Grizzly Flats
Fire Safe Council

P.O. Box 152, Grizzly Flats, CA 95636

LEONI MEADOWS
CAMP

May 12, 2017

Ref: Responsible Official
Trestle Forest Health Project
Draft Record of Decision
File Code: 1950,
Dated: March 31, 2017

Randy Moore
Regional Forester, USDA Forest Service
Attn: Trestle Forest Health Project
1323 Club Drive
Vallejo, CA 94592

2017 MAY 16 AM 11:19

Objections to Trestle Forest Health Project (TFHP) Record of Decision

Dear Mr. Moore:

On August 10, 2015, the Grizzly Flat Fire Safe Council submitted comments on the Draft Environmental Impact Study (EIS) urging the U.S. Forest Service to consider selection of Alternative 2. We are in receipt of Forest Supervisor Crabtree's Record of Decision selecting Alternative 5. As the Chairman of the Grizzly Flats Fire Safe Council and the Director of the Leoni Meadows Seventh Day Adventist Camp Conference and Retreat Center, we write to lodge formal objections to the decision to implement Alternative 5 and not our preferred Alternative 2.

While Alternative 5 advances protection from wildfire to the community of Grizzly Flats and Leoni Meadows, it does not go far enough in protecting the defense and threat zones around the community and Leoni Meadows, and appears to violate the most basic tenet of the 2004 Framework Record of Decision (ROD) Sierra Nevada Forest Plan Amendment (SNFPA), the Plan under which this project was developed. The opening sentence of the SNFPA 2004 Framework ROD provides that the vegetation management strategy will be "aggressive enough to reduce the risk of wildfire to communities in the urban-wildland interface while modifying fire behavior over the broader landscape." It further provides that "[m]y emphasis is on reducing fuels in the wildland urban interface (WUI)." 2004 ROD at p. 5. The selection of Alternative 5 over Alternative 2 therefore cedes too much to environmental concerns leaving human life and property at continued peril from catastrophic wildfire.

The projects removed and/or modified from Alternative 2 to Alternative 5 directly impact the 1200 residents within the Grizzly Flats Fire Safe Council's Sphere of Recognition and the up to 500 visitors per week and 125 staff in place at Leoni Meadows. As the removed and/or modified projects

fall within the definition of "defense" and "threat" areas under the 2004 Framework, the areas must be treated to provide maximum wildfire protection.

Twenty-five percent of the Trestle Forest Health Project (TFHP) abuts the Community and completely surrounds the Leoni Meadows property. Aggressive treatment of the TFHP's fire fuels is critical to preventing the loss of our community should conditions and circumstances allow a wildfire to take place and travel towards the community. Everything that can be done must done to prevent the TFHP forest land from becoming another King (or worse yet Rim) Fire.

I. Background

Some background on our community may be useful.

The community of Grizzly Flats is located at an elevation of 4,000 feet, embedded in a mixed conifer forest, is surrounded by the Eldorado National Forest on more than 90% of the community's boundary, and is identified as a Community at Risk in the Federal Register.

The Grizzly Flats Fire Safe Council (GFFSC) is generally regarded as one of the most active and successful Fire Safe Councils in California. Since its formation in 2004, the GFFSC has put more than 2.5 million in grant-funded projects on the ground, providing shaded fuel breaks and other fuel reduction treatments to the west, north and south of the community's residential private properties (attached is a map of our efforts as of 2016), leaving only the eastern edge untreated. It is untreated because the Eldorado National Forest, up until the Trestle Forest Health Project, has done very little to reduce the fuel loading adjacent to the homes on the eastern edge of Grizzly Flats. The removal or modifications to projects 623459, 623440 and 623441 south of Capps Crossing Road leave that side of Grizzly Flats still exposed. In Alternative 2, including those 3 projects, the commercial thin and hand cut pile in those projects would create a fuel break that would allow wildfire suppression efforts to stop a fire advancing up the Trestle drainage into the community.[1]

The GFFSC represents the community of Grizzly Flats and the surrounding area within its Sphere of Recognition of approximately 39 square miles, and includes more than 700 developed parcels and the Big Canyon Creek and North Canyon Creek watersheds. These watersheds provide the community's drinking waters and its fire hydrant system's fire suppression water.

The GFFSC Sphere of Recognition also includes Leoni Meadows Seventh Day Adventist Camp Conference and Retreat Center, a 960 acre privately-owned facility with 30 inhabited structures and 35 full-time residents. Seasonally, there are approximately 125 staff members and 500 weekly visitors. Many of these visitors are families with children and are often transported by buses to and from the camp with access only on forest service roads. A wildfire similar to the King or Rim Fire approaching the camp could be devastating. The ability to shelter-in-place with adequate treatment of the adjacent land within the defense and threat zones may be the only effective protection for visitors and staff.

Additionally, depending on the direction of a wildfire burning on the Trestle Forest, Grizzly Flats community evacuation routes include evacuating through the Eldorado National Forest road system: Capps Crossing Road and Caldor/Leoni Road connecting to North-South Road and on to Mormon Emigrant Trail to the north and Highway 88 to the south. Both are within the Trestle Forest Health Project area. Those roads are not only evacuation roads, but in the case of a wildfire would be

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[1] Almost 7,000 acres of the Trestle Forest Health Project fall within our Sphere of Recognition as shown in the Western El Dorado County & Grizzly Flats Community Wildfire Protection Plans (CWPP) last updated in 2017.

used for ingress for firefighting equipment and personnel. The roads are narrow and located on ridge tops that can easily be overrun by a wildfire or clogged by responding suppression equipment and personnel.

II. Defects in Selection of Alternative 5

Alternative 5 contravenes the 2004 Framework ROD by inadequately treating "defense" and "threat" zones.

The 2004 Framework ROD prescribes the vegetation management within the defense and threat zone surrounding communities and properties, such as Grizzly Flats and Leoni Meadows.

It defines the zones as: "[t]he wildland urban intermix zone (WUI) is an area where human habitation is mixed with areas of flammable wildland vegetation. It extends out from the edge of developed private land into Federal, private, and State jurisdictions. The WUI is comprised of two zones: the defense zone and the threat zone. The WUI defense zone is the buffer in closest proximity to communities, areas with high densities of residences []. Defense zones should be of sufficient extent that fuel treatments within them will reduce wildland fire spread and intensity sufficiently for suppression forces to succeed in protecting human life and property." 2004 ROD at p. 40.

In the defense zones, it emphasizes "[a]ctively restoring fire-adapted ecosystems by making demonstrated progress in moving acres out of unnaturally dense conditions (from condition class 2 or 3 to condition class 1), 2004 ROD at p .34, and "[r]emoving sufficient material in treatment areas to cause a fire to burn at lower intensities and slower rates of spread compared to untreated areas, *Id.* at p. 34. Most importantly, it directs that "[i]n wildland urban intermix (WUI) defense zones, management activities are focused on protecting life and property." *Id.*

The WUI threat zone buffers the defense zone; however, a threat zone may be delineated in the absence of a defense zone under certain conditions, including situations where the structure density and location do not provide a reasonable opportunity for direct suppression on public land, but suppression on the private land would be enhanced by fire behavior modification on the adjacent public land. *Id.*

Threat zones generally extend approximately 1 ¼ miles out from the defense zone boundary, subject to modification based on fire history, local fuel conditions, weather, topography [] and natural barriers to fire. Fuel treatments in these zones are designed to reduce wildfire spread and intensity. 2004 ROD at p. 40.

Both of these designations emphasize fuels reduction over consideration of wildlife habitat concerns. While habitat and protection for owls and goshawks are important, Grizzly Flat and Leoni Meadows and their residents must be the number one habitats to protect.

As the ROD correctly points out, we cannot maintain high fire fuel loads to support endangered species activity over the protection of human life, residential private property and the watersheds adjacent to our communities. But Alternative 5 does just that, improvidently eliminating or modifying treatment on the eastern edge of Grizzly Flats and eliminating treatment on the southern and eastern sides of Leoni Meadows. The design of Alternative 2 provides the appropriate treatment to the landscape consistent with its defense and threat zone designation. Therefore, Alternative 5 appears to contravene the 2004 Framework ROD by inadequately treating "defense" and "threat" zones.

In the Decision Rationale, TFHP ROD at p. 3, Forest Supervisor Crabtree states that "… the most important objectives to me are to improve forest health and reduce surface and ladder fuel accumulations across the project area in order to effectively reduce the risk of large, potentially damaging wildfires on communities, infrastructure, and forest resources, including the watersheds that

provide the domestic water supply for Grizzly Flats. Any action significant enough to truly make a change in the future trajectory of forest conditions and reduce the risk of large, high intensity wildfires on a landscape basis may have short-term unwanted effects." "[a]t what point a planned treatment level is too little to actually change fire behavior … on a landscape basis." TFHP ROD at p. 3 of 12. That decision rationale appears to state the obvious but then proceeds to implement an Alternative that ignores the very rationale. Significant and immediate changes to the landscape are required to improve forest health, prevent further insect mortality and mitigate catastrophic wildfire, but will include some short-term effects. Alternative 5 does not go far enough to accomplish those goals therein and implementing anything less than Alternative 2 belies the rationale.

The ROD goes on to state that "[t]here is a need to reduce the threat of large, high-intensity wildfires and threats to Grizzly Flats, Leoni Meadows, and other landowners by reducing fuel loading. There is a need to change potential fire behavior during weather conditions that result in extreme fire intensity and severity across a considerable portion of the landscape to increase the fire resilience of stands and to improve options for fire suppression and wildfire management." *Id.* Once again, all rationale for implementing Alternative 5 fully support implementing Alternative 2 and make Alternative 2 the appropriate level of treatment to the landscape.

III. The "Fire Exclusion Paradigm"

Despite CASPO (California Spotted Owl Report) Guidelines hand-thinning in some areas within the Trestle Forest Health Project, understory, ladder fuels, have grown unabated for decades due to fire exclusion and lack of treatment.

In some ecosystems, such as the ponderosa pine (*Pinus ponderosa*) forests in the West U.S., the reduction of fire occurrence has resulted in significant changes to the species composition and increases in the amount of live and dead vegetation. M.A. Finney and J.D. Cohen, *Expectation and Evaluation of Fuel Management Objectives*. RMRS-P-29 (USDA Forest Service, 2003): 353-66; and S.F. Arno and J.K. Brown "Overcoming the Paradox in Managing Wildland Fire," *Western Wildlands* 17(1) 1991: 40-46.

The WUI fire disaster context can be generally described as a set of contingencies. The disaster sequence starts when a wildfire or multiple wildfires burn during extreme fire conditions. The combination of vegetation, weather conditions, and topography produces fast-spreading, intensely burning fire behavior that overwhelms suppression efforts. If the extreme wildfire spreads close enough to residential development with its flames and firebrands (lofted burning embers), hundreds of ignitable homes can be simultaneously exposed. Jack Cohen "The Wildland-Urban Interface Fire Problem: A Consequence of the Fire Exclusion Paradigm," *Forest History Today*, Fall 2008: 22.

In 2003 alone, fires in Southern California destroyed 3,640 homes (Old, Cedar, etc). The Angora fire of 2007 destroyed 245 homes and the Witch, Slide, and Grass Valley fires destroyed an additional 2,180 homes. Cohen, *Forest History Today*, at 23.

As noted by the Forest Service in their response to comments contained in the Final Environmental Impact Study (FEIS) in Appendix D at p. 30:

> The Wildland Urban Interface Problem: A Consequence of the Fire Exclusion Paradigm (Cohen, 2008) acknowledges that in some ecosystems, such as the ponderosa pine (*Pinus ponderosa*) forests in the western U.S., the reduction of fire occurrence has resulted in significant changes to the species composition and increases the amount of live and dead vegetation which has produced fuel accumulations and arrangements that have enhanced the potential for the extensive areas of high intensity wildland fires experience in recent years.

In these areas it is important to treat not only the areas near homes, but also the wildland that those homes are built in both for the resilience of the forests and the ability to safely and effectively fight fire in the area.

As documented by Kennedy and Johnson (2014): the 2011 Wallow Fire in Arizona burned through recently implemented fuel treatments in the wildland surrounding residential communities in the WUI, and those fuel treatments have been credited with providing firefighter opportunities to protect residences during the Wallow Fire, and thereby preventing the loss of homes that otherwise would have burned.

Maximum treatment must be given to the defense and threat zones abutting Grizzly Flats and Leoni Meadows to prevent spot fires from a wildland fire igniting homes within the community and to give wildland suppression efforts a place to make a successful stand against the fire.

Additionally, section 5135.03c of the Forest Service Manual directs their WUI fire protection. It provides that "The use of wildland tactics in the Wildland Urban Interface (WUI), when risks are mitigated, will be based on the objective of preventing wildfire from reaching areas of structures and/or reducing the intensity of fire that does reach structures" *Forest Service Manual, Title 5100: Fire Management*, Section 5135. available at *http://www.fs.fed.us/cgi-bin/Directives/get_dirs/fsm?5100* (last accessed 5/7/17)

Thinning and fuel breaks directly support that effort.

IV. Recent Changes

In discussing the selection of Alternative 5, Forest Supervisor Crabtree states "I did not select Alternative 2 because of the potential to increase the risk of reducing occupancy and use of territories by spotted owls." ROD at 6 of 12. However, as discussed above, the 2004 Framework ROD requires treatment levels in defense and threat zone emphasize fuels reduction over consideration of wildlife habitat concerns.

It is important to note that recent data suggests that old-forest species protection and fuel treatments are more compatible than previously believed. Given these considerations, the Trestle Project's forest health restoration and old-forest species conservation objectives appear to be consistent. Fuel reduction within protected Activity Centers would be prudent. As those studies were conducted and published after our comments to the DEIS, they are listed below.

First, in perhaps the most geographically-specific and long-term study in the area, researchers studied owl site extinction following the 2014 King Fire, a high-severity wildfire in the Eldorado National Forest. The King Fire consumed 97,000 acres. Study findings showed that the "probability of owl site extirpation was seven times higher after the fire than before the fire at severly burned sites, contributing to the greatest annual population decline observed" during their 23-year study. Gavin M. Jones, et. al., Megafires: an emerging threat to old-forest species, *Front Ecol. Environ.* 2016; 14(b): 300-306.

The study concluded that high-severity, stand-replacing megafires "pose a threat to old-forest species," positing that "(1) reducing the frequency of large, severe fires could benefit spotted owls, and by extension, other old-forest species, and (2) forest restoration and old-forest species conservation objective may be more compatible than previously believed." Finally, the study found that the fire resulted in a "a direct loss of suitable nesting and roosting habitat that will likely not be replaced for many decades."

An additional study found that "large areas of the Sierra Nevada mixed-conifer forest [] are likely to experience uncharacteristic stand-replacement fires without active fuel treatments and prescribed burning programs, with the resulting loss of critical watershed and habitat for the California spotted owl and other endangered wildlife," Frankin, Jerry F. and James K. Agee "Forging a Science-Based National Forest Fire Policy." *Issues in Science and Technology* 20, no. 1 (Fall 2003), and that "letting nature take its course in the current landscape is certain to result in losses of native biodiversity and ecosystem functions."

Further, as an author for the Sierra Club aptly put it "if you return the forest to low-fuel conditions, you have more surface fires than crown fires. You have more tree survival, which has less impact on the owls." "The Burning Questions About Spotted Owls and Fire." Jason Daley, Sierra Club (Aug. 15, 2016) available at http://www.sierraclub.org/sierra/2016-4-july-august/green-life/burning-questions-about-spotted-owls-and-fire (last visited 4/17/17).

Lastly, a study just published in November of 2016 found that the results of their study in addition to the recent findings of the adverse impacts that large fire have had on California Spotted Owls "suggests that maintaining viable Spotted Owl populations in the Sierra Nevada **and** reducing future wildfire risk using fuels and restoration treatments may be compatible goals, particularly if recent trends in high-severity fire continue or intensify because of climate change. "Meta-analysis of California Spotted Owl (*Strix occidentalis occidentalis*) territory occupancy in the Sierra Nevada: Habitat associations and their implications for forest management." Tempel, et al. *The Condor*: November 2016, Vol. 118, No. 4, pp. 747-765 (emphasis added).

Additionally, in the Forest Service's response to comments, FEIS, App'x D, two comments are of particular note and appear to concede our point:

> The analysis (potential effects to the California spotted owl found in the FEIS pp. 103-126) determined that Alternatives 2, 4, and 5 would not result in a trend toward federal listing for the California spotted owl.

Resp. to Comm. 40, App'x D at 33 (emphasis added).

> None of the treatments would alter the stands to such an extent that they are no longer considered suitable habitat, and that reducing canopy cover >70% to 50-69% in territories (outside Protected Activity Centers) may provide a benefit to foraging owls (Tempel et al. 2016)
>
> [EIS, pg. 106].

Resp. to Comm. 43, App'x D at 38.

V. Watershed Considerations

Turning to the watershed, with the enactment of the 2014 California Sustainable Groundwater Management Act, California demonstrated its commitment to sustainable management of groundwater supplies. Although not directly applicable to a project on federal lands, it should be persuasive. Opening the forest canopy would positively affect the Eldorado National Forest watershed hydrologic flux. Snow falling on old-forest high tree density and closed canopy cover may lead to canopy precipitation intercept and much of this water releasing back to the atmosphere through evaporation and sublimation. Open canopy forest allows greater precipitation to infiltrate the soil, which adds to the watershed storage and regional aquifer basins, and would aid against further tree mortality due to bark beetle infestation and provide for greater health in the remaining tree stands.

Finally, The Cosumnes, American, Bear and Yuba (CABY) rivers region includes a high proportion of forested land (including the Tahoe and Eldorado National Forests). Management of forest lands is an important component of water resource planning in all CABY watersheds. If the

climate in California continues to shift as predicted, it will become even more critical to manage the effects in order to mitigate increased drought, pests, diseases, and fire. CABY encourages and supports a full range of forest management practices including forest densities, reduce fuel loadings and improve watershed conditions. CABY Integrated Regional Water Management Plan, Chapter 8, Water and Land Use (2nd Ed. 2014).

The sole purveyor of drinking water to the community is the Grizzly Flats Community Services District (GFCSD). They are a headwaters water district and rely solely on water from Big Canyon Creek and North Canyon Creek watershed. The northern portion of the Trestle Forest Health Project area encompasses both of the GFCSD watersheds. Under Alternative 5, there is still an area of concern for problematic wildfire in the northern portion of the Trestle project area, which could impact the watershed. As was seen on the Rubicon River following the King Fire, greater runoff and sediment transport after a fire could leave the community's water supply vulnerable or completely unavailable.

The watersheds and drainages in the area also directly impact wildfire activity. The Cosumnes River watershed spans almost 7,500 feet in elevation which results in a variety of environments, each represented by a distinct vegetation and land formations, including the transition from foothill to Sierra Nevada Range crest. Trestle Forest drainages are characterized by rugged, steep topography with steep canyons. Untreated drainages act as a wick, channeling fire quickly up the drainage, especially when summer southwesterly winds are in alignment with predominate east-west flowing rivers. Dense fuel loading and surface-to-crown ladder fuels cause these drainages to burn with high rate of spread and high-severity fire effects. Recent fire history indicates few fires in the Cosumnes River watershed chaparral communities, thus leading to dense and continuous stands of chaparral which burn in very high intensity. Middle Fork Cosumnes River Watershed Landscape & Road Analysis (Sept. 2002).

VI. Treatment Area in Perspective

The TFHP covers 20,453 acres. Let us finish by putting that number into perspective. 97,000 acres were lost in the King Fire in September of 2014. That single fire scorched almost five times the acreage of the TFHP. 70,868 acres were lost to the Butte Fire of 2015, 38,000 to the Sand Fire of 2014 and 257,314 acres to the Rim Fire in 2013.

The King Fire of 2014 was 10 miles north of the TFHP, and the same 10 miles north of the Community of Grizzly Flats. Accordingly, it is an example of the effects of wildfire on the same terrain as the TFHP and evinces the devastation a high-severity wildland fire has on the loss of the forest ecosystem. Had the King Fire area been treated in the character of Alternative 2, the now devastating and lasting effects of that catastrophic fire would have been far less than the loss of 97,000 acres of private and federal mixed conifer forest.

The ROD correctly notes that we "cannot ignore the lasting effects of the King, San Butte, Rim, Cleveland, Pilliken, Wrights and Rim Fires." To do so, could result in the loss of a vibrant mountain community with history dating back to 1850.

We therefore object to the selection of Alternative 5 and urge you to consider implementation of Alternative 2 without change. The future and safety of our community, the Leoni Meadows Camp and the long-term health of the forest require it.

Respectfully,

Mark Almer, Chairman
Grizzly Flats Fire Safe Council

Craig Heinrich, Director
Leoni Meadows

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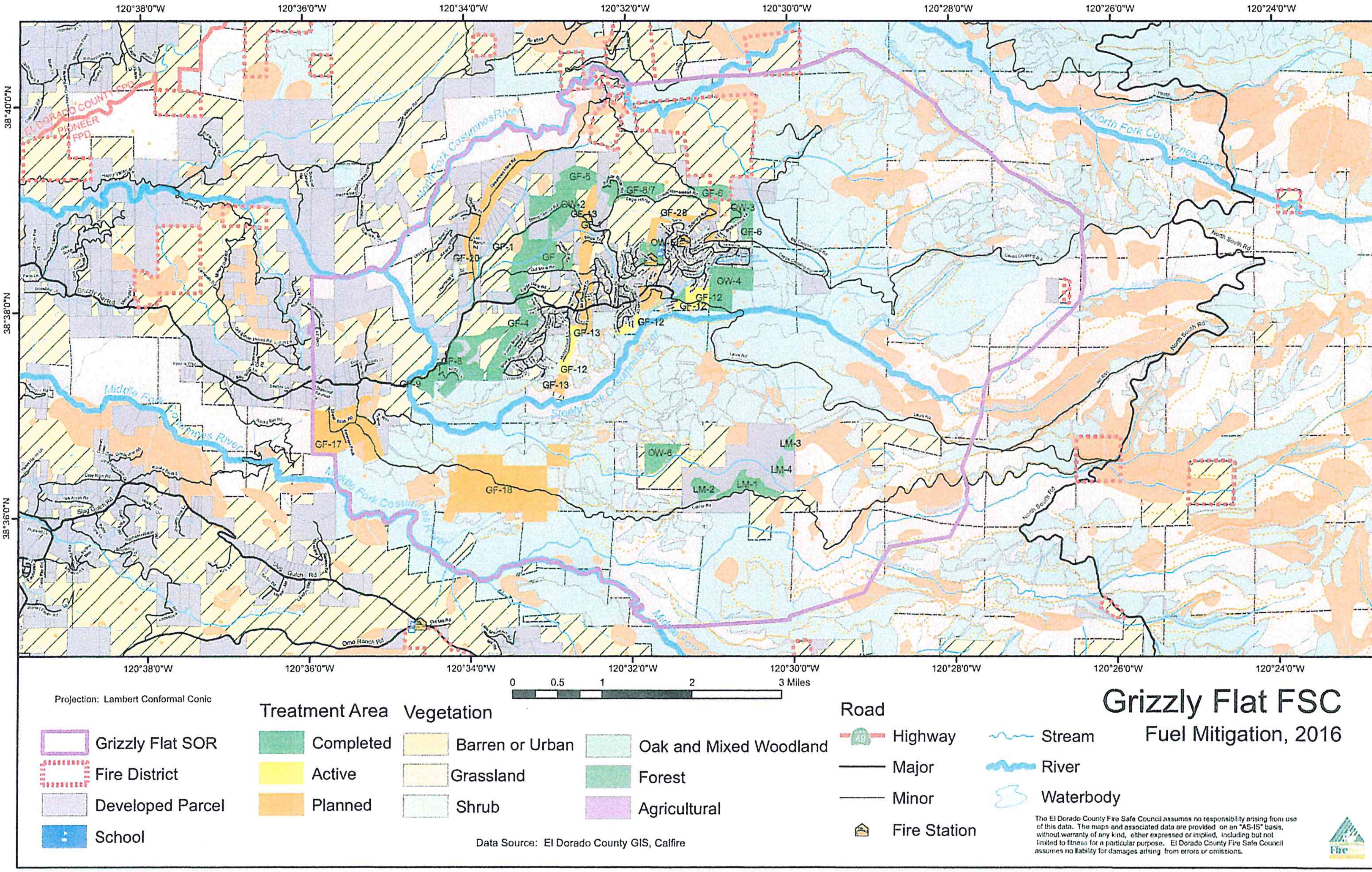
Grizzly Flat FSC
Fuel Mitigation, 2016
Projection: Lambert Conformal Conic
Grizzly Flat SOR
Fire District
Developed Parcel
School
Treatment Area
Completed
Active
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Vegetation
Barren or Urban
Grassland
Shrub
Oak and Mixed Woodland
Forest
Agricultural
Road
Highway
Major
Minor
Fire Station
Stream
River
Waterbody
0 0.5 1 2 3 Miles
Data Source: El Dorado County GIS, Calfire
The El Dorado County Fire Safe Council assumes no responsibility arising from use of this data. The maps and associated data are provided on an "AS-IS" basis, without warranty of any kind, either expressed or implied, including but not limited to fitness for a particular purpose. El Dorado County Fire Safe Council assumes no liability for damages arising from errors or omissions.
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EL DORADO COUNTY FPD
PIONEER FPD
North Fork Cosumnes River
Middle Fork Cosumnes River
Steely Fork Cosumnes River
North South Rd
Omo Ranch Rd
Slug Gulch Rd
GF-5
GF-6/7
GF-6
GF-28
GF-13
GF-1
GF-20
GF-4
GF-8
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