



INCOMING RESOURCE BRIEFING GUIDE

2023

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Introduction

Welcome to the Shasta-Trinity National Forests; we are thankful for your help!

Please take the time to read this guide and receive a thorough briefing before making your module available to Redding ECC for initial attack.

Mobilization Center

Unless specified on your Resource Order, you will be checking in at the SHF Mobilization Center (Mob Center). The intent of the Mob center is to minimize exposure to the employees working at the mob center and resources ordered incidents. We will try to minimize person-to person contact and have all forms and procedures conducted electronically as best as we can.

For 2023, the Mob Center will be located at 2370 Twin View Blvd, Redding CA.

At the Mob Center, your equipment will be inspected, rosters and times posted into e-Isuite, and you will receive hardcopies of this Briefing Package and a Forest Map (QR codes for digital maps are in [Section 8 - Maps](#)).

Ensure you are well-briefed on local fuel conditions, weather, interface situations, fire behavior, etc., and that you always have current weather forecasts.

Fires will be aggressively suppressed, so don't be surprised at the pace of initial attacks, especially along the major highway corridors. Ensure you get a thorough briefing on the different tones used by the SHF and CALFIRE.

If you are assigned as an Initial Attack IC, good legal descriptions and fire size-ups are essential. Relay this information through dispatch; they or Forest Duty Officer (FDO) will in turn give you further instruction regarding management direction for the fire. More direction will be provided by the local unit initial briefing. The letter of Delegation of Authority for Federal incident commanders can be found in the Appendices Folder <https://bit.ly/3XJekPK>.

Please follow your own department / agency policies for travel status and off-duty hours. Please remember that you represent not only your agency, but the local agency you are assigned to. The public will not make any distinction. The locals will remember positive or negative experiences with you, and the local agency will have to live with that for the long-term.

Finally, your vehicles, engines, etc. will be inspected upon your arrival and departure. Damage due to your assignment here will be paid for by the fire, severity, etc. and not the home unit. You will also be able to restock engines, etc. after fires, either from local caches or fire orders.

If you are not receiving the information or services described above, or do not understand something - please let us know. Make sure you get any questions answered, services needed, weather or fire info, etc. before you go on. Anticipate future needs ahead of time so we can get those taken care of.

About the Shasta-Trinity National Forest

The Shasta-Trinity National Forest is the largest National Forest in California at 2.2 million acres and is in parts of Trinity, Shasta, Siskiyou, Tehama, Modoc, and Humboldt counties. Redding is the largest city within the Forest with a population of 91,794 in 2017 and the location of the Forest Headquarters.

From its southern border along Interstate 5, the Shasta-Trinity National Forest is located 162 miles north of Sacramento, California and 60 miles from the Oregon State border to the north. It encompasses five designated wilderness areas (Castle Crags, Chanchellulla, Mount Shasta, Trinity Alps, and Yolla Bolly-

Middle Eel), hundreds of mountain lakes, and over 6,278 miles of streams and rivers. Major features include Shasta Lake (the largest man-made lake in California with 365 miles of shoreline), Mount Shasta at an elevation of 14,179 feet, and a 154-mile section of the Pacific Crest Trail.

Fire Organization

The Shasta-Trinity National Forest (SHF) fire personnel are part of a much larger group of agency cooperators which combine and share resources to accomplish the fire suppression and management objectives on Forest Service and private lands. This group consists of State (CALFIRE), Local Government, Park Service, Bureau of Land Management, Fish and Wildlife, Bureau of Indian Affairs, as well as multiple volunteer districts.

There are three main protection agencies with wildland fire responsibility. They include Federal, State, and Local Government. These geographic areas are identified as Direct Protection Areas.

<https://gacc.nifc.gov/oscc/cwgc/gis.php>.

The Forest is organized as four Management Units and Seven Battalions:

- South Fork Management Unit (SFMU)
 - Battalion 1 – Yolla Bolla District
 - Battalion 2 – Hayfork District
- Trinity River Management Unit (TRMU)
 - Battalion 3 – Big Bar District
 - Battalion 4 – Weaverville District
- Shasta Lake Management Unit (SLMU)
 - Battalion 5 – Shasta Lake District
- Shasta-McCloud Management Unit (SMMU)
 - Battalion 6 – Mt. Shasta District
 - Battalion 7 – McCloud District

Each management unit has a Division Chief, and each Battalion has at least one Suppression Battalion Chief. Fire resources include 20 engines, two hand crews, two dozers, three water tenders, nine prevention/patrol units, one helicopter, and six lookouts.

The following briefing guide has more in-depth information that should be reviewed. If you have any questions or concerns, please contact the District Fire Management Officer (DFMO) on the unit you are assigned.

Battalion-specific supplements to this guide can be found in the "[5 – Appendices](#)" folder.

Section 1 – Communications and Radios

Communications and radio frequencies will be covered in the initial briefing. Please ask any questions if you do not know which frequencies you should use, how to contact Redding Dispatch (RICC), repeater locations or anything else.

The SHF's radio plan is broken into groups, with each District having its own group of frequencies. You will be given a copy of this guide during your incoming briefing and be cloned up on at least two groups: Group 1 (the most common Forest Frequencies) and the Group of the District that you are being assigned to (for instance, if you were assigned to Shasta Lake, you would need to have Group 5 cloned).

The various counties and local fire departments all have their own frequencies. Your host unit will tell you which ones of those you need and what the frequencies are. Two important items to remember are that CALFIRE utilizes Tone 16 for all its Tactical and Air-to-Ground frequencies, and CALCORD must be used with Tone 6.

On the next two pages are a general Forest frequency group and map of the NF areas with repeaters. There is a separate, complete radio guide for the Forest located at <https://bit.ly/3JMLRmp>. Ensure you have a copy of the radio guide and are briefed on frequencies/groups that correspond to the area in which you will be working.

Radio discipline is critical in Type-3, extended attack, or fires transitioning to a Type-1 or Type-2 incident. Separate Divisions, Groups, etc. in separate frequencies as best as possible as soon as possible. There are several tactical channels which can be requested through Dispatch. The regular Forest frequency will be used as the Command Net during the initial stages of the fire.

Cell phone coverage is poor in many places on the Forest. Use of human repeaters is necessary if there is no radio or cell phone coverage at your fire location.

Remember communications must be in place before engaging the fire.

Link to Shasta-Trinity Frequencies and Repeater Maps:



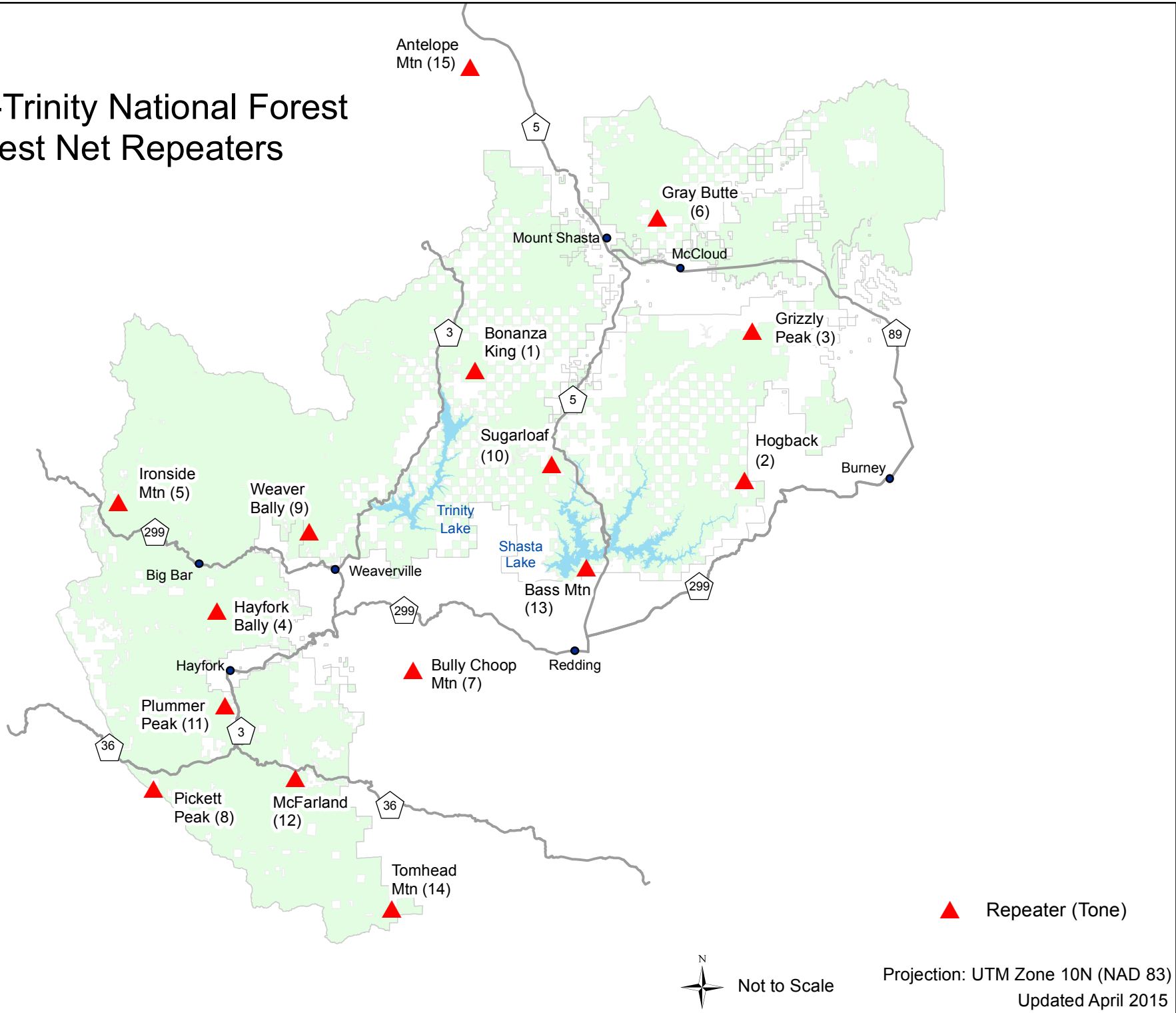
Shasta-Trinity NF Group 1 Radio Frequencies

CH	Alpha ID	Use	Receive	Transmit	Tone(s)	Group(s)	Band-Width
1	SHF-DIR	Shasta-Trinity NF -Direct	171.5750	171.5750		1,13	N
2	SHF-R	Shasta-Trinity NF- Repeater	171.5750	165.0125	1-16	1-4,6,7,13	N
3	SFMU	South Fork Mgt. Unit Net	167.2250	167.2250	7	1,2	N
4	TRMU	Trinity River Mgt. Unit Net	168.9625	168.9625	7	1,3	N
5	SMMU	Shasta McCloud Mgt. Unit Net	166.9875	166.9875	7	1,6,7	N
6	SLMU	Shasta Lake District Net	167.7250	167.7250	7	1,4	N
7	NIFC T2	NIFC Tactical 2 (R5 Crew Net)	168.2000	168.2000		1-11	N
8	SERV-D	Shasta-Trinity NF Service Net DIR.	171.5000	171.5000		1,13	N
9	SERV-R	Shasta-Trinity NF Service Net Rpt.	171.5000	164.8250	1,4,6,12	1-4,6	N
10	R5 TAC4	R5 Tactical 4	166.5500	166.5500		1-4,6,8-11	N
11	R5 TAC5	R5 Tactical 5	167.1125	167.1125		1-4, 6,8,9,11	N
12	R5 TAC6	R5 Tactical 6	168.2375	168.2375		1,2	N
13	CALCORD	CALCORD - TAC	156.0750	156.0750	6	1-7	N
14	R5 AG08	Air to Ground, CA, North Secondary	166.8750	166.8750		1-6,8-11	N
15	R5 AG43	Air to Ground, CA, North Primary	167.6000	167.6000		1-6,8-11	N
16	AIRGUARD	AIRGUARD	168.6250	168.6250	1	1	N

Shasta-Trinity NF Tones

Tone	CTCSS	Repeater Name
1	110.9	Bonanza King
2	123.0	Hogback
3	131.8	Grizzly Peak
4	136.5	Hayfork Bally
5	146.2	Ironsides
6	156.7	Grey Butte
7	167.9	Bully Choop
8	103.5	Pickett Peak
9	100.0	Oregon
10	107.2	Sugarloaf
11	114.8	Plummer Peak
12	127.3	McFarland
13	141.3	Bass Mtn
14	151.4	Tomhead Mtn
15	162.2	Antelope
16	192.8	Used for CALFIRE TAC & A/G

Shasta-Trinity National Forest Forest Net Repeaters



Section 2 – Forest Fire Organization

Headquarters

Rachel Birke	Forest Supervisor	
Kari Otto	Deputy Forest Supervisor	
Todd Mack	Forest Chief	CH-1
Alex McBath	Deputy Chief - Operations	CH-2
James Courtright	Deputy Chief- Fuels	CH-3
Ira Graves	Zone Aviation Officer	CH-4
Cole Wallace	Forest Aviation Officer	DIV-9
Richie Reposa	Workforce Development	DIV-81
Anna Wright	Fire Ecologist	DIV-82
Steve Clark	Fire Planner	DIV-83
Natalie Maynard	Training Officer	BC-81
Ben Sundal	Forest Safety Officer	SOF-1
Ryan Reginato	Safety Specialist	SOF-2
Sheila Linden	Fire Admin Clerk	

Dispatch

Jason Colby	ECC Center Manager	DIV-8
Joni Olson	ECC Battalion Chief	BC-84
Thomas Buckner	ECC Battalion Chief	BC-85
Shay Farmer	Dispatcher	Capt-86
Erik Feyling	Dispatcher	Capt-89

Air Attack Base

Kelly Mathis	Air Tanker Base Manager	BC-91
Justin Jeude	Asst Air Tanker Base Manager	

Superintendents

Josh Wilson	Trinity Helitack Superintendent	Supt-506
Tristan Dias	Trinity IHC Superintendent	Supt-11
Joe Bogdan	Shasta Lake Crew 5 Superintendent	Supt-5

South Fork Management Unit

Tara Jones	SFMU/TRMU Ranger	Ranger-4
Randy Jennings	Division Chief	DIV-2
Mike Anderson	Battalion Chief – Yolla Bolla	BC-11
Jason O'Bannon	Battalion Chief – Hayfork	BC-21
Keith Rohrs	Fuels Officer	Fuels-21
Janice Brown	Fire Admin Clerk	

Trinity River Management Unit

Glen Tingley	Division Chief	DIV-3
Josh Wright	Battalion Chief	BC-31
Cheveyo Munk	Battalion Chief	BC-41
Tim Ritchey	Battalion Chief – Fuels	BC-42

Shasta Lake National Recreation Area

Sara Acridge	SLMU Ranger	Ranger-5
Pat Bell	Division Chief	DIV-5
Brandon Dethlefs	Fuels Planner	DIV-51
Robert Holt	Battalion Chief	BC-51
Justin Regelin	Battalion Chief – Fuels	BC-52
Andrea Shuster	Fire Admin Clerk	

Shasta-McCloud Management Unit

Carolynn Napper	SMMU Ranger	Ranger-6
Paul Zerr	Division Chief	DIV-7
Drew Graham	Battalion Chief – Mt Shasta	BC-61
Josiah Obst	Battalion Chief – McCloud	BC-71
Hanne Meyers	Battalion Chief - Fuels	BC-72
Dave Wolfe	Fire Admin Clerk	

Section 3 – Duty Officer and Dispatch Contact Info

The Mobilization Center Manager will provide you with the appropriate Duty Officer contact information.

There is a companion contact list document “[2023 SHF Duty Officer Contact List \(Password Protected\)](#)” located in the “[1 – Briefing guide for Incoming Resources](#)” folder that is password protected. The Mobilization Center Manager can provide you with the password.

QR Code for Contact List:



Section 4 – Fire Behavior & Weather / Terrain / Fuels

Shasta-Trinity NF Fire Behavior Summary

The Shasta-Trinity National Forest encompasses a highly variable landscape ranging from the low foothills of the northern Sacramento Valley at 1,000 ft elevation to alpine areas of the Southern Cascades on the slopes of Mt. Shasta, at an elevation of 14,179 feet. This wide variation in elevation brings with it a diversity of fuel types and weather patterns. As a result, it is very important for firefighters to understand where they are on the forest to understand factors that influence local fire behavior.

Given the wide variations in weather, fuels, topography, and ignition sources across the forest, there are still consistent factors that apply across the entire landscape.

Forest-Wide Fire Behavior Factors

Weather

a. Weather Summary

The Shasta-Trinity NF has a mediterranean climate, with cool wet winters and hot dry summers, with most precipitation falling from November through March. Precipitation drops off quickly April through June, with late spring and summer precipitation typically coming only from thunderstorms. The very hot and dry summer weather of the mediterranean climate results in a peak fire season that runs from July through September in a typical year.

b. Weather Service Office and Forecast Zone

The Forest is covered by three National Weather Service forecast offices – Medford, Eureka, and Sacramento. Refer to your specific area summary for information on forecast zone and NWS office. Weather forecasts are read on Forest net via radio briefing twice daily during periods of active fire potential.

c. Remote Automated Weather Stations (RAWS)

There are 14 RAWs stations managed by the Shasta-Trinity NF. Numerous additional stations are located nearby and are managed by other land management agencies or Forest Service units. Refer to FDRA summaries for RAWS specific to each unit.

d. Weather Watchouts

Each area of the forest has specific weather scenarios that can influence fire behavior. However, there are patterns to watch out for across the forest:

- North wind events are common from late summer/early fall through the winter. These are typically dry, offshore North to East winds that bring very poor overnight recoveries and strong gusty winds.
- Poor overnight humidity recoveries are common during strong high-pressure ridges and result in rapid drying of fuels and increases in fire behavior. Strong thermal belts are also associated with high pressure ridges and often result in areas of very poor overnight humidity recovery and extended periods of fire activity. Forest-wide, if overnight recovery is below 60%, large fire growth potential is elevated.
- Outflow winds from summer thunderstorms are unpredictable and are common when either frontal or convective driven storms develop. Dry thunderstorms occur across the forest during the dry summer and fall months.
- Large river canyons are present in all FDRAs and present specific local challenges to fire management, see summary for the local area for specifics within each FDRA.

Fuels

a. Fuels Summary

Though fuel types are highly variable across the landscape, fuel moisture is an important driver of fire behavior across the forest. Generally, live fuel moistures in brush species below 100% is an indicator that fire activity may be elevated and brush species will be available to burn. Live fuel moistures in brush (specifically manzanita) below 80% are critical and rapid spread in brush fuels is likely. Even in timber fuels, the availability of the brush component is often a driver of fire growth across the forest.

b. Fuel Moisture Sites

Live fuel moistures are collected twice a month (1st and 15th) at 11 sites throughout the forest to assist in understanding current moisture levels and seasonal trends in fuel moisture. Refer to specific FDRA summary for information on fuel moisture sites relevant to a particular area of the forest. Fuel moisture information is loaded twice monthly to the national fuel moisture database (<http://www.wfas.net/index.php/national-fuel-moisture-database-moisture-drought-103>).

Topography

Topography across the forest is highly variable, with the steep, dissected terrain of the Klamath Mountains dominating the western portions of the forest, foothill and river canyons dominating the areas bordering the Sacramento Valley, and tall peaks / individual mountains and volcanic flats typical of the southern Cascades dominating the northeastern portion of the Forest. See individual FDRA summaries for more details.

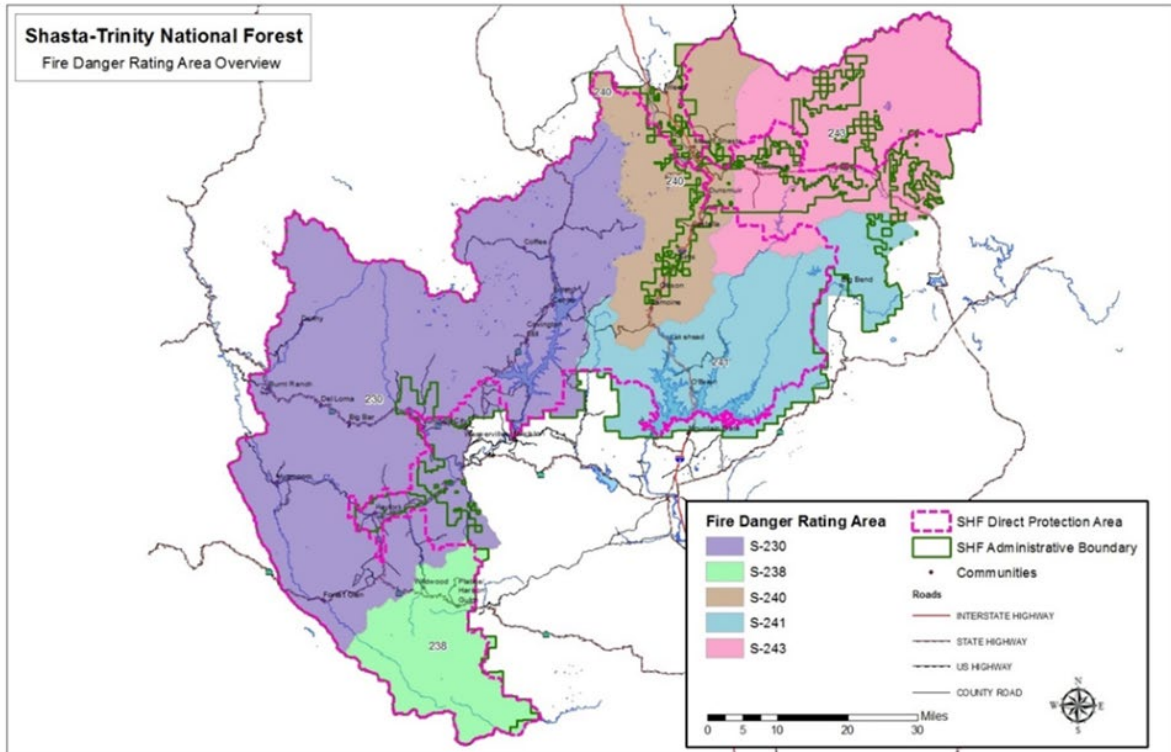
Ignition Sources

The entire forest has high potential for summer dry lightning events, with all areas of the forest having historically been impacted by lightning fires. Human ignitions are strongly associated with highway corridors, areas of high-density recreation, and high use areas.

Fire Danger Rating Areas

The forest is broken into 5 Fire Danger Rating Areas (FDRAs), each representing areas of generally similar fuels, topography, and weather. The table and map on the following page illustrate the location of these FDRAs

FDRA Boundaries on the SHF



Fire Danger Rating Area	District / Location	Acreage	% of Forest
FDRA S-230	Weaverville, Big Bar, & Hayfork	1,379,686	45%
FDRA S-238	Yolla Bolla / Platina	242,414	8%
FDRA S-241	Shasta Lake	382,570	13%
FDRA S-240	Mt. Shasta / Weed / Dunsmuir	493,560	16%
FDRA S-243	McCloud	548,212	18%

Pocket Cards

The Shasta-Trinity NF also has Pocket Cards that can assist firefighters in understanding local fire behavior thresholds and watch outs. There are 3 Pocket Cards for the forest, each covering one or more of the Forest's FDRAs:

1. SHF West - FDRA S-230 and S-238 (Trinity River Management Unit & South Fork Management Unit)
2. SHF Shasta Lake, which covers FDRA S-241 (Shasta Lake Ranger District)
3. SHF Northeast, which covers FDRA S-240 and S-243 (Shasta-McCloud Management Unit)

SHF West - FDRA S-230 and S-238
Trinity River Management Unit & South Fork Management Unit



<https://bit.ly/3Ny4ThA>

SHF Northeast – FDRA S-240 and S-243
Shasta – McCloud Management Unit



<https://bit.ly/3D1ztew>

SHF Shasta Lake – FDRA S-241
Shasta Lake Management Unit



<https://bit.ly/3pHSVdf>

The pocket cards can also be found in the 2023 SHF Briefing Guide Box root folder: [“4 – Pocket Cards”](#)

The next section will describe each FDRA's Pocket Card in detail.

FDRA S-230 Description – SHF West Side Pocket Card

1. **Weather**

- a. Weather Service Office and Forecast Zone: NWS Eureka, [FWZ 283](#)
- b. RAWS: From NE to SW, Scorpion, Trinity Camp, Five Cent, Backbone, Big Bar, Underwood, Hayfork & Friend Mountain.
- c. Weather Watchouts

Fire season is driven by the hot and dry summer weather typical of the Mediterranean Climate. Large fire growth in this FDRA is often fuels and topography driven, not needing a critical fire weather trigger other than an ignition source. Critical fire weather events in this FDRA are:

- Dry lightning events result in numerous fires that overwhelm initial attack capacity. Large growth may occur days to weeks after initial ignition.
- Diurnal canyon winds in the main stem of the Trinity River create potential for large fire growth. These winds are influenced by the thermal low in the Sacramento Valley and the intrusion of cooler air from the Pacific coast to the west. These winds are often not captured by local RAWS and not always predicted in local forecasts.
- Diurnal canyon winds flowing up and down the South Fork of the Trinity River can pull fire downhill towards the river from canyons perpendicular to the river.

2. **Fuels**

- a. Fuels Summary

Fuels at low elevations are dominated by pine and brush species. Vegetation transitions to mixed conifer at higher elevations and true fir and alpine meadow systems at the highest elevations of the Trinity Alps Wilderness. The lowest elevations near communities and along the major travel routes dry out ahead of the high elevations. Early season lightning fires in the low elevation will be more active than fires high up in the wilderness, but by late summer, fuels at all elevations are typically available for fire growth.

- b. Fuel Moisture Sites

In the northern portion of the FDRA, Rush Creek, Mule Creek and Big Bar are representative fuel moisture sites. In the southern portion, Ewing Reservoir, Hayfork Compound, and Friend Mt. are representative fuel moisture sites.

<http://www.wfas.net/index.php/national-fuel-moisture-database-moisture-drought-103>

3. **Topography**

The area is dominated by steep, rugged terrain dissected by numerous drainages and creeks. The Trinity River and South Fork of the Trinity River are the main drainages, with many large canyons and creeks feeding into them. Main canyons leading into the main stem of the Trinity River generally run North to South, but the terrain includes drainages running in almost every direction with many bends and changes in aspect. Elevation ranges from a low of 682 feet at the bottom of the river canyon to a high of 9,025 feet in the Trinity Alps Wilderness.

4. Ignition Sources

Fires in this FDRA are dominated by lightning, with large dry to mostly dry lightning storms resulting in several fires that rapidly overwhelm initial attack resources. The large, and generally inaccessible nature of the northern portion of the FDRA within the Trinity Alps Wilderness also presents fire control difficulties when fires start there during the typically hot, dry summer. 1987, 2008, and 2015 are years that exemplify the growth of fires that were given low priority because of remote location in comparison to other starts near values at risk.

In addition to lightning, the Hwy 299 corridor and its associated communities and infrastructure is a notable source of ignitions. State Highway 299 runs roughly through the middle of this FDRA and is also a wind corridor that can fuel growth of human starts along the highway. Such fires have come from vehicles as well as powerlines and other community related sources. Vehicle related fires include the Flat Fire in 2012 and Oregon fire in 2014. The Helena Fire, in 2017, is an example of a human caused fire driven by strong canyon winds the resulted in significant suppression effort and loss of property within this FDRA.

FDRA S-238 Description – SHF West Side Pocket Card

1. Weather

- a. Weather Service Office and Forecast Zone: West half, NWS Eureka, [FWZ 283](#), East Half NWS Sacramento [FWZ 263](#)
- b. RAWS: Yolla Bolla, Pattymocus, Arbuckle Basin
- c. Weather Watchouts

The western portion of the FDRA dominated by the South Fork of the Trinity River and the high mountains of the Yolla Bolla - Middle Eel Wilderness to the eastern half of the FDRA is influenced strongly by the north end of the Sacramento Valley.

- Strong down canyon winds can pull fires downhill towards the Sacramento Valley. These winds are enhanced when heating in the valley creates a thermal low and air flows down into the valley to replace the hot, rising air. Fires in the eastern ½ of this FDRA will move eastward, particularly in east-west drainages such as Begum Creek and Cottonwood Creek.
- Diurnal canyon winds flowing up and down the South Fork of the Trinity River can pull fire downhill towards the river from canyons perpendicular to the river.
- Like FDRA 230, dry lightning events are a common occurrence and can result in multiple starts that grow large because of fuels- and topography-driven fire growth.
- Offshore/north wind events impact the higher ridges of the FDRA and can also enhance downslope winds into the Sacramento Valley when valley winds are stronger than ridge winds.

2. Fuels

a. Fuels Summary

The vegetation in FDRA S-238 is similar to that of FDRA S-230 but trending towards the drier and brushier versions of the vegetation types due to the more southerly location resulting in slightly warmer temperatures, the narrowing of the coast range resulting in more foothill and valley influence from the Sacramento Valley to the east, and the overall lower elevation.

Mixed conifer forest is present across the majority of the FDRA, with denser and more continuous stands present in drainage bottoms and on north and east facing slope. The east side of the FDRA is much drier, resulting in more brush components. As you head south in the FDRA, brush transitions from the montane chaparral of FDRA S-230 to chamise dominated, low elevation chaparral. Throughout the FDRA, large areas of serpentine soil significantly alter the vegetation, resulting in sparse stands dominated by grey pine and stunted mixed conifer. Hardwoods are a major component of stands in the area, with live oak and black oak more prominent on arid or rocky slopes and Pacific Madrone present throughout.

b. Fuel Moisture Sites

Fuel Moisture samples are collected twice monthly at Yolla Bolla RAWS.

<http://www.wfas.net/index.php/national-fuel-moisture-database-moisture-drought-103>

3. Topography

Elevation in FDRA S-238 ranges from 1,590 ft. in canyon bottoms to 7,830 ft. in the highest parts of the wilderness areas. The FDRA is dominated by steep canyons and ridges, with the somewhat south to north oriented South Fork Trinity River forming the main drainage on the western end of the FDRA. In the central portion of the FDRA, higher peaks and broken terrain in the Yolla Bolla Middle Eel Wilderness continues north past the wilderness boundary, resulting in canyons oriented in a wide array of directions and aspects. The eastern side of the FDRA is dominated by east-west running canyons leading out to the foothills of the Sacramento Valley.

4. Ignition Sources

Lighting accounted for just over 75% of ignitions in this FDRA over the past 15 years. Human caused fires in this FDRA are driven by starts along CA State Highway 36 and clustered near the small rural communities in the area. Large fires are most often associated with lightning events that result in more starts than initial attack forces can secure or starts in locations that cannot be reached before they become established. The large fires of 2008, 2015 and 2020 are examples of fires that grew large when multiple starts overwhelmed initial attack resources.

FDRA S-240 Description – SHF Northeast Pocket Card

1. Weather

- a. Weather Service Office and Forecast Zone: Southern half - NWS Sacramento [FWZ 213](#), Northern half NWS Medford [FWZ 282](#)
- b. RAWS: North to South - Bolam, Weed Airport, Mt. Shasta, Sims
- c. Weather Watchouts

The southern 2/3 of the FDRA are dominated by the canyon winds that flow up and down the Sacramento River corridor. On the north end of the FDRA, strong down slope winds from Mt. Shasta can drive fires to north and northwest. As in the rest of the forest, dry lightning events can produce multiple starts.

2. Fuels

- a. Fuels Summary

Vegetation within the FDRA varies by elevation, with more mixed conifer-hardwood present in the lower locations along the Sacramento River, grading to true fir forests at higher elevation and finally true alpine vegetation above the tree line within the Mt Shasta Wilderness. The majority of the FDRA is mixed conifer or mixed conifer-hardwood, with many of the typical Klamath Mountain species (madrone, black oak, live oak, and montane chaparral) present in mid to low elevations. The eastern portions transition to more Cascade Mountain type vegetation, as this FDRA is a transition between the Klamath Mountains to the west and the southern end of the Cascade Mountains to the east.

- b. Fuel Moisture Sites

The Mount Shasta fuel moisture site is within this FDRA and is representative of the northern portions of the FDRA near Dunsmuir, Mt Shasta City and weed. The Sugarloaf site is more representative of the southern half of the FDRA.

<http://www.wfas.net/index.php/national-fuel-moisture-database-moisture-drought-103>

3. Topography

Ranging in elevation from 1,090 ft. near the entrance of the Sacramento River in Shasta Lake to 14,130 ft. near the summit of Mt Shasta, this FDRA has the widest range of elevations of any in this plan. The dominant geographic features in the FDRA are Mt. Shasta, the over 9,000 ft summit of Mt Eddy, immediately west of Mt Shasta and the Sacramento River Canyon. Along the river canyon, the FDRA stretches east and west to the summit of major ridges that define the drainages that flow into the Sacramento within the canyon.

4. Ignition Sources

The most important driver of fire activity in FDRA S-240 is the I-5 Corridor. Starts along the corridor come from vehicles on the interstate, activities associated with the railroad, powerlines that share the corridor and other ignitions associated with human activity in the small communities along I-5. The density of human activity along the I-5 corridor has also resulted in

some intentionally ignited fires along and near the interstate. Fire ignitions are also associated with the larger communities within the FDRA because of human activities. Because of the proximity of most ignitions to the interstate or community infrastructure, rapid response of initial attack resources is often highly successful, though there are examples that exceed initial attack. Notable examples are the Delta Fire in 2018 and Salt Fire in 2021. Lightning storms do happen in this FDRA but are far less of a contributor to starts than in other FDRAs.

The frequency of starts along the I-5 corridor and near the major communities, and the fact that they can occur at any time, regardless of weather and fire conditions, make human ignitions the largest concern in FDRA S-240. **Exercise Extreme caution when responding to fires on or along the I-5 corridor due to heavy traffic, high rate of speeds, and numerous blind corners.**

FDRA S-243 Description – SHF Northeast Pocket Card

1. **Weather**

- a. Weather Service Office and Forecast Zone: NWS Medford, [FWZ 282](#) and [FWZ 284](#)
- b. RAWS: Ash Creek and Round Mountain
- c. Weather Watchouts

The McCloud Flats are the major feature in this FDRA. This is the largest and highest elevation portion of the forest. This results in the shortest fire season of forest FDRAs, with later green up and typically earliest season ending events.

- Wind driven fires are typical on the flats, though high road density frequently aids initial attack.
- Outflows from thunderstorms have been the cause of erratic and dangerous fire activity on similar terrain on adjacent forests.

2. **Fuels**

- a. Fuels Summary

Vegetation in the area is characteristic of the southern Cascade Mountains, dominated by ponderosa pine and areas of chaparral at the lower elevations and mixed conifer dominated by true fir species at higher elevation. Large areas of lodgepole pine are present in the eastern portions of the FDRA. At lower elevations across the McCloud flats, pockets of aspen remain where past hydrologic flow allowed for them to outcompete conifers. Meadows and patches of black oak are also prevalent across the McCloud flats and throughout the low to mid elevations. Grazing and extensive logging have played a major role in the current vegetation of the area. The history of logging has resulted in large areas of plantations, many of which are nearly pure pine.

b. Fuel Moisture Sites

Fuel moisture collections take place at the McCloud SHF site as well as the McCloud CALFIRE site.

(<http://www.wfas.net/index.php/national-fuel-moisture-database-moisture-drought-103>)

3. **Topography**

This FDRA averages the highest elevation of the 5 FDRA's in this plan, ranging from 1,540 ft. at the lowest point in the McCloud River to 14,150 ft near the summit of Mt Shasta. The McCloud flats are a dominant but largely flat feature situated to the southeast of Mt Shasta and east of the community of McCloud. This feature is the largest largely flat feature on the Shasta-Trinity NF. East of the McCloud flats there are large lava flows that have minimal road access but also have limited vegetation. The southern portion of the FDRA follows the McCloud River, and south of Lake McCloud there is a substantial change from the McCloud Flats to much more topographic relief. Tall ridges parallel the relatively steep and incised McCloud River canyon and its tributaries, forming the boundary with FDRA S-240 to the west and S-241 to the south. The northern and north-eastern boundaries of the FDRA are dotted with the more isolated peaks typical of the Cascade mountains. A somewhat continuous series of peaks and ridges running roughly north-northwest from Mt Shasta forms the northern boundary of the FDRA as well as the northern border of the Shasta-Trinity NF.

4. **Ignition Sources**

Fires in FDRA S-243 are dominated by lightning ignitions. However, human caused fires do occur and result from timber production, vehicle traffic and recreation across the FDRA. Lightning events are common the summer months and are associated with convective mountain thunderstorms as well as low pressure systems that break down the upper-level ridge and bring in an unstable air mass. The gentle terrain and relatively high road density allow for rapid and successful initial attack across the majority of the FDRA much of the time, resulting in limited large fire history. The exception is the southern end of the FDRA near the lower McCloud River below Lake McCloud, where terrain is much steeper and more dissected. This southern portion of the FDRA has been impacted by recent large fires that burned into the FDRA from neighbouring FDRA S-241: the Bagley Fire in 2012 and the Hirz Fire in 2018.

FDRA S-241 Description – SHF Shasta Lake Pocket Card

1. **Weather**

- a. Weather Service Office and Forecast Zone: NWS Sacramento [FWZ 213](#)
- b. RAWS: Sugarloaf (SHF), Oak Mountain, Redding, Mule Mountain, & Whiskeytown HQ
- c. Weather Watchouts
 - Alignment of wind & slope contributes to large fire growth, particularly where canyons enhance wind flow, such as along I-5 / Sacramento River Canyon.
 - North to northeast winds in late summer and fall can be very strong and result in large fire growth. Local RAWS do not always capture these offshore winds. Potential for 24-hour staffing in this FDRA during strong offshore wind events.
 - This is the warmest and driest zone of the forest; fuels are available much earlier than other areas and the typical fire season in this area can last a month or more longer than higher elevation areas of the forest.

2. **Fuels**

a. Fuels Summary

Vegetation in this FDRA ranges from oak woodland in lower elevations at the southern end of the FDRA near Shasta Lake and the Pit River into mixed conifer-hardwood on drier slopes and aspects to true mixed conifer at the highest elevations and in the wetter creek drainages in the northern end of the FDRA. Gray pine and knob cone pine is prevalent throughout much of this FDRA, particularly at lower and mid elevations where precipitation is lower and average temperatures are warmer. Manzanita and ceanothus dominated hard chaparral are a major component of lower elevations throughout the FDRA, particularly on south and west aspects near Shasta Lake.

b. Fuel Moisture Sites

Sugarloaf and Lakeshore are the 2 active fuel moisture sites within this FDRA.

(<http://www.wfas.net/index.php/national-fuel-moisture-database-moisture-drought-103>)

3. **Topography**

Topography is dominated by Shasta Lake and the tributaries that flow into it. The elevation in the FDRA is 567 ft, south of Shasta Lake and outside of the watershed that feeds into the lake. The highest elevation in the FDRA is 6,240 ft, which occurs at the northern end of the FDRA near its border with FDRA S-243 and the McCloud ranger district. The main tributaries to Shasta Lake within the FDRA are, from east to west, the Pit River, Squaw Creek, and the McCloud River. All three run generally north to south, trending slightly from east to west. The three drainages, along with the upper Sacramento River, are separated by high ridges running parallel to the watercourses. The western and central portions of the FDRA are steep and dissected by the three tributaries mentioned and the many creeks that flow into them. In this area the FDRA resembles the topography and vegetation of the Klamath Mountains that border it to the west. The far eastern portion of the FDRA is flatter and more closely resembles the Cascade Mountains in character and vegetation.

4. Ignition Sources

Human ignitions are the major driver of fire activity in this FDRA. There are numerous sources of ignitions associated with the substantial recreation use associated with Shasta Lake, including recreation residences, private inholdings, campfires, and other ignitions around the lake from recreators and ignitions from human activities associated with the communities and access routes dotted around the lake.

Additionally, much like FDRA S-240, the I-5 corridor and associated railroad and utility infrastructure are responsible for a significant number of ignitions. Ignitions from the I-5 corridor are often readily accessible to initial attack forces, though large fires have occurred, such as the Coal (2012), Salt (2012), and Salt (2021). **Exercise Extreme caution when responding to fires on or along the I-5 corridor due to heavy traffic, high rate of speeds, and numerous blind corners.**

Lightning fires are also a concern in the area. The significance of lightning fires in this area is dependent upon the precipitation received with the lightning, with wetter storms resulting in higher initial attack success rates. The further north and east into the FDRA, the more significant the role lightning plays in ignitions. The systems that produce lightning in northern California can miss this FDRA in part or entirely, as the higher mountains that surround it to the west, north and east often generate more thunderstorm activity and lightning.

Section 5 – Fire Suppression

Unless you are assigned to a District that is in its Lightning Plan, all fire assignments will be centrally dispatched through Redding Dispatch. Ensure you have adequate location and directions (as best as dispatch has) to get there. Redding Dispatch uses an automatic dispatch response, based on the location and the Dispatch Level.

Although only Agency resources are delegated to be Incident Commanders, contract or non-IC qualified resources can still provide an “Initial Assessment” upon arriving on scene or at a good vantage point. Be sure to call the information you relay to Dispatch and “Initial Assessment” and not a “Size-Up”; the Incident Commander will give a “Size-Up.”

The Initial Assessment should include:

- Confirmation or clarification of the fire’s location
- Best ingress and parking/staging
- Description of the fire’s size, smoke characteristics, and fire behavior
- Fuels/terrain/weather involved
- Any special considerations, such as values at risk or powerlines in the area.

If you are not the Incident Commander, do not cancel or augment the resources coming to the fire. Until the Incident Commander is on scene, the Duty Officer will take the information you provide in the Initial Assessment and adjust the resources as necessary.

Remember- if you are a contract resource or not qualified as an Incident Commander, do not accept the IC role if Dispatch assigns you that role (they usually assign the IC to the first resource on scene). If that happens, inform Dispatch that you are not an Incident Commander, but you can continue to be a point of contact for the incoming Agency Resources.

If you are qualified as an Incident Commander, utilize the first page of the “SHF Incident Organizer” to relay a “Size-Up” to Dispatch. If you do not have the SHF Incident Organizer, you may utilize the Size-Up Report on the inside cover of your IRPG, but please remember to include the best ingress, parking, staging area, and updated lat/long for incoming resources.

No matter what checklist you choose to use, the size-up should be completed within minutes of the IA IC’s arrival at scene. Longer times are usually associated with larger fire sizes or greater complexity. Consider using helicopters or air attack for help in completing the size up on rapidly moving fires located in complex terrain. Think ahead! Develop tactics/plans based on fuels conditions, fire weather forecasts, and expected fire behavior. Use air resources early on when they’re most effective. Use them to get into or locate fire. Request an air attack to manage multiple air resources. Request supervisory resources commensurate with production resources. Remember, it’s always easier to turn back resources that you don’t need than to not have them when you do, especially under high end conditions.

Many resources from out of the area have expressed surprise at the fast pace that some initial attack fires on the SHF can be. Build your ICS organization early on or you will be quickly overwhelmed in a fast-moving fire.

Section 6 – Hazards and Potential

COVID Mitigation

The risk of COVID-19 exposure/infection and its mitigation continues to be one of the highest priorities for 2023. As on your home unit, proper sanitation and social distancing are critical. It is important to continue to implement these mitigations while you are assigned here. The local units will all be implementing a wide variety of actions to assist in mitigation, such as virtual briefings, electronic versions of maps/briefing guides, and others.

Keeping your module isolated is critical to reducing the risk of COVID-19 and maintaining firefighting capacity. Contact with the public and large groups needs to be kept to the absolute minimum and only for critical needs such as food. Additional use of technology will be important. Plan for being self-sufficient for at least 72 hours. Utilize COVID PPE as appropriate. Monitor and screen your people and notify the local unit immediately of any possible symptoms.

The USFS utilizes CDC's COVID-19 community levels to guide masking protocols at its facilities. Masks are required in HIGH COVID Community Levels including if you are in a government vehicle with other occupants.

[COVID-19 Community Levels | CDC](#)



Environmental Factors

We would like you to conduct tailgate safety briefings before engaging in suppression or project work. Please ensure your module members are aware of the following common hazards on the Shasta-Trinity NF, as well as any hazards specific to the local area you are working in:

- **Dehydration**
Lack of humidity, high elevations, even at lower temperatures, causes dehydration. Please drink lots and lots of water. If you are thirsty, it's too late!!
6 Minutes for Safety has a great writeup about the importance of hydration that you can utilize as a tailgate safety session with your module: <https://bit.ly/3pB0anu>
- **Heat Exhaustion/Stress/Stroke**
Dehydration accompanied with continuous exercise will cause heat exhaustion. Please monitor personnel, especially working at the lower elevations and grasslands with the high temperatures.
6 Minutes for Safety – “Heat Disorders”: <https://bit.ly/44ckWss>
6 Minutes for Safety – “Heat Stress”: <https://bit.ly/44gDEPC>
- **Insects**
Gnats, mosquitoes, yellowjackets, and ticks are common in this area. Take precautions by using repellents. Check for ticks on a regular basis, especially if working in oak brush, sagebrush, or lower elevations. Lyme disease, though not common, has been reported here.
6 Minutes for Safety – “Bees and Wasps”: <https://bit.ly/3JNOu7F>
The Center for Disease Control has many resources about tick identification, bite prevention, removal, and tick-borne diseases. The most common tick in Northern California is the Western blacklegged tick (carrier of Lyme Disease). The Brown dog, American dog, and Rocky Mountain

wood ticks (all carriers of rocky Mountain Spotted Fever) have been found here but are not nearly as common as the Western blacklegged tick.

CDC – “Ticks”: <https://bit.ly/3JNcNCx>

- **Snags**

Snags are common in many locations from insect/disease outbreaks, drought, and large fires. Adjust tactics and line locations as appropriate. Ask local units about areas with known concentrations of snags. The folder “[4- SHF Fire History Maps](#)” can help identify areas where fire-caused snags will be likely: <https://bit.ly/3XGvcqs>

6 Minutes for Safety has multiple entries dedicated to hazard trees and felling safety : <https://bit.ly/3rENXJ>

- **Snakes**

Common snakes, though relatively rare, can be found at most elevations. Rattlesnakes occur at approximately 7000 feet and below. Most rattlesnakes found on the Forest are the Northern Pacific Rattlesnake; the Great Basin rattlesnake might be found occasionally in the far eastern part of the McCloud District. Both are venomous pit vipers, but are not known for being aggressive unless threatened. These varieties of rattlesnakes just want to be left alone, so the easiest way to avoid being bit is to avoid and not aggravate them.

Rattlesnakes are an important part of the Forest ecology, so please do not kill them unless it is your last option to avoid being bit. Gopher snakes and rattlesnakes look extremely similar with the main appearance difference being the rattlesnake has a diamond-shaped head, wider bands, and a rattle. Many gopher snakes have been accidentally killed because someone misidentified them.

Californiaherps.com is an excellent source with information and many photos of all the reptiles and amphibians in California. Their Northern Pacific rattlesnake page can be found at <https://bit.ly/3JMRjWu>

- **Poison Oak**

Poison Oak is the #1 cause of personnel having to seek medical attention on the Shasta-Trinity. It grows as both a shrub and a vine and is widespread throughout the mountains and valleys of California, but generally doesn't grow at elevations above 5,000 feet. If you aren't 100% sure you and your crew know what it looks like in all stages of the year, please ask local personnel to point out the plant to you. Below are some informational webpages regarding poison oak:



“Pacific Poison Oak” by National Park Service
<https://bit.ly/3O2n3bj>



“Poison Oak” by Shasta-Trinity NF
<https://bit.ly/3pw9MzT>

Naturally occurring asbestos

Marijuana Grows

Section 7 – Directions to Stations

Below are locations of the common stations on the SHF. If you have the Google Maps app loaded, these QR Codes will give you driving directions from your location.

Use your camera to scan these QR Codes- don't use a dedicated QR reader app.

Redding

SHF Headquarters



North Ops (NCSC)



Air Tanker Base



South Fork Management Unit (SFMU)

Harrison Gulch

(E-311, E-312, E-313, WT-16,
Trinity IHC)



Forest Glen



Hayfork
(E-321, E-322)



Trinity River Management Unit (TRMU)

Weaverville District Office
(E-343, WT-246)



Mule Creek
(E-341)



Coffee Creek



Junction City
(E-332)



Big Bar
(E-331)



Burnt Ranch
(E-334)



Shasta Lake National Recreation Area (NRA)

Shasta Lake District Office
(E-352, E-353)



Big Bend
(Cover Station with CALFIRE)



Lakeshore
(E-351, Shasta Lake Crew-5)



Shasta-McCloud Management Unit (SMMU)

Sims
(E-363)



Mount Shasta District Office
(E-361, E-362, WT-66)



McCloud District Office
(E-371)



Ash Creek
(E-372, E-373)



There is also an online Google map of all SHF CAD points, Station locations, Repeater locations, etc. at:



<https://bit.ly/43lcGoX>

Section 8 – Maps

Use the QR Code reader function in Avenza. The QR icon is in the upper-right corner of the Import Map section. We recommend putting each category of map into collections, so Avenza smoothly transitions from one map to the other.

If you are having problems downloading the maps, ask the Mobilization Center Manager if they can AirDrop them to you.

Hard copy SHF Forest Visitor maps are available at the Mobilization Center. We ask that non-local Federal resources return the hardcopy maps to the Mobilization Center during demobilization.

Map Descriptions:

- Visitor Maps are the same as the hardcopy Forest maps available to the public. They are good for large-scale orientation. Minor spur roads are often not labeled on Visitor maps.
- Transportation Maps are similar to the Visitor Maps but are in a smaller scale and contain much more detail than the Visitor Maps. Most spur roads are labeled on the transportation maps, but in small print.
- Motor Vehicle Use Maps (MVUM) are simple greyscale maps that are excellent for finding spur road names. They also differentiate between Forest Service and Non-FS property. Because of the lack of detail, they should not be used for strategic planning, but are excellent for orientation.

SHF Visitor Maps

SHF Visitor Map - East



<https://bit.ly/44b2sIM>

SHF Visitor Map - West



<https://bit.ly/44w9FTy>

SHF Transportation Maps

Yolla Bolla (Battalion 1) Transportation Map



<https://bit.ly/3JFBvEQ>

Hayfork (Battalion 2) Transportation Map



<https://bit.ly/44wcXpN>

Big Bar (Battalion 3) Transportation Map



<https://bit.ly/3XFIHrM>

Weaverville (Battalion 4) Transportation Map - North



<https://bit.ly/3r3h8uT>

Weaverville (Battalion 4) Transportation Map - South



<https://bit.ly/300PEiN>

Shasta Lake (Battalion 5) Transportation Map - North



<https://bit.ly/3NDldxz>

Shasta Lake (Battalion 5) Transportation Map - South



<https://bit.ly/435mZxi>

SMMU (Battalion 6 & 7) Combined Transportation Map



<https://bit.ly/3r5BqE2>

Mt Shasta (Battalion 6) Transportation Map - North



<https://bit.ly/43cLmsG>

Mt Shasta (Battalion 6) Transportation Map - South



<https://bit.ly/449PjQa>

**McCloud (Battalion 7) Transportation Map -
North**



<https://bit.ly/3XFnf54>

**McCloud (Battalion 7) Transportation Map -
South**



<https://bit.ly/3XzZVFy>

Motor Vehicle Use Maps (MVUM)

Yolla Bolla North and Hayfork MVUM



<https://bit.ly/3JKIPjL>

Yolla Bolla South MVUM



<https://bit.ly/3JH5Eno>

Big Bar MVUM



<https://bit.ly/3NZwhXi>

Weaverville North MVUM



<https://bit.ly/3rkmsKr>

Weaverville South MVUM



<https://bit.ly/44bM76H>

Shasta Lake East MVUM



<https://bit.ly/3D5OiN7>

Shasta Lake West MVUM



<https://bit.ly/436DzNj>

Mt. Shasta North MVUM



<https://bit.ly/3XGAQsS>

Mt. Shasta South MVUM



<https://bit.ly/44ciaUf>

McCloud North MVUM



<https://bit.ly/43dsuKn>

McCloud South MVUM



<https://bit.ly/3XBltlo>

Neighboring Forest Maps

Klamath NF East



<https://bit.ly/3XJSz2A>

Klamath NF West



<https://bit.ly/449brKt>

Lassen NF



<https://bit.ly/3CZdvsJ>

Mendocino NF



<https://bit.ly/3D0G600>

Modoc NF East



<https://bit.ly/3NHhJtM>

Modoc NF West



<https://bit.ly/3pBaVWO>

Six Rivers NF North



<https://bit.ly/3Q0nCW7>

Six Rivers NF South



<https://bit.ly/3XAgYrb>

Section 9 – Appendices Index
