



Circle Oaks Fire Safe Council Community Wildfire Protection Plan

May 11, 2026

Table of Contents

A. Introduction	3
B. Values at Risk, Land Use and Distribution	6
1. Homes	6
2. Land Use Distribution and Neighborhoods.....	8
C. Topography	9
1. Orientation of the Canyons.....	11
D. Weather	13
1. Temperatures and Humidities	13
2. Winds	13
3. Climate Change	14
E. Vegetation	16
F. Predicted Fire Behavior	21
1. Predicted Flame Lengths.....	21
2. Predicted Crown Fire Activity	23
G. Fire History	26
H. Access	28
I. Hazard Ranking	30
J. Wildfire Response and Suppression Capabilities	32
K. The Plan	32
L. Projects	33
M. Approval Signatures	37
N. Appendix: NFPA Firewise 3-Year Action Plan	38

Executive Summary

The Circle Oaks Fire Safe Council (COFSC) has developed this Community Wildfire Protection Plan (CWPP); a CWPP is a community-based plan focused on identifying and addressing specific local hazards and risks from wildfire. It determines what is at risk and provides a road map of actions for a community to address the wildfire threat. It may also open up funding opportunities to implement the plan. CWPPs are authorized and defined in Title I of the Healthy Forests Restoration Act (HFRA), passed by Congress in 2003.

The area included within the COFSC has had an active fire history, which brings focus to this plan. It is understood that not all fires can be prevented, but appropriate vegetation management and other mitigation practices can minimize the impact and destruction of Wildfires.

Decision Makers

The following community representatives collaborated in the development of the CWPP:

- COFSC
- The Napa Communities Firewise Foundation (NCFF)
- CAL FIRE/Napa County Fire Department
- Napa County Board of Supervisors

Community Evaluation

A Community Evaluation was engaged by NCFF and the COFSC and prepared by Carol Rice, Wildland Res Mgt, a wildland fire manager specializing in wildland fire risk issues, and includes input from the COFSC community, including local government, non-profits and local fire authorities. The Evaluation served as a foundation for recommendations for projects to minimize threat from wildfire to life safety and damage to homes and natural resources. It is based on a review of the terrain, weather, fuels, and fire history of the area, compared to the values at risk, and likely scenarios of fire ignition and spread. This was the building block for community discussions and project identification that led to the drafting of this Community Wildfire Protection Plan or CWPP.

A. Introduction

Fire hazard is a special concern in the Circle Oaks area in southeastern Napa County. The area is located in the interface between wildlands and developed areas, where fires may spread from wildlands to the homes, possibly damaging structures or even threatening lives. Conversely, wildlands are subject to increased ignition potential from elevated levels of human activities. Most fires in the coastal mountains are human-caused¹.



Photo 1. Corner of Circle Dr and Country Club with example of need for removal or reduction of flammable vegetation

This CWPP serves as a platform for recommendations for projects to minimize threat to life safety and damage from wildfire to homes and natural resources. It is based on a review of the terrain, weather, fuels, and fire history of the area, compared to the values at risk, and likely scenarios of fire ignition and spread. This plan will also outline completed and proposed

¹ <https://www.nps.gov/articles/wildfire-causes-and-evaluation.htm>

Circle Oaks Fire Safe Council Community Wildfire Protection Plan

projects for fire mitigation that have been decided on through local planning and community outreach meetings of the Circle Oaks Fire Safe Council.

The Circle Oaks community boundary covers 1,170 acres in southeastern Napa County. It is in the organized Circle Oaks Fire Safe Council (FSC), sandwiched between Capell Valley FSC to the east, Mt. George FSC to the west, and Gordon Valley FSC to the south. It is a fairly remote community, with nearby towns including Atlas roughly 2 miles to the northwest and Napa Soda Springs about 3 miles to the west.

Despite its small size, there are many residents situated in a concentrated area in the Circle Oaks neighborhood. The Circle Oaks FSC has approximately 393 parcels and 221 structures including outbuildings. The majority of these structures are within the Circle Oaks HOA and are concentrated in the northeast area (see Figure 1 and Appendix O for parcel ownership). Most of these residences are privately owned. Within the FSC, Napa Land Trust owns large parcels to the North, East and West of the neighborhood. The City of Napa owns a large parcel in the SW corner of the FSC which encompasses a corner of the Milliken Creek Watershed and the Circle Oaks County Water District Office facility is located at the Northwest end of the neighborhood road (Circle Oaks Dr).



Photo 2. Example of maintenance needed along the road, where annual treatment of grasses and occasional ladder fuel (e.g. tree trimming and shrub removal) would be needed within 30 feet from roadside.

More details on each are presented in the following sections.

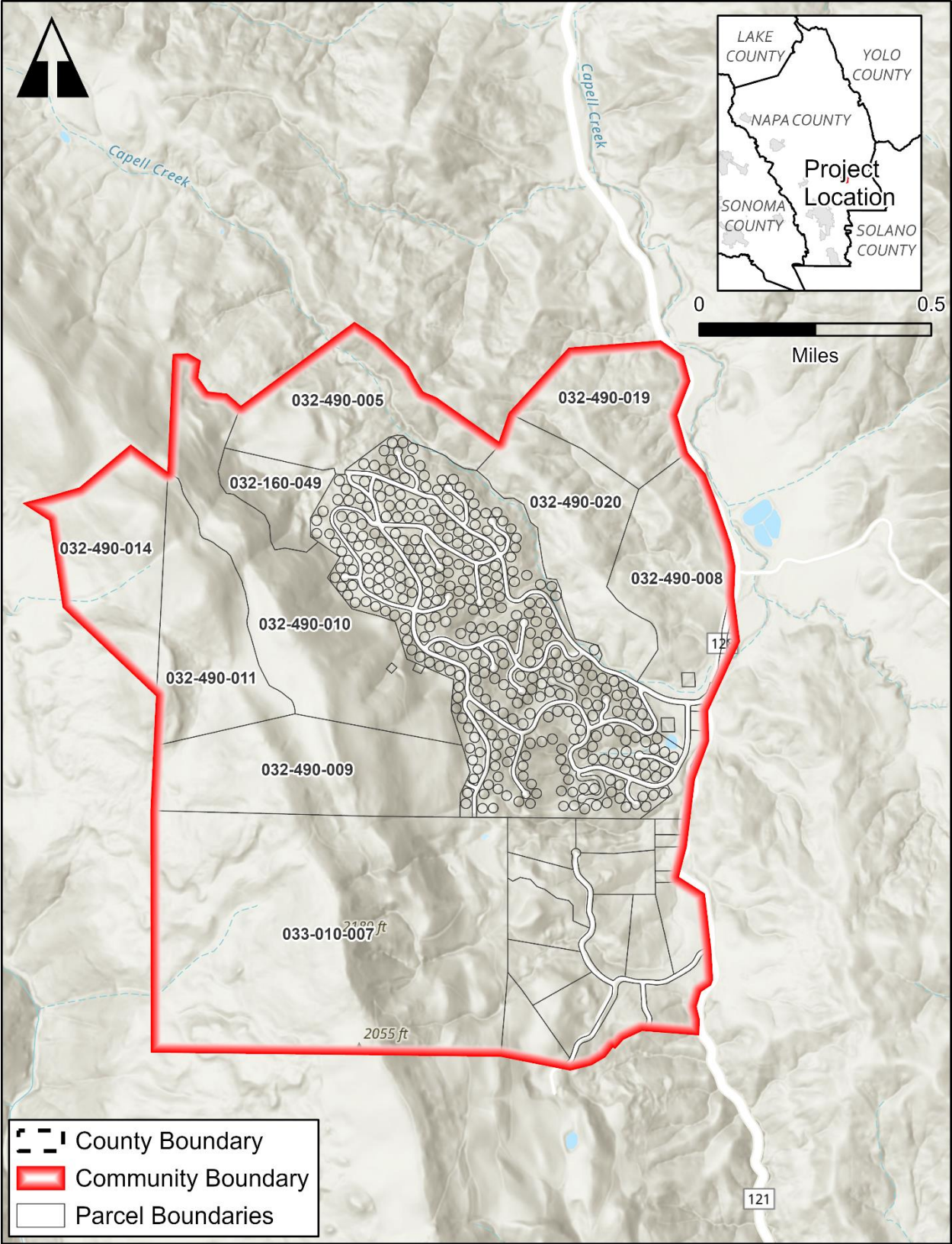


Figure 1. Area of Interest – Circle Oaks community boundary (shown in red).

B. Values at Risk, Land Use and Distribution

The most important values at risk are life safety, then improvements to property (residential structures and vineyards), then natural resources. Because all the evacuation routes are long and involve poor road conditions, the threat to human life is significant.

Homes in the Circle Oaks community are at risk from wildfire for a number of reasons. Structures are generally older, dating before the requirement for ignition resistant construction. Most roofs are less flammable, however, wood siding, decks, and unprotected vents that are part of most homes all make the buildings prone to ignition.

1. Homes

Residential structures are mostly made of wood because of their age. They have wood porches and decks, though wood fences are a rarity. The presence of ignition-resistant construction is closely related to the age of the structures; structures built after 1996 have features that prevent ignition such as non-flammable roofs, double-paned windows, and stucco siding. Many older structures have been remodeled, and a few property owners have installed personal fire suppression systems involving various water sprinkler strategies.

Circle Oaks Fire Safe Council Community Wildfire Protection Plan



Photo 3. Structures are located primarily along the steeper slopes within the FSC boundary. A network of smaller roads branches off from Circle Oaks Dr, accessed from Highway 121.

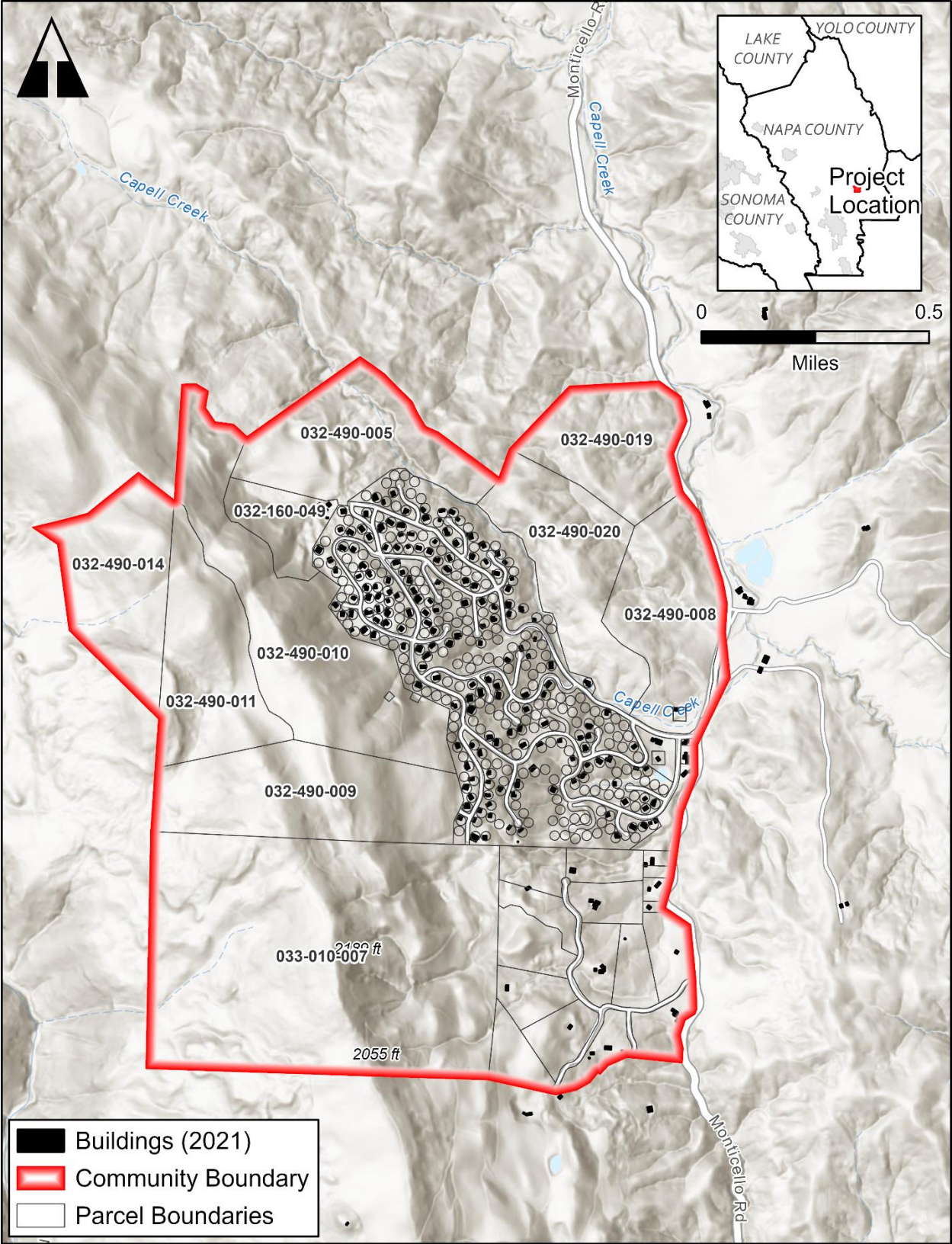


Figure 2. Structures (shown in black) within the Circle Oaks community boundary.

2. Land Use Distribution and Neighborhoods

The Napa County parcel database shows that Circle Oaks is dominated by vacant lands, which account for 64% of the lands within the Circle Oaks area. These are mostly vacant rural lots and include many of the circular parcels in the neighborhood, as well as larger parcels in the northeastern and southwestern portions of the area.

Although 10% of Circle Oaks is zoned as agriculture, the majority of the land in those parcels is no longer actively cultivated. Much of the agricultural lands are non-operational vineyards that are also surrounded by forested lands. Residential parcels account for approximately 20%. Most of the residential lands are concentrated in the eastern part of the area on steeper slopes, arranged in circular plots with forested areas in between. There are also larger residential parcels in the southeastern corner of the area. In the northwestern corner is the water district, which is technically zoned as commercial or non-taxable improved land but is a private public entity. These lands are adjacent to vacant and residential lands.

Though 10% of Circle Oaks is zoned as agriculture, most of the land in those parcels is not actively cultivated. Much of the agricultural lands with vineyards are also surrounded by forested lands.

Most of the residential lands are concentrated in the eastern part of the area on steeper slopes, arranged in circular plots with forested areas in between. This densely packed neighborhood is a critical area for fire protection. There are also larger residential parcels in the southeastern corner of the area.

2% of the total parcel area is designated as Commercial. This commercial land falls within a single parcel in the northwestern corner that is designated as non-taxable improved land.

Table 1. Number of parcels and land use within the Circle Oaks FSC (Napa County GIS Open Data Portal)

Category	Acres	Parcel Count	Percent (%)
Agricultural	114	3	10%
VINEYARD LAND >5 AC	104	2	9%
VINEYARD > 5 AC W/1 RES	10	1	1%
Residential	236	207	20%
RURAL RES < 5 AC W/1 RES	51	187	4%
RURAL RES > 5 AC W/1 RES	86	11	7%
CONDOMIN/TOWNHOUSE COMMON AREA	99	9	8%
Vacant	751	182	64%
VACANT LAND RURAL	486	168	42%
VACANT RURAL W/MISC IMPS	263	4	22%
VACANT LAND NON-TAXABLE	2	10	0.2%
Commercial	20	1	2%
IMPRVD LAND NON-TAXABLE	20	1	2%

C. Topography

Topographic features - such as slope and aspect (orientation with respect to sun and wind) and the overall form of the land - have a profound effect on fire behavior. Topography affects a wildfire's intensity, direction, and rate of spread. An area's topography also affects local winds, which are either "bent" or intensified by topographic features. Topographic features can also induce daily upslope and downslope winds. The speed, regularity, and direction of these winds (and other winds) directly influence the direction of wildfire spread and the shape of the flaming front.

For example, fires burning on flat or gently sloping areas tend to burn more slowly and to spread more horizontally than fires burning on steep slopes. This makes ridgetop positions more vulnerable than valleys.

The area encompasses a broad range of slopes and aspects, though the area is mostly rugged. Slopes range from 0% at the western portion of Circle Oaks to greater than 95% on the eastern slopes of the main ridgeline. The area is defined by the steep ridge along the western edge of the area that separates the Circle Oak Community from Foss Valley. This ridge is an important control location. Northwest of the ridge is another small peak with a saddle between the ridge and peak. Saddles are typically vulnerable during wildfire events. There are several smaller canyons running off the eastern side of the ridge. These canyons and landings are where most of the community is situated. Capell Creek runs northwest to southeast across the area to the north of the community. It runs parallel to Circle Oaks Drive. There are several small canyons that run southwest to northeast perpendicular to the ridge that dominates the area. These canyons are unnamed.



Photo 4. Looking down a saddle and dry creek bed area from dead end road near Circle Oaks Dr.

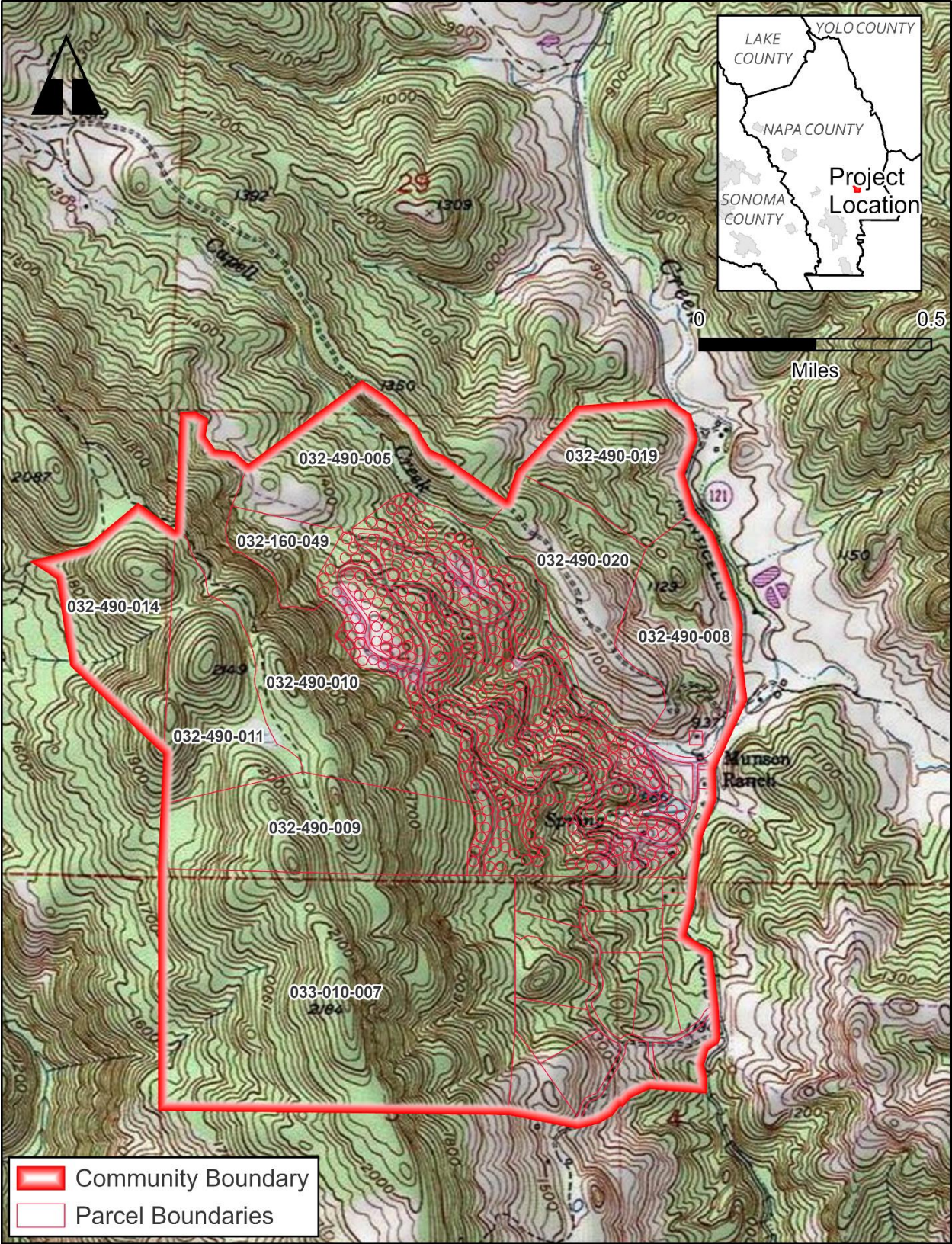


Figure 3. USGS Topographic map of the Circle Oaks area (boundary shown in red).

1. Orientation of the Canyons

There are several small canyons that run southwest to northeast perpendicular to the ridge that dominates the area. These canyons are unnamed.

The Circle Oaks area is mostly in the Moskowitz Reservoir Watershed but also contains portions of the Milliken Reservoir and Wooden Valley Creek watersheds. Capell Creek is the main creek that runs through the area, with one other intermittent stream that starts in the northwest portion of Circle Oaks and runs into Milliken Creek to the west.

More details of the terrain follow in the discussion of weather.

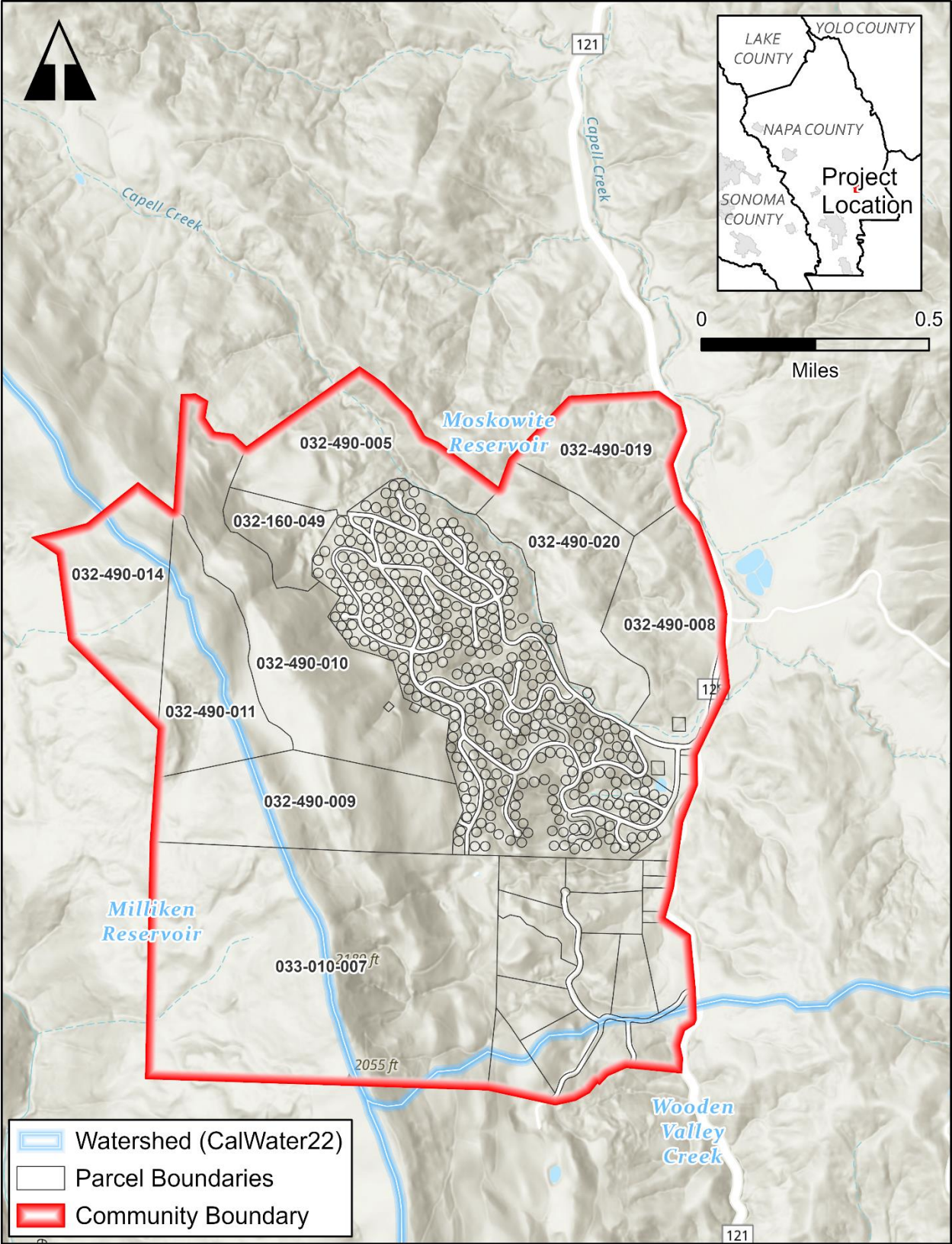


Figure 4. Watershed map of the Circle Oaks area (boundary shown in red).

D. Weather

Weather conditions significantly impact both the potential for ignition and the rate, intensity, and direction in which fires burn. The most important weather factors used to predict fire behavior are wind, temperature, and humidity.

1. Temperatures and Humidities

Summer days are usually warm but comfortable; temperatures normally range from lows in the 40's and to highs in the 90's, with an occasional high reaching a maximum of 105 degrees Fahrenheit. Humidity can drop to single digits in the summer and fall.

The Circle Oaks area of interest lies in a relatively protected area and would be subject to occasional episodes of several still, stagnant air formed by stationary highs during summer months. This overall weather pattern -- characterized by continuous high temperatures and low relative humidities -- enhances the possibilities of ignition, extreme fire behavior and extreme resistance to fire control.

2. Winds

The most important influence on fire behavior is wind. Wind can greatly affect the rate of fire's spread and the output of a fire. Wind increases the flammability of fuels both by removing moisture through evaporation and by angling the flames so that they preheat the fuels in the fire's path. The direction and velocity of winds can also control the direction and rate of the fire's spread. Winds can carry embers and firebrands downwind that can ignite spot fires ahead of the primary front. Gusty winds cause a fire to burn erratically and make it more difficult to contain.

Wind will tend to follow the pattern of least resistance and is therefore frequently deflected and divided by landforms. Canyon slopes produce pronounced daily up-canyon and down-slope winds caused by differential heating and cooling of air during the day. This occurs region-wide and on a local scale.

Much of the area is characterized by the northwest-to-southeast aligned ridge and small peak. This ridge slows the regionally dominated southwesterly winds. However, strong winds from the northeast could produce strong up-slope and erratic winds.

The winds that create the most severe fire danger typically blow from the north, usually in October. Winds from the east and north bring low humidity and elevated fire danger and can wreak havoc on the forested and chaparral covered areas, causing fire to spread to the south. These winds are the same ones that blew during the largest fires in Napa County; an unnamed fire in 1939 follows the pattern of larger fires influenced by these northeasterly winds. Those larger fires include the C. HANLY fire in 1964 along with its companion fire in 1965, the P.G. & E. #10 fire. Again, in 1976 and 1982, two fires, the IDA CLAYTON fire and the SILVERADO fire also

started under these conditions. More recently, the TUBBS and NUNS fire in 2017 and the GLASS fire in 2020 also followed this pattern and burned substantial parts of Napa County, very near the Circle Oaks area of interest as well as surrounding lands.

These northeasterly events generally last from 15 to 35 hours, but in 2000, 2003, 2005, 2017, 2018, 2019, and 2020 these events in October and November lasted for 5 to 14 days. This type of wind could “push” a fire from the upper eastern slopes of Napa Valley down across into the vineyards on the valley floor to the higher slopes to the west and beyond into Sonoma County.

Any southwestern-facing aspect of the Circle Oaks area can exacerbate its risk from the Diablo winds. This is because these foehn or subsiding winds accelerate with decreasing elevation.

3. Climate Change

Wildfires are predicted to become more destructive and deadly because of the effects of climate change, fuel accumulation, and a history of fire suppression.² Climate change continues to drive hotter and drier conditions across California, precipitating earlier and prolonged fire seasons with more annual days of hot, dry heat conducive to wildfires. These patterns also increase likelihood of drought conditions that turn vegetative fuels into kindling. Indeed, Northern California has been even more subject to lengthened fire seasons than has Southern California, with even stronger trends toward earlier fire season onset as fuel moistures decline due to increased heat.³ Increased drought conditions provide greater opportunities for arson, which is another common source of wildfire.⁴ Moreover, hotter temperatures increase lightning incidence, already the leading cause of wildfires throughout the state and the instigator of the 2020 LNU Lightning Complex fires that burned 363,220 acres across Napa, Sonoma, Solano, Lake, and Yolo Counties.

In addition to encouraging higher temperatures and lower humidities conducive to wildfires, climate change also produces more intense winds during fire season.

These increasingly dry, hot, and windy weather conditions have unsurprisingly produced higher incidence and intensity of wildfires in recent years, a trend that is likely to be exacerbated by continued warming. In recent years, the area burned by wildfire in California has dramatically increased and unprecedented fires are occurring in sensitive ecosystems like higher elevations and along the coast. In addition, many of California’s wildfires are burning hotter and more intensely than observed in recent history. Fires are concentrating in upper watersheds, further

² <https://doi.org/10.1038/s41467-024-46702-0>

Keider MR, et al. 2024 “Fire suppression makes wildfires more severe and accentuates impacts of climate change and fuel accumulation”

³ <https://www.science.org/doi/10.1126/sciadv.adt2041>

Madakumbura, GD, et al. 2025. “Anthropogenic warming drives earlier wildfire season onset in California”

⁴ [City of Berkeley CWPP](#) pg. 11.

compounding crises like drought. Last, a long history of containing less-extreme wildfires ensures that the remaining wildfires burn under more extreme conditions and more severe, with burned areas increasing over time.²

In 2021, California experienced 4 of the 20 largest wildfires in our history, with 8,000 wildfires burning over 2.5 million acres across the state. The 2021 fire season also marks the first time that fire crossed the granite crest of the Sierra, California's largest natural fuel break. A model developed for California's Fourth Climate Change Assessment projected up to a 77 percent increase in average area burned and a 50 percent increase in the frequency of fires exceeding 25,000 acres by 2100.

E. Vegetation

The 2016 Vegetation Map of Napa County⁵ (updated from the 2004 version) was used as reference for this evaluation. There are six main vegetation categories within the Circle Oaks area along with three non-veg types (developed, streams and reservoirs, and other). The major vegetation categories mapped are listed in Table 2. *Note: the tables and maps presented here reflect pre-2020 conditions.*



Photo 5. Country Club and Ridgecrest intersection showing oak woodlands in the background with mostly non-native plants in the foreground that is captured as “other” in the vegetation table.

Table 2. Vegetation acres by major vegetation categories within the Circle Oaks area (Vegetation Map of Napa County).

Vegetation Major Category	Acres	Percent (%)
Agriculture	14	1%
Developed	116	10%
Grassland	40	3%
Oak woodlands	732	63%
Other	38	3%
Riparian woodland	28	2%
Shrubland	200	17%
Streams and reservoirs	0.4	0.03%
Wetlands	2	0.2%

⁵ <https://data-cdfw.opendata.arcgis.com/>

In addition, the landscaped environment surrounding buildings and homes includes vegetation not captured in the vegetation table.



Photo 6. Unnamed small canyon with scattered piles of vegetation treatments from prior fuel reduction work.

Each vegetation type burns differently, based on the amount of biomass available to burn, the distribution of biomass in the vegetation, as well as the moisture and oil content of the foliage and dead material. A discussion on each major type follows the map on the next page.

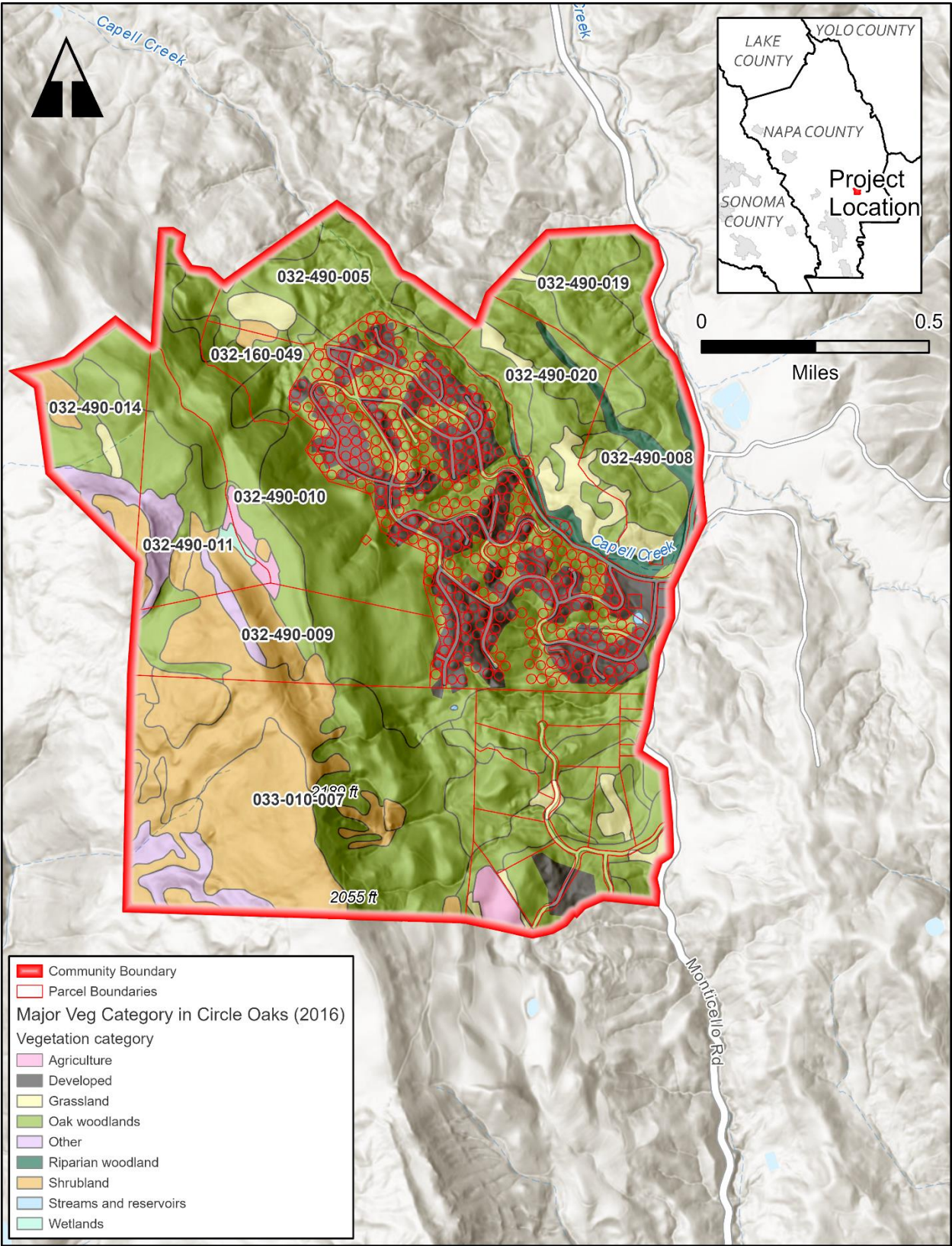


Figure 5. Vegetation map – Circle Oaks area (boundary shown in red) (Napa Vegetation Map, 2016).

Oak Woodland

63% of the Circle Oaks area is mapped as Oak Woodland, which occurs on the flanks of hillsides and ridgetops throughout the area. In most areas, dense canopies, with little or no grass or shrubs under the canopies, typify these oak woodlands. The tree canopy in the lower reaches of the drainages is dominated by Black oak, but also includes Blue oak, coast live oak, madrone, California bay, and occasional pines and maples. In more exposed areas, where the canopy opens up, shrubs are dominant in the understory.

Fire intensity, flame lengths, and scorch heights are usually low in oak woodlands. Slow-burning surface fires (approximately two feet per minute) are carried in the compact leaf litter layer. Low flame heights (less than one foot) are the rule. Only under severe weather conditions, high temperatures, low humidities, and high winds do the fuels pose fire hazards in this vegetation type. Leisurely spread rates, combined with the relatively short flame lengths of the predicted fire behavior produce a manageable, moderate fire hazard.

However, when shrubs are allowed to develop under the hardwoods, these fuels can pose fire hazards under severe weather conditions, e.g. those conditions involving high temperatures, low humidities, and high winds. If the shrubs develop under oaks, torching is likely to occur because of the ladder fuels that allow a fire to burn from the shrub to the tree crowns. Foliage of both bay and coast live oak can be very flammable when fire reaches the crowns.

Shrubland

Shrubland occupies 17% of the Circle Oaks area and can be found at higher elevations in the area's southwestern corner, transitioning into oak woodlands on the slopes to the east. While these distinct areas were mapped as Shrubland, brush exists throughout and often contributes to other vegetation types described in this document. The specific mapped alliances include:

- California Bay - Leather Oak - (Rhamnus spp. (Foothill Pine)) Mesic Serpentine
- Chamise Alliance
- Mixed Manzanita - (Interior Live Oak -California Bay - Chamise) West County
- Sclerophyllous Shrubland

Brush produces severe fire behavior, with flames longer than 20 feet in length. Intense, fast-spreading fires in chaparral burn the foliage as well as the live and dead fine woody material in the brush crowns. The foliage is highly flammable and dead woody material in the stands significantly contributes to increased fire intensity.

This fuel type constitutes the highest hazard. Direct attack is not possible, and containment efforts would need to rely on backfiring or suppression strategies other than line building because the perimeter of the fire is likely to grow faster than a line could be built. In addition, spotting is likely in chaparral which will present even more challenges to suppression efforts.

Agriculture (Cropland/Vineyards)

1% of the land in the Circle Oaks area is mapped as agriculture. This occurs in a few large sections, mostly in the western and southern parts of Circle Oaks. All of these agricultural areas are vineyards.

Fires are usually benign in croplands or vineyards. In the case of vineyards, biomass is concentrated in live vines, with a mowed or bare soil surface. A fire can spread quickly through the vineyard where there is a ground cover. However, this situation is rare. Vineyards were instrumental in stopping the Howell Mountain fire in 1983, and formed the edges of fires in the Tubbs, Nuns, and Kincadee Fires, but were part of the contagion in the Cavedale Fire in Napa in 1996. Vineyards often have access roads on the perimeter and within the interior, further aiding containment. With all that said, however, in the Glass Fire of 2020, many vineyards were burned through.

Annual Grasslands (Herbaceous)

Accounting for 3% of the Circle Oaks area, annual grasslands were mapped along the edges of vineyards or as pockets in oak woodlands. Grasses are flash fuels and fire spread can be rapid through herbaceous areas, but these fires can be easy to spot and contain.

Landscaping

Landscaped areas -- being closest to homes -- may make the greatest impact on survivability of a house during a fire arising in wildlands. Landscaped areas either (1) are moist, thus will not likely burn; (2) contain large amounts of fuel which will burn with great intensity; or (3) are landscaped with fire resistant plants, and only burn slowly with little heat release.

While research results regarding fire resistance of landscape plants are meager, several important generalities have surfaced. First, the overall volume of biomass as well as the spacing and design of the garden is more critical than the species selected. Horizontal spaces between planting masses and the house are important components of a fire safe landscape. Similarly, vertical spacing between tree branches, shrubs, ground cover and the structure (particularly windows) are also part of a well-designed garden.

Maintenance of landscaped areas is necessary to remove dead material and to maintain vertical and horizontal spaces. Neglect of landscape maintenance can lead to a significant worsening of the fire hazard closest to the structure.

Landscaping in the Circle Oaks FSC is generally consistent with fire safety principles. A few residences in each neighborhood have abundant vegetation that can endanger adjacent and nearby residents if they are within a few hundred feet of each other.

F. Predicted Fire Behavior

Flame lengths are expected to be high (over 12 feet) because of the combination of heavy fuels, especially in the mixed forest and chaparral. Where a well-developed understory is present under the oak canopies, fires are also expected to burn with high intensity.

Fires can also be expected to burn fast when they are propelled by dry grass and chaparral. Vineyards can moderate both the fire intensity and fire spread but would not provide good suppression opportunities for safe evacuation because they are small in comparison to the tracts of uninterrupted vegetation.

The distribution within an area of expected flame lengths can be predicted using public-domain software and data. FlamMap⁶ was used to model fire behavior using a county-wide dataset developed from the Napa County Vegetation Map⁷.

1. Predicted Flame Lengths

Long flame lengths can be expected in dense oak forests where understory is present. Vineyards and areas of well-maintained defensible space can be expected to burn with low intensity even under the most extreme conditions. Flame length most directly relates to the ability of a firefighter to safely attack a fire; flames longer than eight feet prevent safe, effective direct attack. Flame length is also most closely related to structural damage – the higher the flame length, the more likely a structure could be lost.

⁶ <https://research.fs.usda.gov/firelab/products/dataandtools/flammap>

⁷ <https://gisdata.napacounty.gov/>

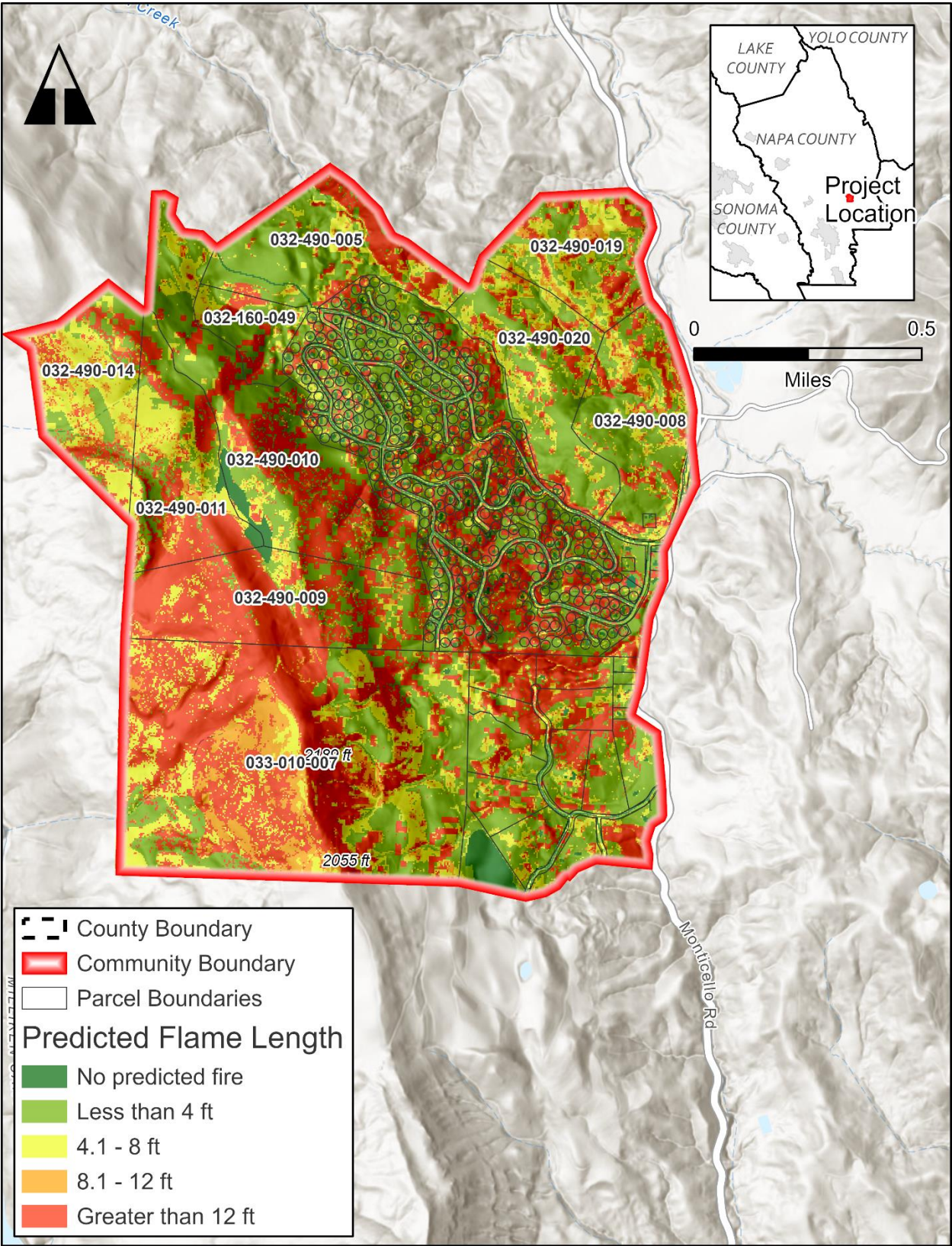


Figure 6. Predicted flame length (feet) map (based on Napa Veg Map-based landscape version 2-2021 with a Northeast wind at 15 mph with low fuel moistures). Circle Oaks area boundary (shown in red).

41% of the area has a predicted flame length of over 8 feet when predicting for a northeasterly wind at 15 miles per hour. This leaves about 59% of the area predicted to have less than 8-foot flame lengths. Of those areas, 38% are predicted to have less than 4-foot flame lengths.

The higher flame lengths are concentrated on the steep slopes in the southwestern corner of the area, on the slopes immediately to the west of the residential areas, and in the southern part of the residential areas. The lower flame lengths are generally found in areas of lower slope or in more sheltered locations, and more importantly surrounding the vineyards (in which no fire is predicted due to the limitations of the predictive software).

Note that the no predicted fire category accounts for agriculture and developed areas (includes vegetation in residential parcels) that may indeed burn – as evidenced in many of the recent fires in Napa County. In particular, no-till vineyards provide more potential fuels than vineyards with bare earth.

Table 3. Predicted flame length by category and area (in acres) within the Circle Oaks area (based on Napa Veg Map-based landscape version 2-2021 with a Northeast wind at 15 mph with low fuel moistures).

Predicted Flame Length	Acres	Percent (%)
No predicted fire	42	4%
Less than 4 ft	443	38%
4.1 – 8 ft	199	17%
8.1 – 12 ft	81	7%
Greater than 12 ft	1169	34%

2. Predicted Crown Fire Activity

While both the coniferous and oak forests can torch, hardwoods are less likely to have fire reach to the tree crowns, unless vegetation is burning underneath. Crowning potential is crucial. When fires spread into crowns, thousands of embers are produced and lofted into ignitable fuels, often overwhelming fire suppression personnel.

For the Circle Oaks area, a relatively small area is predicted to have fire spread within the tree canopy (tree-to-tree or crown fire), which is rare and virtually un-heard of in hardwoods. Areas with higher density of coniferous forests are most at risk of torching and crown fires. These areas are located throughout the area of interest and persist on steep ridges.

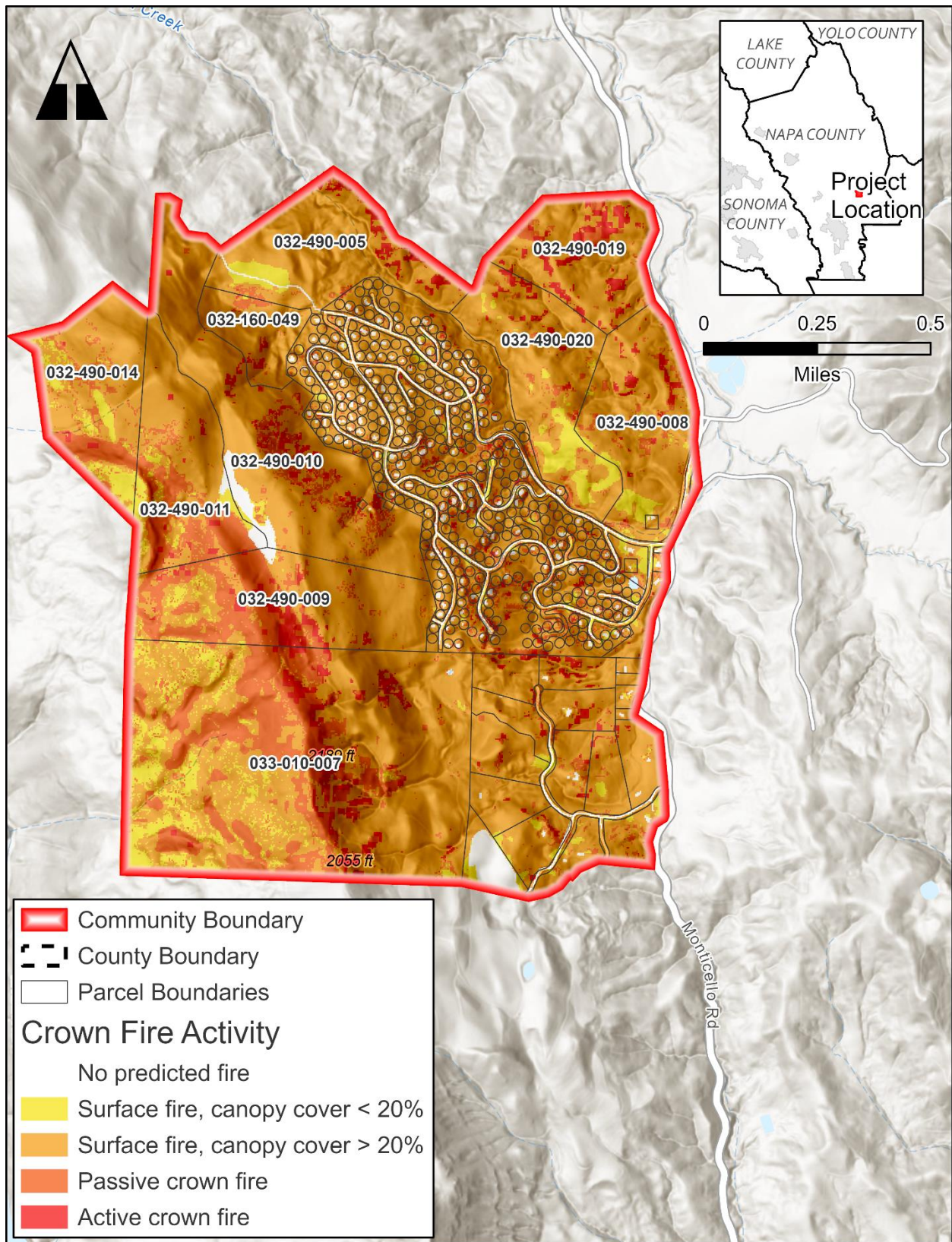


Figure 7. Predicted crown fire activity map (based on LANDFIRE landscape version 2.0 with a Northeast wind at 15 mph with low fuel moistures). Circle Oaks area boundary (shown in red).

Circle Oaks Fire Safe Council Community Wildfire Protection Plan

Table 4. Predicted crown fire activity (or fire type) by category and area (in acres) within the Circle Oaks area (based on Napa Veg Map-based landscape version 2-2021 with a Northeast wind at 15 mph with low fuel moistures).

Crown Fire Activity	Acres	Percent (%)
No predicted fire	42	4%
Surface fire canopy cover < 20%	76	7%
Surface fire with canopy > 20%	839	72%
Torching fire (passive crown fire)	163	14%
Crown fire	48	4%

A combination of no predicted fire and surface fire in a canopy cover of less than 20% accounts for approximately 11% of the Circle Oaks area. These areas are concentrated in the agricultural fields as well as grassland and shrubland areas.

Of the areas predicted to have only a surface fire, we identified those areas with a higher canopy (over 20%) to highlight areas that do not torch. These areas accounted for 72% of the predicted surface fire. Areas where torching is predicted account for 14% of the area. These areas are predominately on mid-slopes, ridgelines, and in other places where the vegetation is not protected from strong winds. They occur mostly on slopes and ridges in the southwestern corner of the Circle Oaks area, but also in small patches in and around the residential areas. And lastly 4% of the area is predicted to have active crown fire. While this is a relatively low number, in comparison to other communities, this is still some risk of a crown fire. Field verification is recommended. Active crown fire is predicted on the steepest northeast-facing slopes throughout the area, but it is particularly abundant in hills of the southwest and the northeast.

G. Fire History

In the past decades, three fires have been recorded near the Circle Oaks area. These include the large and wide-ranging Hennessy fire of 2020, the Atlas fire of 2017, and the Atlas Peak fire of 1981.

Large fires have impacted most of the area within the Circle Oaks neighborhood. The fire history map shows that much of the area within the Circle Oaks boundary has been visited by fire in either 2017 or 2020, suggesting a relatively lower fuel load than in other areas that have not experienced fire recently. However, the most recent fire that overlaps with the majority of the residential parcels is the Atlas Peak fire in 1981, so the fuel load there may be higher relative to other areas.

Table 5. List of recorded fires near the Circle Oaks area (CAL FIRE, 2020).

Year	Month	Date	Fire Name	Cause	Acres	Comments
1981	June	6/22/1981	ATLAS PEAK	Arson	33,606.4	
2017	October	10/8/2017	ATLAS	Unknown/ Unidentified	51,624.7	Southern Complex
2020	August	8/17/2020	HENNESSEY	Lightning	305,352.0	Part of the LNU LIGHTNING COMPLEX

A recurring history of large fires (over 10,000 acres in size), which typically burn for several days, has been well established in Napa County. The typical period between such large fires is approximately 20-30 years. Like much of California, fires in Napa County are almost entirely caused by human-related accidental ignitions. With that said, in 2020, several lightning-strike fires burned in Napa County and west into Sonoma County.

In the past, fires did not involve large numbers of structures because of the historic rural nature of Napa County; however, structure damage is now a common concern whenever wildland fires of any size occur.

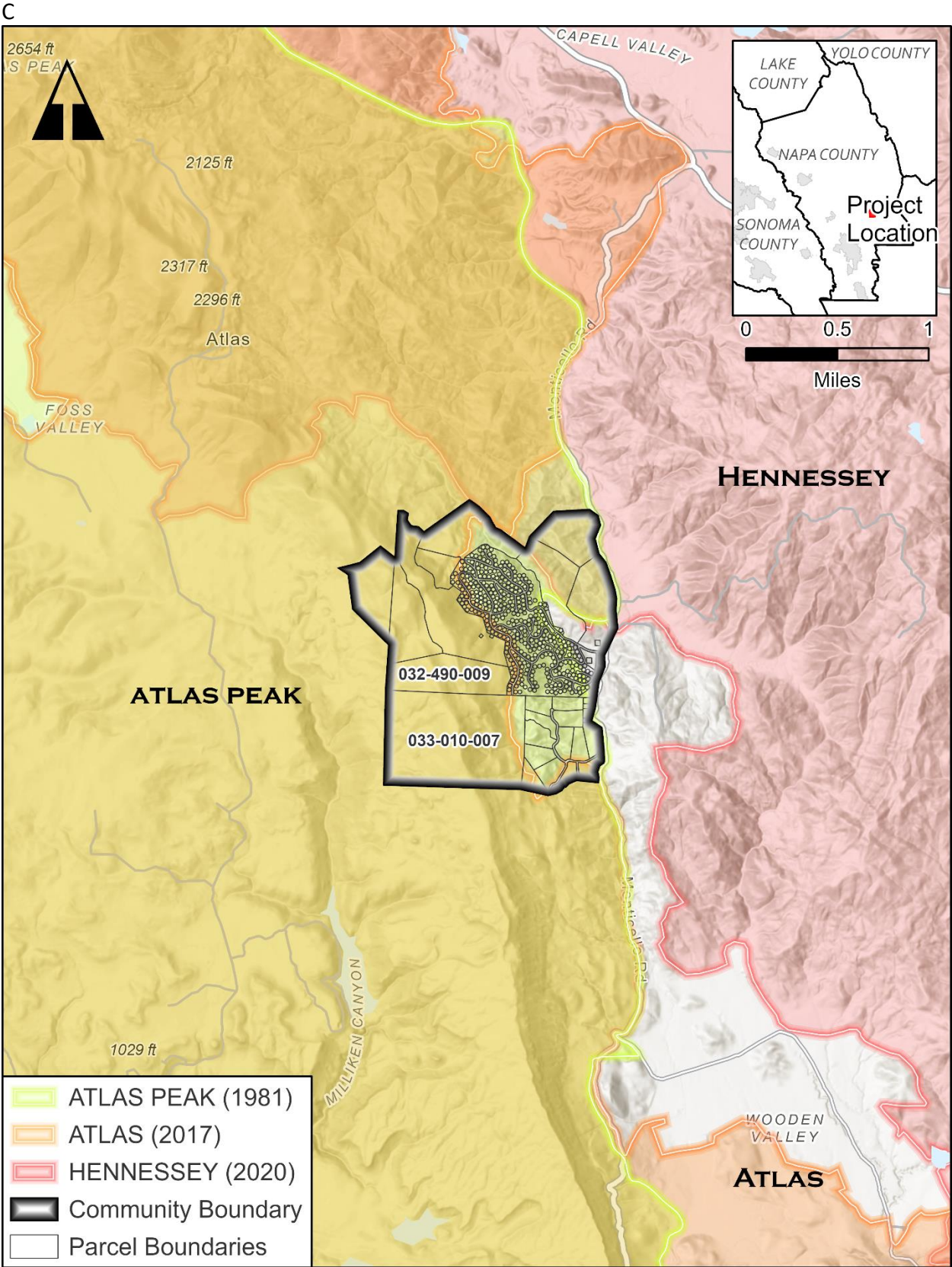


Figure 8. Fire perimeters/fire history map of Circle Oaks area (CAL FIRE FRAP, 2019).

H. Access

Access into the Circle Oaks area is limited. Circle Oaks Drive is the road into the main community and is one-way-in, one-way-out off Hwy 121. Further into the neighborhood, there are several smaller roads and driveways. This patchwork of driveways into the interior are dead ends or loop back to Circle Oaks Drive. There are no other means of egress. Further South, there is a smaller community off Deer Run Lane. This is also accessed off Hwy 121.

All other roads are barely two lanes with no shoulders. Pavement (road surface) is generally in good shape; some curves are simultaneously sharp and steep. Driveways are generally long. Some residences are served by long shared driveways behind locked gates. Locked gates are common and can further delay emergency response. Locked gates also discourage/prevent inspection by local fire authorities.

Regardless of the condition of the roadbed, access can be blocked by roadside vegetation. Trees can fall, blocking passage or vegetation can burn with such intensity that emergency response and evacuation cannot occur.

Most roadsides have abundant roadside vegetation. This vegetation could block the road while burning, and after, as trees fall (a common event during a fire). Roadside vegetation has not been maintained on many of the roads or driveways within the Circle Oaks area and could prove significant in the event of a fire.

See map on next page.

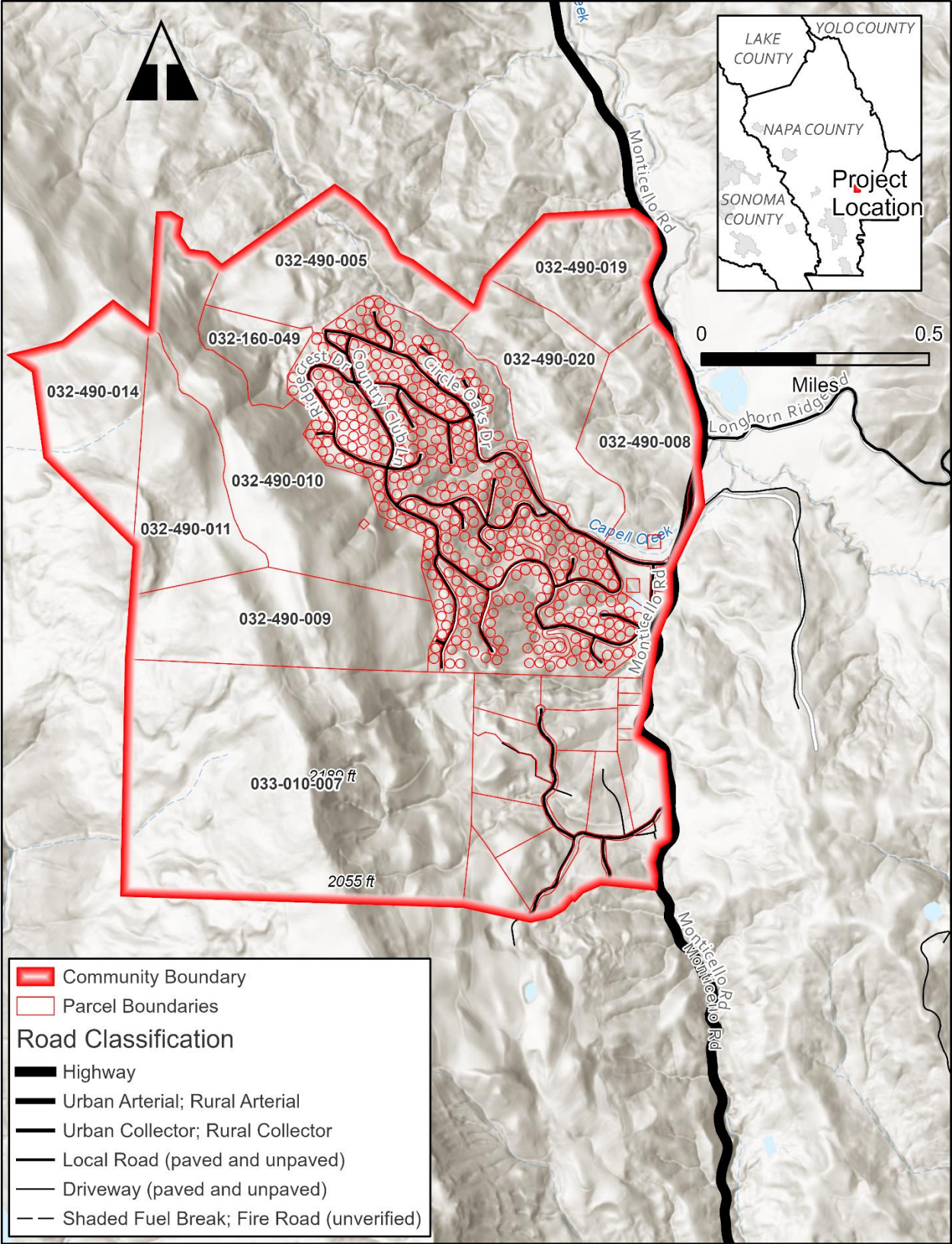


Figure 9. Access and street map of Circle Oaks area (shown with red outline).

I. Hazard Ranking

Almost the entirety of the Circle Oaks area is within CAL FIRE’s State Responsibility Area (SRA). CAL FIRE’s fire hazard severity assessment shows 98% of the area is categorized as a **Very High Fire Hazard Severity Zone**. 2% of the area was classified as Moderate.

See map on next page.

Table 6. Fire hazard severity zone by area (acres) within Circle Oaks area boundary (CAL FIRE, 2023 – current version).

Fire Hazard Severity Zone (CAL FIRE)	Acres	Percent (%)
Moderate	20	2%
High	0	0%
Very High	1149	98%
Low Hazard or Outside of SRA	.001	1%

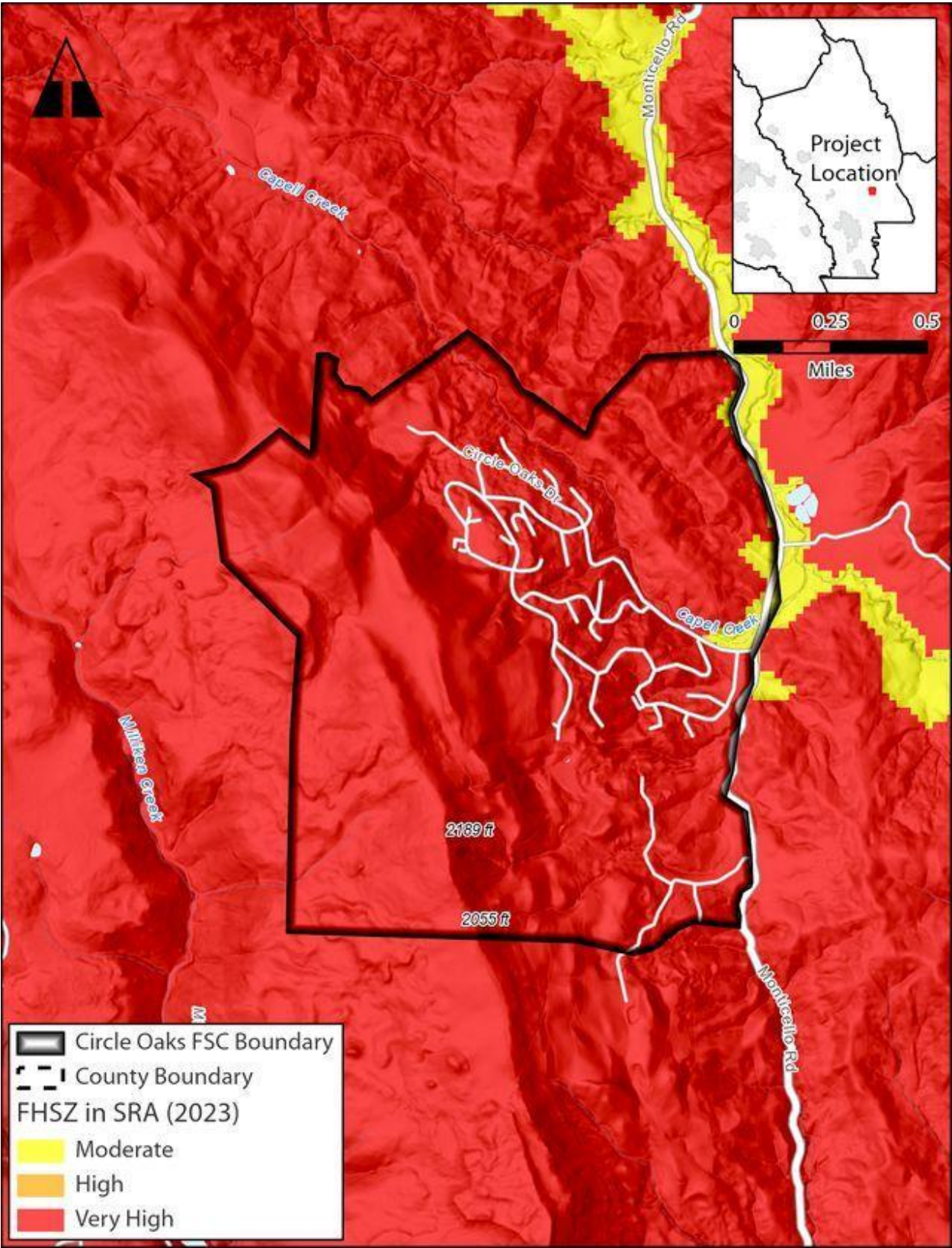


Figure 10. Distribution of Fire Hazard Severity Zones (CAL FIRE, 2023).

J. Wildfire Response and Suppression Capabilities

In support of this Plan, an assessment of the wildfire response and suppression capabilities within the Circle Oaks FSC was undertaken to evaluate whether the current resources, organization, and strategies are appropriate for the expected wildfire impingements, and if not, what requires improvement. The following was evaluated:

- Emergency social services support capabilities
- Post fire recovery support capabilities
- Other response support (utilities, public works, etc.)

From this evaluation the following has been determined that there are many key support systems for response, fire suppression, and post-fire recovery within the nearby and larger vicinity of the Circle Oaks FSC.

Key resources and support include:

- The South Division of the Sonoma-Lake-Napa Unit (or LNU) is defined by the boundaries of Napa County and is comprised of 3 field battalions. LNU has primary responsibility for more than 2 million acres of CAL FIRE Direct Protection Area (DPA) lands. LNU has the third largest population living within CAL FIRE DPA, has the second largest amount of Fires by Cause in the state and ranks number 2 in total annual fires (Sonoma Lake-Napa (LNU) Unit's Strategic Fire Plan, 2021). There are 7 fire stations within Napa County, with the closest being Capell Valley/Napa Station 14 that is within 5 miles of the Circle Oaks FSC.
- Circle Oaks is surrounded on all sides by other Fire Safe Councils and the City of Napa, all of which have ongoing or complete CWPPs.
- Work across agencies and partners for common emergency responder incident response planning and ingress projects from law enforcement, EMS, and Fireline responders to Incident Management Teams for situational and operational strategy and tactical awareness.
- The utility company of PGE is actively undertaking fire mitigation work including vegetation management to improve access and reduce fire ignitions and spread.

Emergency fire response, water supplies and resident evacuation routes:

- A reservoir 3.4 miles to NW provides nearest possible resource for bucket helicopters, and Lake Berryessa is 6.5 miles to the NW
- Neighborhood has hydrants.
- Neighborhood has only one existing access to Monticello Road (aka Hwy 121)
- Neighborhood is serviced by 2 lane roads and 20' streets.
- Neighborhood has mature trees near roads, requiring regular tree pruning to avoid overhanging vegetation interfering with emergency fire access.

Due to past fire activity, this region has many local NGO's and agencies working towards fire mitigation, preparedness, and post-fire support response. Examples include:

- CERT-Community Emergency Response Team, Napa County
- CART-Napa Community Animal Response Team
- Napa County programs (RCD, VFDs)
- City of Napa programs (COAD, LE, etc.)
- Napa Firewise

K. Projects

The elements of this plan have been arrived at through a collaborative process, with the understanding that some elements of this plan will require outside funding or other types of resources to complete. Work from this CWPP will be ongoing and while the details and status of these projects are listed below, further descriptions can be found on the project table.

The following section will walk through completed projects, projects that are currently planned or in-progress, and finally a list of recommended projects that will need additional support to plan, fund, and implement. Some of these recommended projects are at the conceptual phase only while many are further along in their progress towards implementation. Once a project is implemented, many will shift into a maintenance phase, where continued work and follow-up will be needed in the years to come.

1. Completed Projects

- NFPA Firewise USA recognition obtained
- Circle Oaks Perimeter Fuel Break
- Circle Oaks Perimeter Fuel Break (post-storm)
- Circle Oaks-Westgate to Circle R Ranch
- Circle Oaks Well Head to Vineyard Fire Road
- Circle Oaks North Ridge Fire Road
- Juniper Dr to Waters Dr Fire Road
- Circle Oaks to Circle R Ranch Fire Road
- Hwy 121 Monticello (Vichy to Circle Oaks) Roadside
- Circle Oaks Hwy 121 Adjacent Fire Road

Complete

- Fire roads
- Roadside Expanded



Figure 11. Map and information on the completed projects (Napa Firewise Project Dashboard, 2025).

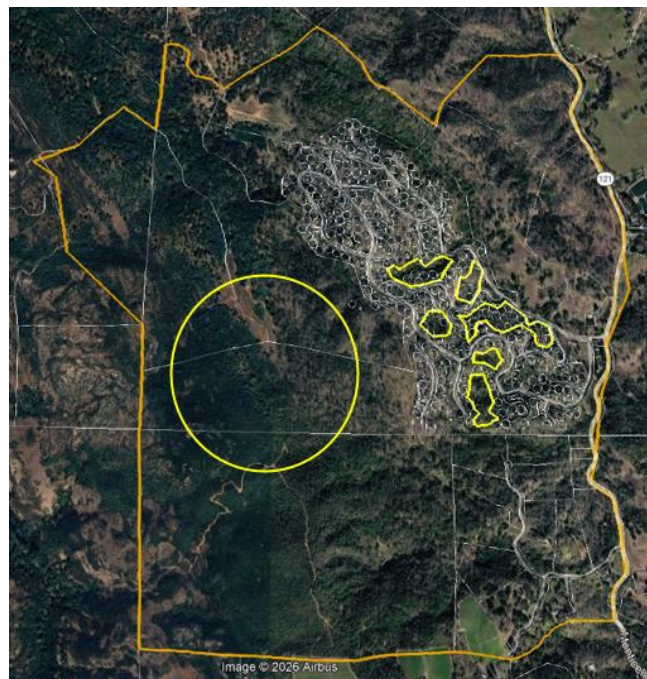




Figure 12. Maps showing areas actively grazed in the community. These are listed as planned projects that either extend active grazing or are planned to be maintained through rotation. Upper photo shows locations of HOA common areas grazed. Lower photo is Hall Ranch Road that would connect grazed areas to form a fuel break from Circle Oaks to R Ranch in the adjacent Capell Valley FSC.

2. Planned and Proposed Projects

Owing to NCCF and other funding, a variety of fuel management projects are now planned or proposed for the Circle Oaks region, including a fire road, a perimeter fuel break, and grazing. A forest health project is shown, but this is a remnant of the county-wide CWPP that does not have immediate plans for funding.

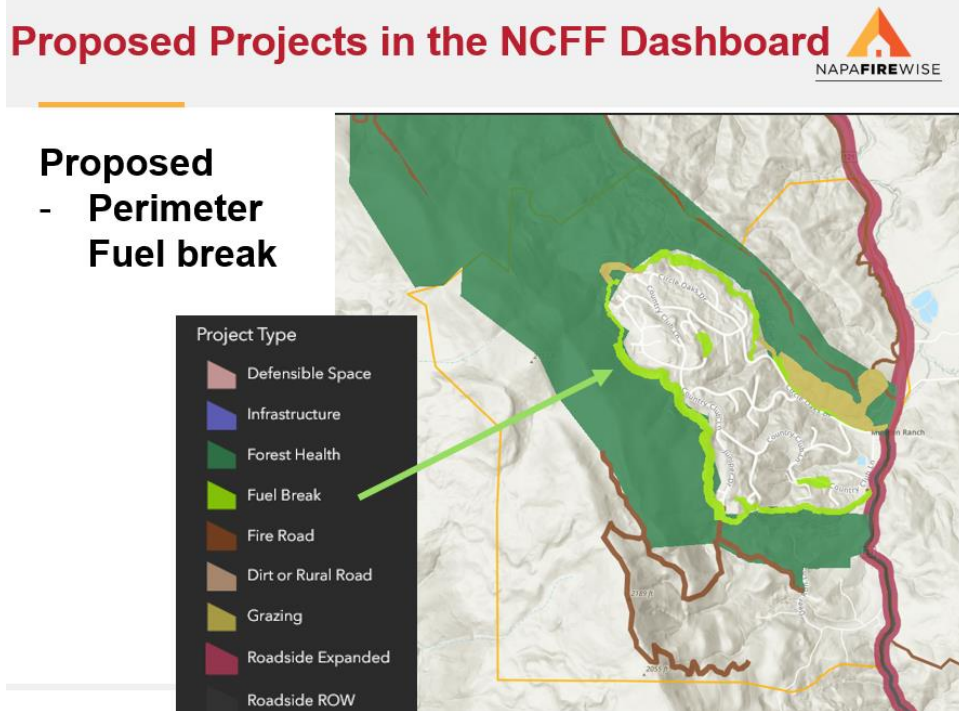


Figure 13. Map of planned and proposed fuel break projects for Circle Oaks area. (Napa Firewise Project Dashboard, 2025).

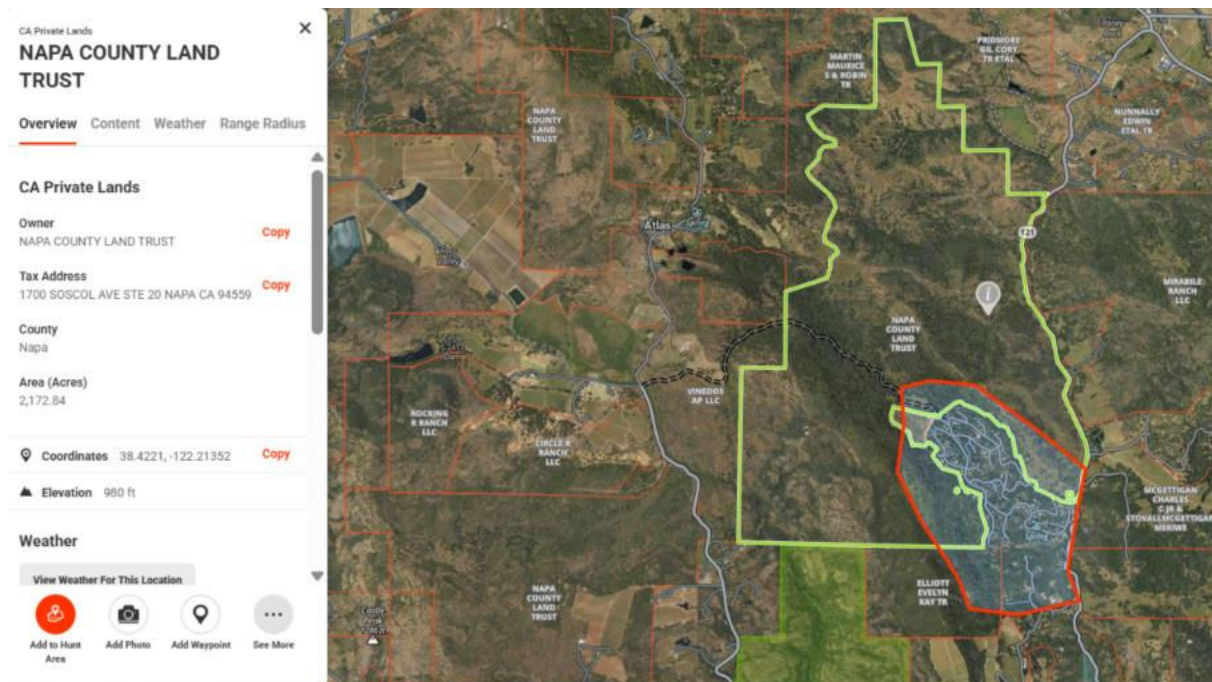


Figure 14. Map showing Napa County Land Trust ownership which surrounds the red circle oaks community from the north and west. These areas are proposed or are already actively being managed, especially through grazing.

Proposed Projects in the NCCFF Dashboard

Planned – Dozer line from Juniper to Monticello

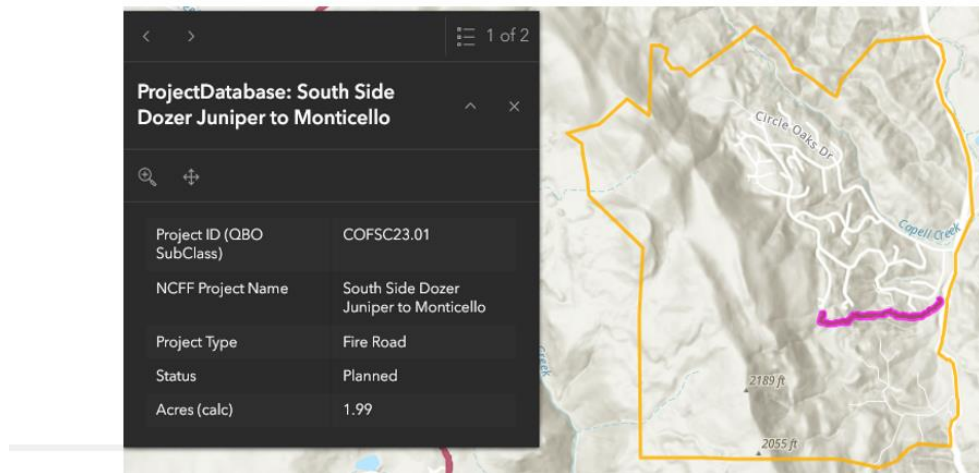


Figure 15. Map of planned dozer line project for Circle Oaks area. (Napa Firewise Project Dashboard, 2025).

3. Recommended Projects

Many of the projects rely on education and participation and can be completed by working together as a local community (Fire Safe Council), neighbors, or individually. Others focus on access, roadways or fuel reduction actions focused on the intersection of natural areas and neighborhoods. Projects that have been planned or even applied for funding are listed below to be included for future consideration. There are also conceptual projects that include the development of partnerships or the procurement of resources before they could be completed. Developing and deepening the partnerships with Napa County Land Trust as a major property holder in the Circle Oaks Fire Safe Council is a highlighted example (see Fig. 14).

The following proposed projects organized into three categories: Vegetation Management, Public Education and Communication (including Ignition Reduction, Home Hardening and Defensible Space), and Suppression Support (including Emergency Response Preparedness). Appendix N contains Circle Oaks FSC's three-year plan for its NFPA Firewise USA Recognition, which is also reflected in the projects listed below.

4. Project Table

Table 7. Projects

These tables are another way to represent the planned and proposed projects for the Circle Oaks FSC CWPP. The prioritization follows conversations with the FSC members and is based on projects that protect life and safety first.

Project name	Project Type	Location	Priority	Project Description
Vegetation Management				
HOA Common Areas	Fuel Break/Grazing	Throughout HOA	Moderate	Continue grazing in HOA Circle Oaks common areas. Provide support by supplying water for grazing animals and seek funding.
Land Trust Fuel Management	Fuel Break/Grazing	Boarders of FSC	Moderate	Continue grazing in adjacent areas outside HOA (i.e. Napa County Land Trust lands). Provide support by supplying water for grazing animals and seek funding. Pretreatment for first entry included hand crews and burning, continue on rotation.
Hall Ranch Road	Fuel Break/Grazing	Along HWY 128 between Circle Oaks and R Ranch	Moderate	The roadside grazing along Hall Ranch road connects private properties and Napa Land Trust properties in a fuel break that would extend from Circle Oaks all the way through to the R-Ranch in the Capell Valley FSC.
Atlas Peak to Circle Oaks	Fuel Break	North and NW areas	Low	Seek funding to treat private acres that surround circle oaks and extend into adjacent FSC's.

Circle Oaks Fire Safe Council Community Wildfire Protection Plan

Maintain/expand access routes, roads, and dozer lines	Fire Road	Various	Moderate	Reinforce/extend existing dozer lines, fire roads, and roadside expanded including Juniper Dr to Monticello
Public Outreach and Communication				
Project name	Project Type	Location	Priority	Project Description
FSC Webpage Updates	Emergency preparedness (EP) outreach	Online	Low	Disseminate information via the COFSC webpage regarding defensible space, ignition-resistant construction and fire-safe behavior.
Napa County Chipping program	EP outreach	Countywide	Low	Promote and encourage participation in Napa County Chipping program.
Community Events: Fire Focus/NFPA Firewise	EP outreach	Circle Oaks	Moderate	Convene at least one community meeting to update on the latest fire-related programs and activities. Convene at least two board meetings to review programs and plans. Participate in a wildfire-related educational and informational meeting and disseminate information gained from the meeting to the community.
Landowner Agreements	Partnership	Circle Oaks	Moderate	Assist in getting landowner agreements so that the fuel reduction projects can take place on private lands (e.g. outside the ROWs by the roads, and other locations).

Circle Oaks Fire Safe Council Community Wildfire Protection Plan

Develop Partnerships	Partnership	Circle Oaks	Moderate	Develop partnerships and collaborations with other Fire Safe Councils, organizations such as Napa CERT to assist in improving preparedness and agencies such as the Napa County Land Trust to encourage continued sheep grazing.
Immediate Zone (Zone 0) workshop	Defensible Space	Circle Oaks	High	Hold a workshop on how to comply with the Immediate Zone (Zone 0) requirements.
Defensible Space & Home Hardening Assistance	Defensible Space	Circle Oaks	Moderate	Assist Homeowners to Assess and Achieve Proper Defensible Space & Home Hardening . Promote and encourage creation and maintenance of home hardening and defensible space Provide updated resources with changes in recommendations/codes. Use communication methods and messages that encourage participation rather than require participation.
Event: Annual picnic evacuation preparedness	EP Outreach	Circle Oaks	Moderate	Invite Napa Community Emergency Response Team to CO HOA annual picnic to discuss evacuation preparedness.

Suppression Support				
Project name	Project Type	Location	Priority	Project Description
Evacuation Planning	Evacuation/Emergency Support	Circle Oaks	Very High	Refine FSC evacuation plan; investigate alternate routes. Parking protocols during evacuation. Encourage early evacuation and development of individual evacuation plans and "Go kits"
Install: High Visibility Address Signs	Evacuation/Emergency Support	Circle Oaks	Low	Encourage installation of large, reflective address signs for all structures.
Resource Stickers for First Responders	Evacuation/Emergency Support	Circle Oaks	Low	Provide informational resource stickers for first responders.
Develop Emergency Communication Plan and Infrastructure	Evacuation/Emergency Support/Infrastructure	Circle Oaks	Moderate	Create a notification plan. Explore purchase and use of radios, installation of the a siren system, cell phone boosters, or other methods of comms like Valley Internet. Once acquired, practice communication regularly.
ID Neighbor's needs	Evacuation/Emergency Support	Circle Oaks	Moderate	Encourage community to know their neighbors' special needs. Encourage residents to self register medical baseline and vulnerable person designations with PGE. Consider other methods of informing neighbors of special needs.

Circle Oaks Fire Safe Council Community Wildfire Protection Plan

Refuge Identification	Evacuation/Emergency Support	TBD	Moderate	Identify criteria for temporary refuge areas as a last resort.
Evacuated structure tags	Evacuation/Emergency Support	Circle Oaks	Low	Obtain and make available to residents evacuation tags from Sheriff Department.
Install: MeterME (Water Flow/Storage Monitor Device)	Infrastructure	Circle Oaks	Low	Explore installation of MeterME to measure and track levels of water sources for suppression support
Alternative access routes	Access	Various	Very High	See possible routes considered in Appendix P* <i>No practical alternative residential vehicle route that exists within Circle Oaks was determined</i>
Individual (non-water based) suppression systems	Infrastructure	Circle Oaks	Low	This project would create a list of recommendations and would explore ways to decrease the cost of these systems (bulk buy discounts, use of expired products or resale of partially expired, recycle/reuse).

M. Approval Signatures

The Circle Oaks Community Wildfire Protection Plan was developed collaboratively and in consultation with interested parties, including Napa Communities Firewise Foundation, Napa County Fire Department, CAL FIRE, and the residents of the Circle Oaks community.

The Plan identifies and prioritizes areas for hazardous fuel reduction treatments and recommends other types and methods of treatments that will protect the Circle Oaks Community.

The following entities acknowledge the receipt of this Community Wildfire Protection Plan:

Acknowledged: _____ Date: _____
Amber Manfree, Supervisor, Napa County District 4

Acknowledged: _____ Date: _____
Matt Ryan, Unit Chief, CAL FIRE and Fire Chief, Napa County Fire Department

The following individuals agree with the contents of this Community Wildfire Protection Plan:

Agreed: _____ Date: _____
Christopher Thompson, Chairman of the Board, Napa Communities Firewise Foundation

Agreed: _____ Date: _____
Rick Evans, Lead, Circle Oaks Fire Safe Council

N. Appendix: NFPA Firewise 3-Year Action Plan

Year 1 – 2026

Education and Outreach Goals

1. Obtain and distribute educational information on defensible space, home hardening and preparation for fire emergencies.
2. Convene at least one community meeting and two board meetings to update on the latest fire-related programs and activities.
3. Publicize events in the greater Napa Community specific to vegetation management (such as fire-resistant planting and burn pile and prescribed burn training).
4. Promote any available Napa County Firewise Defensible Space Cost-Share Program.
5. Promote any available Napa County Chipping Program.
6. Invite residents to local Fire Resource Fairs and educational events to access home hardening information, materials, and resources, which are growing in size and becoming more robust in Napa County.

Home Hardening Goals

1. Obtain and post educational materials on webpage of best practices for structure retrofitting.
2. Disseminate information regarding any available County Cost-share Program for Home Hardening
3. Educate Residents about state and county suggested guidelines.
4. Work to improve weaknesses identified in the Risk Assessment, including reducing wooden attachments, increasing landscaping zones, and improved skirting.

Defensible Space / Fuel Reduction Goals

1. Promote any available Napa County Firewise Defensible Space Cost-Share Programs.
2. Promote any available Napa County Chipping Program with link to sign-up for free chipping on our FSC webpage.
3. Assist in getting landowner agreements so that the fuel reduction projects can take place on private lands.
4. Work to remove/reduce hazardous vegetation along driveway off Hwy 121 Monticello Road; in the mountains northeast of Napa City.

Evacuation Planning (Ex. Preparedness & Routing) and Wildfire Preparedness

1. Educate residents on installing 911-compliant reflective address signage and add informational resource stickers for first responders, indicating swimming pools, tanks and hydrants.
2. Identify and map any local emergency evacuation route alternatives to one way in/out access routes.
3. Encourage residents to know their neighbors' special needs and create a notification plan in the event of an impending evacuation order.
4. Improve the driveway off Hwy 121 that currently serves 10 homes with one way in/out access.

Year 2 - 2027

Education and Outreach Goals

1. Maintain the FSC webpage with informational and educational materials.
2. Continue to distribute educational information on defensible space, home hardening and preparation for fire emergencies.
3. Convene at least one community meeting and two board meetings to update on the latest fire-related programs and activities.
4. Identify roads with gate locks which hinder access by fire apparatus or evacuees.
5. Where roads have been cleared with grant monies, support landowners to continue to maintain clearing.
6. Continue the promotion of any available Defensible Space Cost-Share Program; encourage sign-ups.
7. Pursue funding for fuel reduction projects.
8. Where firebreaks have been cleared with grant monies, support landowners to maintain clearing
9. Continue to promote any available Napa County Chipping Program.
10. Continue to Invite residents to local Fire Resource Fairs and educational events to access home hardening information, materials, and resources, which are growing in size and becoming more robust in Napa County.

Home Hardening Goals

1. Provide residents information on how to participate in any available Napa County cost-share program for retrofitting structures and/or home hardening.
2. Encourage participation in County Cost-share Program for Home Hardening.
3. Continue to educate Residents about state and county suggested guidelines.
4. Continue to work to improve weaknesses identified in the Risk Assessment, including reducing wooden attachments, increasing landscaping zones, and improved skirting.

Defensible Space / Fuel Reduction Goals

1. Continue the promotion of any available Napa County Firewise Defensible Space Cost-Share Program; encourage sign-ups.
2. Continue to promote any available Napa County Chipping Program.
3. Promote trimming trees & clearing brush within 10' of private roads & driveways.
4. Continue to pursue funding for fuel reduction projects.
5. Continue to assist in getting landowner agreements so that the fuel reduction projects can take place on private lands.
6. Provide education to landowners regarding roadside vegetation reduction on private roads along key access and evacuation routes.

Evacuation Planning (Ex. Preparedness & Routing) and Wildfire Preparedness

1. Continue to educate residents on installing 911-compliant reflective address signage and add informational resource stickers for first responders, indicating swimming pools, tanks and hydrants.
2. Continue to identify and map any local emergency evacuation route alternatives to one way in/out access routes.
3. Establish Text-Em-All lists.
4. Continue to Encourage residents to know their neighbors' special needs and create a notification plan in the event of an impending evacuation order.

Year 3 - 2028

Education and Outreach Goals

1. Continue to distribute educational information on defensible space, home hardening and preparation for fire emergencies
2. Convene at least one community meeting and two board meetings to update on the latest fire-related programs and activities.
3. Continue to identify roads with gate locks which hinder access by fire apparatus or evacuees.
4. Where roads have been cleared with grant monies, support landowners to continue to maintain clearing.
5. Update Risk Assessment and Action Plan for renewal.
6. Continue and expand the promotion of any available Defensible Space Cost-Share Program; encourage sign-ups.
7. Continue to provide education to landowners regarding roadside vegetation reduction on private roads along key access and evacuation routes.
8. Maintain the FSC webpage with informational and educational materials.

Home Hardening Goals

1. Continue to provide residents information on how to participate in any available Napa County cost-share program for retrofitting structures.
2. Continue to educate Residents about state and county suggested guidelines.
3. Continue to encourage participation in any County Cost-share Program for Home Hardening
4. Continue to work to improve weaknesses identified in the Risk Assessment, including reducing wooden attachments, increasing landscaping zones, and improved skirting

Defensible Space / Fuel Reduction Goals

1. Continue and expand the promotion of any available Napa County Firewise Defensible Space Cost-Share Program; encourage sign-ups.

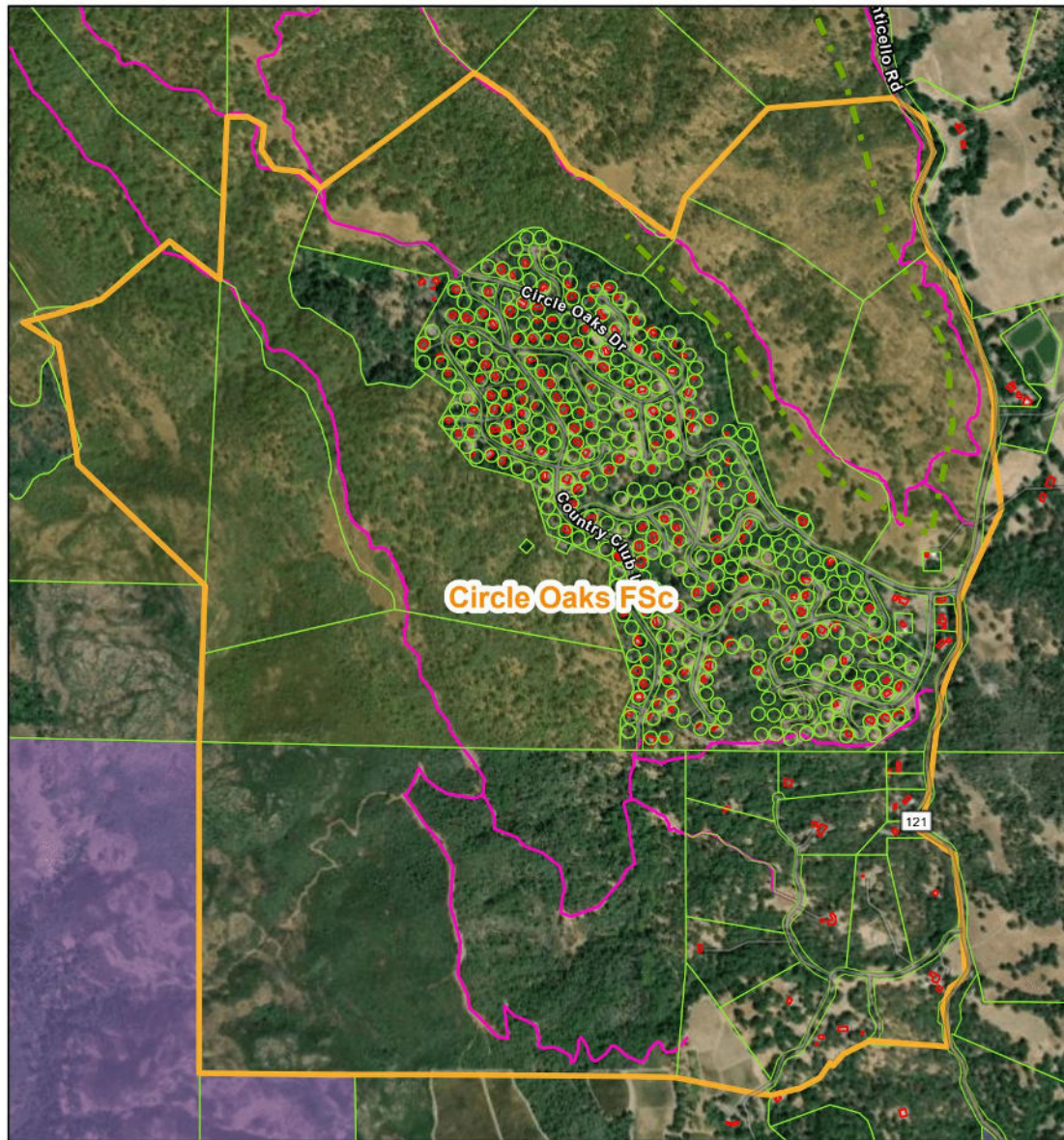
2. Continue to promote any available Napa County Chipping Program.
3. Continue to promote trimming trees & clearing brush within 10' of private roads & driveways.
4. Continue to pursue funding for fuel reduction projects.
5. Continue to assist in getting landowner agreements so that the fuel reduction projects can take place on private lands.

Evacuation Planning (Ex. Preparedness & Routing) and Wildfire Preparedness

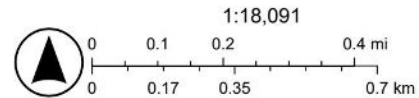
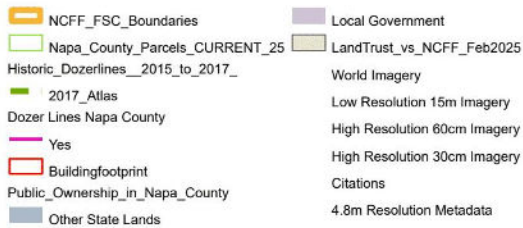
1. Continue to educate residents on installing 911-compliant reflective address signage and add informational resource stickers for first responders, indicating swimming pools, tanks and hydrants..
2. Continue to Encourage residents to know their neighbors' special needs and create a notification plan in the event of an impending evacuation order..
3. Continually update Text-Em-All lists.

O. Appendix B: HOA Boundary Map

Circle Oaks Fire Safe Council



11/4/2025



Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, Yolo County, Vantor

P Circle Oaks Fire Safe Council boundary is in orange and shows the green parcels for private ownership. Most parcels of ownership are very small with a single structure or a main structure

and an outbuilding. Additional points of interest include pink dozer lines that have recently been re-established by Napa Firewise with Napa Valley Vintners funding. Adjacent ownerships include Napa Land Trust in pale beige and Napa City ownership (Milliken Creek watershed) in purple.

P. Appendix C: Alternative Access Discussed



Figure 16. Map showing discussed alternative paths that can also be used in the event of an emergency suppression effort.

*Alternative access. We did not find a practical alternative residential vehicle route that exists within Circle Oaks. Areas considered:

- Enhance Emergency Access from Atlas Peak Rd. Roadbed is good, vegetation treatments would improve access. This is not a reliable egress route for residents.
- Develop secondary access for Fire Vehicles and secondary evacuation for 4X4 vehicles
 - i. Possible alternate road (yellow) connecting to two neighborhoods, Deer Run Lane to Juniper Drive
 - ii. Possible alternate route has an average of 6-10% slope, with a portion of 290 feet at 27%, too steep for residential vehicles w/out paving
Possible route is accessible mainly for typical wildfire response vehicles and 4 wheel drive
Alternative access connects to an additional Hwy 121 access point
 - iii. Assess connection of alternative route to Deer Run Lane N to avoid 27% portion of access path. This steep portion of alternative access is an existing road.