

# Public Workshop



EL DORADO COUNTY  
TRANSPORTATION COMMISSION

MARCH 2024

Greater Placerville Wildfire  
Evacuation Preparedness,  
Community Safety  
& Resilience Study

## Final Report

**DRAFT**



SHAPING A SMARTER  
TRANSPORTATION EXPERIENCE™  
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# INTRODUCTIONS

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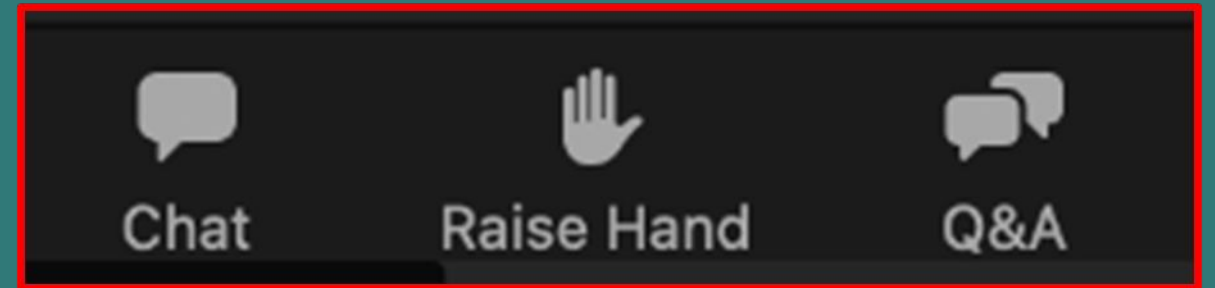
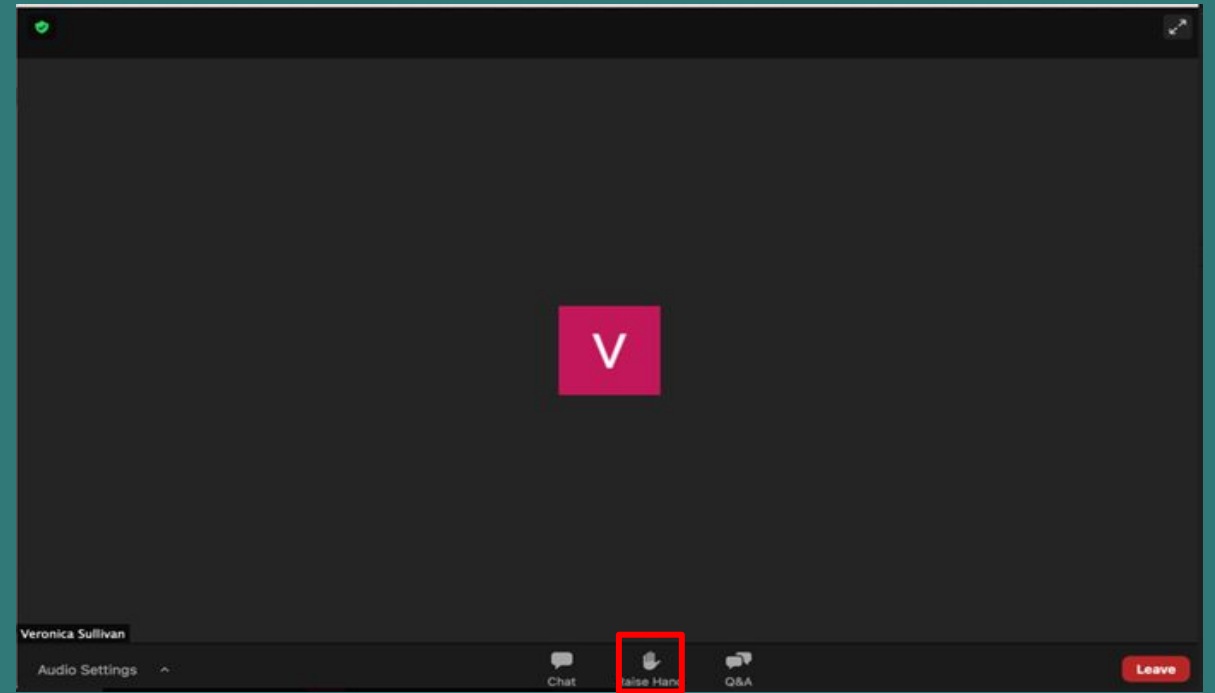
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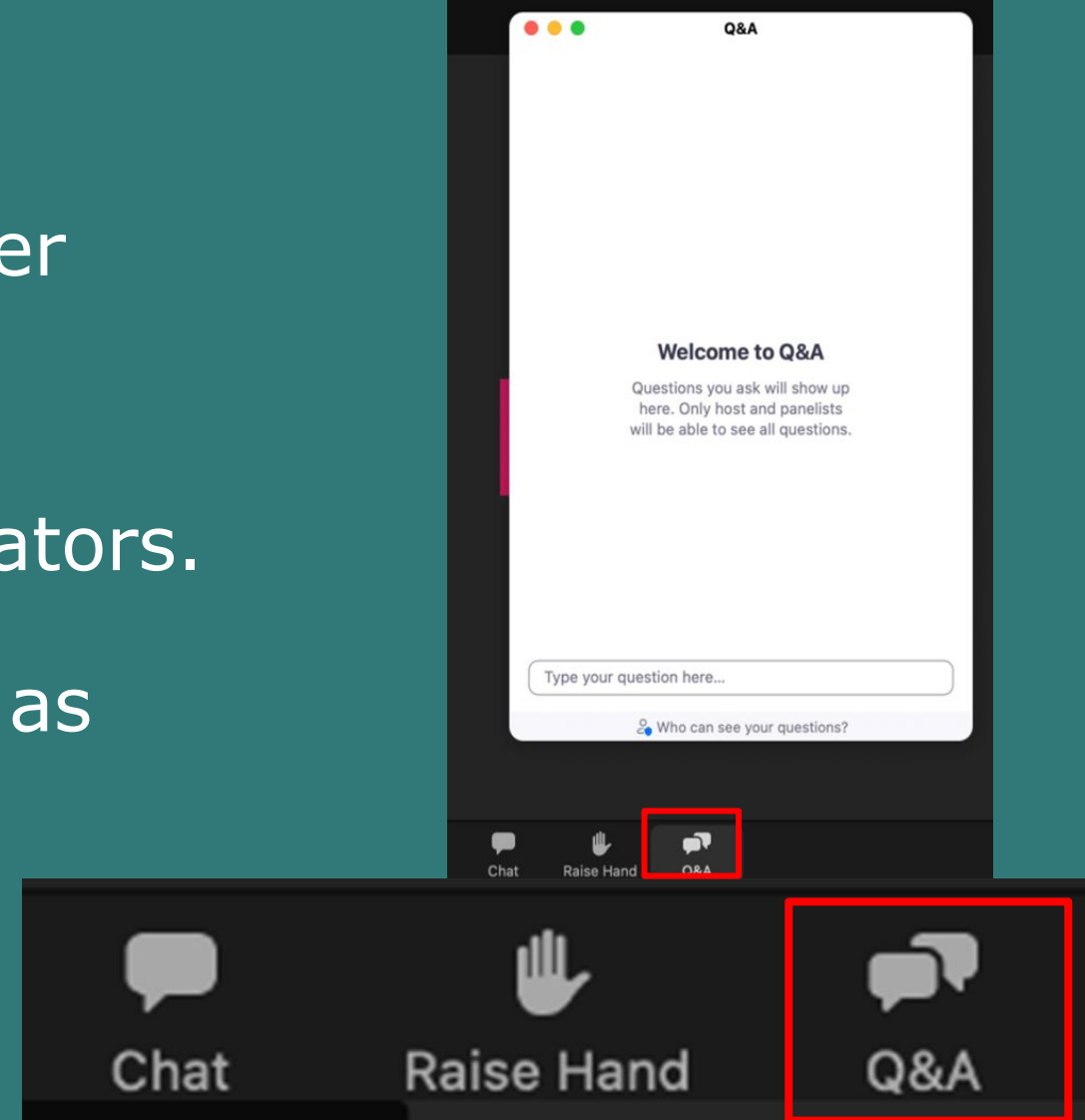
## To Make a Public Comment:

- Raise your virtual hand :  
Icon at the bottom
- Moderators will call on each person and unmute them.



## To Submit via Questions Box:

- Click the questions window: enter your question.
- Will be seen and read by moderators. Repeat questions will only be addressed once but will be kept as part of the meeting record.





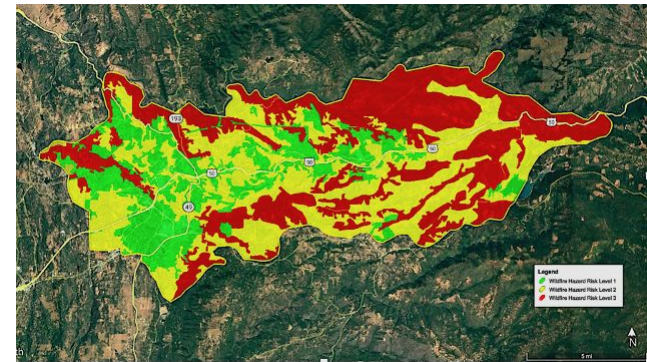
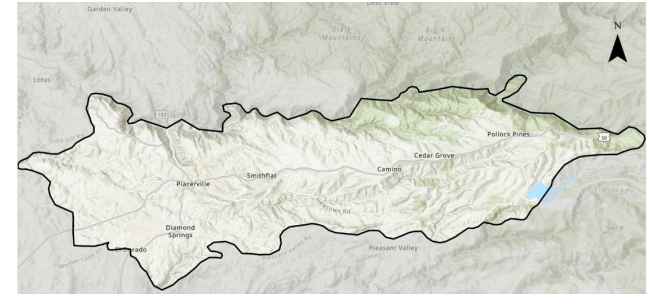
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## **PROJECT OVERVIEW**



# PROJECT OVERVIEW

- The study is developing a wildfire evacuation preparedness plan for the 87,000-acre Greater Placerville project area.
- Completed Existing Conditions Report to identify wildfire hazard areas, location of vulnerable populations and critical facilities.
- The study identified infrastructure projects needed to better facilitate community evacuation during a catastrophic wildfire event.



# PROJECT PARTNERS

- CAL FIRE
- California Highway Patrol
- Caltrans
- City of Placerville
- El Dorado Irrigation District
- El Dorado County Chief Administrative Office
- El Dorado and Georgetown Divide Resource Conservation Districts
- El Dorado County Fire Safe Council
- El Dorado County Fire District
- El Dorado County Office of Emergency Services
- El Dorado County Office of Wildfire Preparedness and Resilience (OWPR)
- El Dorado County Sheriff's Office of Emergency Services
- El Dorado County Transportation Department
- El Dorado County Planning Services
- El Dorado County Health and Human Services
- El Dorado County Disaster Preparedness and Response
- El Dorado County Office of Education
- El Dorado County Animal Shelter
- El Dorado County Transit Authority
- Marshall Hospital
- Pacific Gas and Electric Company (PG&E)
- Sacramento Area Council of Governments (SACOG)
- Sacramento Municipal Utility District (SMUD)
- United States Forest Service

# PUBLIC OUTREACH



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## Greater Placerville Wildfire Evacuation Preparedness, Community Safety, and Resiliency Plan

**What is Greater Placerville Wildfire Evacuation Preparedness, Community Safety, and Resiliency Study?**

The El Dorado County Transportation Commission, in conjunction with the City of Placerville, El Dorado County, Cal Fire and other first responders are collaborating on an effort to make our community safer in the event of fire. This study is intended to develop a wildfire evacuation preparedness plan for the Greater Placerville area. The study will review existing wildfire plans, identify wildfire hazard areas, critical facilities, and points of concern for those facilities during a wildfire event. This study will identify project recommendations to better facilitate community evacuation during catastrophic wildfire scenarios.

The report will be a resource for the City of Placerville, El Dorado County, CAL FIRE, Caltrans, United States Forest Service, PG&E, El Dorado Irrigation District, other agencies, and the public.

**PROVIDE YOUR INPUT  
ABOUT EXISTING  
WILDFIRE PLANS,  
POTENTIAL WILDFIRE  
HAZARD AREAS, AND  
POINTS OF CONCERN  
DURING A WILDFIRE  
EVENT.**

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# PUBLIC OUTREACH – SOCIAL PINPOINT



Drag to comment > Area of Concern Make a Comment Ideas and Suggestions



Map Instructions

Activity

Contact

Heavy dense fuels on each side of Highway 50 evacuation route.

Area of Concern | 3 months ago

Like Dislike

Excessive fuels in canyon leading up from the American River drainages to residences in Camino; out on Apple Vista Lane, Apple Tree Lane, Hartwick Dr., Larsen Dr., Cable and Copperton Roads. These areas have not burned in over 70 years or more. While SMUD and PG&E cleared their respective ROW's there remains an excessive amount of fuel below the residences. Additionally this area if engulfed would spread up canyon and across Cable threatening Cal Fires Command Center on Mt. Danaher.

Area of Concern | 3 months ago

Like +2 Dislike

No secondary emergency egress route from the entire subdivision of Audubon Hills. One mile or more dead end road with heavy fuels on main evacuation route. Many home and vacate lot property owners have excessive fuel loads on site. There exists a home owners association that could deal with these issues and become a model for other subdivisions in EDC.

DKS

GREATER PLACERVILLE WILDFIRE EVACUATION PREPAREDNESS STUDY

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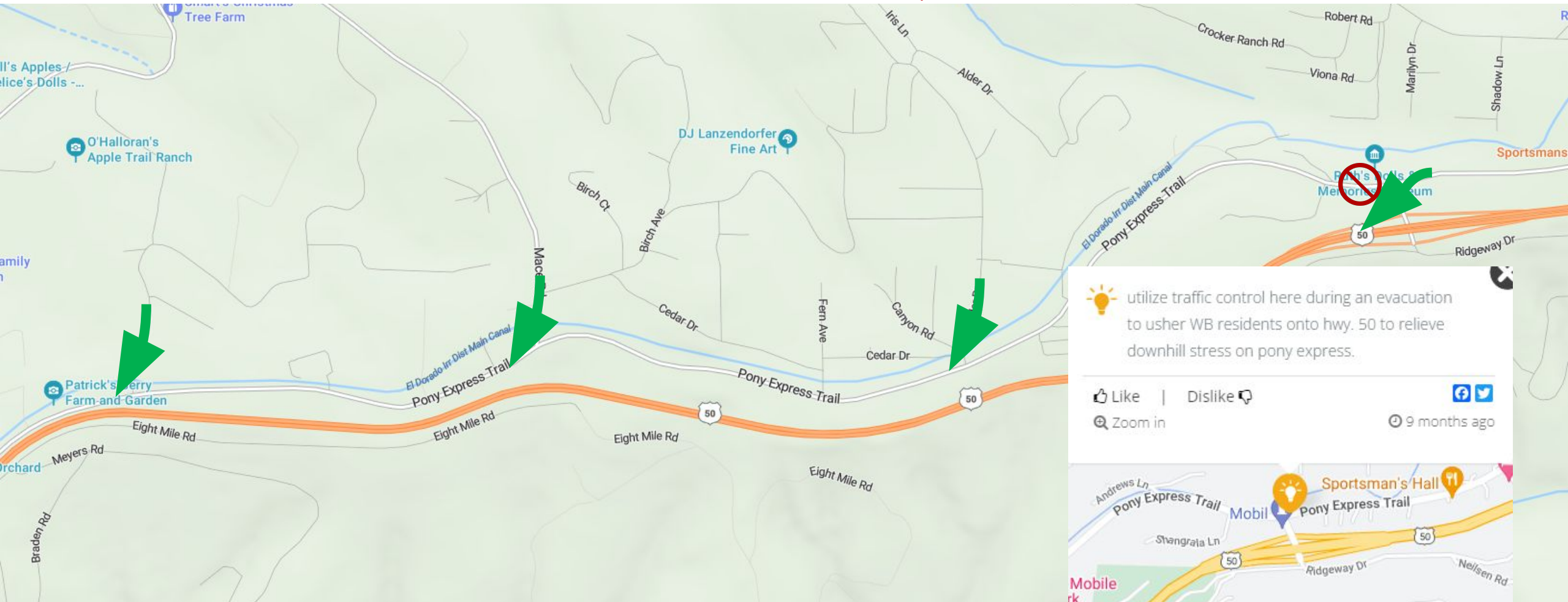
# PUBLIC OUTREACH – SOCIAL PINPOINT



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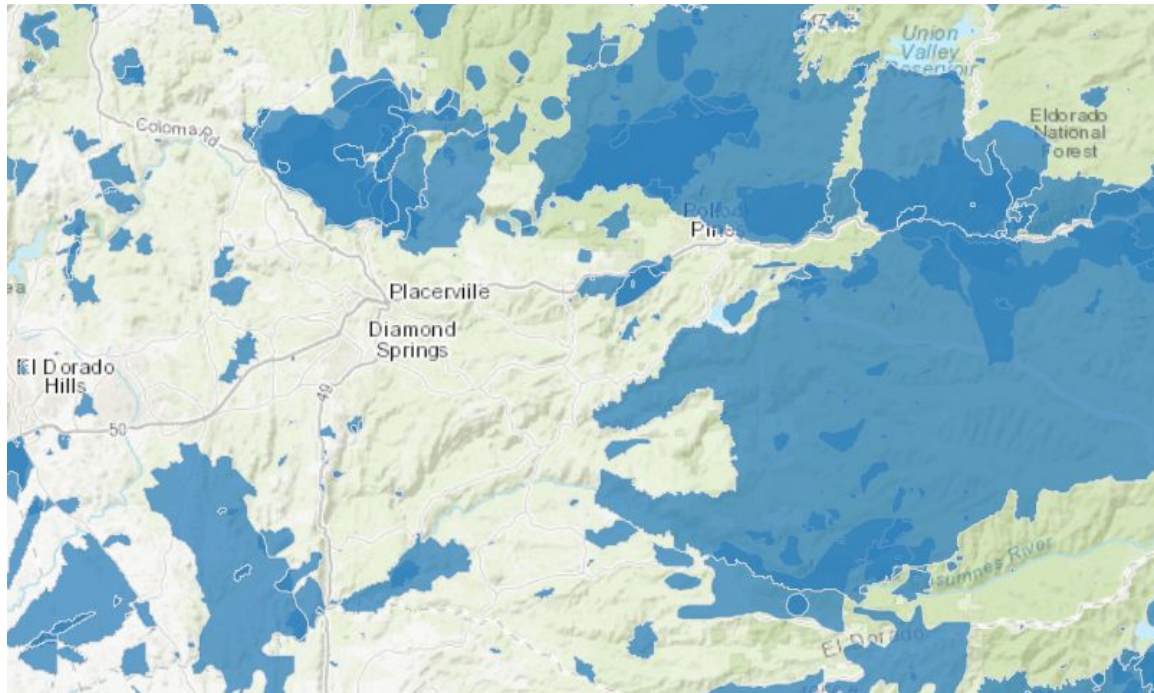
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# WHY NOW?

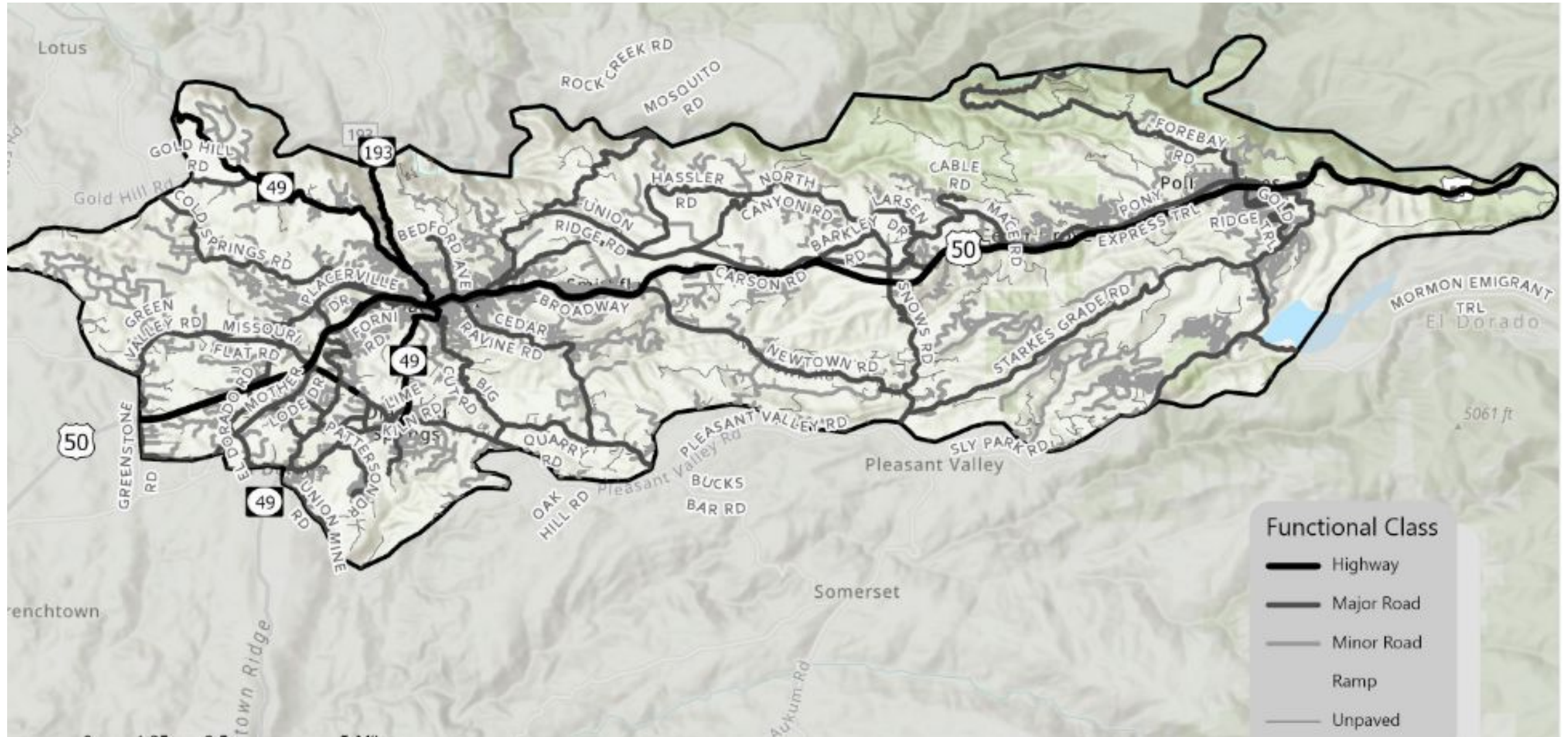






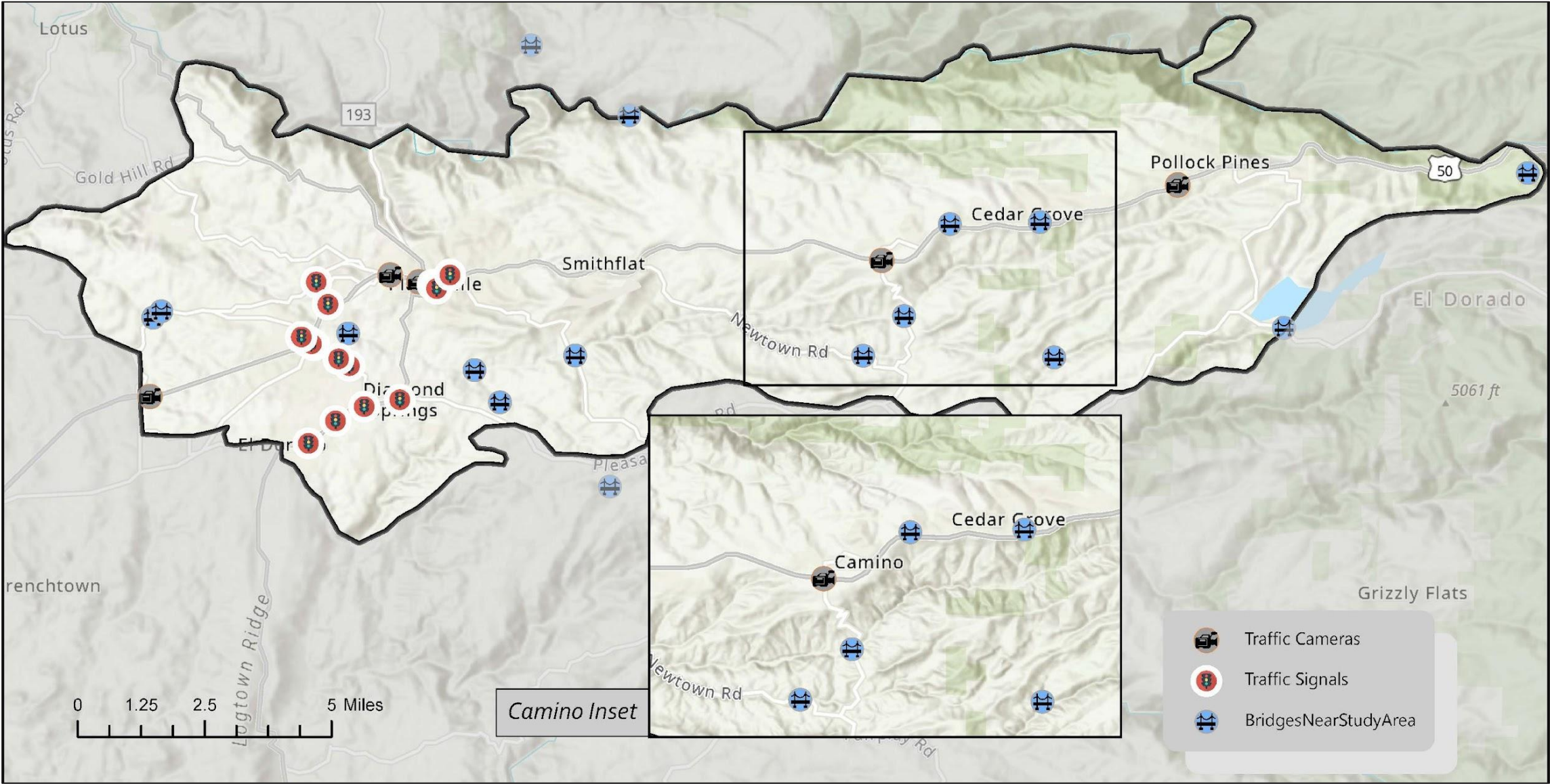
## **TRANSPORTATION NETWORK**

# OUR NETWORK



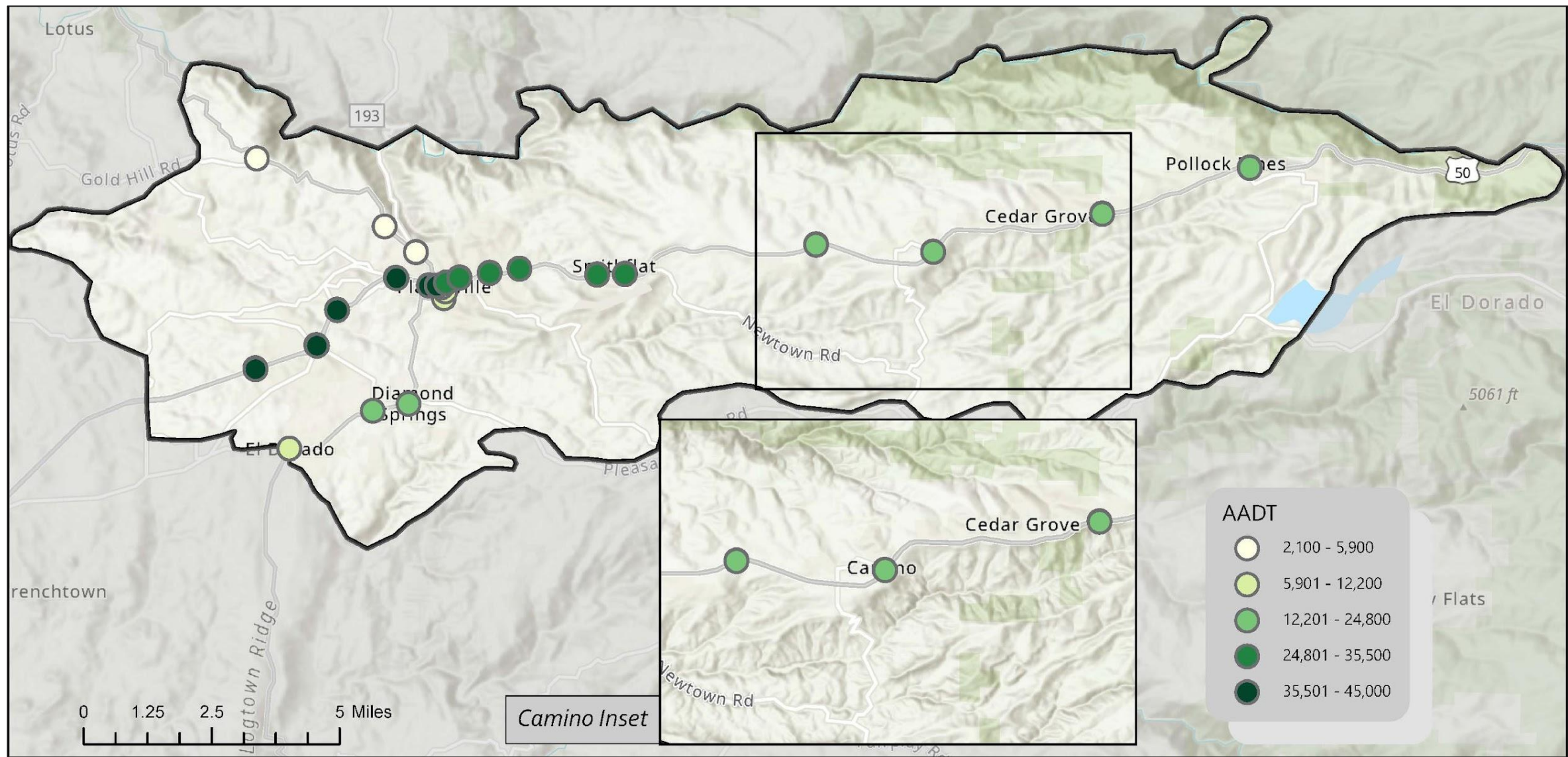


# BRIDGES, SIGNALS, AND CAMERAS





# ANNUAL AVERAGE DAILY TRAFFIC



# DAILY VARIATION

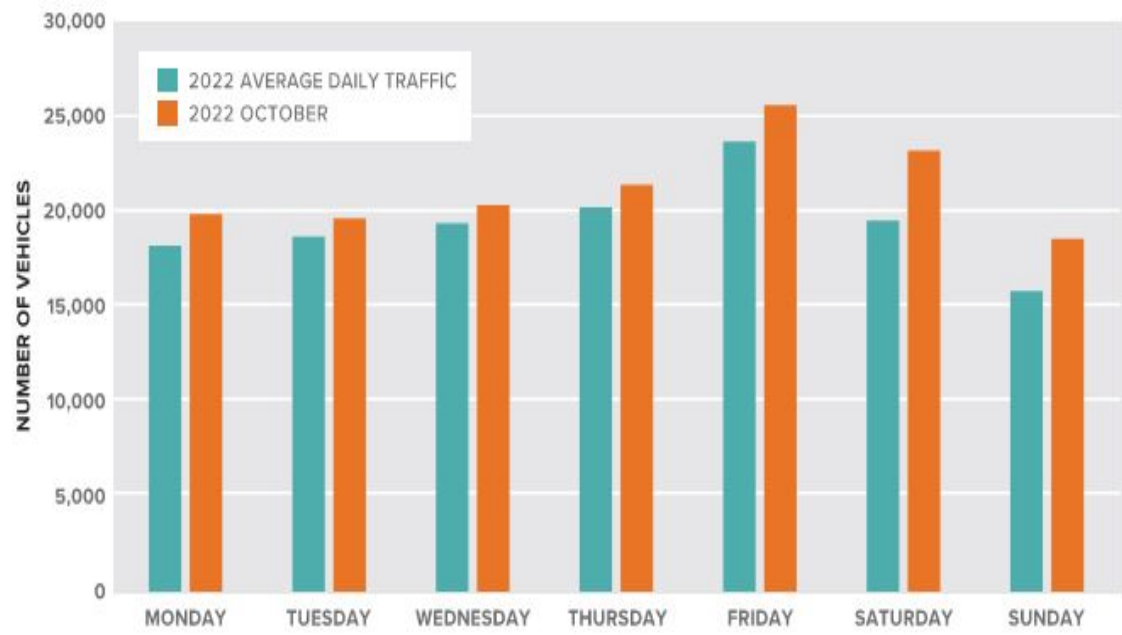


FIGURE 15. COMPARE DAY OF WEEK TRAFFIC VOLUME OF 2022 TO APPLE HILL SEASON

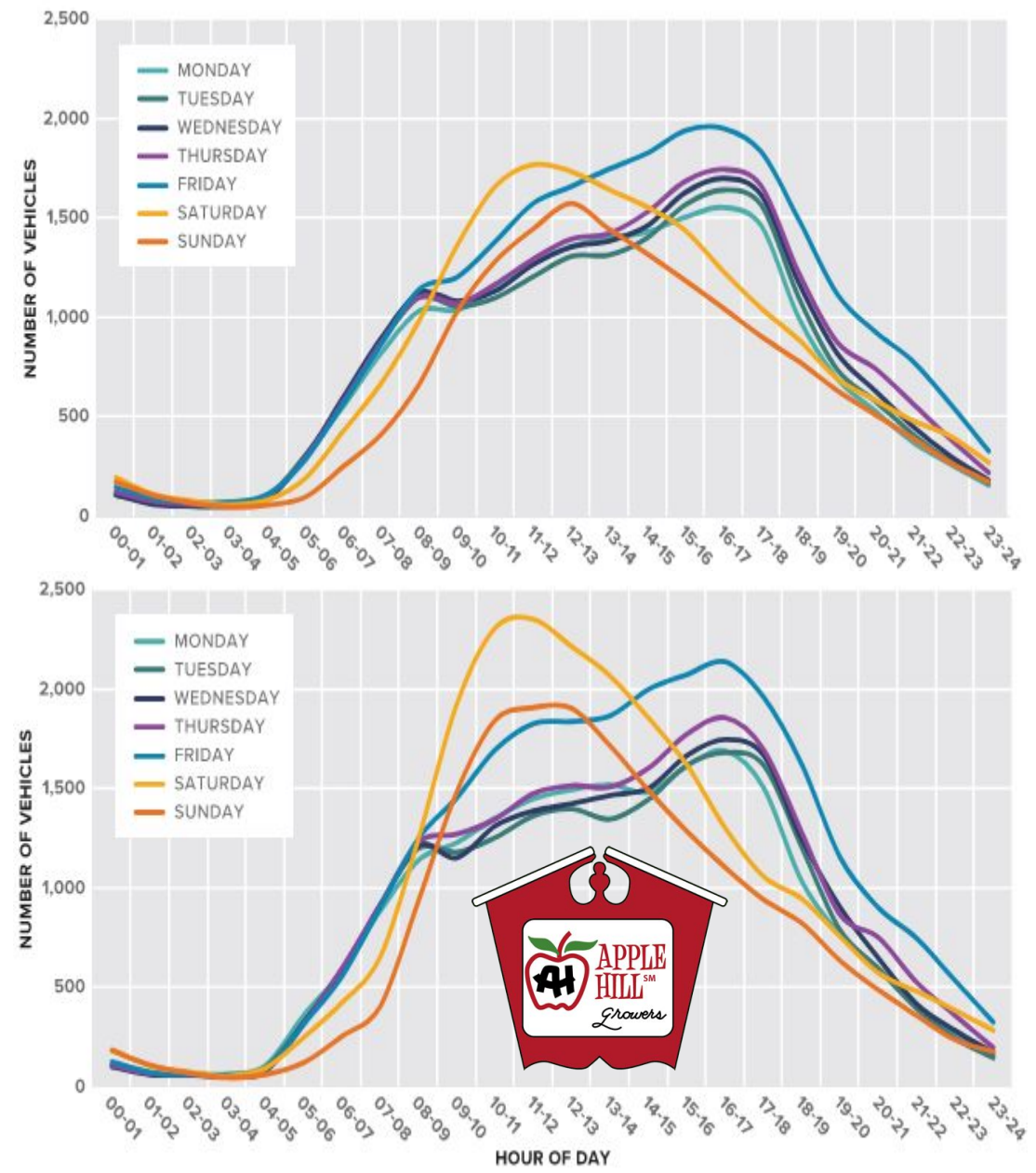
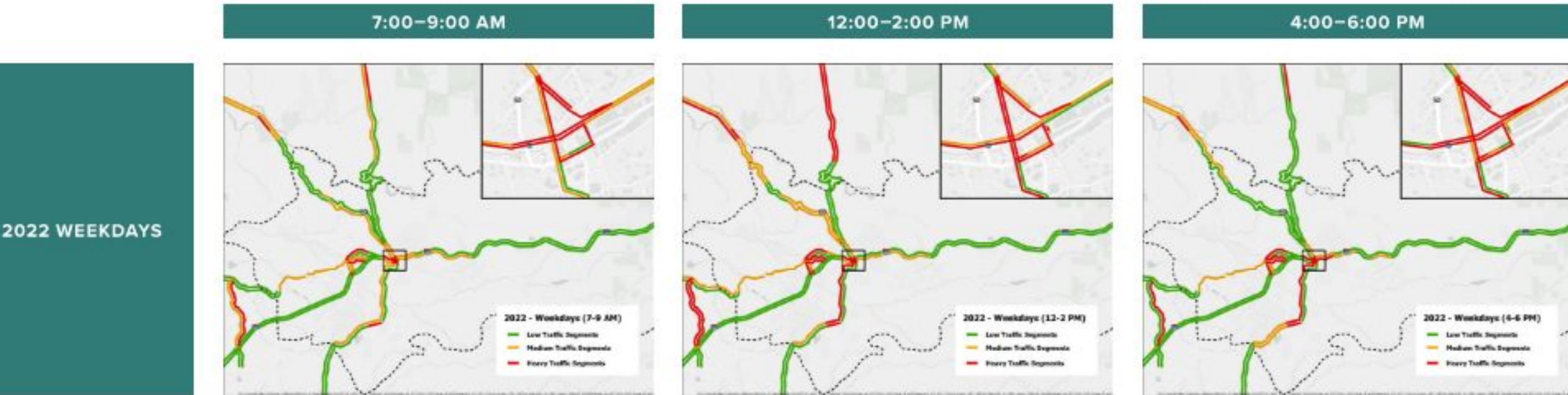


FIGURE 14. DAY OF WEEK PEMS TRAFFIC VOLUMES, OCTOBER 2022



# WEEKDAY CONGESTION



Heavy Traffic: < 75% of free-flow speed

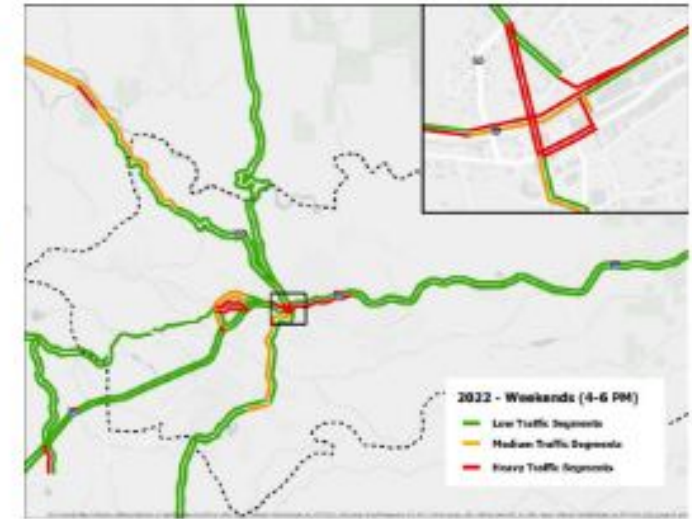
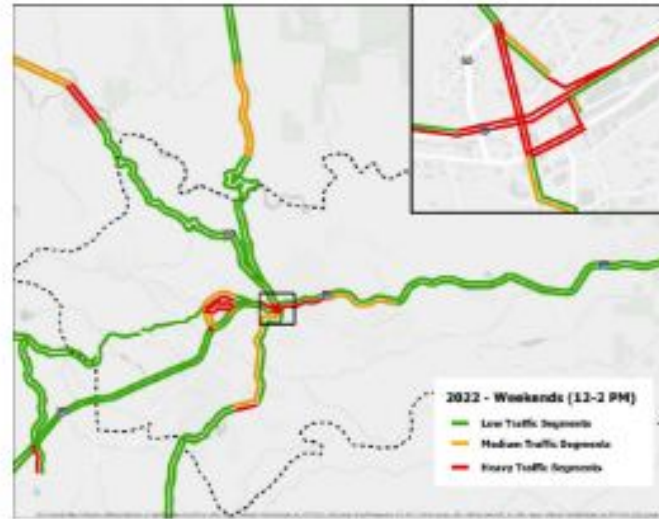
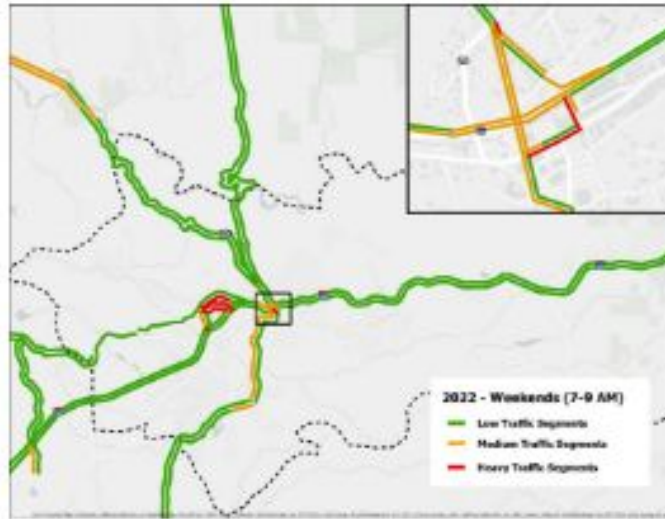
Medium Traffic: 75%-90% of free-flow speed

Low Traffic: > 90% of free-flow speed

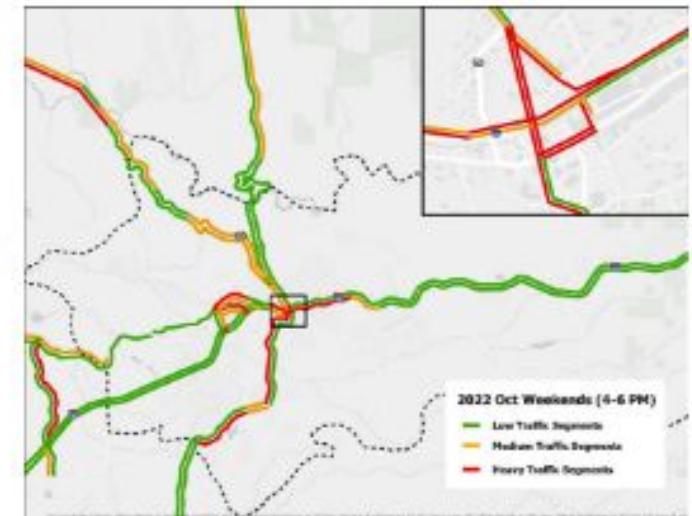
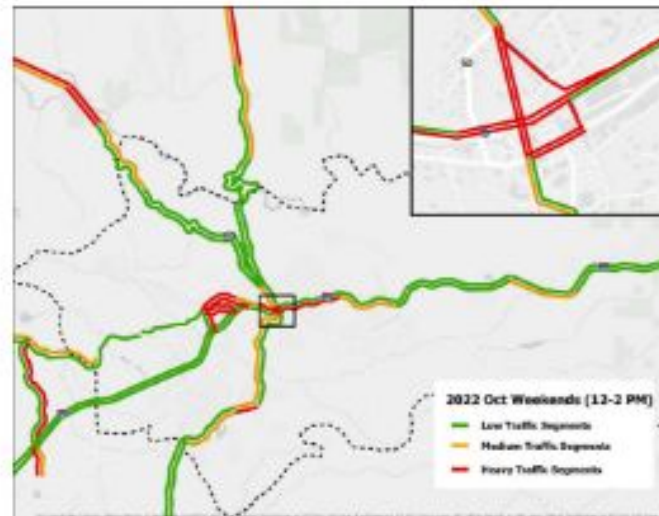
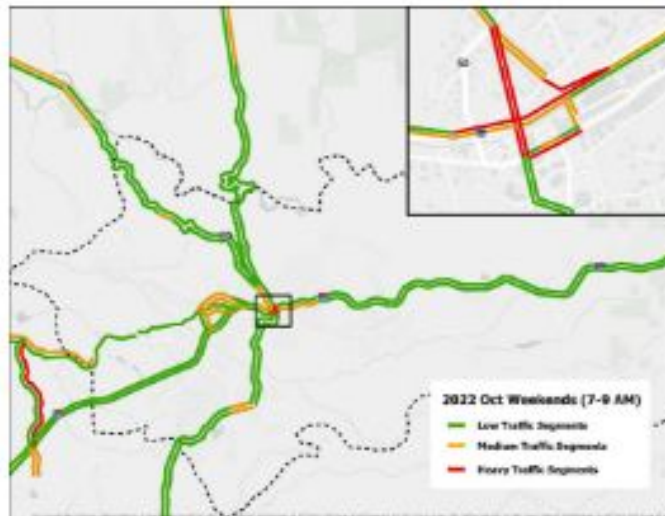


# WEEKEND CONGESTION

## 2022 WEEKENDS



## 2022 OCTOBER WEEKENDS (APPLE HILL SEASON)

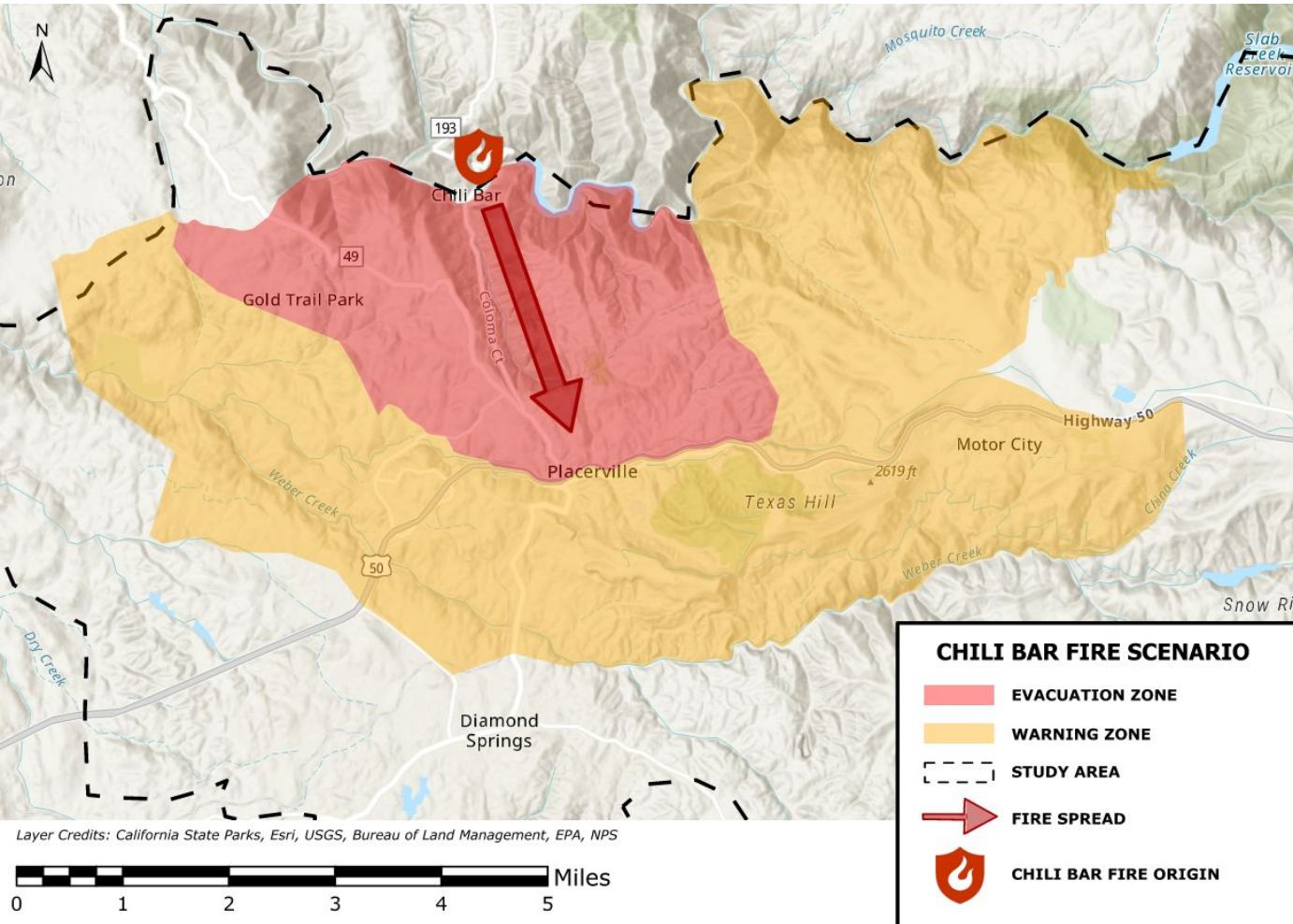




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## **WILDFIRE SCENARIOS**

# CHILI BAR FIRE SCENARIO



**Origin:** Near SR 193 and Chili Bar by the South Fork American River Crossing

**Direction:** Burning south/southeast toward Downtown Placerville

**Rate of Spread:** Reaching Placerville City Limits in one hour

**Season:** Fall

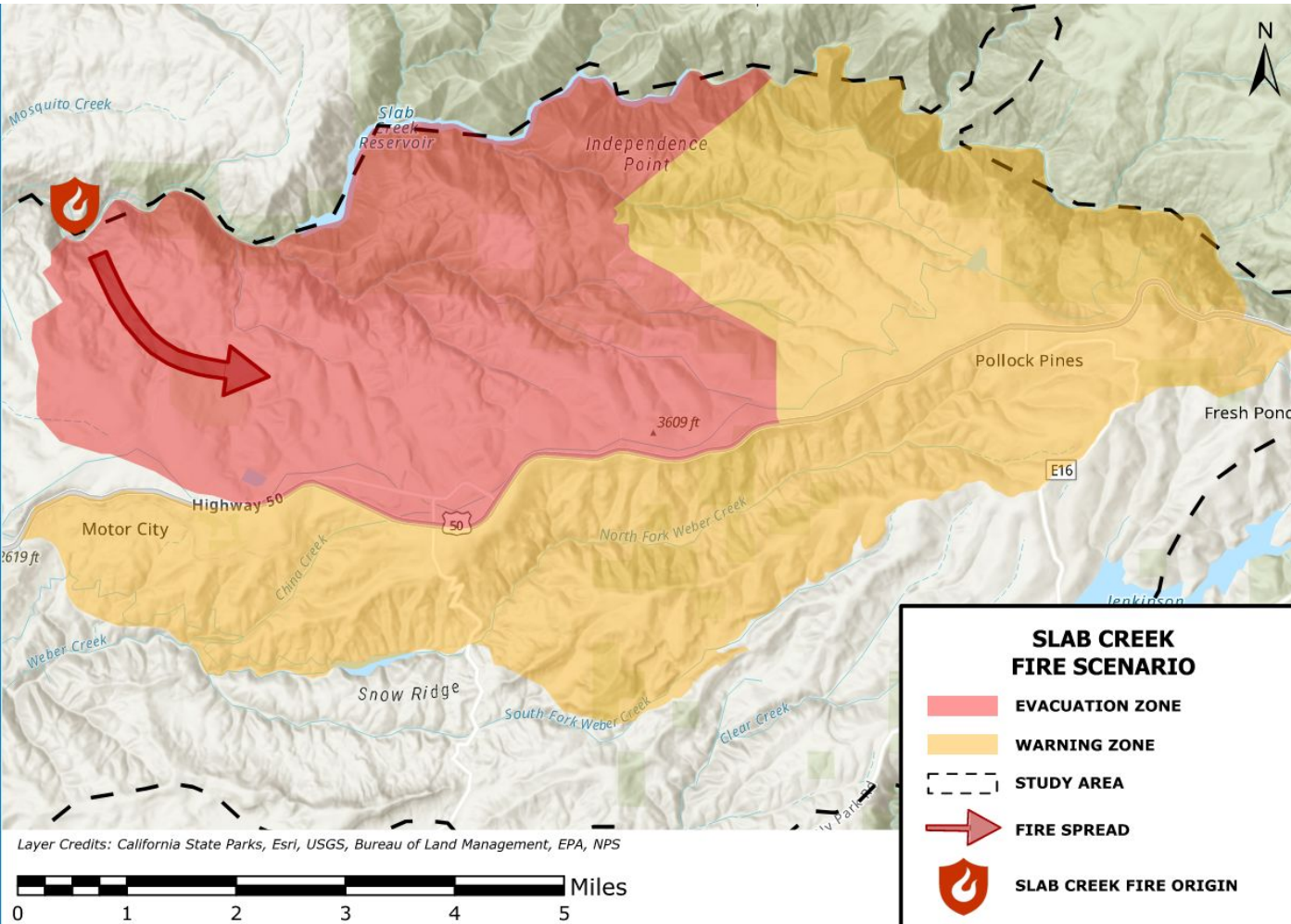
**Time of Evacuation Order:** 3 AM

**Closures:**

- SR 193
- SR 49 directional closure near Old Toll Rd
- US 50 east of Bedford Ave must evacuate south (E16) or east (US 50);
- US 50 closed to all non-emergency vehicles.



# SLAB CREEK FIRE SCENARIO



**Origin:** Near Slab Creek Dam on the South Fork American River

**Direction:** Burning southeast toward Camino and Cedar Grove

**Rate of Spread:** Reaching extent of evacuation zones over several hours

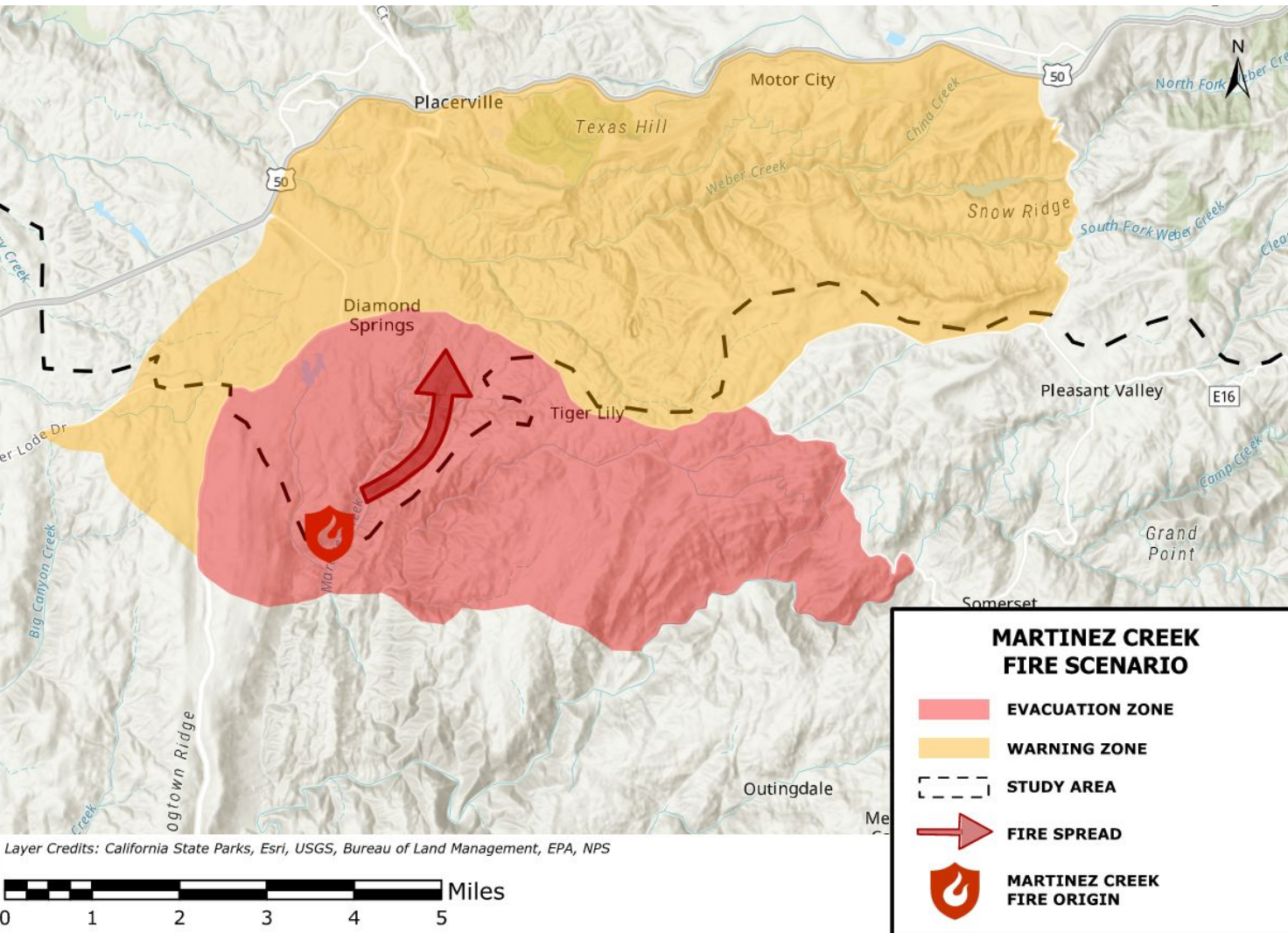
**Season:** Saturday in October (peak Apple Hill demand)

**Time of Evacuation Order:** Afternoon

**Closures:** No Closures in effect

**Background Traffic Condition:** US 50 remains open to through traffic. Evacuation zones assume household, visitor and employee evacuation demand

# MARTINEZ CREEK FIRE SCENARIO



**Origin:** Martinez Creek Drainage near the intersection of Martinez Creek Rd and Church Mine Rd

**Direction:** Burning north/northeast toward Diamond Springs and Tiger Lily

**Rate of Spread:** Reaching extent of evacuation zones over several hours

**Season:** Saturday in October

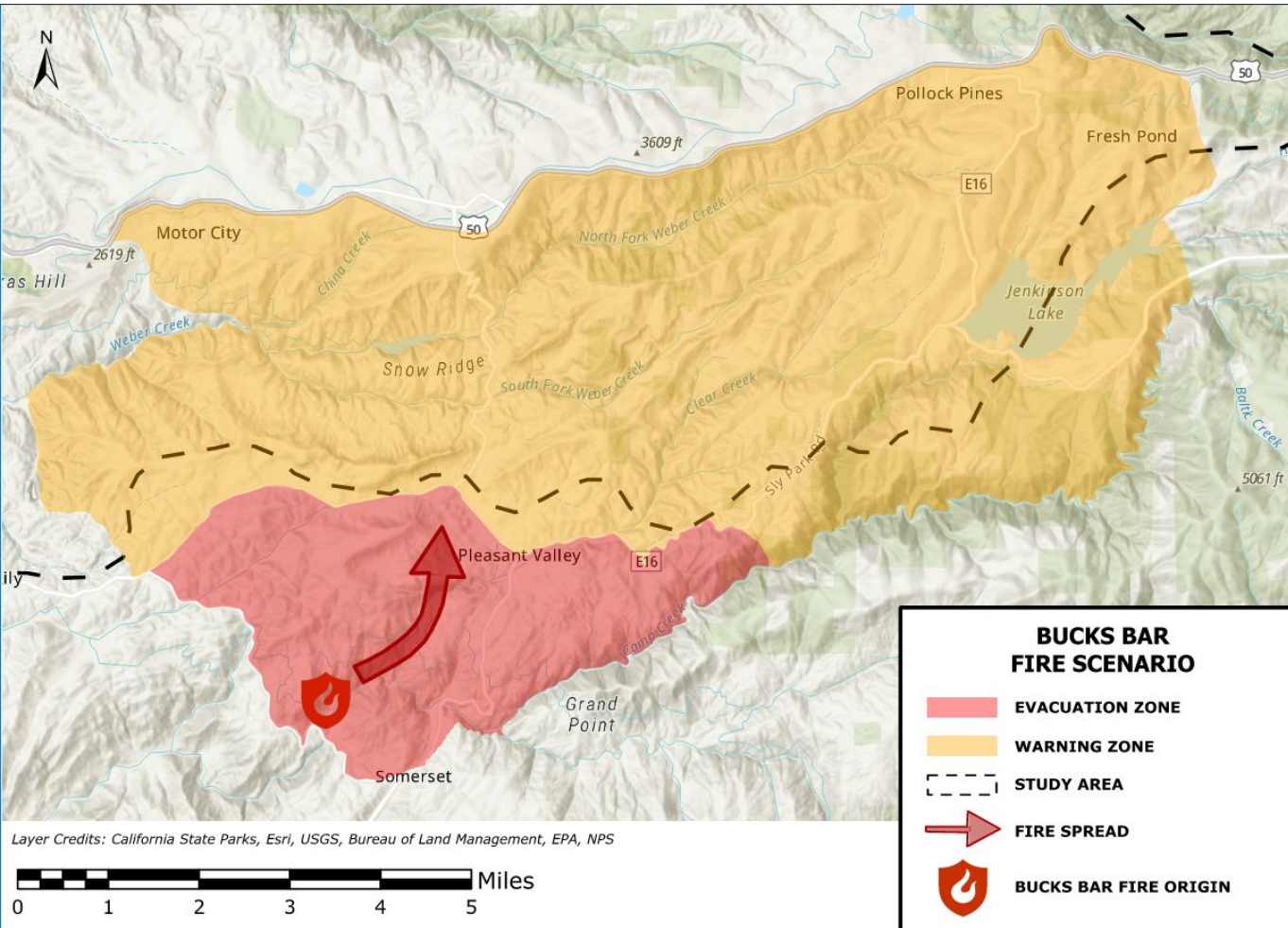
**Time of Evacuation Order:** Afternoon

**Closures:** No Closures in effect.

**Background Traffic Condition:** US 50 remains open to through traffic. Evacuation zones assume household, visitor, and employee evacuation demand.



# BUCKS BAR FIRE SCENARIO



**Origin:** Bucks Bar near Buck Bar Rd crossing of Cosumnes River

**Direction:** Burning northeast toward Pleasant Valley

**Rate of Spread:** Reaching extent of evacuation zones over several hours

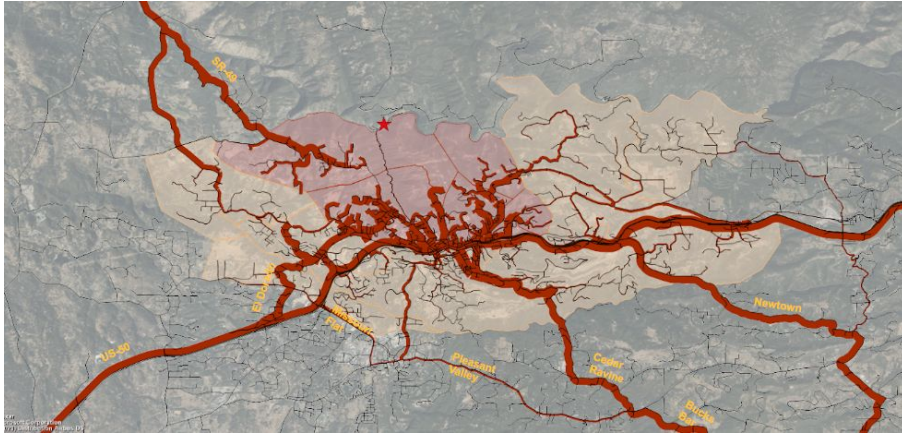
**Season:** Saturday in October

**Time of Evacuation Order:** Afternoon

**Closures:** E16 between Bucks Bar Rd and Pleasant Valley Rd (northbound evacuation traffic and emergency traffic only)

**Background Traffic Condition:** US 50 remains open to through traffic. Evacuation zones assume household, visitor and employee evacuation demand

# EVACUATION MODELING



## ***Simulation-based evacuation model:***

- Evacuation departure time intervals
- Evacuation destinations
- Complete roadway system and capacity
- Evacuation order closures (roads, non-evacuation traffic)
- Dynamic route choice based on congestion

## ***Insights:***

- Evacuation Time Estimates
- Identification of Resource Needs
- Identification of Infrastructure Projects



# EVACUATION MODELING

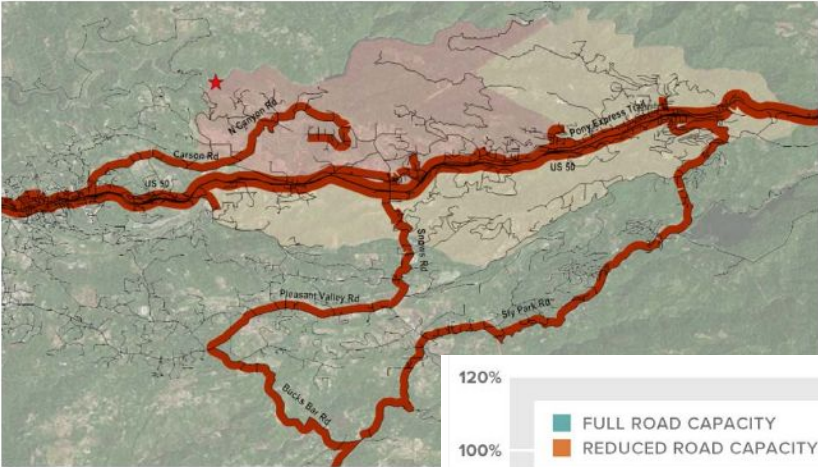


FIGURE 19. KEY EVACUATION ROUTES FOR SLAB CREEK FIRE

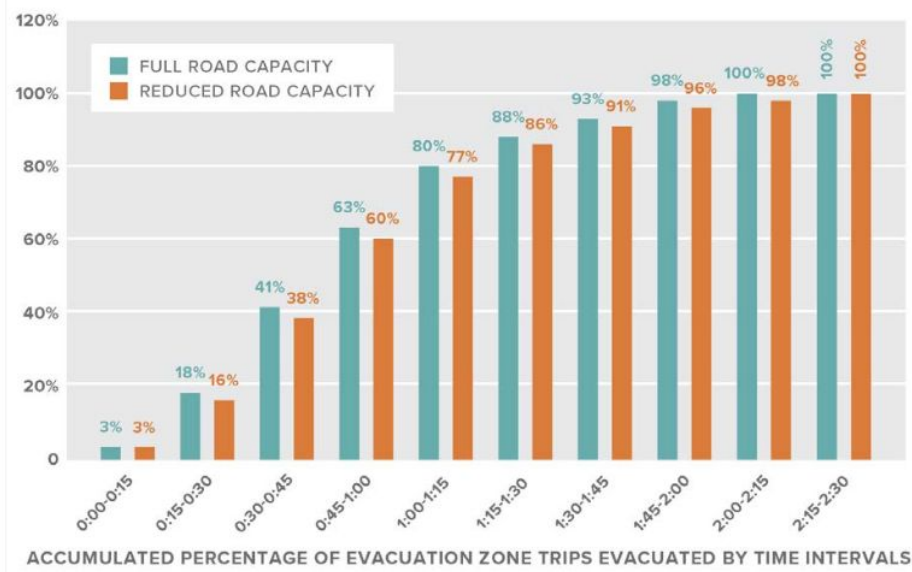


FIGURE 16. ACCUMULATED PERCENTAGE OF SLAB CREEK EVACUATION ZONE TRIPS EVACUATED BY TIME INTERVALS

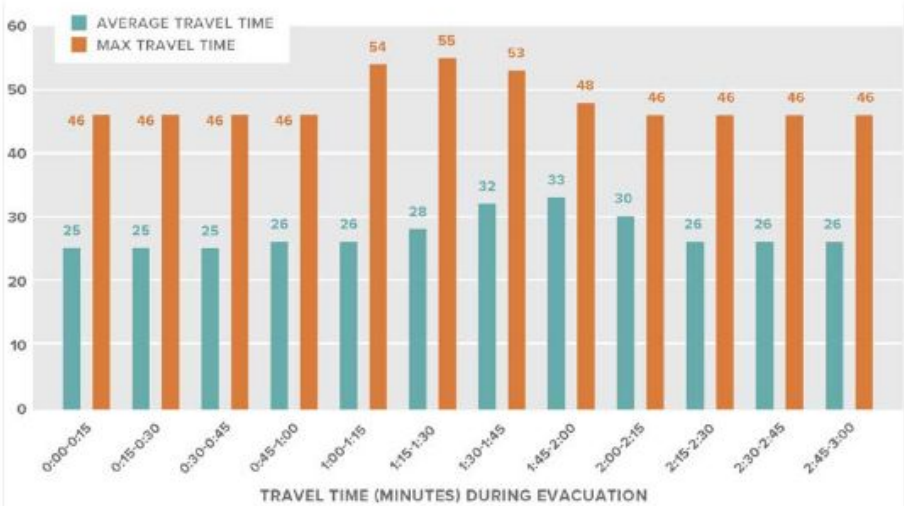


FIGURE 17. STUDY AREA EVACUATION TRAVEL TIME ESTIMATES FOR SLAB CREEK FIRE SCENARIO (FULL ROADWAY CAPACITY)

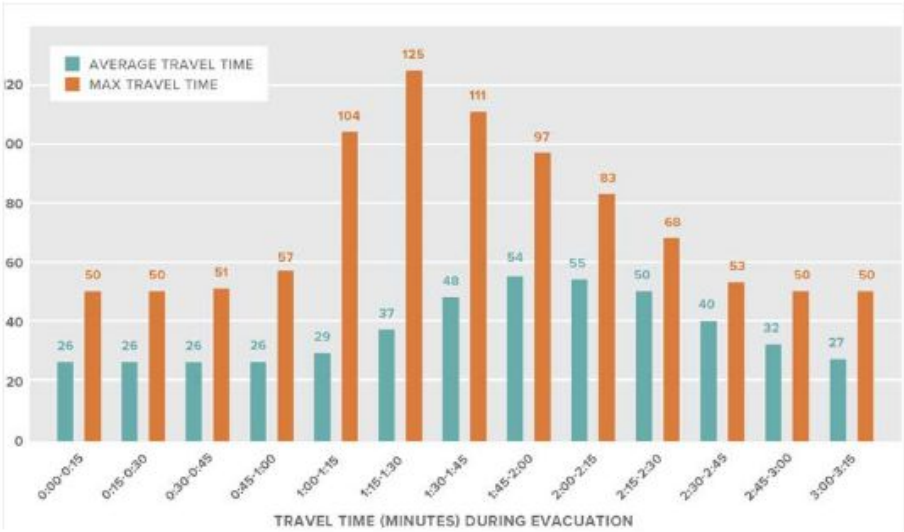


FIGURE 18. STUDY AREA EVACUATION TRAVEL TIME ESTIMATES FOR SLAB CREEK FIRE SCENARIO (REDUCED ROADWAY CAPACITY)

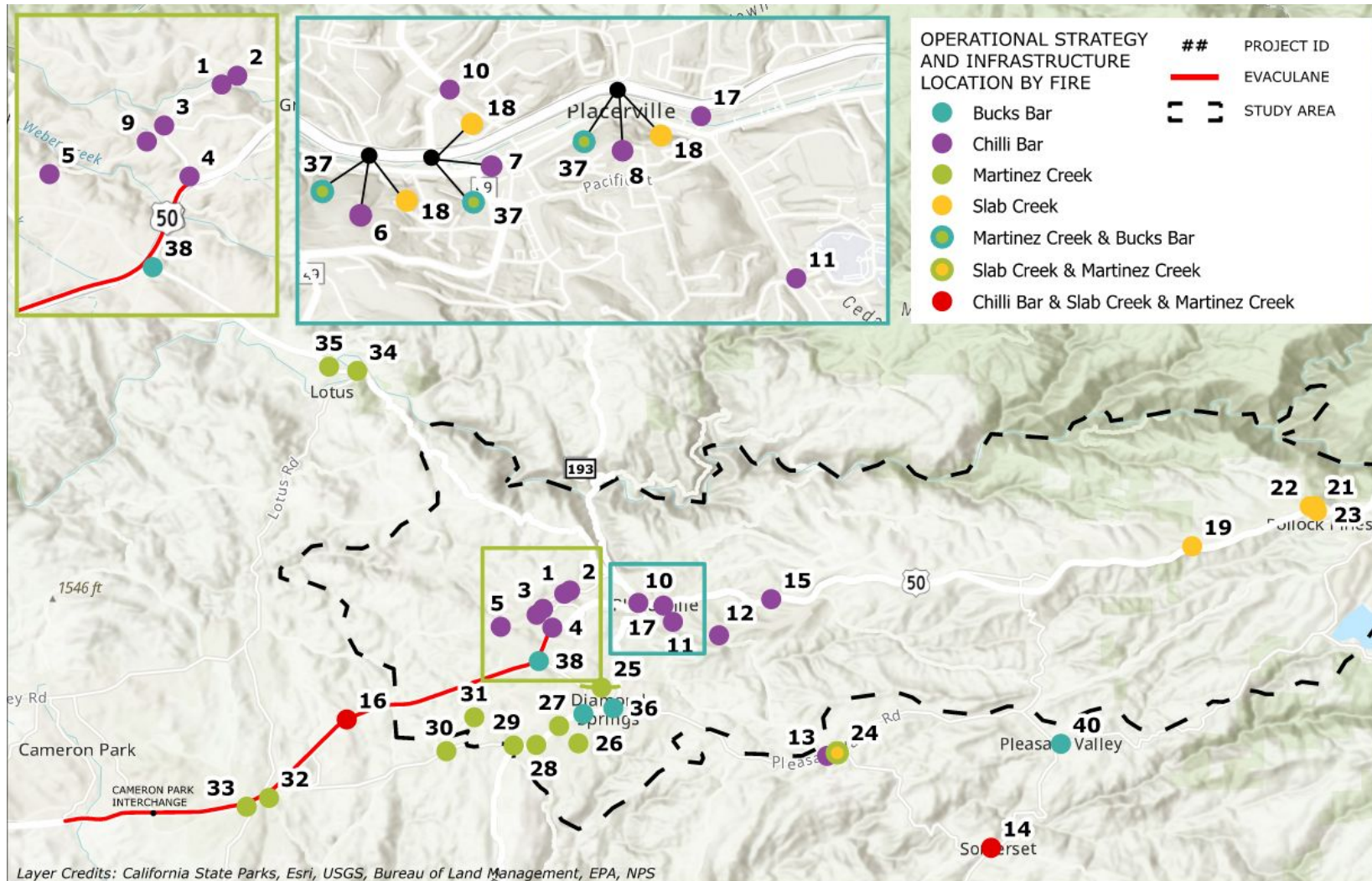


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## **OPERATIONAL STRATEGIES AND INFRASTRUCTURE PROJECTS**



# EVACUATION OPERATIONAL STRATEGIES & INFRASTRUCTURE PROJECTS



# OPERATIONAL STRATEGIES



- Manual traffic control
- Road closures (full or direction)
- Evacuation-specific signal timing plans

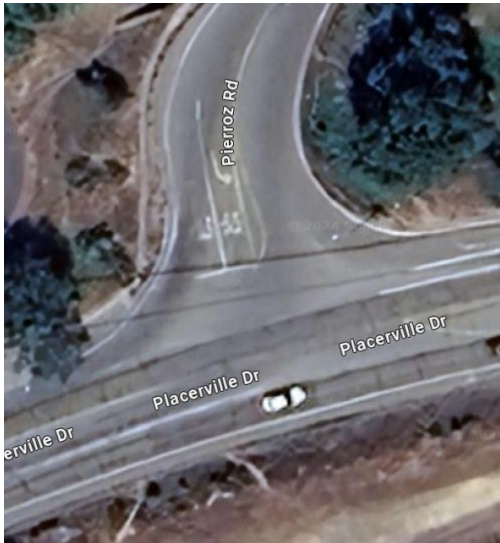


# INFRASTRUCTURE IMPROVEMENTS

**Goal:** Reduce traffic bottlenecks along evacuation routes and reduce the number of resources needed to manually control traffic.

## **Sample Projects:**

Perroz Rd / Placerville Dr



- Manually Flag
- Install Traffic Signal

Perroz Rd / Cold Spring Rd



- Manually Flag
- Compact roundabout (mountable for Lg vehicles)

Bucks Bar Rd / Mt Aukum Rd (E16)



- Manually Flag
- Acceleration/Merge lane for eastbound right turn onto E16

US 50 Downtown Placerville



- Applicable for evacuations east of Placerville, but not north or south

# INFRASTRUCTURE IMPROVEMENTS

**Example:** "Evaculane" emergency-only use of hard shoulder for evacuation capacity

**Need:** US 50 Placerville Drive to Cameron Park





# EVACUATION OPERATIONAL STRATEGIES & INFRASTRUCTURE PROJECTS

PROJECT ID	LOCATION	MITIGATION NEED	MITIGATION STRATEGY	MITIGATION DESCRIPTION	PRIORITY		POTENTIAL TRAFFIC CONTROL RESOURCE NEEDS (BASED ON REDUCED CAPACITY SCENARIO)		PLANNING-LEVEL COST ESTIMATE
					FULL CAPACITY SCENARIO	REDUCED CAPACITY SCENARIO	TIER 1	TIER 2	
WILDFIRE SCENARIO: SLAB CREEK (2 of 2)									
21	Pony Express Trail / Sly Park Rd	The stop controlled eastbound right turn results in congestion along the evacuation route.	A) Flagger B) Construct Roundabout C) Construct Traffic Signal	A) Flag eastbound right turn traffic through stop sign B) Construct roundabout to increase eastbound right turn flow rate, while improving year-round safety and delay reduction C) Construct traffic signal to reduce intersection delays. Include eastbound right turn lane with right turn overlap phase. Evacuation signal timing plan can be considered	Tier 2	Tier 1	1		A) n/a B) \$4,000,000 C) \$1,500,000
22	Pony Express Trail / Forebay Rd	Southbound left evacuation traffic from Forebay Road has limited opportunity to turn onto Pony Express Trail due to a lack of gaps in traffic and/or standing eastbound queuing.	A) Flagger B) Construct Traffic Signal	A) Flag traffic to alternate evacuation flows between eastbound through and southbound left. B) Construct traffic signal to reduce intersection delays. Include southbound left turn lane. Evacuation signal timing plan can be considered. Note) A roundabout would provide benefit here over no solution, but heavy flows from Forebay Road during an evacuation would limit eastbound through flows on Pony Express Trail.	Tier 2	Tier 2		1	A) n/a B) \$2,000,000
23	Sly Park Rd / Ridgeway Park Rd / US-50 EB Interchange	Eastbound US 50 off-ramp queues back from stop controlled ramp terminal and conflicting southbound Sly Park Road traffic. Eastbound Ridgeway Drive is also stop controlled and has conflicting southbound traffic from the off-ramp and through traffic on Sly Park Road, resulting in queuing.	Flagger	Flag traffic to alternative southbound Sly Park Road with eastbound US 50 off-ramp and eastbound Ridgeway Drive. Multiple traffic control personnel may be needed		Tier 2		2	n/a

# TECHNOLOGY & COMMUNICATIONS

**Example:** Remote Access roadside cameras and weather stations, Central traffic signal system

**Need:** Monitor traffic and weather during evacuations; Manage traffic signals

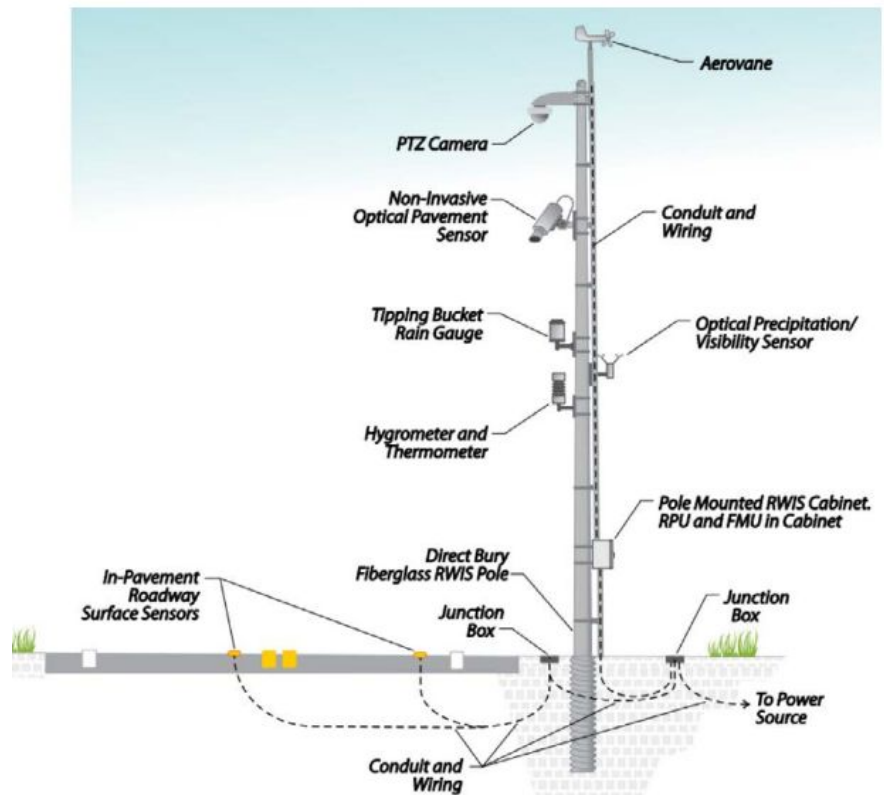
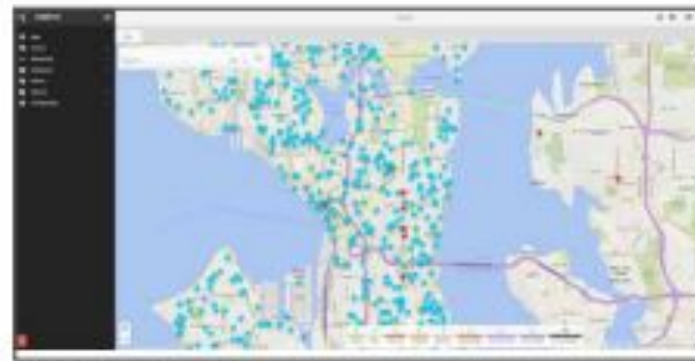
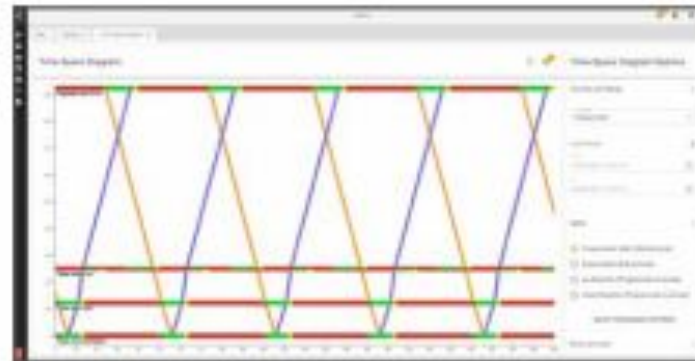


FIGURE 32. EXAMPLE ITS STATION WITH TRAFFIC AND WEATHER SENSORS



Web user interface



Time space diagram





# FUNDING

## 5.4. Funding Sources

Recommendations for enhanced infrastructure have been documented throughout this study. The table below summarizes the various funding sources available to EDCTC, which offer competitive grant opportunities and other revenue streams to government agencies. The best-matched funding opportunities associated with critical infrastructure recommendations are outlined in the table below.

TABLE 4. GREATER PLACERVILLE WILDFIRE EVACUATION PREPAREDNESS STUDY – POTENTIAL GRANT FUNDING SOURCES

PROGRAM	GRANTOR	ELIGIBLE PROJECT	FISCAL YEARS	MATCH
<b>ATTAIN:</b> The Advanced Transportation Technologies and Innovative Mobility Deployment (ATTIMD) program, also known as the Advanced Transportation Technology and Innovation (ATTAIN) program, provides funding to deploy, install, and operate advanced transportation technologies to improve safety, mobility, efficiency, system performance, intermodal connectivity, and infrastructure return on investment.	Federal	Advanced transportation technologies to improve emergency evacuation and responses by federal, state, and local authorities. (NOTE: Potential ITS including cameras at key project intersections)	The ATTIMD program will provide \$60 million for each of fiscal years 2022 through 2026. Not less than 20 percent of the amounts made available to carry out this paragraph shall be reserved for projects serving rural areas.	The federal cost-share is 80 percent; the applicant must supply the remaining 20 percent.
<b>PROTECT:</b> Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation (PROTECT) Grant program provides funding to ensure surface transportation resilience to natural hazards including climate change, sea level rise, flooding, extreme weather events, and other natural disasters through support of planning activities, resilience improvements, community resilience and evacuation routes, and at-risk coastal infrastructure.	Federal	Eligible uses include highway, transit, and certain port projects that include resilience planning, strengthening and protecting evacuation routes, enabling communities to address vulnerabilities and increasing the resilience of surface transportation infrastructure from the impacts of sea level rise, flooding, wildfires, extreme weather events, and other natural disasters.	The PROTECT program provides \$1.4 billion in funding over 5 years. Individual award amounts vary. Only 40 percent of award funds can be used for construction of new capacity.	Federal cost share is 80% but federal cost-sharing will be higher if the eligible entity develops a resilience improvement plan (or is in a state or area served by MPO that does) and the state or MPO incorporates it into its long-range transportation plan.



**NEXT STEPS**



# NEXT STEPS

- March 19, 2024: Stakeholder Advisory Committee meeting
- March 19, 2024: Virtual Community Workshop
- March 23, 2024: Placerville FSC Wildfire Safety Event
- May 2, 2024: Present Draft Study to EDCTC Board and Public
- Revise Draft Study based on agency, public, and EDCTC Board comments
- June 6, 2024: Present Final Study to EDCTC Board

# QUESTIONS?

