Re: [External] Fact-check Sequoia details for National Parks magazine article

Kawasaki-Yee, Sintia C <Sintia_Kawasaki-Yee@nps.gov>

Thu 10/28/2021 9:12 AM

To: Katherine DeGroff <kdegroff@npca.org>

Hi Katherine,

Apologies for not being able to help you in time for this. I assigned this to someone on my team, and instead of sending to you directly as instructed, they sent back to me while I was on leave.

In case it's useful for future reference, here are their responses.

Fire Details

Is it fair to say the Castle Fire was contained by January 2020? (I saw that it was 100% contained on national forest lands but wasn't certain if that applied to park land impacted by the fire.) **That is what is on inciweb.**

The Castle Fire destroyed 10% - 14% of the world's giant sequoias. (I've seen these figures applied to the 'naturally occurring' sequoias in this region, but sequoias are pretty much only found here, right? So any change to their population in California would be the same as a change to their global abundance?) **Estimates suggest the 2020 Castle Fire killed 10 to 14% of all large sequoias in the natural sequoia groves of the Sierra Nevada. This amounts to an estimated 7,500 to 10,600 large sequoias (those with trunk diameters of 4 ft or more)**

General Sequoia (tree) Facts

Sequoias can live more than 3,000 years. **Yes**

Sequoias can reach heights of 300 feet or more. **Yes**

The largest sequoias can have a layer of bark roughly 2 feet thick at their base. (I've seen 18 inches in one place.) **2 feet is the likely the very largest end of thickness**

Size-wise, sequoia's cones are only a little bigger than chicken eggs. **Roughly the size of a chicken egg, they can be bigger or smaller. A little smaller is more accurate than a little bigger.**

Kings Canyon National Park

Kings Canyon was carved by glaciers over millions of years. (Do we have an exact figure here? I've seen 10 million. Is that accurate?) **Roughly**

Is it likely that Kings River would be pretty chilly even in summer? **Yes**

The Moraine Campground is more than an hour away from any cell reception or Wi-Fi, yes? **Yes**

Would you say Moraine Campground is near Cedar Grove, part of Cedar Grove or ... ? **It is in Cedar Grove**

General Sherman Stats

Is it 2,200 years old or 2,300? (This page says 2,200, but the writer found 2,300 somewhere.) **Per Nate Stephenson - Sherman: 2,150 years (error of plus or minus a few centuries)**

Fallen Monarch History

At one time, Native American people used this enormous sequoia as shelter. **This should be confirmed with Jane Allen.**

Later, during the park's early days, construction crews camped inside the tree. **Yes**
The cavalry kept their horses there. **Yes**
The felled tree also once served as a hotel and saloon and a temporary home to a pair of cattlemen. (These details are on unofficial websites, but I haven't found anything online from the Park Service to verify.) **Yes**

Sequoia National Park Fact

Do you capitalize both words in Senate Grove? (And is it accurate to say the grove is in the Giant Forest of Sequoia?) **Senate group is in the Giant Forest**

Misc.

Can you confirm that Meredith Elgart works at Kings Canyon and that that is the spelling of her name? What is her title? **Meredith Elgart served as a seasonal interpretive park ranger at Kings Canyon National Park in 2021.**

All the best,
Sintia

Sintia C. Kawasaki-Yee | She, Her, Ella
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From: Katherine DeGross <kdegross@npca.org>
Sent: Thursday, October 21, 2021 6:05 AM
To: Kawasaki-Yee, Sintia C <Sintia_Kawasaki-Yee@nps.gov>
Subject: Re: [External] Fact-check Sequoia details for National Parks magazine article

Hi there,

I just wanted to let you know that I think we're all set on this front. No need to keep tracking down answers for me. I was able to get confirmation/edits on different details from a few sources, including Nate Stephenson of USGS (who studies sequoias).

Good luck with the fire. Hoping you can eventually enjoy the fall.

Best,
Katherine

From: Katherine DeGross <kdegross@npca.org>
Sent: Wednesday, October 20, 2021 9:00 AM
To: Kawasaki-Yee, Sintia C <Sintia_Kawasaki-Yee@nps.gov>
Subject: Re: [External] Fact-check Sequoia details for National Parks magazine article

Hi Sintia,

I'm just reflagging this fact-checking request. I've removed several items that don't need responses anymore, and I've reordered so the most pressing details are at the top.

I recognize y'all are consumed with all things wildfire. We are going to layout soon with our stories, though, so if there's anything you want to comment on/correct, I'm happy to incorporate that into our story edits.

General Sequoia (tree) Facts

- Sequoias can live more than 3,000 years.
- Sequoias can reach heights of 300 feet or more.
- The largest sequoias can have a layer of bark roughly 2 feet thick at their base. (I've seen 18 inches in one place.)

Kings Canyon National Park

- Kings Canyon was carved by glaciers over millions of years. (Do we have an exact figure here? I've seen 10 million. Is that accurate?)
- The Moraine Campground is more than an hour away from any cell reception or Wi-Fi, yes?

General Sherman Stats

- Is it 2,200 years old or 2,300? ([This page](#) says 2,200, but the writer found 2,300 somewhere.)

Fallen Monarch History

- At one time, Native American people used this enormous sequoia as shelter.
- Later, during the park's early days, construction crews camped inside the tree.
- The cavalry kept their horses there.
- The felled tree also once served as a hotel and saloon and a temporary home to a pair of cattlemen. (These details are on unofficial websites, but I haven't found anything online from the Park Service to verify.)

Sequoia National Park Fact

- Do you capitalize both words in Senate Grove? (And is it accurate to say the grove is in the Giant Forest of Sequoia?)

Thank you,

Katherine

From: Kawasaki-Yee, Sintia C <Sintia_Kawasaki-Yee@nps.gov>

Sent: Monday, October 11, 2021 3:00 PM

To: Katherine DeGross <kdegross@npca.org>

Subject: Re: [External] Fact-check Sequoia details for National Parks magazine article

Hi Katherine,

We are very busy with the KNP Fire Complex these days, so please email me the questions you have, and we'll see if we can get them answered in the coming days.

Thank you,
Sintia

Sintia C. Kawasaki-Yee | She, Her, Ella

Public Affairs Officer

Acting Management Assistant

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From: Katherine DeGross <kdegross@npca.org>

Sent: Friday, October 8, 2021 8:26 AM

To: Kawasaki-Yee, Sintia C <Sintia_Kawasaki-Yee@nps.gov>

Subject: [EXTERNAL] Fact-check Sequoia details for National Parks magazine article

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Sintia,

I hope you are well! I was in touch last December about a quote we ran in a story about mule packers in parks and now we're running an illustrated essay about an artist's recent experience in Sequoia and Kings Canyon. The piece includes details about the parks, the trees, wildlife and wildfire. I'm tracking down all the facts that I can, but I'm hoping you might have a few minutes next week to confirm any outstanding tidbits by phone?

The best windows for me are between 12:30 and 2 p.m. Pacific on Tuesday (10/12), 8:30 - 10:30 a.m. Pacific on Wednesday (10/13) or any time on Thursday (10/14).

I appreciate your time.

Sincerely,
Katherine

Katherine DeGross

Associate Editor, National Parks magazine | National Parks Conservation Association

C: 571-268-0071 | kdegross@npca.org | npca.org

Your parks. Your turn.

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Employee Update 10/13/21

Kawasaki-Yee, Sintia C <Sintia_Kawasaki-Yee@nps.gov>

Wed 10/13/2021 5:29 PM

To: NPS SEKI All Employees <SEKI_all_employees@nps.gov>

Hi all,

Update for today was the lifting of evacuation warnings for Ash Mt. and Grant Grove Districts. The meeting for Lodgepole NPS Housing Residents with Clay and April has been moved to Monday, 10/18. Details are being sent out from Andy Carl.

A few photos from today's trip into the park, between Ash Mt. and Red Fir:



Large log and debris along Gen Hwy just below Giant Forest



Commissary Curve Giant Forest



Road damage from Giant Sequoia falling across road near Four Guardsmen Giant Forest



High Sierra Trailhead in Crescent Meadow Giant Forest



High Severity Burn Area just north of Red Fir along Gen Hwy

Of note, Lodgepole Housing area had no fire damage, lawn furniture and decor remain intact. Giant Forest Museum and Beetle Rock intact. Lower Sherman facilities were untouched by fire. Quite a bit of rocks, trees, debris along the Gen Hwy heading up to Giant Forest from Hospital Rock.

Mail Update:

The mail from the Memorial Building has been brought up to Ash Mt. and distributed in the mail/copy room. The post office will deliver the PO box mail either tomorrow or Friday as they are liable for the PO box mail.

FedEx and UPS will be delivered to the Memorial Building for now.

Upper Ash Mountain Housing Opening

Residents of Upper Ash Mountain housing may return to their residences immediately. Please check out of your lodging no later than Tomorrow, 10/14 morning. Ash Mt. is no longer under evacuation warning.

Buckeye Housing Remains Evacuated

Due to a water outage in Buckeye Housing the area will remain evacuated until further notice. Ash Mt. is no longer under evacuation warning.

Cedar Grove Housing Remains Evacuated

Facilities Management is inspecting utilities in Cedar Grove. If no problems are identified residents may plan on returning to their homes later this week.

Grant Grove Housing Open

Please use as little water as possible until we can build up our supply. Water production is up, so we hope this is just a short-term situation. The facilities team has provided water bottles for those affected; they are available at the Grant Grove Maintenance Facility. Grant Grove is no longer under evacuation warning.

Mineral King Housing Remains Evacuated

This area remains under mandatory evacuation order.

Lodgepole Housing Remains Evacuated

This area remains under mandatory evacuation order.

For Evacuated Park Housing Residents

We are coordinating trips of about ten cars in a caravan that meet at an established point, escort the cars into the residential area and allow 2-3 hours for the folks in the caravan to retrieve and load belongings. The escorted caravan then leaves the area. This is intended for folks who are ending their seasons to get all their belongings out of their residence and for permanent residents to retrieve high priority items. If you do not need to go to your residence, please do not sign up.

Please [fill out this form](#) so we can schedule these trips.

Employee Website

We continue to maintain the [employee website](#). Password: SEKI#1.

If you saw something in a recent email that isn't here anymore, you can find it there! If you don't see a category that specifically pertains to the info that you want, look at the Q&A section.

Daily All Employee Calls

Microsoft Teams meeting

Join on your computer or mobile app

[Click here to join the meeting](#)

Or call in (audio only)

[+1 202-640-1187,,369100674#](#) United States, Washington DC

Phone Conference ID: 369 100 674#

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All the best,
Sintia

Sintia C. Kawasaki-Yee | She, Her, Ella

Public Affairs Officer

Acting Management Assistant

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From: [Wu, Elizabeth T](#)
To: [Paterson, Rebecca E](#); [Kawasaki-Yee, Sintia C](#)
Cc: [Caprio, Tony C](#); [James, Joshua A](#); jamesajoshua@gmail.com; [Duncan, Taylor M](#); tduncan1@binghamton.edu; [Elizabeth T Wu](#)
Subject: General Sherman Tree preparations for the KNP Complex Fire: photos & updates
Date: Thursday, September 16, 2021 2:33:50 PM

Hi Rebecca & Sintia,

We wanted to send you some information and photos from preparations for General Sherman Tree. Please pass this along to the FIOs (Steven Bekkerus & Katy Hooper) too.

Thanks,
SEKI Fire Effects (REAFs for KNP-Complex)

Incident: CA-KNP Complex Fire

Division: Giant Forest Protection Group

Team: North Pacific Forestry & REAF personnel

REAFs: Tony Caprio, Josh James, Taylor Duncan (trainee), Elizabeth Wu (trainee) <-- all from SEKI Fire Effects (Crew 9)

Contractors/Crew: North Pacific Forestry (10 personnel, from Oregon)

Photography: Taylor Duncan & Elizabeth Wu

Date (of photographs): September 15, 2021

Summary:

The READ/REAF team (Tony Caprio, Joshua James, Taylor Duncan, & Elizabeth Wu) went up to the General Sherman Tree on Monday (9/13/2021). We assessed the tree and environs, to make recommendations for fire mitigation. We also surveyed several other important resources (nearby named sequoias, historic buildings, etc).

We submitted recommendations the next morning (9/14/2021), but could not yet implement those plans, because of logistical reasons (fire/safety; needing to evacuate from Ash Mtn headquarters & Buckeye employee housing).

We (Joshua James, Taylor Duncan, & Elizabeth Wu) returned to the General Sherman Tree the following day (9/15/2021). We were joined by 10 members of the North Pacific Forestry crew. Josh briefed them on the tree's significance (which they already fully understood, of course), the need to work carefully around the tree, and gave instructions as to how to prep the tree (fuel reductions, wrapping the tree). We began work in the immediate area of General Sherman (within the fence). We accomplished fuel reductions-- removing litter from cat faces (cavities as the base of the tree), removing litter around the base of the tree (2-meter buffer), removing small-medium DWD (downed woody debris), and removing litter on and around large DWD. We (Josh, Taylor, & Elizabeth) had to leave before the North Pacific Forestry crew-

- they planned to also wrap the large DWD (big logs).

Depending on logistics, we may do more to prep General Sherman Tree. Future plans would include more fuel reductions in a greater area surrounding the tree. Of course, this depends greatly on the fire and safety.

Photos:

Will be attached in subsequent emails in this conversation.

From: [Wu, Elizabeth T](#)
To: [Paterson, Rebecca E](#); [Kawasaki-Yee, Sintia C](#)
Cc: [Caprio, Tony C](#); [James, Joshua A](#); jamesajoshua@gmail.com; [Duncan, Taylor M](#); tduncan1@binghamton.edu; [Elizabeth T Wu](#)
Subject: General Sherman Tree preparations for the KNP Complex Fire: photos & updates
Date: Thursday, September 16, 2021 2:33:50 PM

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Photos:

Will be attached in subsequent emails in this conversation.

From: [Caprio, Tony C](#)
To: [Cremers, Andrew G](#)
Subject: Giant Forest large sequoia trees
Date: Thursday, September 16, 2021 5:19:00 PM
Attachments: [Giant Forest Lrg Trees gt300cm_west.pdf](#)
[Giant Forest Lrg Trees gt300cm.pdf](#)
[Giant Forest Lrg Trees gt300cm_center.pdf](#)
[Giant Forest Lrg Trees gt300cm_east.pdf](#)

Hey Andrew—

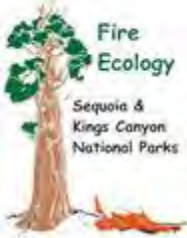
Attached are some maps showing location of large SEGI (>300 cm or ~10 ft DBH) in Giant Forest. These are geo-PDF and can be imported into Avenza (or whatever).

Tony

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Tony Caprio

Fire Ecologist
Sequoia & Kings Canyon National Parks
47050 Generals Highway
Three Rivers, CA 93271
559-565-3126
tony_caprio@nps.gov



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From: [Caprio, Tony C](#)
To: [Brigham, Christy M](#); [Mathiesen, Leif](#)
Cc: [Ziegler, John W](#); [James, Joshua A](#); [Bonnifield, Juanita T](#)
Subject: Giant Forest resource info
Date: Tuesday, September 14, 2021 8:54:00 AM
Attachments: [KNP Complex - notes for READ Incident Summary \(13 Sept 2021\) Giant Forest.docx](#)

Christy & Leif—

Attached is a document listing some of the info we gathered yesterday in Giant Forest. It is focused on trees of special interest and cultural areas and mostly focused on areas where we have not done any past burn treatments. It lists what we thought could be priorities and how much prep work would be needed around the particular resource.

We also brought up a number of rolls structural wrap that we stashed in front of the Beetle Rock building (by front door). Not a whole lot so should be used on highest priority resources, such as Sherman Tree.

Tony

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Tony Caprio

Fire Ecologist
Sequoia & Kings Canyon National Parks
47050 Generals Highway
Three Rivers, CA 93271
559-565-3126
tony_caprio@nps.gov



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From: [Dickinson, Matthew -FS](#)
To: [Forrestel, Alison](#)
Cc: [Flaherty, Lanny - FS](#); [Schaffner, Theresa - FS](#); [Pasquale, Richard -FS](#); [Cutten, Merritt - FS](#); [Ewell, Carol -FS](#); [Caprio, Tony C](#)
Subject: [EXTERNAL] FBAT order for KNP Complex
Date: Wednesday, September 29, 2021 11:37:28 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[Order_KNP-Complex_29Sept2021.docx](#)

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Alison,

Attached is the order for the Fire Behavior Assessment Team which will collect information (esp. video and photo documentation) on fire in Sequoia Groves. I would travel first (this Friday, 1 October, from Bozeman, MT) and tie in with Tony on Saturday to assemble plot information. The rest of the team will begin travel on Saturday or Sunday. Carol Ewell will provide remote support and join the team in the field if needed.

Please call me with any questions.

Thank you for your help.

Matt



Matthew Dickinson
Research Ecologist

p: 740-368-0096 c: 614-556-2271
matthew.b.dickinson@usda.gov

Forest Service
Northern Research
Station

359 Main Road
Delaware, OH 43015

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From: [Elizabeth T Wu](#)
To: [Firmage, David](#); [Caprio, Tony C](#)
Cc: [David Neiss](#)
Subject: [EXTERNAL] Grant & Big Stump Groves: working list of READ/ARCH recommendations [Fwd: Printing request]
Date: Tuesday, October 5, 2021 10:33:10 PM
Attachments: [icon.png](#)
[Grant Grove & Big Stump Grove \(within SEKI NP\) - READ & ARCH notes \(3 Oct 2021\) - updated version \(5 Oct 2021\).docx](#)

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Dave-- FYI, this is the document that we were talking about.
Tony-- I changed the order of the focal resources so that they would match up with the prioritization that we discussed. I also added in some extra location info. Otherwise, the content is all the same.

ETW

----- Forwarded message -----

From: Elizabeth T Wu <elizabeth.wu@humboldt.edu>
Date: Tue, Oct 5, 2021 at 10:26 PM
Subject: Re: Delivery Status Notification (Failure)
To: <support2@nomadiclandservices.com>
Cc: David Neiss <daveneiss@gmail.com>

Hello,

Please print 20 copies (8.5"x11", color, double-sided, stapled). Could it be ready by 8am, please?

Thanks,
Elizabeth
(READ for KNP Complex Fire)

On Tue, Oct 5, 2021 at 10:23 PM Mail Delivery Subsystem <mailer-daemon@googlemail.com> wrote:

Address not found



Your message wasn't delivered to **Support2@nomadiaclandservices.com** because the domain nomadiaclandservices.com couldn't be found. Check for typos or unnecessary spaces and try again.

The response was:

DNS Error: 2668554 DNS type 'mx' lookup of nomadiaclandservices.com responded with code NXDOMAIN Domain name not found: nomadiaclandservices.com

----- Forwarded message -----

From: Elizabeth T Wu <elizabeth.wu@humboldt.edu>

To: Support2@nomadiaclandservices.com

Cc: David Neiss <daveneiss@gmail.com>

Bcc:

Date: Tue, 5 Oct 2021 22:23:27 -0700

Subject: Printing request

----- Message truncated -----

From: [Paul Hardwick](#)
To: [Kerry Gaiz](#); [Katie Brown](#); [Kari Gromatzky](#)
Cc: [Brigham, Christy M](#); [Caprio, Tony C](#)
Subject: [EXTERNAL] KNP Complex Updated Sequoia Grove GEL Application Areas
Date: Thursday, October 7, 2021 9:05:23 AM
Attachments: [KNP SequiaGrove GEL Application.zip](#)

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Attached is a shape file that contain updated recommended GEL application areas for Big Stump and East Fork groves. The shape file also contains the previous recommended application areas.

Paul Hardwick
Information Resources Branch Chief -
GIS & Data Coordinator
Sequoia & Kings Canyon National Parks
47050 Generals Highway
Three Rivers, CA 93271
Phone: 559-565-3725

From: [Elizabeth T Wu](#)
To: [Clerical Support](#)
Cc: [Firmage, David](#); [Caprio, Tony C](#); [David Neiss](#)
Subject: [EXTERNAL] Print please
Date: Wednesday, October 6, 2021 8:27:22 AM
Attachments: [Grant Grove & Big Stump Grove \(within SEKI NP\) - READ & ARCH notes \(3 Oct 2021\) - current version \(6 Oct 2021\).docx](#)

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Andrew--

Please print 10 copies (8.5"x11", color, double-sided, stapled).

Thanks,
Elizabeth
(READ team)

From: [Elizabeth T Wu](#)
To: [Caprio, Tony C](#); [Firmage, David](#); [Brigham, Christy M](#); [James, Joshua A](#); [Joshua James](#); rita.morris@usda.gov; [Ryan, Amelia B](#); [Amelia Ryan](#); [Deane, John S](#); [David Neiss](#); [Lanny Flaherty](#); lanny.flaherty@usda.gov; [Gunnison, Elliot R](#); [Orozco, David -FS](#); [Clerical Support](#)
Subject: [EXTERNAL] Printing request [Fwd: Grant - priority list trees of special interest]
Date: Wednesday, October 6, 2021 10:35:50 PM
Attachments: [Grant - Trees Special Interest priorities.xlsx](#)
[Grant-Trees of Special Interest updated locations.pdf](#)

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Tony— Thanks.

Andrew/Margarita/Clerical— Please print 10 copies (in color; letter or legal-sized paper, whatever size makes sense).

Everyone else (I added a few people to this email group)— FYI.

ETW

----- Forwarded message -----

From: **Caprio, Tony C** <Tony_Caprio@nps.gov>
Date: Wednesday, October 6, 2021
Subject: Grant - priority list trees of special interest
To: Elizabeth Wu <ew24@humboldt.edu>, "James, Joshua A" <joshua_james@nps.gov>, "Firmage, David" <David_Firmage@nps.gov>, "amelia_byrd_ryan@yahoo.com" <amelia_byrd_ryan@yahoo.com>, "lannyflaherty@gmail.com" <lannyflaherty@gmail.com>, "Gunnison, Elliot R" <Elliot_Gunnison@nps.gov>, "rita.morris@usda.gov" <rita.morris@usda.gov>
Cc: "Brigham, Christy M" <Christy_Brigham@nps.gov>

I went through the list of trees of special interest in Grant and prioritized them for prepping based on several criteria. I only rated trees that appear from our maps to not be within Rx burns (so no treatments). Since our maps are not exact you may find trees that are ranked that are in treatments or others that actually were not treated. If they've been treated move to the next tree. Ranking included things like how visible is the tree (is it near a road or trail), whether there's easy access, whether it's a group of trees that could be done as a group, and so on. Other than the Fallen Monarch I did not include logs in the ranking since they'd be very difficult to prep and living trees should have the priority. Prepping these trees in untreated locations will be somewhat slow, so hopefully the fire will give us time.

Attached is a prioritized list and a map showing tree locations.

Tony

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Tony Caprio

Fire Ecologist

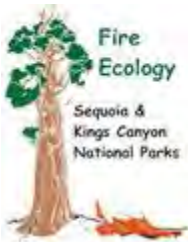
Sequoia & Kings Canyon National Parks

[47050 Generals Highway](#)

Three Rivers, CA 93271

559-565-3126

tony_caprio@nps.gov



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From: [Ben Jacobs](#)
To: [Caprio, Tony C](#); [Stephenson, Nathan L](#); ryork@berkeley.edu; [Kristen Shive](#)
Cc: Reith, Heather@Parks
Subject: [EXTERNAL] Question about a sequoia grove
Date: Friday, October 8, 2021 12:39:08 PM

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Hey everyone, I'm reaching to the most preeminent fire ecologists I know. I just got done with a site visit to our Calaveras North Grove of sequoias with a couple CalFire overhead as I want to start burning our grove next week.

(b) (5) [Redacted]

[Redacted]

[Redacted]

[Redacted] Thanks a lot, Ben

From: [Beals-Nesmith, Jonathan - FS, PORTLAND, OR](#)
To: [Caprio, Tony C](#); [Stephenson, Nathan L](#); [Anthony Ambrose](#)
Subject: [EXTERNAL] RE: Baked potato effect-wrapping sequoias
Date: Wednesday, October 6, 2021 1:45:56 PM
Attachments: [image004.png](#)
[image005.png](#)
[image006.png](#)
[image002.png](#)

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Thanks for sharing that Tony. Really interesting observations from Garrett. It does seem that the more effective options could be saturating the bark and surrounding area ahead of the fire and clearing as much of the large/deep fuels away from under the crown as possible to protect individual trees. Learning as you go!



Jonathan Nesmith, PhD ([he/him/his](#))
Data Collection Team Leader
Resource Monitoring and Assessment

Forest Service
PNW Research Station

office: 503-808-2071
mobile: 503-708-8422
jonathan.beals-nesmith@usda.gov

620 SW Main St., Ste. 502
Portland, OR 97205
www.fs.fed.us



Caring for the land and serving people

From: Caprio, Tony C <Tony_Caprio@nps.gov>
Sent: Wednesday, October 6, 2021 1:35 PM
To: nstephenson@usgs.gov; [Anthony Ambrose <ambrose@berkeley.edu>](mailto:ambrose@berkeley.edu); Beals-Nesmith, Jonathan - FS, PORTLAND, OR <Jonathan.Beals-Nesmith@usda.gov>
Subject: FW: Baked potato effect-wrapping sequoias

FYI – Info Garrett sent us on wrapping.

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Tony Caprio

Fire Ecologist
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47050 Generals Highway
Three Rivers, CA 93271
559-565-3126
tony_caprio@nps.gov



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From: Dickman, Garrett J <Garrett_Dickman@nps.gov>
Sent: Sunday, September 26, 2021 9:27 PM
To: Forrestel, Alison <Alison_Forrestel@nps.gov>; Brigham, Christy M <Christy_Brigham@nps.gov>; Caprio, Tony C <Tony_Caprio@nps.gov>; Demetry, Athena <Athena_Demetry@nps.gov>
Subject: Baked potato effect-wrapping sequoias

We unwrapped some sequoias in the Redwood Corral grove on the Tule Indian Reservation today. Most looked good. Some had fire creep under the wrap. The heat seemed trapped in the wrap and created a baked tater effect. Once we took off the wrap, the tree cooled down. I think wrapping trees is still fine, but should be followed up with some water in case heat gets established under the foil and cooks away.

Garrett Dickman
Vegetation and Forest Management
Yosemite National Park
PO Box 700
El Portal CA 95318

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From: [Anthony Ambrose](#)
To: [Beals-Nesmith, Jonathan - FS, PORTLAND, OR](#)
Cc: [Caprio, Tony C](#); [Stephenson, Nathan L](#)
Subject: [EXTERNAL] Re: Baked potato effect-wrapping sequoias
Date: Wednesday, October 6, 2021 3:58:24 PM
Attachments: [image004.png](#)
[image005.png](#)
[image006.png](#)
[image002.png](#)

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Thanks Tony.

Yes, learning as you go for sure.

Is there some way to fold the wrapping so it more closely follows bark contours into and out of furrows to minimize the chance of embers entering from the top? Using staples or tacks perhaps?

Anthony

On Wed, Oct 6, 2021 at 1:45 PM Beals-Nesmith, Jonathan - FS, PORTLAND, OR
<Jonathan.Beals-Nesmith@usda.gov> wrote:

Thanks for sharing that Tony. Really interesting observations from Garrett. It does seem that the more effective options could be saturating the bark and surrounding area ahead of the fire and clearing as much of the large/deep fuels away from under the crown as possible to protect individual trees. Learning as you go!



Jonathan Nesmith, PhD ([he/him/his](#))
Data Collection Team Leader

Resource Monitoring and Assessment
Forest Service

PNW Research Station
office: 503-808-2071

<Christy_Brigham@nps.gov>; Caprio, Tony C <Tony_Caprio@nps.gov>; Demetry, Athena <Athena_Demetry@nps.gov>

Subject: Baked potato effect-wrapping sequoias

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Garrett Dickman

Vegetation and Forest Management

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From: [Peggy Moore](#)
To: [Stephenson, Nathan L](#)
Cc: [Caprio, Tony C](#); [Demetry, Athena](#); [Haultain, Sylvia A](#); [Dickman, Garrett J](#); [77beatty](#); [Brigham, Christy M](#); [Das, Adrian J](#); [Hardwick, Paul E](#); [Flickinger, Joshua A](#); [Breeanne Jackson](#)
Subject: [EXTERNAL] Re: Draft guide to sequoia crown conditions
Date: Friday, September 10, 2021 9:16:05 AM

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You're always so creative Nate. I like the human analogies.

I think I'm following the methods and their development fairly well. The photos are very helpful of course. I cannot see the epicormic sprouting very well in that particular photo - probably because I haven't viewed it on a large enough device - but I've seen enough elsewhere and note the point that it's on larger branches, so I think I can recognize it well enough.

The photos of sparse crown versus partially dead crown are particularly helpful. And thank you for pointing out how male cones could be taken for foliage die-back. I'll have my wonderful, gifted binoculars along to help me distinguish between them.

Although the priority is to move quickly and observe all trees and thus not record insect and disease sign, I'm curious about the Phloeosinus and would be interested in seeing entrance holes and hearing about it during training if that's convenient.

Will we have access to recent fire history in the grove to help us interpret indications of scorch and girdling so we are at least familiar with what burned and how recently in case it's not evident?

The first day or two of implementing the methods should help tune our eyes and bring any questions to light. I'm glad we're providing time for that.

Thanks,
Peggy

On Thu, Sep 9, 2021, 2:12 PM Stephenson, Nathan L <nstephenson@usgs.gov> wrote:

Colleagues --

Attached is the latest draft of the photo guide, incorporating Tony's comments. Any other comments?

Nate

From: Stephenson, Nathan L <nstephenson@usgs.gov>

Sent: Thursday, September 9, 2021 1:01 PM

To: Caprio, Tony C <Tony_Caprio@nps.gov>; Demetry, Athena <Athena_Demetry@nps.gov>; Haultain, Sylvia A <Sylvia_Haultain@nps.gov>; Dickman, Garrett J <Garrett_Dickman@nps.gov>; pemoore4 <pemoore4@gmail.com>; 77beatty <77beatty@gmail.com>; Brigham, Christy M <Christy_Brigham@nps.gov>

Cc: Das, Adrian J <adas@usgs.gov>; Hardwick, Paul E <Paul_Hardwick@nps.gov>; Flickinger, Joshua A <Joshua_Flickinger@nps.gov>; Breeanne Jackson <bjackson10@ucmerced.edu>

Subject: Re: Draft guide to sequoia crown conditions

Many thanks for the photos and comments, Tony!

In the photo guide I'll now include a page for torch.

Regarding Type 1 vs. Type 2 scorch, here's a question for those in charge of the inventories (particularly Athena and Christy): In the name of speed (so we can re-inventory whole groves), we've simplified lots of things (e.g., acute foliage dieback is a binary yes-no for >25% dieback) ... the idea being that the abbreviated, simple results can be used to trigger more in-depth study when needed. Do you want separate categories for Type 1 and Type 2 scorch? Alternatively, we can still just do categorical % crown volume scorch with no distinction between Type 1 and Type 2, although the photo guide would describe the two types to help people know what to look for and how to interpret it. Up to you.

I can also include a page for Tony's Type 3 (which really isn't scorch, rather it's girdling) with a description that dead foliage MIGHT be lighter yellow than is normal when it really is scorch.

Nate

From: Caprio, Tony C <Tony_Caprio@nps.gov>

Sent: Tuesday, September 7, 2021 11:49 AM

To: Stephenson, Nathan L <nstephenson@usgs.gov>; Demetry, Athena <Athena_Demetry@nps.gov>; Haultain, Sylvia A <Sylvia_Haultain@nps.gov>; Dickman, Garrett J <Garrett_Dickman@nps.gov>; pemoore4 <pemoore4@gmail.com>; 77beatty <77beatty@gmail.com>; Brigham, Christy M <Christy_Brigham@nps.gov>

Cc: Das, Adrian J <adas@usgs.gov>; Hardwick, Paul E <Paul_Hardwick@nps.gov>; Flickinger, Joshua A <Joshua_Flickinger@nps.gov>; Breeanne Jackson <bjackson10@ucmerced.edu>

Subject: RE: Draft guide to sequoia crown conditions

I took a look through this yesterday and have a few comments and suggestions.

1. Scorch – a) we've split crown scorch into two categories. One, which is the most common and we call "type 1", is scorching due to the convective heat from surface fire or the

burning of lower canopy fuels. So scorch from the bottom up. However, in some cases the scorching is just found in the upper canopy of the tree with the lower canopy intact and we're calling this "type 2" and is due to the occurrence of fire in the crown of a tree where the tree is hollow, or a dead crown has burned, or where a catface runs all the way to the tree crown and carries fire directly into the crown.

b) We also have a "type 3", which really isn't scorch, but can be difficult to tell from scorch and is when the tree crown is 100% dead and the tree appears to have been killed by the fire girdling the tree at the base. This is most common in smaller diameter trees (difficult to always tell from scorch) but we've seen it in a few large trees (particularly where a large sequoia log burned next to the tree base). Needles tend to look lighter yellow in these trees compared to trees scorched, but again not always that obvious.

2. Torching – You might want to include a "torching" category, although you probably won't have any of this category in the current round of sampling, but maybe in the future. In one high severity patch in Garfield one tree had all its crown foliage burned off, so no scorch and the tree was dead. A couple of other trees were more mixed, with ~45% of the canopy torched, ~50% scorched, and ~5% still green. We also split torching into several severity categories for our sampling.

Some example images are attached + an image showing a range of crown scorch percentages in a group of SEGI (30 to 50% on right to ~90% on left).

Tony

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Tony Caprio

Fire Ecologist

Sequoia & Kings Canyon National Parks

47050 Generals Highway

Three Rivers, CA 93271

559-565-3126

tony_caprio@nps.gov



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From: Stephenson, Nathan L <nstephenson@usgs.gov>
Sent: Monday, September 6, 2021 9:34 AM
To: Demetry, Athena <Athena_Demetry@nps.gov>; Haultain, Sylvia A <Sylvia_Haultain@nps.gov>; Dickman, Garrett J <Garrett_Dickman@nps.gov>; pemooore4 <pemooore4@gmail.com>; 77beatty <77beatty@gmail.com>; Brigham, Christy M <Christy_Brigham@nps.gov>

Cc: Das, Adrian J <adas@usgs.gov>; Hardwick, Paul E <Paul_Hardwick@nps.gov>; Flickinger, Joshua A <Joshua_Flickinger@nps.gov>; Breeanne Jackson <bjackson10@ucmerced.edu>; Caprio, Tony C <Tony_Caprio@nps.gov>

Subject: Draft guide to sequoia crown conditions

Colleagues --

As a potential aid to our sequoia inventories, attached is a draft illustrated guide to what the different crown/foilage conditions look like and mean.

For each condition, I've briefly outlined the mechanisms we think might be involved. And that's one of the key reasons we want to record crown conditions: going into the future, different crown conditions will likely be indicative of different mechanisms of sequoia change.

Comments welcomed! And the guide still needs a good photo of typical sequoia crown scorch ... Tony? I'm thinking of a photo of a sequoia with maybe 1/3 to 1/2 crown scorch.

Cheers,

Nate

From: [Emmendorfer, Marianne - FS](#)
To: [Huber, Ann M](#); [Coleman, Tyler](#); [Boiano, Daniel M](#); [Caprio, Tony C](#); [Forrestel, Alison](#); [Brigham, Christy M](#); [Bonnifield, Juanita T](#); [Farias, Elle H](#)
Subject: [EXTERNAL] RE: draft IMT Read Guide for your review
Date: Tuesday, September 28, 2021 10:59:10 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

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I have reviewed, concur with the various other suggestions, and suggest the following:

- Groves-add Big Stump Grove to list
- Streams, Lakes, etc. -add something like "Limit dipping from Hume Lake, Pierce Pond, and Lake Homovalo (Montecito resort) to minimize the spread of invasive bullfrogs or other non-native aquatic species to other waterbodies, especially perennial streams, wet meadows and wilderness lakes like Weaver, Jennie Ellis."
- Weeds-regarding wash before entry, add Forest to statement ("before operating in Park/Forest")

Thank you, Marianne



Marianne Emmendorfer, MS,
CIGT, CIP
District Silviculturist
Forest Service
Sequoia National Forest, Giant
Sequoia National Monument,
Hume Lake Ranger District
p: 559-338-2251 x313
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The USDA logo and social media icons for Twitter and Facebook.
Caring for the land and serving
people

From: Huber, Ann M <ann_huber@nps.gov>
Sent: Tuesday, September 28, 2021 10:19 AM

To: Coleman, Tyler <Tyler_Coleman@nps.gov>; Boiano, Daniel M <Danny_Boiano@nps.gov>; Caprio, Tony C <Tony_Caprio@nps.gov>; Forrestel, Alison <Alison_Forrestel@nps.gov>; Brigham, Christy M <Christy_Brigham@nps.gov>; Bonnifield, Juanita T <Juanita_Bonnifield@nps.gov>; Emmendorfer, Marianne - FS <marianne.emmendorfer@usda.gov>; Farias, Elle H <elle_farias@nps.gov>

Subject: Re: draft IMT Read Guide for your review

Thank you this looks great. I've reviewed and only have suggestions to add text in bold - unless you think it's covered well enough in Plants:

- Avoid using retardant or foam within 300 ft of lakes, streams, wetlands, **meadows**, and other water bodies whenever possible
- Avoid trampling and operating vehicles and heavy equipment in wet soils **and wet or dry meadows**

Ann

From: Coleman, Tyler <Tyler_Coleman@nps.gov>

Sent: Monday, September 27, 2021 9:07 AM

To: Boiano, Daniel M <Danny_Boiano@nps.gov>; Caprio, Tony C <Tony_Caprio@nps.gov>; Forrestel, Alison <Alison_Forrestel@nps.gov>; Brigham, Christy M <Christy_Brigham@nps.gov>; Bonnifield, Juanita T <Juanita_Bonnifield@nps.gov>; Emmendorfer, Marianne - FS <marianne.emmendorfer@usda.gov>; Farias, Elle H <elle_farias@nps.gov>; Huber, Ann M <ann_huber@nps.gov>

Subject: Re: draft IMT Read Guide for your review

All looks good to me, especially with the changes suggested below.

Regarding the bear section. Can we add a bullet to indicate where/how firefighters can report nuisance bear activity?

Thank you again!

Ty Coleman

From: Boiano, Daniel M <Danny_Boiano@nps.gov>

Sent: Monday, September 27, 2021 8:58 AM

To: Caprio, Tony C <Tony_Caprio@nps.gov>; Forrestel, Alison <Alison_Forrestel@nps.gov>; Brigham, Christy M <Christy_Brigham@nps.gov>; Bonnifield, Juanita T <Juanita_Bonnifield@nps.gov>; Coleman, Tyler <Tyler_Coleman@nps.gov>; Emmendorfer, Marianne - FS <marianne.emmendorfer@usda.gov>; Farias, Elle H <elle_farias@nps.gov>; Huber, Ann M <ann_huber@nps.gov>

Subject: Re: draft IMT Read Guide for your review

Thanks Alison/All,

The doc looks good to me, and I have the following comments:

1. Bottom of page 2, change the following sentence from 'Sequoia National Park' to 'Sequoia and Kings Canyon National Parks' - **Heavy equipment may not be used within Sequoia National Park without prior approval from the Superintendent**
2. Near bottom of page 3, edit the following section from 'all water bodies' to 'all water features including streams, lakes, ponds, wet meadows, etc.' - **STREAMS, LAKES, AND OTHER WATER BODIES - Retardant: Avoid the application of retardant and foam within 300 ft of all water bodies**
3. The Wildlife-Bears section looks good - has good, detailed language.

Good luck,

Danny

I am currently under mandatory evacuation from SEKI and upper Three Rivers due to the KNP Complex Fire. The best methods for contacting me are:

- danny_boiano@nps.gov (work email)
- danny.boiano@gmail.com (personal email)
- 209-743-2310 (cell phone/text)

Danny Boiano

Physical and Wildlife Sciences Branch Chief -

Aquatic Ecologist

Sequoia and Kings Canyon National Parks

Office: 559-565-4273

Telework: 559-561-4750 (landline)

From: Caprio, Tony C <Tony_Caprio@nps.gov>

Sent: Sunday, September 26, 2021 5:18 PM

To: Forrestel, Alison <Alison_Forrestel@nps.gov>; Brigham, Christy M <Christy_Brigham@nps.gov>;
Bonnifield, Juanita T <Juanita_Bonnifield@nps.gov>; Coleman, Tyler <Tyler_Coleman@nps.gov>;
Boiano, Daniel M <Danny_Boiano@nps.gov>; Emmendorfer, Marianne - FS
<marianne.emmendorfer@usda.gov>; Farias, Elle H <elle_farias@nps.gov>; Huber, Ann M
<ann_huber@nps.gov>

Subject: Re: draft IMT Read Guide for your review

1) There are no roads in the Castle Cr. Grove so that can be removed.

2) Do we really want to say burn off from the road in Atwell? Does it need a qualifier? If they burn off the road when the fire is still high up in grove we'll end up with a head fire, which I thought we were indicating we didn't want in groves. Should it say if the fire is backing through the grove that crews can fire off the road if the fire is within xxx feet of the road/fire line (maybe 300 or 500 feet?).

3) Large trees/snags that we don't want cut (such as nest trees) should be lined to increase the chances they will not be burned.

Tony

Tony Caprio

tony_caprio@nps.gov

47050 Generals Hwy.

Three Rivers, CA 93271

559.565.3126

From: Forrestel, Alison <Alison_Forrestel@nps.gov>

Sent: Sunday, September 26, 2021 4:06:38 PM

To: Brigham, Christy M <Christy_Brigham@nps.gov>; Bonnifield, Juanita T <Juanita_Bonnifield@nps.gov>; Coleman, Tyler <Tyler_Coleman@nps.gov>; Boiano, Daniel M <Danny_Boiano@nps.gov>; Emmendorfer, Marianne - FS <marianne.emmendorfer@usda.gov>; Caprio, Tony C <Tony_Caprio@nps.gov>; Farias, Elle H <elle_farias@nps.gov>; Huber, Ann M <ann_huber@nps.gov>

Subject: draft IMT Read Guide for your review

Hi all –

I drafted a READ guide for the IMT. The goal is to keep it super brief and simple for the Ops people on the team to read. Less is more in hopes they will actually read and follow it.

Please take a look and make edits in suggestion mode or comments:

https://docs.google.com/document/d/1yOuoyDO3S_Zpr6aqw1rQTgGtgYUHjLLp/edit?usp=sharing&oid=114819394056723072657&rtpof=true&sd=true

I didn't include the fisher and owl as a call out because I think that is covered in the prohibition on cutting trees >20". I didn't include invasive fish; bull frogs; western pond turtles or other aquatics because I think those should be covered in the no retardant and no dip zones.

Thank you!

Alison

Alison Forrestel, PhD | [she/her](#)

Natural Resources and Science

[Golden Gate National Recreation Area](#)

415-537-0470

alison_forrestel@nps.gov

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From: [Linnea Hardlund](#)
To: [Alexis Bernal](#); allyson.carroll@gmail.com; [Wuenschel, Amarina -FS](#); [Anthony Ambrose](#); [Cremers, Andrew G](#); [Ariel Thomson Roughton](#); [Demetry, Athena](#); bbulaon@fs.fed.us; ben.jacobs@parks.ca.gov; bestes@fs.fed.us; [Ben Jacobs](#); bjallen@ucdavis.edu; [Brandon Collins](#); [Francis, Coreen A](#); [Anderson, Chad T](#); [Brigham, Christy M](#); [Das, Adrian J](#); [Dickman, Garrett J](#); [Gretchen Fitzgerald](#); grouse@spi-ind.com; Reith, Heather@Parks; [Anderson, Jennifer R](#); jim.kral@fire.ca.gov; jkeir@thegreatbasininstitute.org; [Joanna Clines](#); [Joanna Nelson, PhD](#); [Singer, Kelly S](#); [Kristen Shive](#); [Mathiesen, Leif](#); [Mutch, Linda S](#); [Emmendorfer, Marianne - FS](#); [Meyer, Marc D -FS](#); [Morris Johnson \(morris.c.johnson@usda.gov\)](#); [Stephenson, Nathan L](#); [Paul Ringgold](#); [Hardwick, Paul E](#); [Julson, Margaret O](#); [Richard Rappaport](#); [Hart, Rodney - FS, Mcclellan, CA](#); [ryork](#); [Sarah Bisbing](#); Campe_Sarah@SNC; [Sonia Morris](#); Caprio, Tony C; ttate@spi-ind.com; wendy@marmotsociety.org; [Scott Stephens](#); ejeanbrennan; [Davis, Seth](#)
Subject: [EXTERNAL] RE: Fall Giant Sequoia Working Group Field Trip
Date: Monday, October 4, 2021 6:26:05 PM
Attachments: [image640266.png](#)
[image836685.png](#)
[image437023.png](#)
[image078697.png](#)
[image269844.png](#)
[image589517.png](#)
[image322589.png](#)
[image227333.png](#)
[image055934.png](#)
[image797467.png](#)
[image775783.png](#)
[image973380.png](#)

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Hello Giant Sequoia Working Group,

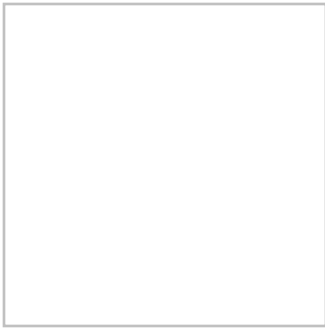
Unfortunately the fires in the range continue to burn and threaten groves, and many folks in this group remain heavily engaged in both incidents. Therefore, we have decided to postpone the field trip to a later date, if possible. Thank you to those of you who are currently working tirelessly to mitigate fire impacts in the groves on the KNP and Windy fires, it is unfortunately another incredibly hard year to be engaged in land management and research in the giant sequoia range.

For those of you who are not directly involved in the incidents, but want to keep an eye on where the groves are in relation to the fires, see Sonia's webmap [here](#).

Best,
Linnea

Linnea Hardlund
Giant Sequoia Forest Fellow
Pronouns: she/her
lhardlund@savetheredwoods.org

111 Sutter Street, 11th Floor
San Francisco CA 94104
StandForTheRedwoods.org



p 714-393-9303
f 415-362-7017



From: Linnea Hardlund

Sent: Monday, September 13, 2021 5:31 PM

To: Alexis Bernal <alexis_bernal@berkeley.edu>; allyson.carroll@gmail.com; Wuenschel, Amarina - FS; ambrose@berkeley.edu; Andrew Cremers <andrew_cremers@nps.gov>; Ariel Thomson Roughton <a_thomson@berkeley.edu>; athena_demetry@nps.gov; bbulaon@fs.fed.us; ben.jacobs@parks.ca.gov; bestes@fs.fed.us; Ben Jacobs <bjacobs111111@gmail.com>; bjallen@ucdavis.edu; Brandon Collins <bcollins@berkeley.edu>; c1franci@blm.gov; Chad Anderson <chad_anderson@nps.gov>; Brigham, Christy M <Christy_Brigham@nps.gov>; Das, Adrian J <adas@usgs.gov>; Dickman, Garrett J <Garrett_Dickman@nps.gov>; Gretchen Fitzgerald <gretchen.fitzgerald2@usda.gov>; grouse@spi-ind.com; Reith, Heather@Parks <Heather.Reith@parks.ca.gov>; Jenn Anderson <jennifer_r_anderson@nps.gov>; jim.kral@fire.ca.gov; jkeir@thegreatbasininstitute.org; Joanna Clines <joanna.clines@usda.gov>; Joanna Nelson, PhD <jnelson@savetheredwoods.org>; kelly_singer@nps.gov; Kristen Shive <kristen.shive@tnc.org>; Mathiesen, Leif <leif_mathiesen@nps.gov>; Linda Mutch <linda_mutch@nps.gov>; Linnea Hardlund <lhardlund@savetheredwoods.org>; Emmendorfer, Marianne - FS <marianne.emmendorfer@usda.gov>; Meyer, Marc D -FS <marc.meyer@usda.gov>; Morris Johnson (morris.c.johnson@usda.gov) <morris.c.johnson@usda.gov>; NStephenson@usgs.gov; Paul Ringgold <pringgold@savetheredwoods.org>; paul_hardwick@nps.gov; pegg_julson@nps.gov; Richard Rappaport <richard.rappaport@parks.ca.gov>; Rodney Hart <rodney.hart@usda.gov>; ryork <ryork@berkeley.edu>; Sarah Bisbing <sbisbing@unr.edu>; Campe, Sarah@SNC <Sarah.Campe@sierranevada.ca.gov>; Sonia Morris <smorris@savetheredwoods.org>; tony_caprio@nps.gov; ttate@spi-ind.com; Wendy Baxter <wlbaxter@ucsc.edu>; Scott Stephens <sstephens@berkeley.edu>; Jean Brennan <ejeanbrennan@gmail.com>; Davis,Seth <Seth.Davis@colostate.edu>

Subject: Fall Giant Sequoia Working Group Field Trip

Hello Giant Sequoia Working Group!

Thank you for those who participated in the earlier doodle, and my apologies for a delayed reply. August turned out to be a busy month for everyone as most of the responses I received indicated field trip dates in September and October were much preferred, so given that September is already flying by, I am hoping that **Friday October 15th** (tentatively) works for a majority of folks to get out to Alder, you can indicate if you tentatively plan on attending [here](#). Having it on a Friday allows folks who would like to stay and camp at Alder to do so and can use their weekend to explore the Alder

property and the surrounding area if the forest is open by then. We have a rustic set up at Alder that includes running water, electricity, and plenty of space to pitch tents. Please email me individually if you plan to camp, or with specific questions regarding accommodations on the property.

I realize fire activity is picking up in the range recently, and many of you are engaged in those efforts currently. Additionally, the delta variant is also concerning to many folks, please do not feel pressured to attend if you don't feel comfortable, however we will be ensuring strict covid precautions are taken for this meeting. Due to the rapidly changing nature of the current fire situation in the range, and the ever evolving covid situation, this field trip remains tentative, and I will send more information closer to the date with the hope that things have calmed down by then. Finger's crossed for the big trees this year, and huge thank you to those of you who are working hard on active incidents in SEKI and on the SQF as we speak.

Best,
Linnea

From: [Swetnam, Thomas W - \(swetnamt\)](#)
To: [Caprio, Tony C](#); [Stephenson, Nathan L](#); meadowlrk@gmail.com
Subject: [EXTERNAL] Re: Giant Forest Rx Burns & KNP Burn Pattern
Date: Monday, September 20, 2021 10:31:24 AM

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Thanks Tony. This is super interesting and encouraging. Your decades of work, and all the fire folks at SEKI, has clearly had a positive impact. I had an old map you sent to me 10 years or so ago of prescribed burned areas in the Giant Forest, and I had hoped p-burning had continued apace over the last decade. So good to see that it pretty much did. That east side is a little worrisome though.

Fingers crossed that winds aren't too high in coming days. Seems like some of the mortality last year was from fire that got started in fuel pockets up high in the stems of old monarchs, e.g., dead tops, duff accumulations in branch crotches, etc. So, flying embers are still a threat, even if surface fuels are reduced.

Tom

From: Caprio, Tony C <Tony_Caprio@nps.gov>
Date: Sunday, September 19, 2021 at 9:02 PM
To: Brigham, Christy M <Christy_Brigham@nps.gov>, Mathiesen, Leif <leif_mathiesen@nps.gov>, Ziegler, John W <John_Ziegler@nps.gov>, Cremers, Andrew G <Andrew_Cremers@nps.gov>, Stephenson, Nathan L <nstephenson@usgs.gov>, Jordan, Clayton <Clayton_Jordan@nps.gov>, Paterson, Rebecca E <Rebecca_Paterson@nps.gov>, Theune, Mike J <Mike_Theune@nps.gov>, Das, Adrian J <adas@usgs.gov>, Keeley, Jon E <jon_keeley@usgs.gov>, Garcia, Thomas A <Tom_Garcia@nps.gov>, Lopez, Cristian <Cristian_Lopez@nps.gov>, Suarez, Joe T <Joe_Suarez@nps.gov>
Cc: Tom Nichols <tomfire19@aol.com>, Mutch, Linda S <Linda_Mutch@nps.gov>, Linda Mutch <meadowlrk@gmail.com>, Knapp, Eric -FS <eric.e.knapp@usda.gov>, Bancroft, Larry <bancroft@inreach.com>, James, Joshua A <joshua_james@nps.gov>, Haultain, Sylvia A <Sylvia_Haultain@nps.gov>, Ed Nelson <edn539321@gmail.com>, tswetnam@ltrr.arizona.edu <tswetnam@ltrr.arizona.edu>, Baisan, Christopher H - (cbaisan) <cbaisan@arizona.edu>, Brown, Peter M <pmb@rmtrr.org>, Ben Jacobs <bjacobs111111@gmail.com>

Subject: [EXT]Giant Forest Rx Burns & KNP Burn Pattern

External Email

I heard this morning at briefing that the Rx burns in Giant Forest did very well in minimizing spread of the KNP Fire (hatched area on map) into the west side of the grove over the last couple of days. So I placed the IR heat map from last night (9/19/21) on a map with the fire return interval departure map [FRID with red=way outside burn interval (so bad fuel/forest conditions) and green=within expected burn interval (good fuel/forest conditions)]. Map also shows dates of last fire (most are Rx burns but a few wildfires). Overall the burns did fairly well until they get to be 15-20+ years old. The one area between Crescent Meadow Rd. and the Generals Highway, where we had noted heavy overstory mortality (drought & higher severity Rx burn in 2007) in recent years, resulted in encroachment of the fire.

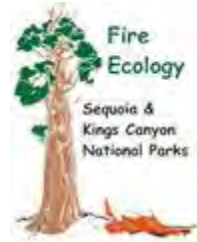
We'll still have to see what happens if the fire crosses the Middle Fork and runs up into the south edge of Giant Forest, similar to what happened in 1988 (Buckeye Fire). Then there's the unburned area on the east side of the grove.

Tony

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Tony Caprio

Fire Ecologist
Sequoia & Kings Canyon National Parks
47050 Generals Highway
Three Rivers, CA 93271
559-565-3126
tony_caprio@nps.gov



)))))))).)))))))).)))))))).)))))))).)))))))).))))))):)))))))).)))))))))

From: [Elizabeth Wu](#)
To: [Brigham, Christy M](#); rita.morris@usda.gov; [David Neiss](#); [Deane, John S](#); [Ryan, Amelia B](#); amelia_byrd_ryan@yahoo.com; [Gunnison, Elliot R](#); [Ludt, Brian D](#); johnthedeane@gmail.com
Cc: [Caprio, Tony C](#); [Firmage, David](#); [Buckley, Daniel T](#); [Foley, John C](#); [James, Joshua A](#); [Joshua James](#); lannyflaherty@gmail.com
Subject: [EXTERNAL] Re: Grant - priority list trees of special interest
Date: Thursday, October 7, 2021 7:39:00 AM

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Christy— Thanks for asking!

Rita— Can you respond to Christy's questions, please? I've been so focused on the General Grant Tree that I don't have the best overview. Rita has been doing Comms/Safety for the Hume-based READ sub-team, so she probably has the best overall info.

David N, John, Amelia, &/or Elliot— Let us know if you have any info to add about Big Stump Grove.

Brian— Let us know if you have any info to add about Case Mountain.

Thanks,
Elizabeth
(SEKI Fire FX)
(*currently READ for KNP Complex Fire)

On Oct 7, 2021, at 05:48, Brigham, Christy M <Christy_Brigham@nps.gov> wrote:

Did the READs in Grant get any crew help yesterday? Is there a team working in Big Stump also and did they get any help? Do you know if resources have been assigned to help today (Thursday)? It appears that fire spread has slowed somewhat and if READs at Grant and Big Stump are not getting help I will advocate with David and Dan and Clay for more assistance. If possible I would like to see a minimum of two crews assisting at each location.

I heard there was good help at Case Mtn - just want to confirm you are getting the assistance you need.

Thanks,

Christy

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From: Brigham, Christy M <Christy_Brigham@nps.gov>
Sent: Wednesday, October 6, 2021 8:37:03 PM
To: Caprio, Tony C <Tony_Caprio@nps.gov>; Elizabeth Wu <ew24@humboldt.edu>; James, Joshua A <joshua_james@nps.gov>; Firmage, David <David_Firmage@nps.gov>; amelia_byrd_ryan@yahoo.com <amelia_byrd_ryan@yahoo.com>; lannyflaherty@gmail.com <lannyflaherty@gmail.com>; Gunnison, Elliot R <Elliot_Gunnison@nps.gov>; rita.morris@usda.gov <rita.morris@usda.gov>
Subject: Re: Grant - priority list trees of special interest

Thank you Tony for all this work and a huge thank you to all the READs. It has been an exhausting three and a half weeks. Please take care of yourselves and take time off. More READs are on order.

Reach out if there is anything I can do for any of you. My mobile number is 559-623-1899. You have all made a huge difference on this fire.

Thank you again,

Christy

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From: Caprio, Tony C <Tony_Caprio@nps.gov>
Sent: Wednesday, October 6, 2021 7:30:48 PM
To: Elizabeth Wu <ew24@humboldt.edu>; James, Joshua A <joshua_james@nps.gov>; Firmage, David <David_Firmage@nps.gov>; amelia_byrd_ryan@yahoo.com <amelia_byrd_ryan@yahoo.com>; lannyflaherty@gmail.com <lannyflaherty@gmail.com>; Gunnison, Elliot R <Elliot_Gunnison@nps.gov>; rita.morris@usda.gov <rita.morris@usda.gov>
Cc: Brigham, Christy M <Christy_Brigham@nps.gov>
Subject: Grant - priority list trees of special interest

I went through the list of trees of special interest in Grant and prioritized them for prepping based on several criteria. I only rated trees that appear from our maps to not be within Rx burns (so no treatments). Since our maps are not exact you may find trees that are ranked that are in treatments or others that actually were not treated. If they've been treated move to the next tree. Ranking included things like how visible is the tree (is it near a road or trail), whether there's easy access, whether it's a group of trees that could be done as a group, and so on. Other than the Fallen Monarch I did not include logs in the ranking since they'd be very difficult to prep and living trees should have the priority. Prepping these trees in untreated locations will be somewhat slow, so hopefully the fire will give us time.

Attached is a prioritized list and a map showing tree locations.

Tony

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Tony Caprio

Fire Ecologist

Sequoia & Kings Canyon National Parks

47050 Generals Highway

Three Rivers, CA 93271

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<image003.jpg>

)))))))).)))))))).)))))))).)))))))).))))))):)))))))).)))))))))

From: [Beals-Nesmith, Jonathan - FS, PORTLAND, OR](#)
To: [Caprio, Tony C](#); [Stephenson, Nathan L](#); [Anthony Ambrose](#); [jonny.nesmith](#)
Subject: [EXTERNAL] RE: Grant Tree Wrap
Date: Wednesday, October 6, 2021 11:15:14 AM
Attachments: [image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)

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It does seem like if there is a chance that the wrap becomes an ember catcher instead of an ember barrier due to gaps/irregular surfaces, that's an issue. My hunch is that if everything around the tree has been soaked for 12+ hours and larger fuels have been cleared away from around the base, the wrap is probably even less relevant? Seems like the main reason to apply the wrap is to prevent embers from getting embedded in vulnerable parts of the bole like cat faces, and this is less possible on trees with lots of curves and gaps. Just thinking out loud here.



Jonathan Nesmith, PhD ([he/him/his](#))
Data Collection Team Leader
Resource Monitoring and Assessment

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PNW Research Station

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Caring for the land and serving people

From: Caprio, Tony C <Tony_Caprio@nps.gov>
Sent: Wednesday, October 6, 2021 11:07 AM
To: nstephenson@usgs.gov; [Anthony Ambrose <ambrose@berkeley.edu>](mailto:Anthony_Ambrose@berkeley.edu); [jonny.nesmith <jonny.nesmith@gmail.com>](mailto:jonny.nesmith@usda.gov); [Beals-Nesmith, Jonathan - FS, PORTLAND, OR <Jonathan.Beals-Nesmith@usda.gov>](mailto:Jonathan.Beals-Nesmith@usda.gov)
Subject: FW: Grant Tree Wrap

FYI. Most of the folks in the field are not too sure about wrapping trees. Unlike a structure, where you completely seal the structure from top to bottom, around a tree only the very base of a tree bole or catface is wrapped and lots of gaps remain because of the rough and irregular surface where embers can enter.

)))))))).)))))))).)))))))).)))))))).))))))):)))))))).)))))))))

Tony Caprio

Fire Ecologist

Sequoia & Kings Canyon National Parks

47050 Generals Highway

Three Rivers, CA 93271

559-565-3126

tony_caprio@nps.gov



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From: Caprio, Tony C

Sent: Wednesday, October 6, 2021 10:05 AM

To: Firmage, David <David_Firmage@nps.gov>; Brigham, Christy M <Christy_Brigham@nps.gov>; Mathiesen, Leif <leif_mathiesen@nps.gov>

Subject: Grant Tree Wrap

Hi Dave—

I can't reply to text message with more than 10 people on my phone (lots of issues using text messages to communicate).

My recommendation on the use of wrap has been to use it if there's a chance of direct heat impingement on a catface or bole base from a nearby heavy fuel source that cannot be moved. One of the concerns is that if embers start a fire under the wrap (wrap only covers the base of a bole or catface) that the wrap will hold in the heat (why trees with facing catfaces burn hotter) and could also create a chimney effect under the wrap. If wrap is used it needs to be pulled ASAP after the main fire burns through an area. This happened to one or two of the Four Guardsmen in GF but luckily a crew going by noticed and pulled the wrap. So whether it's going to be possible to get people back into an area quickly should also go into the equation on whether to wrap.

Tony

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Tony Caprio

Fire Ecologist
Sequoia & Kings Canyon National Parks
47050 Generals Highway
Three Rivers, CA 93271
559-565-3126
tony_caprio@nps.gov



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From: [Kristen Shive](#)
To: [Dickman, Garrett J](#); [Caprio, Tony C](#)
Subject: [EXTERNAL] RE: Is this a sequoia burning?
Date: Monday, October 25, 2021 5:03:14 PM

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Hard to say for beyond a doubt because to me it looks like the flames are consuming something behind the sequoia you can see. But they have been fully torching for years now, and the flame heights make it a reasonable assumption for sure. Ugh. Tragic picture.

From: Dickman, Garrett J <Garrett_Dickman@nps.gov>
Sent: Monday, October 25, 2021 4:58 PM
To: Caprio, Tony C <Tony_Caprio@nps.gov>; Kristen Shive <kristen.shive@TNC.ORG>
Subject: Is this a sequoia burning?

This is long meadow grove on the windy fire. I tried to get back out to the spot to verify for sure, but it was kind of sketch getting back in there. The tree consumption happened in a couple seconds.

Garrett Dickman
Botanist, Vegetation and Ecological Restoration
Yosemite National Park
PO Box 700
El Portal CA 95318

From: [Kerry Gaiz](#)
To: [Paul Hardwick](#)
Cc: [Brigham, Christy M](#); [Caprio, Tony C](#); [Katie Brown](#); [Scott Bliss](#)
Subject: [EXTERNAL] Re: KNP Complex Updated Sequoia Grove GEL Application Areas
Date: Thursday, October 7, 2021 9:06:30 AM
Attachments: [Outlook-mcyr1uop.png](#)

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Thank you, Paul. We'll get these added and send you an updated VAR map.

Thanks,

Kerry Gaiz
GIS Specialist (GISS)
Southwest Area IMT 2
(562) 225-7472
kerry_gaiz@firenet.gov



GIS Specialist
National Park Service
Flagstaff Area National Monuments
kerry_gaiz@nps.gov

From: Paul Hardwick <paul_hardwick@firenet.gov>
Sent: Thursday, October 7, 2021 9:03 AM
To: Kerry Gaiz <kerry_gaiz@firenet.gov>; Katie Brown <katie_brown@firenet.gov>; Kari Gromatzky <kari_gromatzky@firenet.gov>
Cc: christy_brigham@nps.gov <christy_brigham@nps.gov>; tony_caprio@nps.gov <tony_caprio@nps.gov>
Subject: KNP Complex Updated Sequoia Grove GEL Application Areas

Attached is a shape file that contain updated recommended GEL application areas for Big Stump and East Fork groves. The shape file also contains the previous recommended application areas.

Paul Hardwick
Information Resources Branch Chief -

From: [Kristen Shive](#)
To: [Ben Jacobs](#); [Caprio, Tony C](#); [Stephenson, Nathan L](#); ryork@berkeley.edu
Cc: [Reith, Heather@Parks](mailto:Reith_Heather@Parks); [Stephenson, Nathan L](#)
Subject: [EXTERNAL] RE: Question about a sequoia grove
Date: Friday, October 8, 2021 12:56:47 PM

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Oof. I'm so pissed at climate change for pushing the envelope on these thorny issues!!

I do think across sequoia groves, that grove is not at the worst risk, just because it is the wettest site of any (as the dogwoods attest, and along with the terrain, would likely moderate wildfire behavior? Though there is a LOT of fuel out there too...). But still I think that actually argues *for* fall burning – at such a wet site, I think a spring burn could end up skunking around, unless you waited until late enough its too sketchy to do it.

I think where we have seen mortality in lower severity conditions like an rx, outside of structural damages, has been in wetter areas that got low severity fire at tail end of drought. Nate Stephenson saw that in SEKI and suspects that its severe basal scarring that stresses the tree and the beetles do the rest. So to the extent you can scrape around individuals, I would do that. I know that's very boutique-y, but these trees deserve that as I am sure you agree. And burn it as cool as you can and still get consumption. But I guess I wouldn't wait – because there's no guarantee you'll get one in the spring when you have crews etc.... And we've seen these last two years what happens when we don't do anything...

Adding Nate to the thread as the sequoia guru, he can correct all that I got wrong/missed!

From: Ben Jacobs <bjacobs111111@gmail.com>
Sent: Friday, October 8, 2021 12:38 PM
To: Tony Caprio <Tony_Caprio@nps.gov>; Nate Stephenson <nstephenson@usgs.gov>; ryork@berkeley.edu; Kristen Shive <kristen.shive@TNC.ORG>
Cc: Reith, Heather@Parks <Heather.Reith@parks.ca.gov>
Subject: Question about a sequoia grove

Hey everyone, I'm reaching to the most preeminent fire ecologists I know. I just got done with a site visit to our Calaveras North Grove of sequoias with a couple CalFire overhead as I want to start burning our grove next week.

They were very nervous about doing any burning because of how dry it's been and the fire

behavior/tree mortality they saw this summer. Valid points for sure. They feel if we put any fire on the ground that it may end up killing many of the mature trees, even with a backing surface fire.

Most of you know the North Grove site, it's a mature forest with a heavy dogwood understory. Not a lot of ladder fuels for torching but there is quite a bit of heavy dead and down logs scattered throughout the unit. The terrain is relatively gentle.

So my question is, am I crazy for wanting to burn when fuels are this historically dry? I know I am totally 'mission focused' and am worried that that is blinding me to missing something. CalFire is advocating waiting and burning next spring. I feel burning that particular grove when it isn't bone dry will not meet our objectives.

Any recommendations? Thanks a lot, Ben

From: [Kristen Shive](#)
To: [Ben Jacobs](#); [Caprio, Tony C](#); [Stephenson, Nathan L](#); ryork@berkeley.edu
Cc: [Reith, Heather@Parks](mailto:Reith_Heather@Parks); [Stephenson, Nathan L](#)
Subject: [EXTERNAL] RE: Question about a sequoia grove
Date: Friday, October 8, 2021 12:56:47 PM

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

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Sent: Friday, October 8, 2021 12:38 PM
To: Tony Caprio <Tony_Caprio@nps.gov>; Nate Stephenson <nstephenson@usgs.gov>; ryork@berkeley.edu; Kristen Shive <kristen.shive@TNC.ORG>
Cc: Reith, Heather@Parks <Heather.Reith@parks.ca.gov>
Subject: Question about a sequoia grove

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Most of you know the North Grove site, it's a mature forest with a heavy dogwood understory. Not a lot of ladder fuels for torching but there is quite a bit of heavy dead and down logs scattered throughout the unit. The terrain is relatively gentle.

So my question is, am I crazy for wanting to burn when fuels are this historically dry? I know I am totally 'mission focused' and am worried that that is blinding me to missing something. CalFire is advocating waiting and burning next spring. I feel burning that particular grove when it isn't bone dry will not meet our objectives.

Any recommendations? Thanks a lot, Ben

From: [Rob York](#)
To: [Ben Jacobs](#)
Cc: [Caprio, Tony C](#); [Stephenson, Nathan L](#); [Kristen Shive](#); [Reith, Heather@Parks](#)
Subject: [EXTERNAL] Re: Question about a sequoia grove
Date: Friday, October 8, 2021 1:01:17 PM

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Hi Ben,

I don't think you are crazy at all. I'm not surprised you are getting that response from our friends at CDF.

I'd recommend looking up the live fuel moisture if you can get it. Maybe you can use that as some evidence that the summer drought is easing up. Several locations in the Sierras have been fairly wet for Sept and early Oct. More so than last fall, for sure.

Also, if post-fire tree mortality is the concern, and not escape risk as a concern, is it really their call? I would think it would be the landowner who would define acceptable outcomes.

For what it's worth, I am on your side and I think you should do it this fall if you can. You can cite several issues with spring burning that I'm sure you know about.

Rob



On Fri, Oct 8, 2021 at 12:38 PM Ben Jacobs <bjacobs11111@gmail.com> wrote:

Hey everyone, I'm reaching to the most preeminent fire ecologists I know. I just got done with a site visit to our Calaveras North Grove of sequoias with a couple CalFire overhead as I want to start burning our grove next week.

They were very nervous about doing any burning because of how dry it's been and the fire behavior/tree mortality they saw this summer. Valid points for sure. They feel if we put any fire on the ground that it may end up killing many of the mature trees, even with a backing surface fire.

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Any recommendations? Thanks a lot, Ben

From: [Elizabeth T Wu](#)
To: [Caprio, Tony C; daveneiss@gmail.com](#)
Cc: [amelia_byrd_ryan@yahoo.com](#); [Wu, Elizabeth T](#)
Subject: [EXTERNAL] Re: READ/ARCH notes for General Grant Tree, Grant Grove, & Big Stump Grove (within SEKI NP)
Date: Sunday, October 3, 2021 11:32:28 PM
Attachments: [Grant Grove - READ & ARCH notes\(3 Oct 2021\).docx](#)
[Big Stump Grove \(in SEKI NP\) - READ & ARCH notes \(3 Oct 2021\) - Copy.docx](#)

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PS: with attachments

On Sun, Oct 3, 2021 at 11:30 PM Elizabeth T Wu <elizabeth.wu@humboldt.edu> wrote:

Hey all,

Here is a draft of our notes from today, from the natural resources perspectives. David N will add in ARCH notes. Tony, please let us know if you need anything else from us (such as pictures).

Thanks,
Elizabeth

From: [David Neiss](#)
To: [Elizabeth T Wu](#)
Cc: [Caprio, Tony C](#); amelia_byrd_ryan@yahoo.com; [Wu, Elizabeth T](#)
Subject: [EXTERNAL] Re: READ/ARCH notes for General Grant Tree, Grant Grove, & Big Stump Grove (within SEKI NP)
Date: Monday, October 4, 2021 10:19:00 AM
Attachments: [Big Stump Grove \(in SEKI NP\) - READ & ARCH notes \(3 Oct 2021\) - Copy.docx](#)

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Arch notes update big stump doc

On Sun, Oct 3, 2021, 11:30 PM Elizabeth T Wu <elizabeth.wu@humboldt.edu> wrote:

PS: with attachments

On Sun, Oct 3, 2021 at 11:30 PM Elizabeth T Wu <elizabeth.wu@humboldt.edu> wrote:

Hey all,

Here is a draft of our notes from today, from the natural resources perspectives. David N will add in ARCH notes. Tony, please let us know if you need anything else from us (such as pictures).

Thanks,
Elizabeth

From: [Dickinson, Matthew -FS](#)
To: [Caprio, Tony C](#)
Subject: [EXTERNAL] RE: Redwood Mtn. plots
Date: Friday, October 1, 2021 7:50:01 PM
Attachments: [image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)

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Hello Tony, I spoke with Alison and had to pull the plug on FBAT trying to help out. Ops wasn't going to be keen on us going into the Atwell Grove because of egress concerns and it seemed like other opportunities were slim. I wish I could have gotten a team out sooner. We're trying to get funding from CAL FIRE for a couple of staff members, but it would mean we're going to be focused on Northern California if the funding comes through. I'm hoping to try to help USFS Region 5 build their own capability for wildfire monitoring, we'll see. Hope to meet you some day.
Matt



Matthew Dickinson
Research Ecologist

p: 740-368-0096 c: 614-556-2271
matthew.b.dickinson@usda.gov

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From: Caprio, Tony C <Tony_Caprio@nps.gov>
Sent: Friday, October 1, 2021 12:19 PM
To: Dickinson, Matthew -FS <matthew.b.dickinson@usda.gov>; Forrestel, Alison <Alison_Forrestel@nps.gov>
Subject: Redwood Mtn. plots

Hi Matt—

Attached are maps and coordinates for a number of plots in the Redwood Mountain area that the fire will likely burn into in the near future. I will probably not be at Ash Mountain for the next day or so and will be up at Redwood Mtn. for some firing operations and likely be staying at the Hume Lake fire camp. My phone may not have reception in this area.

There may be other plot locations (Giant Forest or Atwell areas) that might work also (mostly SEGI

plots), depending what the fire does.

Tony

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Tony Caprio

Fire Ecologist

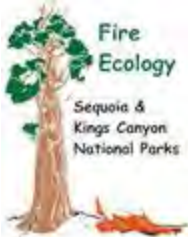
Sequoia & Kings Canyon National Parks

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Three Rivers, CA 93271

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tony_caprio@nps.gov



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From: [Kristen Shive](#)
To: [Hardwick, Paul E](#)
Cc: [Caprio, Tony C](#); [Brigham, Christy M](#)
Subject: [EXTERNAL] Re: Sequoia Grove 200m High Severity Analysis
Date: Sunday, October 24, 2021 5:03:20 PM

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Nice work Paul!!

Tomorrow maybe we can meet and talk about an analysis I was thinking of to supplement that for the mixed conifer, that might get us some more spatial nuance on the potential for regeneration. I've run the models, but I think it would be worth brainstorming how you want to use them to prioritize. If folks have time tomorrow we could do a Teams call to look at them.

We should also talk about some uncomfortable realities about what it means to leave the standing dead in those areas you plant. If you don't remove them- ie do salvage - there's a very high likelihood of a high severity reburn, where you'd lose them all. That may be a risk you want to take but I think it's good to be eyes wide open on all of it. Also a few other points to consider which I think would influence how you ultimately prioritize.

Let me know if you guys have availability tomorrow, otherwise we can do it Tuesday or Wednesday! My only other field visit before I go will be a flight on one of those days, otherwise free.

Typed with my thumbs (pls forgive typos!)

On Oct 24, 2021, at 3:11 PM, Hardwick, Paul E <Paul_Hardwick@nps.gov> wrote:

It was not done for the Castle Fire.

~~~~~  
Paul Hardwick  
Information Resources Branch Chief -  
GIS & Data Coordinator  
Sequoia & Kings Canyon National Parks  
47050 Generals Highway  
Three Rivers, CA 93271

Phone: 559-565-3725

~~~~~  
[Visit Sequoia and Kings Canyon Park Atlas](#)

From: Caprio, Tony C <Tony_Caprio@nps.gov>
Sent: Sunday, October 24, 2021 3:04 PM
To: Hardwick, Paul E <Paul_Hardwick@nps.gov>; Brigham, Christy M <Christy_Brigham@nps.gov>; kristen.shive <kristen.shive@TNC.org>
Subject: RE: Sequoia Grove 200m High Severity Analysis

Was this type of analysis done for last years Castle Fire? I think we were mostly focused on sequoia groves but there were some large high severity patches in non-SEGI forest in the South Fork and on the south side of Dennison Ridge.

Tony

)))))))))))))

Tony Caprio

Fire Ecologist
Sequoia & Kings Canyon National Parks
47050 Generals Highway
Three Rivers, CA 93271
559-565-3126
tony_caprio@nps.gov
<image003.jpg>

)))))))))))))

From: Hardwick, Paul E <Paul_Hardwick@nps.gov>
Sent: Sunday, October 24, 2021 2:45 PM
To: Brigham, Christy M <Christy_Brigham@nps.gov>; kristen.shive <kristen.shive@TNC.org>; Caprio, Tony C <Tony_Caprio@nps.gov>
Subject: Re: Sequoia Grove 200m High Severity Analysis

Attached is the conifer analysis map.

I have used CalVeg for vegetation so that we have vegetation coverage for the whole fire. Karen worked with FRAP to integrate SEKI veg into CalVeg.

For this analysis I identified conifer and conifer hardwood mix high severity areas that are 200m away from moderate to unchanged. Sequoia groves are included in the analysis.

Paul

~~~~~



Paul Hardwick  
Information Resources Branch Chief -  
GIS & Data Coordinator  
Sequoia & Kings Canyon National Parks  
47050 Generals Highway  
Three Rivers, CA 93271  
Phone: 559-565-3725

~~~~~  
[Visit Sequoia and Kings Canyon Park Atlas](#)

From: Brigham, Christy M <Christy_Brigham@nps.gov>
Sent: Sunday, October 24, 2021 12:47 PM
To: Hardwick, Paul E <Paul_Hardwick@nps.gov>; kristen.shive <kristen.shive@TNC.org>; Caprio, Tony C <Tony_Caprio@nps.gov>
Subject: Re: Sequoia Grove 200m High Severity Analysis

Wow this is awesome!! Thanks!! We can discuss.

Are you doing similar for mixed conifer? Probably won't have the sprinkled moderate severity pixel issue.

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From: Hardwick, Paul E <Paul_Hardwick@nps.gov>
Sent: Sunday, October 24, 2021 12:12:29 PM
To: Brigham, Christy M <Christy_Brigham@nps.gov>; kristen.shive <kristen.shive@TNC.org>; Caprio, Tony C <Tony_Caprio@nps.gov>
Subject: Sequoia Grove 200m High Severity Analysis

All,

Attached is a map that shows two different analyses.

The first I identified high severity areas that is 200m away from moderate to unburned areas within the groves. This left 65 acres of high severity in Redwood Mountain Gove. The issue I ran into is that there are some moderate severity pixels sprinkled through the high severity causing much of the high severity to be eliminated.

I ran a second analysis that identified high and moderate severity that is 200m away from low to unburned areas. This took care of the scattered pixel problem, but greatly increased the area of high severity away from a seed source.

You all can discuss and contemplate and let me know how you would like to proceed.

Paul

From: [Emmendorfer, Marianne - FS](#)
To: [Brigham, Christy M](#); [Caprio, Tony C](#); [Firmage, David](#); [Buckley, Daniel T](#); [Mathiesen, Leif](#); [Dickman, Garrett J](#); [Hollingshead, Tracy -FS](#)
Cc: [Benik, Robert -FS](#)
Subject: [EXTERNAL] RE: Sequoia Protection Group meeting
Date: Saturday, October 9, 2021 2:23:36 PM
Attachments: [image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[BigStumpBearskinGrovesFuelsRisk_GSNM_Oct9_21.pdf](#)

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Here's what I found monitoring the groves, portions of groves on the Monument today. As I mentioned in our sequoia group call, I documented partly for the scraping that was done, and for further planning to implement Big Stump Redwood prescribed burn, and plan Hume Basin Restoration (includes Bearskin & Landslide groves).



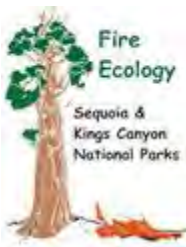
Marianne Emmendorfer, MS,
CIGT, CIP
District Silviculturist
Forest Service
Sequoia National Forest, Giant
Sequoia National Monument,
Hume Lake Ranger District
p: 559-338-2251 x313
(cell: 559-765-1691)
f: 559-338-2131
marianne.emmendorfer@usda.gov

35860 Kings Canyon Road
Dunlap, CA 93621
www.fs.fed.us



**Caring for the land and serving
people**

From: Brigham, Christy M <Christy_Brigham@nps.gov>
Sent: Friday, October 8, 2021 4:09 PM
To: Caprio, Tony C <Tony_Caprio@nps.gov>; Firmage, David <David_Firmage@nps.gov>; Emmendorfer, Marianne - FS <marianne.emmendorfer@usda.gov>; Dan Buckley <dan_buckley@nps.gov>; Leif Mathiesen <leif_mathiesen@nps.gov>; Dickman, Garrett J



)))))))).)))))))).)))))))).)))))))).)))))))).))))))):)))))))).)))))))))

-----Original Appointment-----

From: Firmage, David <David_Firmage@nps.gov>

Sent: Friday, October 8, 2021 12:47 PM

To: Brigham, Christy M; marianne.emmendorfer@usda.gov; Buckley, Daniel T; Mathiesen, Leif; Caprio, Tony C; Dickman, Garrett J

Subject: Sequoia Protection Group meeting

When: Friday, October 8, 2021 2:00 PM-2:30 PM (UTC-08:00) Pacific Time (US & Canada).

Where:

Call # 866-812-1915 code 289184#

Microsoft Teams meeting

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From: [Beals-Nesmith, Jonathan - FS, PORTLAND, OR](#)
To: [Caprio, Tony C](#); [Brigham, Christy M](#); [Mathiesen, Leif](#); [Stephenson, Nathan L](#); [Warner, Tom E](#); [van Mantgem, Phillip J](#)
Cc: [Garcia, Thomas A](#); "jamesajoshua@gmail.com"; sean.m.martin@gmail.com
Subject: [EXTERNAL] RE: sequoia tree prep standards
Date: Monday, September 20, 2021 7:53:11 AM
Attachments: [image001.png](#)
[image002.png](#)
[image005.png](#)
[image006.png](#)

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Thanks for looping me in. Happy to help however I can. I am available any time today except 10:00 – 11:00 and 2:00 – 3:00. The only thing I'd add to all of this is if folks are having to pick and choose where to do fuels removal, focusing on pockets of heavier fuels that seem likely to carry heat into the crowns would be my suggestion. The more of the heavys that can be pulled away from under the drip line the better. This is purely my anecdotal opinion based on what I saw with sugar pine, so no real data to back it up. But, slope and fuel loads that were able to pump heat into the crowns were the main issues that I remember that lead to high crown scorch associated with fuel loads.



Jonathan Nesmith, PhD ([he/him/his](#))
Data Collection Team Leader
Resource Monitoring and Assessment

Forest Service
PNW Research Station

office: 503-808-2071
mobile: 503-708-8422
jonathan.beals-nesmith@usda.gov

620 SW Main St., Ste. 502
Portland, OR 97205
www.fs.fed.us



Caring for the land and serving people

From: Caprio, Tony C <Tony_Caprio@nps.gov>
Sent: Sunday, September 19, 2021 10:24 AM
To: Brigham, Christy M <Christy_Brigham@nps.gov>; Leif Mathiesen <leif_mathiesen@nps.gov>; nstephenson@usgs.gov; Warner, Tom E <Tom_Warner@nps.gov>; pvanmantgem@usgs.gov; Beals-

Nesmith, Jonathan - FS, PORTLAND, OR <Jonathan.Beals-Nesmith@usda.gov>
Cc: tom_garcia@nps.gov; 'jamesajoshua@gmail.com' <jamesajoshua@gmail.com>;
sean.m.martin@gmail.com
Subject: RE: sequoia tree prep standards

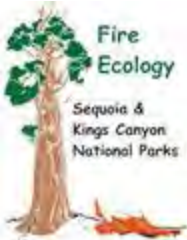
Sounds good. I've included Josh & Sean on the email list so they will get a copy of the standards next time they can connect and check email.

Tony

)))))))))))))

Tony Caprio

Fire Ecologist
Sequoia & Kings Canyon National Parks
47050 Generals Highway
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tony_caprio@nps.gov



)))))))))))))

From: Brigham, Christy M <Christy_Brigham@nps.gov>
Sent: Sunday, September 19, 2021 10:15 AM
To: Mathiesen, Leif <leif_mathiesen@nps.gov>; Stephenson, Nathan L <nstephenson@usgs.gov>; Caprio, Tony C <Tony_Caprio@nps.gov>; Warner, Tom E <Tom_Warner@nps.gov>; van Mantgem, Phillip J <pvanmantgem@usgs.gov>; Beals-Nesmith, Jonathan - FS, PORTLAND, OR <jonathan.beals-nesmith@usda.gov>
Cc: Garcia, Thomas A <Tom_Garcia@nps.gov>
Subject: Re: sequoia tree prep standards

Leif,

Attached version should be good to go. I just reordered priorities, emphasized catfaces, and adding discretionary language to tree cutting task.

For a meeting - what about 1 PM to 1:45?

Tony, Tom Garcia, are you available then? I want to touch base on Muir Grove, Lost Grove, Redwood Mountain in terms of strategy for IAP in case these burn over while Leif is on days

off.

Thanks,

Christy

Christy Brigham Ph.D. (she/her/hers)

Chief of Resources Management and Science
Sequoia and Kings Canyon National Parks
Christy_Brigham@nps.gov

Teleworking during the pandemic. You can reach me via email above or mobile at 559-623-1899

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From: Mathiesen, Leif <leif_mathiesen@nps.gov>
Sent: Sunday, September 19, 2021 10:05 AM
To: Stephenson, Nathan L <nstephenson@usgs.gov>; Brigham, Christy M <Christy_Brigham@nps.gov>; Caprio, Tony C <Tony_Caprio@nps.gov>; Warner, Tom E <Tom_Warner@nps.gov>; van Mantgem, Phillip J <pvanmantgem@usgs.gov>; Beals-Nesmith, Jonathan - FS, PORTLAND, OR <jonathan.beals-nesmith@usda.gov>
Cc: Garcia, Thomas A <Tom_Garcia@nps.gov>
Subject: Re: sequoia tree prep standards

Good morning,

Just getting caught up on this conversation/thread. I can get the Team this information for inclusion in the IAP. If this word document attached is good to go, I will work on that this morning. Edits that need to be made to the word document need to be made soon. I want to get this to the team early so it is sure to be in tomorrow's IAP.

I am available for a call today. I have a 1400 strategic planning meeting and an 1800 planning meeting. As I look at my watch, I realized that I am missing the cooperater meeting taking place right now. Just let me know for the call time.

LEIF_

From: Stephenson, Nathan L <nstephenson@usgs.gov>

Sent: Sunday, September 19, 2021 9:23 AM

To: Brigham, Christy M <Christy_Brigham@nps.gov>; Caprio, Tony C <Tony_Caprio@nps.gov>; Warner, Tom E <Tom_Warner@nps.gov>; van Mantgem, Phillip J <pvanmantgem@usgs.gov>; Beals-Nesmith, Jonathan - FS, PORTLAND, OR <jonathan.beals-nesmith@usda.gov>

Cc: Mathiesen, Leif <leif_mathiesen@nps.gov>; Garcia, Thomas A <Tom_Garcia@nps.gov>

Subject: Re: sequoia tree prep standards

All --

Many thanks for keeping me in the loop. Thinking out loud about Muir Grove:

Muir gets a fair bit of visitation and is considered by many (me included) to be an exceptionally beautiful grove. It might be useful to consider the option of both gel drops and aerial ignitions. But if it is either/or on gel vs. aerial ignitions, I wonder if aerial ignitions in the upper reaches of the grove might be the more sure thing ... at least for protecting the most heavily visited and beautiful part of the grove.

Thanks,

Nate

From: Brigham, Christy M <Christy_Brigham@nps.gov>

Sent: Sunday, September 19, 2021 8:49 AM

To: Caprio, Tony C <Tony_Caprio@nps.gov>; Stephenson, Nathan L <nstephenson@usgs.gov>; Warner, Tom E <Tom_Warner@nps.gov>; van Mantgem, Phillip J <pvanmantgem@usgs.gov>; Beals-Nesmith, Jonathan - FS, PORTLAND, OR <jonathan.beals-nesmith@usda.gov>

Cc: Mathiesen, Leif <leif_mathiesen@nps.gov>; Garcia, Thomas A <Tom_Garcia@nps.gov>

Subject: Re: sequoia tree prep standards

Ok talked to Josh on the phone. 3 feet is good enough for scratch line and yes to discretion on ladder fuels removal.

Leif can we get this into the IAP for crews starting tomorrow?

Also I know you are off starting tomorrow Leif - if possible could you, Tony, Tom Garcia (since he'll be you Mon and Tues) and whoever else have a 30 minute call sometime today to talk about three things:

beneficial fire/fuel consumption in Giant Forest (any opportunities)

Muir Grove strategies

Lost Grove strategies

Next steps for Redwood Mountain

I just want us all to be up to speed to get things in IAP as you transition to days off.

Thanks so much everyone !!

Christy

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From: Brigham, Christy M <Christy_Brigham@nps.gov>
Sent: Saturday, September 18, 2021 8:57:02 PM
To: Caprio, Tony C <Tony_Caprio@nps.gov>; Stephenson, Nathan L <nstephenson@usgs.gov>; Warner, Tom E <Tom_Warner@nps.gov>; van Mantgem, Phillip J <pvanmantgem@usgs.gov>; Beals-Nesmith, Jonathan - FS, PORTLAND, OR <jonathan.beals-nesmith@usda.gov>
Cc: Mathiesen, Leif <leif_mathiesen@nps.gov>
Subject: Re: sequoia tree prep standards

Yes. Go home!! Cesar wants some petting! As do your cats and tortoises.

Thanks!
Christy

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From: Caprio, Tony C <Tony_Caprio@nps.gov>
Sent: Saturday, September 18, 2021 8:49:41 PM
To: Brigham, Christy M <Christy_Brigham@nps.gov>; Stephenson, Nathan L <nstephenson@usgs.gov>; Warner, Tom E <Tom_Warner@nps.gov>; van Mantgem, Phillip J <pvanmantgem@usgs.gov>; Beals-Nesmith, Jonathan - FS, PORTLAND, OR <jonathan.beals-nesmith@usda.gov>
Cc: Mathiesen, Leif <leif_mathiesen@nps.gov>
Subject: RE: sequoia tree prep standards

Probably depends on whether you have an independent running crown fire vs more of a surface supported crown fire vs individual tree torching. I'm not familiar with her study sites and not sure how fire moved through them.

PS. I meant to add Jonny to the original email but my brain short circuited and I added Phil instead. Must be time to go home.

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Tony Caprio

Fire Ecologist
Sequoia & Kings Canyon National Parks
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Why are they prepping Lost before Muir? Because it is better road access so safer? Seems like Muir will burn first.

I'll look these over ASAP.

Glad they are continuing to work sequoia protection.

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From: Caprio, Tony C <Tony_Caprio@nps.gov>
Sent: Saturday, September 18, 2021 8:19:21 PM
To: Brigham, Christy M <Christy_Brigham@nps.gov>; Stephenson, Nathan L <nstephenson@usgs.gov>; Warner, Tom E <Tom_Warner@nps.gov>; van Mantgem, Phillip J <pvanmantgem@usgs.gov>
Cc: Mathiesen, Leif <leif_mathiesen@nps.gov>
Subject: sequoia tree prep standards

I had a couple of discussions with Josh today about possible sequoia tree prep standards that fire crews could use. I also took a look at the standards that YOSE developed (Athena sent them) for Rx burns in Merced Grove. Given the dry fuel conditions we decided to be a little more aggressive at times than the YOSE standards. What we came up with is attached. We welcome any comments or suggestions.

Josh indicated that since some crews weren't able to get into Giant Forest today he had a bunch of fire folks who could help and they prepped about 70-80 trees in Lost Grove. Lots of questions about digging down to mineral soil!

Tony

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From: [Beals-Nesmith, Jonathan - FS, PORTLAND, OR](#)
To: [Caprio, Tony C](#); [Brigham, Christy M](#); [Stephenson, Nathan L](#); [Warner, Tom E](#); [van Mantgem, Phillip J](#)
Cc: [Mathiesen, Leif](#)
Subject: [EXTERNAL] RE: sequoia tree prep standards
Date: Monday, September 20, 2021 7:56:25 AM
Attachments: [image001.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)

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Christy, we only raked down to bare soil ~1 m away from the bole. I'd agree that going wider would be better, and focus more on getting the big stuff away instead of being super meticulous about getting down to mineral soil. A little left over duff and litter won't be a big deal and can help really speed up how many trees you can treat if you are focused more on fuels reduction than creating a full mineral soil barrier.



Jonathan Nesmith, PhD ([he/him/his](#))
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Caring for the land and serving people

From: Caprio, Tony C <Tony_Caprio@nps.gov>
Sent: Saturday, September 18, 2021 8:38 PM
To: Brigham, Christy M <Christy_Brigham@nps.gov>; nstephenson@usgs.gov; Warner, Tom E <Tom_Warner@nps.gov>; pvanmantgem@usgs.gov; Beals-Nesmith, Jonathan - FS, PORTLAND, OR <Jonathan.Beals-Nesmith@usda.gov>
Cc: Leif Mathiesen <leif_mathiesen@nps.gov>
Subject: RE: sequoia tree prep standards

I think one problem with Muir Grove and GEL is that that are several ways fire might enter the grove. Either from the bottom, top, or flanking. I guess we could come up with a few alternatives and wait to see which looks to be the most likely.

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Tony Caprio

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From: Brigham, Christy M <Christy_Brigham@nps.gov>
Sent: Saturday, September 18, 2021 8:32 PM
To: Caprio, Tony C <Tony_Caprio@nps.gov>; Stephenson, Nathan L <nstephenson@usgs.gov>; Warner, Tom E <Tom_Warner@nps.gov>; van Mantgem, Phillip J <pvanmantgem@usgs.gov>; Beals-Nesmith, Jonathan - FS, PORTLAND, OR <jonathan.beals-nesmith@usda.gov>
Cc: Mathiesen, Leif <leif_mathiesen@nps.gov>
Subject: Re: sequoia tree prep standards

Gotcha. Muir will need something ideally, especially toward the bottom. Is this another place we're thinking about for possible gel application?

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From: Brigham, Christy M <Christy_Brigham@nps.gov>
Sent: Saturday, September 18, 2021 8:30:33 PM
To: Caprio, Tony C <Tony_Caprio@nps.gov>; Stephenson, Nathan L <nstephenson@usgs.gov>; Warner, Tom E <Tom_Warner@nps.gov>; van Mantgem, Phillip J <pvanmantgem@usgs.gov>; Beals-Nesmith, Jonathan - FS, PORTLAND, OR <jonathan.beals-nesmith@usda.gov>
Cc: Mathiesen, Leif <leif_mathiesen@nps.gov>
Subject: Re: sequoia tree prep standards

This looks really good but I would make two minor modifications based on input from Kristen Shive and what Jonny and I did for Tharps.