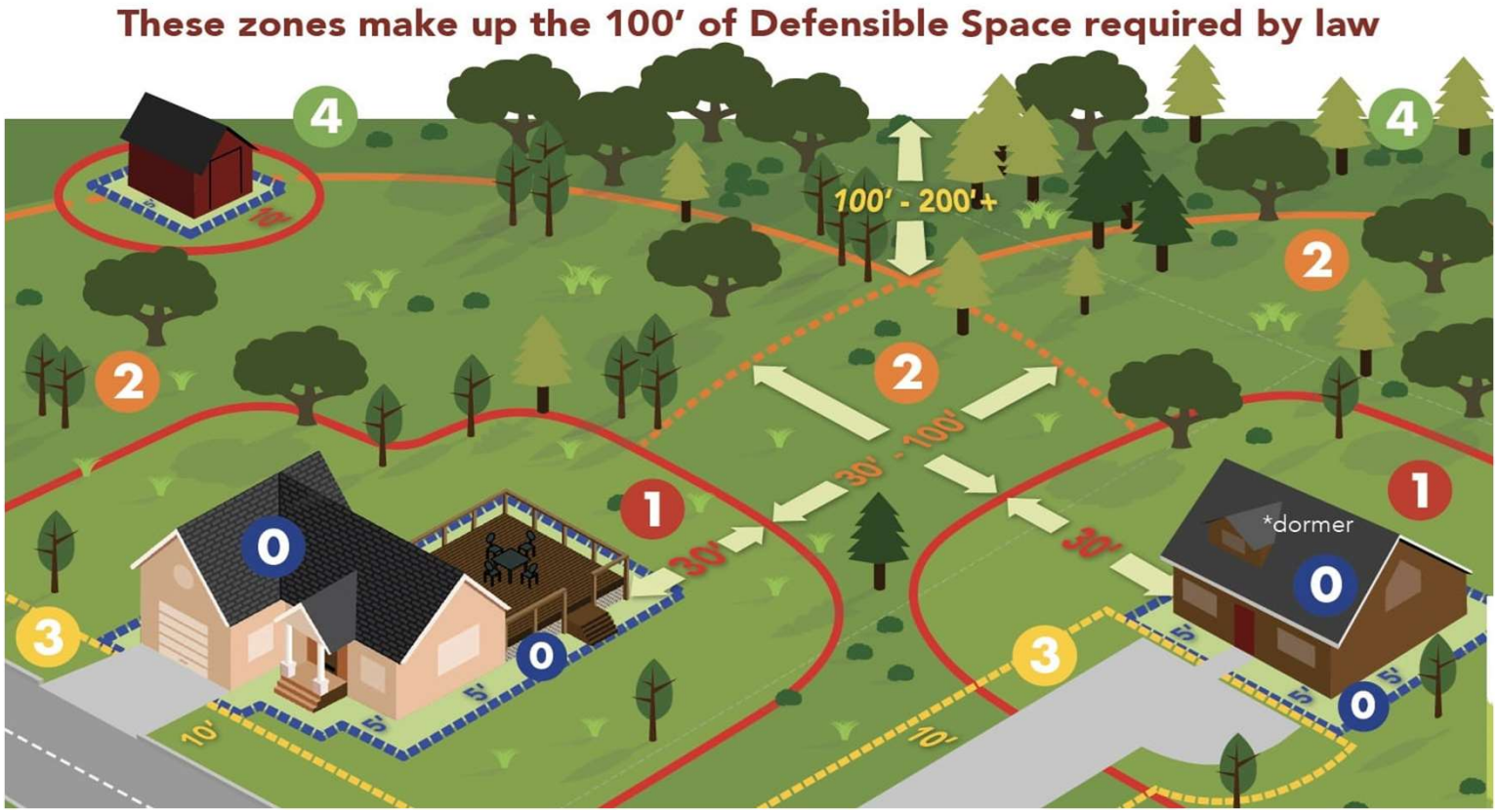
Defensible Space

NAPAFIREWISE



Why Does Defensible Space Matter?

Defensible Space protects your home from the wildland, and protects the wildland from your home.

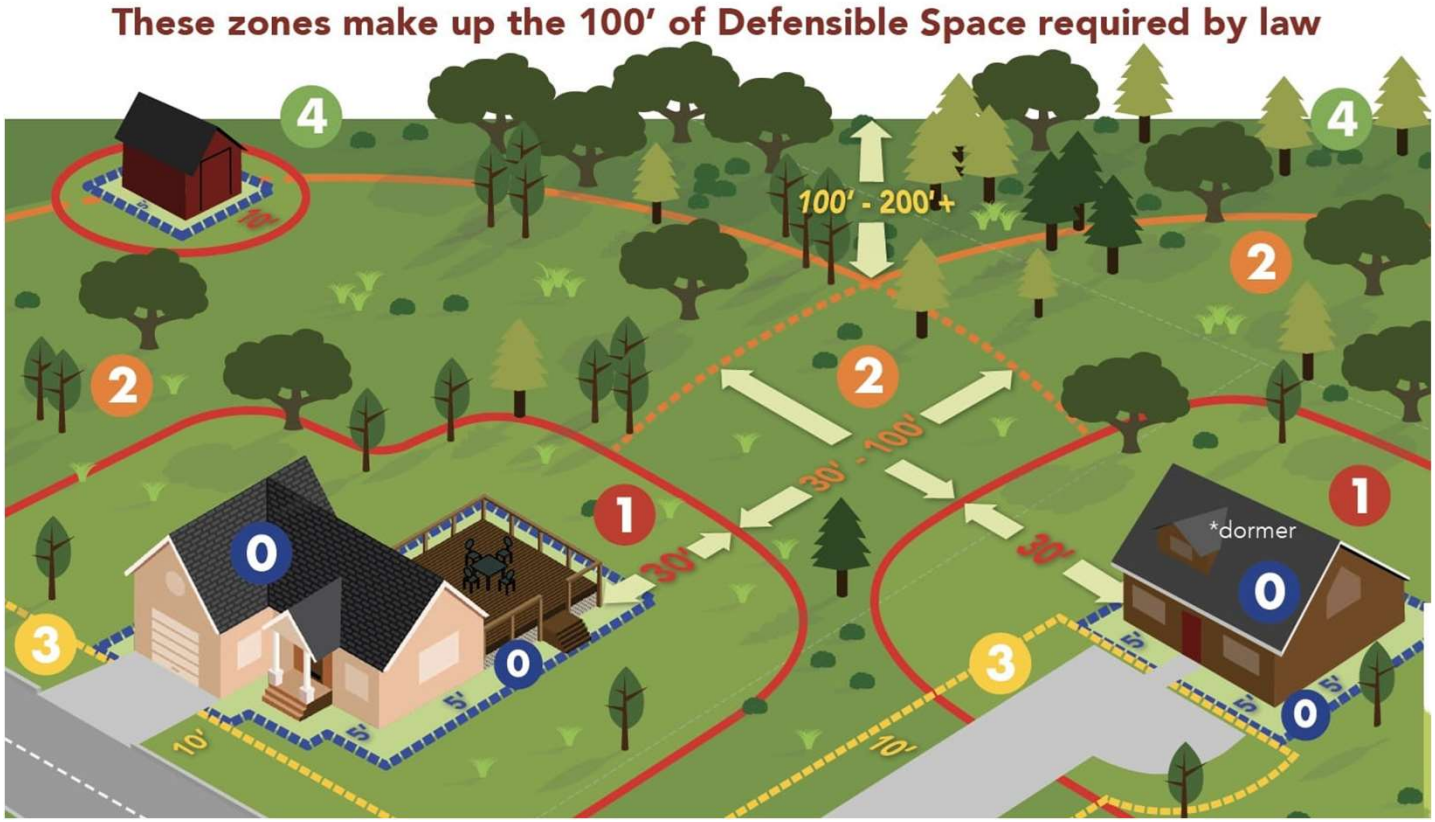
Every home with managed Defensible Space adds cumulative protection to the whole community.

Firefighters can take a stand in cleared Defensible Space to battle the incoming fire to protect homes and communities.

What Does Fire Require?

What Can You Control?

DEFENSIBLE SPACE ZONES



ZONE 0

0'-5'

Zone Zero: the "Ember-free Zone" is the area nearest your house, 0'-5', including the surfaces of the structure itself.

There should be ZERO combustibles in this zone!

ZONE 1

0’- 30'

Zone 1: “Home Ignition Zone" or "Lean, Clean, & Green Zone" extends from your house's exterior walls to a distance of 30'.

ZONE 2

30’- 100'

Zone 2 extends from 30' to at least 100’. Extended Defensible Space may be required based on topography, vegetation, or building construction

As much as 150’ Defensible Space may be required if you live on a hill, in a drainage, or in an area surrounded by unusually dense or flammable vegetation, or if you have a wood shake roof.

ZONE 3

10’ Horizontally, 14’ Vertically from Roads & Driveways

Zone 3, the “Access Zone”, extends at least 10' horizontally from the edge of roads and driveways, and 14' overhead.

ZONE 4

100’- 200’ +

Zone 4, the “Community Zone”. A property owner is required to maintain 100’ of Defensible Space around their and their neighbors’ buildings on the property owner’s property.

Defensible Space Example

NAPAFIREWISE

Before

After

Defensible Space Cost Share Pilot Program

Piper Cole, Program Director, Napa Firewise Board Director

NAPAFIREWISE

CALIFORNIA FireSafe COUNCIL

NAPAFIREWISE

CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION
CAL FIRE
SINCE 1885
NAPA COUNTY
CALIFORNIA

What does the Napa Firewise Defensible Space Cost Share Program Provide?

50% reimbursement
of the amount spent
on approved
Defensible Space work
up to $2,000

How does the Napa Firewise Defensible Space Cost Share Program Work?

- LEARN & APPLY: By going through the Survey and Application process, you learn the basics of Defensible Space so that you can better prepare your property. Then tell us what you plan to do to make your property safer.
- HAVE THE WORK DONE: Once you're approved, engage a contractor to do the work that you outlined. We may have a Defensible Space Inspector (DSI) come to your house to provide guidance on which work you should prioritize to get the most value for the money
- DOCUMENT THE WORK: Verify to us that the work has been done and paid for and submit photos and invoices of the work. We may send a Defensible Space Inspector to confirm.
- GET REIMBURSED: We'll reimburse 50% of the amount spent on approved work up to $2,000

The Napa Firewise Model Defensible Space Project started in Calistoga and St. Helena this year, and…

We hope to offer this program throughout Napa County in the High and Very High Severity Zones in 2023

NAPAFIREWISE

Learn More about Defensible Space Requirements and Treatments on our Website

Napafirewise.org/DSpace/

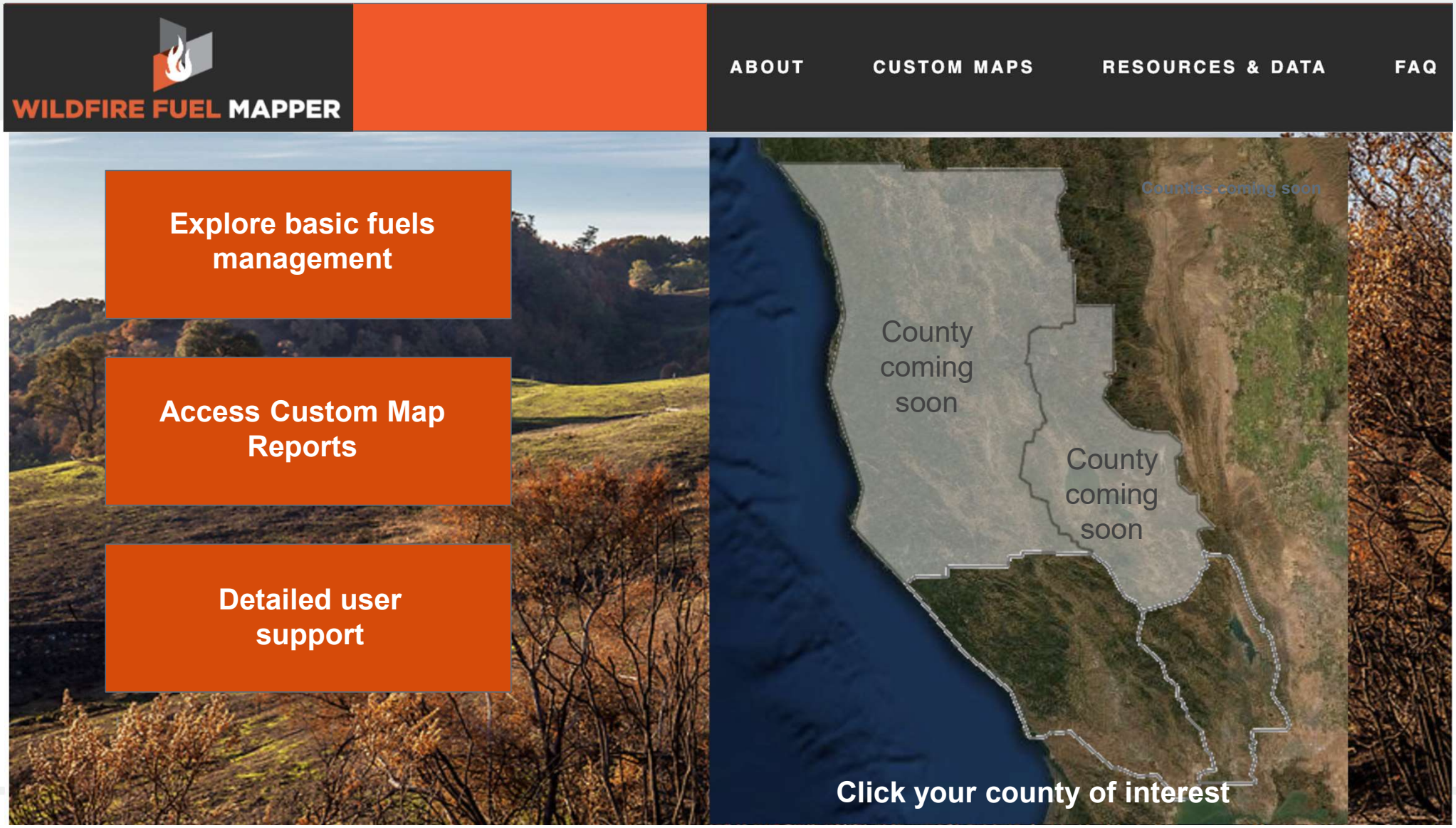
Take the Defensible Space Self Assessment Survey:

https://napafirewise.org/learning-center/defensible-space/

Wildfire Fuels Mapper

NAPAFIREWISE

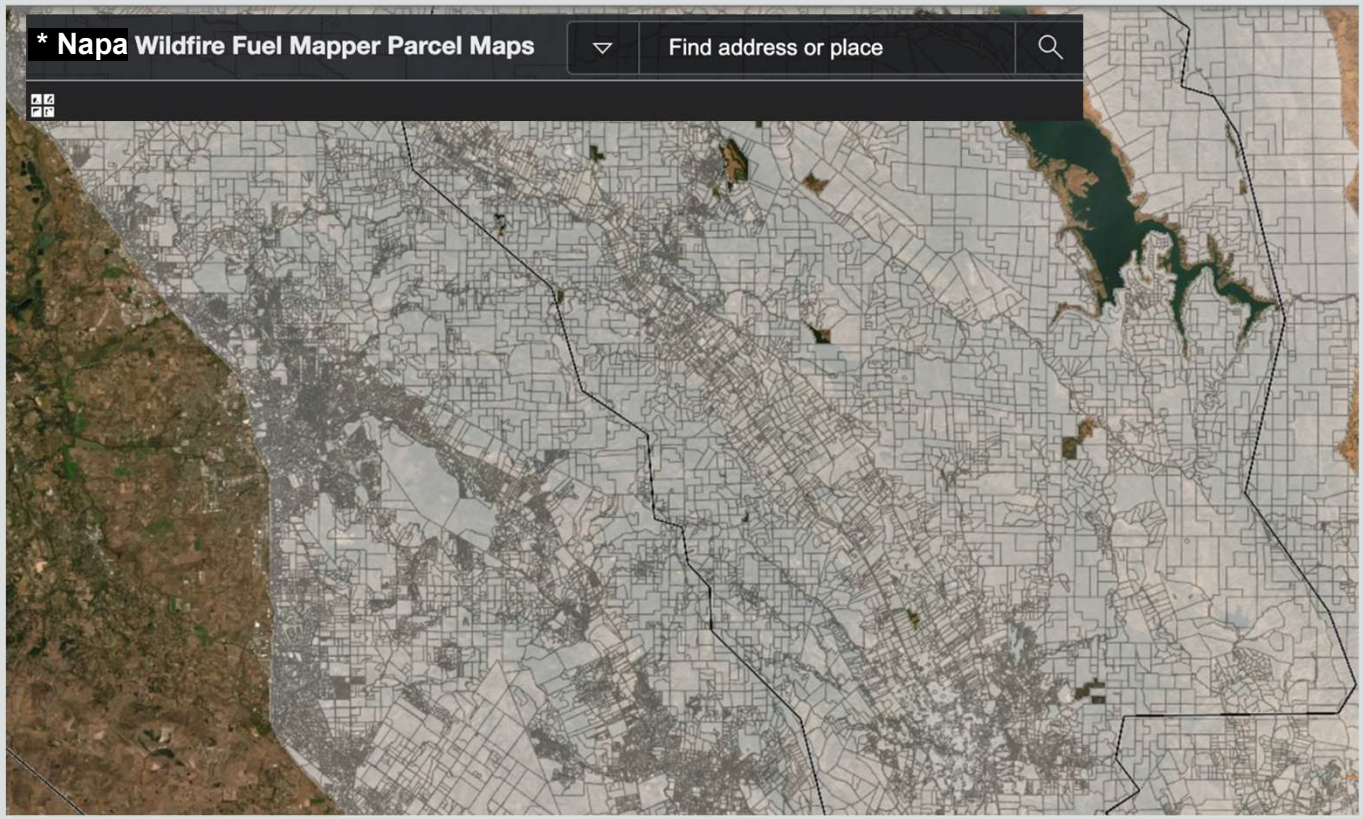
UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources


WILDFIRE FUEL MAPPER
ABOUT
CUSTOM MAPS
RESOURCES & DATA
FAQ
Explore basic fuels management
Access Custom Map Reports
Detailed user support
Counties coming soon
County coming soon
County coming soon
Click your county of interest

How to create a custom map

Follow the steps below to create custom maps for your property (parcel) or watershed. The report you generate will include maps and informational summaries of landscape elements such as vegetation and fuels to help you assess fire hazards for your selected parcel or watershed.

1. Download a parcel or watershed report using either the parcel map (first map) or watershed map (second map) below. *Note that only parcels greater than 3 acres are available.*
2. Then, navigate to your parcel or watershed on the map using the +/- buttons on the left and zooming by clicking and dragging. You can also use the search button on the upper right by typing an address or an APN in the first map, or an address or watershed name in the second map.
3. When you have found your parcel or watershed, click it to download your



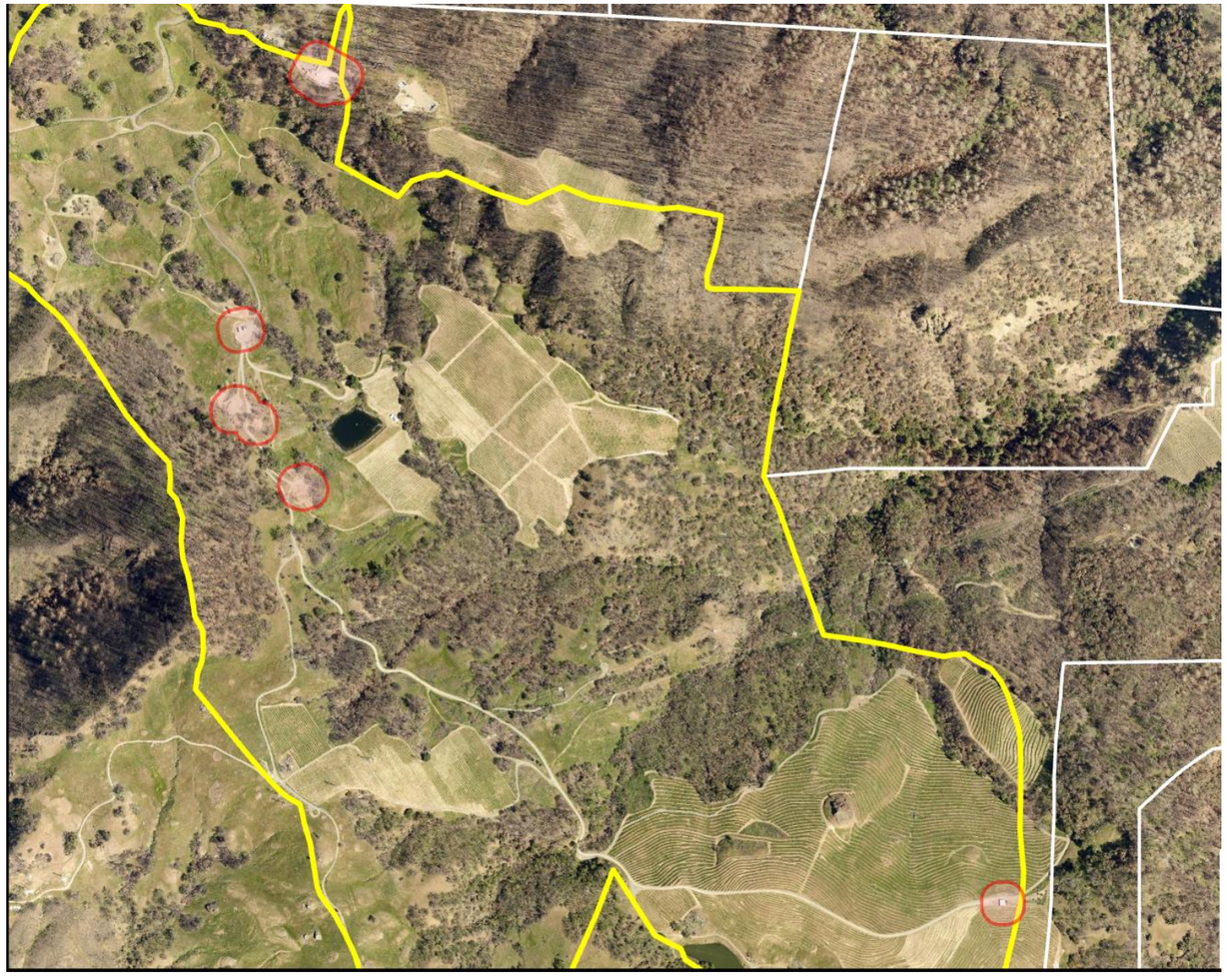
Napa County Wildfire Fuel Mapper Parcel Report

APN	**027-010-030-000**
Current Address	**3890 LANGTRY RD**
Acres	**431.23**
Structure Count	**8**

Report Contents

This report contains environmental and fire related information for the parcel, including XX maps. Each map provides insight into landscape characteristics that can help assess fuel and fire hazards. The following pages include maps of the parcel's fire history, vegetation, fuels, and physical geography and can be used to aid in planning fuel treatments and natural resource management.

Defensible Space Zones and Vegetation



LEGEND Parcel of Interest Defensible Space

"**Defensible space**" is the area around a structure within a 100-foot radius or to the property line, whichever is less, in which combustible vegetation and other prohibited materials must be treated, cleared, or reduced to slow the spread of fire to and from the structure.

There are 3 categories of defensible space that are summarized in this report:

1. Defensible space on the parcel of interest associated with structures within the parcel (**Category 1**)
2. Defensible space on the parcel of interest associated with structures on adjacent parcels (**Category 2**)
3. Defensible space on adjacent parcels associated with structures within the parcel of interest (**Category 3**)

Property owners are financially responsible for the first two categories. For example, if a neighboring parcel has structures with a 100ft buffer that spills over onto your property, you are responsible for clearing that defensible space as well as the defensible space around structures within your property. If you have structures on your property whose 100ft buffer spills over onto adjacent parcels, your neighbors are financially responsible for clearing that defensible space.

Acres of Category 1 Defensible Space	Acres of Category 2 Defensible Space	Acres of Category 3 Defensible Space
6.69 acres	0.0 acres	0.86 acres
Total acres of Defensible Space within PARCEL (Category 1+2): 6.69 acres		

Defensible Space Within Parcel by Vegetation Type	
Vegetation	**Recommendation (see resources)**
Trees (1.94 acres, 29.0% of def. space)	Trees are greater than 15 ft. in height. Single specimens of trees (that are not considered pyrophytic) are required to be well spaced to 10 feet from each other and 6 feet of vertical clearance from the ground.
Shrubs (0.96 acres, 14.0% of def. space)	Shrubs are 1-15 ft. in height. When shrubs or below tree canopies, vertical clearance from plans or shrubs shall be increased as to provide a minimum separation of 4 feet.
Grass (3.79 acres, 57.0% of def. space)	Grass is under 1 ft. in height. Cut and maintain all annual grasses to 4" inches or less in height.

Napa County Code chapter 8.36 and the Napa County Defensible Space Guidelines set forth defensible space requirements for properties in the unincorporated areas of Napa County and Town of Yountville. The defensible space requirements apply to structures and undeveloped lots and declares that parcels that do not meet the requirements constitute a public nuisance and are subject to penalties. *insert link*

Contact Information

Questions or comments? Please contact *fill in contact information*

2018 Imagery and Place Names

027-010-030-000

- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 027-010-030-000
- Napa County Boundary

Cain Cellars

McCormack Ranch

Sulphur Creek

Sulphur Creek

Sulphur Creek

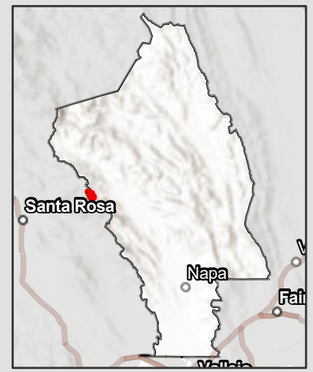
Timberline Dr

Timberline Dr

Ogtry Rd

About This Map

This map shows place names and high resolution (.6-meter NAIP) orthoimagery from summer, 2018.



1:7,418

0 0.15 0.3 Miles

2021 Imagery and Place Names

027-010-030-000

- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 027-010-030-000
- Napa County Boundary

Cain Cellars

McCormack Ranch

Sulphur Creek

Sulphur Creek

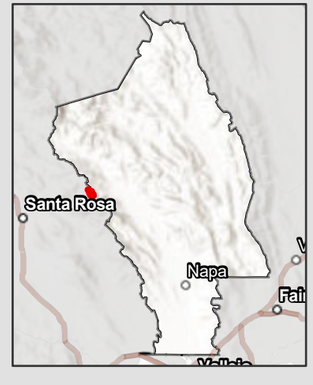
Sulphur Creek

Timberline Dr

Timberline Dr

About This Map

This map shows place names and high resolution (6-inch) orthoimagery from summer, 2021.



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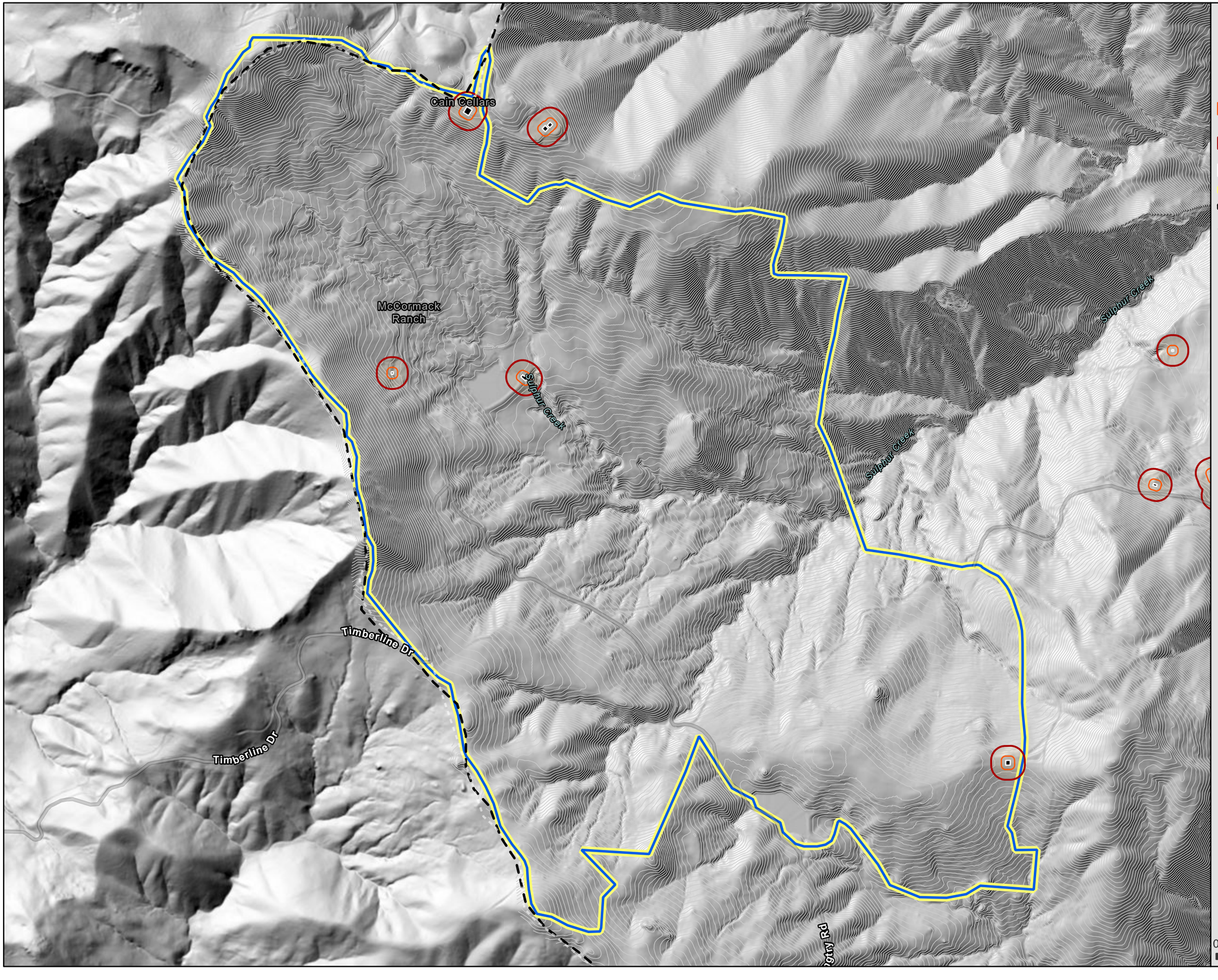


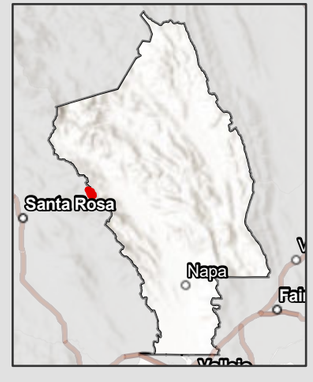
Contours

027-010-030-000

- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 027-010-030-000
- Napa County Boundary
- 10 Foot Contours

About This Map

This map shows 10-foot interval contours, derived from the Digital Terrain Model from the 2018 QL2 countywide lidar. Underneath the contours is the hillshade, also derived from the DTM. Contours are useful for planning, since they show ground elevations and changes in slope and aspect. Hillshades are a great reference data source for mapping streams and roads and for understanding a property's physical geography. Because lidar penetrates the forest canopy, hillshades are useful for seeing roads and trails that in aerial photography are occluded by vegetation.



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Fire Districts, Stations, and Facilities

027-010-030-000

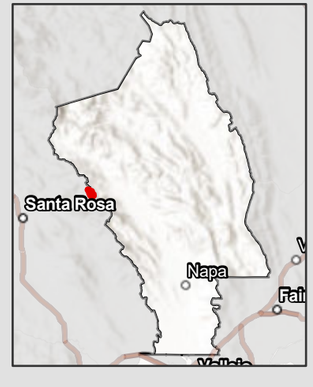
- 027-010-030-000
- Napa County Boundary
- Fire Stations

Fire Districts

- Napa County LRA
- Napa County SRA
- St Helena Fire

About this Map

This map shows fire service boundaries, fire stations, and CAL FIRE facilities in Napa County. Fire service boundaries include Federal Responsibility Areas (FRA), State Responsibility Areas (SRA), and Local Responsibility Areas (LRA). The different designations indicate who is the primary emergency response agency responsible for fire suppression and prevention in the area.



1:40,000

0 0.8 1.6 Miles

N

St Helena Hwy N
Krug
Silverado Trl N
St. Helena Fire Department
St Helena
St Helena Fire
Pope St
Hood Mountain Regional Park
Sugarloaf Ridge State Park
Oakmont

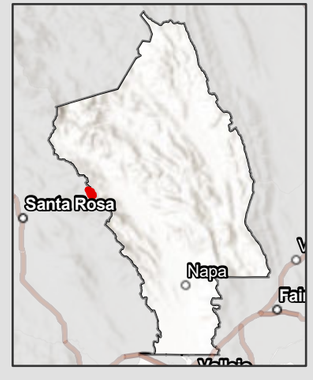
Fire History (1990 - 2021)

027-010-030-000

- 027-010-030-000
- Napa County Boundary
- 1991-2000 Wildfires
- 2001-2010 Wildfires
- 2011-2021 Wildfires

About this Map

This map shows 1990-2020 fire history for a large area of Napa County centered on the parcel of interest. Fire perimeters are collected and maintained by CAL FIRE. Note that CAL FIRE excludes small fires from the fire history layer. Also note that this map does not include prescribed burns. The CAL FIRE fire history layer is available for download here: https://frap.fire.ca.gov/mapping/gis-data/



1:311,404

0 6 12 Miles

N

Flame Length

027-010-030-000

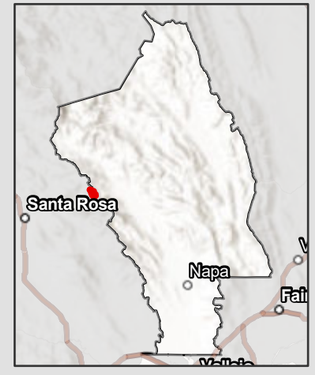
- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 027-010-030-000
- Napa County Boundary

2018 Flame Length

- 0 Feet
- 0 - 2 Feet
- 2 - 4 Feet
- 4 - 8 Feet
- 8 - 11 Feet
- 11 Feet +

About This Map

This map shows modeled flame length for the property. Flame length was modeled using FLAMMAP. FLAMMAP model inputs include 2018 5m surface fuels, canopy height, canopy cover, canopy base height, canopy bulk density, elevation, slope, aspect, weather, and fuel moisture. Assumptions for the model run included low fuel moisture and red flag warning winds and humidity. The fuelscape represents ground conditions in 2018, before many of Napa County's recent fires. flame length is binned into 5 classes. Flame lengths gt 4 feet can be directly attacked and held by hand lines. 4-8 ft. flame lengths are too intense for direct attack with hand tools, but dozers, engines, and retardant drops can be effective. 8-11 ft. flame lengths present serious control problems such as torching, crowning and spotting. Flame lengths gt 11 ft. are very difficult to control. Note that in the fuel model, irrigated ag. and structures are mapped as non-burnable and often show no flame length.



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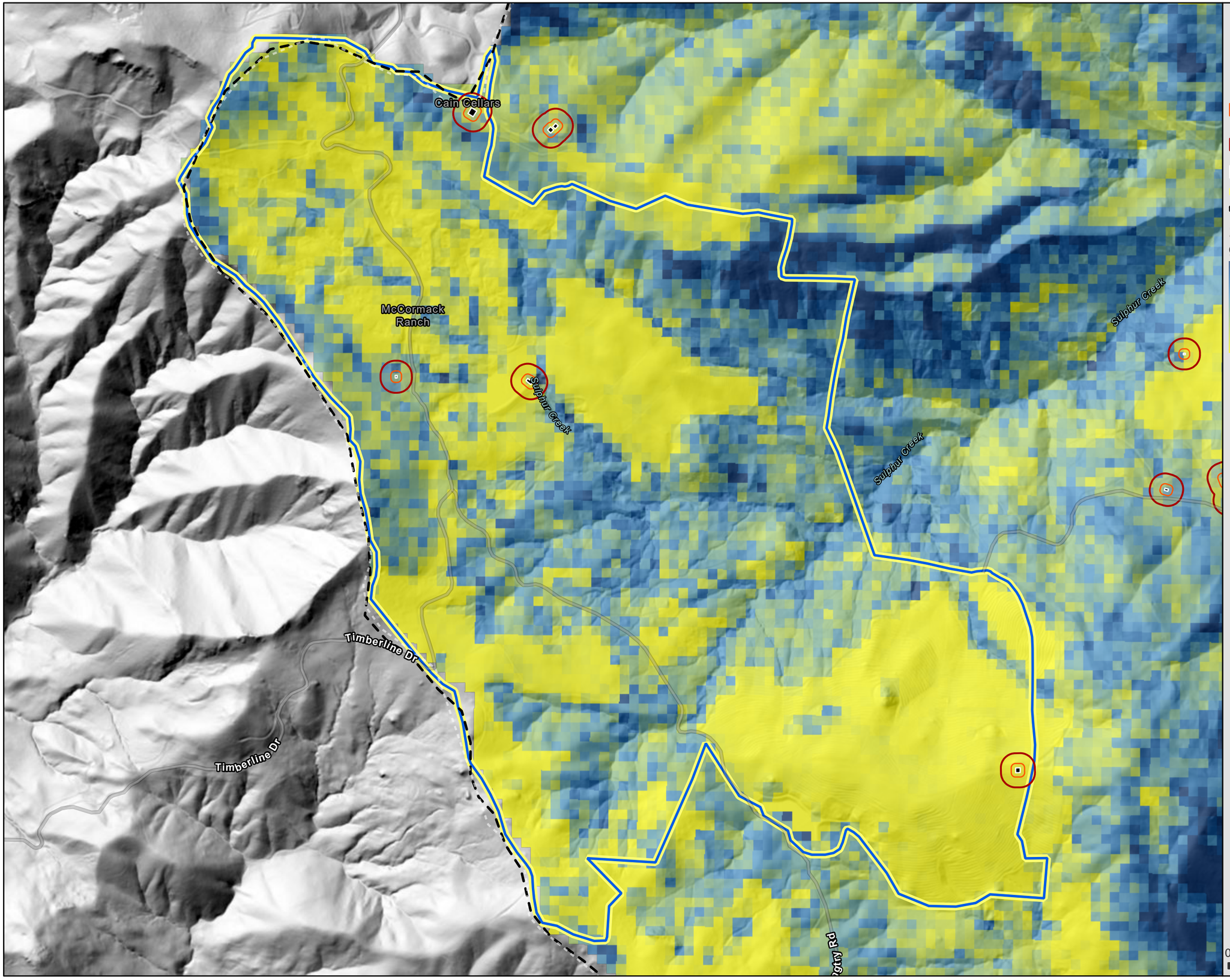


Ladder Fuels

027-010-030-000

- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 027-010-030-000
- Napa County Boundary

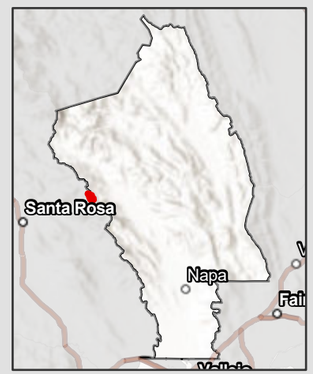
2018 Ladder Fuels (1-4 meters above ground)

High

Low

About This Map

This map shows the density of ladder fuels: living and dead vegetation in the vertical stratum between 1 and 4 meters above the ground. Ladder fuels create vertical fuel continuity, which can allow fire to transition from the surface into the canopy. Reducing vegetation in this stratum is a key element in a fire resilient landscape. The ladder fuels in this map were derived from 2018 lidar data and reflect 2018 ground conditions.



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0 0.15 0.3 Miles

N

Number of Times Burned

027-010-030-000

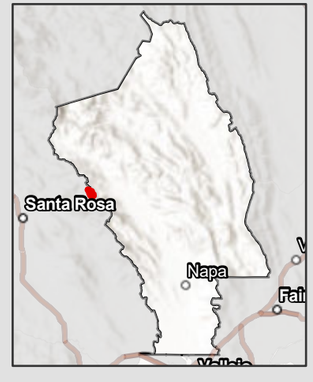
- 027-010-030-000
- Napa County Boundary

Times Burned (Approx. 1940 through 2021)

- 1
- 2
- 3
- 4
- Greater than 4

About this Map

This map shows the number of times that an area burned based on the CAL FIRE fire history layer (https://frap.fire.ca.gov/mapping/gis-data/). The fire history layer dates back to approximately 1940. Areas that have a 1 are areas that have burned only once in the CAL FIRE record, those with a 2 have burned twice, etc. Areas with no value have not burned in the CAL FIRE record. Note that the CAL FIRE record does not include all fires. Small fires are omitted and very old fires may be missing or inaccurate. Also note that this map does not include prescribed burns.



1:311,404

0 6 12 Miles

Boggs Mt Demonstration St Forest
Knoxville Wildlife Area
Esparto
Healdsburg
Calistoga
Angwin
Lake Berryessa
Windsor
Lake Berryessa Wildlife Area
Winters
St Helena
Santa Rosa
Sugarloaf Ridge State Park
Dixon
Yountville
Vacaville
Rohnert Park
Boyes Hot Springs
El Verano
Sonoma
Napa
Fairfield
Petaluma
Joice Island State Game Refuge

Slope

027-010-030-000

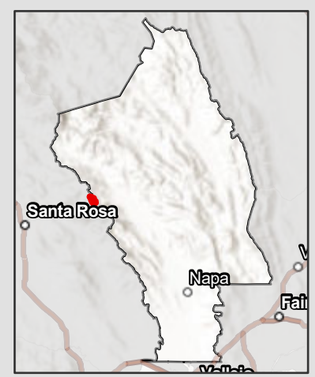
- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 027-010-030-000
- Napa County Boundary

Slope (Degrees)

- 0-5 Degrees
- 5-20 Degrees
- 20-40 Degrees
- 40+ Degrees

About This Map

This map depicts the downhill slope (in degrees). It is classified into 4 classes from the gentlest slopes shown in green to the steepest slopes shown in brown. Slope is an important driver of fire behavior. Fire burns more intensely and spreads more rapidly on steeper slopes, and fire suppression is easier on gentle slopes. Slope can also be an important factor in planning fuel treatment strategies. Gentle slopes near roads can be much easier to treat than steep areas because of the difficulty of moving machinery and working on steep ground.



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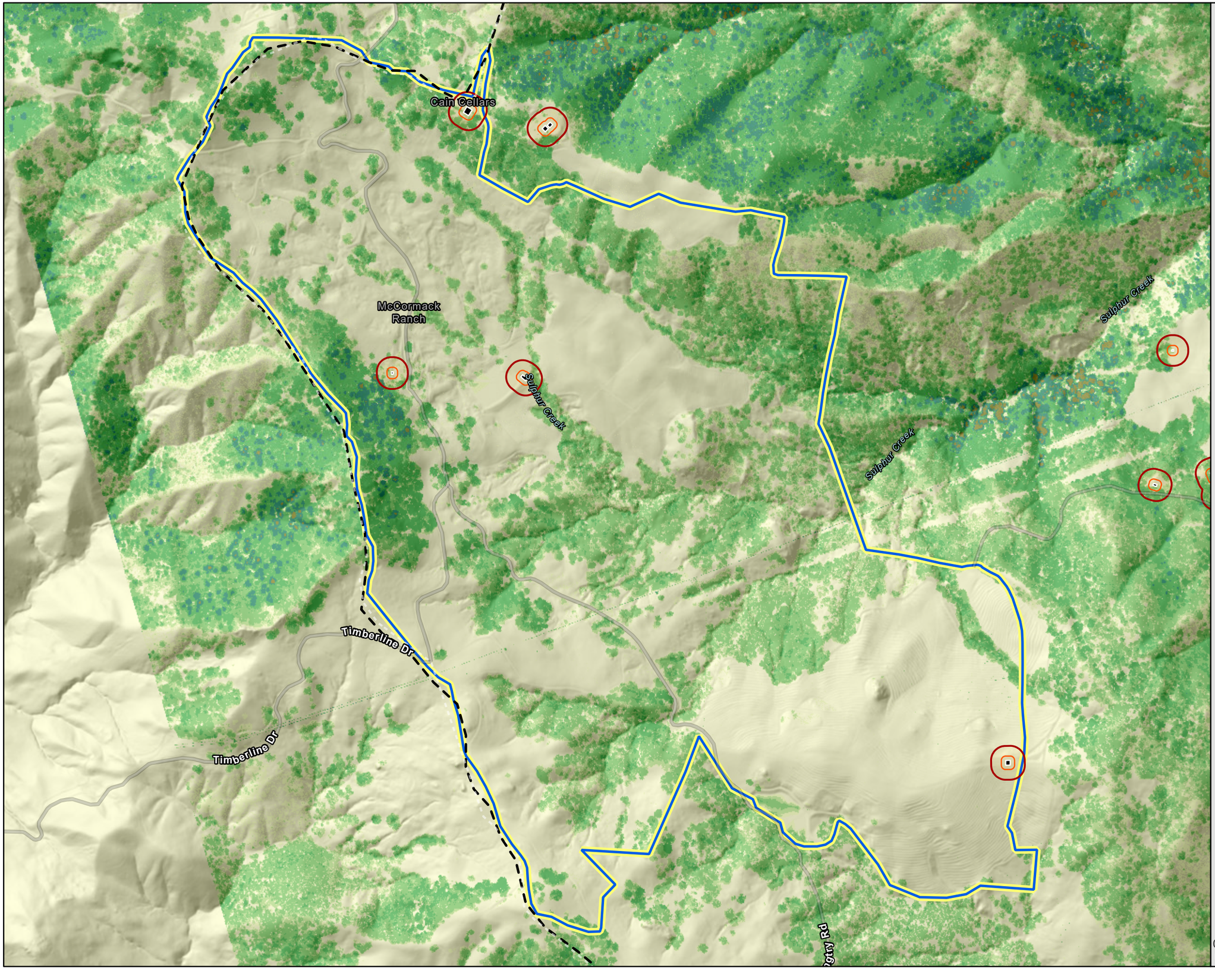
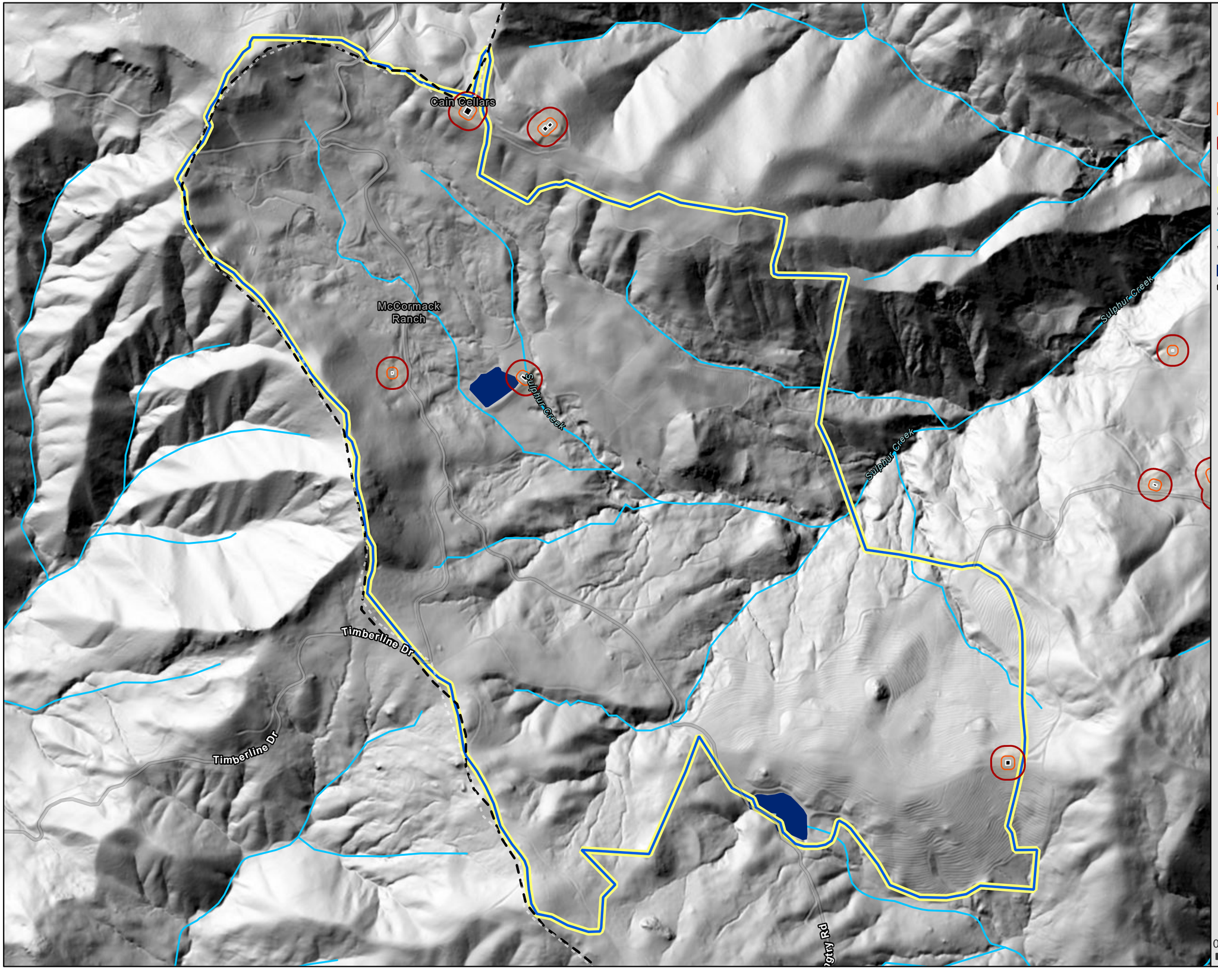

Cain Cellars
McCormack Ranch
Sulphur Creek
Sulphur Creek
Sulphur Creek
Timberline Dr
Timberline Dr
Timberline Dr
Vegetation Height
027-010-030-000
30ft Building Buffer (2019-2020 Ground Conditions)
100ft Building Buffer (2019-2020 Ground Conditions)
Building Footprint (2019-2020 Ground Conditions)
027-010-030-000
Napa County Boundary
Canopy Height Model (Feet)
0-5 ft
5-15 ft
15-30 ft
30-50 ft
50-100 ft
100-150 ft
150 ft+
About This Map
This map depicts the height of vegetation in 2018. Vegetation height was derived from the 2018 lidar data. The vegetation height, or canopy height, across a landscape can impact both wildfire's ability to spread embers and influence the wildfire behavior. Note that vegetation height in unburned areas may have increased since 2018 and vegetation height may have changed in the large areas of Napa County disturbed by wildfire (and other types of disturbance) since 2018.
Santa Rosa
Napa
1:7,418
0
0.15
0.3
Miles
N



Streams and Water Bodies

027-010-030-000

- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 027-010-030-000

Stream Lines

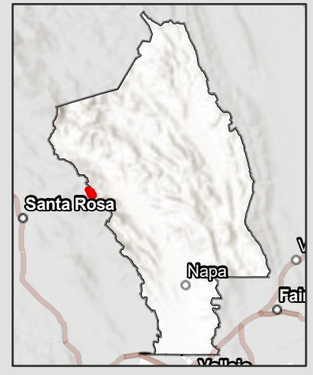
- Stream Lines

Water Bodies

- Water Bodies
- Napa County Boundary

About This Map

This map shows the National Hydrography Dataset (NHD) for Napa County. The NHD data shown includes both thalwags (stream centerlines) and water bodies, on top of the Napa County lidar derived hillshade map. Unfortunately, the hydrography data shown in this map is not lidar derived (only the hillshade is), which explains why the NHD thalwags are more generalized than the stream morphology shown in the hillshade. Once the NHD transitions to a fully lidar derived workflow, the flowlines will have more precision.



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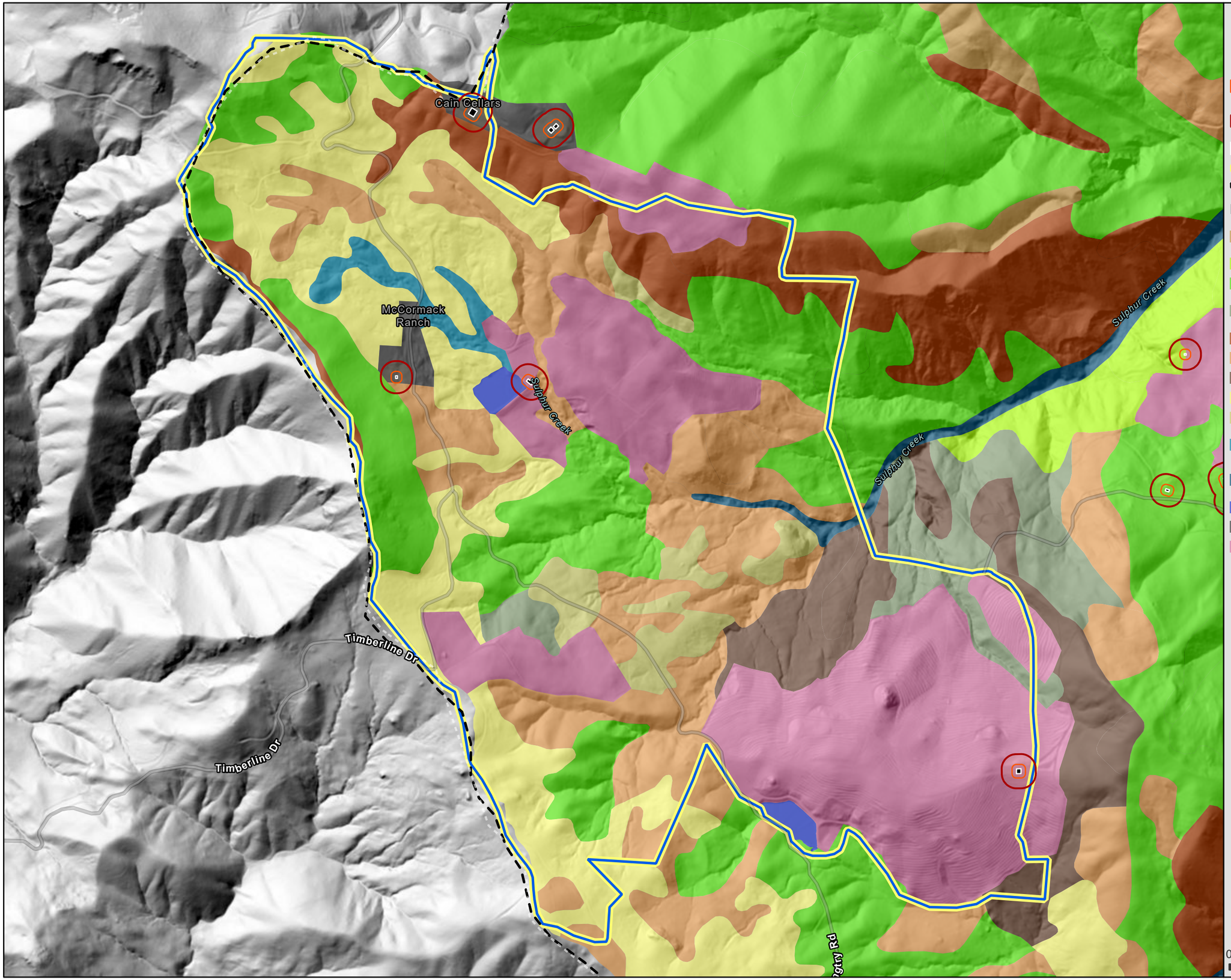

Fine Scale Vegetation Map

027-010-030-000

- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 027-010-030-000
- Napa County Boundary

Fine Scale Vegetation

- Mixed Manzanita - (Interior Live Oak -California Bay - Chamise) West County
- Coast Redwood - Douglas-fir / California Bay
- Douglas-fir
- California Bay - Madrone - Coast Live Oak - (Black Oak Big Leaf Maple)
- Coast Live Oak
- Mixed Oak
- Oregon White Oak
- California Annual Grasslands
- Upland Annual Grasslands & Forbs Formation
- Valley Oak - (California Bay - Coast Live Oak - Walnut - Ash) Riparian Forest
- White Alder (Mixed Willow - California Bay - Big Leaf Maple) Riparian Forest
- Water
- Urban or Built-up
- Agriculture

About This Map

See 'Vegetation Map Information' in the attached report for more information on the veg types that occur in this parcel.

1:7,418

0 0.15 0.3 Miles

WILDFIRE FUEL MAPPER

Vegetation Map Information

About this Map

The Vegetation Map (pg. xx) depicts classification of vegetation types across the selected parcel. Vegetation groupings, such as conifers and hardwood, are listed in the legend. Specific vegetation species are also listed in the legend and shown on the map with a range of colors. Different vegetation types will require different fuel treatment methods. Some vegetation types are at a greater risk for wildfire ignition. The Vegetation Map can help users visualize the breakdown of vegetation types on their property, which can help in considering various treatment methods and informing the development of a management plan. This map was created using high resolution LiDAR data that was collected for Napa County in 2013 providing fine-scale and high resolution information.

Parcel Information: Vegetation Types & Acreages

List of vegetation classifications and total acreages found within the selected parcel; as shown in the Vegetation Map (pg. 10):

Common Name	Acres
Agriculture	114.27 (27.0%)
California Annual Grasslands	82.76 (19.0%)
Douglas-fir	75.86 (18.0%)
Mixed Oak	75.35 (17.0%)
Coast Live Oak	21.67 (5.0%)
Oregon White Oak	17.06 (4.0%)
Upland Annual Grasslands & Forbs Formation	16.09 (4.0%)
California Bay - Madrone - Coast Live Oak - (Black Oak Big Leaf Maple)	8.12 (2.0%)
Valley Oak - (California Bay - Coast Live Oak - Walnut - Ash) Riparian Forest	6.22 (1.0%)
Urban or Built-up	4.44 (1.0%)
Unmapped	4.22 (1.0%)
Water	3.07 (1.0%)
White Alder (Mixed Willow - California Bay - Big Leaf Maple) Riparian Forest	1.8 (0.0%)

Additional information can be found in the Wildfire Fuel Mapper User Manual. Additional information about the Vegetation map layers can be found at *insert Napa Veg map*

Disclaimer

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Additional information can be found in the Wildfire Fuel Mapper User Manual. Additional information about the Vegetation map layers can be found at *insert Napa Veg map*

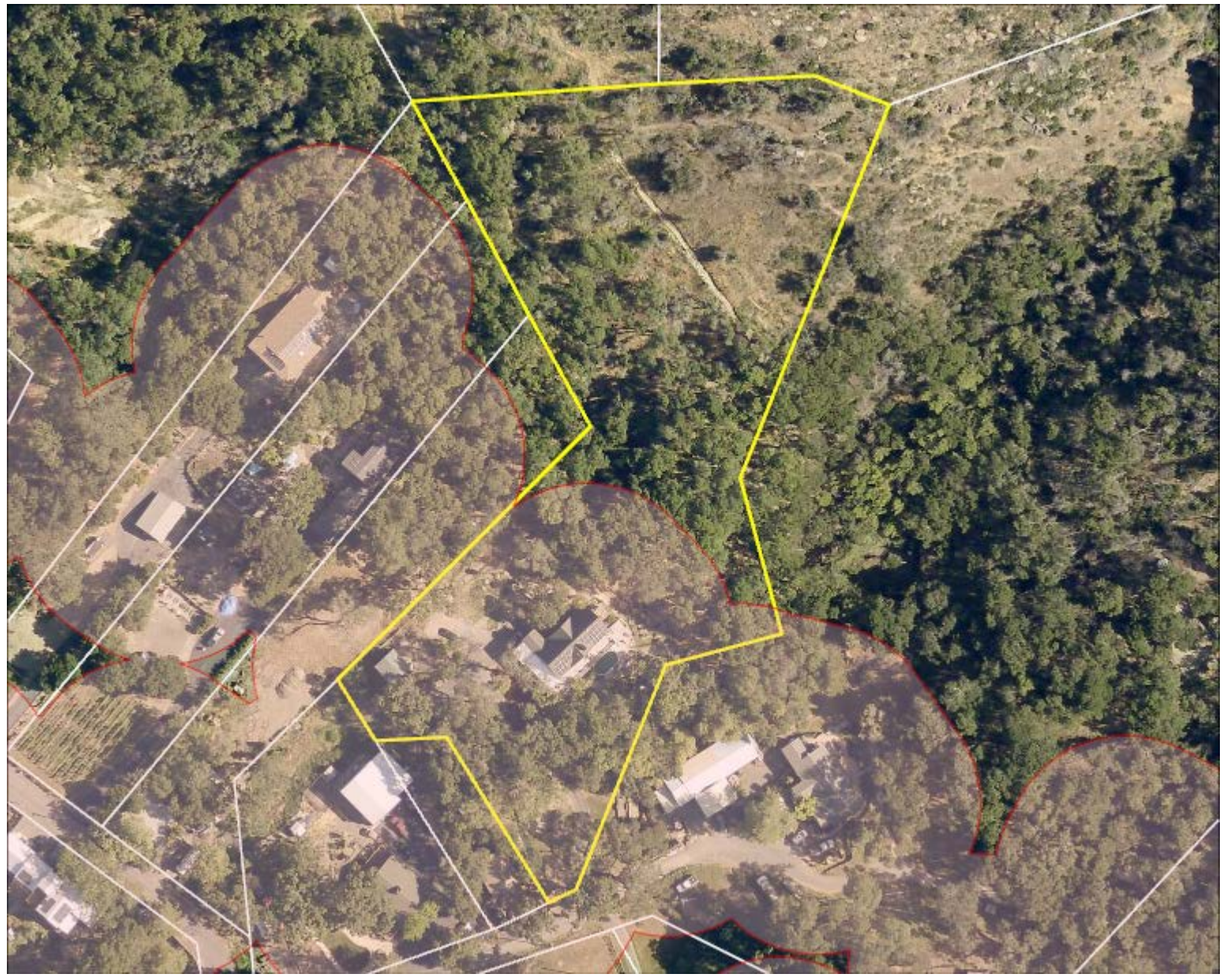
Napa County Wildfire Fuel Mapper Parcel Report

APN	**033-120-011-000**
Current Address	**1114 MT GEORGE AVE**
Acres	**3.4**
Structure Count	**2**

Report Contents

This report contains environmental and fire related information for the parcel, including 13 maps of the parcel's fire history, vegetation, fuels, and physical geography. Each map provides insight into landscape characteristics that can help assess fuel and fire hazards, and can be used to aid in planning fuel treatments and natural resource management.

Defensible Space Zones and Vegetation



LEGEND Parcel of Interest Defensible Space

"**Defensible space**" is the area around a structure within a 100-foot radius or to the property line, whichever is less, in which combustible vegetation and other prohibited materials must be treated, cleared, or reduced to slow the spread of fire to and from the structure.

There are 3 types of defensible space that are summarized in this report:

1. Defensible space on the parcel of interest associated with structures within the parcel (**Category 1**)
2. Defensible space on the parcel of interest associated with structures on adjacent parcels (**Category 2**)
3. Defensible space on adjacent parcels associated with structures within the parcel of interest (**Category 3**)

Property owners are responsible for the first two categories. For example, if a neighboring parcel has structures with a 100ft buffer that spills over onto your property, you are responsible for clearing that defensible space as well as the defensible space around structures within your property. If you have structures on your property whose 100ft buffer spills over onto adjacent parcels, your neighbors are responsible for clearing that defensible space.

Note that the structures included in this report are from the data collected between 2019-2020. Some structures may have been affected by recent wildfires and/or construction. Napa County requires 10ft of defensible space on either side of driveways, not included in this report.

Acres of Category 1 Defensible Space	Acres of Category 2 Defensible Space	Acres of Category 3 Defensible Space
1.22 acres	0.08 acres	0.58 acres
Total acres of Defensible Space within 033-120-011-000 (Category 1+2): 1.3 acres		

Defensible Space Within Parcel by Vegetation Type*

Vegetation	% Total Defensible Space	Example Treatment Recommendation (see resources)
0.77 acres of vegetation >15 ft	59.0% of defensible space	Trees are greater than 15 ft. in height. Single specimens of trees (that are not considered pyrophytic) are required to be well spaced to 10 feet from each other and 6 feet of vertical clearance from the ground.
0.15 acres of vegetation 1-15 ft	11.0% of defensible space	Shrubs are 1-15 ft. in height. When shrubs or below tree canopies, vertical clearance from plans or shrubs shall be increased as to provide a minimum separation of 4 feet.
0.38 acres of vegetation <1 ft	29.0% of defensible space	Grass is under 1 ft. in height. Cut and maintain all annual grasses to 4" inches or less in height.

*This data is derived from **2018** LiDAR which categorizes vegetation by height above ground.

Napa County Code chapter 8.36 and the Napa County Defensible Space Guidelines set forth defensible space requirements for properties in the unincorporated areas of Napa County and Town of Yountville. The defensible space requirements apply to structures, driveways, and undeveloped lots and declare that parcels that do not meet the requirements constitute a public nuisance and are subject to penalties. *insert link*

Contact Information

Questions or comments? Please contact *fill in contact information*

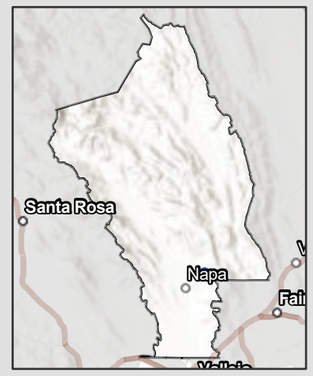
2018 Imagery and Place Names

033-120-011-000

- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 033-120-011-000
- Napa County Boundary

About This Map

This map shows place names and high resolution (.6-meter NAIP) orthoimagery from summer, 2018.



1:1,500

0 0.03 0.06 Miles

N

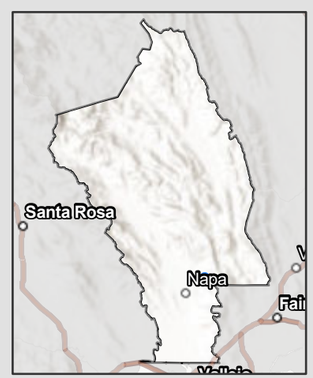
2021 Imagery and Place Names

033-120-011-000

- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 033-120-011-000
- Napa County Boundary

About This Map

This map shows place names and high resolution (6-inch) orthoimagery from summer, 2021.



1:1,500

0 0.03 0.06 Miles

N

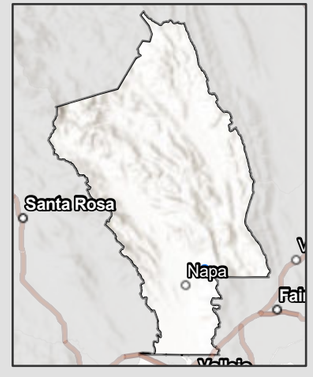
Contours

033-120-011-000

- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 033-120-011-000
- Napa County Boundary

About This Map

This map shows 10-foot interval contours, derived from the Digital Terrain Model (DTM) from the 2018 QL2 countywide lidar. Underneath the contours is the hillshade, also derived from the DTM. Contours are useful for planning, since they show ground elevations and changes in slope and aspect. Hillshades are a great reference data source for mapping streams and roads and for understanding a property's physical geography. Because lidar penetrates the forest canopy, hillshades are useful for seeing roads and trails that in aerial photography are occluded by vegetation.



1:1,500

0 0.03 0.06 Miles

N

Fire Districts, Stations, and Facilities

033-120-011-000

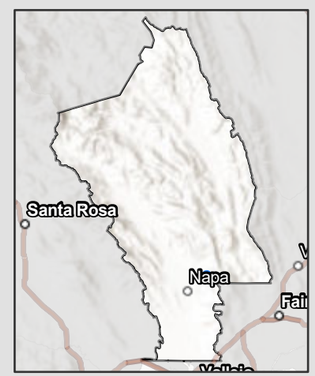
- 033-120-011-000
- Napa County Boundary
- Fire Stations

Fire Districts

- City of Napa Fire
- Napa County LRA
- Napa County SRA
- County Mask

About this Map

This map shows fire service boundaries, fire stations, and CAL FIRE facilities in Napa County. Fire service boundaries include Federal Responsibility Areas (FRA), State Responsibility Areas (SRA), and Local Responsibility Areas (LRA). The different designations indicate who is the primary emergency response agency responsible for fire suppression and prevention in the area.



1:40,000

0 0.8 1.6 Miles

Silverado Trl
Big Ranch Rd
Silverado Trl
Monticello Rd
Silverado Country Club
Co. Napa Fire Station 25
Monticello Rd
Vichy Ave
Trancas St
121
Hagen Rd
Hagen Rd
Union
Jefferson St
Napa City Fire Station 2
California Blvd
Lincoln Ave
Soscol Ave
Silverado Trl
1st Ave
Napa Valley Country Club
N 3rd Ave
1st Ave
1st St
City of Napa Fire
Napa City Fire Station 1
Napa
2nd St

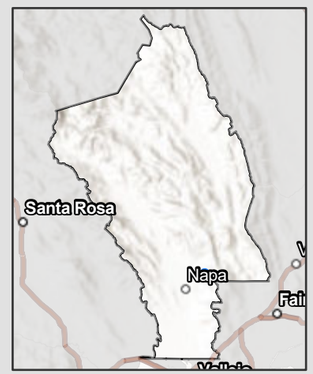
Fire History (1990 - 2021)

033-120-011-000

- 033-120-011-000
- Water Bodies
- Napa County Boundary
- 1991-2000 Wildfires
- 2001-2010 Wildfires
- 2011-2021 Wildfires

About this Map

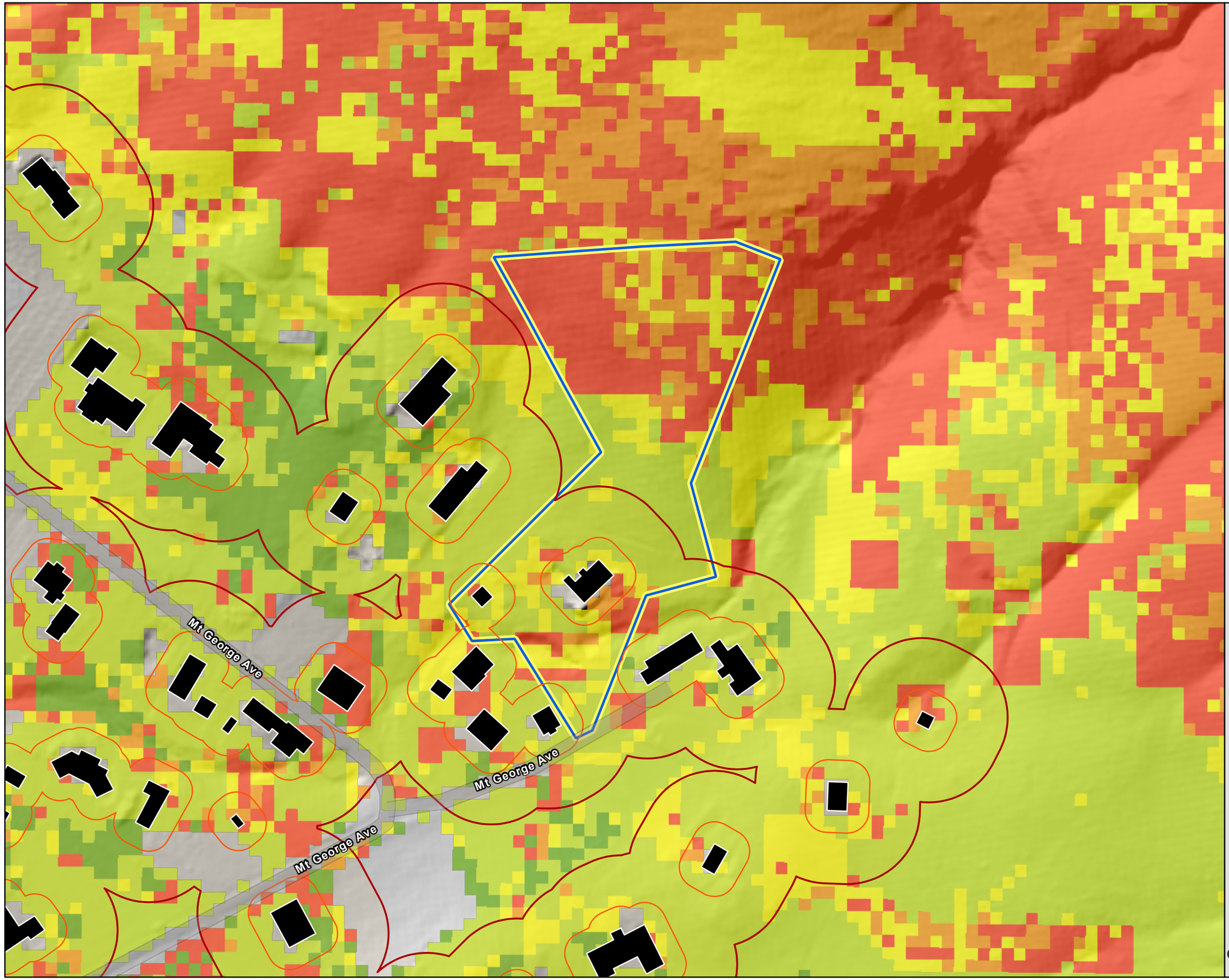
This map shows 1990-2020 fire history for a large area of Napa County centered on the parcel of interest. Fire perimeters are collected and maintained by CAL FIRE. Note that CAL FIRE excludes small fires from the fire history layer. Also note that this map does not include prescribed burns. The CAL FIRE fire history layer is available for download here: https://frap.fire.ca.gov/mapping/gis-data/



1:170,000

0 3 6 Miles

N



Flame Length

033-120-011-000

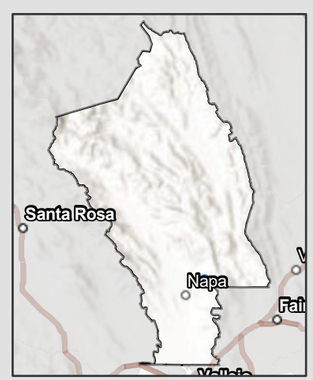
- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 033-120-011-000
- Napa County Boundary

2018 Flame Length

- 0 Feet
- 0 - 2 Feet
- 2 - 4 Feet
- 4 - 8 Feet
- 8 - 11 Feet
- 11 Feet +

About This Map

This map shows modeled flame length for the property (note that in the fuel model, irrigated ag. and structures are mapped as non-burnable and often show no flame length). Flame length was modeled using FLAMMAP. FLAMMAP model inputs include 2018 5m surface fuels, canopy height, canopy cover, canopy base height, canopy bulk density, elevation, slope, aspect, weather, and fuel moisture. Assumptions for the model run included low fuel moisture and red flag warning winds and humidity. The fuelscape represents ground conditions in 2018, before many of Napa County's recent fires. flame length is binned into 5 classes. Flame lengths gt 4 feet can be directly attacked and held by hand lines. 4-8 ft. flame lengths are too intense for direct attack with hand tools, but dozers, engines, and retardant drops can be effective. 8-11 ft. flame lengths present serious control problems such as torching, crowning and spotting. Flame lengths gt 11 ft. are very difficult to control.



1:1,500

0 0.03 0.06 Miles

N

Ladder Fuels

033-120-011-000

- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 033-120-011-000
- Napa County Boundary

2018 Ladder Fuels (1-4 meters above ground)

High

Low

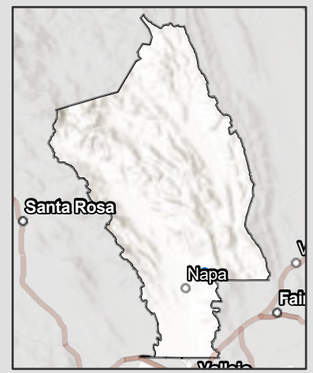
Mt George Ave

Mt George Ave

Mt George Ave

About This Map

This map shows the density of ladder fuels: living and dead vegetation in the vertical stratum between 1 and 4 meters above the ground. Ladder fuels create vertical fuel continuity, which can allow fire to transition from the surface into the canopy. Reducing vegetation in this stratum is a key element in a fire resilient landscape. The ladder fuels in this map were derived from 2018 lidar data and reflect 2018 ground conditions.



1:1,500

0 0.03 0.06 Miles

N

Number of Times Burned

033-120-011-000

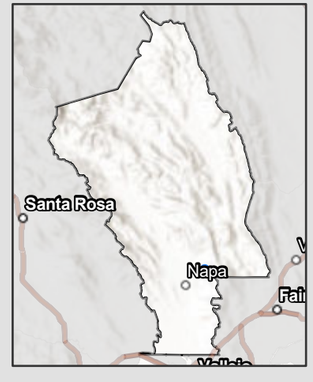
- 033-120-011-000
- Water Bodies
- Napa County Boundary

Times Burned (Approx. 1940 through 2021)

- 1
- 2
- 3
- 4
- Greater than 4

About this Map

This map shows the number of times that an area burned based on the CAL FIRE fire history layer (https://frap.fire.ca.gov/mapping/gis-data/). The fire history layer dates back to approximately 1940. Areas that have a 1 are areas that have burned only once in the CAL FIRE record, those with a 2 have burned twice, etc. Areas with no value have not burned in the CAL FIRE record. Note that the CAL FIRE record does not include all fires. Small fires are omitted and very old fires may be missing or inaccurate. Also note that this map does not include prescribed burns.



1:170,000

0 3 6 Miles

N

Park
St Helena
Napa
Spanish Flat
Lake Berryessa Wildlife Area
Winters
Rutherford
Sugarloaf Ridge State Park
Kenwood
Atlas
Yountville
Allendale
Leisure Town
Glen Ellen
Vacaville
Salvador
Union
Napa
Boyes Hot Springs
El Verano
Sonoma
Imola
Mankas Corner
Vacaville Junction
Cordero Junction
Solano Travis Air Force Base
Temelec
Tolenas
Fairfield
Suisun City
Merazo
American Canyon
Chabot Terrace
Joice Island State Game Refuge
E6
128
121
80
12
29
116
37

Slope

033-120-011-000

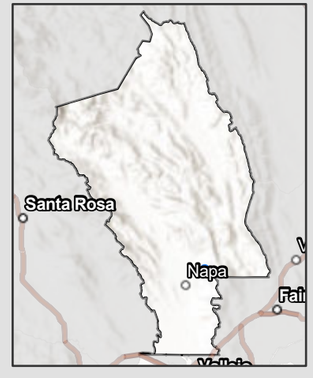
- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 033-120-011-000
- Napa County Boundary

Slope (Degrees)

- 0-5 Degrees
- 5-20 Degrees
- 20-40 Degrees
- 40+ Degrees

About This Map

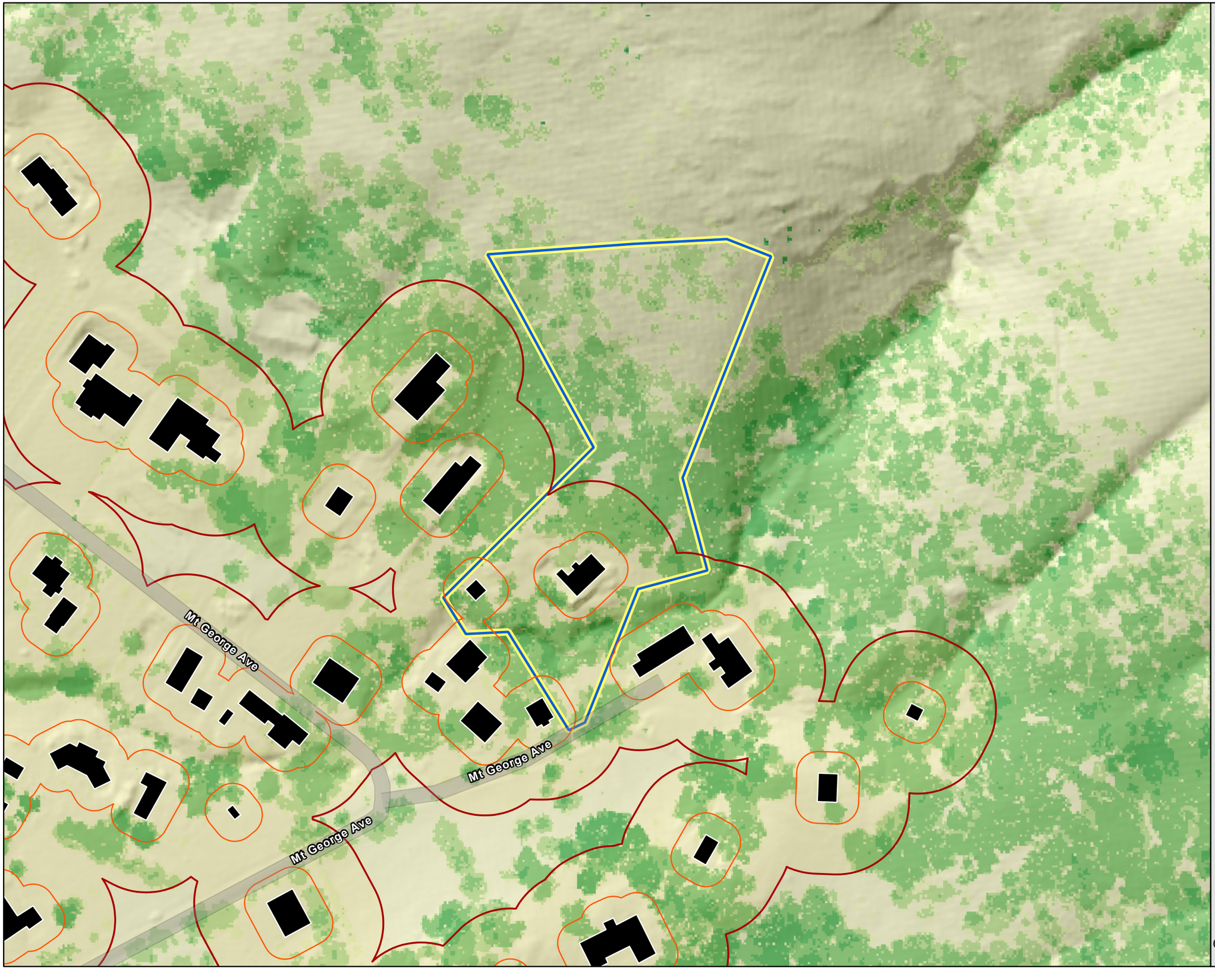
This map depicts the downhill slope (in degrees). It is classified into 4 classes from the gentlest slopes shown in green to the steepest slopes shown in brown. Slope is an important driver of fire behavior. Fire burns more intensely and spreads more rapidly on steeper slopes, and fire suppression is easier on gentle slopes. Slope can also be an important factor in planning fuel treatment strategies. Gentle slopes near roads can be much easier to treat than steep areas because of the difficulty of moving machinery and working on steep ground.



1:1,500

0 0.03 0.06 Miles

N



Vegetation Height

033-120-011-000

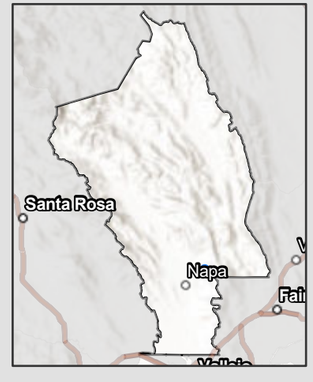
- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 033-120-011-000
- Napa County Boundary

Canopy Height Model (Feet)

- 0-5 ft
- 5-15 ft
- 15-30 ft
- 30-50 ft
- 50-100 ft
- 100-150 ft
- 150 ft+

About This Map

This map depicts the height of vegetation in 2018. Vegetation height was derived from the 2018 lidar data. The vegetation height, or canopy height, across a landscape can impact both wildfire's ability to spread embers and influence the wildfire behavior. Note that vegetation height in unburned areas may have increased since 2018 and vegetation height may have changed in the large areas of Napa County disturbed by wildfire (and other types of disturbance) since 2018.



1:1,500

0 0.03 0.06 Miles

N

Fine Scale Vegetation Map

033-120-011-000

- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 033-120-011-000
- Napa County Boundary

Fine Scale Vegetation

- Chamise Alliance
- California Bay - Madrone - Coast Live Oak - (Black Oak Big Leaf Maple)
- Coast Live Oak
- California Annual Grasslands
- Valley Oak - (California Bay - Coast Live Oak - Walnut - Ash) Riparian Forest
- Urban or Built-up
- Agriculture

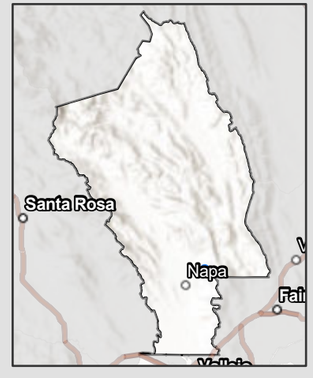
Mt George Ave

Mt George Ave

Mt George Ave

About This Map

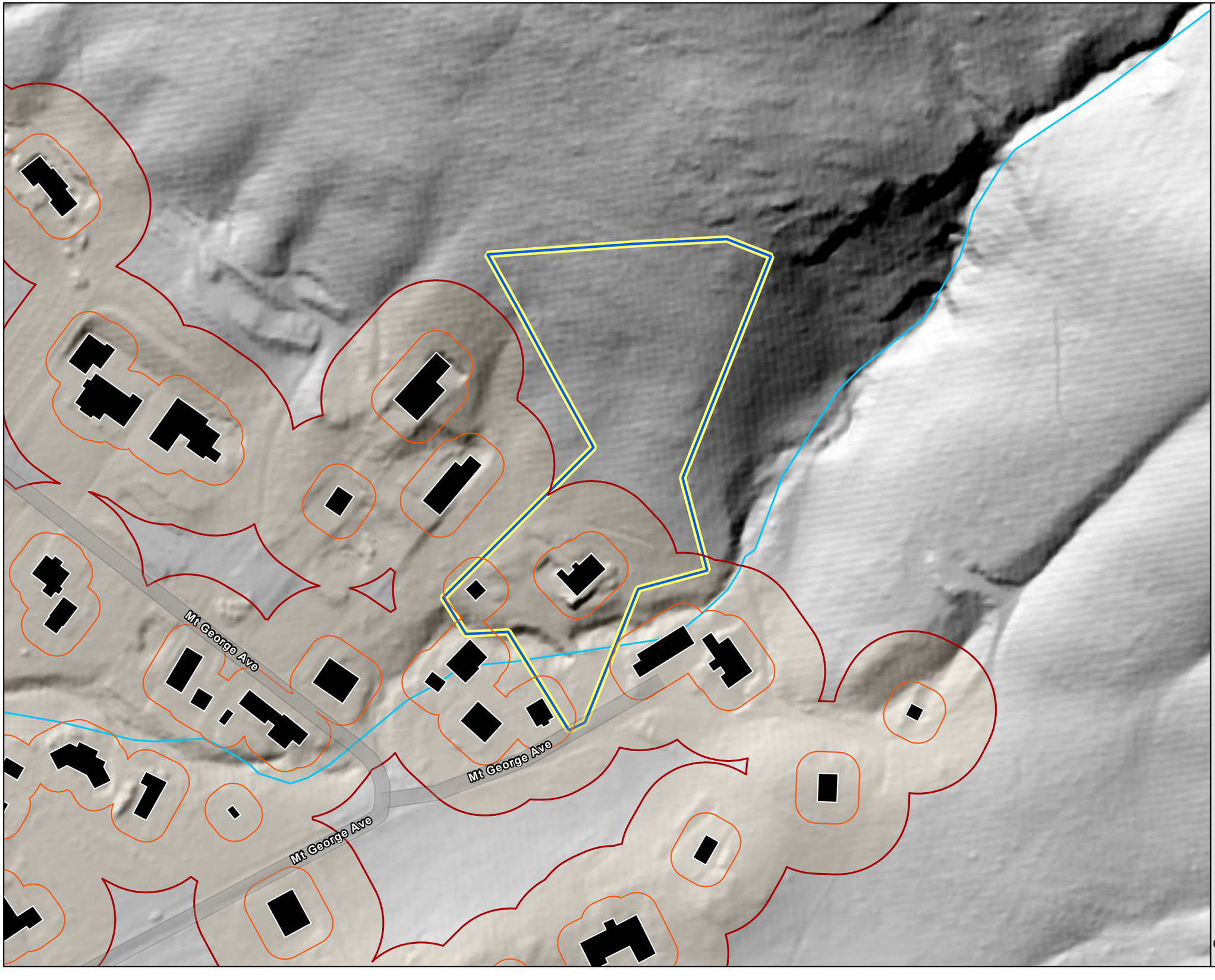
See 'Vegetation Map Information' in the attached report for more information on the veg types that occur in this parcel.



1:1,500

0 0.03 0.06 Miles

N



Streams and Water Bodies

033-120-011-000

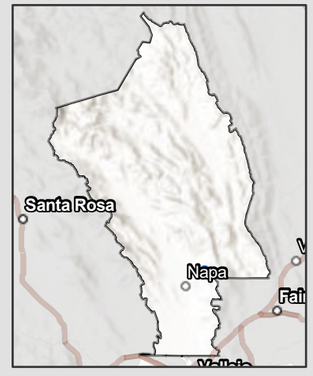
- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 033-120-011-000

Stream Lines

- Stream Lines
- Napa County Boundary

About This Map

This map shows the National Hydrography Dataset (NHD) for Napa County. The NHD data shown includes both thalwags (stream centerlines) and water bodies, on top of the Napa County lidar derived hillshade map. Unfortunately, the hydrography data shown in this map is not lidar derived (only the hillshade is), which explains why the NHD thalwags are more generalized than the stream morphology shown in the hillshade. Once the NHD transitions to a fully lidar derived workflow, the flowlines will have more precision.



1:1,500

0 0.03 0.06 Miles

N

WILDFIRE FUEL MAPPER

Vegetation Map Information

About this Map

The Vegetation Map depicts classification of vegetation types across the selected parcel. Specific vegetation species are listed in the legend and shown on the map with a range of colors. Different vegetation types will require different fuel treatment methods. Some vegetation types pose a greater hazard than others. The Vegetation Map can help users visualize the breakdown of vegetation types on their property, which can help in considering various treatment methods and informing the development of a management plan. This map was created using high resolution LiDAR data that was collected for Napa County in 2018.

Parcel Information: Vegetation Types & Acreages

List of vegetation classifications and total acreages found within the selected parcel, as shown in the Vegetation Map:

Common Name	Acres
Coast Live Oak	3.08 (91.0%)
Chamise Alliance	0.32 (9.0%)
Urban or Built-up	<.05 (0.0%)

NAPA COUNTY WILDFIRE FUEL MAPPER PARCEL REPORT

Additional information can be found in the Wildfire Fuel Mapper User Manual. Additional information about the Vegetation map layers can be found at *insert Napa Veg map*

Disclaimer

Tukman Geospatial makes no representation or warranty as to the accuracy, timeliness, or completeness of these data. Tukman Geospatial makes no warranty of merchantability or warranty for fitness of use for a particular purpose, expressed or implied, with respect to these products or the underlying data.

Any user of this data accepts same as is, with all faults, and assumes all responsibility for the use thereof, and further covenants and agrees to defend, indemnify, and hold Tukman Geospatial harmless from and against all damage, loss or liability arising from any use of these data products, in consideration of Tukman Geospatial and its partners having made this information available. Independent verification of all data contained herein should be obtained by any user of these products, or the underlying data. Tukman Geospatial disclaims, and shall not be held liable for, any and all damage, loss, or liability, whether direct, indirect, or consequential, which arises or may arise from these products or the use thereof by any person or entity.

Additional information can be found in the Wildfire Fuel Mapper User Manual. Additional information about the Vegetation map layers can be found at *insert Napa Veg map*

Napa County Wildfire Fuel Mapper Parcel Report

APN	020-030-013-000
Current Address	350 SHAW-WILLIAMS RD
Acres	7.54
Structure Count	2

Report Contents

This report contains environmental and fire related information for the parcel, including 13 maps of the parcel's fire history, vegetation, fuels, and physical geography. Each map provides insight into landscape characteristics that can help assess fuel and fire hazards, and can be used to aid in planning fuel treatments and natural resource management.

Defensible Space Zones and Vegetation

LEGEND Parcel of Interest Defensible Space

"**Defensible space**" is the area around a structure within a 100-foot radius or to the property line, whichever is less, in which combustible vegetation and other prohibited materials must be treated, cleared, or reduced to slow the spread of fire to and from the structure.

There are 3 types of defensible space that are summarized in this report:

1. Defensible space on the parcel of interest associated with structures within the parcel (**Category 1**)
2. Defensible space on the parcel of interest associated with structures on adjacent parcels (**Category 2**)
3. Defensible space on adjacent parcels associated with structures within the parcel of interest (**Category 3**)

Property owners are responsible for the first two categories. For example, if a neighboring parcel has structures with a 100ft buffer that spills over onto your property, you are responsible for clearing that defensible space as well as the defensible space around structures within your property. If you have structures on your property whose 100ft buffer spills over onto adjacent parcels, your neighbors are responsible for clearing that defensible space.

Note that the structures included in this report are from the data collected between 2019-2020. Some structures may have been affected by recent wildfires and/or construction. Napa County requires 10ft of defensible space on either side of driveways, not included in this report.

Acres of Category 1 Defensible Space	Acres of Category 2 Defensible Space	Acres of Category 3 Defensible Space
2.29 acres	0.71 acres	0.0 acres
Total acres of Defensible Space within 020-030-013-000 (Category 1+2): 3.0 acres		

Defensible Space Within Parcel by Vegetation Type*

Vegetation	% Total Defensible Space	Example Treatment Recommendation (see resources)
0.61 acres of vegetation >15 ft	20.0% of defensible space	Trees are greater than 15 ft. in height. Single specimens of trees (that are not considered pyrophytic) are required to be well spaced to 10 feet from each other and 6 feet of vertical clearance from the ground.
0.5 acres of vegetation 1-15 ft	17.0% of defensible space	Shrubs are 1-15 ft. in height. When shrubs or below tree canopies, vertical clearance from plans or shrubs shall be increased as to provide a minimum separation of 4 feet.
1.89 acres of vegetation <1 ft	63.0% of defensible space	Grass is under 1 ft. in height. Cut and maintain all annual grasses to 4" inches or less in height.

*This data is derived from **2018** LiDAR which categorizes vegetation by height above ground.

Napa County Code chapter 8.36 and the Napa County Defensible Space Guidelines set forth defensible space requirements for properties in the unincorporated areas of Napa County and Town of Yountville. The defensible space requirements apply to structures, driveways, and undeveloped lots and declare that parcels that do not meet the requirements constitute a public nuisance and are subject to penalties. *insert link*

Contact Information

Questions or comments? Please contact *fill in contact information*

2018 Imagery and Place Names

020-030-013-000

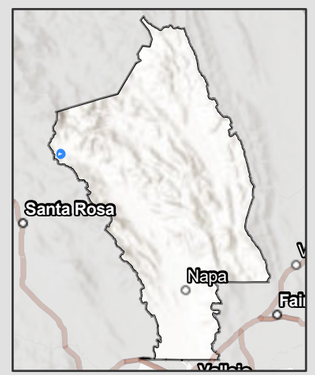
- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 020-030-013-000
- Napa County Boundary

Franz Valley School Rd

Shaw William Rd

About This Map

This map shows place names and high resolution (.6-meter NAIP) orthoimagery from summer, 2018.



1:1,654

0 0.03 0.06 Miles

2021 Imagery and Place Names

020-030-013-000

- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 020-030-013-000
- Napa County Boundary

About This Map

This map shows place names and high resolution (6-inch) orthoimagery from summer, 2021.

1:1,653

0 0.03 0.06 Miles

Contours

020-030-013-000

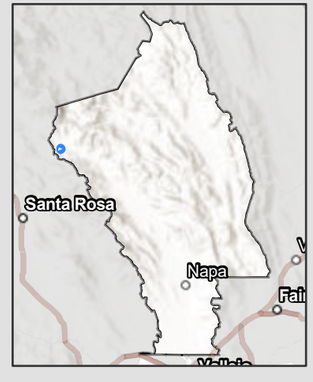
- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 020-030-013-000
- Napa County Boundary
- 10 Foot Contours

Franz Valley School Rd

Shaw William Rd

About This Map

This map shows 10-foot interval contours, derived from the Digital Terrain Model (DTM) from the 2018 QL2 countywide lidar. Underneath the contours is the hillshade, also derived from the DTM. Contours are useful for planning, since they show ground elevations and changes in slope and aspect. Hillshades are a great reference data source for mapping streams and roads and for understanding a property's physical geography. Because lidar penetrates the forest canopy, hillshades are useful for seeing roads and trails that in aerial photography are occluded by vegetation.



1:1,654

0 0.03 0.06 Miles

N

Streams and Water Bodies

020-030-013-000

- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 020-030-013-000

Stream Lines

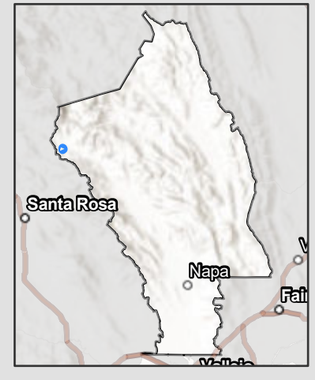
- Stream Lines
- Napa County Boundary

Franz Valley School Rd

Shaw William Rd

About This Map

This map shows the National Hydrography Dataset (NHD) for Napa County. The NHD data shown includes both thalwags (stream centerlines) and water bodies, on top of the Napa County lidar derived hillshade map. Unfortunately, the hydrography data shown in this map is not lidar derived (only the hillshade is), which explains why the NHD thalwags are more generalized than the stream morphology shown in the hillshade. Once the NHD transitions to a fully lidar derived workflow, the flowlines will have more precision.



1:1,654

0 0.03 0.06 Miles

N

Fire Districts, Stations, and Facilities

020-030-013-000

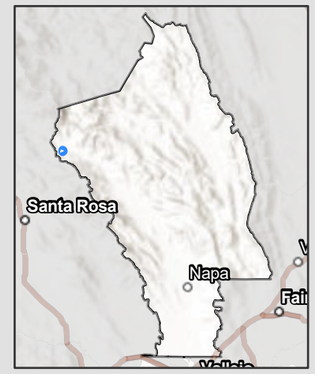
- 020-030-013-000
- Napa County Boundary
- Fire Stations

Fire Districts

- Calistoga Fire
- Napa County LRA
- Napa County SRA
- County Mask

About this Map

This map shows fire service boundaries, fire stations, and CAL FIRE facilities in Napa County. Fire service boundaries include Federal Responsibility Areas (FRA), State Responsibility Areas (SRA), and Local Responsibility Areas (LRA). The different designations indicate who is the primary emergency response agency responsible for fire suppression and prevention in the area.



1:40,000

0 0.8 1.6 Miles

N

Mercuryville
175
Middletown
Geyserville
128
128
Simi
Chiquita
Kellog
Robert Louis
Stevenson State
Park
Healdsburg
Pope Valley
Calistoga
Larkmead
Angwin
Cedar Rough
Wilderness
Windsor
East Windsor
Deer Park
Bothe-Napa
Valley State
Park
Sonoma
101
St Helena
Napa
Forestville
Monroe
Melita
Rutherford
116
Sugarloaf Ridge
State Park
Santa Rosa
Trione-Annadel
State Park
Roseland
Kenwood
Sebastopol
Bellevue
Yountville

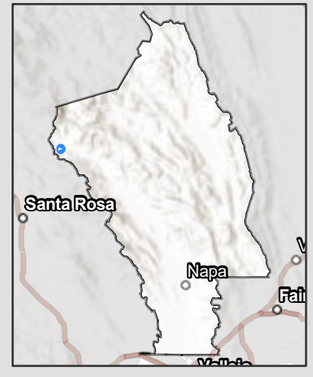
Fire History (1990 - 2021)

020-030-013-000

- 020-030-013-000
- Water Bodies
- Napa County Boundary
- 1991-2000 Wildfires
- 2001-2010 Wildfires
- 2011-2021 Wildfires

About this Map

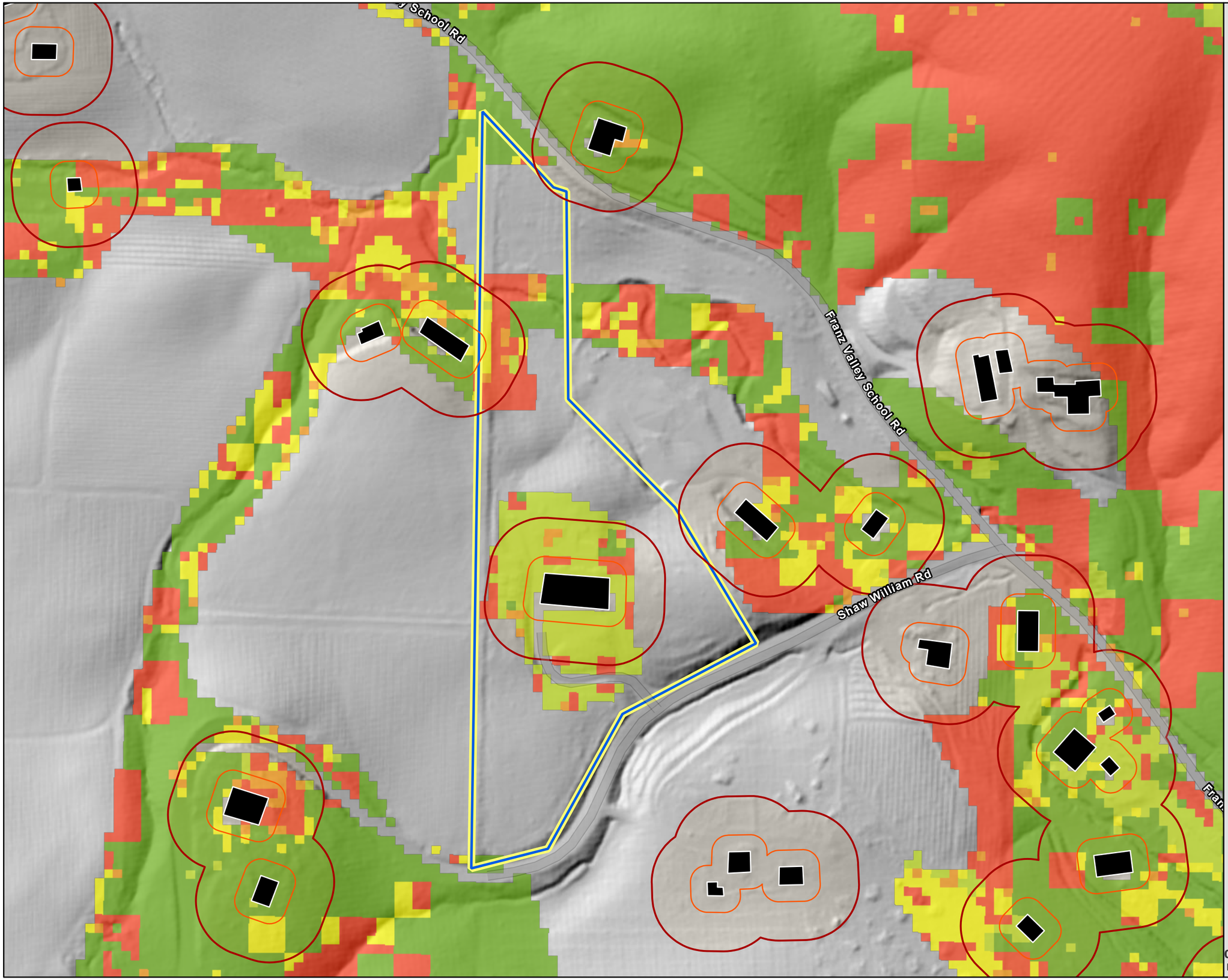
This map shows 1990-2020 fire history for a large area of Napa County centered on the parcel of interest. Fire perimeters are collected and maintained by CAL FIRE. Note that CAL FIRE excludes small fires from the fire history layer. Also note that this map does not include prescribed burns. The CAL FIRE fire history layer is available for download here: https://frap.fire.ca.gov/mapping/gis-data/



1:170,000

0 3 6 Miles

N



Flame Length

020-030-013-000

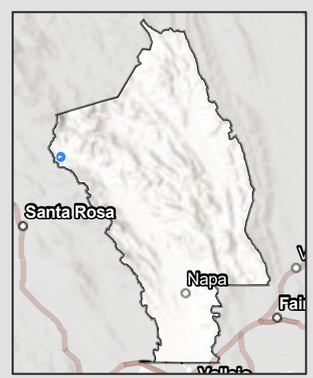
- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 020-030-013-000
- Napa County Boundary

2018 Flame Length

- 0 Feet
- 0 - 2 Feet
- 2 - 4 Feet
- 4 - 8 Feet
- 8 - 11 Feet
- 11 Feet +

About This Map

This map shows modeled flame length for the property (note that in the fuel model, irrigated ag. and structures are mapped as non-burnable and often show no flame length). Flame length was modeled using FLAMMAP. FLAMMAP model inputs include 2018 5m surface fuels, canopy height, canopy cover, canopy base height, canopy bulk density, elevation, slope, aspect, weather, and fuel moisture. Assumptions for the model run included low fuel moisture and red flag warning winds and humidity. The fuelscape represents ground conditions in 2018, before many of Napa County's recent fires. flame length is binned into 5 classes. Flame lengths gt 4 feet can be directly attacked and held by hand lines. 4-8 ft. flame lengths are too intense for direct attack with hand tools, but dozers, engines, and retardant drops can be effective. 8-11 ft. flame lengths present serious control problems such as torching, crowning and spotting. Flame lengths gt 11 ft. are very difficult to control.



1:1,974

0 0.04 0.08 Miles

N

Ladder Fuels

020-030-013-000

- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 020-030-013-000
- Napa County Boundary

2018 Ladder Fuels (1-4 meters above ground)

High

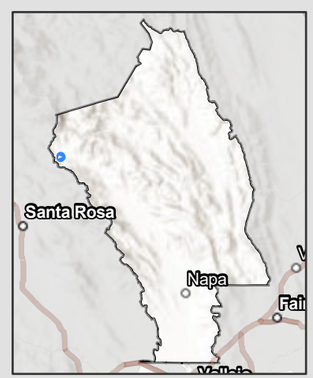
Low

Franz Valley School Rd

Shaw William Rd

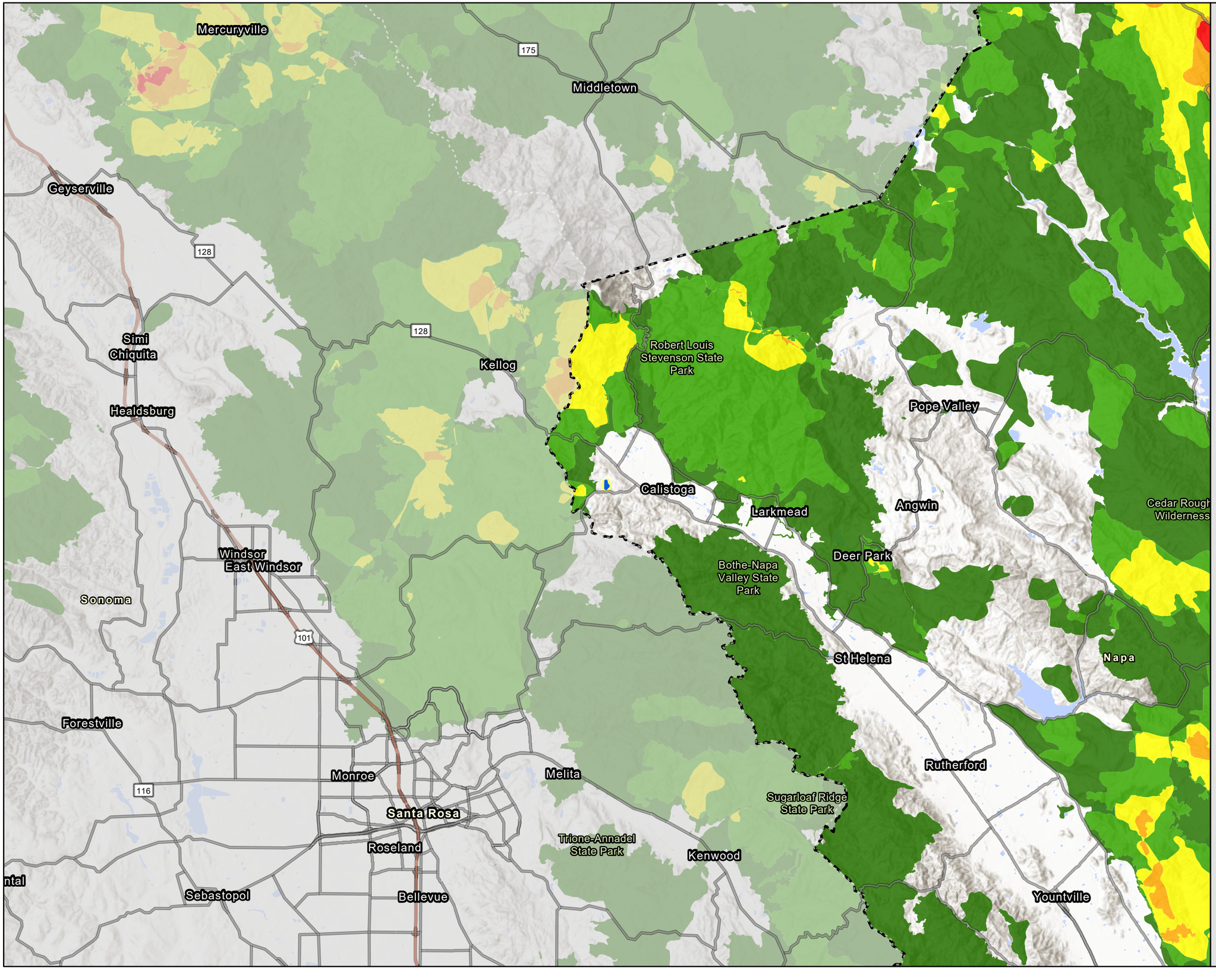
About This Map

This map shows the density of ladder fuels: living and dead vegetation in the vertical stratum between 1 and 4 meters above the ground. Ladder fuels create vertical fuel continuity, which can allow fire to transition from the surface into the canopy. Reducing vegetation in this stratum is a key element in a fire resilient landscape. The ladder fuels in this map were derived from 2018 lidar data and reflect 2018 ground conditions.



1:1,657

0 0.03 0.06 Miles



Number of Times Burned

020-030-013-000

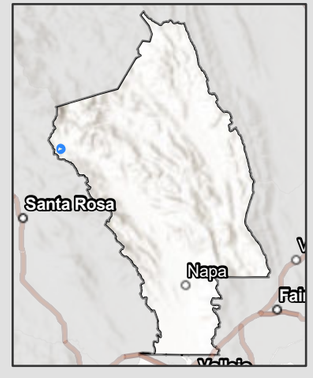
- 020-030-013-000
- Water Bodies
- Napa County Boundary

Times Burned (Approx. 1940 through 2021)

- 1
- 2
- 3
- 4
- Greater than 4

About this Map

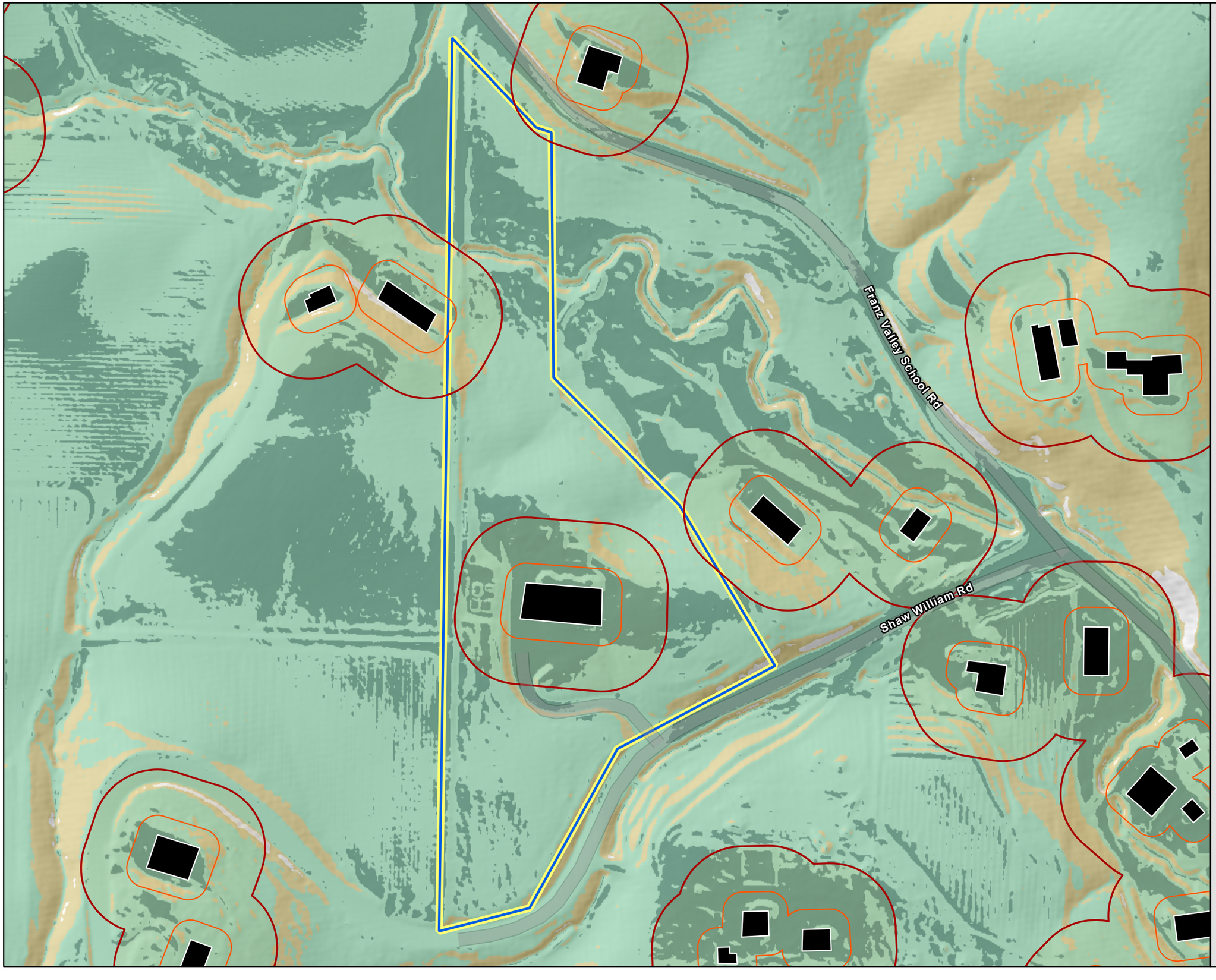
This map shows the number of times that an area burned based on the CAL FIRE fire history layer (https://frap.fire.ca.gov/mapping/gis-data/). The fire history layer dates back to approximately 1940. Areas that have a 1 are areas that have burned only once in the CAL FIRE record, those with a 2 have burned twice, etc. Areas with no value have not burned in the CAL FIRE record. Note that the CAL FIRE record does not include all fires. Small fires are omitted and very old fires may be missing or inaccurate. Also note that this map does not include prescribed burns.



1:170,000

0 3 6 Miles

N



Slope

020-030-013-000

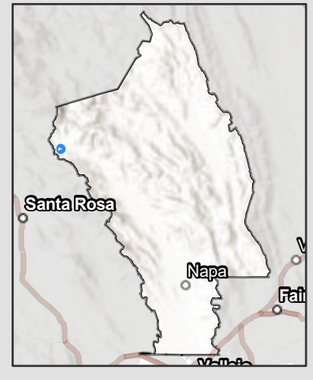
- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 020-030-013-000
- Napa County Boundary

Slope (Degrees)

- 0-5 Degrees
- 5-20 Degrees
- 20-40 Degrees
- 40+ Degrees

About This Map

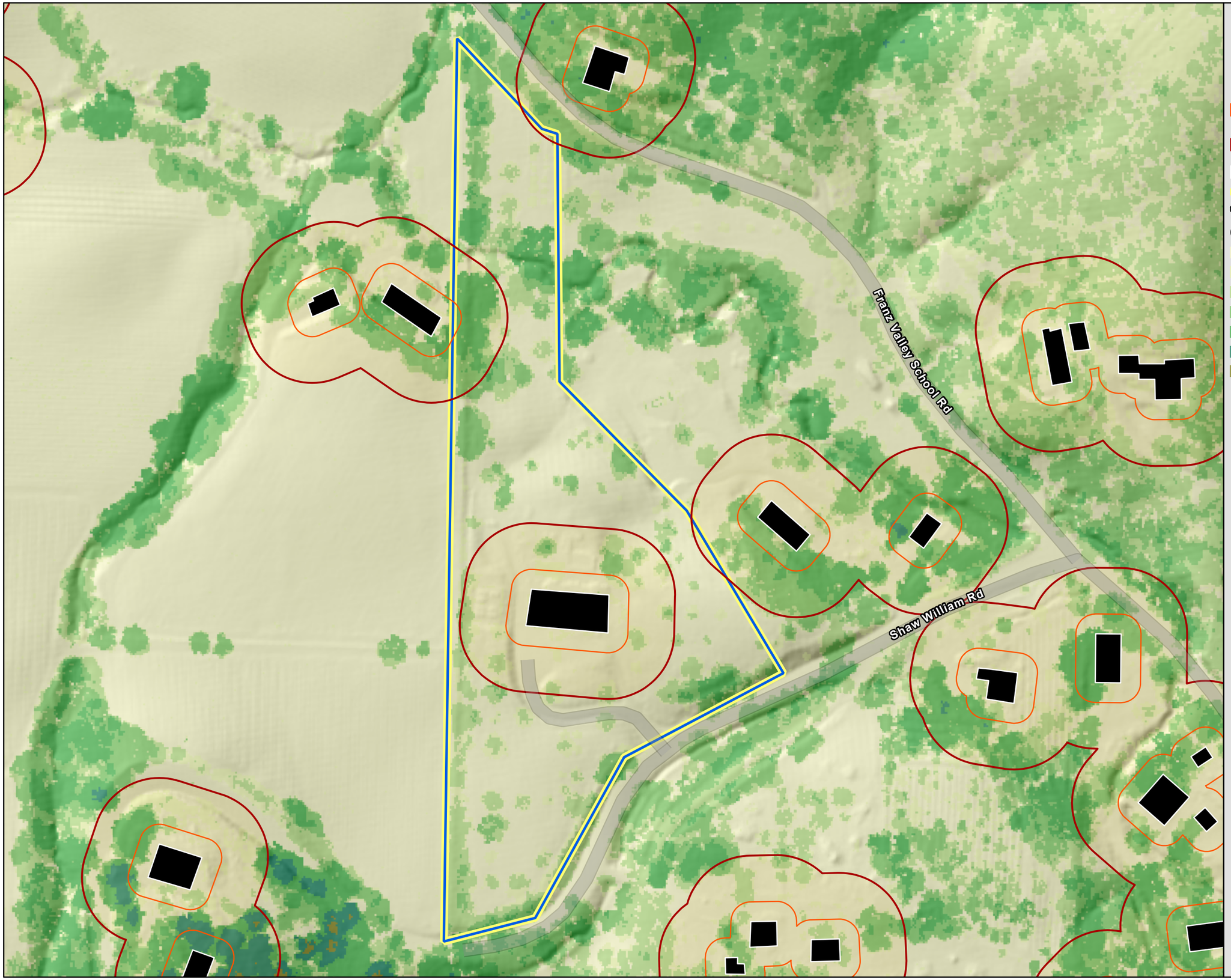
This map depicts the downhill slope (in degrees). It is classified into 4 classes from the gentlest slopes shown in green to the steepest slopes shown in brown. Slope is an important driver of fire behavior. Fire burns more intensely and spreads more rapidly on steeper slopes, and fire suppression is easier on gentle slopes. Slope can also be an important factor in planning fuel treatment strategies. Gentle slopes near roads can be much easier to treat than steep areas because of the difficulty of moving machinery and working on steep ground.



1:1,654

0 0.03 0.06 Miles

N



Vegetation Height

020-030-013-000

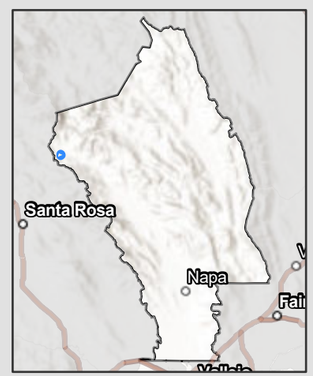
- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 020-030-013-000
- Napa County Boundary

Canopy Height Model (Feet)

- 0-5 ft
- 5-15 ft
- 15-30 ft
- 30-50 ft
- 50-100 ft
- 100-150 ft
- 150 ft+

About This Map

This map depicts the height of vegetation in 2018. Vegetation height was derived from the 2018 lidar data. The vegetation height, or canopy height, across a landscape can impact both wildfire's ability to spread embers and influence the wildfire behavior. Note that vegetation height in unburned areas may have increased since 2018 and vegetation height may have changed in the large areas of Napa County disturbed by wildfire (and other types of disturbance) since 2018.



1:1,654

0 0.03 0.06 Miles

N

Fine Scale Vegetation Map

020-030-013-000

- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 020-030-013-000
- Napa County Boundary

Fine Scale Vegetation

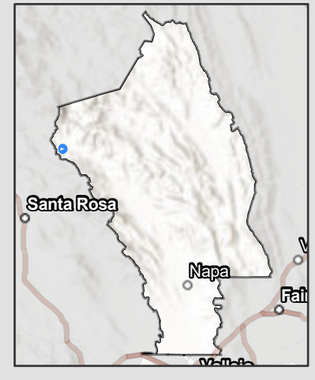
- Douglas-fir
- Mixed Oak
- Oregon White Oak
- Valley Oak - (California Bay - Coast Live Oak - Walnut - Ash) Riparian Forest
- Urban or Built-up
- Agriculture

Franz Valley School Rd

Shaw William Rd

About This Map

See 'Vegetation Map Information' in the attached report for more information on the veg types that occur in this parcel.



1:1,653

0 0.03 0.06 Miles

N

WILDFIRE FUEL MAPPER

Vegetation Map Information

About this Map

The Vegetation Map depicts classification of vegetation types across the selected parcel. Specific vegetation species are listed in the legend and shown on the map with a range of colors. Different vegetation types will require different fuel treatment methods. Some vegetation types pose a greater hazard than others. The Vegetation Map can help users visualize the breakdown of vegetation types on their property, which can help in considering various treatment methods and informing the development of a management plan. This map was created using high resolution LiDAR data that was collected for Napa County in 2018.

Parcel Information: Vegetation Types & Acreages

List of vegetation classifications and total acreages found within the selected parcel, as shown in the Vegetation Map:

Common Name	Acres
Agriculture	4.8 (64.0%)
Urban or Built-up	1.91 (25.0%)
Valley Oak - (California Bay - Coast Live Oak - Walnut - Ash) Riparian Forest	0.79 (10.0%)
Douglas-fir	<.05 (0.0%)

NAPA COUNTY WILDFIRE FUEL MAPPER PARCEL REPORT

Additional information can be found in the Wildfire Fuel Mapper User Manual. Additional information about the Vegetation map layers can be found at *insert Napa Veg map*

Disclaimer

Tukman Geospatial makes no representation or warranty as to the accuracy, timeliness, or completeness of these data. Tukman Geospatial makes no warranty of merchantability or warranty for fitness of use for a particular purpose, expressed or implied, with respect to these products or the underlying data.

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Additional information can be found in the Wildfire Fuel Mapper User Manual. Additional information about the Vegetation map layers can be found at *insert Napa Veg map*

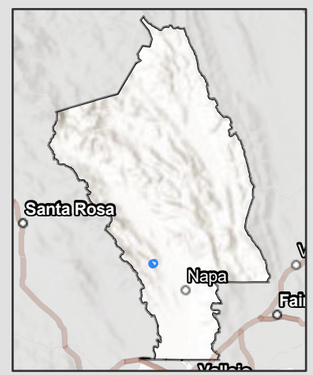
2021 Imagery and Place Names

034-270-021-000

- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 034-270-021-000
- Napa County Boundary

About This Map

This map shows place names and high resolution (6-inch) orthoimagery from summer, 2021.



1:1,500

0 0.03 0.06 Miles

N

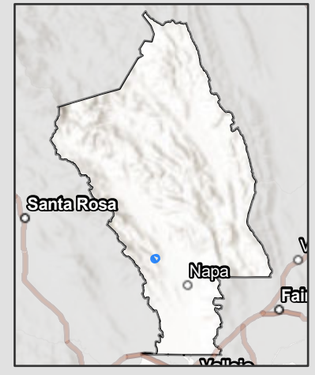
Contours

034-270-021-000

- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 034-270-021-000
- Napa County Boundary

About This Map

This map shows 10-foot interval contours, derived from the Digital Terrain Model (DTM) from the 2018 QL2 countywide lidar. Underneath the contours is the hillshade, also derived from the DTM. Contours are useful for planning, since they show ground elevations and changes in slope and aspect. Hillshades are a great reference data source for mapping streams and roads and for understanding a property's physical geography. Because lidar penetrates the forest canopy, hillshades are useful for seeing roads and trails that in aerial photography are occluded by vegetation.



1:1,500

0 0.03 0.06 Miles

N

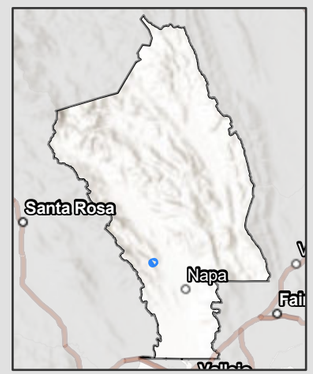
Streams and Water Bodies

034-270-021-000

- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 034-270-021-000
- Napa County Boundary

About This Map

This map shows the National Hydrography Dataset (NHD) for Napa County. The NHD data shown includes both thalwags (stream centerlines) and water bodies, on top of the Napa County lidar derived hillshade map. Unfortunately, the hydrography data shown in this map is not lidar derived (only the hillshade is), which explains why the NHD thalwags are more generalized than the stream morphology shown in the hillshade. Once the NHD transitions to a fully lidar derived workflow, the flowlines will have more precision.



1:1,500

0 0.03 0.06 Miles

N

Napa County Wildfire Fuel Mapper Parcel Report

APN	**034-270-021-000**
Current Address	**4297 DRY CREEK RD**
Acres	**12.3**
Structure Count	**2**

Report Contents

This report contains environmental and fire related information for the parcel, including 13 maps of the parcel's fire history, vegetation, fuels, and physical geography. Each map provides insight into landscape characteristics that can help assess fuel and fire hazards, and can be used to aid in planning fuel treatments and natural resource management.

Defensible Space Zones and Vegetation

LEGEND Parcel of Interest Defensible Space

"**Defensible space**" is the area around a structure within a 100-foot radius or to the property line, whichever is less, in which combustible vegetation and other prohibited materials must be treated, cleared, or reduced to slow the spread of fire to and from the structure.

There are 3 types of defensible space that are summarized in this report:

1. Defensible space on the parcel of interest associated with structures within the parcel (**Category 1**)
2. Defensible space on the parcel of interest associated with structures on adjacent parcels (**Category 2**)
3. Defensible space on adjacent parcels associated with structures within the parcel of interest (**Category 3**)

Property owners are responsible for the first two categories. For example, if a neighboring parcel has structures with a 100ft buffer that spills over onto your property, you are responsible for clearing that defensible space as well as the defensible space around structures within your property. If you have structures on your property whose 100ft buffer spills over onto adjacent parcels, your neighbors are responsible for clearing that defensible space.

Note that the structures included in this report are from the data collected between 2019-2020. Some structures may have been affected by recent wildfires and/or construction. Napa County requires 10ft of defensible space on either side of driveways, not included in this report.

Acres of Category 1 Defensible Space	Acres of Category 2 Defensible Space	Acres of Category 3 Defensible Space
1.35 acres	0.03 acres	0.0 acres
Total acres of Defensible Space within 034-270-021-000 (Category 1+2): 1.4 acres		

Defensible Space Within Parcel by Vegetation Type*

Vegetation	% Total Defensible Space	Example Treatment Recommendation (see resources)
0.85 acres of vegetation >15 ft	61.0% of defensible space	Trees are greater than 15 ft. in height. Single specimens of trees (that are not considered pyrophytic) are required to be well spaced to 10 feet from each other and 6 feet of vertical clearance from the ground.
0.14 acres of vegetation 1-15 ft	10.0% of defensible space	Shrubs are 1-15 ft. in height. When shrubs or below tree canopies, vertical clearance from plans or shrubs shall be increased as to provide a minimum separation of 4 feet.
0.41 acres of vegetation <1 ft	29.0% of defensible space	Grass is under 1 ft. in height. Cut and maintain all annual grasses to 4" inches or less in height.

*This data is derived from **2018** LiDAR which categorizes vegetation by height above ground.

Napa County Code chapter 8.36 and the Napa County Defensible Space Guidelines set forth defensible space requirements for properties in the unincorporated areas of Napa County and Town of Yountville. The defensible space requirements apply to structures, driveways, and undeveloped lots and declare that parcels that do not meet the requirements constitute a public nuisance and are subject to penalties. *insert link*

Contact Information

Questions or comments? Please contact *fill in contact information*

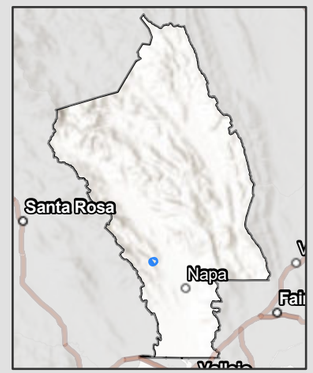
2018 Imagery and Place Names

034-270-021-000

- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 034-270-021-000
- Napa County Boundary

About This Map

This map shows place names and high resolution (.6-meter NAIP) orthoimagery from summer, 2018.



1:1,500

0 0.03 0.06 Miles

N

Fire Districts, Stations, and Facilities

034-270-021-000

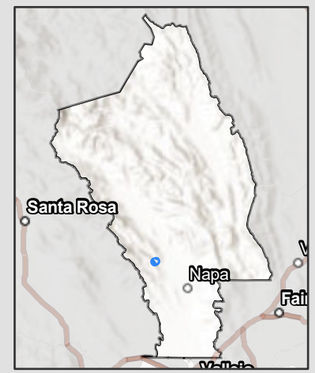
- 034-270-021-000
- Napa County Boundary
- Fire Stations
- CAL Fire Facilities

Fire Districts

- City of Napa Fire
- Napa County LRA
- Napa County SRA
- Veterans Home Fire
- Yountville Fire
- County Mask

About this Map

This map shows fire service boundaries, fire stations, and CAL FIRE facilities in Napa County. Fire service boundaries include Federal Responsibility Areas (FRA), State Responsibility Areas (SRA), and Local Responsibility Areas (LRA). The different designations indicate who is the primary emergency response agency responsible for fire suppression and prevention in the area.



1:40,000

0 0.8 1.6 Miles

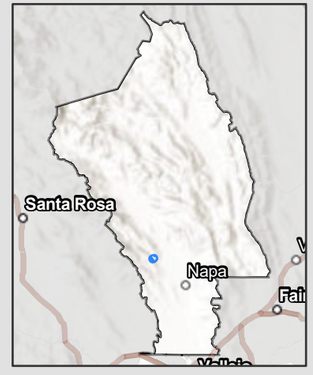
Fire History (1990 - 2021)

034-270-021-000

- 034-270-021-000
- Water Bodies
- Napa County Boundary
- 1991-2000 Wildfires
- 2001-2010 Wildfires
- 2011-2021 Wildfires

About this Map

This map shows 1990-2020 fire history for a large area of Napa County centered on the parcel of interest. Fire perimeters are collected and maintained by CAL FIRE. Note that CAL FIRE excludes small fires from the fire history layer. Also note that this map does not include prescribed burns. The CAL FIRE fire history layer is available for download here: https://frap.fire.ca.gov/mapping/gis-data/



1:170,000

0 3 6 Miles

N

Flame Length

034-270-021-000

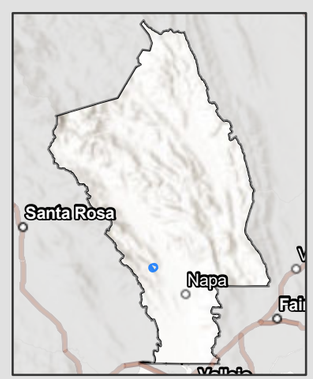
- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 034-270-021-000
- Napa County Boundary

2018 Flame Length

- 0 Feet
- 0 - 2 Feet
- 2 - 4 Feet
- 4 - 8 Feet
- 8 - 11 Feet
- 11 Feet +

About This Map

This map shows modeled flame length for the property (note that in the fuel model, irrigated ag. and structures are mapped as non-burnable and often show no flame length). Flame length was modeled using FLAMMAP. FLAMMAP model inputs include 2018 5m surface fuels, canopy height, canopy cover, canopy base height, canopy bulk density, elevation, slope, aspect, weather, and fuel moisture. Assumptions for the model run included low fuel moisture and red flag warning winds and humidity. The fuelscape represents ground conditions in 2018, before many of Napa County's recent fires. flame length is binned into 5 classes. Flame lengths gt 4 feet can be directly attacked and held by hand lines. 4-8 ft. flame lengths are too intense for direct attack with hand tools, but dozers, engines, and retardant drops can be effective. 8-11 ft. flame lengths present serious control problems such as torching, crowning and spotting. Flame lengths gt 11 ft. are very difficult to control.



1:1,500

0 0.03 0.06 Miles

N

Ladder Fuels

034-270-021-000

- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 034-270-021-000
- Napa County Boundary

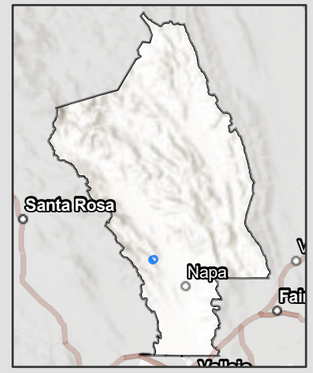
2018 Ladder Fuels (1-4 meters above ground)

High

Low

About This Map

This map shows the density of ladder fuels: living and dead vegetation in the vertical stratum between 1 and 4 meters above the ground. Ladder fuels create vertical fuel continuity, which can allow fire to transition from the surface into the canopy. Reducing vegetation in this stratum is a key element in a fire resilient landscape. The ladder fuels in this map were derived from 2018 lidar data and reflect 2018 ground conditions.



1:1,500

0 0.03 0.06 Miles

N

Number of Times Burned

034-270-021-000

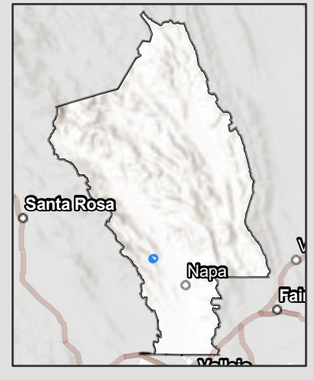
- 034-270-021-000
- Water Bodies
- Napa County Boundary

Times Burned (Approx. 1940 through 2021)

- 1
- 2
- 3
- 4
- Greater than 4

About this Map

This map shows the number of times that an area burned based on the CAL FIRE fire history layer (https://frap.fire.ca.gov/mapping/gis-data/). The fire history layer dates back to approximately 1940. Areas that have a 1 are areas that have burned only once in the CAL FIRE record, those with a 2 have burned twice, etc. Areas with no value have not burned in the CAL FIRE record. Note that the CAL FIRE record does not include all fires. Small fires are omitted and very old fires may be missing or inaccurate. Also note that this map does not include prescribed burns.



1:170,000

0 3 6 Miles

N

Slope

034-270-021-000

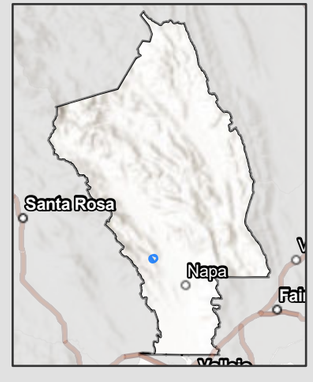
- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 034-270-021-000
- Napa County Boundary

Slope (Degrees)

- 0-5 Degrees
- 5-20 Degrees
- 20-40 Degrees
- 40+ Degrees

About This Map

This map depicts the downhill slope (in degrees). It is classified into 4 classes from the gentlest slopes shown in green to the steepest slopes shown in brown. Slope is an important driver of fire behavior. Fire burns more intensely and spreads more rapidly on steeper slopes, and fire suppression is easier on gentle slopes. Slope can also be an important factor in planning fuel treatment strategies. Gentle slopes near roads can be much easier to treat than steep areas because of the difficulty of moving machinery and working on steep ground.



1:1,500

0 0.03 0.06 Miles

N

Vegetation Height

034-270-021-000

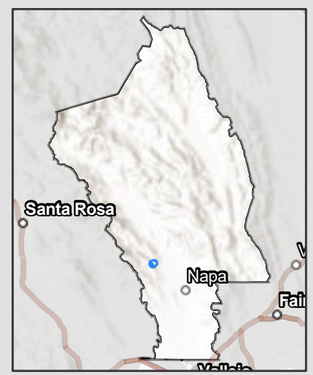
- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 034-270-021-000
- Napa County Boundary

Canopy Height Model (Feet)

- 0-5 ft
- 5-15 ft
- 15-30 ft
- 30-50 ft
- 50-100 ft
- 100-150 ft
- 150 ft+

About This Map

This map depicts the height of vegetation in 2018. Vegetation height was derived from the 2018 lidar data. The vegetation height, or canopy height, across a landscape can impact both wildfire's ability to spread embers and influence the wildfire behavior. Note that vegetation height in unburned areas may have increased since 2018 and vegetation height may have changed in the large areas of Napa County disturbed by wildfire (and other types of disturbance) since 2018.



1:1,500

0 0.03 0.06 Miles

N

Fine Scale Vegetation Map

034-270-021-000

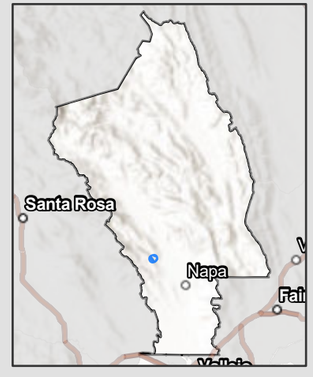
- 30ft Building Buffer (2019-2020 Ground Conditions)
- 100ft Building Buffer (2019-2020 Ground Conditions)
- Building Footprint (2019-2020 Ground Conditions)
- 034-270-021-000
- Napa County Boundary

Fine Scale Vegetation

- Mixed Manzanita - (Interior Live Oak -California Bay - Chamise) West County
- Douglas-fir
- California Bay - Madrone - Coast Live Oak - (Black Oak Big Leaf Maple)
- Mixed Oak
- California Annual Grasslands
- Urban or Built-up
- Agriculture

About This Map

See 'Vegetation Map Information' in the attached report for more information on the veg types that occur in this parcel.



1:1,500

0 0.03 0.06 Miles

N

WILDFIRE FUEL MAPPER

Vegetation Map Information

About this Map

The Vegetation Map depicts classification of vegetation types across the selected parcel. Specific vegetation species are listed in the legend and shown on the map with a range of colors. Different vegetation types will require different fuel treatment methods. Some vegetation types pose a greater hazard than others. The Vegetation Map can help users visualize the breakdown of vegetation types on their property, which can help in considering various treatment methods and informing the development of a management plan. This map was created using high resolution LiDAR data that was collected for Napa County in 2018.

Parcel Information: Vegetation Types & Acreages

List of vegetation classifications and total acreages found within the selected parcel, as shown in the Vegetation Map:

Common Name	Acres
Douglas-fir	6.94 (56.000000000000001%)
California Bay - Madrone - Coast Live Oak - (Black Oak Big Leaf Maple)	5.35 (44.0%)

NAPA COUNTY WILDFIRE FUEL MAPPER PARCEL REPORT

Additional information can be found in the Wildfire Fuel Mapper User Manual. Additional information about the Vegetation map layers can be found at *insert Napa Veg map*

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Additional information can be found in the Wildfire Fuel Mapper User Manual. Additional information about the Vegetation map layers can be found at *insert Napa Veg map*