STATE ROUTE (SR) 49 AMERICAN RIVER CONFLUENCE STUDY

DRAFT REPORT

JANUARY 2023

PREPARED FOR:

EL DORADO COUNTY TRANSPORTATION COMMISSION

el dorado county edctc TRANSPORTATION COMMISSION

DKS

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EXECUTIVE SUMMARY

INTRODUCTION

The State Route 49 (SR 49) American River Confluence Study is a project funded by a California Department of Transportation (Caltrans) Partnership Planning Grant. This effort was a partnership between California State Parks, Caltrans, El Dorado County, Placer County Transportation Planning Agency, and the El Dorado County Transportation Commission (EDCTC). The need for this study was brought forward in early 2020 by the residents, local and regional stakeholders, and elected officials concerned about the overcrowding, accessibility, and general safety of this corridor, especially near the Auburn State Recreation Area located at the North and Middle Forks of the American River, known locally as "the Confluence". The fundamental purpose of this partnership initiative was to examine the SR 49 corridor from the community of Cool north to the City of Auburn to better understand the impacts of tourism and recreation, heavy truck traffic, and operations and safety in and around the Confluence. EDCTC led this effort to better understand the growing concerns and identify potential solutions to resolve some of the issues presented. EDCTC worked with the project partners to develop a scope of work to include the following analysis and assessments:

- System User Analysis
  - Identify existing traffic count data, mobile sourced location-based data
  - Analyze data to establish travel patterns, origin and destinations, travel times, peak period congestion, traveler demographics, and travel modes
- Parking Safety Assessment
  - Identify and evaluate existing parking facilities including unofficial and/or restricted areas used for parking
- Roadway Safety Assessment
  - Assess existing safety risks associated with roadway configuration, sight distances, bicycle and pedestrian use, trail head conflicts, evacuation routes, and heavy truck traffic use.

Throughout the development of these assessments, the project team facilitated multiple public outreach and stakeholder engagement efforts to garner input from the public and stakeholders. This was a multi-phased approach including preliminary virtual workshops, an interactive online public engagement platform, public survey, and finally in-person workshops. The project team summarized and integrated the input received through public engagement with the analysis and assessment reports to develop a suite of recommendations to improve operations and safety of the corridor. These recommendations were broken into the following assessments:

- Safe and Accessible Parking and Pedestrian Safety Assessment
  - Identify new off-street parking facilities
  - Improve, remove, and/or replace existing parking situation at the Confluence
  - Prepare investment strategy to support parking amenity improvements
- Heavy Truck Assessment

- Examine heavy truck traffic characteristics in and around the Confluence
- Develop signage and traveler information plan to inform heavy truck operators to limit the amount of over-sized trucks in and around the Confluence

- Transit Shuttle Feasibility and Funding Assessment
  - Determine the feasibility of developing a multi-agency transit shuttle service
  - Determine the feasibility of implementing near and long-term transit shuttle service
  - Establish a schedule for transit shuttle service
- Comprehensive Operations Assessment
  - Combine parking, truck, and transit shuttle plans into a comprehensive plan for investments along SR 49 and surrounding area
  - Include a strategy for public information and outreach to inform visitors and residents of any changes, new opportunities, pricing, and availability

Each of the components were presented to the stakeholders and the public through virtual and in-person workshops. During the first two series of workshops, the public was very focused on parking, truck traffic, and congestion in and around the Confluence. During late 2020 and 2021, visitation to the Auburn State Recreation area at the Confluence increased dramatically. This increased visitation clearly impacted not only those visiting the Confluence, but the many residents who rely on SR 49 for daily travel for employment, education, goods, and services. Consequently, the recommendations included in the study are focused on those issues, traffic, parking, trucks, and congestion.

The final public workshop was held on October 26, 2022, at the Cool Community Church. During this workshop, similar to those held previously, the recommendations were presented to the public and focused on parking, truck traffic, and congestion. However, the public who attended this final workshop had a different area of concern which was evacuation planning given the recent Mosquito Fire which impacted many of the residents. While this study was never intended to be an evacuation plan, the proposed recommendations do have a direct and meaningful benefit to the operations of SR 49 for all conditions, including in the event of an evacuation. Each of the proposed improvements would reduce the potential for congestion, blocked roadways, and other unsafe conditions. Evacuation planning is not the role of EDCTC nor is it appropriate to include in this study. However, EDCTC understands the strong concerns voiced at this final workshop and have identified grant opportunities and the appropriate agencies should an evacuation plan be pursued by the community or one of the state or regional agencies responsible for this line of planning and preparedness. EDCTC has shared the concerns voiced with local and regional fire agencies, El Dorado County, California State Parks, and Caltrans. Should the community continue to seek evacuation and wildfire preparedness planning efforts, EDCTC will be happy to serve as one of the partners on such an effort.

The over-arching purpose of this study was to develop strategies to ensure that this increasingly popular outdoor recreation area along SR 49 is safe and accessible for all and provides for the safe accessible, and efficient operation of the roadway.

BACKGROUND

Tourism and recreation are one of the fundamental economic activities in the Sierra Foothills of El Dorado and Placer Counties. US Highway 50 connects the Bay Area to Lake Tahoe while SR 49, the primary north-south transportation route bisecting El Dorado County, connects the City of Placerville to the City of Auburn in Placer County to the north and the City of Jackson in Amador County to the south. SR 49 connects vast recreation and tourism destinations along its entire length including gold discovery sites, rafting, and agritourism. One of the most heavily visited recreation sites along this segment of SR 49 is the Auburn State Recreation Area located on SR 49 at the Confluence of the North and Middle Forks of the American River. SR 49 traverses steep winding canyon terrain in this area while also serving as the primary route into and out of the river canyon and recreation area. High usage and visitation combined with limited parking, limited sight distance, severe wildfire danger, no existing long-term transit or shuttle service, and a consistent volume of heavy truck traffic, present a dire need to analyze and address the safety and operation of this segment of SR 49.

Usage of the recreation resources accessed along this segment of SR 49 continues to grow dramatically. During peak season, thousands of daily visitors enjoy the vast recreation and tourism opportunities in this part of Northern California. Recent increases in visitation have exacerbated unsafe and/or undesirable conditions along SR 49 at and around the Confluence.

In April 2022, Dean Runyan Associates published a report for Visit California which identified trends in tourism and travel behavior from 2012 to 2021. 2019 saw the highest point ever in the travel and tourism industry. This is consistent with what the local residents and stakeholders experienced and expressed regarding the Confluence and Auburn State Recreation Area. In 2020 and 2021, the statewide travel economy declined somewhat due to the COVID-19 pandemic and subsequent shelter-in-place orders. However, visitation to the Confluence remained strong as people sought outdoor recreation and open space to escape the confines of the pandemic. Consequently, the tourism economy and overall visitation in El Dorado County has returned any pandemic related losses and is back up to spending level consistent with 2019 of $1.1 billion.

In addition, California State Parks (Auburn State Recreation Area Gold Fields District) internally developed the *Traffic Safety – State Route 49, American River Confluence Issue Paper* (November 20, 2019). This paper explored options with Caltrans and the U.S. Bureau of Reclamation (Reclamation) to: 1) increase traffic safety on SR 49 just south of the bridge at the Confluence; 2) identify a mechanism to collect day use fees on SR 49; and, 3) further discuss the possibility of a realignment of SR 49 via a bridge over the Middle Fork Canyon. The following five options for addressing the traffic safety needs in the SR 49 American River Confluence area were evaluated: 1) No Action; 2) Install "No Parking" signs prohibiting parking from the bridge to the existing no-parking area southbound; 3) Install a passing lane utilizing the existing shoulder parking area; 4) Formalize the existing parking area by striping the parking spaces where adequate space exists; and, 5) Widen or shift the roadway to the east to increase parking space. Based on an assessment of each alternative option, State Parks recommended Option 4 as the most desirable and feasible direction forward. This study is consistent with, and expands upon, this recommended action by State Parks.

STUDY AREA DEFINITION

The Study area included SR 49 from the City of Auburn at the intersection of Lincoln Way/Borland Avenue to the Confluence of the North and Middle Forks of the American River (Auburn State Recreation Area) to the Community of Cool at Georgetown Road (SR 193).

STAKEHOLDERS

The SR 49 American River Confluence Study was a collaborative effort between the El Dorado County Transportation Commission (EDCTC), the Placer County Transportation Planning Agency (PCTPA), Caltrans, California State Parks, Regional Transit Operators, El Dorado County, the City of Auburn, and Placer County. In addition to these participating agencies, a comprehensive stakeholder list was developed spanning community organizations, environmental and recreational organizations, local business representatives, pedestrian/bicycle advocacy groups, native American Tribes, media, and members of the public.

KEY ISSUES IDENTIFIED

This effort included a multi-tiered approach to understanding the issues that concern this corridor including: field visits; a road safety audit to observe parking, safety and operations issues; a data-based review of travel patterns, travel demand, and usage within the corridor; and, public outreach to determine community-identified issues. SR 49 serves a diverse demographic profile that is distributed evenly among young adults (18–35), middle aged, to over-65 as well as income levels. Approximately 40% of the trips using SR 49 are home-based trips. Trip purposes also span commuters (10%), shoppers (15%), goods movement (7%) recreationist (5%), and other (social, errands, dining) (10%). SR 49 serves dual purpose, a throughway and the shortest path between US 50 to the east and I-80 to the north, and a destination for significant recreation opportunities and a State Recreation Area. This is complicated by the fact that there are no equivalent alternative routes for SR 49 that don't add significant travel time, and that the roadway cross section through the study corridor is restricted to one lane in each direction with minimal shoulder width. This can cause excessive delays when there is an incident (i.e., collision or vehicle malfunction) or if an over-sized truck cannot negotiate a tight curve (as shown in **Figure 1**). This only serves to exacerbate concerns of local residents regarding evacuation events.

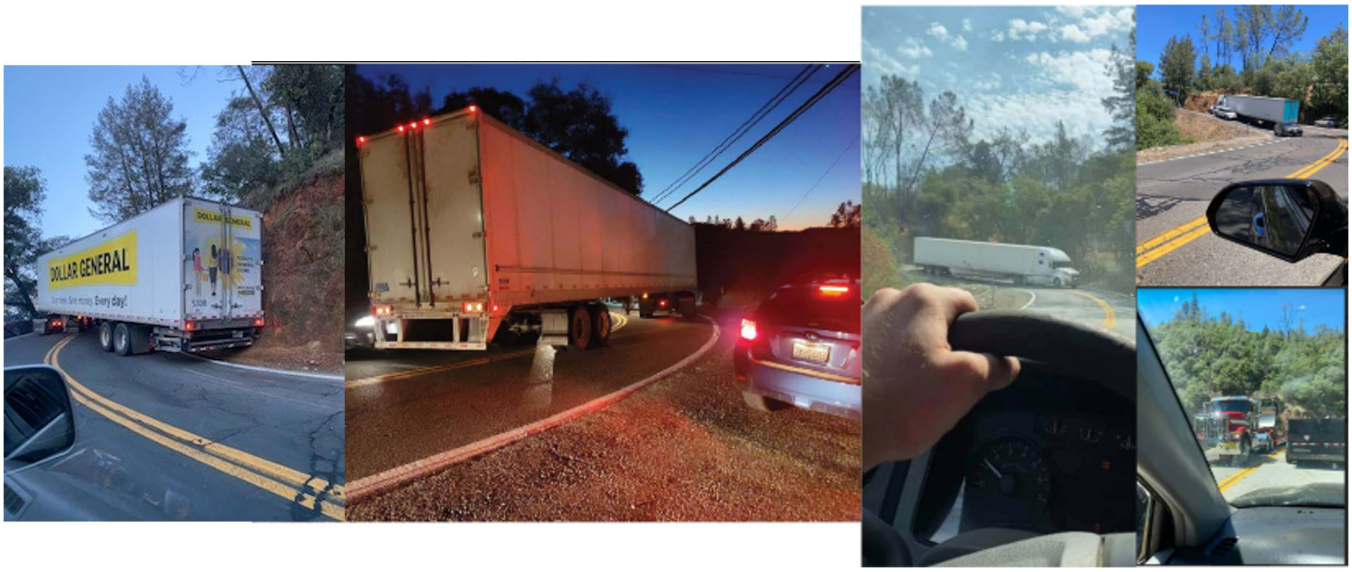


FIGURE 1: EXAMPLES OF TRUCKS STUCK ON SR 49

The continued presence of oversized trucks on SR 49 that are unable to navigate many of the tight turns along Segment 2, is a significant issue to corridor operations. A truck that is stuck on a curve can block traffic for hours until it is cleared, adding significant delays to travel along the corridor, as well as safety and emergency response. It is also a regular topic of concern, inconvenience, and safety hazard for local residents.

Additionally, a speed limit of 55 mph, frequent curves in the roadway alignment, limited dispersed parking locations, and no safe pedestrian crossing locations leads to a hazardous environment for the many pedestrians who use the area for recreational purposes.

In addition to the issues identified through this effort, the State Parks Issue Paper previously described also identified traffic safety issues associated with the unregulated parking area just south of the bridge crossing the North Fork American River adjacent to the Confluence, citing unsafe interactions between parking vehicles and pedestrians accessing trailheads and the lack of alternate routes in the event of a collision that blocks the roadway.

PROJECT OBJECTIVES

The project scope identifies four objectives for this project to address:

- Improve corridor access by examining infrastructure characteristics, corridor operations, and collision history to inform improvements for parking access, new transit/shuttle services, safety, and operational efficiency,
- Determine the feasibility of establishing a shuttle service and a means to fund the service,
- Identify opportunities to divert and/or reroute oversized heavy-duty trucks that currently improperly utilize the study corridor, and

- Examine improved operations of SR 49 throughout the study area to support the emergency evacuation potential of the corridor.

PROJECT OUTREACH

The effort has undertaken significant public outreach across multiple forums, both online, virtual, and in-person. The main outreach efforts are described below:

PROJECT WEBSITE

The project website was the main online presence for the project and includes a section on Frequently Asked Questions (FAQ), a link to a community survey, a project schedule and interim deliverables that could be reviewed, and an interactive mapping tool (Social Pinpoint) where website visitors could highlight specific locations and concerns. The survey received 194 responses, and the Social Pinpoint mapping tool generated significant engagement with 1,762 visits from 738 unique users.

STAKEHOLDER WORKSHOPS

The project team hosted two virtual stakeholder meetings which presented key analysis results and project recommendations to stakeholders representing partner agencies, elected officials, and community organizations. The stakeholder meetings provided critical feedback and review on project materials in advance of the public workshops. A full list of people involved from each agency can be found in **Appendix A**.

PUBLIC WORKSHOPS

The project team hosted one virtual workshop (April 6, 2022) early in the project timeline and then hosted two in-person workshops (July 14, 2022, October 26, 2022) in Cool near the end of the project to present and receive feedback on project recommendations. Both in-person workshops were well attended with approximately 50 attendees each, and resulted in significant engagement, feedback, and talking points.

ADDITIONAL CONSIDERATIONS

While the focus of this study was to identify strategies for enhancing circulation, safety, and access within the study corridor (i.e., oversized heavy truck traffic, solutions to parking, roadway safety, bicycles and pedestrians, transit/shuttle options), there were several other related issues that were identified as key concerns by the public. During the early phases of public engagement, oversized truck traffic was the primary issue raised by the residents and outreach participants. Many voiced concerns that the study was myopically focused on the needs of visitors versus those who live in the study corridor (i.e., residents). However, the study is focused on all users of the transportation system along the study corridor. All modes and all users were evaluated for the purposes of improving safety and operations of the corridor for all. During the final public workshop, directly following the Mosquito Fire, participants raised concerns that were outside the scope of this project,

namely wildfire evacuation planning. While this study considers improvements that will certainly improve operations of the corridor in the event of an evacuation, it is not nor was never intended to serve as an evacuation plan. However, the importance of evacuation planning and sensitivity to wildfire threat combined with the collaborative nature of the project and relevance to many of the included stakeholders, these key concerns that were raised, but not aligned with the scope of this study, are described below.

FIRE EVACUATION

The recent Caldor Fire (2021) and Mosquito Fire (2022) have heightened community concerns about how an evacuation would occur for all rural foothill residents living along or nearby the SR 49 study corridor. Given the limited corridor capacity, increasing congestion from recreational visitation, presence of oversized trucks and susceptibility to blockage from traffic collisions or CalFire or other emergency services operations, many participants at the final (October 26, 2022) workshop advocated a more explicit examination of evacuation strategies during a wildfire event. To address this, the residents expressed a need for evacuation preparedness planning to be done in and around the study area. The workshop participants requested that this confluence study shift its focus to become an evacuation plan. Given the constraints of the funding agreement and approved scope of work, the project team was unable to change course to focus solely on evacuation planning. However, many of the project partners are involved in evacuation preparedness planning in other areas of the community and California. To effectively develop an evacuation preparedness plan, the El Dorado County Office of Wildfire Preparedness and Resilience, El Dorado County Office of Emergency Service, Resource Conservation District, State Parks, and CalFire would be the appropriate agencies to develop such a plan. While many of the improvements proposed in this SR 49 American River Confluence Study will improve operations of the corridor and thus evacuation operations, they are not intended to serve as evacuation planning tools or solutions. This is critical to clarify as the intent of the study did consider evacuation as an issue but did not in any way make evacuation specific recommendations. That is the responsibility of the emergency responders and agencies with direct and immediate oversight in the event of a wildfire. The public agencies responsible for emergency response and fire protection are the appropriate experts to work with the community including many of the partner agencies involved in this study.

INCREASED USE AND VISITATION OF AUBURN STATE RECREATION AREA

The community identified multiple concerns about the increased visitation and usage of the Auburn State recreation area and the impact this has had on the accessibility of SR 49, pullouts, and parking along the corridor. These issues were primarily framed in the context of a desire by some residents to consider limiting visitation to the Auburn State Recreation Area, parking, and access to the state park. These issues fall under the purview of State Parks, CHP, and Caltrans depending on the specific location in question. Specific concerns involve:

- Visitation of the park exceeding the existing carrying capacity
- Utilization of available right-of-way by emergency vehicles during rescues, crash response, fire events and training;

- Limiting parking to reduce visitation to the Confluence area;
- A lack of enforcement by CHP and/or Caltrans, mainly regarding oversized trucks on SR 49 ; and,
- A lack of congestion management for recreational visitors to the State Recreation Area

While each of these are important issues that should be considered, they are not a component of this study. Auburn State Recreation Area is managed and operated by State Parks consistent with their General Plan/Resource Management Plan.

FINDINGS

The ultimate result of this study was identification of project recommendations to be added to the local capital improvement programs, state parks master plans, short- and long-range transit plans, and Caltrans State Highway Operations and Protections Program (SHOPP). The recommendations were organized in several categories, based on the relevance to the different modes of travel, operations, and objectives of this study:

- **Type 1 – Existing Issues**
  - Oversized Truck Traffic
  - Operational Improvements
  - Evacuation Support
- **Type 2 – Corridor Shuttle Stops and Parking Capacity**
- **Type 3 – Safety and Pedestrian Improvements to Support Shuttle Operations**

Specific locations and types of projects are shown in **Figure 2**. Details for specific improvements include the following corridor projects:

TYPE 1 – EXISTING ISSUES

The following recommended improvements address existing issues along the corridor:

- Identify locations in Placerville and Auburn and place signage to deter oversized trucks from entering the corridor
- Establish communication with heavy truck operators and dispatch centers to inform them of alternative routes and the safety impacts of using the corridor
- Standardize lane widths along the corridor, especially at hairpin turns on Segment 3
- Provide signage that restricts pedestrian travel on the shoulder in areas where there are no trailheads or parking
- Add centerline and edgeline rumblestrips and consistent delineation along the western portion of Segment 2 and the eastern portion of Segment 3

FIGURE 2: RECOMMENDED PROJECT LOCATIONS AND TYPES

Oversized Truck Traffic

- Install signage at multiple locations in Auburn, and the I-80 interchanges with Elm Avenue and SR 49 in Auburn to direct oversized truck traffic away from the SR 49 study corridor
- Install signage at multiple locations in Placerville and the US 50 intersection with Spring Street SR 49, Missouri Flat Road Interchange, and on existing changeable message signs along US 50 west of Placerville to Hazel Avenue to direct oversized truck traffic away from the SR 49 study corridor
- Pursuant to the conditions of approval established as part of the entitlement process and approval of the Dollar General Store located in Cool, coordinate with El Dorado County to better enforce Dollar Store truck restrictions in the Confluence

Operational Improvements

- Provide dynamic signage at the intersection of SR 49 and Lincoln Way that indicates the availability of parking at the Confluence and highlights shuttle service availability
- Provide dynamic signage in Cool adjacent to the Auburn Lake Recreation Area parking that indicates the availability of parking at the Confluence and highlights shuttle service availability
- Perform an Intersection Control Evaluation study at the intersection of SR 49 and Old Foresthill Road to determine if there is a need for additional or changed intersection control
- Perform an Intersection Control Evaluation study at the intersection of SR 49 and SR 193 to determine suitability of a roundabout or other intersection configuration that would support future traffic volumes should they reach a level unsupported by the current stop control intersection

- Coordinate with Caltrans to determine the need for reducing speed limits on SR 49 within the Confluence (pursuant to AB-43 which provides Caltrans and local authorities greater flexibility in setting speed limits)

Evacuation Support

- Increase roadway maintenance to reduce vegetation and fuels and provide defensible space in parking areas, turnouts, and along the right-of-way along the entire segment of SR 49 from Placerville to Auburn
- Increase emergency response communications through expanded cell coverage in areas that currently have limited or no cell service available
- Install dynamic parking availability signs for the Confluence at Placer County Fairgrounds, the proposed Park & Ride parking lot in Cool, and along the SR 49 corridor at formalized parking locations which can be used to post information in the event of an evacuation or wildfire
- Work with emergency first responder agencies to identify protocols for shuttle operations to provide support to first responders when/if requested by those agencies

TYPE 2 – CORRIDOR SHUTTLE SERVICE, STOPS AND PARKING CAPACITY

- Identify Park and Ride Parking Lot locations in Auburn (Placer County Fairgrounds) and Cool (along St Florian Court and/or Ellinghouse Drive near Holiday Market)

Implement Shuttle Service along the Corridor

- Implement a shuttle service between Auburn and Cool, funded in combination between;
  - Local/State/Federal Transit Funding sources
  - Public/Private partnerships (e.g., rafting services that currently provide transportation that could utilize the shuttle)
- Install shuttle stops at:
  - Auburn and Cool Park and Ride lots
  - Bidirectional shuttle stops at Locations 4, 5, and 6 (**Figure 2**)
  - Eastbound shuttle stop at the Confluence (Location 8 on **Figure 2**)
  - Westbound shuttle stop at the Quarry lot (Location 9 on **Figure 2**)

Formalized Paid Parking Areas along the Corridor

- This project identified three locations (Locations 4, 5, and 6 on **Figure 2**) along the study corridor where parking would be formalized.
- Implement or update parking fees for high demand parking locations along Segment 2 (Location 8 and the Location 9 Quarry Lot trailhead on **Figure 2**) by applying the existing flat-rate for parking in the recreation area ($10 per vehicle per day).
- Install signage restricting parking at small turnouts

TYPE 3 – SAFETY AND PEDESTRIAN IMPROVEMENTS TO SUPPORT SHUTTLE OPERATIONS

- Install pedestrian-activated flashing beacons and striped crosswalks at shuttle stop locations where pedestrians have reason and purpose to cross the street such as trail heads

- Install a striped crosswalk on Old Foresthill Road at the intersection with SR 49 (Location 7 on **Figure 2**) consistent with Caltrans pedestrian crossing standards
- Adjust striping on the SR 49 bridge across the North Fork River to reduce shoulder width on the south side and maximize shoulder width on the north side to allow for one safe pathway for pedestrians and cyclists (Location 7 on **Figure 2**)
- Add a Class 1 multi-use trail on both sides of the road between the Confluence (Location 8 on **Figure 2**) and Quarry Lot (Location 9 on **Figure 2**)
- Add an ADA pedestrian connection between the shuttle stop at the Quarry Lot (Location 9 on **Figure 2**) and ADA trailhead

PARKING REVENUE AND STATE PARK FUNDING NEEDS

Although local sources of funding (i.e., new parking fees) are a potential funding source to defray the cost of providing a "new" seasonal shuttle service between Auburn and Cool, this study recognizes the existing funding needs of State Parks. Approximately 40% of the Auburn State Recreation Area budget is funded through the Bureau of Reclamation with the remaining 60% coming from user fees. Given the dispersed character of Auburn State Recreation Area with many informal and remote access points, it is not feasible or effective to charge fees in many places. The Confluence, China Bar and Lake Clementine are locations where State Parks effectively charge fees. Given how significant this source of revenue is for maintaining Auburn State Recreation Area's operations across approximately 30,000 acres, alternative revenue sources to fund a new shuttle service should be explored[1]. This includes federal Congestion Mitigation and Air Quality Improvement (CMAQ) funding, which could be used to subsidize shuttle operations for up to 3 years. In addition, funding from Transportation Development Act (TDA), Local Transportation Funding (LTF), the El Dorado Air Quality Management District (AQMD), or public-private funding partnerships are also potentially feasible.

[1] During the course of this study the State Parks revenues decreased by approximately $250,000 after the COVID utilization spike, while concurrently, other operating expenses increased (Source: State Parks).

1. CORRIDOR TRAVEL CHARACTERISTICS

STUDY SEGMENTS

The Study area will include SR 49 from the City of Auburn at the intersection of Lincoln Way/Borland Avenue to the Confluence of the North and Middle Forks of the American River (Auburn State Recreation Area) to the Community of Cool at Georgetown Road (SR 193). For the purposes of this study, the study corridor was divided into four study segments as shown in **Figure 3**:

- Segment 1 – Lincoln Way/Borland Avenue (PM 2.35) to Auburn City Limits (PM 1.75)
- Segment 2 – Auburn City Limits (PM 1.75) to Placer County/El Dorado County Line (PM 0.0)
- Segment 3 – Placer County/El Dorado County Line (PM 38.2) to east of the quarry (PM 36.5)
- Segment 4 – East of the quarry (PM 36.5) to Georgetown Road/SR 193 (PM 34.5)

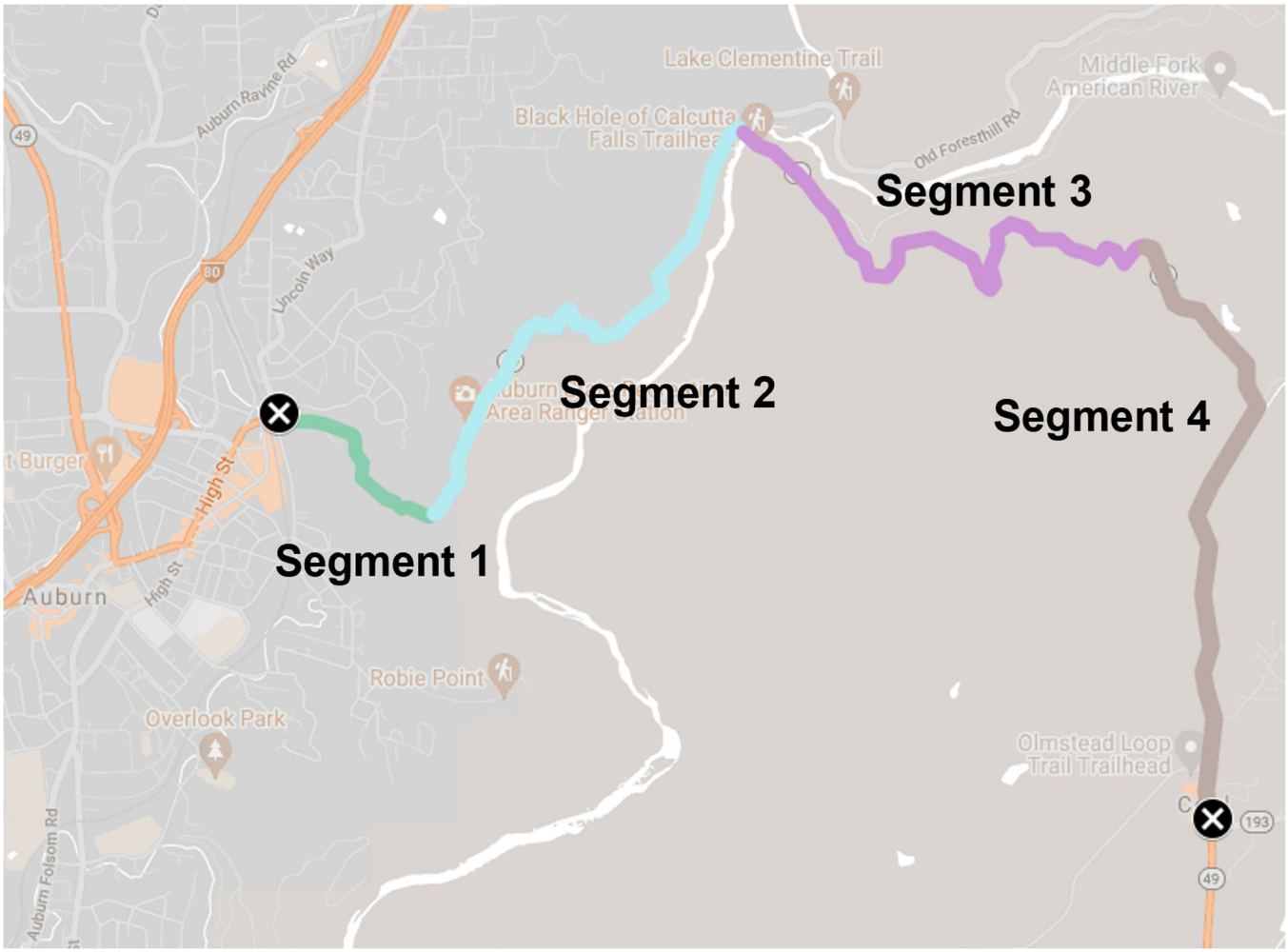


FIGURE 3: STUDY SEGMENT DEFINITION

TRAFFIC VOLUMES

The average daily traffic volumes in 2020 for all vehicles and for trucks is shown in **Table 1**, with the share of trucks and the number of oversized trucks (5 or more axles) presented for several segments in the study corridor. Based on Caltrans volume data, there is little difference between pre-COVID and COVID traffic volumes. Daily traffic volumes on SR 49 between Interstate 80 in Auburn and US 50 in Placerville range from under 3,000 vehicles near Coloma to nearly 9,000 vehicles at either end of the corridor according to Caltrans 2020 volume records. Daily truck traffic volumes within the corridor range from about 300 near Coloma to just under 700 near Interstate 80 representing between 7-8 percent of total traffic. The share of oversized trucks generally accounts for between 20 and 30% at these observation points, which represents between 120 and 200 five-axle vehicles each day.

TABLE 1: VEHICLE TRAFFIC ACTIVITY ON SR 49 CORRIDOR (ANNUAL AVERAGE DAILY VOLUME)
SELECTED SEGMENTS BETWEEN COLOMA AND INTERSTATE 80

LOCATION ON SR 49 CORRIDOR	TOTAL DAILY TRAFFIC (AADT[1])	DAILY TRUCK TRAFFIC (AADT[1])	PERCENT OF DAILY TRUCKS	NUMBER OF OVERSIZED TRUCKS (5 OR MORE AXLES)	PERCENT OF OVERSIZED TRUCKS TO TOTAL TRUCKS
COLOMA, SOUTH OF ROUTE 153 WEST	4,850	340	7%	123	36%
COOL, NORTH OF ROUTE 193 EAST	8,800	640	7%	200	31%
AUBURN, INTERSTATE 80, SOUTH OF EB ON/OFF RAMPS	8,500	690	8%	133	19%

[1] AADT = Annual Average Daily Traffic volumes.
Source: 2020 Truck AADT Volumes, Caltrans.

TRAVEL PATTERNS

To better understand the traveler characteristics and travel patterns of vehicles using the SR 49 study corridor, including origins and destinations, the Replica Data software platform was applied. Replica data is generated from cell-devices geo-spatially determined to be present within the study corridor. This data was applied in this study for context and informational purposes only and was not used to inform study recommendations.

For the purposes of this travel pattern analysis, three segments were utilized as defined within the Replica tool:

- Auburn to Placer/El Dorado County Line – This combines Segments 1 and 2
- Within Auburn State Recreation Area – Segment 3
- Auburn State Recreation Area to Cool Junction with SR 193 – Segment 4

Trip descriptions for the summer peak season are summarized in **Table 2** while the off-peak season is summarized in **Table 3**. Of the total number of trips sampled during a given season along SR 49 in the study area, there were around 31,000 trips made by 20,000 people (with round trips accounting for more trips than people), with an average vehicle occupancy of 1.6 people per trip. The average trip distance was approximately 58 miles. The average daily distance per person is around 84 miles. These metrics did not differ significantly between the three study segments. As anticipated, more trips and slightly longer trips were experience during the peak summer months than during the off-peak months. Based on the average travel distances tracked, most travelers using SR 49 in the Confluence are likely not local residents.

TABLE 2: STUDY SEGMENT TRIP DESCRIPTIONS (SUMMER SEASON)
JUNE 2020 – AUGUST 2020

SEGMENT	APPROXIMATE NUMBER OF SAMPLED TRIPS	APPROXIMATE NUMBER OF UNIQUE PEOPLE	APPROXIMATE TOTAL DISTANCE OF ALL TRIPS (MILLION MILES)	AVERAGE DISTANCE PER TRIP (MILES)	AVERAGE DAILY DISTANCE PER PERSON (MILES)
AUBURN TO PLACER/EL DORADO COUNTY LINE	37,000	23,000	2.1	56.6	82.7
WITHIN STATE RECREATION AREA	34,000	22,000	2.1	61.1	85.6
STATE RECREATION AREA TO COOL JUNCTION	34,000	22,000	2.1	60.2	85.3

TABLE 3: STUDY SEGMENT TRIP DESCRIPTIONS (OFF-PEAK SEASON)
SEPTEMBER 2019 – NOVEMBER 2019

SEGMENT	APPROXIMATE NUMBER OF SAMPLED TRIPS	APPROXIMATE NUMBER OF UNIQUE PEOPLE	APPROXIMATE TOTAL DISTANCE OF ALL TRIPS (MILLION MILES)	AVERAGE DISTANCE PER TRIP (MILES)	AVERAGE DAILY DISTANCE PER PERSON (MILES)
AUBURN TO PLACER/EL DORADO COUNTY LINE	34,000	21,000	1.8	53.6	78.6
WITHIN STATE RECREATION AREA	30,000	20,000	1.7	58.5	82.1
STATE RECREATION AREA TO COOL JUNCTION	30,000	20,000	1.7	57.2	81.5

TRIP ORIGINS AND DESTINATIONS

The trips along SR-49 in the direction of Auburn, originated in census tracts mainly within the Auburn State Recreation area and in the vicinity of Placerville and Pollock Pines. Trip origins and destinations did not differ significantly between the three study segments. An example map of trip origins by density is shown in **Figure 4** with a full set of maps showing trip origins and trip destinations for all segments included in **Appendix B**.

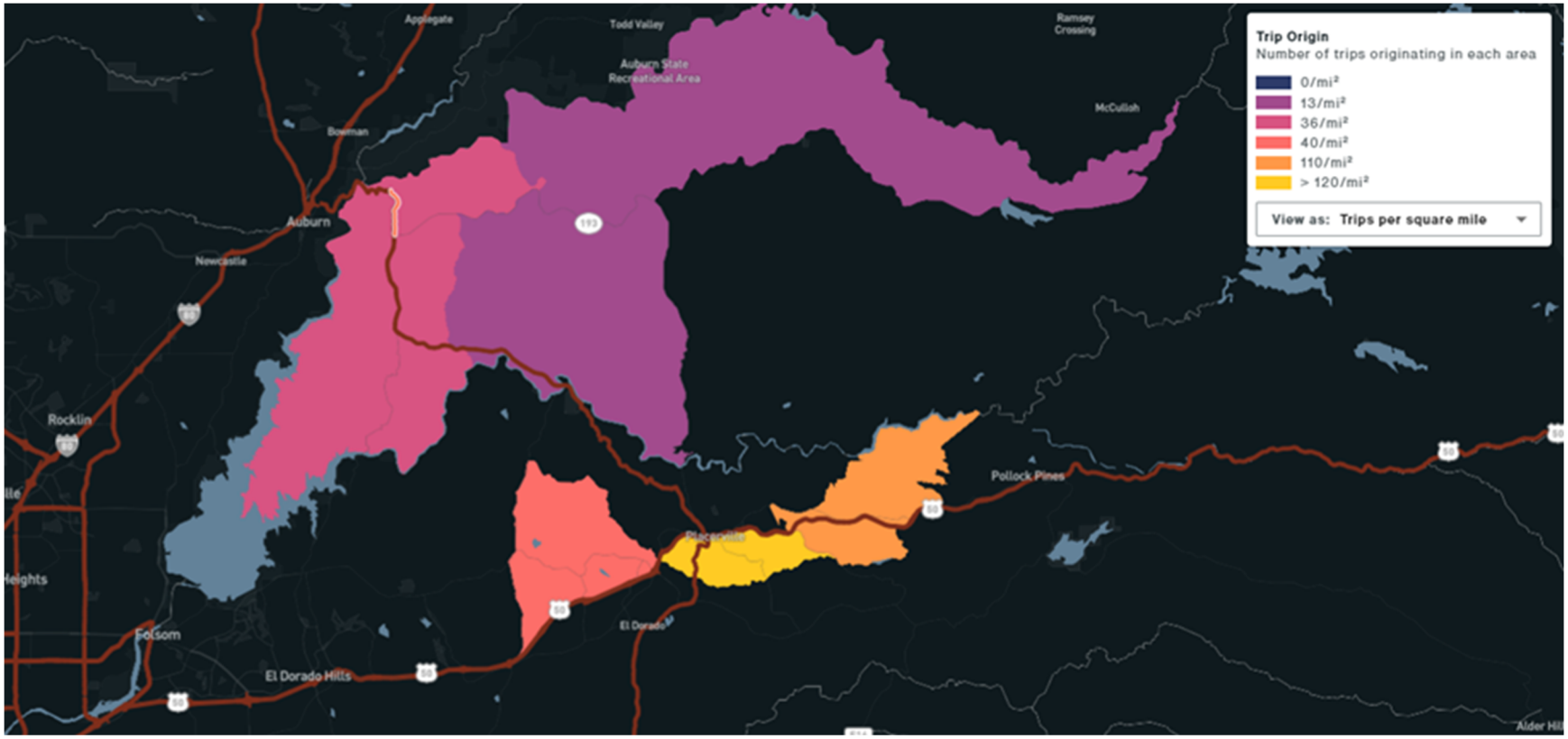


FIGURE 4: TRIP ORIGINS - AUBURN TO PLACER/EL DORADO COUNTY LINE (SUMMER PEAK)

TRIP PURPOSE

SR 49 along the study area is primarily used by residents accessing economic and social activities along and connected by the corridor. Recreational trips accounted for 5.6% of summer peak trips along SR 49 and 3.1% of off-peak trips within the study area. There was little difference in trip purpose from the 3 study segments, as shown below. From June 2020 to August 2020, there were 1,049 recreational trips, compared to 1,681 recreational trips from September 2019 to November 2019. This represents a 38% decrease in recreational trips. Comparing 2020 to 2019, there was also a 101% increase in social trips, 36% decrease in school trips, and a 52% increase in commercial (freight) trips. The top trip purposes for each segment are shown in **Figure 5** through **Figure 7**.

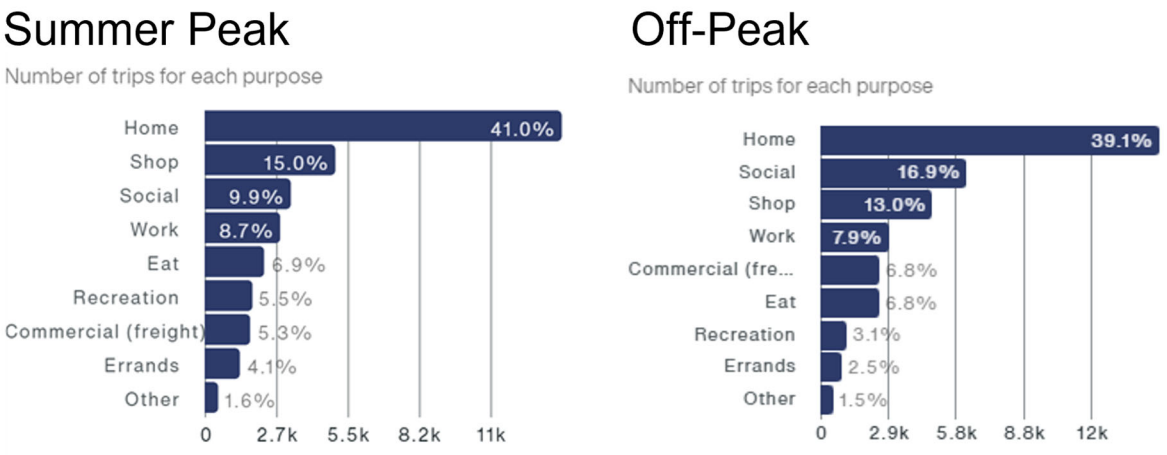


FIGURE 5: TRIP PURPOSE - AUBURN TO PLACER/EL DORADO COUNTY LINE

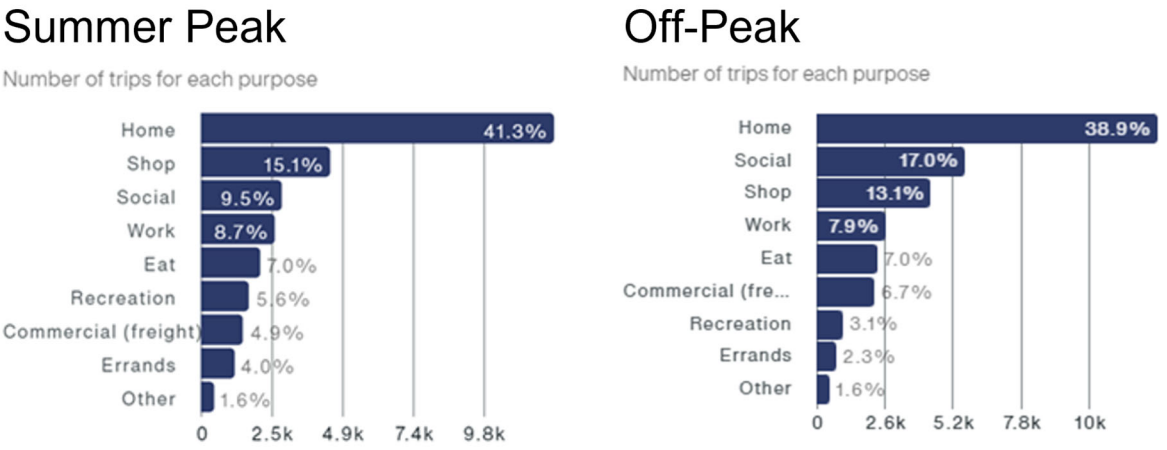


FIGURE 6: TRIP PURPOSE - WITHIN STATE RECREATION AREA

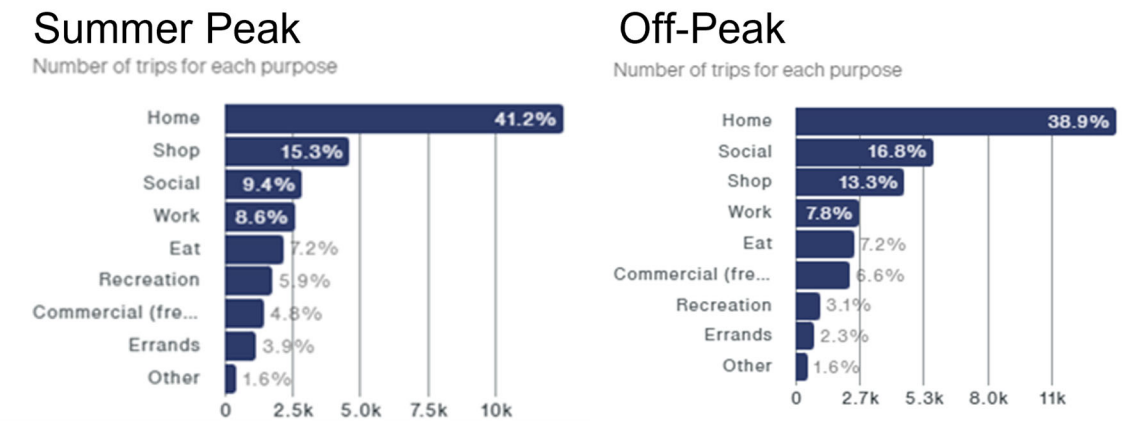


FIGURE 7: TRIP PURPOSE - STATE RECREATION AREA TO COOL JUNCTION

PRIMARY MODE

During the summer peak, the primary mode for someone travelling along SR 49 within the study area is private automobile (driving a car) at around 51% of the trips, followed by automobile passenger at around 42% of the trips. Commercial vehicles accounted for 5% of the trips. Off-peak numbers are similar with private automobile being the primary mode of travel at around 52% of the trips, followed by automobile passenger at around 40% of the trips. Commercial vehicles accounted for 6% of the trips. The distribution of primary mode did not differ significantly between the three study segments. The proportion of trips by mode for each segment are shown in **Figure 8** through **Figure 10**.

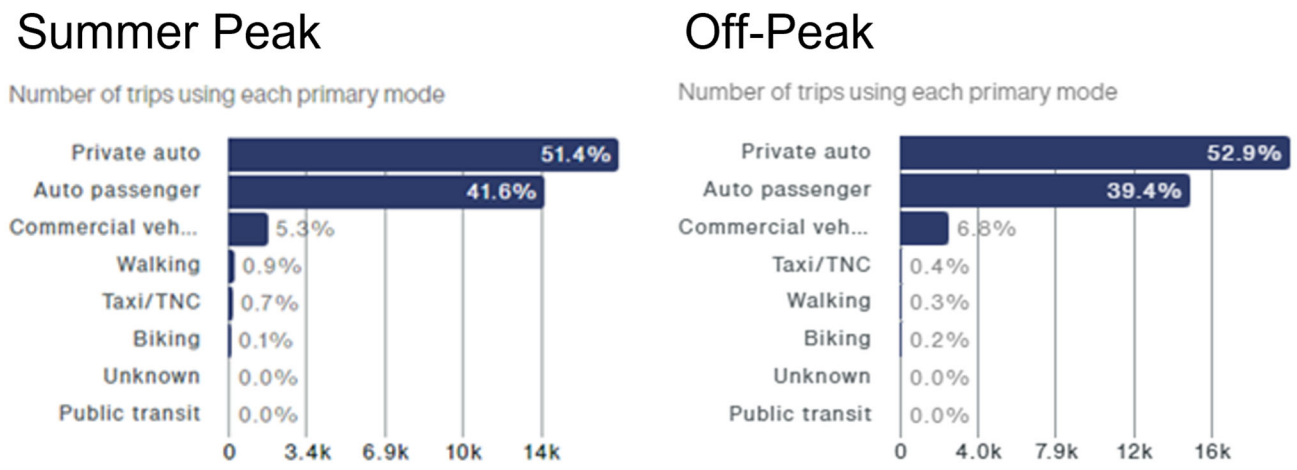


FIGURE 8: PRIMARY MODE - AUBURN TO PLACER/EL DORADO COUNTY LINE

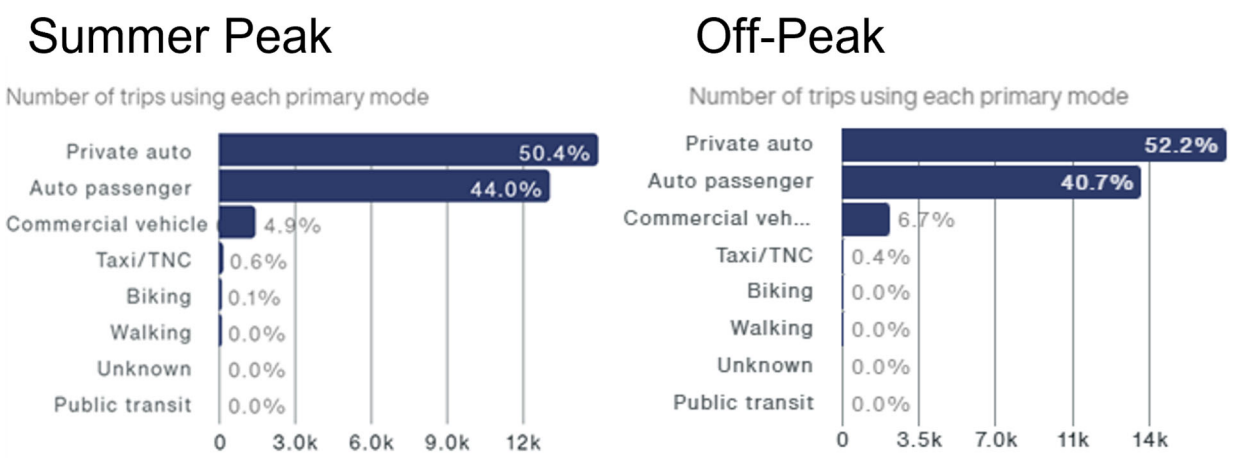


FIGURE 9: PRIMARY MODE - WITHIN STATE RECREATION AREA

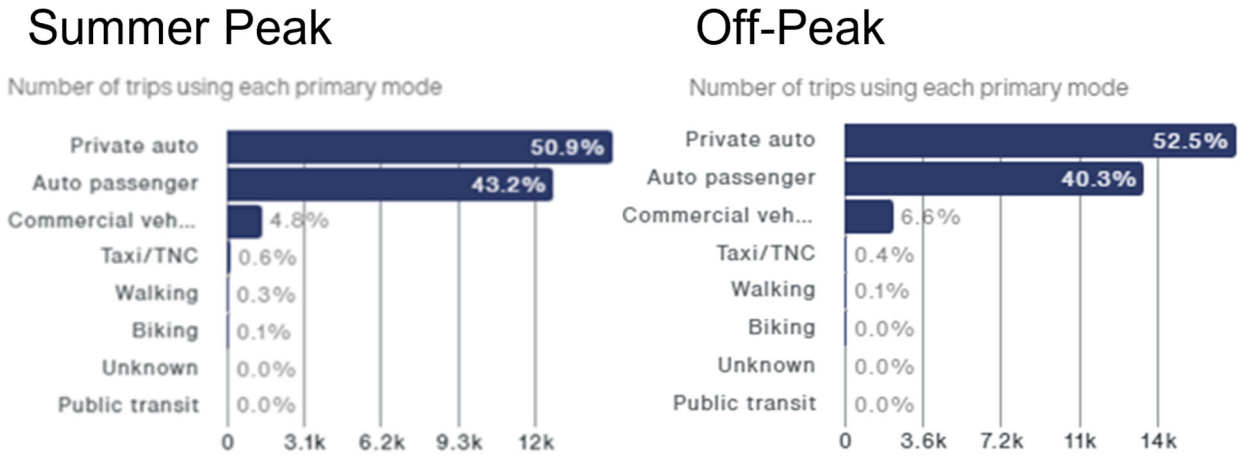
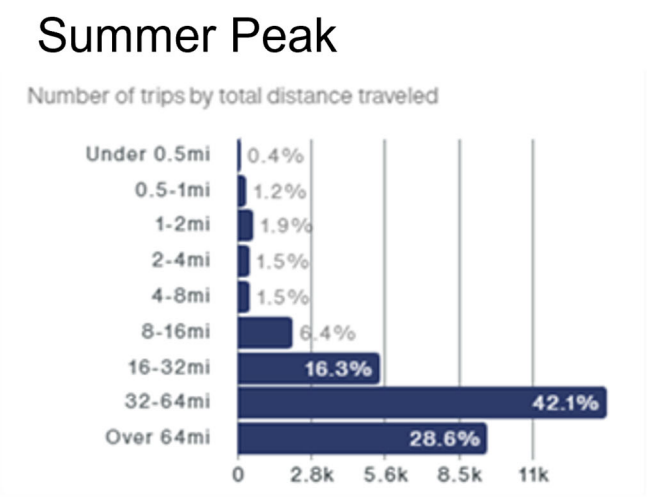


FIGURE 10: PRIMARY MODE - STATE RECREATION AREA TO COOL JUNCTION

TRIP DISTANCE

During the summer peak, the average trip distance for trips along SR 49 was 56 miles, and the median distance was 55 miles. Around 75-80% of the trips were 32 miles or longer. Off-peak numbers are similar with the average trip distance for trips along SR 49 was 61 miles, and the median distance was 55 miles. Around 75-80% of the trips were 32 miles or longer. The distribution of primary mode did not differ significantly between the three study segments. The trip distances for each segment are shown in **Figure 11** through **Figure 13**.



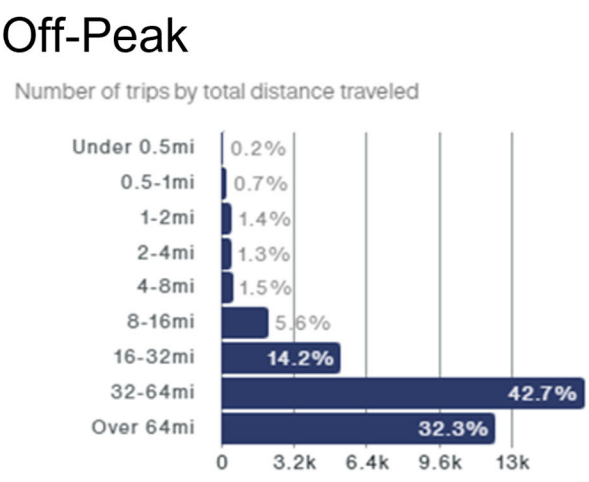
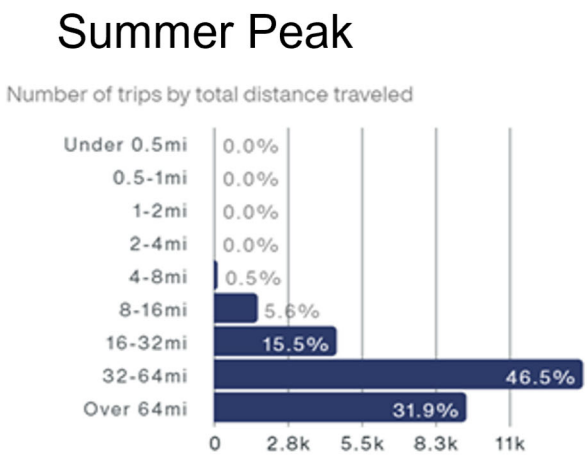


FIGURE 11: TRIP DISTANCE - AUBURN TO PLACER/EL DORADO COUNTY LINE



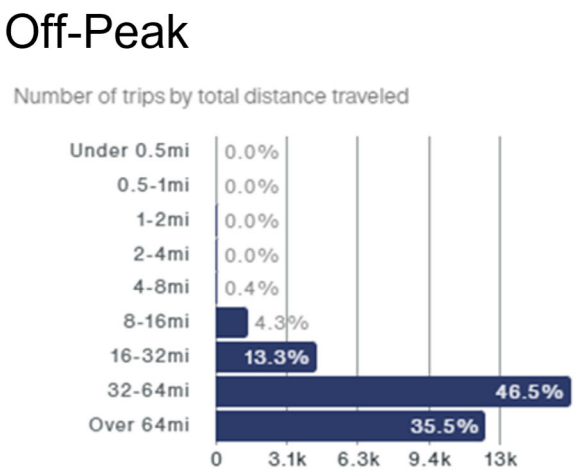


FIGURE 12: TRIP DISTANCE - WITHIN STATE RECREATION AREA

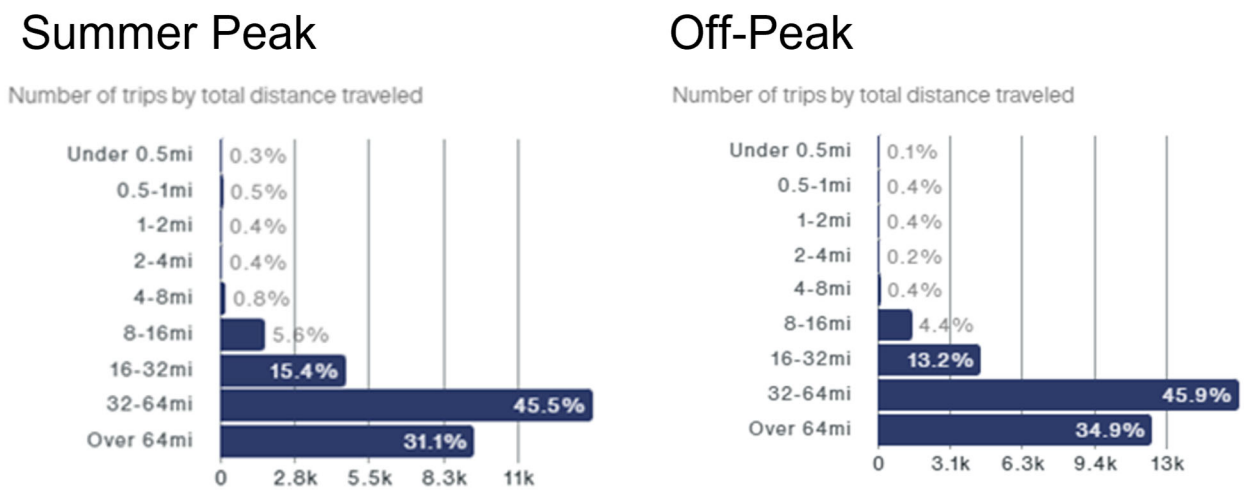


FIGURE 13: TRIP DISTANCE - STATE RECREATION AREA TO COOL JUNCTION

TRIP DURATION

During the summer peak, the average duration of trips along SR-49 in the study area was 76 minutes, with the median trip duration being 70 minutes. Around 80% of trips were 40 minutes or longer. Off-peak duration of trips along SR-49 in the study area was 76 minutes, with the median trip duration being 68 minutes. Around 80% of trips were 40 minutes or longer. The distribution of primary mode did not differ significantly between the three study segments. The duration of trips for each segment are shown in **Figure 14** through **Figure 16**.

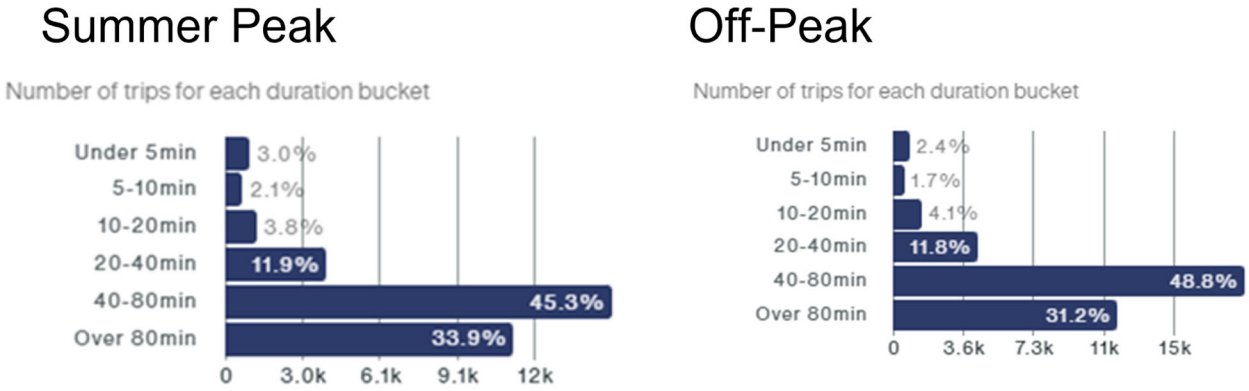


FIGURE 14: TRIP DURATION - AUBURN TO PLACER/EL DORADO COUNTY LINE

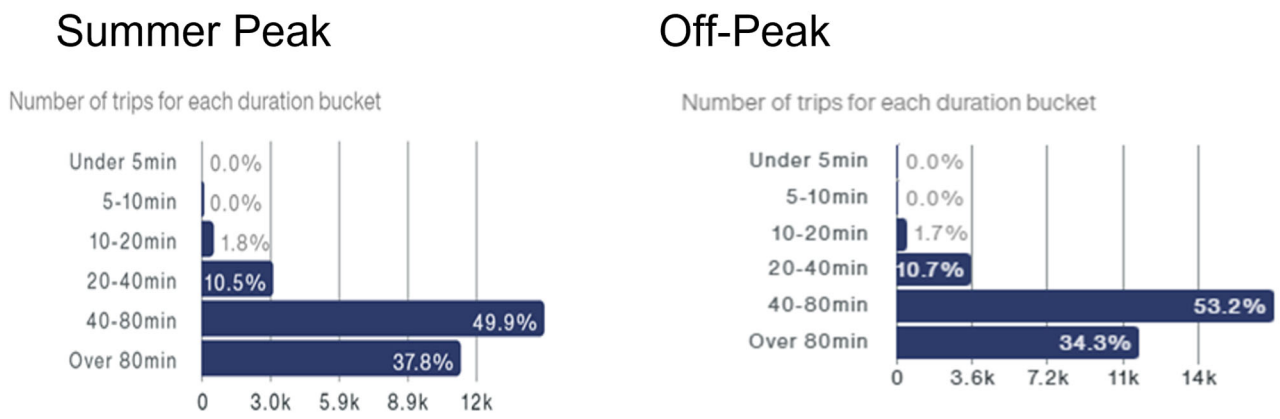


FIGURE 15: TRIP DURATION - WITHIN STATE RECREATION AREA

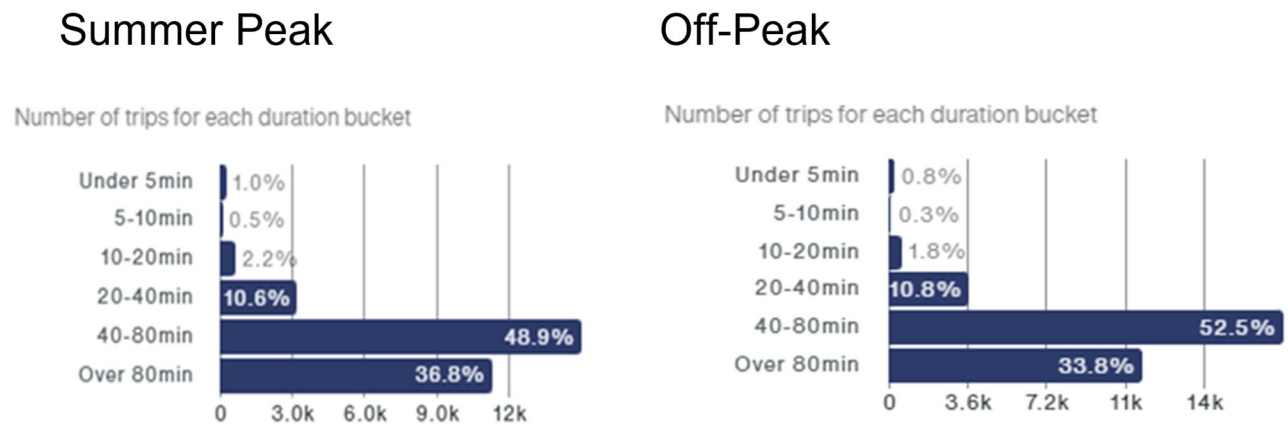


FIGURE 16: TRIP DURATION - STATE RECREATION AREA TO COOL JUNCTION

HOUSEHOLD INCOME

The average household income of those making trips along SR 49 is about $100,000, while the median household income is around $78,000. According to the US Census Bureau, the median household income is $83,377 for El Dorado County and $89,691 for Placer County. The distribution of household income did not differ significantly between the three study segments. The household income of people making trips for each segment are shown in **Figure 17** through **Figure 19**.

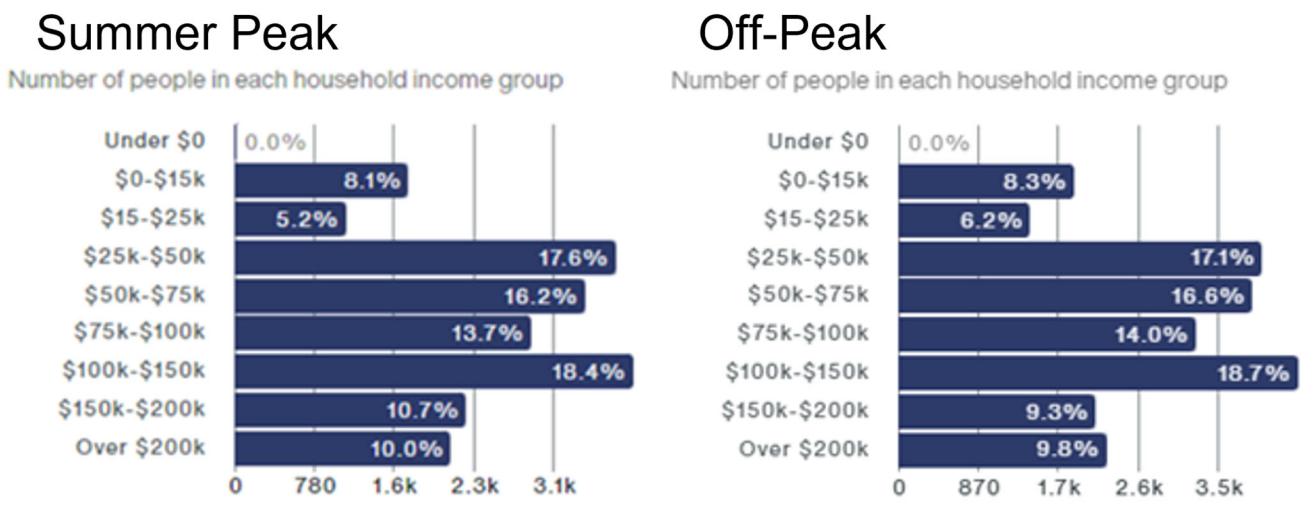


FIGURE 17: HOUSEHOLD INCOME - AUBURN TO PLACER/EL DORADO COUNTY LINE

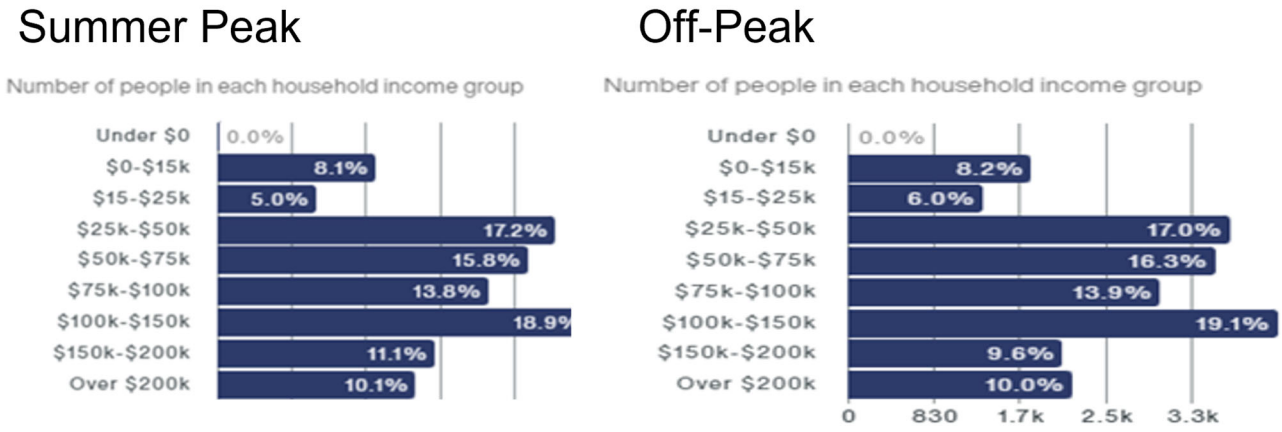


FIGURE 18: HOUSEHOLD INCOME - WITHIN STATE RECREATION AREA

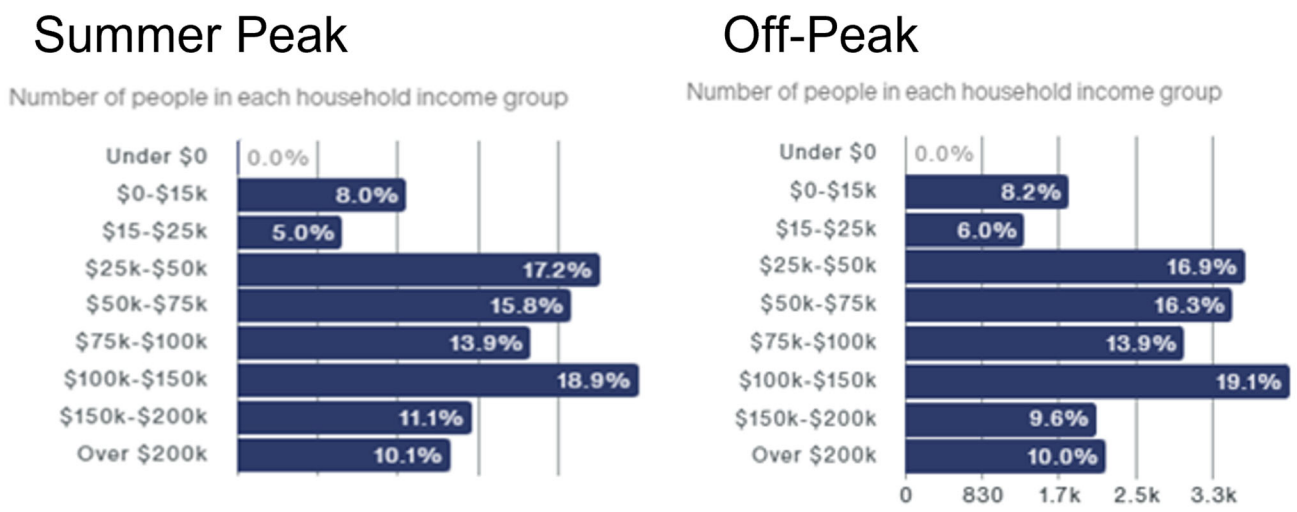


FIGURE 19: HOUSEHOLD INCOME - STATE RECREATION AREA TO COOL JUNCTION

AGE

The average age of those making trips along SR 49 in the study area is 51 years, with the median age being 53 years. According to the US Census Bureau, the median age is 46 for El Dorado County and 42 for Placer County. The distribution of ages did not differ significantly between the three study segments. The age of people making trips for each segment are shown in **Figure 20** through **Figure 22**.

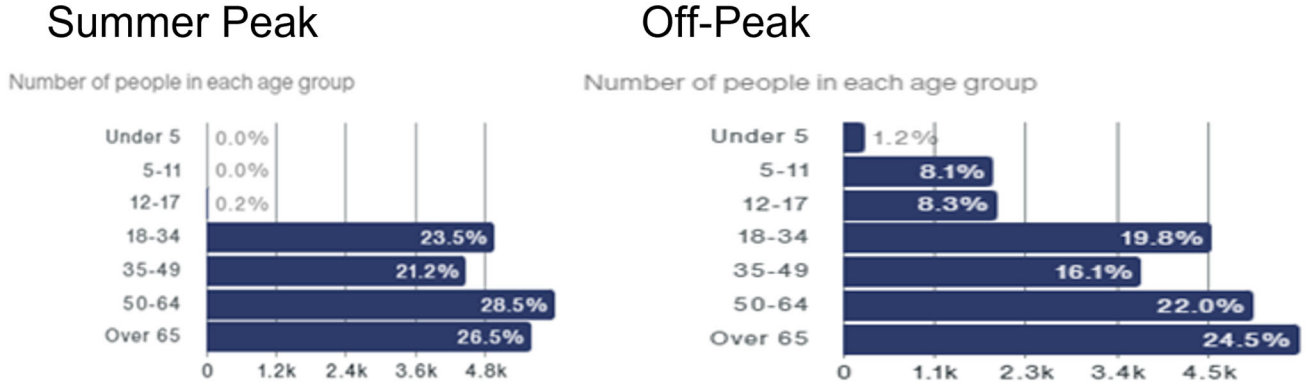


FIGURE 20: AGE - AUBURN TO PLACER/EL DORADO COUNTY LINE

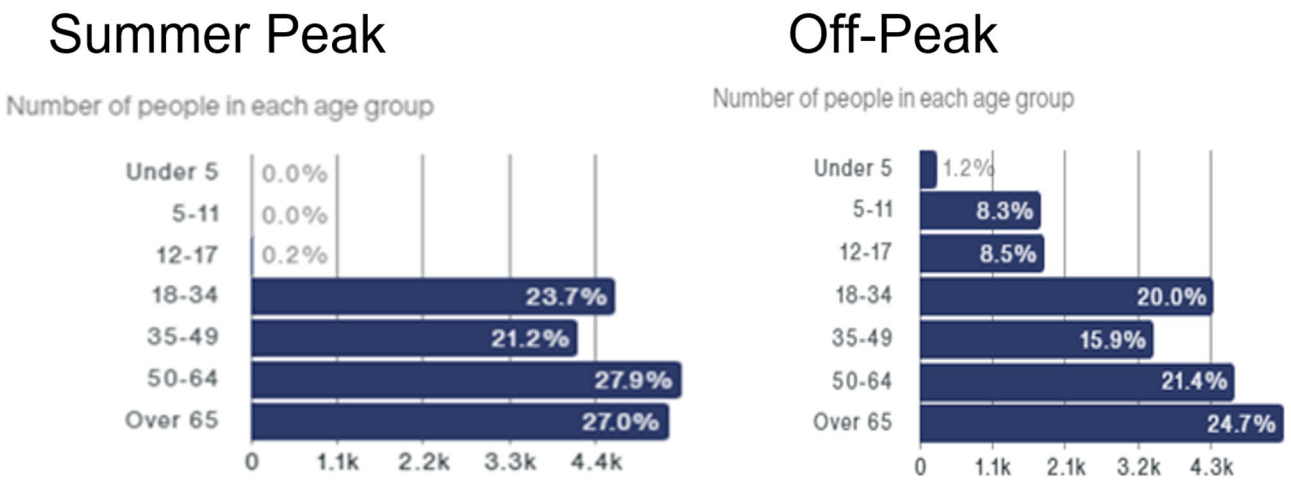


FIGURE 21: AGE - WITHIN STATE RECREATION AREA

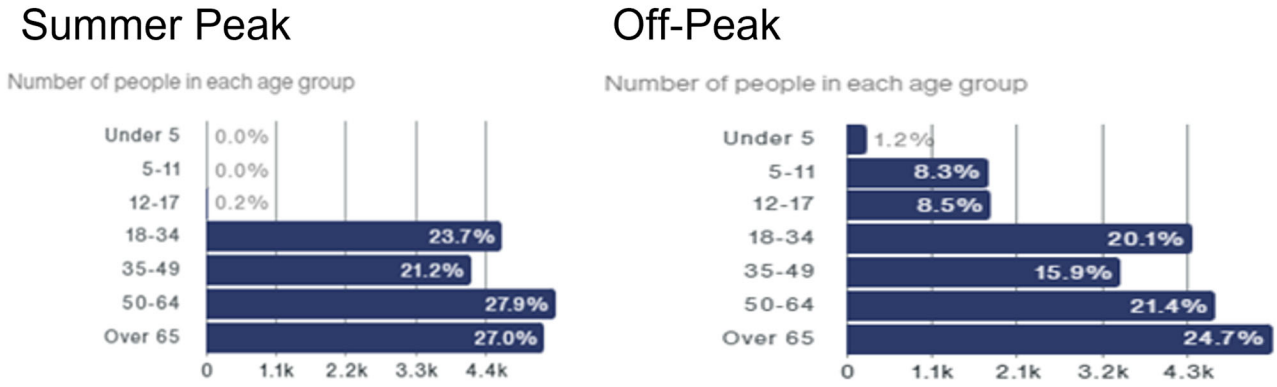


FIGURE 22: AGE - STATE RECREATION AREA TO COOL JUNCTION

PRIVATE AUTO AVAILABILITY

During the summer peak, most of those making trips along SR 49 within the study area reside in households that have access to at least one automobile. 18% have access to one automobile, 38% have access to two automobiles, and 39% have access to three or more automobiles. 3% have no access to an automobile. Similarly off-peak numbers for those making trips along SR 49 within the study area reside in households that have access to at least one automobile. 19% have access to one automobile, 39% have access to two automobiles, and 39% have access to three or more automobiles. 3% have no access to an automobile. According to the US Census Bureau, 4.2% of households in El Dorado County and 3.8% of households in Placer County do not have access to a private automobile. The distribution of primary mode did not differ significantly between the three study segments. The duration of trips for each segment are shown in **Figure 23** through **Figure 25**.

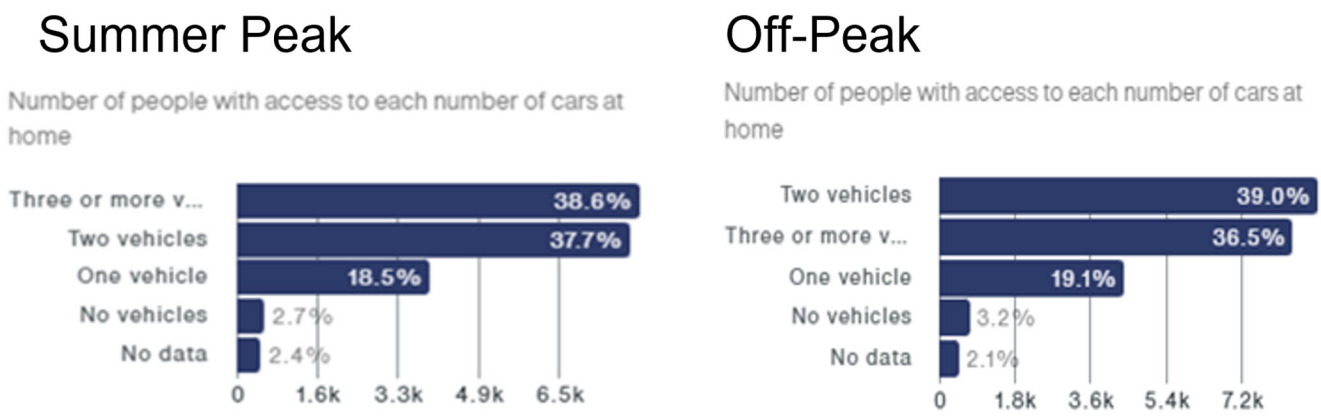


FIGURE 23: PRIVATE AUTO AVAILABILITY - AUBURN TO PLACER/EL DORADO COUNTY LINE

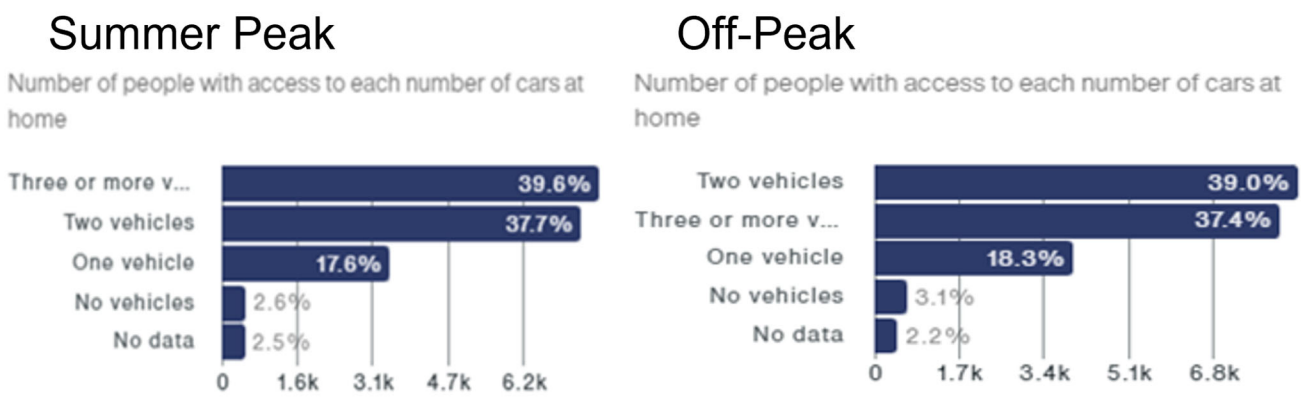


FIGURE 24: PRIVATE AUTO AVAILABILITY - WITHIN STATE RECREATION AREA

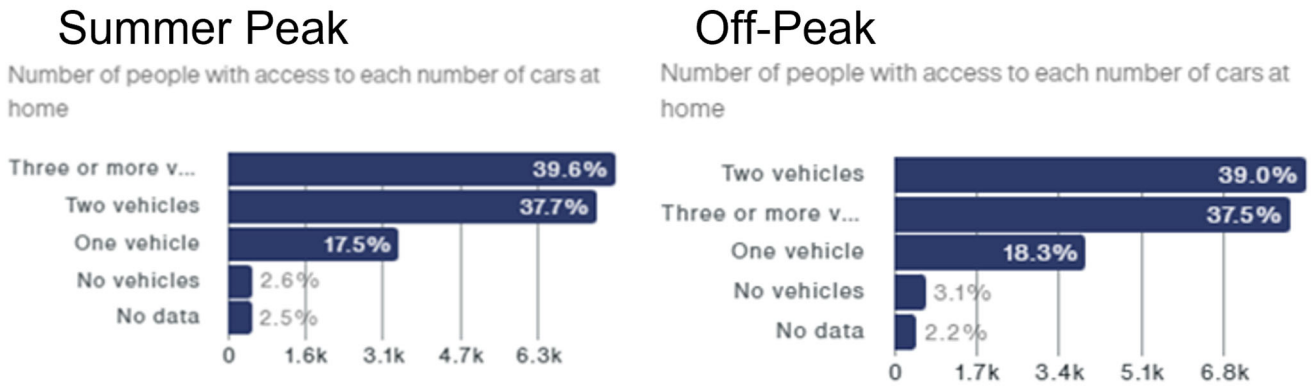


FIGURE 25: PRIVATE AUTO AVAILABILITY - STATE RECREATION AREA TO COOL JUNCTION

TRAVEL SUMMARY

Based on analysis of Replica data, SR 49 serves a diverse demographic profile that is distributed evenly among young adults (18–35), middle aged, to over-65 as well as income levels. Approximately 40% of the trips using SR 49 are home-based trips. Trip purposes also span commuters (10%), shoppers (15%), goods movement (7%) recreationist (5%), and other (social, errands, dining) (10%).

Based on 2020 Caltrans segment counts at the intersection of SR 49 and SR 193, approximately 11,300 vehicles (approximately 1,400 during the peak hour) traverse the intersection on a daily basis. Analysis of Replica (cell data) of these users reveal the following characteristics:

- Home-based trips (trips using this portion of SR 49) make up approximately 40% of the trips.
- The vast majority of trips (80 percent) are over 32 miles in length
- 35% of trips are over 64 miles in length
- 3% of trips are recreational and 7% of trips are commercial (i.e., trucks or other commercial vehicles)

Given that the distance of the study corridor is under seven miles between Cool and Auburn, these data suggest that many of the long-distance trips are not local in nature and instead originate outside of the Cool and Auburn communities.

2. OUTREACH AND COMMUNITY ENGAGEMENT

SUMMARY OF OUTREACH APPROACH

The effort has undertaken significant public outreach across multiple forums, both online, virtual, and in-person. The main outreach efforts are described below:

PROJECT WEBSITE

The project website is the main online presence for the project and includes a section on Frequently Asked Questions (FAQ), a link to a community survey, a project schedule and interim deliverables that could be reviewed, and an interactive mapping tool (Social Pinpoint) where website visitors could highlight specific locations and concerns.

STAKEHOLDER WORKSHOPS

The project team hosted two virtual stakeholder meetings which presented key analysis results and project recommendations to stakeholders representing partner agencies, elected officials, and community organizations. The stakeholder meetings provided critical feedback and review on project materials in advance of the public workshops. The full stakeholder list is provided in **Appendix A**.

STAKEHOLDER MEETING #1

On April 4, 2022, stakeholders from 34 organizations were invited to participate in the first stakeholder meeting for the SR 49 American River Confluence Study. The purpose of the first stakeholder meeting was to provide an overview of the project, present the baseline analysis, constraints & opportunities of the project, community outreach efforts and provide stakeholders an opportunity to ask questions or provide guidance on the project. A total of 11 stakeholders from the following organizations attended the meeting:

- Community Advisory Community
- El Dorado County Chamber of Commerce
- American River Community Coalition
- Divide Chamber of Commerce
- Divide Community Resident
- Cool Community Resident
- Auburn Lake Trails
- Western States Trail Foundation Board of Governors
- American River Community Coalition
- District 4 Supervisor
- Divide Horsemen’s Association

From the discussions held during this initial stakeholder meeting, the following major themes and concerns arose about fire safety & evacuation, traffic safety, and infrastructure.

Fire Safety & Evacuation

- Limited number of access points and/or evacuation routes in communities in and around the Confluence.
- Congestion and blocked traffic will affect communities during a wildfire event.
- Understanding of traffic, road usage, and changes in the climate/seasons is essential.
  - Summer has an increase in use and congestion.
  - High congestion and volume will make it harder to evacuate safely.
- Emergency vehicles being used for water-based rescue trips are concerning as they block traffic, and less staff are available in the event of a wildfire.
- Fire evacuation is a high concern.

Traffic Safety

- SR 49 is a primary access route between the City of Auburn and the community of Cool.
- Stakeholders felt the trip count data presented was low and the real traffic volumes are higher than reported.
  - A stakeholder expressed that this may be due to unreported crashes, trucks getting stuck and blocking traffic, and "near misses".
- 48' and 53' trucks often use the corridor and get stuck blocking traffic and close an important access route for community residents in Cool.
- Pedestrian safety and concerns for those parking along SR 49 and crossing at undesignated crosswalks/walkways.
  - Only one designated walkway available along the route.

Infrastructure

- The condition of existing infrastructure is failing.
- Concerns over adverse impacts of adding new infrastructure.
- Existing pullouts are not being used for their intended use.
- Concern that adding parking would increase demand, traffic, and stress on the corridor, increasing risk and concerns regarding emergencies and fire evacuations.
- Proper signage needed along corridor, such as:
  - Preventing oversized trucks from using corridor.
  - Clearer safety, parking, and access information.
  - Existing signage is confusing among users.

STAKEHOLDER MEETING #2

A second stakeholder meeting was conducted on Monday, October 24, 2022, to discuss the development of the study, review the results of the outreach program and the proposed recommendations that were planned to be shared at the October 26, 2022 public workshop. While

poorly attended, the project team was able to review the materials in preparation for the public workshop.

PUBLIC WORKSHOPS

The project team hosted one virtual workshop early in the project timeline on April 6, 2022, and then hosted two in-person workshops in Cool on July 14, 2022 and October 26, 2022. The purpose of these workshops was to present and receive feedback on project findings and recommendations. Both in-person workshops were well attended with 50-100 attendees each, and resulted in significant engagement, feedback, and talking points.

Outreach efforts for each meeting consisted of emails and phone calls to invite interested community members to each meeting. The following subsections summarize the outcomes of each of these meetings.

PUBLIC WORKSHOP #1

On April 6, 2022, a virtual public workshop was conducted via Zoom with Spanish translation available. A total of 33 participants attended the virtual public workshop. The purpose of this public workshop was to introduce the community to the study, the project team, project partners, as well as provide an overview of the project goals, the baseline analysis, constraints & opportunities, and the community outreach efforts. Furthermore, participants were asked to complete an eight-question survey and were provided an opportunity to ask questions and provide feedback.

Survey Responses

From the survey responses and discussions held during this initial public workshop, the following major themes and concerns arose about pedestrian safety and bicycle access, fire evacuation, overcrowding, and shuttles.

- Participants did not recreate at or around the Confluence, with the primary reason being lack of difficulty parking due to overcrowding.
- Biggest safety concern included the speed of motorists and presence of oversized trucks.
- Additional safety concerns included pedestrian walkways and crossing, as well as the danger of parking motorists along the corridor.
- Split support on traffic slowing measures, reduction in speed limit, traffic calming measures, roundabouts, signage or the installation of speed sensing cameras, electronic variable message signs, prohibition of large trucks in corridor and installation of protected crosswalks.
- Participants would support a seasonal shuttle service program and parking fees for individual parking to help fund the shuttle service.

Pedestrian Safety & Bicycle Access

- Lack of pedestrian and bicycle infrastructure in corridor.
- Concerns over reckless behavior from visitors due to traffic and high speeds.
- Parallel parking along SR 49 is a pedestrian concern for those crossing and getting into their parked vehicles.

- Suggestion to create access along the Confluence by bike or foot.

Fire Evacuation

- Emergency evacuation concerns for community residents due to congestion, traffic, and use of emergency vehicles performing water rescues.

Overcrowding

- Increase in visitors due to the COVID pandemic has caused overcrowding in recent years.
- Many community residents of the Confluence no longer visit the American River due to overcrowding.
- Pedestrians unsafely crossing from vehicles to reach recreational areas.
- Traffic congestion due to increase in visitors.
- Increase in vehicle break-ins for those parking along the corridor.
- Suggestions to increase enforcement on illegal parking, permitting for confluence residents, and parking fees to encourage shuttle use.

Shuttles

- Support for a shuttle service.
- Effective advertisement needed towards visitors to increase usage and decrease individual vehicle traffic volumes.
- Current confluence shuttle was not advertised and promoted effectively.
- Include bicycle racks and/or space for gear in the shuttle to ensure success.
- Support for shuttle implementation as long as it does not increase the number of people and vehicles in and around the Confluence.

PUBLIC WORKSHOP #2

On July 14, 2022, a public workshop was held in person in the community of Cool. A total of 53 participants attended this in-person public meeting. The purpose of this second public workshop was to provide an update on the progress of the study, discuss completed interim deliverables (i.e., the Shuttle Services Costs and Truck Assessment), and obtain feedback on the preliminary recommendations proposed for the corridor. The public workshop included a PowerPoint presentation, along with an open house style where participants were able to view five display boards of the proposed corridor improvement concepts and provide feedback.

Four display boards showed the proposed improvements for each of the four segments along the corridor, and one board displayed information on the interactive mapping tool. Furthermore, hard-copy surveys were available during this public workshop, which resulted in 34 submitted surveys. These surveys were entered into the online survey.

Based on the discussions, some key takeaways obtained during the second public workshop included feedback on the study data, proposed recommendations, general concerns, and the shuttle service.

Study Data

- Concerns about the source and accuracy of data for portraying current trave conditions:

- Cell phone data not being an accurate measurement when studying the number of vehicles going into the Confluence.
- 2020 traffic volumes from Caltrans are not reflective of actual visitation due to the effects of the pandemic.
- Survey and study do not capture the increase in visitors/tourism.
- Caltrans data is outdated.

- Emphasized the need for accurate and current traffic data to inform the study.

Feedback on Proposed Recommendations

- Concern that no scenarios address the need to improve pedestrian crossings.
- Signage in Auburn to alert people that parking is full at the Confluence and encourage shuttle use.
- Concern over the number of pullouts that will be converted to parking.
- Some did not support the installation of a cellphone tower due to aesthetics.
- Approval of proposed roundabout at SR 193 and SR 49 in Cool to allow trucks to turn around.
- Lower speed limit on corridor.

General Concerns

- Need for larger signs early in the corridor to alert and deter oversized trucks from entering the corridor.
- Need for dispatchers to notify oversized trucks to avoid using SR 49.
- Google Maps notes SR 49 as a route for drivers when alternatives would be less impactful.
- Installation of a cell phone tower may lead to more distracted driving.
- Pedestrian crossings need to be included in the study.
- Need to educate freight drivers on not using SR 49.

Shuttles

- Improve advertising and awareness of existing shuttle program.
- Question surrounding the number of riders using the shuttle and/or if this data is being tracked.
- Concerns that the free shuttle may bring transient community into Cool.
- Question about how the revenue from the shuttle service will be spent.

PUBLIC WORKSHOP #3

On October 26, 2022, a public workshop was held in person in the community of Cool. A total of 45 participants attended this in-person public meeting. The purpose of this third public workshop was to summarize the project effort, and to discuss the final deliverables and recommendations for the corridor. The public workshop included a PowerPoint presentation, along with a guided question and answer portion where they public could ask questions of the project team.

Based on the discussion, key takeaways obtained during the third public workshop included questions regarding the study data, relevance of the proposed recommendations to local residents versus visitors to the Confluence, general concerns about safety, and the desire for a greater fire evacuation

focus. Fire evacuation was the primary topic discussed, partly due to the very recent Mosquito Fire incident which impacted many of the residents.

SURVEY RESULTS

Following the first public workshop, a 14-question survey was developed to obtain public input during the outreach efforts of the study. The virtual survey was created based on the same questions asked during the first public workshop, with additional questions about demographics and additional comments and feedback. This survey was included in outreach emails, the project website, outreach materials, as well as during the second public workshop. Overall, the survey asked respondents questions about their use of the Confluence, their biggest safety concerns, and improvements they would and would not support. Furthermore, the survey also asked questions about their demographics.

Overall, a total of 195 surveys were submitted. Of the surveys submitted, 68% of respondents identified as White, 24% preferred not to answer on their ethnicity, 3% identified as an ethnicity not listed, 3% identified as American Indian or Alaska Native, 2% identified as Hispanic, and less than 1% identified as Asian, Black, or African American.

Furthermore, 83% of respondents identified as living near the American River confluence (including the City of Auburn, Cool or Coloma) and 17% identified not living in the area.

Survey results are summarized below.

RECREATION USE NEAR THE AMERICAN RIVER CONFLUENCE

The first three questions of the survey asked respondents about their recreation use at or near the Confluence, as well as their reasons as to why they avoid recreating there.

78% of respondents identified that they recreate at or near the Confluence, while 22% identified that they do not recreate at or near the Confluence. Additionally, respondents were asked if they ever avoid recreating at or near the Confluence and the responses are shown in **Figure 26**. 91% of respondents stated that they sometimes avoid recreating at the Confluence, while 9% of respondents stated that they do not avoid it.

Of those that stated that they avoid recreating at or near the Confluence, 83% of responses identified seasonal overcrowding as one of the reasons they avoid the area.

Furthermore, 55% of responses identified lack of parking as a reason, 52% identified difficulty parking as a reason, 47% identified safety (in relation to parking, walking, biking, or access to recreational spot) as a reason, 28% identified wildfire threat evacuations as a reason, and 26% of responses identified other reasons. The other reasons that were identified by respondents included:

- ADA accessibility.
- Heavy duty trucks blocking roads.
- Lack of enforcement.
- Lack of restroom facilities.
- Aggressive driving.

- Bridge Fire.
- Fees for day-use parking.

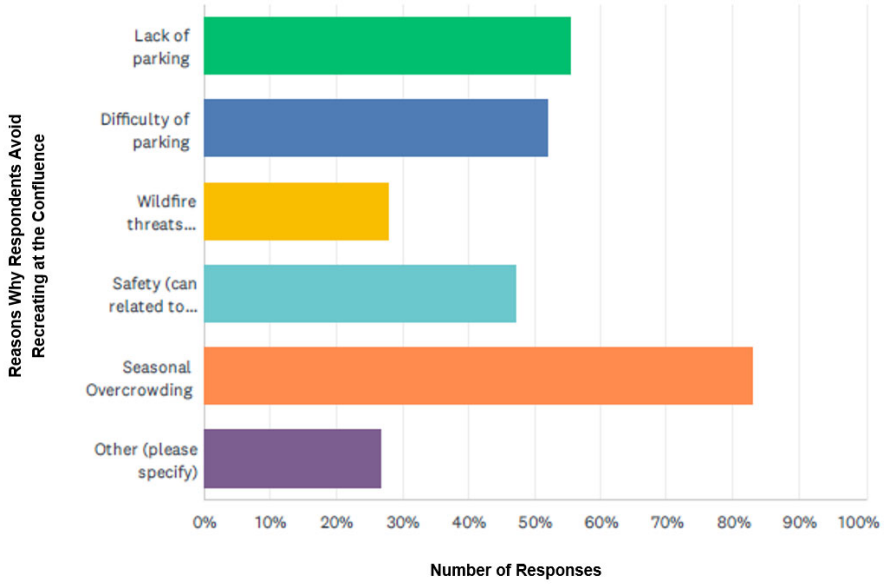


FIGURE 26: REASONS PEOPLE AVOID RECREATING AT THE CONFLUENCE

SAFETY CONCERNS

The fourth question asked respondents to rank their biggest safety concern in the Confluence with answers summarized by priority in **Figure 27**. Based on the responses received, the presence of oversized trucks was ranked as the biggest concern. Furthermore, the following concerns ranked after the highest concern: parking motorists; lack of enforcement; speeding motorists; and lack of pedestrian walkways/signage/wayfinding. The least important safety concern identified was the poor sight distance due to road curvature.

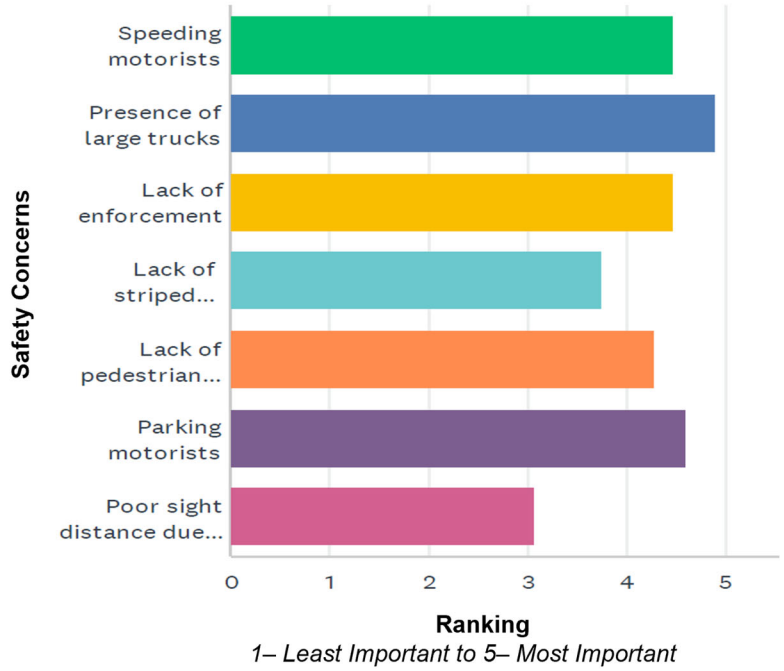


FIGURE 27: SAFETY CONCERNS

SUPPORT FOR IMPROVEMENTS

The remaining five questions of the survey asked respondents about which safety improvements they would and would not support.

Road Safety Improvements

When asked about what safety road improvements respondents would **not** like to see or support, 48% of responses did not want to see or support signalized intersections, speed sensing cameras, or traffic calming/roundabouts/signage. These are summarized in **Figure 28**.

Other respondents identified improvements that they would not support such as:

- Charging school or education vehicles to park.
- Free shuttles.
- Free parking.
- Three-way stops at bridge.
- Dedicated bike lane.
- Protected walkways from roadside parking.

When asked about what safety road improvements respondents would like to see or support, 57% of responses would support prohibiting trucks, 48% would support protected crosswalks, 38% would support wayfinding signage, 33% would support reducing the speed limit, and 32% would support electronic variable messaging. These are summarized in **Figure 29**.

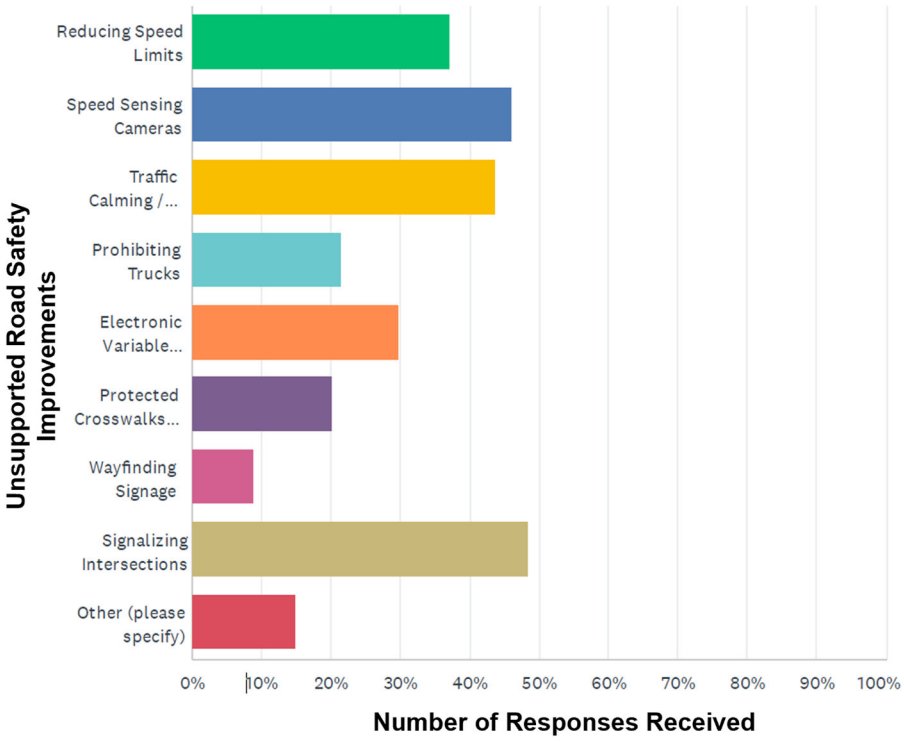


FIGURE 28: UNSUPPORTED SAFETY IMPROVEMENTS

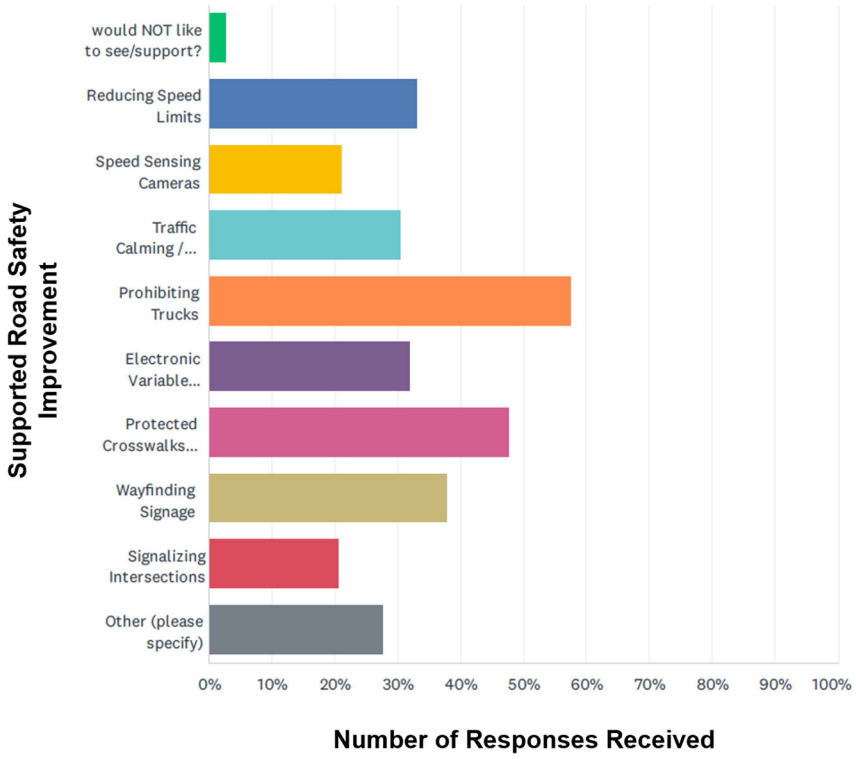


FIGURE 29: SUPPORTED SAFETY IMPROVEMENTS

Other responses that respondents identified as improvements that they would support included:

- Bike lanes and shoulders.
- Paid parking.
- More parking.
- Parking and law enforcement.
- Rumble strips on median and shoulder.
- Prohibiting bikes in unsafe areas.
- Restrict number of visitors.
- Building a bridge.
- More shuttles.

Shuttle Service

When asked if respondents would support a seasonal transit shuttle service that would connect the City of Auburn, Cool, and the City of Placerville with key stops at/near recreation points of interest, 72% of respondents responded "yes" in support of this service. Responses are summarized in **Figure 30**.

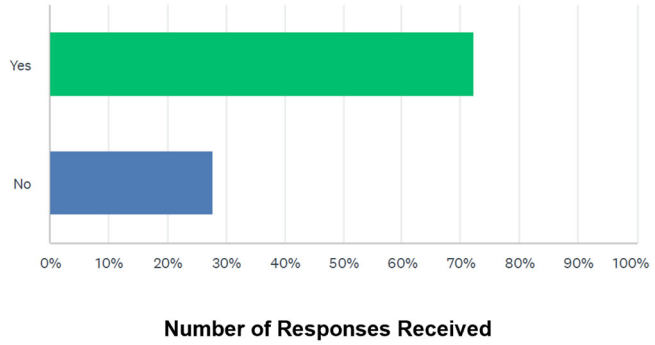


FIGURE 30: SUPPORT FOR SHUTTLE SERVICE

Public Parking Opportunities

When asked if respondents would support increasing the number of available public parking opportunities along the corridor, the number of those not supporting this improvement was slightly higher than those that would support it. A total of 51% of respondents stated "no" to supporting additional parking, while 49% would support additional parking opportunities. Responses are summarized in **Figure 31**.

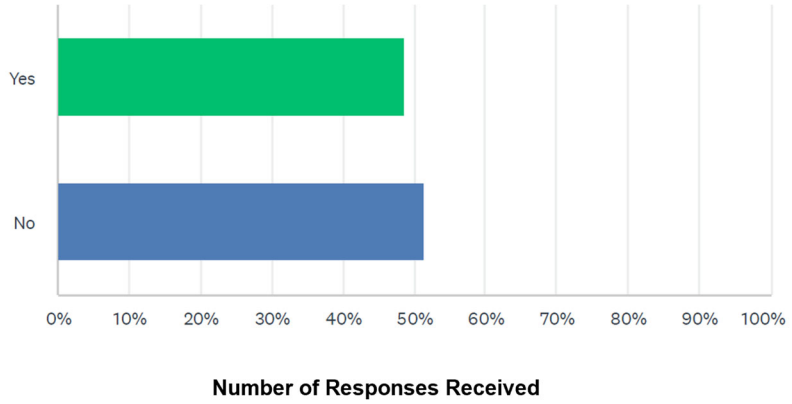


FIGURE 31: SUPPORT FOR INCREASED PUBLIC PARKING

Parking Fees to Fund a Shuttle Service

When asked if respondents would support charging parking fees along the corridor to assist in funding a shuttle service, the majority of respondents stated that they would. 63% stated "yes" to supporting parking fees to help fund the shuttle service, while 37% stated "no" to supporting this service. Responses are summarized in **Figure 32**.

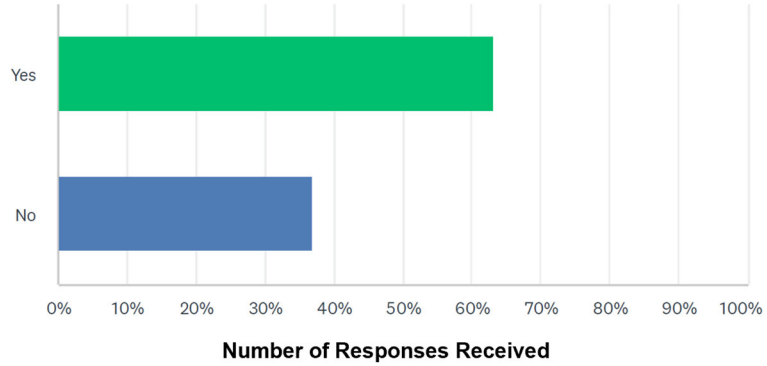


FIGURE 32: SUPPORT FOR INSTITUTING PARKING FEES TO ASSIST IN FUNDING A SHUTTLE

OTHER COMMENTS AND SUGGESTIONS

The survey incorporated a question for respondents to provide any other comments or suggestions for the project team to consider. In summary, additional comments and suggestions included:

- Limit the number of vehicles.
- Pedestrian pathways and/or bridges.
- Protected bike lanes:
  - Auburn to Cool.
- Increase parking and law enforcement fines.
  - Hire more rangers.

    - Fines for littering and illegal parking.
    - Patrol between 8am – 6pm.
- Build a dam.
- Incorporate a center divide to prevent u-turns.
- Incorporate rumble strips.
- Build a bridge or bypass to connect:
    - I-93 to Hwy 80.
    - Cool to Auburn.
- Extend I-93 behind fire department to river.
- Post signage for oversized trucks.
- Roads are inadequate to support current use of the Confluence.
- Widen shoulders and/or widen SR 49.
- Do not support the proposed campground at Olmstead as the area is already overcrowded.
- Improved signage.
- Eliminate parking along SR 49.
- Etiquette class for visitors.
- Conduct river rescues without closing the bridge down.
- Parking fees for visitors.
- Wildfire Safety
    - Close confluence during Red Flag Warnings.

KEY TAKEAWAYS

Overall, the surveys submitted reflected much of the public input received at stakeholder meetings and public workshops. A majority of the respondents identified the presence of oversized trucks, overcrowding, and safety concerns for drivers, pedestrians, and bikers as their biggest concerns and the reason why they avoid using the Confluence. Furthermore, those living in the Confluence expressed concern for emergency and natural disaster evacuations. There was also strong support for a shuttle service and prohibiting trucks from entering the Confluence.

SOCIAL PINPOINT RESULTS

Social Pinpoint, an interactive mapping tool, was developed for the study area to obtain location-specific comments and input from the public. Comments were received from all over the study area. Additionally, users of Social Pinpoint were able to like or dislike comments that were left from other users. Overall, Social Pinpoint received a total of 1,752 visits and 130 comments. 51% of comments received were ideas and suggestions, 36.9% were comments regarding fire evacuation concerns, and 11.5% were other comments. A full documentation of comments from Social Pinpoint is included in **Appendix C**.

The distribution of comments by segment of interest is shown in **Figure 33**. As expected, the segment with the most comments is Segment 3, which includes the confluence parking and Quarry

trailhead parking lot, though there are still a large proportion of comments for the segments bounding the study area in Auburn (Segment 1) and Cool (Segment 4). **Figure 34** shows the breakdown of Social Pinpoint by topics of discussion. The most discussed topic was safety, which was a primary focus of the study. The second most discussed topic was a desire to see a bypass bridge for the area, which would be a large-capital project to provide an alternative route to SR 49 and would be under the purview of Caltrans. This suggestion was not incorporated into the final recommendations, provided in Chapters 6 and 7, based on environmental and cost feasibility concerns. The only other topic that received more than 10% of comments was parking, which was also a primary focus of the study.

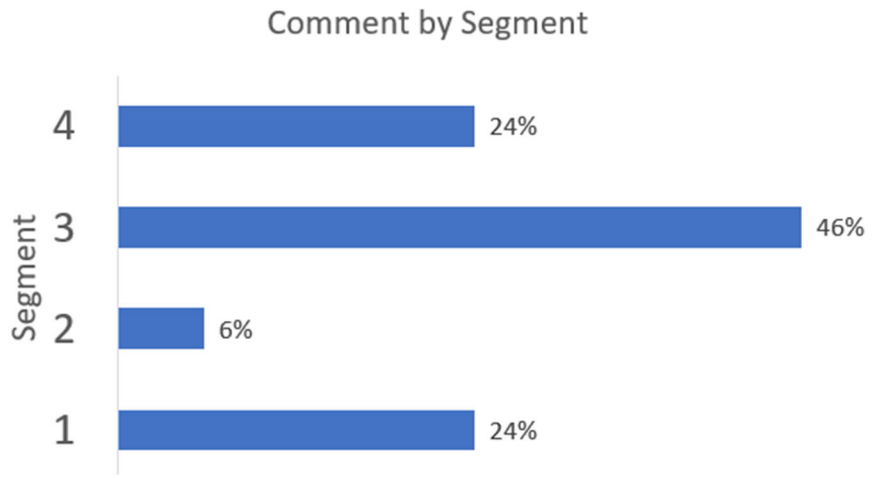


FIGURE 33: DISTRIBUTION OF SOCIAL PINPOINT COMMENTS BY SEGMENT

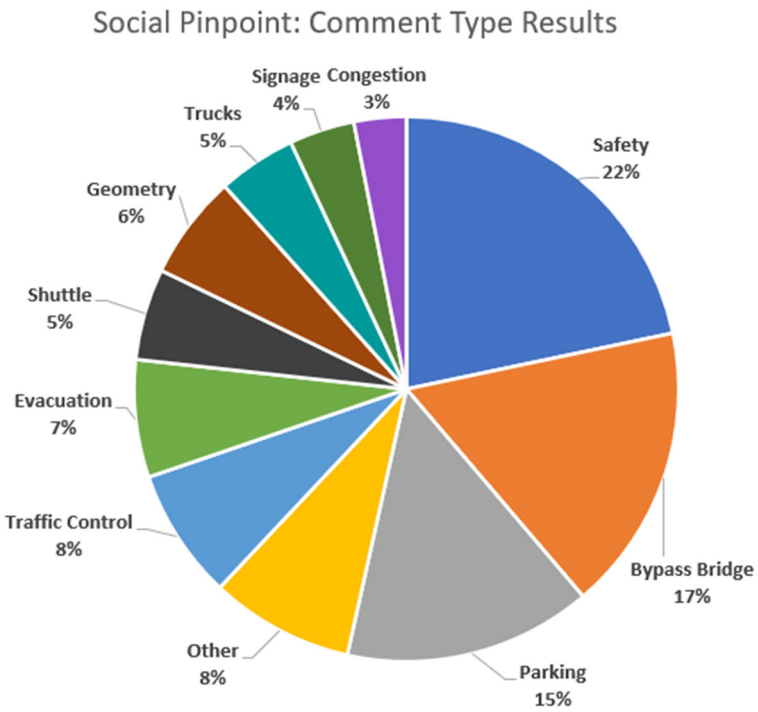


FIGURE 34: DISTRIBUTION OF SOCIAL PINPOINT COMMENTS BY TOPIC

ADDITIONAL COMMUNITY INPUT

As one of the primary community concerns, summaries of truck related input from the Social Pinpoint site and the community survey are provided in **Table 4** and **Table 5** respectively. They indicate that of the 108 survey respondents, the presence of trucks in the Confluence is their highest priority safety concern and that strategies to reduce the presence of trucks in the study corridor would be highly supported.

TABLE 4: SOCIAL PINPOINT (INTERACTIVE WEB-BASED MAPPING TOOL FOR PUBLIC INPUT)

SOCIAL PINPOINT COMMENTS		
General Topic	**General Comment/Concern**	# Received
Truck Size Restrictions	53-foot truck stuck on this curve 4-20-22 am. There MUST be truck size RESTRICTIONS not Advisements. Prohibit extra longs trucks from this corridor	6
Alternative Truck Routes	Highway 49 Bypass Bridge, reroute on Highway 50 to Folsom Crossing	5
Proper Multilingual Signage	Multilingual Signs, Stop Signs, Traffic Lights, Blinking Lights prohibiting trucks	5
Evacuation Concerns	Road is 1 of only 3 evacuation routes near Cool and oversized trucks generally get stuck on tight turns	2
Large Trucks Cause Traffic & Evacuation Concerns	Long trailers get stuck and cause traffic. No room for them to turn.	6

TABLE 5: COMMUNITY SURVEY (PROVIDED ON PROJECT WEB-SITE AND PUBLIC WORKSHOP)

SURVEY QUESTIONS		
General Topic	**General Comment/Concern**	# Received
Pedestrian Bridge> Bypass	Concerns about eliminating big truck traffic. Do not want to see another bridge. Prefer a pedestrian bridge	1
Signage to Prohibit Trucks	Better signage at the top of the canyon to prohibit trucks	8
Bypass Bridge	Bypass bridge to reroute trucks between Cool and Auburn	1
Truck Issues	Semi Trucks too large to navigate in corridor, semi's cause massive delays	2
Safety Issues	Driver hit by oversized Semi w/ 12K in damages, safety issues for residents during emergencies	3
Passing Lane	Passing lane for heavy equipment trucks	1

3. CORRIDOR ASSESSMENT

In order to better understand the current condition of the study corridor as well as to document parking and safety needs, project staff and stakeholders conducted multiple field visits. DKS staff performed a field review of parking locations along SR 49 between Auburn and Cool on Friday, October 22, 2021. A follow-up roadway safety audit (RSA) including stakeholders from county and state agencies was performed Friday, January 28, 2022, to consider feasibility and challenges of parking locations for an expanded shuttle service. The RSA itinerary and collision history is provided in **Appendix D**.

SEGMENT SUMMARY

During the first field review, parking for each study segment was documented, including location, paving type and quality, signage, and capacity.

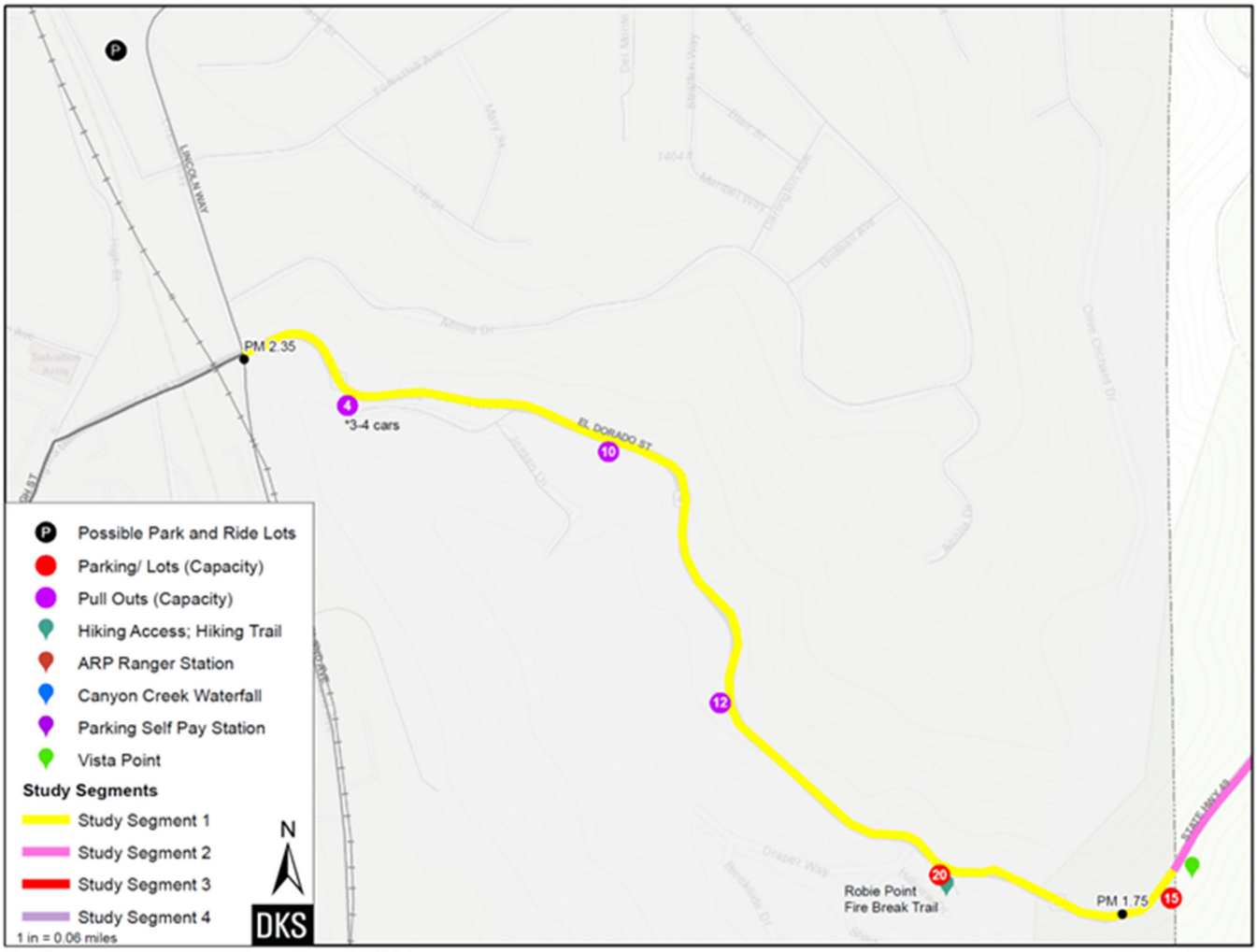
SEGMENT 1: LINCOLN WAY/BORLAND AVENUE (PM 2.35) TO AUBURN CITY LIMITS (PM 1.75)

Segment 1 is a two-lane roadway and seems to have been recently repaved. There is limited access to the trail network along this segment, apart from the Robie Point Firebreak Trail near the end of the segment. There appears to be 600 feet of older pavement along the eastbound segment. Segment 1 is shown with parking locations and other points of interest in **Figure 35**. A 5-year review of collision history found no concerning collision pattern along this segment, with the majority of collisions at or near the segment occurring within the City of Auburn.

There are minimal shoulders, approximately 0–2-foot paved shoulders on both sides. The canyon wall is along the westbound lane, while there are guardrails, metal delineators and steep drop-offs along the eastbound lane. There are a couple of residential driveways in this segment, which have "No Parking" signs. **Figure 36** illustrates the winding road along with the canyon and steep drop-offs in this segment.

There is an paved asphalt pullout area near PM 2.15 also shown in **Figure 37**. The asphalt is cracked, but there is a large area available for parallel and perpendicular parking. This area would be able to accommodate 10 vehicles. This area was not considered as a shuttle stop due to a lack of trail access.

There is another, mostly gravel, pull-out located near PM 2.0 with an Auburn State Recreation Sign as shown in **Figure 38**. This pullout would be able to accommodate 12 vehicles. This area was not considered as a promising potential host for a shuttle stop due to a lack of trail access.



Map Source: GIS, DKS Field Observations, Oct 2021 January 13, 2022

FIGURE 35: SEGMENT 1 PARKING SUMMARY

FIGURE 36: PHOTO OF SR 49 NEAR LINCOLN WAY SIGNAL (LEFT - WESTBOUND, RIGHT - EASTBOUND)

FIGURE 37: PHOTO OF SR 49 PULLOUT AREA NEAR PM 2.15 HEADING EASTBOUND

FIGURE 38: PHOTO OF SR 49 NEAR PM 2.0 EASTBOUND

There is a parking lot located near PM 1.8 for the Robie Point Fire Break Trail shown in **Figure 39**. This is a large, paved lot that would be able to accommodate approximately 20 vehicles. There are multiple hiking and bicycle trails starting at this point. The lot is located within a series of horizontal curves and a steep slope to the north, creating limited sight distance for eastbound vehicles to enter and exit the main lot and for many of the adjacent small informal pullouts. This location was identified as a potential shuttle stop due to its size, popularity, and access to the local trail system. Since the small pullouts on the north side of the road were ruled out for safety concerns, a floating bus stop

was considered, allowing the existing parking to remain with a defined space for a shuttle directly adjacent to SR 49. The shuttle would access the pullout from either direction, however there were concerns identified that during higher traffic times, a significant eastbound queue could form while the shuttle waited for a safe time to enter the lot. One possible solution would involve a slight widening of the roadway and the introduction of a short left-turn pocket and merge lane.

Whether or not a shuttle is implemented, State Parks representatives expressed an interest in formalizing the parking situation at the lot and charging day use fees.

FIGURE 39: PHOTO OF ROBIE POINT FIRE TRAILHEAD PARKING LOT EASTBOUND

SEGMENT 2 – AUBURN CITY LIMITS (PM 1.75) TO PLACER COUNTY/EL DORADO COUNTY LINE (PM 0.0)

Segment 2 is a two-lane roadway between Auburn City limits and the county line, which is adjacent to the SR 193 juncture with Old Foresthill Road and a bridge, which splits Placer County and El Dorado County. The American River confluence is located slightly north of the juncture. This segment appears to have recently been paved from PM 1.4 to 0.93. Segment 2 is shown with parking locations and other points of interest in **Figure 40**. A review of the 5-year collision history revealed no areas with excessive, directly remediable collisions.

There is a vista point near PM 1.67 overlooking the canyon and American River as shown in **Figure 41**. This is located between two curves which creates limited sight distance to enter and exit the area for both directions. The pullout area has cracked asphalt pavement and gravel closer to the guardrail. This is a large area that should be able to accommodate 15 vehicles. Due to the lack of trail access at this paved pullout, this area was not considered as a promising potential for a shuttle stop.

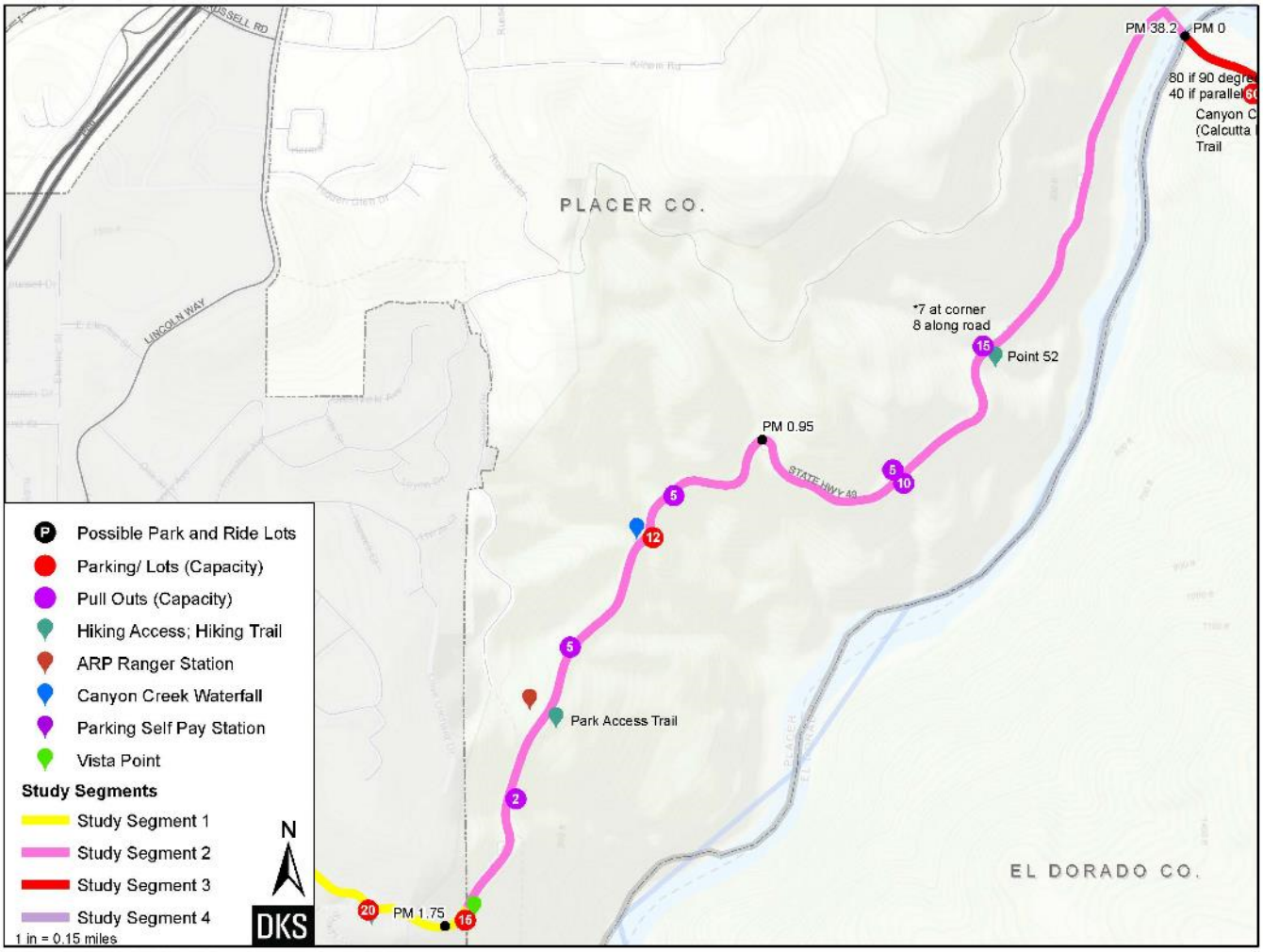


FIGURE 40: SEGMENT 2 PARKING SUMMARY

There are a few pullouts/turnouts along this segment near the American River Park Ranger Station. These are short gravel pullouts that may accommodate 1-2 vehicles. **Figure 42** illustrates the Park Access Trail across from the Ranger Station. Visitors are prohibited from parking at this trailhead and also prohibited from parking at the Ranger Station parking lot. Therefore, visitors attempt to park at short pullouts or turnouts along this segment to access the trail. The representatives from State Parks discouraged using the Ranger Station as a shuttle stop despite being adjacent to a trailhead, given a lack of suitable space.

Given the lack of configurable space at the ranger station and its proximity to other possible shuttle stops, this area was not considered a promising potential host for a shuttle stop. This determination was supported by State Parks.

FIGURE 41: PHOTO OF SR 49 VISTA POINT NEAR PM 1.67 EASTBOUND

FIGURE 42: PHOTO OF SR 49 ACROSS FROM RANGER STATION EASTBOUND

The next parking lot is located near PM 1.18 shown in **Figure 43**. This lot provides access to Canyon Creek, and a view of a small waterfall on the westbound side of the roadway. This is located between two winding curves which create limited sight distance to enter and exit the area in either direction. This pullout is not paved; it is a mix of dirt and gravel. This lot should be able to accommodate 12 vehicles. This parking area accesses no trails, has limited sight distance, and only offers a view of the waterfall. Paving the area for a formal vista point is possible, but the site was not considered as a promising potential for a shuttle stop.

There are short pullouts along the segment, some that would be able to fit 1-2 vehicles, others that may be able to fit 5 vehicles.

FIGURE 43: PHOTO OF SR 49 AT CANYON CREEK EASTBOUND

The next large pullout is located near PM 0.7 in the eastbound direction shown in **Figure 44**. This is a paved lot that should be able to accommodate 10 vehicles. These pullouts may be due to the Western States Trail located near PM 0.5 which prohibits parking at the gate. There is an additional pullout in the westbound direction near the gate. This area was deemed unlikely to be suitable for a shuttle stop. However, a well-worn social trail lies just beyond the guardrail.

There is a smaller pullout in the westbound direction that is paved and should be able to accommodate 5 vehicles.

FIGURE 44: PHOTO OF SR 49 NEAR PM 0.7 EASTBOUND

The next pullout is located at signed Point 52, which has a gated trailhead. Egress from the gated area was allowed in only one direction, as shown in **Figure 45,** and was angled sharply which is not conducive for use as a shuttle stop. The pullout across from the gate, as shown in **Figure 46**, was too small to support a shuttle and had short sight distances due to its position at a bend. Hikers would also need to cross SR 49, since the side of the highway with the gate had no room to host a

shuttle stop. Because of the multiple safety concerns, this location was not considered as a suitable location for a shuttle stop.

FIGURE 45: PHOTO OF TRAILHEAD GATE AT POINT 52 A SIGNAGE RESTRICTING WESTBOUND EGRESS

FIGURE 46: PHOTO OF PULLOUT ACROSS FROM POINT 52

SEGMENT 3 – PLACER COUNTY/EL DORADO COUNTY LINE (PM 38.2) TO EAST OF THE QUARRY (PM 36.5)

Segment 3 is a two-lane roadway extending from the county line to just west of the Quarry. If travelers continue eastbound onto Old Foresthill Road, there is a self-pay kiosk to access Auburn State Park, Lake Clementine and Confluence Trailheads. However, the study area continues along SR 49 heading southeast. Segment 3 is shown with parking locations and other points of interest in **Figure 47**. Park rangers on-site identified that visitors frequently move the no-parking signs and are willing to pay for the parking ticket to access the Confluence swimming hole and Calcutta Trailhead. A five-year collision history review found many collisions were guardrail strikes; the segment is winding with several hairpin turns. Adding reflective elements could help drivers avoid the guardrail in low-visibility conditions.

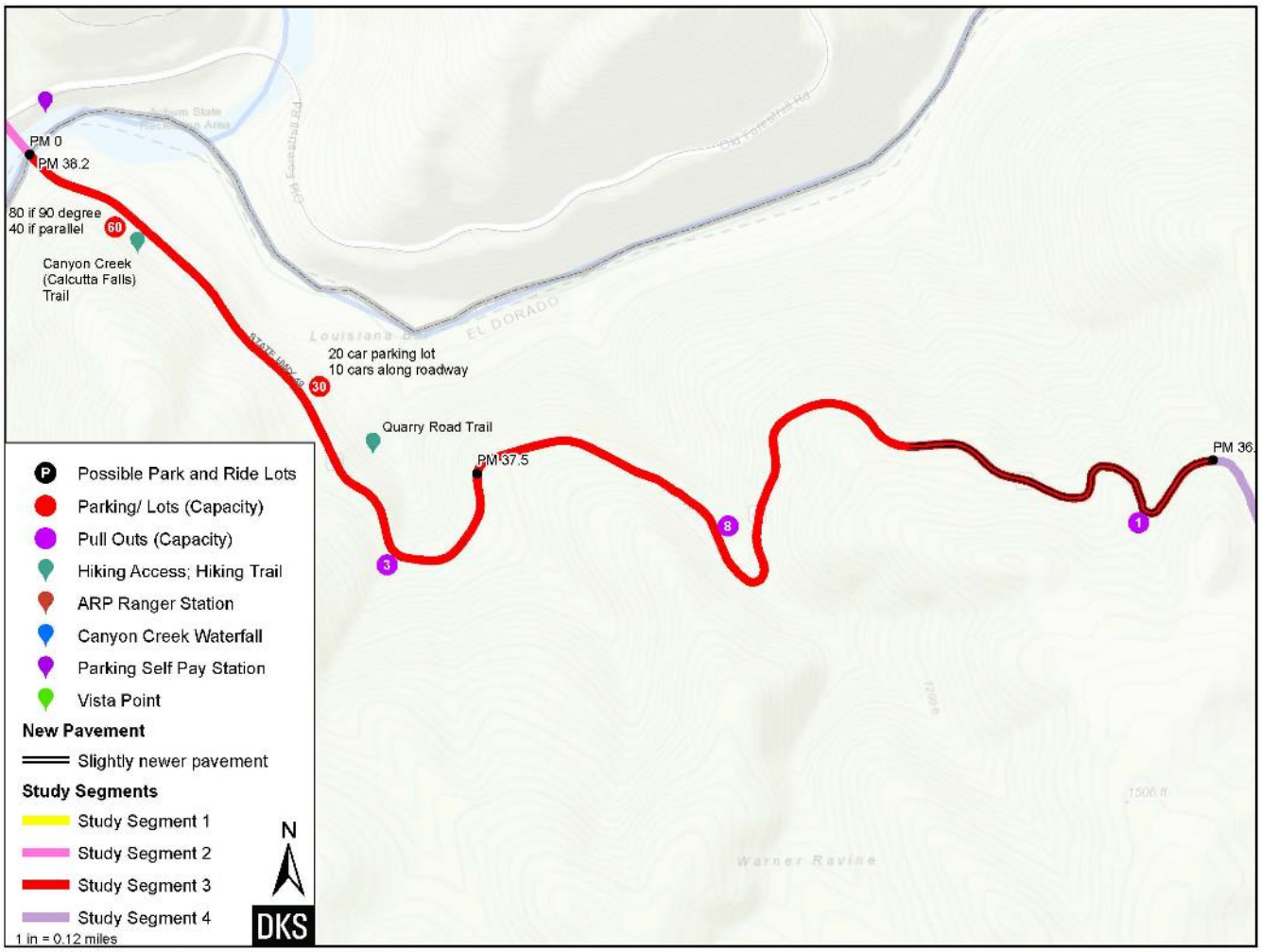


FIGURE 47: SEGMENT 3 PARKING SUMMARY

Concerns about the number of pedestrians crossing the road near the intersection of SR 49 and Old Foresthill Road despite no marked pedestrian crossing opportunities nearby led to participants voicing concerns that the area should be made more pedestrian friendly. Ideas included widening the SR 49

bridge or creating a separate pedestrian bridge, both of which would need to be further explored to determine cost and feasibility. Making the SR 49 and Old Foresthill Road intersection into an all-way stop with marked crosswalks was also discussed. At present, the only stop-controlled leg is SR 49 going westbound, which is a higher-volume approach. SRA visitors were seen crossing Old Foresthill Road, which is not stop controlled at the intersection, to access a trail and parking on the opposite side. An image of the bridge (top) and parallel parking area (bottom) near the trailhead is shown in **Figure 48**.

FIGURE 48: CONFLUENCE BRIDGE AND TRAILHEAD PARKING

There is parking for approximately 1000 feet, which should be able to accommodate 40 vehicles if parallel parking, and 80 vehicles if reverse parking as previously designed. This area, close to the Confluence, is already a well-used u-turn spot and marked for passenger loading and unloading only as shown in **Figure 48** (bottom). There is ample room for this area to be configured into a shuttle stop.

At this time, formal access to the ranger station and restroom facilities on the other side of the bridge is not pedestrian friendly. Certain improvements that would help were discussed in the introduction of this chapter Another change participants discussed was the introduction of day-use fees in El Dorado County and making payment uniform across the area. Demand is currently much higher in the free El Dorado County spaces than the paid Placer County spaces.

The next parking lot is located near PM 37.9 for Quarry Trail. There is a short gravel road to access this parking on the westbound side with the entrance shown in **Figure 49**. The Quarry Trail parking lot includes a self-pay kiosk as well.

FIGURE 49: QUARRY TRAILHEAD PARKING LOT ENTRANCE

FIGURE 50: QUARRY TRAILHEAD PARKING LOT

There are several "No Parking" signs along the access road, but visitors typically park at any open space. This lot should be able to accommodate 20 vehicles, and a section of the access road, capable of holding roughly 10 vehicles, allows parking as shown in **Figure 50**.

The addition of a shuttle stop on SR 49 at the entrance to the lot was identified as the favored recommendation, however it would only provide service in the westbound direction. **Figure 49** shows the entrance to the Quarry Trail parking area. There was also discussion of expanding the parking area to host parking and adding a shuttle turnaround by excavating land toward SR 49 and bracing the hillside with a retaining wall. But, there were concerns of cost and how much additional parking would be gained.

There is a trail on the opposite side of the access road to the Quarry Trail parking area. Area visitors were seen crossing the road at this location. The addition of a marked crosswalk and a push-button activated flashing beacon were discussed to formalize the crossing to make it more pedestrian-friendly.

This site is also roughly a third of a mile from the Confluence and located on the opposite side of the road. One potential shuttle routing option discussed included pairing the Confluence and quarry areas to provide bidirectional service, with a westbound stop located at the Quarry lot and an eastbound stop located at the Confluence. If this option were selected, formal pedestrian facilities and protected crossing opportunities would need to be created. A possible idea discussed during the RSA was creating a parking-protected path at the u-turn area. Other areas would be widened as needed to create a full pedestrian path. All agency representatives were supportive of the pedestrian improvements.

The rest of Segment 3 is a winding road with limited pullout and turnout areas. There is a paved pullout area at the hairpin curve, near PM 37.2. This lot could accommodate 8 vehicles. Due to the sharp curve the site was not considered as a promising potential location for a shuttle stop.

SEGMENT 4 – EAST OF THE QUARRY (PM 36.5) TO GEORGETOWN ROAD/SR 193 (PM 34.5)

Segment 4 is a two-lane roadway extending west of the Quarry to the SR 49/Georgetown Road juncture in Cool. This segment is mostly straight. Segment 3 is shown with parking locations and other points of interest in **Figure 51**. The Teichert Aggregates – Cool Cave Quarry is located near PM 35.9. The access point for the Wendell Robie Trail is adjacent to the Cool Cave Quarry entrance. There is limited trail access here, and the shuttle is not expected to serve a small PG&E station maintenance trail. Concerns were also raised about an "equestrian crossing" area near Cool; however, the shuttle will not be expected to serve these trails as they are very close to Cool. A five-year collision history examination found most collisions took place within Cool and not along the segment.

The segment includes the driveway to Teichert Aggregates – Cool Cave Quarry. Consequently, a large number of aggregate hauling trucks were observed along the segment. However, these trucks are appropriately configured to navigate the winding road along the entire corridor. Discussion of the future of the segment also mentioned that quarry management had previously submitted plans to realign SR 49 to access the aggregate beneath the highway.

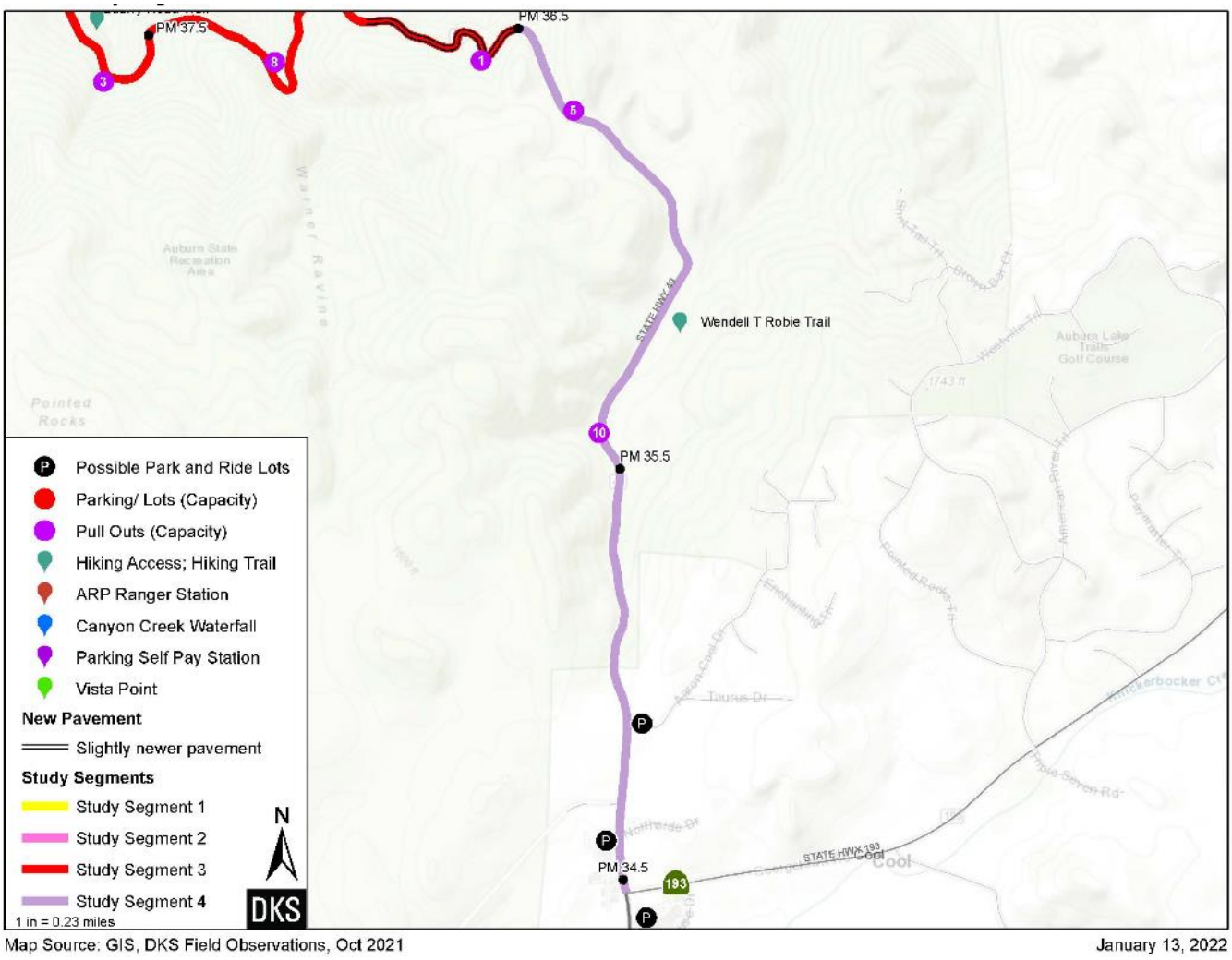


FIGURE 51: SEGMENT 4 PARKING SUMMARY

The next pullout area is located near PM 35.5 along the eastbound side as shown in **Figure 52**. This partially paved lot should be able to accommodate 8 vehicles. Given the lack of trail access, this site was not considered as a promising potential for a shuttle stop. The Wendell T Robie Trail access is located near Aaron Cool Drive. This trail is mainly used for mountain biking.

State Parks representatives offered to determine if there were appropriate locations within existing State Parks roadway and land to offer an interim parking area for a pilot shuttle. State Parks also expressed an interest in reviewing their general plan to see if a long-term parking solution and shuttle staging area could be incorporated.

Another point of conversation was the previous possible existence of a Caltrans owned park-and-ride at the Holiday Market in Cool which had since been converted into a private lot. This would need to be considered if a parking/staging area for a future shuttle service was considered at this location.

FIGURE 52: PHOTO OF SR 49 PARKING NEAR PM 35.5 EASTBOUND

TRANSIT ROUTES

There is existing bus service in the City of Auburn, and a limited transit shuttle service within the study area: the Auburn Loop bus and the Confluence Route shuttle. The Auburn Loop travels around Auburn and along Borland Avenue/Lincoln Way every hour. The Confluence Route is a seasonal shuttle operated by the City of Auburn that travels around Auburn and along SR 49 to the American River confluence every two hours, only between April and October, Friday to Sunday. The Confluence shuttle only serves Auburn and does not continue east on SR 49 past the North Fork American River, returning to Auburn via Old Foresthill Road and Foresthill Road. It currently operates as a seasonal on-demand service.

EXISTING PARKING FACILITIES

There are many parking lots and pullouts located within the study area, providing existing parking capacity and possible opportunities for safe shuttle stops along SR 49. The number and capacity of the lots is summarized in **Table 6**. The largest lots are located in Segment 3, near the Confluence, and represent the parking locations with the highest demand, by the Calcutta Falls and Quarry Road trailheads. There are no more formalized lots further east, and the pullout capacity is much lower in Segments 3 and 4, which results in fewer opportunities for potential shuttle stops. Segment 1 and Segment 2 have more regular pullout locations as there are more trailheads and vista points located west of the Confluence, providing options for park-and-ride opportunities.

TABLE 6: EXISTING PARKING CAPACITY

SEGMENT	PARKING LOTS	LOT CAPACITY	PULL OUTS	PULL OUT CAPACITY	TOTAL CAPACITY
SEGMENT 1	2	24	3	26	50
SEGMENT 2	1	12	6	42	54
SEGMENT 3	2	90	3	12	102
SEGMENT 4	0	0	2	15	15
STUDY CORRIDOR	5	126	14	95	221

RSA FINDINGS

The RSA identified a number of opportunities to address the primary issues facing the corridor including expanded shuttle service, shuttle stops, and improve parking access, capacity, and pedestrian safety at the Confluence. The existing Confluence Route shuttle could potentially provide expanded service, extending east to the Quarry Road parking lot, or to Cool, given that the current round trip only takes 90 minutes, with a shuttle departing every two hours. Alternatively, an on-demand shuttle departing from Cool and serving the portion of the route not currently served by the Confluence shuttle and a transfer point at the Confluence could provide comprehensive service to the whole study area.

4. TRUCK ASSESSMENT

SR 49 in the study corridor is designated for use by California Legal sized trucks with a kingpin to rear axle length (KPRA) ranging from 30 to 38 feet. However, it is not uncommon to see oversized vehicles (48-53 feet KPRA) using SR 49 in the study corridor (over 30% of trucks using the SR 49 in the study corridor are 5+ axle trucks). The reason that truck length restrictions are applied to SR 49 within the study area is the winding roadway alignment and sharp curves unsuitable for larger trucks creating an unsafe condition. The national truck network that serves interstate truck travel has higher design standards that allow for vehicles with a KPRA up to 53 feet, which is 15 feet longer than allowed on SR 49. There was a significant amount of public feedback provided regarding truck use of SR 49 that is summarized in Chapter 2 of this report.

When oversized trucks use the constrained portion of SR 49, they may experience one or more safety issues. Safety issues are compounded where the highway has a series of sharp horizontal curves that are closely spaced, such the highway segment between Cool and Old Foresthill Road, which is next to the middle fork of the American River. A few examples of safety issues associated with oversized trucks are noted below, which are illustrated by photos provided by local citizens that observed these incidents.

- The back end of the trailer will track across the centerline into the opposite travel lane
- As shown in the photo at right (see **Figure 53**), there was an oncoming car that was trapped by the truck, so all traffic stopped until the situation was resolved
- In other cases, trucks that crossed the centerline crashed into oncoming vehicles.
- Or in some extreme cases, the truck could block both other vehicles in both directions while navigating a series of sharp corners (see **Figure 54**)

FIGURE 53: OVERSIZE TRUCK TRACKING INTO OPPOSITE LANE

In addition to the above photos that illustrate safety issues, the public outreach for this study asked about other concerns or issues associated with oversized trucks on this route, the responses raised the following additional issues:

- Highway blockage during emergency or evacuation events
- Lane departures onto shoulder areas at locations where there are parked cars or pedestrians that are trying to access nearby recreational areas

FIGURE 54: OVERSIZE TRUCK BLOCKING BOTH DIRECTIONS

Community concerns regarding oversized trucks potentially inhibiting or even blocking the ability for passenger vehicles to pass during an evacuation event have dramatically increased since the Caldor Fire in August 2021 (burned 221,835 acres, destroyed 1,003 structures, 50,000 people evacuated) and more the Bridge Fire in September 2021 which occurred just north of the SR 49 confluence (411 acres).

CURRENT TRUCK ACTIVITY ON SR 49 WITHIN THE STUDY CORRIDOR

Daily traffic volumes on SR 49 between Interstate 80 in Auburn and US 50 in Placerville range from under 3,000 vehicles near Coloma to nearly 9,000 vehicles at either end of the corridor according to Caltrans 2020 volume records. Daily truck traffic volumes within the corridor range from about 300 near Coloma to just under 700 near Interstate 80. When considering the impact of truck activity, it is important to categorize the truck volumes by vehicle size and trip purpose.

For volume counting purposes, trucks are categorized by the number of axles on the vehicle, ranging from 2 axles to 5 axles. In general, 5 axle trucks can exceed the legal length restriction for SR 49, which allows no more than 38 feet KPRA. Therefore, by identifying trucks that have 5 axles or more we can better understand the level of illegal truck usage in this corridor.

2020 TRAFFIC VOLUMES

The average daily traffic volumes in 2020 for all vehicles and trucks is tabulated below. As shown in **Table 7**, the share of trucks and the number of oversized trucks, with 5 or more axles, are presented for several segments in the study corridor. The share of oversized trucks generally accounts for between 20 and 30% of total trucks at these observation points, which represents between 120 and 200 five-axle vehicles each day. While this is small share of the total traffic in the corridor, the disruption caused by these larger trucks on all vehicle traffic is significant, as highlighted in the following chapter.

TABLE 7: VEHICLE TRAFFIC ACTIVITY ON SR 49 CORRIDOR (ANNUAL AVERAGE DAILY VOLUME)
SELECTED SEGMENTS BETWEEN COLOMA AND INTERSTATE 80

LOCATION ON SR 49 CORRIDOR	TOTAL DAILY TRAFFIC (AADT[1])	DAILY TRUCK TRAFFIC (AADT[1])	PERCENT OF DAILY TRUCKS	NUMBER OF OVERSIZED TRUCKS (5 OR MORE AXLES)	PERCENT OF OVERSIZED TRUCKS TO TOTAL TRUCKS
COLOMA, SOUTH OF ROUTE 153 WEST	4,850	340	7%	123	36%
COOL, NORTH OF ROUTE 193 EAST	8,800	640	7%	200	31%
AUBURN, INTERSTATE 80, SOUTH OF EB ON/OFF RAMPS	8,500	690	8%	133	19%

[1] AADT = Annual Average Daily Traffic volumes.
Source: 2020 Truck AADT Volumes, Caltrans.

LOCAL VERSUS 'CUT-THROUGH' TRUCK TRIP PURPOSES

The other aspect of truck travel activity that is important to consider is the difference between trucks that have local origins or destinations along the corridor versus 'cut-through' trips. Many local trips are made by trucks that are associated with local farms and quarries, which use legal sized vehicles and represent legitimate uses of the highway. However, over-sized truck trip generation activity does occur within the study, particularly from the Dollar Store located in Cool. The El Dorado County Board of Supervisors conditioned its approval of the Dollar General Store in Cool on the applicant restricting its' trucking activity from the Confluence. Continued monitoring of this condition is needed given that during the course of this study several incidents of Dollar General Store trucks off-cycling, blocking traffic, and causing delays attempting to negotiate a tight curve were photographed by the public and shared with EDCTC.

Trucks that use SR 49 as a 'cut-through' to take a shorter path between US 50 and I-80 and bypass the freeway-to-freeway connections in Downtown Sacramento are doing so for their convenience and trip efficiency (See **Figure 55**). The prevalence of over-sized 48- to 53-foot trailers has increased over the last 40 years and this trend is expected to continue. The economics of trucking and specifically STAA-sized trucks is very sensitive to excess miles and time. This promotes the use of the shortest practical route to get to and from a location without increasing exposure to incidents by driving other than the most direct route. The perspective of most trucking companies is to defer to the judgment of the driver to pick a safe route rather than to regulate every section of every roadway that may be used by trucks of various configurations.

This distinction between local and cut-through truck trips was evaluated using StreetLight Data for 2019. That analysis revealed that 9 out of 10 truck trips that were traveling westbound on I-80 in Auburn and had destinations east of Placerville on US 50 used SR 49 as a 'cut-through' route rather than take the long route through downtown. A similar level of 'cut-through' activity was observed for the opposite direction, from westbound US 50 to I-80 east of Auburn. This was a significant finding and was estimated to account for up to 75 truck trips each day that pass through the SR 49 corridor.

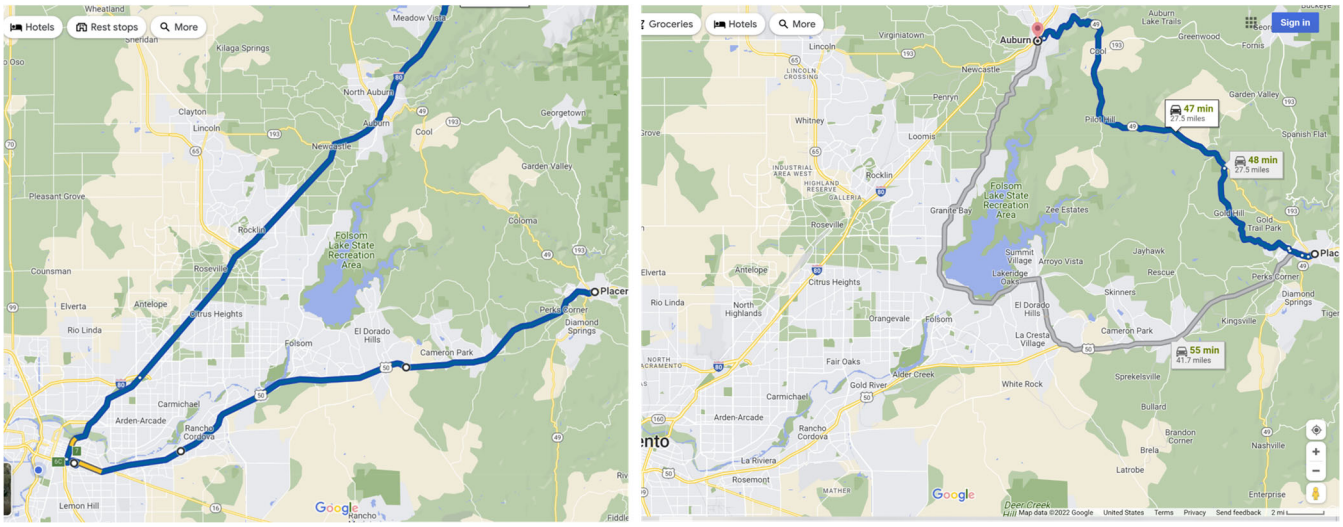


FIGURE 55: I-80 AND US 50 SWITCHBACK AND SR 49 CORRIDOR SHORT-CUT

ENFORCEMENT

The Surface Transportation Assistance Act of 1982 (STAA) permitted motor carrier operation of 48-foot and 53-foot semi-trailers on the national highway network and allowed states to permit these "STAA vehicles" on state and local routes as well. Designation of STAA routes is premised on engineering and safety standards (i.e., adequate footprint to accommodate truck turn radius requirements, gross vehicle weight, vertical clearance height etc.)[2]. In California, Caltrans administers these regulations while the California Highway Patrol (CHP) is charged with enforcement. The CHP has the authority to issue citations for violations that involve operating STAA sized equipment on routes that are not formally designated as STAA routes (National Network or Terminal Access Routes) such as SR 49 between the cities of Auburn and Placerville. An STAA violation typically costs $300.

SR 49 through the study corridor is a designated "Advisory Route". Advisory Routes are state highways that Caltrans has posted for tractor semi-trailer combinations where exceeding a given KPRA length, usually 30 feet, is not advised. These routes are posted with yellow rectangular sign (SW 48(CA) and state the KPRA length limitation on that highway segment. Warning signs are posted on both ends of this portion of SR 49 (in Auburn and Placerville) to notify truck drivers of truck length restrictions. However, the signage in Auburn and Placerville is not visually prominent and is either not seen or ignored. Given the signage shortfalls, and the lack of other easily accessible STAA route information, truckers and dispatchers are often left using their own judgment regarding the safety and negotiability of possible routes.

Opinions expressed by a representative of California Trucking Association (CTA) is typically truckers do not know the STAA restrictions and those who do know don't care, and don't need to care except when ticketed by enforcement. Instead, "take a chance, and pay the fine if you must" is the true character of the STAA requirements. Caltrans District 3 has Truck Service Specialists who assist its Districts, counties, municipalities, commercial motor carriers, truck drivers, and applicants to understand the applicable law and regulations. Given that neither drivers nor trucking company managers are commonly knowledgeable about STAA requirements, enforcement of STAA regulations is problematic and subject to inconsistency. STAA violations are not a high priority for either CHP officers or local police[3].

POTENTIAL FREIGHT AND GOODS MOVEMENT SAFETY SOLUTIONS

To reduce the amount of truck traffic on SR 49 (currently ranging from 2-5% of total daily traffic), increased enforcement can serve as a deterrent to STAA-sized vehicles. A big issue is that on-board navigation systems typically used by truckers such as STAR do not strictly adhere to or recognize the STAA designated network (national and local terminal access or T routes). Hence, the most

[2] U.S. Code of Federal Regulations at Part 658 "Truck Size and Weight, Route Designations—Length, Width and Weight Limitations" and in the California Vehicle Code at Section 35401.7

[3] Source: *Interregional Truck Operations on I-5 and SR 99 and STAA Routes Improvement Study*, SACOG & SJCOG, June 2012.

effective strategies to provide information to truckers is through more effective signage and better communications such as Highway Advisory Radio (HAR). To minimize trucks routing through the Confluence area of the corridor, identification of low-cost signage strategies and advisory programs and locations for over-sized trucks recourse and reroute off of SR 49.

To address the safety and operational issues related to oversized trucks in the corridor, a roster of potential solutions were considered. The solutions focused on strategies that help to reduce through truck traffic, upgrade the existing facility where critical safety conflict exists, and consider upgraded traffic control measures. Specific actions that are recommended include the following items.

1. Install "No Oversized Trucks" signs at gateways to the corridor
2. Provide a turnaround opportunity for oversized trucks to return to the legal route. One example is the planned roundabout at Lincoln Way and SR 49.
3. Coordinate with STAR, the truck navigation system, restrict access for trucks over 38 feet KPRA
4. Improve coordination with communication channels such as Highway Advisory Radio (HAR)
5. Encourage local and regional agencies to coordinate with the CHP to encourage greater enforcement on SR 49 including ticketing STAA-sized vehicles (48-53 feet KPRA)
6. Pursuant to the conditions of approval established as part of the entitlement process and approval of the Dollar General Store located in Cool, coordinate with El Dorado County to better enforce Dollar General Store over-sized (48-53 feet KPRA) truck restrictions in the Confluence
7. Encourage local and regional agencies to partner with Caltrans and the CHP to form a Goods Movement Committee to establish a forum for addressing over-sized truck usage in the Confluence

5. SHUTTLE OPERATIONAL ASSESSMENT

The following section provides cost and revenue analysis for potential shuttle services between Auburn and both Cool and Placerville, through the Auburn State Recreation Area.

COST ANALYSIS

The following scenarios were considered for shuttle services:

- Auburn to Cool (1-hour between bus arrivals)
- Auburn to Cool (30-minute between bus arrivals)
- Auburn to Placerville (1-hour between bus arrivals)
- Auburn to Placerville (30-minute between bus arrivals)

Costs were estimated for each of these scenarios for services year-round, weekend, and from Memorial Day to Labor Day. To calculate the cost of these services, estimates of both vehicle revenue hours and vehicle revenue miles were required.

To calculate vehicle revenue hours, it was assumed that there will be a 12-hour service span, with 5 minutes of terminal time for the Auburn-Cool route and 20 minutes of terminal time for the Auburn-Placerville route, as well as a 19-minute one-way travel time on the Auburn-Cool route and a 58-minute one-way travel time on the Auburn-Placerville route. To calculate vehicle revenue miles, it was assumed there is a 12.6-mile roundtrip distance on the Auburn-Cool route and a 52.2-mile roundtrip distance on the Auburn-Placerville route.

Daily costs were generated from the vehicle revenue hours and vehicle revenue miles, costs for each of these factors were determined by averaging the operating costs in Auburn, El Dorado, and Placer counties. Operating expenses data was also analyzed to determine the percentage of operating expenses used for labor, fuel, and maintenance. This data was taken from the National Transit Database. **Table 8** below shows the cost parameters used.

TABLE 8: SHUTTLE COST PARAMETERS

	COST PER VEHICLE REVENUE MILE	COST PER VEHICLE REVENUE HOUR	PERCENT COST ASSOCIATED WITH LABOR	PERCENT COST ASSOCIATED WITH FUEL	PERCENT COST ASSOCIATED WITH MAINTENANCE
CITY OF AUBURN	$10.28	$142.27	n/a	n/a	n/a
EL DORADO COUNTY	$6.83	$125.99	68.4%	8.8%	22.8%
PLACER COUNTY	$8.25	$167.18	62.9%	5.2%	31.9%
AVERAGE	**$8.45**	**$145.15**	**65.7%**	**7.0%**	**27.3%**

For electric buses, it is assumed that fuel costs are reduced by 69.8% and maintenance costs are reduced by 47.4%, compared to diesel bus operations (Quarles, Kockelman, & Mohamed, 2020). Total operating costs are assumed to be reduced by 17.8%.

It is assumed that there will be six stops on the Auburn-Cool route and 15 stops on the Auburn-Placerville route. It is assumed that each stop will cost $30,000. This cost assumes installation of a pole and sign, as well as pavement for the bus pull out.

The number of buses needed for each scenario was calculated by dividing the total round-trip time by the headway, rounding up to the nearest whole number, and adding an additional bus for reserve. It is assumed that each bus will cost $500,000 for a diesel bus, and $750,000 for an electric bus.

The operating cost estimates for each route and each scenario and presented below in **Table 9** through **Table 12**.

TABLE 9: AUBURN TO COOL (1-HOUR HEADWAYS) COST ESTIMATES

	DIESEL	ELECTRIC
VEHICLE REVENUE HOURS	8.6	8.6
DAILY OPERATING COST (VRH)	$1,248	$1,025
VEHICLE REVENUE MILES	151.2	151.2
DAILY OPERATING COST (VRM)	$1,278	$1,050
DAILY OPERATING COST (AVERAGE)	$1,263	$1,038
OPERATING COST - MEMORIAL DAY TO LABOR (97 DAYS)	$122,530	$100,688
OPERATING COST – YEAR-ROUND (365 DAYS)	$461,068	$378,877
OPERATING COST – WEEKEND ONLY (104 DAYS)	$131,373	$107,954
BUSES NEEDED	2	2
BUS COSTS	$1,000,000	$1,500,000
STOPS NEEDED	6	6
STOP COSTS	$180,000	$180,000

TABLE 10: AUBURN TO COOL (30-MINUTE HEADWAYS) COST ESTIMATES

	DIESEL	ELECTRIC
VEHICLE REVENUE HOURS	17.2	17.2
DAILY OPERATING COST (VRH)	$2,496	$2,051
VEHICLE REVENUE MILES	302.4	302.4
DAILY OPERATING COST (VRM)	$2,556	$2,100
DAILY OPERATING COST (AVERAGE)	$2,526	$2,076
OPERATING COST - MEMORIAL DAY TO LABOR (97 DAYS)	$245,061	$201,376
OPERATING COST – YEAR-ROUND (365 DAYS)	$922,137	$757,755
OPERATING COST – WEEKEND ONLY (104 DAYS)	$262,746	$215,908
BUSES NEEDED	3	3
BUS COSTS	$1,500,000	$2,250,000
STOPS NEEDED	6	6
STOP COSTS	$180,000	$180,000

TABLE 11: AUBURN TO PLACERVILLE (1-HOUR HEADWAYS) COST ESTIMATES

	DIESEL	ELECTRIC
VEHICLE REVENUE HOURS	27.2	27.2
DAILY OPERATING COST (VRH)	$3,948	$3,244
VEHICLE REVENUE MILES	626.4	626.4
DAILY OPERATING COST (VRM)	$5,295	$4,351
DAILY OPERATING COST (AVERAGE)	$4,622	$3,797
OPERATING COST - MEMORIAL DAY TO LABOR (97 DAYS)	$448,293	$368,379
OPERATING COST – YEAR-ROUND (365 DAYS)	$1,686,876	1,386,170
OPERATING COST – WEEKEND ONLY (104 DAYS)	$480,644	$394,963
BUSES NEEDED	4	4
BUS COSTS	$2,000,000	$3,000,000
STOPS NEEDED	15	15
STOP COSTS	$450,000	$450,000

TABLE 12: AUBURN TO PLACERVILLE (30-MINUTE HEADWAYS) COST ESTIMATES

	DIESEL	ELECTRIC
VEHICLE REVENUE HOURS	54.4	54.4
DAILY OPERATING COST (VRH)	$7,896	$6,488
VEHICLE REVENUE MILES	1252.8	1252.8
DAILY OPERATING COST (VRM)	$10,590	$8,702
DAILY OPERATING COST (AVERAGE)	$9,243	$7,595
OPERATING COST - MEMORIAL DAY TO LABOR (97 DAYS)	$896,586	$736,759
OPERATING COST – YEAR-ROUND (365 DAYS)	$3,373,752	$2,772,340
OPERATING COST – WEEKEND ONLY (104 DAYS)	$961,288	$789,927
BUSES NEEDED	6	6
BUS COSTS	$3,000,000	$4,500,000
STOPS NEEDED	15	15
STOP COSTS	$450,000	$450,000

REVENUE ANALYSIS

FINANCIAL FEASIBLITY ASSESSMENT

A financial feasibility assessment of providing a shuttle service is provided below. For information purposes, feasibility is based solely on locally generated parking fees and shuttle fair. Alternative revenue sources will likely be sought to fund such a service. This includes federal Congestion Mitigation and Air Quality Improvement (CMAQ) funding, which could be used to subsidize shuttle operation costs for a pilot period of up to 3 years. CMAQ funds are programmed by the El Dorado County Transportation Commission (EDCTC) to fund transportation projects that improve air quality and relieve congestion. Over $8.2 million in funding was available for the 2022 Call for Projects. Transportation Development Act (TDA) funding, Local Transportation Funding (LTF) or funding from the El Dorado Air Quality Management District (AQMD) could also be utilized.

During the summer season (generally Memorial Day weekend to Labor Day weekend), between 400-500 vehicles park in the Confluence area per day. Currently, there are 221 spaces in the parking inventory that are free, consisting of 126 lot spaces and 95 pullout spaces. In addition, State Parks hosts an additional 12 spaces, which are not factored into the revenue calculations, but do address parking demand. When dividing the total number of daily vehicles by the number of available parking spaces, this leads to a parking space utilization of 1.8 to 2.3 vehicles per space, per day.

The existing flat-rate for parking in the recreation area is $10 per vehicle per day. Assuming the same parking fee is charged for the 221 existing free spaces with a maximum turnover of 2.3 vehicles per parking space per day, each of the 221 existing parking spaces generates $23 in revenue a day, for a total of $5,083 of potential new revenue per day.

FUTURE DEMAND AND CAPACITY

An additional 10 lot spaces and 11 pullout spaces are proposed for the Confluence area, bringing the total number of spaces to 242 spaces, with capacity for roughly 50 more vehicles per day. This equates to a total of $5,566 per day in potential "new" parking revenue. An additional 80 free park-and-ride spaces are proposed in Cool to encourage visitors to use the shuttle service.

Shuttle operating costs could potentially be subsidized using parking fees, contingent upon an agreement involving Caltrans and State Parks. All calculations were conducted assuming the shuttle service could claim 50% of parking revenue for the busy summer season (97 days from Memorial Day to Labor Day). If this is the case, then $247,000 would be contributed to shuttle operations over the summer season. Under this scenario, the costs to run shuttles on an hourly or half-hourly frequency for the entire summer season or every weekend (104 days total) throughout the year could be subsidized (see **Table 13**).

In addition to parking fees, fare collection for the shuttle service could be used to support operations, slightly lowering the subsidy needed for parking. Assumptions include standard patterns regarding drivers choosing to switch to transit: increased frequency leads to increased rider convenience and higher ridership, and charging fares lowers competitiveness for vehicles with multiple occupants, as the cost for parking remains fixed at $10 per vehicle regardless of the number of occupants, while bus fares are charged per person.

Estimates generated assume that shuttles will operate for 12 hours a day, and that fares will cover a two-way trip. In peak conditions and with 30-minute headways, an estimated 5% of peak vehicle demand will be captured by the shuttle service. With an average vehicle occupancy of three, this would generate 75 riders per day with no fare, 60 riders with a $2.00 fare (assuming the capture would drop to 4%), and 38 riders with a $3.50 fare (with the capture lowered to 2.5%). This would lead to an additional revenue of $0, $120, and $133, per day respectively (See **Table 14**).

With a 60-minute headway, it is assumed that only 3% of vehicle trips would be captured by the service, leading to a total of 45 daily riders with no fare, 36 with a $2.00 fare (assuming the capture lowers to 2.4%), or 23 with a $3.50 fare (with the capture lowered to 1.5%), leading to a total of $0, $72, and $81 of additional revenue per day respectively (See **Table 14**).

TABLE 13: ESTIMATED OPERATING COSTS FOR SHUTTLE SERVICE IN VARIOUS SCENARIOS

SCENARIO	DAYS IN OPERATION	AUBURN TO COOL SERVICE	AUBURN TO PLACERVILLE SERVICE
SUMMER SEASON – 30 MIN HEADWAY	97	**$201,376**	$736,759
SUMMER SEASON – 1 HOUR HEADWAY	97	**$100,688**	$368,379
WEEKENDS ONLY – 30 MIN HEADWAY	104	**$215,908**	$789,927
WEEKENDS ONLY – 1 HOUR HEADWAY	104	**$107,954**	$394,963
YEAR ROUND – 30 MIN HEADWAY	365	$757,755	$2,772,340
YEAR ROUND – 1 HOUR HEADWAY	365	$378,877	$1,386,170

Note: Scenarios in **bold** are paid entirely with 50% of peak parking revenues

TABLE 14: DAILY SHUTTLE SERVICE RIDERSHIP AND FARE COLLECTION

	NO FARE	$2.00 FARE	$4.00 FARE
RIDERSHIP (30 MIN)	75	60	38
FARE REVENUE (30 MIN)	$0	$120	$133
RIDERSHIP (60 MIN)	45	36	23
FARE REVENUE (60 MIN)	$0	$72	$81

SHUTTLE FEASIBLITY FINDINGS

If shuttle service can claim 50% of peak parking revenues during the summer season (about $247,000), then bus service can be subsidized between Auburn and Cool on all 97 days of the summer season, or all 104 weekend days throughout the year, regardless of fare collection (Table 6). Year-round shuttle service between Auburn and Cool, and all service scenarios between Auburn and Placerville could not be subsidized using this model. All revenues from the different service and fare pricing scenarios, while adding some value, are not large enough to cause any of the aforementioned scenarios to reach the threshold required to be subsidized (**Table 8**). Therefore, it is recommended that providing shuttle service under the proposed conditions be explored between Auburn and Cool only during the summer season or weekends only, as these are the only cost-effective scenarios.

TABLE 15: ADDITIONAL REVENUE PRODUCED THROUGH FARE COLLECTION

SCENARIO	DAYS IN SERVICE	NO FARE	$2.00 FARE	$4.00 FARE
SUMMER SEASON – 30 MIN HEADWAY	97	$0	$11,640	$12,901
SUMMER SEASON – 1 HOUR HEADWAY	97	$0	$6,984	$7,857
WEEKENDS ONLY – 30 MIN HEADWAY	104	$0	$12,480	$13,832
WEEKENDS ONLY – 1 HOUR HEADWAY	104	$0	$7,488	$8,424
YEAR ROUND – 30 MIN HEADWAY	365	$0	$43,800	$48,545
YEAR ROUND – 1 HOUR HEADWAY	365	$0	$26,280	$29,565

6. CAPITAL IMPROVEMENT RECOMMENDATIONS

ORGANIZATION OF RECOMMENDATIONS

The ultimate result of this study was identification of project recommendations to be added to local jurisdictions Capital Improvement Project (CIP) lists. The recommendations were organized in several categories, based on the relevance to the different modes of travel, operations, and objectives of this study:

- **Type 1 – Existing Issues**
  - Operational Improvements
  - Oversized Truck Traffic
  - Evacuation Support
- **Type 2 – Corridor Shuttle Stops and Parking Capacity**
- **Type 3 – Safety and Pedestrian Improvements to Support Shuttle Operations**

Specific locations and types of projects are shown in **Figure 56**.

FIGURE 56: RECOMMENDED PROJECT LOCATIONS AND TYPES

OPERATIONAL AND SAFETY IMPROVEMENTS

The following recommended improvements address existing issues along the corridor:

- Standardize lane widths along the corridor, especially at hairpin turns on Segment 3
- Provide signage that restricts pedestrian travel on the shoulder in areas where there are no trailheads or parking
- Add centerline and edgeline rumble-strips and consistent delineation along the western portion of Segment 2 and the eastern portion of Segment 3
- Provide dynamic signage at the intersection at Lincoln Way that indicated the availability of parking at the Confluence and highlights shuttle service availability
- Perform an Intersection Control Evaluation study at the intersection of SR 49 and Old Foresthill Road to determine if there is a need for additional or changed control
- Coordination with private owners to relocate the intersection with the privately-owned Aaron Cool Drive to avoid vertical curve sight distance concerns
- Perform an Intersection Control Evaluation study at the intersection of SR 49 and SR 193 to determine suitability of a roundabout a (Shown in **Figure 57**)

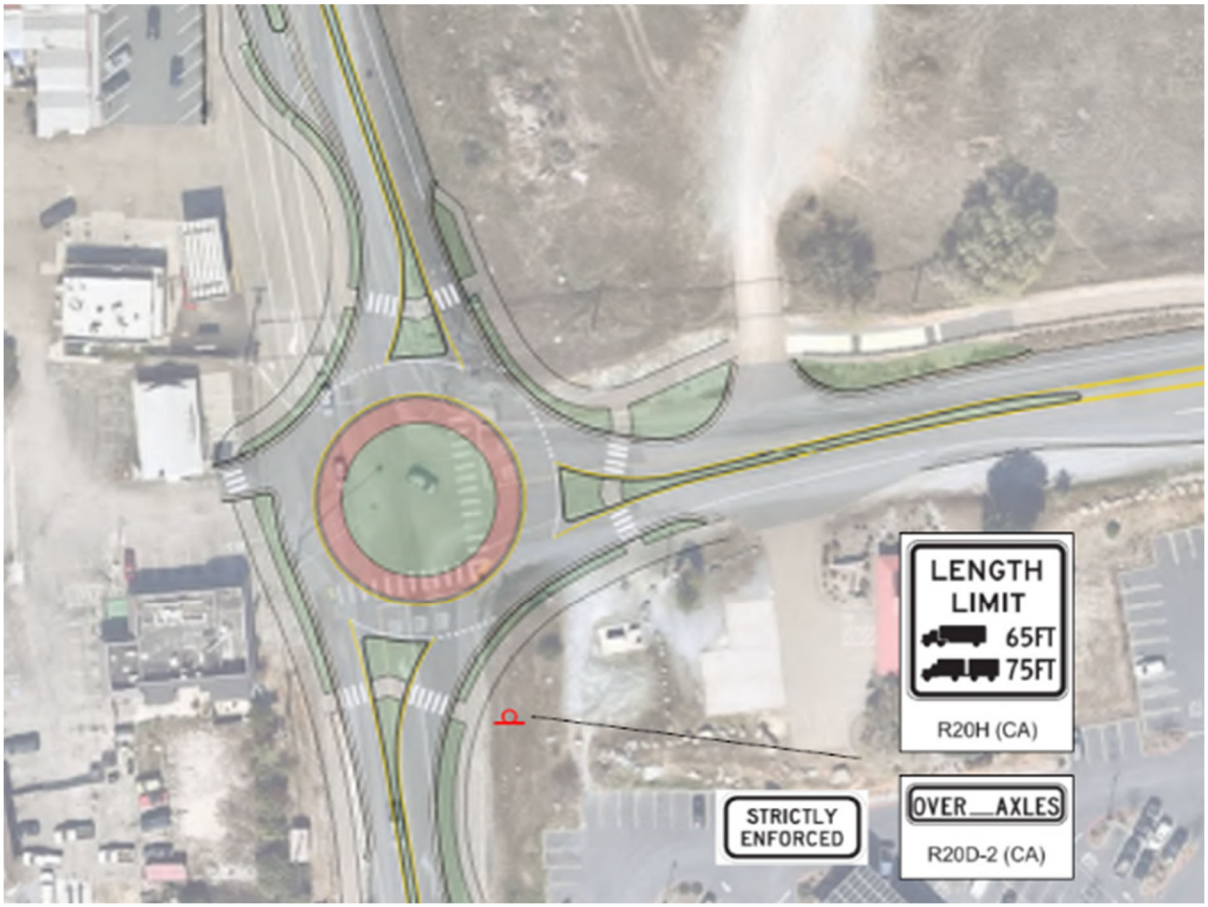


FIGURE 57: CONCEPTUAL DESIGN FOR SR 49/SR 193 ROUNDABOUT

TRUCK TRAFFIC SIGNAGE AND TURNAROUND OPPORTUNITIES

Install signage at multiple locations in Auburn, Cool, Placerville, and the I-80 interchanges with Elm Avenue and SR 49 in Auburn to discourage oversized truck entry onto the SR 49 study corridor. Example signs consistent with the Manual of Uniform Traffic Control Devices (MUTCD) requirements for state routes are shown in **Figure 58**.

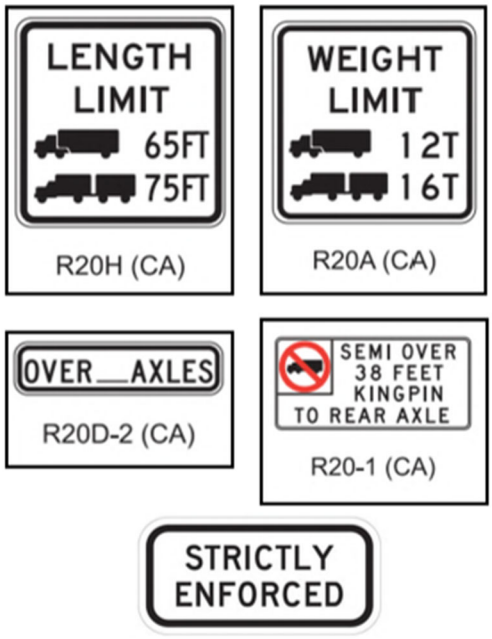


FIGURE 58: MUTCD SIGNS FOR RESTRICTING TRACK TRAFFIC

SHUTTLE SERVICE OPERATIONS

- Identify Park and Ride Parking Lot locations in Auburn (Placer County Fairgrounds) and Cool (along St. Florian Court)

Implement Shuttle Service along the Corridor

- Implement a shuttle service between Auburn and Cool, funded in combination between:
  - Parking fees
  - State/Federal Funding sources
  - Public/Private partnerships (e.g. rafting services that currently provide transportation that could utilize the shuttle)
- Install shuttle stops at the following locations:
  - Auburn and Cool Park and Ride lots
  - Bidirectional shuttle stops along Segment 1 and Segment 2 (Shown in **Figure 59**, **Figure 60**, **Figure 61**)
  - Eastbound shuttle stop at the Confluence (Shown in **Figure 62**)
  - Westbound shuttle stop at the Quarry lot (Shown in **Figure 63**)

FIGURE 59: CONCEPTUAL DESIGN FOR SHUTTLE STOP AT ROBIE POINT

FIGURE 60: CONCEPTUAL DESIGNS FOR SHUTTLE STOP EAST OF ROBIE POINT

FIGURE 61: CONCEPTUAL DESIGN FOR SHUTTLE STOP WEST OF POINT 52

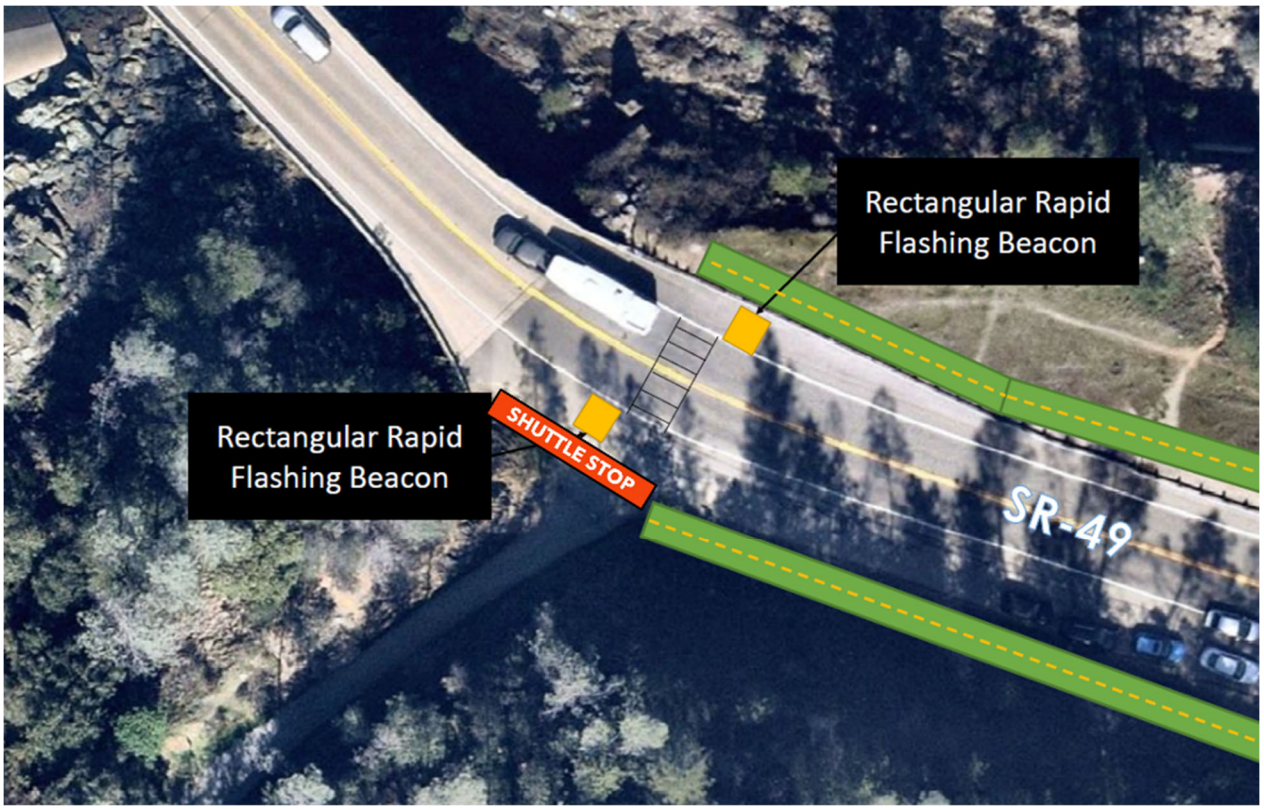


FIGURE 62: CONCEPTUAL DESIGN FOR CONFLUENCE SHUTTLE STOP

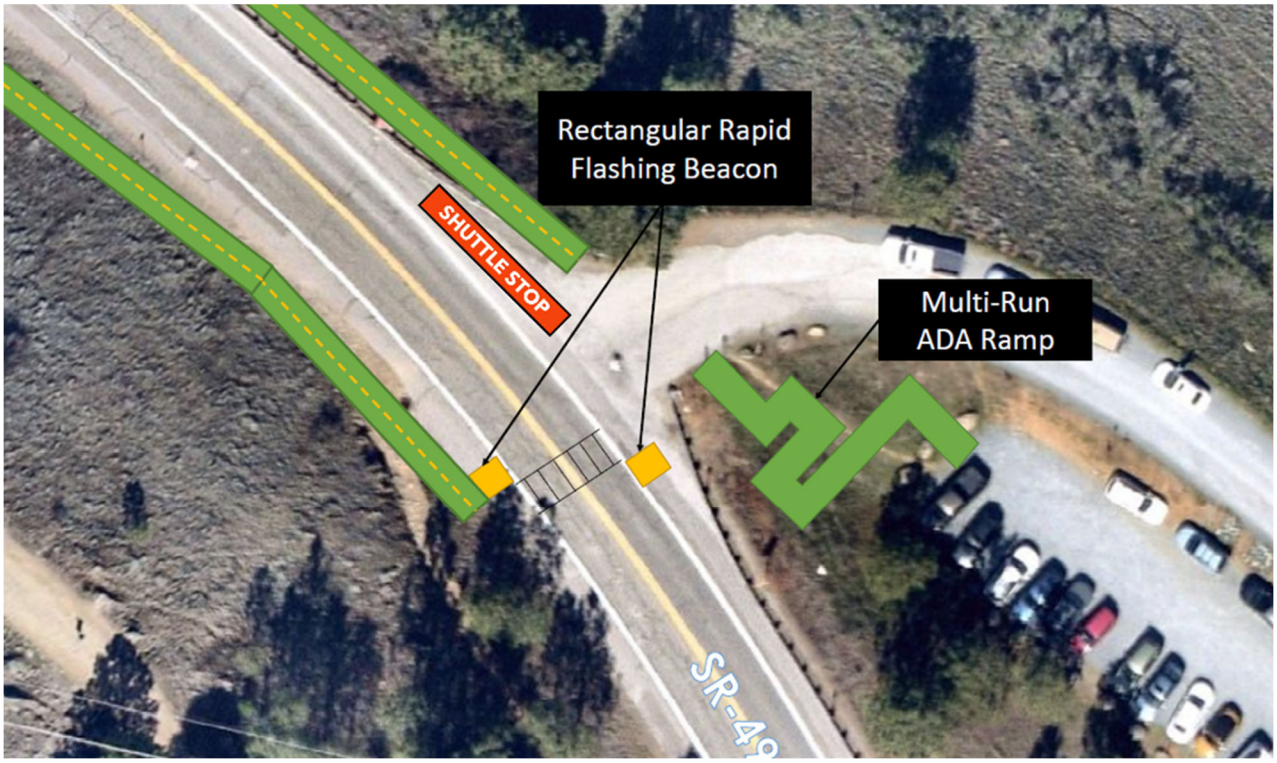


FIGURE 63: CONCEPTUAL DESIGN FOR QUARRY LOT SHUTTLE STOP

FORMALIZED PARKING AND PARKING FEES

- This project identified three locations (Shown in **Figure 59**, **Figure 60**, **Figure 61**) along the study corridor where parking would be formalized with signing and striping.
- Implement parking fees for high demand parking locations along Segment 3 (Shown in **Figure 62, Figure 63**)
- Install signage restricting parking at small turnouts

PEDESTRIAN SAFETY IMPROVEMENTS

- Install pedestrian-activated beacons and striped crossings to all shuttle stop locations (Shown in **Figure 59**, **Figure 60**, **Figure 61, Figure 62, Figure 63**)
- Install a striped pedestrian crossing across Old Foresthill Road at the intersection with SR 49 (Shown in **Figure 64**)
- Adjust striping on the bridge across the North Fork River to minimize shoulder width on the south side and maximize shoulder width on the north side (Shown in **Figure 64**)
- Add a Class 1 pedestrian trail on both sides of the road between the Confluence (Shown in **Figure 62**) and Quarry Lot (Shown in **Figure 63**)
- Add an ADA pedestrian connection between the shuttle stop at the Quarry Lot and the parking lot and ADA trailhead (Shown in **Figure 63**)

The full list of capital improvement projects and descriptions is provided in **Table 16**.

FIGURE 64: CONCEPTUAL DESIGN FOR PEDESTRIAN IMPROVEMENTS AT OLD FORESTHILL ROAD

TABLE 16: CAPITAL IMPROVEMENT PROJECT RECOMMENDATIONS

ID	Segment	Location	Category	Project Type	Project Description	Source
Type I. Existing Issues						
A1	3	MP ...	Existing Issues	Paving/Striping	Widen lanes to standard width	Social Pinpoint
A2	4	MP ...	Existing Issues	Signage	Signage restricting pedestrian travel on shoulder	Social Pinpoint
A3	4	SR 49 & Aaron Cool Drive	Existing Issues	Safety	Relocate intersection and approach to the south to avoid vertical curve sight distance issues	Social Pinpoint
A4	2	SR 49	Existing Issues	Safety	Add centerline rumblestripsand edge delineation along the western portion of the segment	Project Team
A5	3	SR 49	Existing Issues	Safety	Add centerline rumblestripsand edge delineation along the eastern portion of the segment	Project Team
Type I. Operational Improvements						
E1	1	Lincoln Way & SR 49	Operational Improvements	Signage	Dynamic sign providing available parking	Social Pinpoint
E2	2	SR 49 & Old Foresthill Road	Operational Improvements	Study	Perform control warrants	Social Pinpoint
E3	4	SR 49 / SR 193	Operational Improvements	Study	Add roundabout; Cool Gateway; truck turnaround (ICE Analysis)	Social Pinpoint
Type 1.1. Freight and Goods Movement						
D1	1	I 80/SR 49 interchange	Freight & Goods Movement	Signage	Add "No oversize truck access" on SR 49 sign	Social Pinpoint
D2	1	High St & Elm Ave	Freight & Goods Movement	Signage	Add "No oversize truck access" sign	Social Pinpoint
D3	1	Lincoln Way & SR 49	Freight & Goods Movement	Signage	Add "No oversize truck access" sign	Social Pinpoint
D4	1	Lincoln Way & SR 49	Freight & Goods Movement	Operational	Roundabout to allow for truck turnaround	Under Construction
D5	N/A	US 50 & Spring St	Freight & Goods Movement	Signage	Large "No oversize truck access" sign	Project Team
D6	N/A	US 50 & Coloma St	Freight & Goods Movement	Signage	Large "No oversize truck access" sign	Project Team
D7	4	SR 49 / SR 193	Freight & Goods Movement	Signage	Large "No oversize truck access" sign	Project Team
D8	4	SR 49 just west of Cool	Freight & Goods Movement	Signage	Large "No oversize truck access" sign	Project Team
D9	N/A	US 50 WB Direction just east of Placerville	Freight & Goods Movement	Signage	Large "No oversize truck access" sign	Project Team
D10	N/A	I-80 EB Direction just north of Auburn	Freight & Goods Movement	Signage	Large "No oversize truck access" sign	Project Team
Type 1.2. Evacuation Support						
F1	1	Placer County Fairgrounds	Traveler Information	Signage	ITS - Real Time Parking Availability (Auburn)	Project Team
F2	2	Turnouts; Parking Areas; Shuttle Stops	Implement vegetation management	Maintenance	Reduce roadside fuel - provide defensible spaces in parking areas	Project Team
F3	2	West of first eastbound shuttle stop	Traveler Information	Signage	ITS - Real Time Parking Availability	Project Team
F4	3	Turnouts; Parking Areas; Shuttle Stops	Implement vegetation management	Maintenance	Reduce roadside fuel - provide defensible spaces in parking areas	Project Team
F5	3	Cell Tower/Repeater Units (several locations)	Supplment Communications	Communications	Increase cell coverage to facilitate early fire warning and evacuation	Project Team
F6	4	At Primary shuttle stop in Cool	Traveler Information	Signage	ITS - Real Time Parking Availability (Cool)	Project Team
F7	4	SR 49 / SR 193	enhance habitat connections, reduce	Study	Add roundabout; Cool Gateway; truck turnaround (ICE Analysis)	Project Team

ID	Segment	Location	Category	Project Type	Project Description	Source
Type II. Parking Capacity and Shuttle Stops						
B1	N/A	Placer County Fairgrounds	Parking Capacity and Shuttle Stops	Parking	Fairground Parking and Shuttle	Stakeholders
B2	N/A	Placer County Fairgrounds	Traveler Information	Signage	ITS - Real Time Parking Availability (Auburn)	Project Team
B3	1	SR 49 & Robie Point lot	Parking Capacity and Shuttle Stops	Parking	Formalize and expand parking	RSA
B4	1	SR 49 & Robie Point lot	Parking Capacity and Shuttle Stops	Parking	Pave area east of Robie Point parking lot	RSA/Project Team
B5	1	SR 49 & Robie Point lot	Parking Capacity and Shuttle Stops	Shuttle Stop	Add eastbound shuttle stop	RSA/Project Team
B6	1	East of SR 49 & Robie Point lot	Parking Capacity and Shuttle Stops	Shuttle Stop	Straighten roadway and add retaining wall	Project Team
B7	1	East of SR 49 & Robie Point lot	Parking Capacity and Shuttle Stops	Shuttle Stop	Add westbound shuttle stop	Project Team
B8	2	West of first eastbound shuttle stop	Traveler Information	Signage	ITS - Real Time Parking Availability	Project Team
B9	2	East of SR 49 & Robie Point lot	Parking Capacity and Shuttle Stops	Shuttle Stop	Add bi-directional shuttle stop	Project Team
B10	2	East of SR 49 & Robie Point lot	Parking Capacity and Shuttle Stops	Shuttle Stop	Add westbound left turn pocket	Project Team
B11	2	SR 49 west of Point 52 trailhead	Parking Capacity and Shuttle Stops	Shuttle Stop	Add westbound shuttle stop	Project Team
B12	2	SR 49 west of Point 52 trailhead	Parking Capacity and Shuttle Stops	Shuttle Stop	Add eastbound shuttle stop	Project Team
B13	3	SR 49 & Quarry Trail lot	Parking Capacity and Shuttle Stops	Shuttle Stop	Add westbound shuttle stop/right turn pocket	RSA
B14	3	SR 49 & Quarry Trail lot	Parking Capacity and Shuttle Stops	Shuttle Stop	Add eastbound left turn pocket	Project Team
B15	3	SR 49 & Calcutta Falls trailhead	Parking Capacity and Shuttle Stops	Shuttle Stop	Add eastbound shuttle stop	RSA
B16	4	At Primary shuttle stop in Cool	Traveler Information	Signage	ITS - Real Time Parking Availability (Cool)	Project Team
B17	4	SR 49 & Aaron Cool Drive	Parking Capacity and Shuttle Stops	Parking	Pave Park & Ride lot on public ROW at SR 49/Aaron Cool Drive	Project Team
B18	4	SR 49 & St Florian Ct	Parking Capacity and Shuttle Stops	Parking	Pave Park & Ride lot on public ROW at SR 49/St Florian Ct	RSA
B19	All	SR 49	Parking Capacity and Shuttle Stops	Parking	Restrict parking at small turnouts	RSA/Social Pinpoint
Type III. Safety and Pedestrian Improvements to Support Future Shuttle Service & Stops						
C1	1	SR 49 & Robie Point lot	Safety and Pedestrian Improvements	Ped Crossing	Add beaconed pedestrian crossing	Project Team
C2	2	SR 49 west of Point 52 trailhead	Safety and Pedestrian Improvements	Ped Crossing	Add beaconed pedestrian crossing	Project Team
C3	2	SR 49 & Old Foresthill Road	Safety and Pedestrian Improvements	Ped Crossing	Add beaconed pedestrian crossing	Project Team
C4	3	SR 49 American River bridge	Safety and Pedestrian Improvements	Pedestrian	Add cantilever walkway to north side of bridge	RSA/Project Team
C5	3	SR 49 & Calcutta Falls trailhead	Safety and Pedestrian Improvements	Ped Crossing	Add beaconed pedestrian crossing	RSA
C6	3	SR 49 between Calcutta and Quarry trailheads	Safety and Pedestrian Improvements	Pedestrian	Add pedestrian trail north of guardrail	RSA
C7	3	SR 49 & Quarry Trail lot	Safety and Pedestrian Improvements	Ped Crossing	Add beaconed pedestrian crossing	RSA
C8	3	SR 49 & Quarry Trail lot	Safety and Pedestrian Improvements	Pedestrian	Add ADA connection from Quarry shuttle stop to existing ADA trail	Project Team

CHAPTER 7. IMPLEMENTATION PLAN

IMPLEMENTATION WORK PLAN

The recommendations proposed in Chapter 6 will be implemented over time based on the priorities, availability of funding, and increased traffic demands and safety conditions. As with any transportation improvement various steps need to be taken to prepare individual projects for construction or delivery. The first step is to prioritize the proposed recommendations by those most needed or near-term, the mid-term priorities may include moderate cost projects which require design, environmental clearance, right-of-way acquisition and construction funding, and the projects which may either be more costly or may not be needed given the current traffic demands. In order for any of the proposed projects, including transit shuttle service, to be funded with Federal or State transportation funding, they must first be incorporated into the El Dorado County Regional Transportation Plan, Active Transportation Plan, and Short-Range Transit Plan. EDCTC will be the lead agency responsible for incorporating these projects into the appropriate plans starting with the Short-Range Transit Plan in summer of 2023 and the Regional Transportation Plan in 2024. For those projects which are low-cost and high-impact, such as restricting oversized trucks in the corridor, and do not need Federal funding EDCTC will work with the appropriate agencies to begin delivery in 2023.

To layout a workplan to implement the proposed recommendations several standalone efforts will take place over the next few years if not more. This workplan may shift or change over time given the changing nature of transportation funding, changes in traffic patterns and demand, and community desires. However, the workplan presented below is intended to provide a roadmap to implement the proposed recommendations to make improvements to the safety and operations of the SR 49 confluence corridor.

NEAR-TERM WORK PLAN (0-5 YEARS)

Issue 1: Oversized Truck Traffic in the Corridor

- **Priority 1: Signage Discouraging Trucks from Entering the Corridor**
  - Identify existing changeable message signs to post "no oversized trucks" messaging on US 50 and I-80.
  - Identify locations and place portable and permanent message signs to post "no oversized trucks" messaging at locations referenced in **Table 16**.
  - Identify locations within county road rights-of-way to place additional "no oversized trucks" signage at key locations to capture the attention of truck drivers well before they enter SR 49 north of Cool or South of Auburn.
  - Work with trucking industry dispatchers to discourage routing through the SR 49 corridor in the confluence.
    - *Responsible agency: EDCTC, PCTPA, Caltrans, County Departments of Transportation*
- **Priority 2: Increased Enforcement and Federal Designation**
  - Maintain annual records of incidents related to oversized trucks in the corridor to include information related to response time, seasonality, time of day, and vehicle delay.

- Advocate with California Highway Patrol to increase enforcement and patrol of the corridor.
- Advocate for federal truck route designation to be changed to not allow oversized trucks access to the SR 49 corridor.
- Pursuant to the conditions of approval established as part of the entitlement process and approval of the Dollar General Store located in Cool, coordinate with El Dorado County to better enforce Dollar General Store over-sized (48-53 feet KPRA) truck restrictions in the Confluence
- Advocate local and regional agencies to partner with Caltrans and the CHP to form a Goods Movement Committee to establish a forum for addressing over-sized truck usage in the Confluence
  - *Responsible agency: EDCTC, Caltrans, FHWA, local City/County elected officials*

Issue 2: Evacuation Preparedness

- **Priority 1: Infrastructure Hardening**
  - Remove vegetation and fuels along SR 49 right-of-way.
  - Remove vegetation fuels surrounding parking lots and local roadways.
  - Place permanent "no parking" signs at pullouts along the SR 49 corridor where overflow or "illegal" parking frequently occurs as identified in **Table 16**.
  - Install intelligent transportation systems and signage at key locations identified in Table 16 to inform visitors of parking availability at the confluence or in the event of an emergency, evacuation or other emergency related information.
    - *Responsible agency: Caltrans, State Parks, County Departments of Transportation*

Issue 3: Transit Shuttle Pilot

- **Priority 1: Deploy Short-Term Transit Shuttle Pilot**
  - Provide peak seasonal period transit shuttle pilot to establish ridership levels and demand.
  - Utilize existing parking lots for park-and-ride locations.
    - *Responsible agency:* El Dorado Transit, Auburn Transit, State Parks

MID-TERM PRIORITY IMPLEMENTATION (6-10 YEARS)

Issue 1: Parking

- **Priority 1: Parking Facilities/Lots**
  - Formalize, pave, sign, and stripe undeveloped parking lots along the SR 49 corridor near the confluence.
  - Establish and begin collecting parking fees consistent with fee structure used by State Parks at new formalized parking.
  - Connect highly used parking lots with dynamic parking availability.
    - *Responsible agency: Caltrans, State Parks, County Departments of Transportation*

Issue 2: Active Transportation Safety Improvements

- **Priority 1: Capital Project Development**
  - Identify funding and begin project development to include design and engineering for installation of pedestrian crossings, ADA improvements, flashing beacons.

- *Responsible agency: Caltrans, State Parks, County Departments of Transportation*

- **Priority 2: Crossing Improvements**
  - Secure Active Transportation Program funding to construct low-cost improvements including pedestrian crossings, ADA improvements, flashing beacons.
  - Identify funding and begin project development for proposed Class I pathway to include design and engineering.
    - *Responsible agency: Caltrans, State Parks, County Departments of Transportation*

Issue 3: SR 49 Operations

- **Priority 1: Roadway Improvements**
  - Improve roadway striping alignment to include corrections to shoulder width and lane alignment.
  - Install rumblestrip surface treatments at hairpin turns identified in **Table 16**.
  - Coordinate with Caltrans to determine the need for reducing speed limits on SR 49 within the Confluence (pursuant to AB-43 which provides Caltrans and local authorities greater flexibility in setting speed limits)
    - *Responsible agency: Caltrans, County Departments of Transportation*

LONG-TERM PRIORITY IMPLEMENTATION (11+ YEARS)

Issue 1: Active Transportation Safety Improvements

- **Priority 1: Pedestrian Bridge Crossing SR 49**
  - Initiate project development for pedestrian and bicycle crossing adjacent to the SR 49 bridge.
    - *Responsible agency: Caltrans, County Departments of Transportation*

Issue 2: Active Transportation Safety Improvements

- **Priority 1: Pedestrian Bridge Crossing SR 49**
  - Initiate project development for pedestrian and bicycle crossing adjacent to the SR 49 bridge.
  - Secure funding for construction of pedestrian and bicycle crossing bridge adjacent to SR 49
    - *Responsible agency: EDCTC, Caltrans, County Departments of Transportation*
- **Priority 2: Intersection Improvements**
  - When traffic volumes warrant, perform intersection analysis at locations identified in **Table 16**.
  - Should analysis warrant, pursue funding for design and project development of improvements identified through the intersection control analysis.
  - Secure funding and construct intersection control improvements.
    - *Responsible agency: EDCTC, Caltrans, County Departments of Transportation*

APPENDIX

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CONTENTS

APPENDIX A. PROJECT STAKEHOLDERS

LIST OF GROUPS CONTACTED FOR STAKEHOLDER OUTREACH

PARTNER AGENCIES

El Dorado County Department of Transportation – Raphael Martinez

California Parks – Mike Howard; Laura Shoemaker

Placer County Transportation Planning Agency (PCTPA) – Mike Luken

California Department of Transportation (Caltrans) – David Dosanjh

STAKEHOLDER ADVISORY COMMITTEE

American River Community Coalition

Auburn Lake Trails Homeowners Association – Rory Worster

Auburn State Recreation Area – Mike Howard

Cal Fire – Brian Estes

Coloma Lotus Advisory Committee – Howard Penn

El Dorado County Air Quality Management District

El Dorado County Office of Emergency Services – Todd Crawford

Georgetown Divide Resource Conservation District – Mark Egbert

Mother Lode Trail Stewardship

American River Community Coalition – Curt Kruger

Divide Horseman's Association – Carolynne Knisley

Cool Community At Large – Joann Thornton

Cool Pilot Hill Advisory Committee – Aloha Adams

GOODS MOVEMENT

Mountain F Enterprises

SME

Sundance Transportation Inc

UART California

California Trucking Association

Sierra Mountain Express

SR 49 LOCAL BUSINESSES

Cool Beerwerks

Cool Coffee and Crumbs

Victory Velo

Atown Bikes

Auburn Elks Lodge

The Auburn Bodega

Mt Vernon Winery

PEDESTRIAN AND ACTIVE TRANSPORTATION GROUPS

Friends of El Dorado Trail

Civic Thread (Formerly Walk Sacramento)

El Dorado County Chamber of Commerce

Downtown Auburn

Shingle Springs/Cameron Park Chamber of Commerce

Coloma/Lotus Chamber of Commerce

Divide Chamber of Commerce – Sol Nisbet

Boys and Girls Club

Placerville Mobility Support Group – Lynn Murray

Lake Tahoe Bicycle Coalition – Gavin Feiger

Boys & Girls Club – Jude Wood

El Dorado Hills Chamber of Commerce – Debbie Manning

Sacramento Area Bicycle Coalition – Debra Banks

Sacramento - Placerville Transportation Corridor Joint Powers Authority – Mark Rackovan

El Dorado Transit – Matthew Mauk

ENVIRONMENTAL AND RECREATION GROUPS

Folsom Auburn Trail Rider Coalition

Placer Land Trust

Placer Nature Center – Kathy Davidson

Water by Nature USA Rafting

American Whitewater Expeditions

American River Resort

Rise Up River Trips

DeRiemer Adventure Kayaking

Beyond Limits Rafting Adventures

OARS American River Outpost

River Runners

All-Outdoors California Whitewater Rafting

WET River Trips

H2O Adventures

Sierra Whitewater

Raft California

Whitewater Excitement Inc

Action Whitewater

Whitewater Connection

California Tahoe Conservancy – Chris Carney

Sierra Club

Bike Tahoe – Gavin Feiger

LOCAL MEDIA

Mountain Democrat

TRIBES

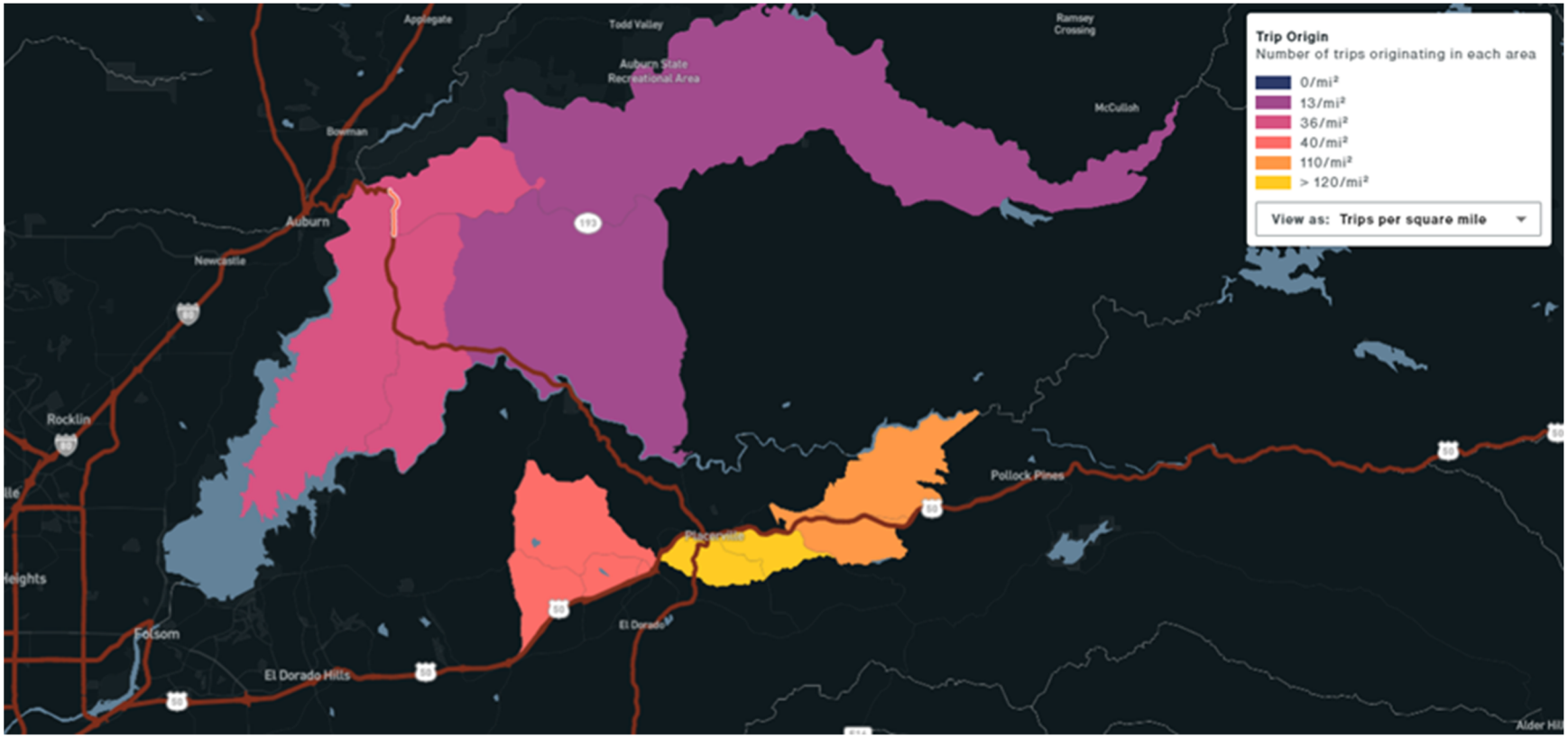
Colfax-Todds Valley Consolidated Tribe – Clyde Prout III

United Auburn Indian Community of the Auburn Rancheria

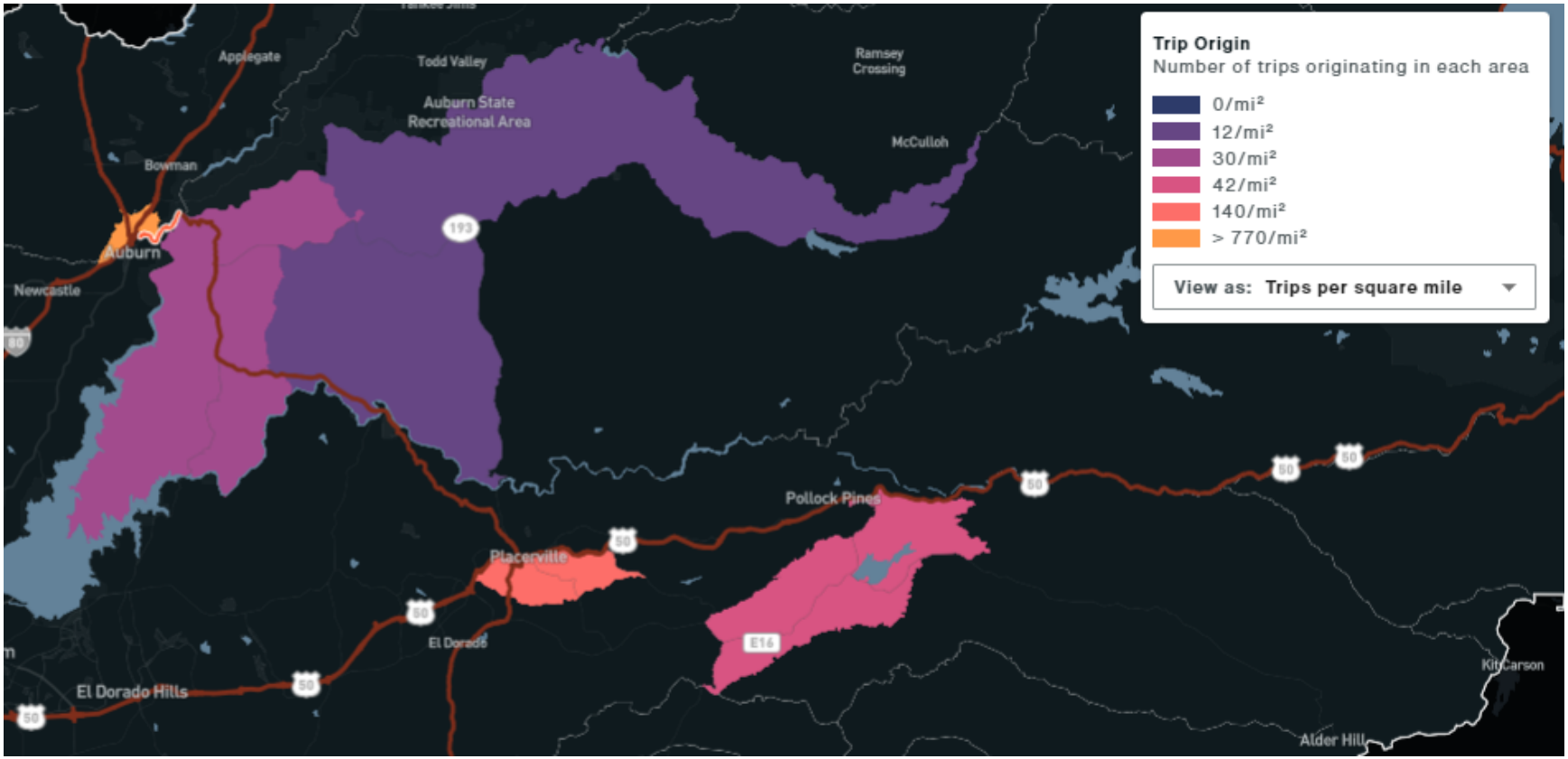
APPENDIX B. REPLICA O/D MAPS

TRIP ORIGINS

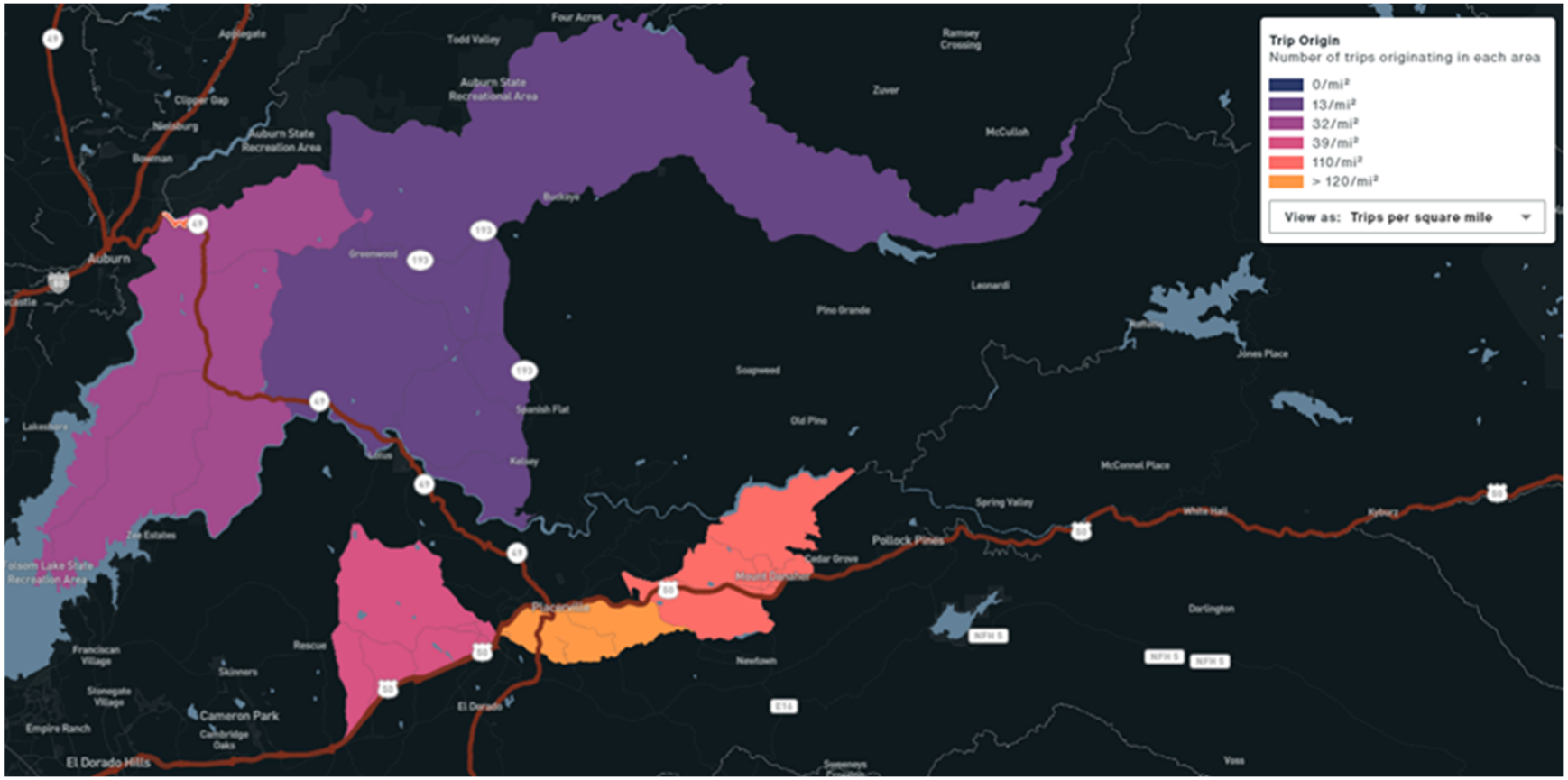
The trips along SR-49 in the direction of Auburn, originated in census tracts mainly within the Auburn State Recreation area and in the vicinity of Placerville and Pollock Pines. Trip origin did not differ significantly between the three study segments. Trip origins by density for each of the segments are shown in the following Figures.



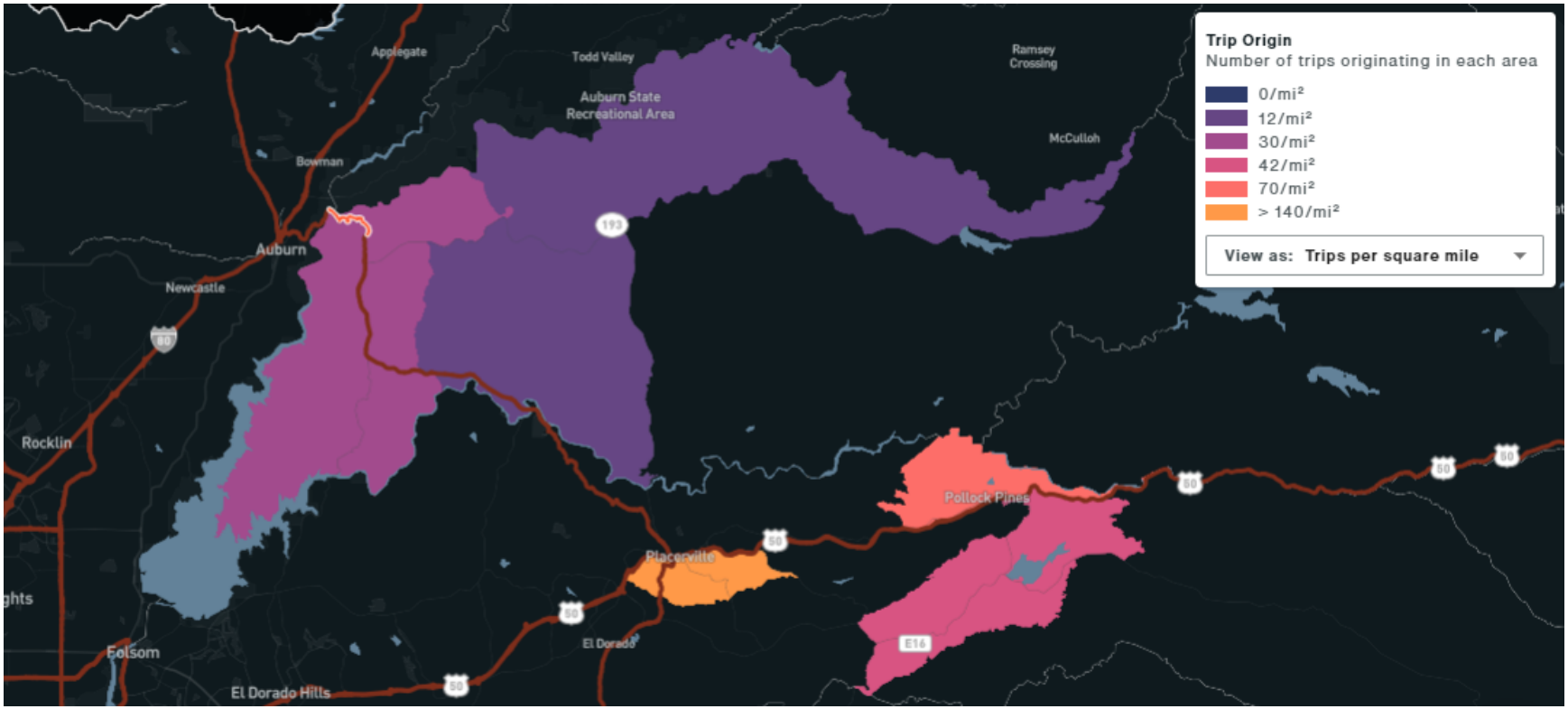
TRIP ORIGINS - AUBURN TO PLACER/EL DORADO COUNTY LINE (SUMMER PEAK)



TRIP ORIGINS - AUBURN TO PLACER/EL DORADO COUNTY LINE (OFF-PEAK)



TRIP ORIGINS - WITHIN STATE RECREATION AREA (SUMMER PEAK)



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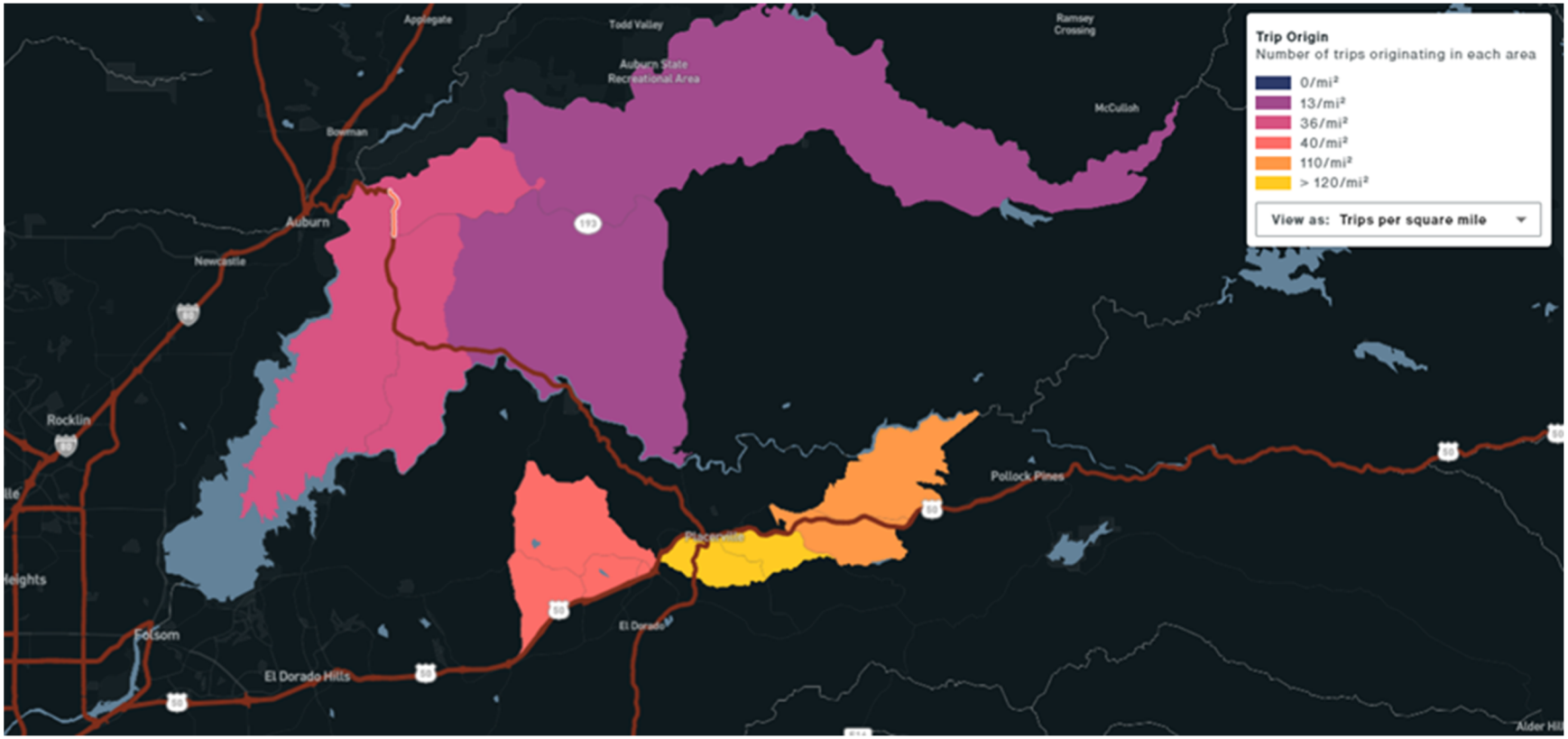
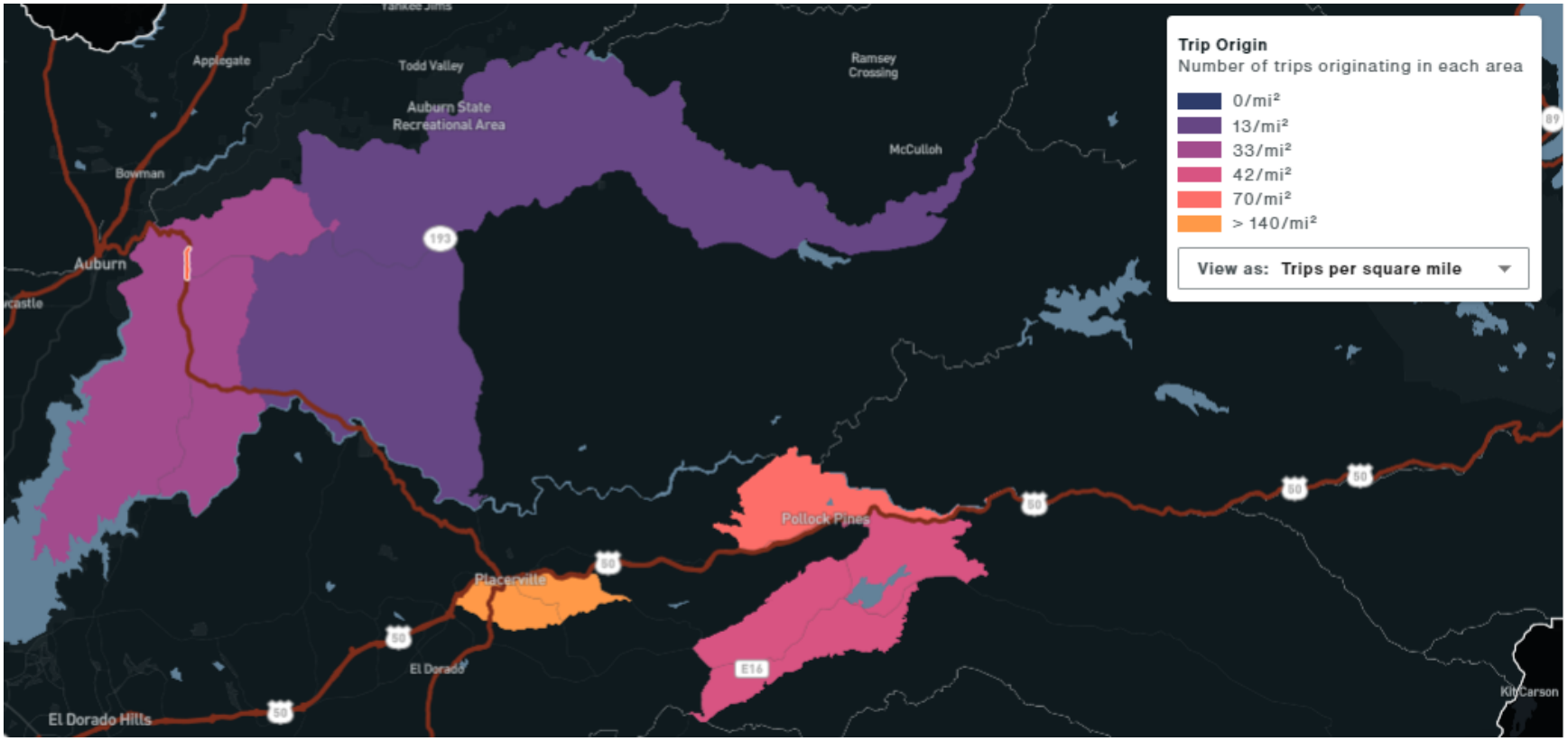


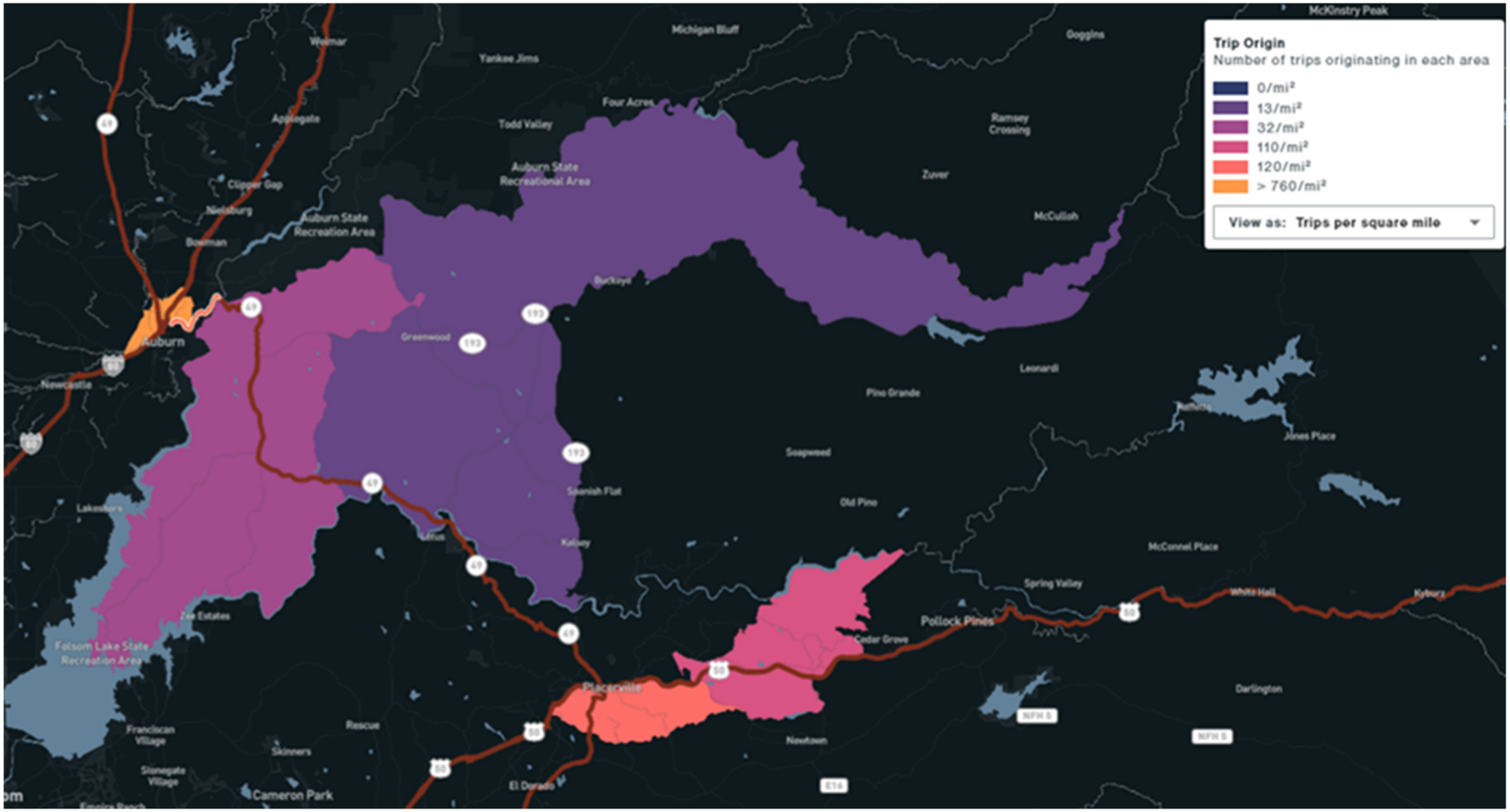
TRIP ORIGINS - STATE RECREATION AREA TO COOL JUNCTION (SUMMER PEAK)



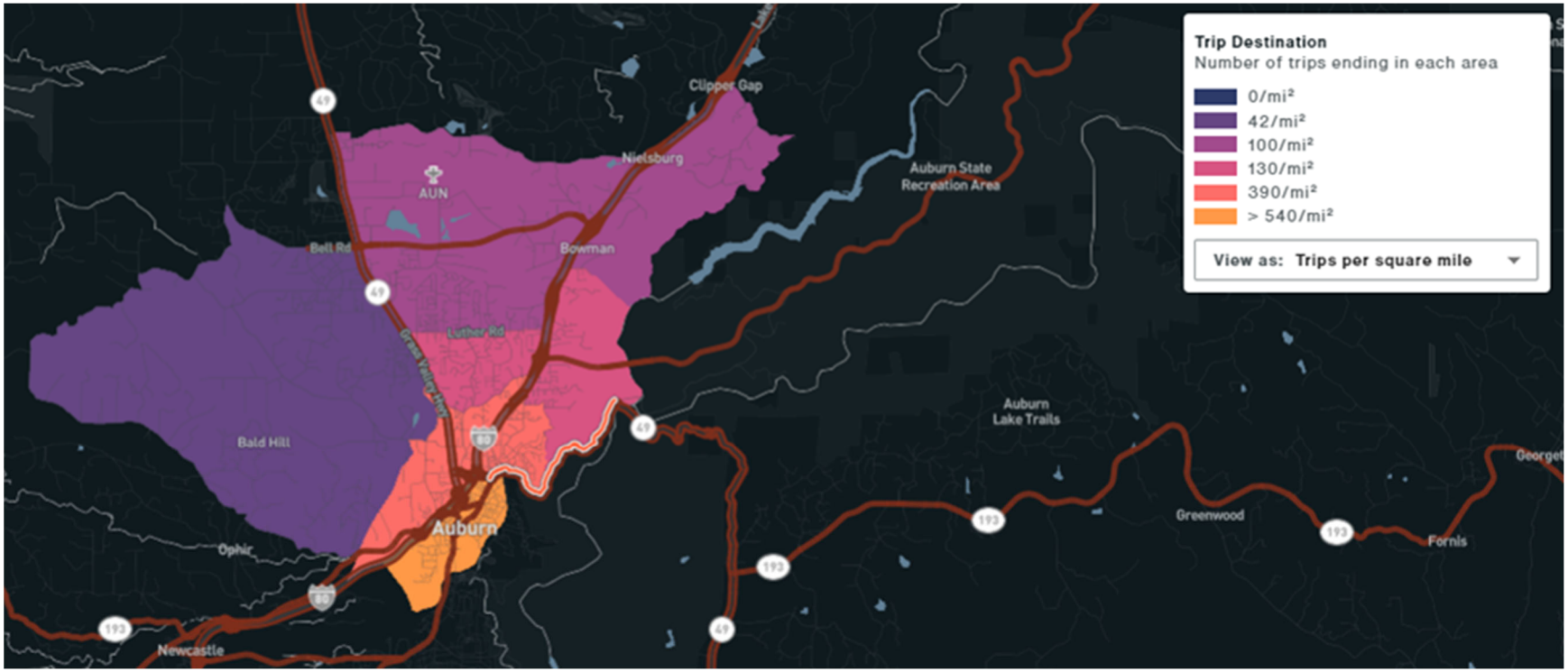
TRIP ORIGINS - STATE RECREATION AREA TO COOL JUNCTION (OFF-PEAK)

TRIP DESTINATIONS

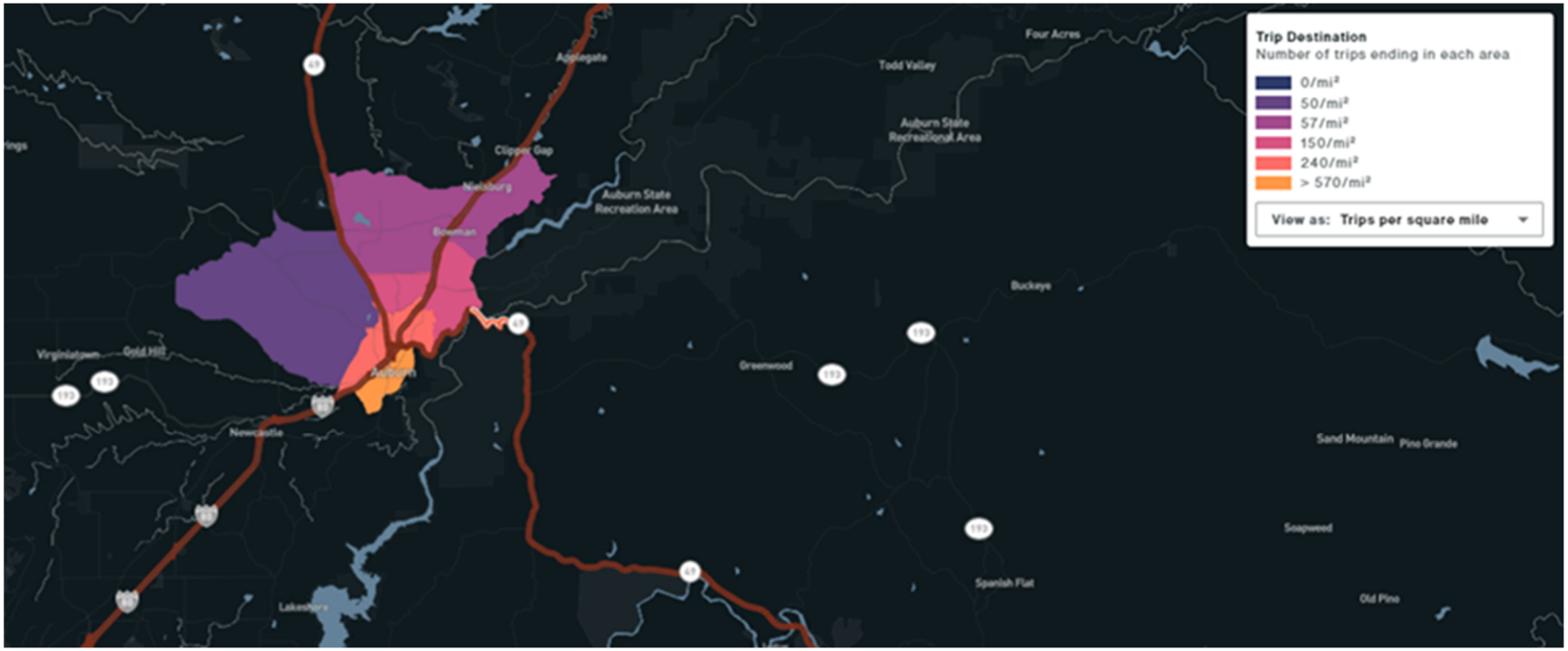
The trips along SR 49 in the direction of Auburn, have destinations in census tracts in Auburn and the surrounding areas. Trip destination did not differ significantly between the three study segments. Trip destinations by density for each of the segments are shown in the following figures.



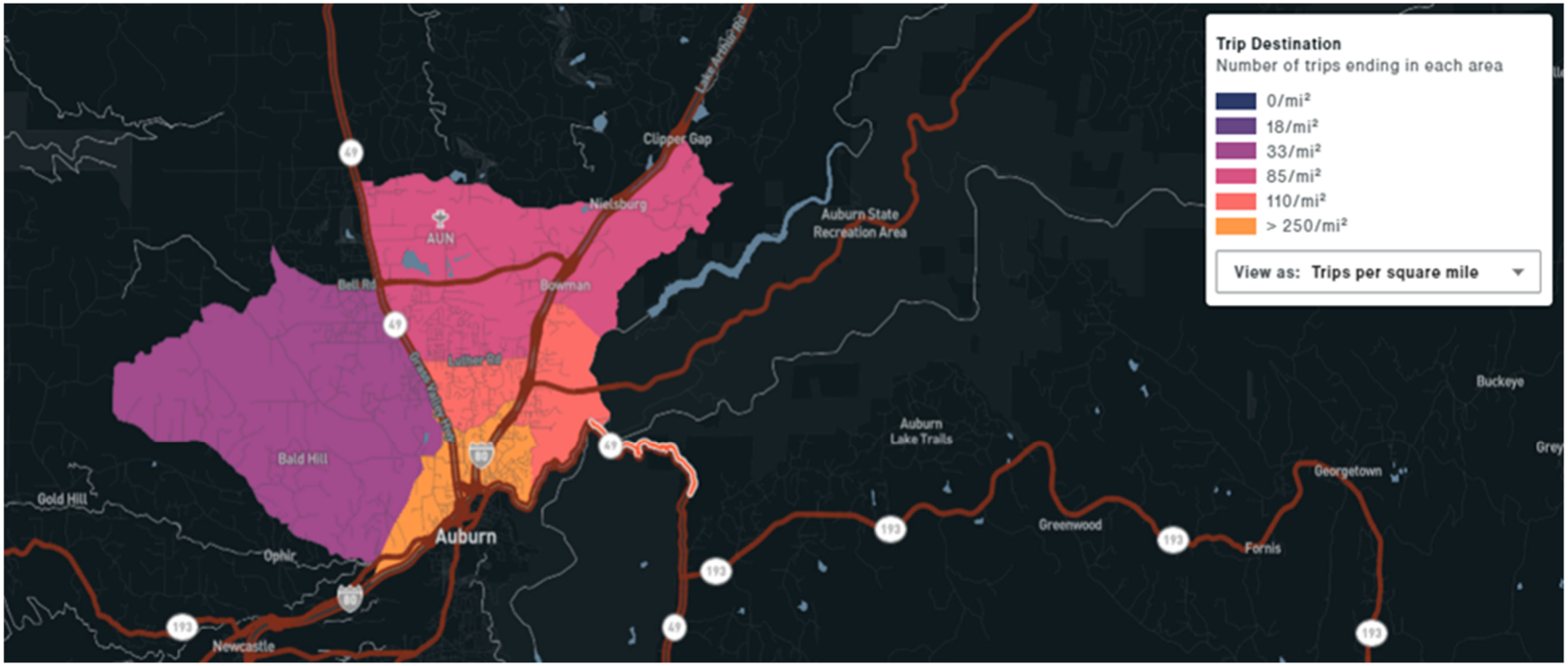
TRIP DESTINATIONS - AUBURN TO PLACER/EL DORADO COUNTY LINE (SUMMER PEAK)



TRIP DESTINATIONS - AUBURN TO PLACER/EL DORADO COUNTY LINE (OFF-PEAK)

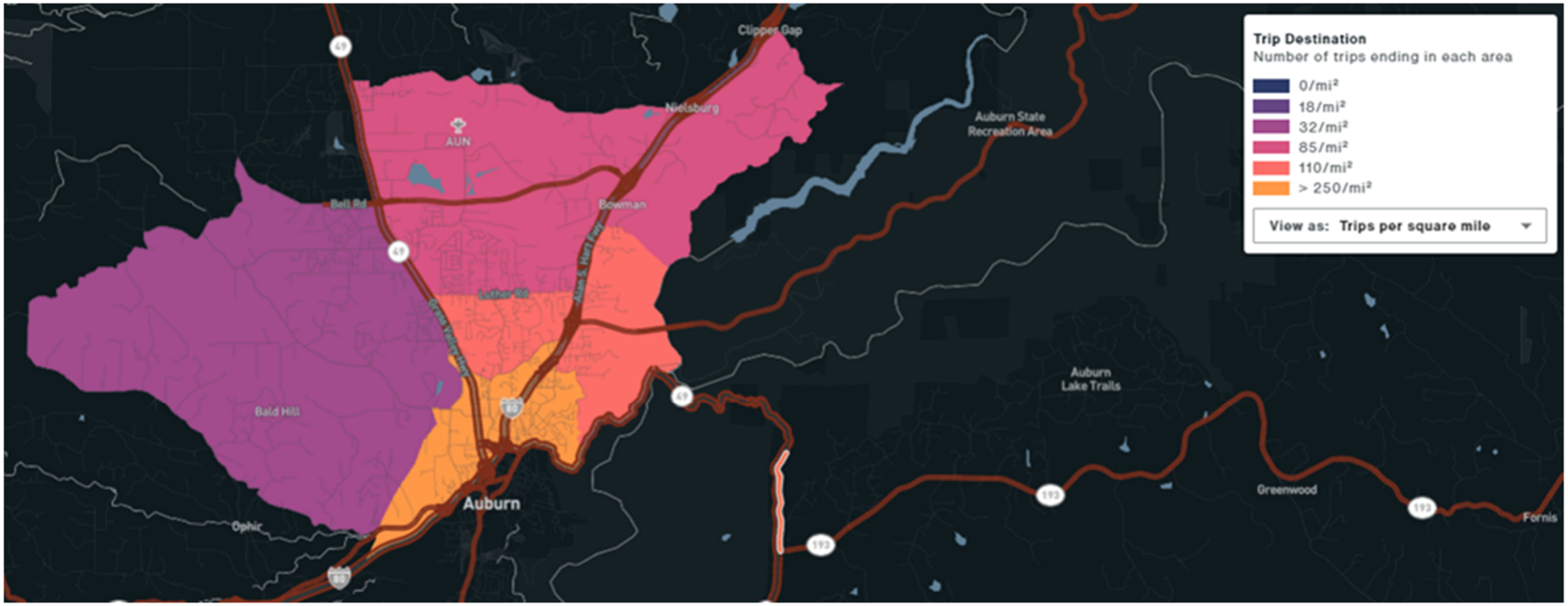


TRIP DESTINATIONS - WITHIN STATE RECREATION AREA (SUMMER PEAK)



TRIP DESTINATIONS - WITHIN STATE RECREATION AREA (OFF-PEAK)

TRIP DESTINATIONS - STATE RECREATION AREA TO COOL JUNCTION (SUMMER PEAK)



TRIP DESTINATIONS - STATE RECREATION AREA TO COOL JUNCTION (OFF-PEAK)

APPENDIX C: SOCIAL PINPOINT RESULTS

Segment	Created on	Type	Threads	Map Layers	Comment	Theme	Up Votes	Down Votes
0	2/20/2022 11:51	Fire Evacuation Concerns	Fire Evacuation Concerns-01	Study Area	If there were an emergency only link from the properties off Aaron Cool Drive to Pointed Rocks trail both areas would have an additional evacuation route in case of fire or other emergency.	Evacuation	1	6
3	2/23/2022 7:14	Fire Evacuation Concerns	Fire Evacuation Concerns-02	Study Area	This is where the long trailer vehicles get hung up. There is not room for them to make the turn.	Geometry	17	0
4	2/26/2022 16:35	Fire Evacuation Concerns	Fire Evacuation Concerns-03	Study Area	A roundabout here would be a terrible idea in the event of evacuation	Traffic Control	12	6
3	2/26/2022 16:38	Fire Evacuation Concerns	Fire Evacuation Concerns-04	Study Area	A traffic light would be terrible here in the event of fire evacuation. I could see the back up reaching cool and beyond. Maybe stop signs for traffic coming from old foresthill	Traffic Control	16	4
3	3/7/2022 15:30	Fire Evacuation Concerns	Fire Evacuation Concerns-05	Study Area	Fire evacuation concern, emergency vehicles, helicopter landing. Both the north and south sides of the Confluence bridge need to be kept clear year round for above mentioned existing issues.	Evacuation	18	2
3	3/7/2022 15:52	Fire Evacuation Concerns	Fire Evacuation Concerns-06	Study Area	Traffic, pedestrian, cyclists congestion dangerous for evacuation and emergency vehicles in route to fires.	Congestion	10	2
3	3/7/2022 16:02	Fire Evacuation Concerns	Fire Evacuation Concerns-07	Study Area	Oversized trucks constantly get stuck on the tight turns. This road is 1 of only 3 evacuation routes for nearby Cool, and surrounding area.	Trucks	17	0
3	3/30/2022 12:06	Fire Evacuation Concerns	Fire Evacuation Concerns-08	Study Area	Make extra long trucks stay off this road through the canyon with PROPER signage. This is our fire evacuation road. It's a frequent road that trucks get stuck on, and causes major traffic backups. The photo is not unusual a few times a week.	Trucks	16	1
3	3/30/2022 15:08	Fire Evacuation Concerns	Fire Evacuation Concerns-09	Study Area	When the parking is crowded, cars park in no parking areas creating fire evacuation issues.	Parking	12	1
4	3/30/2022 15:36	Fire Evacuation Concerns	Fire Evacuation Concerns-10	Study Area	Spring and Summer height of fire season the road surface is not wide enough to allow for good evacuation access. Commercial traffic is always an issue on both sides of the canyon with so few turnouts and no passing lanes.	Evacuation	9	0
0	4/13/2022 10:53	Fire Evacuation Concerns	Fire Evacuation Concerns-11	Study Area	Fire Evacuation Difficulty	Evacuation	2	0
0	4/13/2022 10:54	Fire Evacuation Concerns	Fire Evacuation Concerns-12	Study Area	Fire Evacuation Difficulty	Evacuation	2	0
1	4/13/2022 10:54	Fire Evacuation Concerns	Fire Evacuation Concerns-13	Study Area	Fire Evacuation Difficulty	Evacuation	1	0
0	4/13/2022 10:55	Fire Evacuation Concerns	Fire Evacuation Concerns-14	Study Area	Fire Evacuation Difficulty	Evacuation	1	0
2	4/13/2022 10:57	Fire Evacuation Concerns	Fire Evacuation Concerns-15	Study Area	Close Confluence during Red Flag Warnings to reduce dangers of fire disaster originating in Confluence. Hidden Falls Regional Park closes during Red Flag Warnings, Confluence should do the same.	Evacuation	8	2
4	1/27/2022 14:05	Ideas and Suggestions	Ideas and Suggestions-01	Study Area	A roundabout would be perfect here.	Traffic Control	26	28
4	1/27/2022 14:07	Ideas and Suggestions	Ideas and Suggestions-02	Study Area	Teichert was planning to relocate SR 49 to access more aggregate on the land they own/lease.	Other	10	6
1	2/19/2022 11:13	Ideas and Suggestions	Ideas and Suggestions-03	Study Area	Put up signs "Locals only" ! Those of us who have lived here all our lives want our backyard back!	Other	12	16
4	2/19/2022 13:15	Ideas and Suggestions	Ideas and Suggestions-04	Study Area	The Cool area should NOT BE INCLUDED in the study area. It should stop at the quarry. Otherwise it is on Private property. The best place to park cars is in Auburn. An electric shuttle could be instituted, with a fare to cover the cost. This would help satisfy global warming concerns.	Shuttle	5	30
1	2/20/2022 7:46	Ideas and Suggestions	Ideas and Suggestions-05	Study Area	This is where a large-enough roundabout is needed for trucks too large to navigate the curves in the canyon to turn back towards I-80.	Traffic Control	22	1
4	2/20/2022 9:13	Ideas and Suggestions	Ideas and Suggestions-06	Study Area	fund a new forest hill bridge, build it taller than all other USA bridges to be number one in height, reroute the trucks in here and make all entries into the canyon a state park, pay to use the area. that way the only reason you enter the canyon is for state park things, almost zero transit through the canyon. locals and land owners should get a free pass to the state park if they live in cool or forest hill or auburn.	Bypass Bridge	14	22

Segment	Created on	Type	Threads	Map Layers	Comment	Theme	Up Votes	Down Votes
4	2/20/2022 11:47	Ideas and Suggestions	Ideas and Suggestions-07	Study Area	The turn from 49 to Aaron Cool could be relocated about 15 feet to the south. It is difficult for drivers coming south on 49 to see oncoming traffic before making the left turn to Aaron Cool. Alternately, regrade 49 at that point to reduce the rise that blocks the view.	Geometry	19	4
1	2/20/2022 11:47	Ideas and Suggestions	Ideas and Suggestions-08	Study Area	Build a new bridge, from top of grade on Auburn side to top of grade on cool side. This would allow traffic flow with no compromise to the recreational areas. This new bridge would be hwy 49. The old route would be only to access the recreational areas. This could allow for pay gate at all 3 access points (Auburn, cool, foresthill). Will this be expensive. Yep. I pay plenty in road improvement taxes and never see any real use.	Bypass Bridge	17	15
1	2/20/2022 18:26	Ideas and Suggestions	Ideas and Suggestions-09	Study Area	Massive blinking sign in multiple languages telling oversized trucks not to enter	Signage	15	1
1	2/20/2022 19:06	Ideas and Suggestions	Ideas and Suggestions-10	Study Area	Do bot build a bridge from Auburn to Cool.	Bypass Bridge	3	5
3	2/20/2022 21:31	Ideas and Suggestions	Ideas and Suggestions-11	Study Area	If there are not sufficient resourced to enforce parking on 49 from confluence south, safety will never prevail. It is becoming too easy for people to ignore no parking signage as they quickly learn the consequences are scarce. All violators should be towed for a period of time to give credibility to the signage	Parking	17	4
1	2/21/2022 6:34	Ideas and Suggestions	Ideas and Suggestions-12	Study Area	A bypass bridge from Auburn to Cool alleviate safety concerns of heavy traffic from people seeking recreation (hiking, biking, camping, swimming, kayaking, etc.) To alleviate pollution concerns, battery powered buses would take recreationers down the existing canyon road (SR49), into the confluence area to recreate. Motorists choosing to drive their own vehicles into/through would pay a toll to enter the canyon. The new bridge/bypass would greatly improve traffic flow/safety from semi trucks.	Bypass Bridge	6	3
0	2/21/2022 8:04	Ideas and Suggestions	Ideas and Suggestions-13		Re-create bridge from 193 east of river to 193 west of river and make it usable to semi-trucks.	Bypass Bridge	6	13
1	2/21/2022 10:50	Ideas and Suggestions	Ideas and Suggestions-14	Study Area	It would benefit the environment and anyone needing to commute from Auburn to Cool and surrounding towns to have heavy duty trucks rerouted via a bypass bridge. We need the products transported by these over-sized trucks and would avoid the delays & blockages caused by them trying to negotiate the tight, steep turns in the canyon; not to mention the wear and tear on SR49.	Bypass Bridge	10	4
3	2/21/2022 11:07	Ideas and Suggestions	Ideas and Suggestions-15	Study Area	If there were a bypass bridge from Auburn to Cool, the area outlined through the canyon could potentially generate a lot of steady revenue with admission charges and bring a lot jobs with promoting of recreational areas. Also, the use of electric powered shuttles would have low impact on the environment.	Bypass Bridge	11	13
3	2/21/2022 11:23	Ideas and Suggestions	Ideas and Suggestions-16	Study Area	A traffic light here could help avoid accidents.	Traffic Control	4	17
4	2/21/2022 17:38	Ideas and Suggestions	Ideas and Suggestions-17	Study Area	The best option would be a 'high' bridge over the Middle Fork of the American River, as was proposed with Ruck-a-Chucky Bridge in 1978. Existing Highway 49 for people visiting ASRA only.	Bypass Bridge	11	14
3	2/22/2022 10:42	Ideas and Suggestions	Ideas and Suggestions-18	Study Area	A traffic light here would be extremely dangerous as traffic would back up and large trucks such as gravel trucks may not be able to stop in time. Traffic get so back up here anyway. Perhaps a stop sign on the Old Foresthill road may help.	Traffic Control	17	2
3	2/22/2022 10:58	Ideas and Suggestions	Ideas and Suggestions-19	Study Area	Shuttle should stop at the ranger kiosk area and then proceed to the parking lot on the El Dorado side.	Shuttle	9	1
4	2/22/2022 15:01	Ideas and Suggestions	Ideas and Suggestions-20	Study Area	When parking at the Confluence fills up, visitors park further and further towards Cool, often then hiking down the narrow road to the river. Establishing another official parking area at the "top" of 49, or in Cool proper, with a shuttle connection would improve safety along the windiest parts of 49.	Parking	6	7

Segment	Created on	Type	Threads	Map Layers	Comment	Theme	Up Votes	Down Votes
1	2/22/2022 18:19	Ideas and Suggestions	Ideas and Suggestions-21	Study Area	Signs for over sized trucks are in wrong place. Trucks take truck route straight ahead at high street from elm never seeing the warning signs around the corner	Trucks	10	2
3	2/24/2022 12:21	Ideas and Suggestions	Ideas and Suggestions-22	Study Area	Place 2nd of 3rd stop for Confluence Shuttle bus. See the other 2 proposed stops. AND expand the no parking zone along south side of the bridge to create place for fire trucks, paramedics, ambulances, water rescue vehicles, police, etc., which can sometimes be up to 10+ vehicles, and to keep open evacuation route.	Shuttle	11	5
3	2/24/2022 12:28	Ideas and Suggestions	Ideas and Suggestions-23	Study Area	3 of 3 proposed stops for the Confluence Shuttle bus. Also, the turnaround point for the bus. Then it returns back to the 2nd, (just south of the 49 bridge), then back to the 1st, by the ranger kiosk on Old Foresthill Road. Then heads up OLD Foresthill Road to Foresthill Road.	Shuttle	10	6
3	2/24/2022 12:40	Ideas and Suggestions	Ideas and Suggestions-24	Study Area	1 of 3 (this is the first) proposed Confluence Shuttle bus stops at the ranger kiosk station. (See other 2 stops, as noted, 2nd is just south of the 49 bridge, third is at Old Quarry parking lot, and turnaround point.) for a total of 3 stops. Bus returns on this route and goes up Old Foresthill Road. This will help to minimize pedestrian, bicycle, and other traffic crossing on the highway, as each of these stops are located at major trailheads.	Shuttle	13	0
3	2/24/2022 12:57	Ideas and Suggestions	Ideas and Suggestions-25	Study Area	This used to be a passing lane for vehicles, trucks, livestock trailers, RVs, etc. who need to be able to pull over because of various reasons, to let normal traffic continue. Also, in emergencies such as breakdowns, to be able to pull off to the side. We have a quarry just up the road using this road a lot, as well as logging trucks and other trucks. This area needs to return to being a passing lane/pullout lane.	Geometry	11	3
3	3/7/2022 16:35	Ideas and Suggestions	Ideas and Suggestions-26	Study Area	In June 2020, there were 5 water rescues in 5 days. North and south of the Confluence bridge need to be kept clear of congestion to allow typically 10 to 15 emergency response departments on each event to park. I.E. fire engines, ambulances, paramedics, trucks pulling rescue boats, helicopter, etc. Eliminate all parking south of the bridge to enable this.	Parking	8	4
1	3/16/2022 23:39	Ideas and Suggestions	Ideas and Suggestions-27	Study Area	Place a flashing sign above the traffic light with LED words saying no large trucks, you will be fined and truck towed	Signage	4	1
3	3/16/2022 23:48	Ideas and Suggestions	Ideas and Suggestions-28	Study Area	Absolutely NO PARKING on the side of the road. Place K-Rail and block shoulder. No one is utilizing the new parking and still parking in the No-Parking area. There would not be issues with evacuation, pedestrian safety from people walking from their cars on the side of the road and walking across right in the middle of traffic. I'm sorry, but if the designated parking lot is full, then to bad. The city folks are killing the environment with all there litter, all their smog producing vehicles.	Parking	7	7
3	3/16/2022 23:50	Ideas and Suggestions	Ideas and Suggestions-29	Study Area	This needs to be turned back to a passing lane, there is only one spot up 49 that is way to short of distance to allow safe passing. NEED MORE PASSING LANES	Geometry	7	4
3	3/16/2022 23:53	Ideas and Suggestions	Ideas and Suggestions-30	Study Area	Speed limit for up and down the canyon portion need to be placed at 25mph and heavily enforced. There is absolutely no safe reason to justify going any faster until you get to the top of Cool. Way to many road rage idiots speeding and tailgating	Safety	8	4
4	3/16/2022 23:57	Ideas and Suggestions	Ideas and Suggestions-31	Study Area	There should be signage stating no pedestrian travel on shoulder. Idiots parking further up canyon and sticking out half on the road on a blind corner then walking down the road creating unsafe conditions for EVERYONE	Safety	11	4

Segment	Created on	Type	Threads	Map Layers	Comment	Theme	Up Votes	Down Votes
3	3/17/2022 18:57	Ideas and Suggestions	Ideas and Suggestions-32	Study Area	Get rid of all parking along the south side of the bridge. Restore it to a passing lane and emergency vehicle parking. Divert parking to Mammoth Bar, which has DIRECT access to the river without any hiking, and is a very flat area for recreational activities. Mammoth Bar has recently expanded parking to at least 50+ parking spaces, and already has restrooms, picnic tables. This will help alleviate the congestion at the Confluence.	Parking	7	4
1	3/18/2022 11:32	Ideas and Suggestions	Ideas and Suggestions-33	Study Area	A bypass bridge is sorely needed from Auburn to Cool, to alleviate congestion from the increasing volume of commuters, large trucks and recreational folks. Canyon traffic & the problems associated would be greatly reduced.	Bypass Bridge	8	4
1	3/18/2022 11:37	Ideas and Suggestions	Ideas and Suggestions-34	Study Area	Increased traffic from commuters, large heavy-duty trucks and those growing crowds of recreational folks are not going away. Help preserve the beautiful canyon for generations to come by installing a bypass bridge from Auburn to Cool.	Bypass Bridge	8	3
4	3/23/2022 13:45	Ideas and Suggestions	Ideas and Suggestions-35	Study Area	There used to be a Caltrans park and Ride lot here. This is an excellent location for a Park and Ride.	Parking	10	4
4	3/23/2022 13:47	Ideas and Suggestions	Ideas and Suggestions-36	Study Area	If this road was opened for parking for visitors to the confluence, it could serve as a great parking location for a shuttle.	Shuttle	7	15
4	3/23/2022 13:48	Ideas and Suggestions	Ideas and Suggestions-37	Study Area	Unfortunately there is no legal off street bicycle access to the bottom of the confluence, all trails are horse and hike only, so bicyclists must ride on the very narrow shoulders of SR 49 to access the confluence area from Cool.	Safety	10	0
0	3/23/2022 13:51	Ideas and Suggestions	Ideas and Suggestions-38		Lots of people park in the turnouts along Old Foresthill Road to access trails in the confluence area. This is excellent parking for Mountain Bike Riders who can easily access the trails with a short ride along Old Foresthill Road.	Parking	7	0
3	3/30/2022 15:06	Ideas and Suggestions	Ideas and Suggestions-39	Study Area	Provide a pedestrian walkway across the bridge with a barrier separating traffic from pedestrians	Safety	14	0
3	3/30/2022 15:10	Ideas and Suggestions	Ideas and Suggestions-40	Study Area	Current "no parking" is designated by ASRA sandwich boards. Provide appropriate signage and secure tow-a-way operation to increase compliance.	Signage	6	1
3	3/30/2022 15:13	Ideas and Suggestions	Ideas and Suggestions-41	Study Area	Roadway and shoulder are undersized. Lane narrows to 8' in places on blind corners. Widen road to standard with esp[ecially on blind, sharp turns.	Geometry	11	1
1	3/30/2022 15:15	Ideas and Suggestions	Ideas and Suggestions-42	Study Area	Provide electronic signage advising visitors the status of confluence parking. Available, crowded, full (no spaces available).	Signage	7	1
0	3/30/2022 15:21	Ideas and Suggestions	Ideas and Suggestions-43		Explore concept of making this area an alternative river destination. Provide access directly from Auburn via a new low level bridge. Provide parking.	Bypass Bridge	4	7
1	3/30/2022 19:03	Ideas and Suggestions	Ideas and Suggestions-44	Study Area	This area should be for Locals Only. Why did we move here in the first place?!	Other	2	5
1	3/30/2022 20:40	Ideas and Suggestions	Ideas and Suggestions-45	Study Area	Hwy 49 needs repaving coming up from river just before signal at Borland. It's very bumpy. And the rock wall further down needs repairing. Rocks are falling onto the road.	Safety	3	0
0	3/31/2022 9:13	Ideas and Suggestions	Ideas and Suggestions-46		Extend this area to include Coloma area, which also needs work to support more pedestrian and cycling access.	Safety	6	0
3	4/1/2022 18:01	Ideas and Suggestions	Ideas and Suggestions-47	Study Area	Place 2nd of 3rd stop for Confluence Shuttle bus. Picture is of a bus who pulled over to let traffic go by. Parking needs to go away south of the bridge to allow a passing lane, and shuttle bus. See the other 2 proposed stops. AND expand the no parking zone along south side of the bridge to create place for fire trucks, paramedics, ambulances, water rescue vehicles, police, etc., which can sometimes be 10+ vehicles, and to keep open evacuation route. BOR and SP have both seen this and agree.	Shuttle	4	2

Segment	Created on	Type	Threads	Map Layers	Comment	Theme	Up Votes	Down Votes
4	4/8/2022 15:43	Ideas and Suggestions	Ideas and Suggestions-48	Study Area	I've been surprised on the amount of people that do not know trails and parking exist here. The currently available hard copy/ paper maps with trail details is outdated and of very poor resource quality. A updated detailed trail map (including Auburn SRA, close by BLM land, Salmon falls rd trail heads) with elevation, mileage, parking, etc. would help to decongest the confluence parking by spreading out trail usage. There are also great under utility trails in Georgetown too.	Parking	6	0
4	4/8/2022 15:57	Ideas and Suggestions	Ideas and Suggestions-49	Study Area	While many trails are shared with equestrians, there are many single track type trails that equestrians do not regularly use do to tightness. It would be a great opportunity to form a committee/ partner with local mountain bike organizations to build safe single track trails for mount bikers. The soil in the area would be great for shaping. Side note- Then it would be great if Old Town Pizza open a restaurant where Dollar General is supposed to go. Cool Beer Works is loved but they get busy al	Safety	3	3
3	4/10/2022 13:40	Ideas and Suggestions	Ideas and Suggestions-50	Study Area	I would like to see a pedestrian crossing with blinking light here for folks heading to Quarry from free spots or coming down from WST back to Quarry trailhead.	Safety	3	1
0	4/10/2022 17:19	Ideas and Suggestions	Ideas and Suggestions-51		Advertise the Auburn Transits 'On Call' feature to encourage hikers to take advantage of the extensive parking @ the Overlook to do one way hikes down either the Western States or River View Trails to the Transit bus stop @ the Confluence.	Safety	3	0
2	4/13/2022 10:51	Ideas and Suggestions	Ideas and Suggestions-52	Study Area	Reduce or eliminate on-street parking for Stagecoach Trail access. Existing parking area is inadequate but should continue useage. Require Stagecoach Trail access MTB users to use Park & Ride lots . Provide additional parking areas along Lincoln Way near Russell Road, there are ample vacant parcels that could be required to provide parking areas as condition for development. A shuttle service on weekends and high use days would complement this parking restriction near Stagecoach.	Parking	1	1
2	4/13/2022 11:02	Ideas and Suggestions	Ideas and Suggestions-53	Study Area	Prohibit Large Trucks from using 49 between Cool and Auburn. This section of 49 should be a California State Scenic Corridor. Large trucks should reroute on Highway 50 to Folsom Crossing	Trucks	3	1
0	4/19/2022 13:54	Ideas and Suggestions	Ideas and Suggestions-54		Keep road closed to traffic except for rare special events. This is best handicap trail in ASRA, also heavily used by dog walkers, parents with strollers, etc. Vehicle traffic would also break this large area up and negatively impact wildlife who can not traverse the entire Knickerbocker area without becoming road kill.	Safety	1	2
1	4/26/2022 13:22	Ideas and Suggestions	Ideas and Suggestions-55	Study Area	If there were a bypass bridge from Auburn to Cool, the area outlined through the canyon could potentially generate a lot of steady revenue with admission charges and bringing jobs with promoting of recreational areas. Also, the use of electric powered shuttles from Auburn and Placerville to the confluence would have low impact on the environment.	Bypass Bridge	4	0
3	5/13/2022 10:45	Ideas and Suggestions	Ideas and Suggestions-56	Study Area	Slow down vehicular traffic over the bridge to provide a safer buffer between pedestrians, bicyclists, and vehicular traffic while in these high pedestrian usage areas. Outside of the confluence, provide more sidings where possible with signage advising slower traffic to pull over on the siding to let faster traffic through.	Safety	0	2
4	5/24/2022 14:30	Ideas and Suggestions	Ideas and Suggestions-57	Study Area	No motorized use in ASRA/Olmstead.	Safety	4	0
3	5/30/2022 8:26	Ideas and Suggestions	Ideas and Suggestions-58	Study Area	Please put up a permanent no parking barrier where the ASRA sandwich boards are....people are continually parking between them or moving them to park.	Parking	2	0
1	8/6/2022 14:19	Ideas and Suggestions	Ideas and Suggestions-59	Study Area	create a trail connection between the city and the park. this may involve making easements with property owners, but would alleviate congestion on hwy 49	Congestion	0	0
3	8/6/2022 14:23	Ideas and Suggestions	Ideas and Suggestions-60	Study Area	Roundabout	Traffic Control	0	1

Segment	Created on	Type	Threads	Map Layers	Comment	Theme	Up Votes	Down Votes
3	8/12/2022 11:40	Ideas and Suggestions	Ideas and Suggestions-61	Study Area	A 3-way stop sign here would keep pedestrians safer.	Traffic Control	1	0
1	9/1/2022 20:57	Ideas and Suggestions	Ideas and Suggestions-62	Study Area	There is a rock retaining wall here that is right against the road. It gets struck by vehicles frequently and is futile to keep repairing. This is also a blind corner leading up to the stop light at the top of the grade. This area needs to be widened and shoulders added. People towing trailers etc often cheat the line into oncoming traffic to avoid this corner. Please widen this.	Safety	0	0
4	9/1/2022 21:04	Ideas and Suggestions	Ideas and Suggestions-63	Study Area	An above-grade crossing would be great here for the Western States Trail. It could also serve as an artistic arch and entry to El Dorado County and remind people of the Western States Trail's importance. With an above-grade crossing, the need for flaggers and other people on the roadway during races (especially when it is dark) would be eliminated.	Safety	0	0
3	9/1/2022 22:05	Ideas and Suggestions	Ideas and Suggestions-64	Study Area	There needs to be a lot more vegetation management along SR49 to make it less vulnerable to wildfire. Trimming trees up and brush down for 400+ ft would help tremendously and also improve the vista. The canyon should be accessible to those who can't physically experience the canyon but see it from the road.	Other	0	0
1	9/4/2022 16:25	Ideas and Suggestions	Ideas and Suggestions-65	Study Area	You say parking here for 3-4 cars this is where the Hwy 49 will be moved to accommodate the new roundabout at the intersection to stop the truck and cars hitting the historic rock wall. In addition you need to check with property owners this area is private property.	Parking	0	0
3	9/6/2022 10:41	Ideas and Suggestions	Ideas and Suggestions-66	Study Area	Existing is a slow vehicle pull out. I suggest this be restriped with the traffic lane on the right and a passing lane on the left. This would move clueless drivers to the right to allow faster vehicles to pass.	Geometry	0	0
3	9/6/2022 10:45	Ideas and Suggestions	Ideas and Suggestions-67	Study Area	What is the capacity of Hwy 49 from the confluence to Cool ? The ASRA study rated it a "D". If your study determines it to be an E or F, then ASRA would be prohibited from expanding facilities that would increase traffic across the confluence.	Congestion	0	0
3	2/20/2022 17:49	Make a Comment	Make a Comment-01	Study Area	All races, creeds, nationalities, genders and any other categories of social construct have an equal opportunity to be run off the road, or take evasive action to avoid being hit, or be stuck in the canyon, by oversized semis on Hwy 49 between the confluence bridge and Cool, especially when I80 is closed. Work with the state (CalTrans, CHP) to have the advisory signs at the top of the canyons regarding semi length changed to a mandatory maximum length along with the fine for exceeding it.	Safety	23	1
4	2/21/2022 11:11	Make a Comment	Make a Comment-02	Study Area	Increased traffic from commuters, large heavy-duty trucks and those growing crowds of recreational folks are inevitable. We need to preserve the canyon by installing a bypass bridge from Auburn to Cool.	Bypass Bridge	13	13
1	2/21/2022 13:42	Make a Comment	Make a Comment-03	Study Area	A bridge directly from Auburn to Cool would forever alter the rural nature of the Georgetown Divide. Be careful what you wish for!	Bypass Bridge	11	4
0	2/21/2022 16:27	Make a Comment	Make a Comment-04		This is so good! Unfortunate we won't see much change for 5-10 years but it's worth trying. My biggest complaint aside from worrying about pedestrians is the amount of people driving unsafely slow 10 miles under the speed limit causing a pile up of vehicles behind them almost constantly. Need for more turn outs. I know a lot of people in cool are retired but there's a huge portion of people who aren't and are often trying to get places for their kids and to get to work on time stopped by people	Safety	3	3
1	2/22/2022 10:45	Make a Comment	Make a Comment-05	Study Area	There needs to be a very visible sign well before this intersection stating that large heavy duty trucks of a certain length are PROHIBITED on this road. I have almost been run off the road by trucks going to 50 because of issues on 80 and/or their dispatch sends them this way.	Signage	17	0

Segment	Created on	Type	Threads	Map Layers	Comment	Theme	Up Votes	Down Votes
3	2/22/2022 14:57	Make a Comment	Make a Comment-06	Study Area	The bridge is wide enough for vehicular traffic, but many pedestrians, bicyclists, etc use the bridge to cross the river and create hazards for vehicles. Bridge widening similar to that seen on the South Fork in Coloma (on one or both shoulders) to allow pedestrians to safely use the bridge would be helpful. Alternatively, creating a pedestrian bridge parallel to the existing bridge might create similar outcomes with less impact to the traffic that passes through the area.	Geometry	16	1
3	2/25/2022 10:53	Make a Comment	Make a Comment-07	Study Area	The changes in parking format at the confluence have been a huge improvement but to make them work as designed there must be constant LE presence on weekends and some busy week days. Tickets are not working. The vehicles must be prevented from parking there in the first place. Towing illegally parked vehicles as a stronger deterrent would also be desirable over simply a ticket that many just consider the cost of parking illegally for their own convenience.	Parking	6	3
3	2/28/2022 19:35	Make a Comment	Make a Comment-08	Study Area	Tow vehicles in the no parking areas, parked in the passing lane, in the turn outs at either end of the passing lane, parked inside the travel lane (over the fogline into the road for hwy 49 and Foresthill Rd above the confluence). Parking enforcement will resolve a lot of the problems for safety. As an El Dorado resident since 1976, and one who drives a commercial vehicle and long trailer through the canyon, the lack of respect for signage (because there's no enforcement) is dangerous for all	Parking	5	0
4	3/23/2022 13:50	Make a Comment	Make a Comment-09	Study Area	This is the only access road toward Cool that is open to bicycles. It is super steep and does not go to the top of the canyon, bicyclists must still ride the narrow shoulder from the area just before the Quarry to get to Cool.	Safety	1	0
3	3/23/2022 13:55	Make a Comment	Make a Comment-10	Study Area	All of these trails that provide access to the bottom of the canyon from Cool do not permit bicycles. Alternative transportation by bicycles to the bottom of the canyon is therefore restricted to the unsafe and narrow shoulder of SR 49.	Safety	4	0
0	3/30/2022 12:34	Make a Comment	Make a Comment-11		Lots of parking here with the expanded parking area AND gives nice level direct access to the river. It already has picnic tables and restrooms. By removing all parking on the south side of the Confluence bridge, Hwy. 49, this area will definitely not only replace the lost parking spots, but gives even MORE parking and even closer to the water.	Parking	7	3
3	3/30/2022 20:43	Make a Comment	Make a Comment-12	Study Area	Trash along Hwy 49 has increased exponentially since March 2020. A regular roadside trash clean-up schedule should be implemented.	Safety	5	0
2	3/30/2022 20:46	Make a Comment	Make a Comment-13	Study Area	Large semi-trucks must be NOT ALLOWED rather than NOT ADVISED to travel into the canyon on Hwy 49. These trucks get stuck in the sharp turns.	Trucks	3	0
3	4/3/2022 16:37	Make a Comment	Make a Comment-14	Study Area	What's going to happen with the road that edges the Teichert Quarry....it seems that the quarry digging is getting closer and closer to Hwy 49. Are there plans to shore it up and protect the road from falling or collapsing?	Other	3	0
3	4/5/2022 17:21	Make a Comment	Make a Comment-15	Study Area	Visitors park here off the road on the north side OVER the curb and onto the edge of the cliff. This is very dangerous for traffic, and then the people walk down to the Confluence on literally no shoulder. On the south side of this spot is the only pullout for either slow or broke down vehicles. This a dangerous situation. I believe there are already many documented accidents there. Put up guard rails so that no cars can park there, and prevent vehicles from going over the edge in an accident.	Safety	6	1
3	4/10/2022 13:38	Make a Comment	Make a Comment-16	Study Area	This was a pleasant and easy spot to catch the Auburn bus back up to town yesterday. The city's website said the stop was "by the bathrooms" which I thought meant by the ranger kiosk, but there is more room here for the bus.	Other	4	0

Segment	Created on	Type	Threads	Map Layers	Comment	Theme	Up Votes	Down Votes
0	4/10/2022 13:44	Make a Comment	Make a Comment-17		Allowing motorized traffic will add significant noise to Auburn-side homes due to how sound reverberates in the canyon.	Other	2	1
0	4/10/2022 13:46	Make a Comment	Make a Comment-18		Extending service to Coloma could also serve Cronan, Magnolia, and Greenwood areas. Cronan's parking gets very crowded at least in spring.	Other	1	1
4	4/10/2022 13:50	Make a Comment	Make a Comment-19	Study Area	A good $3 glossy paper map of Olmstead/Knickerbocker is available at local bike/run/ride/book stores.	Other	0	0
4	4/10/2022 13:57	Make a Comment	Make a Comment-20	Study Area	PGE -- > Quarry trail is an option for bikes to come from Cool to the Confluence	Safety	1	0
3	4/10/2022 14:05	Make a Comment	Make a Comment-21	Study Area	Crowded parking at Quarry TH, including parallel parking on its access from 49, reduces emergency access and egress capacity; also not room for a bus turnaround.	Parking	4	0
4	4/10/2022 14:14	Make a Comment	Make a Comment-22	Study Area	Increased motorized use of this area for recreation or river access will increase traffic and # accidents in the canyon.	Safety	6	0
3	4/13/2022 11:05	Make a Comment	Make a Comment-23	Study Area	Please close parking at Confluence during Red Flag Warnings, as fire dangers are increased exponentially from the presence of park visitors during these time periods of extreme fire hazards.	Parking	5	0
1	4/13/2022 11:13	Make a Comment	Make a Comment-24	Study Area	Another bridge near Confluence would be impossibly expensive because of road rerouting, realignment problems, and environmental concerns. However, a bridge at the abandoned Auburn Dam site would utilize Maidu Drive and Indian Hill Rd as they were intended, access for trucks. Build a 49 bypass bridge at the abandoned dam site and use those access roads intended for dam construction for trucks and other traffic.	Bypass Bridge	5	3
0	4/13/2022 11:18	Make a Comment	Make a Comment-25		Location of access road for 49 bypass bridge, westward end, using the existing alignment for dam access road. Bypass would use maidu Drive and Indian Hill Rd to access I-80 as those roads were intended: large truck traffic	Bypass Bridge	6	2
0	4/13/2022 11:19	Make a Comment	Make a Comment-26		Location of Highway 49 Bypass Bridge	Bypass Bridge	4	2
0	4/13/2022 11:22	Make a Comment	Make a Comment-27		Location of road access, existing alignment for dam acccess roadway, repurposed for Confluence Bypass Bridge	Bypass Bridge	4	1
0	4/13/2022 11:25	Make a Comment	Make a Comment-28		Alternate Location of road access, existing alignment for dam acccess roadway, repurposed for Confluence Bypass Bridge. Whichever of the 2 eastward access Salt Creek roadway alignments is feasable	Bypass Bridge	3	0
0	4/19/2022 13:58	Make a Comment	Make a Comment-29		Do not allow parking or vehicle access to this area except 2-3 times a year for special events. Less impact on already conjected Hwy 49 from Auburn to Cool if improve access on Auburn side which is already an suburban area. Do not destroy large expanse of open area for few kayakers.. Leave it as is for wildlife an hikers looking for a challenge.	Parking	3	2
0	4/19/2022 14:01	Make a Comment	Make a Comment-30		Unstable rock is what drove up cost of proposed dam and led to it never being built.	Safety	1	0
0	4/19/2022 14:04	Make a Comment	Make a Comment-31		would only work if fast response, and less expensive for 4 - 5 people than driving,	Other	0	0
3	4/20/2022 14:07	Make a Comment	Make a Comment-32	Study Area	53 foot truck stuck on this curve 4-20-22 am. There MUST be truck size RESTRICTIONS not Advisements.	Trucks	5	0
0	7/7/2022 7:00	Make a Comment	Make a Comment-33	Study Area	The route of the road to go over the now defunct Auburn dam went thru here. The right of way and in fact most of the road is built on the east side. The solution is obvious: put a bridge to connect Cool and Auburn near the site of the proposed Auburn dam. Hwy 49 thru the gorge would become a scenic park road.	Bypass Bridge	0	1
2	7/7/2022 7:01	Make a Comment	Make a Comment-34	Study Area	Take advantage of existing right of way. The route of the road to go over the now defunct Auburn dam went thru here. The right of way and in fact most of the road is built on the east side. The solution is obvious: put a bridge to connect Cool and Auburn near the site of the proposed Auburn dam. Hwy 49 thru the gorge would become a scenic park road.	Bypass Bridge	2	1

Segment	Created on	Type	Threads	Map Layers	Comment	Theme	Up Votes	Down Votes
0	7/7/2022 7:02	Make a Comment	Make a Comment-35	Study Area	Take a new way over the American River. The route of the road to go over the now defunct Auburn dam went thru here. The right of way and in fact most of the road is built on the east side. The solution is obvious: put a bridge to connect Cool and Auburn near the site of the proposed Auburn dam. Hwy 49 thru the gorge would become a scenic park road.	Bypass Bridge	2	1
4	7/22/2022 14:43	Make a Comment	Make a Comment-36	Study Area	Something MUST be done about traffic and road improvements! a in the event of a wildfire, there is the potential for a huge loss of life. Make park visitors use the existing confluence road and allow for through traffic and commercial traffic to use another route. Use the dam plan for commercial and through traffic. BUT MOST IMPORTANTLY the powers that be need to get this moving! We have already been through 40 years of studies!!! We need action NOW!	Congestion	1	0
4	7/27/2022 18:08	Make a Comment	Make a Comment-37	Study Area	https://www.austinmohawk.com/products/shelters/transit-bus/view/313-hip-roof-shelter-with-metal-wall-panels-	Other	0	0
3	7/27/2022 18:10	Make a Comment	Make a Comment-38	Study Area	Addition of a pedestrian walkway between bridge and Quarry parking lot would help alot and make it safer for pedestrians.	Safety	1	0
3	8/6/2022 14:12	Make a Comment	Make a Comment-39	Study Area	There is no safe way to bicycle up Highway 49. A decent shoulder and bike lane would be nice. Thanks	Safety	1	0
0	8/6/2022 14:15	Make a Comment	Make a Comment-40		please pave this road	Safety	0	1
3	8/23/2022 15:38	Make a Comment	Make a Comment-41	Study Area	Bridge gets closed often for river rescues. One year, bridge was closed while there was a wildfire in Cool preventing people to get home in case of evacuation of humans/animals still at the houses. Understandably, a human needs to be rescued but something has to be figured out. Anyone with animal emergencies trying to get to a emergency vet, people trying to get to urgent care, to work etc are negatively impacted.	Evacuation	1	0
2	8/30/2022 12:40	Make a Comment	Make a Comment-42	Study Area	I agree, a new bridge needs to route Highway 49 over the North Fork Here where the Dam would have been. the dam will NEVER be built. use the right of way for a tall Bridge. Then Entrance gates and new parking can be put where needed on the old 49 and Foresthill roads. Costly? yes. Chase down state and Federal grants. Reopen the push for an American River NATIONAL Recreation Area Status.	Bypass Bridge	1	0
0	8/30/2022 13:03	Make a Comment	Make a Comment-43		This road could use a good grading BUT DO NOT PAVE IT! A paved upper Clemintine road would lead to the ruination of this area. The road acts as a limiting factor. Too many people already come down here with their loud music and swearing driving away any peace or wildlife that were there.	Safety	0	0
4	9/1/2022 21:15	Make a Comment	Make a Comment-44	Study Area	Traffic traveling between Highway 49 and Highway 193 needs to flow better. I think the businesses actually suffer because of the slow traffic here. Either widening with additional turn and merge lanes needs to occur or add a roundabout. The one proposed looks large enough to make entering and exiting easy and big enough to handle the trucks. If there were an evacuation of Georgetown or more of the Divide that existing stop sign would be a huge impedance to keeping traffic constantly moving.	Geometry	0	0
1	9/4/2022 16:20	Make a Comment	Make a Comment-45	Study Area	The intersection of Borland/Lincoln way and 49 is getting a roundabout. Check with District 3 Caltrans. So your study is flawed. My property is near this intersection along your purposed route. Some of your purposed parking by the roundabout intersection is private property. I will tow immediately any car you try to park on my property. Every other week I pick up over 5 gallons of trash along 49. Who is going to clean up the mess from your increased traffic?	Parking	0	0
1	9/5/2022 12:04	Make a Comment	Make a Comment-46	Study Area	No roundabout, How will cars on Lincoln way and Boreland compete with never ending stream on log and limestone trucks as well as cars on 49?	Traffic Control	0	0

Segment	Created on	Type	Threads	Map Layers	Comment	Theme	Up Votes	Down Votes
1	9/5/2022 12:05	Make a Comment	Make a Comment-47	Study Area	No roundabout on 49 and Lincoln - it will only lead to back up at stop light at 49 and Elm St which is already backing up almost to the RR overpass. Light at 49 and Lincoln prevents worse problems at 49/Elm light.	Traffic Control	0	0
0	9/5/2022 12:08	Make a Comment	Make a Comment-48	Study Area	Open up area on side of road that has fence around it for parking. This would allow hikers/bikers to access Bridgeview, Stagecoach, and Confluence area from here - rather than having to park at Confluence.	Safety	0	0

APPENDIX D: RSA ITINERARY AND CRASH HISTORY

8950 CAL CENTER DRIVE, SUITE 340, SACRAMENTO, CA 95826

MEMORANDUM

DATE: January 26, 2022

TO: Woody Deloria | El Dorado County Transportation Commission

FROM: Josh Pilachowski | DKS Associates
Jim Damkowitch | DKS Associates

SUBJECT: SR49 Confluence Roadway Safety Audit-Lite Assessment

This memo summarizes the preparation for performing a Roadway Safety Audit field review for January 28, 2022, along SR49.

INTRODUCTION

STUDY AREA

The study area along SR49 from Lincoln Way in Auburn to Georgetown Road in Cool has been segmented onto four distinct sub-segments. The Post Mile (PM) starts at 2.35 in Placer County to PM 34.5 in El Dorado County. The sub-segments are as follows:

- Segment 1 (PM 2.35 to 1.75)
- Segment 2 (PM 1.75 to 0.0)
- Segment 3 (PM 38.2 to 36.5)
- Segment 4 (PM 36.5 to 34.5)

Existing transit and shuttle service stops are also shown.

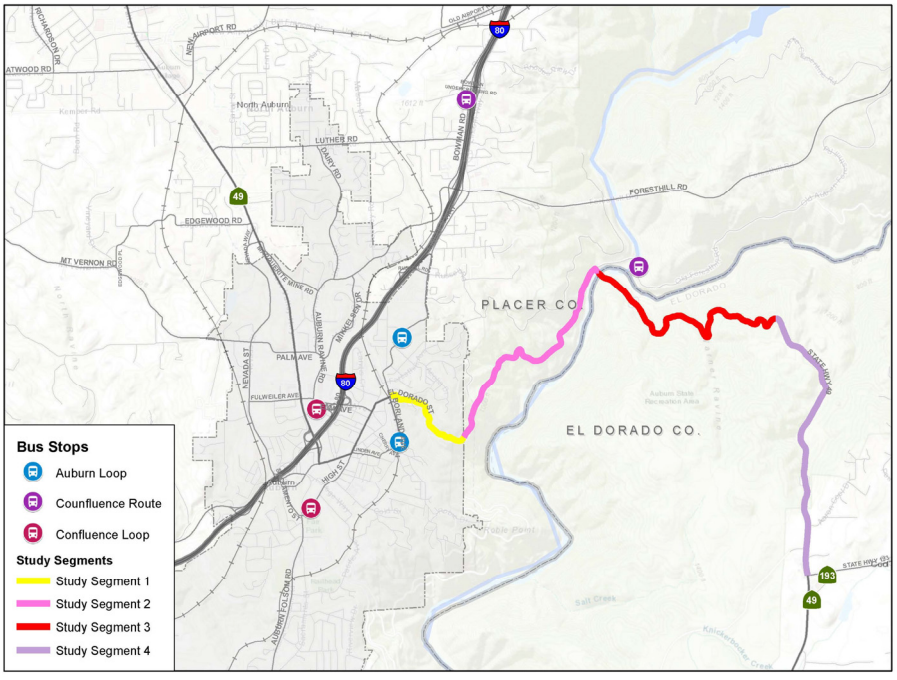


FIGURE 1: STUDY AREA IN SEGMENTS

RSA-LITE

1. **Date / Time and Logistics**
    a. Meeting Location / Prep for Field Review

2. **Team members**

Board of Supervisors:	Supervisor Parlin
El Dorado Transit:	Matt Mauk
EDCTC:	Woody Deloria
PC PW:	Amber Conboy
DKS:	Josh Pilachowski & Yu Hong Hwang
Caltrans:	Darryl Chambers
	Tim Yassa$
State Parks:	Jim Michaels
	Erik Taylor

3. **Desired Outcomes**
    i. Where are good locations to provide formalized parking spaces on SR 49
    ii. Where are good locations for shuttle stops on SR 49
    iii. What is needed to make it easier or safer to cross SR 49 (as a Ped and/or Driver)
    iv. Where do or would you cross SR 49 after crossings are improved?
    v. What is needed to make it easier or safer to cross SR 49 (as a Ped and/or Driver)

4. **How to Prepare (No Rain Expected)**
    a. Safety Equipment (Vests mandatory, boots and hardhats optional).
    b. Transportation (by preference, individual drivers)
    c. Material available for review (DKS to provide review handout).

5. **Itinerary**
    a. **9:30 to 10:30 AM → Introductions & Prep for the Field Review:**
        i. Meet at Starbucks (392 Elm Ave)
        ii. Review objectives and proposed *itinerary* for Field Review
        iii. Drive full segment and meet in Cool before driving/walking each segment
            1. **Focus 90% of time near parking, pull-out areas, or intersections**
            2. Review Roles in Field (see items 6), and during follow-up session (see 5.f below)
        iv. Review traffic & crash data (*see summary on page 3)*

    b. **10:30 to 11:30** - Field Review of Segment 4 (See Segment Map)
    c. **11:30 to 12:30** - Field Review of Segment 3 (See Segment Map)

    Lunch (at Los Establos | Méxican Restaurant or **TBD**)

    d. **1:30 to 2:30** → Field Review of Segment 2 (See Segment Map)
    e. **2:30 to 3:30** → Field Review of Segment 1 (See Segment Map)

f. **Complete Field Review**
g. **3:30 to 4:00**
    i. Compile input from all Team members
    ii. Plan next actions:
        1. Record of RSA including draft list of input & photos
        2. All to review Input collected (to ensure completeness and accuracy)
        3. Decide if night-time or other conditions need to be observed
        4. Review plan for Public Workshop
            a. Decide if any RSA findings should be shared at the Workshop

6. Roles

a. Co-Leads
b. Photographer (DKS staff – all can take photos as desired)
c. Note-Taking (all to take notes during RSA but DKS will summarize afterward)
d. Scribe for compilation of input from Field Review (DKS)

CRASHES within CORRIDOR

<> Source: SWITRS
<> 5 years (2016 thru 2020)

<> Data reflects crashes reported along SR 49 Segment 1 and near SR49

TOTAL:	**41**
PDO:	**30**
INJURY:	**10**
FATAL/SEVERE:	**1**

AT *INTERSECTIONS* (8 at Lincoln Way, 2 at Jordan Lane)

TOTAL:	**10**
PDO:	**8**
INJURY:	**1**
FATAL/SEVERE:	**0**

WITHIN *SEGMENTS*

TOTAL:	**31**
PDD:	**22**
INJURY:	**9**
FATAL/SEVERE:	**1**

<> Data reflects crashes reported along SR 49 Segment 2 and near SR49

TOTAL: **38**
PDO: **26**
INJURY: **11**
FATAL/SEVERE: **1**

AT *INTERSECTIONS* (1 at Old Foresthill Road)

TOTAL: **1**
PDO: **1**
INJURY: **0**
FATAL/SEVERE: **0**

WITHIN *SEGMENTS*

TOTAL: **37**
PDO: **25**
INJURY: **11**
FATAL/SEVERE: **1**

<> Data reflects crashes reported along SR 49 Segment 3 and near SR49

TOTAL: **61**
PDO: **36**
INJURY: **22**
FATAL/SEVERE: **3**

AT INTERSECTIONS (1 at Quarry Trail)

TOTAL: **1**
PDO: **0**
INJURY: **0**
FATAL/SEVERE: **1**

WITHIN *SEGMENTS*

TOTAL: **60**
PDO: **36**
INJURY: **22**
FATAL: **2**

<> Data reflects crashes reported along SR 49 Segment 4 and near SR49

TOTAL:	**37**
PDO:	**23**
INJURY:	**9**
FATAL/SEVERE:	**5**

AT INTERSECTIONS (2 at Aaron Cool Road, 2 at Georgetown Road/SR 193)

TOTAL:	**4**
PDO:	**3**
INJURY:	**0**
FATAL/SEVERE:	**1**

WITHIN *SEGMENTS*

TOTAL:	**33**
PDO:	**20**
INJURY:	**9**
FATAL/SEVERE:	**4**