8.0 TRANSPORTATION AND CIRCULATION

This chapter summarizes the 2010 Hidden Falls Regional Park (HFRP) Certified EIR transportation and circulation findings; describes the existing HFRP and proposed trail network expansion project area (project area) environmental setting (existing roadway network, bikeways, bridges, and parking facilities) and pertinent regulations; evaluates project-related impacts associated with transportation and circulation; and provides mitigation measures as necessary to reduce those impacts. The information and analysis in this section is a summary of the traffic impact study for the proposed project prepared by KD Anderson & Associates, Inc., in August of 2019 contained in Appendix D.

The June 4, 2018 Notice of Preparation for the Hidden Falls Regional Park Trails Expansion Project included in the "Project Elements" section the allowance for a limited number of privately-owned parking areas adjacent to the park boundaries. Subsequent to the preparation of the traffic impact analysis prepared by KD Anderson and Associates, Inc., which included 60 privately-owned parking spaces within the overall traffic calculations, the project description was updated to reflect the elimination of the private parking option. These privately-owned parking areas are therefore not part of the HFRP Trail Expansion Project (see Chapter 3.0, Project Description) evaluated in this SEIR and a refinement of parking numbers is reflected in the other chapters of this SEIR. However, the trip volumes used in the traffic analysis conservatively retain the assumption of 60 spaces on private lands around the entries. In addition, the number of parking spaces proposed at the Garden Bar 40 and Harvego Bear River Preserve access locations have been fine-tuned through the site planning process. The assumption of the extra 60 parking spaces was retained for consideration in the traffic evaluation because it presents a conservative analysis that considers a circumstance where more trips travel on the roads than under the proposed project.

In addition, at the August 14-15, 2019 meeting of the California Transportation Commission (CTC), the SR 49 Safety Improvements Project was approved for inclusion in the 2018 State Highway Operation and Protection Program (SHOPP). The project description states "Near Auburn, from 0.3 mile south of Lorenson Road/Florence Lane to 0.3 mile north of Lone Star Road, construct concrete median barrier and two roundabouts." The programming includes $26,340,000 in project funding and anticipates construction beginning in 2022. An initial allocation of $1.5 million in funding for the Project Approval & Environmental Document (PA&ED) phase was also approved as part of the CTC agenda. However, as the project was not fully funded at the time of the Notice of Preparation for the Hidden Falls Regional Park Trails Expansion Project, it was not assumed under cumulative conditions.

Additionally, in late 2018, the Secretary of the Natural Resources Agency promulgated and certified CEQA Guidelines Section 15064.3 to implement Public Resources Code (PRC) Section 21099(b)(2). Public Resources Code Section 21099(b)(2) states that, "upon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any."

In response to PRC 21099(b)(2), CEQA Guidelines Section 15064.3 notes that "Generally, vehicle miles traveled is the most appropriate measure of transportation impacts." The Guidelines section further states that although a lead agency may elect to be governed by this section immediately, lead agencies are not required to utilize VMT as the metric to determine transportation impact until July 1, 2020. The inconsistency between the implementation

date of July 1, 2020 allowed by the Guidelines and the requirement of PRC 21099(b)(2) to no longer use congestion metrics creates a gap or "interim" period when use of traffic congestion metrics is no longer allowable; however, the lead agency may not yet have an established VMT threshold(s), as is currently the case for Placer County.

A recent court case (*Citizens for Positive Growth & Preservation v. City of Sacramento* (2019) 43 Cal.App.5th 609) attempted to add clarity to the timing issue surrounding the transition between transportation impact metrics. The court ruled that although CEQA Guidelines section 15064.3, requiring use of VMT as the transportation impact metric, does not apply until July 1, 2020, Public Resources Code Section 21099(b)(2) is already in effect. As a result of the ruling, although lead agencies are not yet required to analyze transportation impacts under the VMT metric, they can no longer draw a transportation impact significance conclusion solely through a metric that measures traffic congestion (e.g., level of service (LOS)). While this chapter focuses primarily on the traffic congestion effects of the proposed project, LOS is not considered a significant impact on the environment. The LOS data is included at the end of this chapter as additional information only. The transportation impacts of the proposed project are evaluated using VMT as the metric. However, Placer County has not yet established a VMT threshold, and is not required to do so until July of 2020.

8.1 SUMMARY OF COUNTY FINDINGS ON THE 2010 CERTIFIED EIR

As discussed in Section 1.2, this SEIR will consider the impacts of the HFRP Trails Expansion and compare it against the analysis contained in the 2010 HFRP certified EIR. The purpose is to determine whether the Trail Expansion project would substantially increase the severity of impacts previously identified in the 2010 HFRP Certified EIR, result in a new impact not previously identified, or require application of mitigation measures that were previously found infeasible, and were therefore not adopted for the prior project, are currently feasible and should be incorporated into project approvals.

8.1.1 FINDINGS OF FACT – 2010 HFRP EIR

Chapter 8, “Transportation and Circulation” of the 2010 HFRP Certified EIR included a detailed discussion of the park transportation and circulation environmental and regulatory setting, potential impacts associated with transportation and circulation resulting from implementation of the park project, and any needed mitigation measures to reduce these impacts. The following is a summary of the 2010 Certified EIR findings.

- Although local roadways would experience an increase in traffic from daily commutes by construction workers and delivery trucks during HFRP construction, this increase in traffic would be temporary and not expected to be substantial in relation to the existing traffic load and capacity of area roadways. Therefore, the impact was considered **less than significant**.

- Additional automobiles and trucks with equestrian trailers entering and exiting the proposed HFRP entrance via Garden Bar Road could cause an increase in traffic impacts in the HFRP area. HFRP project construction included improvements to Garden Bar Road and the HFRP entrance at Garden Bar Road in three phases. The entrance would be designed for safe ingress and egress of trucks and trailers. Public automobile and bus access to HFRP via Garden Bar Road would be allowed with Phase 2 improvements. However, truck and trailer access would not be allowed until after completion of Phase 3 (final) improvements. Because the improvements to the road and the park entrance would be completed before trucks and trailers would be allowed to access the park from Garden Bar Road, this impact was considered **less than significant**.

- The HFRP project would add additional vehicle trips to the local roadways. However, the projected traffic increase would not result in conditions in excess of adopted standards at local intersections or on individual roadway segments. Therefore, this impact was determined to be **less than significant**.

- Reservation-based events at HFRP could cause an increase in automobile, truck, and bus traffic in addition to regular HFRP use. Although use of Garden Bar Road by buses and/or delivery trucks during events could significantly impact traffic flow along the road, the County's implementation of traffic control measures during peak reservation-based events, including restrictions on event days and hours, and the number and types of vehicles, reduced the impact to **less than significant**.

- Because parking areas would be provided on both sides of HFRP and the sizes of the parking areas were expected to be adequate to accommodate HFRP users, and events that could exceed the capacity of the parking areas would be required to undergo separate environmental review that would require measures to ensure adequate parking, this impact was considered **less than significant**.

- The proposed park trail system would have several access points to provide adequate access for emergency response vehicles and personnel within HFRP. Because the proposed project would not interfere with any emergency response routes and would provide adequate emergency access on-site, this impact was determined to be **less than significant**.

8.1.2 HFRP Mitigation Measure Adopted by the County in 2010

Implementation of the following mitigation measure, which was adopted by Placer County when the HFRP EIR was certified in 2010, reduced impacts of the project on transportation and circulation to less than significant.

Mitigation Measure 8-1: **Implement Traffic Control Measures During Park Reservation-based Events.**

Reservation-based events (involving less than 200 people on-site at a given time) would be regulated by the County Parks Division Reservation System. The Reservation System would include, but not be limited to, applicable restrictions on:

- Event start and end times so as to minimize impacts to traffic along Garden Bar Road and not to exceed peak usage capacity or coincide with scheduled use of the road by school buses;

- Regulation of number and types of vehicles so as not to exceed parking capacity (i.e., 50 paved stalls and 20 truck and trailer gravel stalls) in combination with daily use; and

- The range of vehicle sizes allowed on Garden Bar Road during Phases 1 and 2 to be determined by the County Department of Public Works. Vehicles exceeding the maximum unrestricted size on Garden Bar Road shall be subject to County-imposed traffic controls.

The County may also regulate the days and/or times of reservation-based events to avoid peak days or times such as holiday weekends, as necessary.

8.2 2019 HFRP TRAILS EXPANSION PROJECT – ENVIRONMENTAL SETTING

The setting for this Subsequent EIR describes the transportation and circulation related environmental conditions of the proposed HFRP Trails Expansion project. See Chapter 8.0 "Transportation and Circulation" of the 2010 HFRP EIR for information about the existing HFRP.

8.2.1 ROADWAYS

Regionally, the HFRP trail expansion areas are served primarily by various rural Placer County roads and state highways which connect Lincoln and SR 65 to the west, Interstate 80 and the Rocklin/Loomis area to the south and the Auburn area and SR 49 to the east. Regional roads such as Mt. Pleasant Road, Garden Bar Road, Mt. Vernon Road, Big Ben Road, Wise Road, Riosa Road, McCourtney Road, Fowler Road, Fruitvale Road, and Gold Hill Road will link the site with SR 65 to the west and SR 193 to the south, while Bell Road, Lone Star Road and Cramer Road link the property with SR 49 to the east. Locally, traffic traveling to the site may use various local roads to access HFRP and the trail expansion areas. The permitted (but not yet constructed) HFRP access off of Garden Bar Road can be reached via Mt. Pleasant Road and Garden Bar Road.

State highways serving the project area are described below:

- **Interstate 80 (I-80)** is the primary east-west arterial across Placer County and Northern California. Near the project, I-80 is a six-lane controlled access freeway. Access to the HFRP trail expansion areas from Interstate 80 is from the Bell Road/I-80 intersection.

  The California Department of Transportation (Caltrans) provides annual reports of the volume of traffic on the state highway system. Recent counts available from Caltrans report an *Annual Average Daily Traffic (AADT - 2016)* volume of 85,500 vehicles per day on I-80, west of the SR 193 junction, 88,700 between SR 193 and Ophir Road and 88,300 AADT east of the Ophir Road interchange. (Caltrans 2016).

- **State Route 193 (SR 193)** is an east-west route that connects the City of Lincoln with I-80 across the study area. SR 193 originates in Lincoln and becomes SR 193 roughly 1.4 miles west of the Sierra College Boulevard intersection. SR 193 continues from that point east to I-80. Near the proposed project, SR 193 is a two-lane conventional highway. Caltrans data indicate that in 2016, SR 193 carried 9,500 AADT west of Sierra College Blvd and 5,000 AADT between Sierra College Blvd and Newcastle. Trucks comprised nine (9) percent of the daily traffic on SR 193 east of Sierra College Blvd (Caltrans 2016).

- **State Route 49 (SR 49)** is a principal arterial that is the primary north-south route through the Auburn – North Auburn area. SR 49 links I-80 with the Grass Valley – Nevada City area to the north. Through North Auburn SR 49 is generally a 4 – 6 lane conventional highway with a continuous center two-way left-turn (TWLT) lane or median. From the Dry Creek Road/SR 49 intersection to Lone Star Road, SR 49 is a 4-lane rural highway constructed with a continuous center TWLT.

  Caltrans traffic counts indicate that in 2017, SR 49 carried an *Annual Average Daily Traffic (AADT)* volume of 34,700 vehicles per day north of the Bell Road intersection, with the volume reported to be 32,000 AADT in the area of the proposed project north of Dry Creek Road and 30,700 AADT in the area of

Lorensen Road to the Nevada County line. Caltrans data indicates that trucks comprised six (6) percent of the Daily traffic on SR 49 in the area of the project.

- **State Route 65** (SR 65) is an important north-south route west of HFRP that extends from I-80 to its northern terminus at a junction with SR 70 in Yuba County. SR 65 is a four or six-lane controlled access freeway in the urban Rocklin / Roseville area and continues that configuration through Placer County to the City of Lincoln. Beyond West Wise Road SR 65 is a two-lane expressway or conventional highway to a location north of Wheatland where a four-lane controlled access freeway is again available.

  The most recent traffic counts published by Caltrans indicate that in 2017, SR 65 carried 117,400 AADT north of I-80 with 76,800 AADT north of the Blue Oaks Blvd – Washington Blvd interchange and 21,700 AADT at the Placer County – Yuba Countyline. Trucks comprise 15 percent to 20 percent of the daily volume on SR 65.

The Placer County roadways addressed in this analysis are those most likely to carry expansion traffic or were previously investigated in the prior HFRP EIR. The roads listed below provide access to the existing HFRP and would provide access to the HFRP trail expansion areas, if approved.

- **Mt. Pleasant Road** is a local east-west road that extends for approximately three miles linking Big Ben Road and Mt. Vernon Road.
- **Mt. Vernon Road** is a rural collector road that extends easterly from an intersection on Wise Road for about 7 miles into the City of Auburn.
- **Mears Drive** is a local road that connects the existing portion of HFRP with Mt. Vernon Road.
- **Garden Bar Road** is a local road that extends north from an intersection on Fruitvale Road across Mt. Pleasant Road along the west side of the HFRP for approximately three miles to the Nevada County line.

The following public roads are generally located in the area east of the proposed HFRP Trails Expansion project.

- **Bell Road** is a rural collector road that extends from an intersection on SR 49 north-westerly to Lone Star Road.
- **Lone Star Road** is a local road that connects SR 49 with Auburn Valley Road and the north end of Bell Road.
- **Cramer Road** is a local road that links Bell Road and SR 49.

The following private roads exist in the area near the proposed HFRP Trails Expansion project and would provide access to the new park facilities within the Harvego Bear River Preserve. The County has rights of public access to these roads through either an offer of dedication or easements:

- **Auburn Valley Road** is a private road that extends west from Bell Road to provide access to Auburn Valley Country Club and to an existing residential neighborhood.

- **Curtola Ranch Road** is a local road that extends north from Auburn Valley Road towards the northern portion of the HFRP Trails Expansion area. Three existing residences as well as other parcels are accessed off of Curtola Ranch Road.

8.2.2 EXISTING VEHICLE MILES TRAVELED

VMT is a measure of transportation network use. It is causally related to fuel consumption and is routinely used as an input for estimating air pollution emissions, greenhouse gases, and energy consumption for environmental impact purposes. It can be calculated by multiplying all vehicle trips generated by their associated trip lengths or by multiplying traffic volumes on roadway links by the associated trip distance of each link. However, in this "interim" period, the following qualitative discussion of VMT has been provided.

The existing park and project area are located within western Placer County on land designated primarily as Agriculture/Timberland in the Placer County General Plan. This designation generally corresponds with zoning which allows for Open Space, Farm, and Residential-Agricultural land uses. The growth in these areas in generally low, due to the large minimum parcel sizes and land use types.

The project is located within an area that was not identified for development within the 2020 MTP/SCS planning period. According to the MTP/SCS these areas are dominated by commercial agriculture, forestry, resource conservation, mining, flood protection or a combination of these uses. Some have long-term plans and policies to preserve or maintain the existing "non-urban" uses; however, some are covered under adopted or proposed plans that allow urban development and/or are included in the adopted Blueprint vision for future growth.

The approximately 2,765 acres of land included as part of the proposed Park Expansion project is generally undeveloped. Low intensity agricultural uses (i.e. cattle grazing) occur on portions of the proposed expansion area and there is one existing single-family dwelling. As such, the existing VMT to and from Park Expansion area is negligible.

The existing park operations, which were approved by the County in January of 2010, are not considered to be part of the project description for the proposed Park Expansion. Therefore, VMT resulting from the existing park is part of the baseline VMT. Using the data collected from the parking reservation system, the existing park currently generates approximately 18,000 VMT on a peak weekend.

8.2.3 PEDESTRIAN/BICYCLE FACILITIES

The status of existing facilities for pedestrians, bicycle and transit users have been evaluated based on identification of existing facilities and review of planned programs and improvements.

TRANSIT SERVICES

Placer County Transit (PCT) provides bus service to most of the urbanized south Placer County area, but services are limited in the rural study area addressed by this analysis. The Auburn Station on Nevada Street in the City of Auburn is the hub for service in Western Placer County. PCT's *Taylor Road Shuttle* travels between Auburn and Sierra College in Rocklin, and this route follows Ophir Road between Auburn and the Ophir Park-&-Ride lot on I-80. This route provides service Mondays through Saturdays from 6:40 a.m. to 8:20 p.m. However, stops on Ophir Road are by reservation only. The SR 49 route follows the state highway north from The Auburn

Station to the Placer County Government Center on Bell Road and Chana High School on Richardson Drive south of Dry Creek Road. This service runs Monday through Saturday from 4:35 a.m. to 7:30 p.m. None of these routes are near the trail's expansion areas.

BICYCLE FACILITIES

The 2018 Update to the *Placer County Regional Bikeway Plan* (Bikeway Plan) provides the most current information regarding location of existing and planned bicycle facilities in the County.

The Bikeway Plan notes that there are four types of bikeways defined by Chapter 1000 of the Caltrans Highway Design Manual (2017).

- **Class I Bikeway (Bike Path).** Bike paths or share-use paths provide a completely separated facility designed for the exclusive use of bicycles and pedestrians with minimal vehicle crossflows. Motorized vehicles are not allowed on Class I Bike Paths.
- **Class II Bikeway (Bike Lane).** Bike lanes are on-street bikeways that provide a designated right of way for the exclusive or semi-exclusive use of bicycles. Through travel by motor vehicles or pedestrians prohibited, but vehicle parking and crossflows by pedestrians and motorists are permitted.
- **Class III Bikeway (Bike Route).** Bike routes provide a right-of-way designated by signs or permanent markings and shared with pedestrians and motorists. Roadways designated as Class III Bike Routes should have sufficient width to accommodate motorists, bicyclists, and pedestrians. Shared-lane markings ("sharrows") can be used on roadways with a posted speed limit of 35 mph or less to provide an additional alert to drivers of the shared roadway environment with bicyclists.
- **Class IV Bikeway (Separated Bikeway).** Separated bikeways provide a physical separation from vehicular traffic. This separation may include grade separation, flexible posts, planters, or other inflexible physical barriers, or on-street parking. This class of bikeway has not yet been implemented in Placer County.

EXISTING BICYCLE FACILITIES

The Bikeway Plan noted the presence of existing bicycle facilities and this information has been described for the project area in Table 8-1. Dedicated bicycle facilities are rare in the project area.

The Bikeway Plan notes the presence of recreational cyclists on many rural roads and identifies High-Use Recreational Routes. Nearly all project area roads fall under this classification.

PLANNED BICYCLE FACILITIES

The Bikeway Plan describes facilities that may be developed in the future and notes "priority," with those facilities that would be expected be constructed first having higher scores. Projects with larger numbers rank higher in priority due to scoring criteria based upon regional significance, overall connectivity, likelihood of grant support, disadvantaged community service, severity-weighted crash frequency and public outreach support. This information has been described for the project area in Table 8-2.

Table 8-1. Existing Study Area Bicycle Facilities

Road	Location	Facility Designation
SR 193	Oak Tree Lane to Lincoln City limit	Class II
Ophir Road	Newcastle to I-80	Class II
English Colony Road	Penryn Elementary School to UPRR	Class III
Auburn Folsom Road	Auburn to Douglas Blvd.	Class III
Bell Road	SR 49 to I-80	Class II
Lozanos Road	Adjoining Ophir Elementary School	Class III
Meadow Vista Road	Placer Hills Road to Pine Cone Lane	Class III
Richardson Drive	Joeger Road to Dry Creek Road	Class III

Source: Compiled by KD Anderson & Associates, Inc. in 2019
I-80 = Interstate 80
SR = State Route
UPRR = Union Pacific Railroad

Table 8-2. Future Study Area Bicycle Facilities

Road	Location	Facility	
		Designation	Priority
SR 193	Lincoln to Newcastle	Class II	4
Ophir Road	Newcastle to I-80	Class II	existing
Atwood Road	Mt. Vernon Road to SR 49	Class II	4
Bell Road	Lone Star Road to Joeger Road	Class III	2
Bell Road	Joeger Road to I-80	Class II	8
Cramer Road	Bell Road to SR 49	Class III	0
Dry Creek Road	Joeger Road to SR 49	Class II	6
English Colony Way	Sierra College Blvd to school	Class III	3
English Colony Way	School to Taylor Road	Class II	4
Fowler Road	SR 193 to Virginiatown Road	Class III	2
Garden Bar Road	Wise Road to Mt. Pleasant Road	Class II	1
Garden Bar Road	Mt. Vernon Rd to Hidden Falls Park	Class III	1
Gold Hill Road	SR 193 to Virginiatown Road	Class III	4
Horseshoe Bar Road	Loomis to Auburn Folsom Road	Class II	5
Joeger Road	Mt. Vernon Road to Bell Road	Class III	2
Joeger Road	Bell Road to Dry Creek Road	Class II	3
Joeger Road	Dry Creek Road to SR 49	Class III	3
Lone Star Road	Bell Road to SR 49	Class III	0
Lozanos Road	By Ophir Elementary School	Class III	existing
McCourtney Road	Lincoln to Wise Road	Class II	2
McCourtney Road	Wise Road to Camp Far West	Class III	2
Mears Drive	Hidden Falls Park to Mt. Vernon Road	Class III	-
Mt. Vernon Road	Wise Road to Mears Drive	Class III	-
Mt. Vernon Road	Mears Drive to Merry Knoll Road	Class II	3
Park Drive	Richardson Drive to Quartz Drive	Class II	7
Richardson Drive	Joeger Road to Dry Creek Road	Class III	existing
Richardson Drive	Dry Creek Road to Park Drive	Class II	7
Ridge Road	Gold Hill Road to Ophir Road	Class III	4
Virginiatown Road	Lincoln to Gold Hill Road	Class III	2/4
Wise Road	McCourtney Rd to Garden Bar Road	Class II	1
Wise Road	Garden Bar Road to Ophir Road	Class III	3

Source: Compiled by KD Anderson & Associates, Inc. in 2019
I-80 = Interstate 80
SR = State Route

8.2.4 COLLISION HISTORY

Placer County has a robust Traffic Accident Analysis System (TAAS) in which traffic collision data is collected and reviewed on an annual basis. It is recognized that many roadways throughout the County do not conform to current design standards and guidelines; however, the fact that a roadway does not meet current design standards does not necessarily make safety improvements essential. Traffic and roadway engineering design standards and guidelines have evolved over many years; therefore, many roadways that do not display any safety deficiencies no longer meet the current standards simply due to the passage of time since their construction. Conversely, some roadways that meet current standards may display safety deficiencies. The TAAS recognizes that reconstructing all roadways that do not meet current design standards would be financially infeasible, and that doing so would expend funds to upgrade many roadways that operate safely. Through the TAAS program, locations for detailed engineering investigations are identified and improvements to facilitate safe travel for all modes, if necessary, are implemented on a regular basis.

Consistent with the TAAS guidelines, three-years of collision history (January 1, 2014 – December 31, 2016) was obtained for study area roadways. This information was reviewed, and roadway collision rates were calculated based on the number of collisions per Million Vehicle Miles (MVM) of travel. This method permits comparison of roadways carrying different traffic volumes. In addition, reference to average collision rates for several types of facilities is a helpful way to determine if a location is experiencing a higher than expected rate of collisions. Comparative collision rates are published by Caltrans based on statewide data, based on the formulas noted in Table 8-3.

Table 8-3. 2010 Statewide Average Collision Rates

	Collisions per Million Vehicle Miles (MVM)	
Rural		
2-lane Flat – Rural ≤55 mph	0.82	+0.35/ADT
2-lane Rolling – Rural ≤55 mph	1.14	+0.35/ADT
Suburban (outside City limits, but classified as urban by FHWA)		
2-lane Suburban < 45 mph	2.39	
2-lane Suburban 45 – 55 mph	1.32	

Source: Compiled by KD Anderson & Associates, Inc. in 2019
ADT = average daily traffic
FHWA = Federal Highway Administration
mph = miles per hour

As noted in Table 8-4, the study area roadways are generally experiencing collision rates at, or below, the comparative statewide average for their facility types. However, review of that data reveals that while Cramer Road has experienced only three collisions over this three-year time period, because the traffic volume is low, the accident frequency rate exceeds the statewide average for similar facilities by more than 10 percent.

Additional review of the collision history conducted for Cramer Road indicates that one collision occurred immediately west of the SR 49 intersection, where a motorist DUI hit a fixed object. A second collision occurred 1,000 feet west of Oak Hollow Lane and involved a head-on collision between a vehicle and a motorcycle who was proceeding on the wrong side of the road. Cramer Road is in a curve at this location. The third collision occurred 1,400 feet east of Oak Hollow Lane when the driver was eating and allowed the vehicle to run off the road and strike a fence. The information available for these three collisions is not indicative of a particular pattern of accident cause or location.

Table 8-4. Collision Analysis (1/1/2014 - 12/31/2016)

Road Name	From	To	Length (miles)	Segment Related Collisions (3-year)	ADT	Collision Rate	Statewide Average
Ayers Holmes Road	Mt. Vernon Road	Wise Road	0.9	0	412	0.00	1.99
Bald Hill Road	Wise Road	Mt. Vernon Road	2.1	2	1,309	0.66	1.32
Baxter Grade Road	Wise Road	Mt. Vernon Road	2.1	3	971	1.34	1.50
Bell Road	Lone Star Road	Richardson Drive	5.2	9	1,400	1.13	1.39
Chili Hill Road	Lozanos Road	Gold Hill Road	3.7	1	355	0.70	2.13
Cramer Road	Bell Road	SR 49	1.6	3	558	3.07	1.77
Crosby Herold Road	Fruitvale Road	Mt. Pleasant Road	2.3	1	525	0.76	1.81
Delmar Avenue	Sierra College Blvd	English Colony Way	1.9	0	1,126	0.00	1.13
Fowler Road	SR 193	Virginiatown Road	0.9	3	3,412	0.89	0.92
Fleming Road	Gladding Road	McCourtney Road	1	0	43	0.00	8.96
Fruitvale Road	McCourtney Road	Gold Hill Road	5.1	2	1,486	0.24	1.38
Gold Hill Road	SR 193	Wise Road	2.4	2	1,542	0.49	1.37
Lone Star Road	Bell Road	SR 49	1.8	1	1,328	0.38	1.40
McCourtney Road	Wise Road	Big Ben Road	1.8	1	1,192	0.43	1.11
Millertown Road	Wise Road	Mt. Vernon Road	2.3	0	510	0.00	2.39
Mt. Vernon Road	Wise Road	Joeger Road	4.8	13	2,021	1.22	1.31
Mt. Vernon Road	Joeger Road	City of Auburn	3.4	16	2,995	1.43	2.39
Ridge Road	Gold Hill Road	SR 193	3.5	5	789	1.65	1.58
Virginiatown Road	City of Lincoln	Gold Hill Road	5.4	6	773	1.31	1.27
Wise Road	McCourtney Road	Garden Bar Road	2.5	5	2,575	0.71	0.96
Wise Road	Garden Bar Road	Ophir Road	9.7	14	1,394	0.95	1.39

HIGHLIGHTED values exceed statewide average by more than 10%
Source: Compiled by KD Anderson & Associates, Inc. in 2019
ADT = average daily traffic
SR = State Route

The Regional Bikeway Plan also presents information regarding bicycle related collisions that have occurred countywide from 2012 to 2016 (refer to Table 5 in the Bikeway Plan). A total of 74 collisions were identified, and the Bikeway Plan's Figure 20 illustrates the location of collisions. Review of that figure indicates that excluding incidents occurring on SR 49 in North Auburn, eight bicycle-related collisions occurred in the study area.

Within the study area, intersections on the State Route 49 corridor are of particular concern to the community. Caltrans and Placer County have discussed measures to improve safety by slowing the speed of traffic on SR 49 and controlling opportunities to access the state highway.

As discussed at the beginning of this chapter, the California Transportation Commission (CTC) approved inclusion of the SR 49 Safety Improvements project in the 2018 SHOPP with $26.3 million of funding. Construction of this project will improve LOS to meet the County's standards at the SR 49/Cramer Road intersection by restricting the turning movements at the intersection to right-in, right-out only; however, the Lone Star Road intersection with SR 49 will continue to experience a LOS that exceeds standards with installation of a roundabout. Roundabouts would slow traffic and provide a safe location for accessing the state highway. Motorists accessing the highway at locations between the roundabouts would be able to turn right and use the next roundabout to make a U-turn, rather than making left turns across high speed traffic. Any measure that involves

stopping traffic on mainline state highways is subject to an additional level of analysis before a decision can be made as to the applicable choice of traffic control. Current Caltrans policy requires that an Intersection Control Evaluation (ICE) report be prepared to evaluate the best choice among all-way stop, traffic signal, or roundabout. Because the project was not programmed or funded at release of the NOP, it was not assumed under cumulative conditions.

Placer County regularly monitors the status of its roads and takes corrective actions where needed. In the spring of 2016, the Department of Public Works and Facilities completed a Roadway Safety Sign Audit which recommends the replacement, relocation and installation of yellow warning signage at various locations on 62 roadways in Placer County. In November 2018, the Board of Supervisors authorized the *Roadway Safety Sign Audit and Sign Upgrade Project*. The need to complete this project is based upon safety analyses undertaken by the Department to identify high collision concentration locations that resulted in a safety evaluation of selected roadway corridors. This project undertakes to provide a systemic solution for these collision locations in the form of updating curve warning signage for the entire length of roadway. Current Caltrans standards as identified in the 2014 Manual of Uniform Traffic Control Devices (MUTCD) specify placement of new warning signs for roadway curves based upon the advisory speed of the curve, as well as replacement of signs due to the poor physical condition or lack of reflectivity of the sign. The scope of this project includes installation of approximately 1,800 new curve warning signs, relocation of 350 existing signs, replacement of 1,000 signs and removal of 1,300 signs along 62 County roadways. This project was completed during the 2019 construction season.

Study area roadways addressed by this safety project include:

- Bell Road from Lone Star Road to SR 49
- Joeger Road
- Mt. Vernon Road

8.3 REGULATORY SETTING UPDATE

FEDERAL

There are no federal plans, policies, regulations, or laws related to transportation and circulation which are applicable to the proposed project.

STATE

The California Department of Transportation (Caltrans) has primary responsibility for the State Highway system in California. This includes State Route (SR) 49 and its intersections with local streets. As such, the following Caltrans planning and policy document provides guidance on expectations for traffic operations.

Transportation Concept Report, State Route 49

Caltrans long range transportation planning process is directed at the maintenance, operation, management and development of the highway system. Caltrans, in partnership with the Nevada County Transportation Commission and the Placer County Transportation Planning Agency, prepared a study/update to identify operational improvements and deficiencies, bicycle route gaps, and user safety enhancements within Segments 10 and 11 of the SR 49 Corridor. The study identifies a project list to improve safety, reduce travel time and delay, and

improve connectivity. Improving accessibility and connectivity for all modes of transportation and maintaining or exceeding the minimum acceptable Level of Service (LOS) on each corridor segment are key issues for SR 49.

Senate Bill 743

In late 2018, the Secretary of the Natural Resources Agency promulgated and certified CEQA Guidelines Section 15064.3 to implement Public Resources Code Section 21099(b)(2). Public Resources Code Section 21099(b)(2) states that, "upon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any."

In response to PRC 21099(b)(2), CEQA Guidelines Section 15064.3 notes that "Generally, vehicle miles traveled is the most appropriate measure of transportation impacts." The Guidelines section further states that although a lead agency may elect to be governed by this section immediately, lead agencies are not required to utilize VMT as the metric to determine transportation impact until July 1, 2020. The inconsistency between the implementation date of July 1, 2020 allowed by the Guidelines and the requirement of PRC 21099(b)(2) to no longer use congestion metrics created a gap or "interim" period when use of traffic congestion metrics is no longer allowable; however, the lead agency may not yet have an established VMT threshold(s), as is currently the case for Placer County.

A recent court case (*Citizens for Positive Growth & Preservation v. City of Sacramento* (2019) 43 Cal.App.5th 609) attempted to add clarity to the timing issue surrounding the transition between transportation impact metrics. The court ruled that although CEQA Guidelines section 15064.3, requiring use of VMT as the transportation impact metric, does not apply until July 1, 2020, Public Resources Code Section 21099(b)(2) is already in effect. As a result of the ruling, although lead agencies are not yet required to analyze transportation impacts under the VMT metric, they can no longer draw a transportation impact significance conclusion solely through a metric that measures traffic congestion (e.g., level of service (LOS)).

The standard of significance of VMT has not been established for Placer County. The County is currently working on an SB 743 Implementation Plan, which will establish standards of significance for VMT under CEQA analysis. Nonetheless, and in an abundance of caution, an assessment of VMT is provided. Per CEQA Guidelines Section 15064.7, Placer County can choose to apply thresholds from other CEQA lead agencies on an ad hoc basis. For example, the County could apply the recommended thresholds from the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Governor's Office of Planning and Research (OPR), December 2018). However, the Technical Advisory only recommends quantifiable thresholds for residential, retail, and office projects. The proposed project type does not align with any of the OPR recommended thresholds or screening criteria in the Technical Advisory. Therefore, Placer County cannot apply the recommended thresholds to the proposed project.

OPR's advisory document also identifies a potential approach which an agency could utilize as the basis for determining significant transportation impacts. Specifically, the OPR Technical Advisory recommends consideration of whether the project is consistent with the applicable Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The guidance aligns with CEQA Guidelines Section 15125(d), which requires that an EIR should discuss inconsistencies between the proposed project and the regional transportation plan. For the SACOG region, this consists of the Metropolitan Transportation

Plan/SCS (MTP/SCS). The proposed project would result in an increase in VMT above the assumptions in the MTP/SCS and is therefore inconsistent with the land use plan.

8.3.1 LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

PLACER COUNTY GENERAL PLAN

The County's General Plan describes assumptions, goals, and planning principles that provide a framework for land use decisions throughout the County. The following are the relevant goals and policies identified in the 2013 General Plan for transportation and circulation issues **GOAL 3.D:** To provide a safe, comprehensive, and integrated system of facilities for non-motorized transportation.

- **Policy 3.D.1.** The County shall promote the development of a comprehensive and safe system of recreational and commuter bicycle routes that provides connections between the County's major employment and housing areas and between its existing and planned bikeways.
- **Policy 3.D.2.** The County shall work with neighboring jurisdictions to coordinate planning and development of the County's bikeways and multi-purpose trails with those of neighboring jurisdictions.
- **Policy 3.D.3.** The County shall pursue all available sources of funding for the development and improvement of trails for non-motorized transportation (bikeways, pedestrian, and equestrian).
- **Policy 3.D.4.** The County shall promote non-motorized travel (bikeways, pedestrian, and equestrian) through appropriate facilities, programs, and information.
- **Policy 3.D.6.** The County shall support the development of parking areas near access to hiking and equestrian trails.
- **Policy 3.D.8.** The County's Engineering and Surveying Division and the Department of Public Works shall view all transportation improvements as opportunities to improve safety, access, and mobility for all travelers and recognize cycling, pedestrian, and transit modes as integral elements of the transportation system.
- **Policy 3.D.10.** Consider the accessibility and accommodation of cycle and pedestrian traffic, where appropriate, on and across major thoroughfares.
- **Policy 3.D.11.** The County shall work to achieve equality of convenience and choice among all modes of transportation – pedestrian, cycling, transit and motor vehicles, through a balanced and interconnected transportation system.
- **Policy 3.D.12.** Provide safe and comfortable routes for walking, cycling, and where feasible, public transportation, to encourage use of these modes of transportation, enable convenient and active travel as part of daily activities, reduce pollution, and meet the needs of all users of the roadway system.

8.4 IMPACTS

8.4.1 ANALYSIS METHODOLOGY

The following discussion evaluates impacts to transportation and circulation resulting from project implementation. This analysis also considers how construction and operation of the HRFP Trail Expansion project would or would not change the conclusions of the prior environmental review. Impacts on transportation and circulation that would result from the proposed project were identified by comparing existing VMT levels to VMT associated with implementation of the proposed project. The site plans developed for the four areas of the HFRP expansion project are depicted in Section 3.0 "Project Description" to this SEIR.

8.4.2 PROJECT PHASING PLAN

Each trailhead entry planned as part of the HFRP Trail Expansion is anticipated to be constructed in phases over time as funding is available.

It is important to note that parking space numbers in this chapter coincide with the traffic study and are used in this chapter for consistency with the traffic analysis. The numbers shown in this chapter and in the traffic, study are conservative numbers which include 60 parking spaces attributed to private parking facilities. The original project description in the June 2018 Notice of Preparation included up to 60 parking spaces attributed to private individuals creating commercial parking lots adjacent to HFRP. This provision was subsequently removed from the project description. However, as an additional margin of conservative traffic estimation, the 60 parking spaces were kept into the traffic impact analysis by KD Anderson & Associates, Inc. The Project Description and rest of the SEIR document therefore reflect the removal of the 60 spaces from the project.

Additionally, the final number of parking spaces provided at each of the project access points have been fine-tuned based on site specific characteristics and other considerations. The updated parking space numbers are included in various sections of this document including the Project Description (Section 3). However, the minor modifications did not necessitate updating the traffic impact analysis as the assumptions in the study remain conservative.

Harvego Bear River Preserve area. The Phasing plans include four phases:

- ***Phase 1*** – Creation of 17 regular and 1 ADA parking spaces with access limited to docent-led tours.
- ***Phase 2*** – 17 regular and 1 ADA parking spaces with access per reservations on a daily basis, with pull-outs.
- ***Phase 3*** – 102 additional regular spaces and 4 additional ADA spaces, for a total of 119 regular and 5 ADA spaces with access per reservations permit system on a daily basis with Curtola Ranch Road improved to 20-foot minimum pavement, except over the dam where staging locations at each end of the one lane section will be available.
- ***Phase 4*** – Addition of 10 equestrian spaces for a total of 119 regular, 5 ADA and 10 equestrian parking spaces with no additional road improvements beyond Phase 3.

Garden Bar Road area. The Garden Bar area was approved in 2010 with three phases linked to improvements to Garden Bar Road. While original Phases 2 and 3 remain as part of the project, a revised phasing plan is proposed

that further divides Phase 1 to more clearly defined utilization of this area in light of the reservation permit system.

The original HFRP Phasing Plan:

- ***Phase 1*** – Occasional use by "classroom sized groups" with access the site through the Garden Bar entrance with an appointment so that the gate could be opened to allow entrance. No other improvements to Garden Bar Road.

- ***Phase 2*** – Unrestricted access for 50 automobiles with improvements to Garden Bar Road based on 18-foot roadway width.

- ***Phase 3*** – Unrestricted access for 20 vehicles pulling equestrian trailers with improvements to Garden Bar Road based on 20-foot roadway width.

With the proposed HFRP Trail Expansion project, Phase 1 would be broken down into the following sub-phases:

- ***Phase 1-A*** – 30 parking spaces (25 regular and 5 ADA) used on weekends, holidays and other "high volume" days only, with a parking reservation required, with each parking space only allowed one reservation/day. Improved signing and pavement markings would be added on Garden Bar Road.

- ***Phase 1-B*** – Access to 30 (25 regular and 5 ADA) spaces on any day, with each space permitted to turnover as anticipated for the overall HFRP project on weekends and holidays (i.e., approximately 45 peak day permits issued/day). Special events would be permitted by using the allocated parking and permits. "Pull outs" would be installed at key locations on Garden Bar Road where existing right of way is available and where physical constraints make it possible to widen the road.

- ***Phase 1-C*** – Access to 30 spaces per Phase 1-B, plus the ability to concurrently accommodate a 200-person special event under a Special Event Permit Application (SEPA) required by the County Parks Division for special events. Special events shall be limited to 6 days per year.

- ***Phase 2*** – As approved with the 2010 Conditional Use Permit, access to a total of 45 regular and 5 ADA spaces (i.e., 83 peak day permits) under the overall HFRP reservation system limits, with originally-approved Phase 2 improvements.

- ***Phase 3*** – Access to a total of 45 regular, 5 ADA and 20 equestrian spaces (i.e., 116 peak day permits) with originally-approved Phase 3 improvements.

Mears Drive area. Additional overflow parking area sized to accommodate 25 vehicles would be constructed in a single phase.

Twilight Ride area. Two project phases are proposed.

- ***Phase 1*** – Access to 50 regular, 4 ADA spaces and 20 equestrian parking spaces, with parking reservation required only on weekends, holidays and other peak usage days with access as proposed.

- ***Phase 2*** – Access to a total of 96 regular, 4 ADA and 40 equestrian parking spaces under reservation system on weekends, holidays and other peak usage days with access as proposed.

8.4.3 OPERATING CHARACTERISTICS

Parking / Reservation System Characteristics: The amount of new vehicular traffic associated with the HFRP Trail Expansion project has been estimated based on current usage statistics, the number of parking spaces provided and the anticipated turnover characteristics of those spaces. The existing HFRP reservation system is assumed to continue on weekends, holidays and on peak usage days, and the number of parking permits that would be issued is also identified based on current demands and the amount of parking available at each phase. If demand changes over time, the reservation system would be modified to accommodate changing use. For example, if normal weekday demand begins to increase above capacity of the parking lot, reservations would be issued for weekday use.

Table 8-5 and Table 8-6 provide parking counts, maximum number of permits issued on daily basis, and the related vehicle trip generation rates developed for the HFRP are applied to the HFRP Trails Expansion project Saturday and weekday traffic characteristics, respectively. As shown in Table 8-5, 359 new parking spaces for autos and trailers would be constructed with buildout of the HFRP Trails expansion plus an additional 70 spaces

Table 8-5. HFRP Expansion Saturday Trip Generation Estimate

Location	Parking Spaces				Permits Available[1]	Trips per Permit				Trips			
						Daily	Saturday Peak			Daily	Saturday Peak Hour		
	Regular	Equestrian	Handicap	Total			In	Out	Total		In	Out	Total
Proposed Project													
Twilight Ride	96	40	4	140	232					599	21	42	63
Harvego Bear Rd	119	10	5	134	222					573	20	40	60
Mears	25	0	1	25	42	2.58[2]	33%	67%	0.27[3]	108	4	7	11
Private	57	0	3	60	100					258	9	18	27
Total	297	50	12	359	596					1,538	54	107	161
Trips caused by turn-away's without permit[4]										167	9	9	18
Project Total										1,705	63	116	179
Prior Approval not yet Constructed													
Garden Bar (Prior approval)	45	20	5	70	116	2.58	33%	67%	0.27	299	11	20	32
Trips caused by turn-away's without permit[4]										32	2	2	4
Previously approved total										331	13	22	35
Total of Proposed Project Plus Prior Approval not yet Constructed													
Total	342	70	17	429	712					1,837	65	128	193
Trips caused by turn-away's without permits[4]										199	11	11	22
Grand Total with turn-away's										**2,036**	**76**	**139**	**215**

1 Based on 187 Saturday permits offered at Mears for 113 parking space capacity = 1.66 permits per space (135 issued)

2 Based on 348 daily trips at Mears divided by 135 permits issued on June 16, 2018 = 2.58 trips per permit (The observed daily volume includes the effects of automobile – trailer combinations with multiple axels that would overstate actual vehicle trips, as well as the effect of staff travel, but no adjustment has been made in order to produce a conservative estimate).

3 Based on observed peak hour percentage of daily and directional split observed at Mears entrance

4 Assume 1/3 the current turn-away rate observed at Mears due to increased knowledge of reservation system and improved cellular phone coverage. The current rate was 58 turn-away's out of 135 permits issued or 43%. One Third is 14%. Assume two daily trips per turn-away.

Table 8-6. HFRP Expansion Weekday Trip Generation Estimate

Location	Parking Spaces				Unit	Trips per Parking Space				Trips			
						Daily	PM peak			Daily	PM Peak Hour		
	Regular	Equestrian	ADA	Total			In	Out	Total		In	Out	Total
Proposed Project													
Twilight Ride	96	40	4	140	Space	2.20[1]	27%	73%	0.22[2]	308	8	23	31
Harvego Curtola Ranch Rd	119	10	5	134	Space					295	8	21	29
Mears	25	0	0	25	Space					55	1	5	6
Private	57	0	3	60	Space					132	4	9	13
Total	297	50	12	359	Space					790	21	58	79
Prior Approval not yet Constructed													
Garden Bar (Prior approval)	45	20	5	70	space	2.20	27%	73%	0.22	154	4	11	15
Total of Proposed Project Plus Prior Approval not yet Constructed													
Total	342	70	17	429	space					944	25	69	94

[1] Based on each space turning over once each day plus 10% for ancillary travel = 2.20 trips per space

[2] Based on observed 10% in peak hour and directional split observed at Mears

that are part of the previously approved Garden Bar Road site would be available in the future. As noted above, subsequent to release of the NOP in 2018, the project was revised to remove the assumption that as a part of this Project description, private individuals would construct up to 60 additional spaces on private property. However, the traffic impact study prepared for the project retained the assumption of 60 private parking spaces to provide the reader with a conservative analysis of project impacts to operating conditions and safety on the rural roadways serving the area.

Including the 60 private parking spaces which were analyzed in the traffic impact analysis, the HFRP Trail Expansion Project would add 359 automobile spaces and the previously approved Garden Bar access will provide another 70 parking spaces for a total of 429 parking spaces.

The number of parking permits that would be issued by Placer County has also been identified. As of this writing, Placer County makes available 187 Saturday parking permits for the 113 regular and overflow spaces at the existing Mears Drive facility. The ratio of permits to spaces is 1.66 permits per space, and this ratio is assumed to continue in the future for the regular spaces created with the HFRP Trail Expansion project.

Altogether, a total of 712 parking permits have been assumed to be made available for the new expansion areas, in addition to the 187 permits already offered at the Mears Drive facility. For phases 1A and 1B at the Garden Bar entrance, the proposed project would regulate that parking reservations would be required seven days a week, instead of only on weekends, holidays and other peak usage days. For the Harvego Bear River entrance, Phase 1 would be restricted to once per day docent-led tours, and Phase 2 would require a reservation 7 days/week. It is expected that the Mears and Twilight Ride entrances would only require parking reservations on weekends, holidays and other peak usage days. The reservation system schedule would adapt to usage patterns and could result in reservations required during weekdays if demand warrants.

Trip Generation Forecasts: As noted in Tables 8-5 and 8-6, the daily and peak hour trip generation associated with use of new facilities has been estimated based on trip generation rates derived from observation of existing HFRP facilities. The current trip generation at Mears Drive parking area with the reservation system was compared to the number of available permits or parking supply and resulting trip generation rates were created on a "per permit" basis. The travel associated with turning away motorists who arrive without a permit has also been quantified based on current experience but recognizing that increasing familiarity with the reservation system (see Section 3.0 "Project Description") should reduce the number of "turn-aways" when the HFRP Trail Expansion project is completed.

Daily Trips: As indicated, the new elements of the HFRP expansion project are projected to generate 1,705 daily trips on Saturday and 790 daily trips on a weekday at full buildout. Use of the 70 spaces already approved at the Garden Bar Road site could result in another 331 Saturday and 154 weekday daily trips. The total daily trip generation associated with proposed and approved but not built uses totals 2,036 weekend and 944 weekday trips at full buildout. Again, these numbers are conservatively high numbers, as they reflect the inclusion of the private parking spaces which have been removed from the project description.

Peak Hour Trips: As shown in Tables 8-5 and 8-6, peak hour traffic volumes at HFRP are expected to be highest on Saturdays. The proposed uses would result in 179 Saturday peak hour trips, which when added to the 36 trips occurring at the approved Garden Bar Road site yields 215 new Saturday peak hour trips. On weekdays these estimates are 79 p.m. peak hour trips, an additional 15 p.m. trips from the Garden Bar Road site and an overall total of 94 p.m. peak hour trips.

Trip Distribution: Having determined the number of trips that are expected to be generated by the project, it is necessary to identify the directional distribution of project-generated traffic. Because HFRP is a regional attraction, many weekend visitor trips originate in the Sacramento / Roseville area, which is much larger than the local Auburn area, with lesser shares traveling from areas to the north and east. This analysis utilizes data collected from over 21,000 individual parking reservations at the existing HFRP made on weekends and holidays between 2017 and 2019. Home zip codes were used to determine the average trip length and percentage of visitors from each geographic area. The data is representative of weekend visitor trip distribution. The average trip length was developed by averaging the trip distance from the home zip code to the existing HFRP parking lot. Table 8-7 identifies the distribution assumptions made for this analysis, based on existing visitors to the park. Trip distribution during the week has indicated that the majority of visitors are from local areas.

Table 8-7. Project Trip Length Assumptions – Peak Saturday

To/From	Percent of Total Visitors	Average Trip Length (miles)
Auburn Area	6%	8.4
Placer County (outside Auburn)	31%	19.7
Adjacent Counties	52%	37.4
Beyond Adjacent Counties	11%	108.4

Source: Parking Reservations 2017-2019

8.4.4 THRESHOLDS OF SIGNIFICANCE

Based on the Placer County CEQA checklist and the State CEQA Guidelines, the proposed project would result in a potentially significant impact on traffic or circulation if it would:

- conflict with adopted program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities;
- conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);
- cause a substantial increase in hazards attributable to a geometric design feature or incompatible uses; or
- result in inadequate emergency access.

As mentioned above, there are no transit facilities, light rail, or airport facilities in the project vicinity; therefore, the proposed project would not have an impact on any of these types of facilities. The proposed HFRP Trail Expansion project would not conflict with any policies supporting alternative transportation. Because the proposed HFRP Trail Expansion project would have no impact on these resources, they are not discussed further in this chapter.

Public Resources Code section 21099, subdivision (b)(2) states that automobile delay, as described solely by level of service, shall not be considered a significant impact on the environment. In addition, the thresholds of significance contained in CEQA Guidelines 15064.3 do not apply until July 1, 2020, and Placer County has not elected to be governed by the provisions of that section prior to the July 1, 2020 date. For those reasons, the EIR's discussion of Level of Service Standards is included, but not for purposes of establishing a threshold of significance. In an abundance of caution, this EIR does contain a VMT analysis that discusses VMT levels, however, the County has not adopted a threshold of significance and the project is inconsistent with the MTP/SCS.

8.4.5 IMPACT ANALYSIS

IMPACT 8-1	Conflict with an adopted program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities —Temporary Increase in Traffic during Construction. *During construction of the trail system and related components, local roadways would experience an increase in traffic from daily commutes by construction workers and delivery trucks. However, this increase in traffic would be temporary and is not expected to be substantial in relation to the existing traffic load and capacity of area roadways.*
Significance	*Less than Significant (Consistent with prior analysis in 2010 HFRP Certified EIR)*
Mitigation Proposed	*None Warranted*
Residual Significance	*Less than Significant*

2010 HFRP CERTIFIED EIR IMPACT SUMMARY

The 2010 HFRP certified EIR evaluated the effect of vehicle trips generated during construction and operation. The maximum number of workers commuting to the project area at any given time was estimated at four 15-person California Conservation Corps crews and 10–15 other workers/delivery drivers. It was anticipated that the crews would commute in four vans, one per 15-person crew. Construction of the trail system and associated recreational facilities was expected to generate a total of 400 delivery trucks over the duration of project construction (i.e., several years) to/from the project area.

The analysis found the local roads providing access to the HFRP were operating at LOS C or better at that time, and that this increase in traffic would constitute a temporary and very small increase in traffic and would not be substantial in relation to existing traffic load and capacity of Mt. Vernon Road, Mears Drive, Mt. Pleasant Road, or Garden Bar Road. In addition, this increase in traffic would be intermittent with the active periods of construction. Therefore, this impact was found to be **less than significant**.

2019 HFRP TRAILS EXPANSION PROJECT IMPACT ANALYSIS

During construction of the proposed project, there would be a temporary increase in construction-related traffic from delivery trucks and construction workers traveling to and from the project area. The number of workers would vary over the life of the construction activity. The maximum number of workers who would be commuting to the project area at any given time is conservatively estimated to be four 15-person California Conservation Corps crews and 10–15 other workers/delivery drivers. It is anticipated that the crews would commute in four vans, one per 15-person crew. Therefore, it is expected that the maximum number of vehicle trips generated in any one day would be four vans and 10–15 other worker/delivery vehicles.

This would be in addition to ongoing daily trips generated by County maintenance staff and County contractors including park rangers. Carpooling amongst construction workers would be encouraged by the County to reduce the number of vehicle trips to the extent possible. Construction of the trail system and associated recreational facilities is expected to generate a total of approximately 400 delivery trucks over the duration of project construction (i.e., over a number of years), to haul needed materials (e.g., concrete and lumber) to and from the project area. For Phase 1 of construction, truck traffic is expected to be approximately 10–20 percent of the total number of truck trips (i.e., 40–80 truck trips).

Because the local roadways providing access to the project area are currently operating at LOS C or better, this increase in traffic would constitute a temporary and very small increase in traffic and would not be substantial in relation to existing traffic load and capacity of Mt. Vernon Road, Mears Drive and Mears Place, Mt. Pleasant Road, Garden Bar Road, Bell Road, Cramer Road, Lone Star Road, Auburn Valley Road and Curtola Ranch Road. Similarly, the VMT generated by the construction traffic would constitute a temporary and very small increase in VMT and would not be substantial in relation to the existing VMT of Placer County. In addition, this increase in traffic would be intermittent with the active periods of construction. Therefore, this impact would be **less than significant**.

The proposed trails expansion would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects related to temporary construction traffic based on changes in the project, circumstances or new information.

IMPACT 8-2	Conflict with adopted program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities— Existing Plus Project Conditions. *The proposed project does not conflict with any adopted program, plan, ordinance or policy under Existing Plus Project conditions.*
Significance	*Less than Significant (Consistent with prior analysis in 2010 HFRP Certified EIR)*
Mitigation Proposed	*None Warranted*
Residual Significance	*Less than Significant*

2010 HFRP CERTIFIED EIR IMPACT SUMMARY

The analysis found the addition of project trips would not result in any individual roadway segments or additional intersections operating with a Level of Service that fell below the adopted minimum standard. Therefore, this impact was found to be **less than significant**.

2019 HFRP TRAILS EXPANSION PROJECT IMPACT ANALYSIS

As discussed above, LOS is no longer considered to be a significant impact in CEQA analysis. However, the traffic operations analysis is presented in Section 8.6 below for reference. The proposed project does not conflict with any adopted program, plan, ordinance, or policy under existing plus project conditions. Therefore, this impact was found to be **less than significant**.

IMPACT 8-3	Conflict or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b). – *The addition of project traffic does result in an increase in vehicle miles traveled. Since no threshold has been established by the County and the proposed project is inconsistent with the MTP/SCS, the increase in VMT is considered significant.*
Significance	*Significant*
Mitigation Proposed	*None Feasible*
Residual Significance	*Significant and Unavoidable*

2010 HFRP CERTIFIED EIR IMPACT SUMMARY

VMT was not considered as a metric in CEQA when the 2010 HFRP EIR was prepared and certified in January 2010. VMT is not required to be assessed in CEQA documents until July 1, 2020 However, an assessment of VMT is provided below.

2019 HFRP CERTIFIED EIR IMPACT SUMMARY

Implementation of the proposed project will result in new daily vehicle travel, which would add VMT to the study area. For this project, VMT is calculated by multiplying the total number of trips generated from the project site by the average trip length of each trip. VMT is typically calculated for a typical weekday or peak travel day. The proposed project is anticipated to generate 2,036 daily trips on a Saturday and 944 daily trips on a typical weekday, as shown in Tables 8-5 and 8-6 above. The average trip lengths and trip distribution for a peak Saturday are expected to be similar to the existing park, as shown in Table 8-7 above.

VMT estimates for a peak Saturday were developed by multiplying the trip generation by the average trip length and the average trip distribution percentages for each geographic area where visitors originate from. VMT for each geographic area is then summed to generate the VMT estimate for the project for a peak Saturday. The analysis indicates that the project would generate approximately 78,000 VMT on a peak Saturday. To put that in context, the existing HFRP generates approximately 18,000 VMT on a peak Saturday. Therefore, the proposed project would result in a substantial increase in VMT over the existing park operations.

VMT estimates for a typical weekday are not available, because the County does not require parking permits on weekdays. However, informal surveys of visitors to the park on typical weekdays indicate most visitors are from the Auburn area or local to Placer County. Additionally, trip generation on a typical weekday is about half the trip generation on a peak weekend day. Therefore, it can be assumed that VMT on a typical weekday is substantially less than the peak weekend day.

Additionally, the proposed project is located within an area designated as “Lands not Identified for Development” in the 2020 MTP/SCS. The MTP/SCS is aimed at reducing greenhouse gas emissions through VMT reduction, and these efforts are primarily focused on urban areas, where investments in the roadway system and transit, bike, pedestrian infrastructure are built into the MTP/SCS to achieve identified air quality targets. According to the MTP/SCS, “Lands not Identified for Development” areas are typically located outside of urbanized areas and designated in local land use plans for no further development. Travel occurs almost exclusively by automobile, as transit service is minimal or nonexistent.

Figures 3-10 and 3-11 of the 2020 MTP/SCS show the 2016 and projected 2040 vehicle miles traveled per capita for the six-County SACOG region. The sub-region in which the project is located is shown as having both now, and in the future, greater than 150% of the regional average VMT per capita. Additionally, these areas are recognized as having high VMT per capita both now and in the future (2040 MTP/SCS Planning Period). The proposed project would further increase VMT above the assumptions in the MTP/SCS. Thus, it can be concluded that the potential increased activity associated with the proposed project would conflict with the MTP/SCS' strategy for reducing VMT through investments in roadway and multi-modal infrastructure primarily in urban areas.

The County does not have an established threshold for VMT and is not required to have a threshold in place until July of 2020, but because the project generates additional VMT beyond the baseline condition and it is not consistent with the MTP/SCS land use plan, the proposed project would result in a **significant impact.**

Mitigation measures for this impact are limited. Most mitigation measures that reduce VMT have low to negligible effects in rural areas, such as bike lanes, transit network improvements, and pedestrian networks. Other mitigation measures are not applicable, like commute reduction strategies and diversifying or intensification of

land uses on the project site. The only feasible mitigation measure is the parking reservation system, which is already being employed as part of the project for weekends, holidays and other peak usage days. The parking reservation system serves to promote carpooling and control the amount of VMT generated by the proposed project. Even with the parking reservation system, the project generates VMT inconsistent with the MTP/SCS. Therefore, this impact remains **significant and unavoidable**.

IMPACT 8-4	Conflict with adopted program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities—Increase in Traffic Impacts Associated with Project Access. *The project would create new points of access off existing public roads. The adequacy of these access points has been considered with regards to applicable safety and design standards. This traffic increase would not result in conditions in excess of adopted standards at intersections or on individual roadway segments.*
Significance	*Potentially Significant (New impacts not previously considered in the prior analysis in the 2010 HFRP Certified EIR)*
Mitigation Proposed	*Measure S8-4: Prepare Improvement Plans and Construct Improvements for Access to Twilight Ride* *Measure S8-5: Construct Left Turn Lane at Access to Twilight Ride*
Residual Significance	*Less than Significant*

2010 HFRP CERTIFIED EIR IMPACT SUMMARY

The impacts associated with the previously-approved project were evaluated based on the amount of traffic generated and added to access roads to the project vicinity. The characteristics of the two access points were identified. Additional automobiles and trucks with equestrian trailers entering and exiting the proposed HFRP entrance via Garden Bar Road could cause an increase in traffic impacts in the Garden Bar area. Project construction included improvements to Garden Bar Road and the HFRP entrance in three phases. The road and entrance would be designed for safe ingress and egress of autos as well as vehicles with trailers. Public automobile and bus access to the HFRP via Garden Bar Road would be allowed with Phase 2 improvements. However, access for vehicles with trailers would not be allowed until after completion of Phase 3 (final) improvements. Because the improvements to Garden Bar Road and the HFRP entrance at Garden Bar would be completed before automobiles and vehicles with trailers would be allowed to access the HFRP from Garden Bar Road, this impact was found to be **less than significant**.

2019 HFRP TRAILS EXPANSION PROJECT IMPACT ANALYSIS

The project would introduce a new point of access onto the local roadway network at the Twilight Ride and Curtola Ranch Road entrances and provide a new public access to Garden Bar 40 parking area, while the existing access at Mears Place would remain. The Garden Bar 40 access is planned near the location previously evaluated as part of the preceding EIR and approved on Garden Bar Road. As noted in the site illustration, the new connection is located within a tight horizontal curve at a location that allows exiting traffic to have views in each direction. No further analysis of this access is required.

The Twilight Ride site access is located on Bell Road, roughly 1,800 feet south of the Cramer Road intersection. The site frontage is at the southern end of a long straight section of Bell Road, and the road curves to the right in the area beyond the project frontage. The available sight distance at Twilight Ride access point was determined through engineering evaluation of the proposed site plans and was then compared to applicable Placer County standards (Plate 116) for access to public roads. Placer County typically designs roadway connections and left turn lanes based on the greater of the posted speed limit and the observed 85th percentile speed. As noted earlier, the design speed on Bell Road is 40 mph, and Plate 116 requires 440 feet of sight distance from a location measured 15 feet from the edge of the travel way. However, Plate 116 notes that "where restrictive conditions do not allow compliance with the specific sight distance requirements, the engineer may approve a reduction of the corner sight distance to no less than the minimum sight distance as outlined in the Caltrans Highway Design Manual (HDM). HDM Table 201.1 notes that the minimum stopping sight distance at 40 mph is 300 feet.

Because Bell Road is straight north of the proposed access, the view looking left to the north will satisfy the Plate 116 requirement. Looking right to the south, the alignment of Bell Road curves, and the view along the sight line required by Plate 116 would pass through existing brush on the project site and then cross a portion of the adjoining parcel. To meet Plate 116 requirements the brush will need to be trimmed, and it will be necessary to ensure that no new obstructions develop along the line of site on the adjoining parcel. This view is behind the fence and may lie within the existing public right of way or may cross private property depending on the location of right of way in relation to the final entrance configuration. The minimum stopping distance requirement of 300 feet can be provided but could still require a view across a smaller portion of the adjoining parcel.

The Twilight Ride plan includes the alternative of creating project access at the parcel's current driveway further north. This location is farther from the curve on Bell Road, and Plate 116 requirements could be met looking south without the view crossing the adjoining parcel.

Plate 116 also requires that rural roads be developed with approach tapers that provide space for turning motorists to decelerate outside the flow of through traffic and to accommodate the turning requirements of trucks and vehicles pulling trailers. As a practical matter, these features also provide "wayfaring" assistance to motorists by differentiating between the design of commercial driveways and the design of access to individual private residences. Plate 116 guidelines for 40 mph design require 40-foot radius curve returns and 150-foot long approach tapers in advance of the returns in each direction. As a practical matter, Placer County has in the past approved new access in restricted areas with improvements that deviate from Plate 116 improvement requirements.

At the Twilight Ride site, the centerline of the proposed access location is roughly 80 feet from parcel's southern boundary. Thus the 150 foot taper would begin along the edge of pavement roughly 122 feet south of the property line and widen to about 8 feet at the property line. Depending on the right of way location in this area, this work may encroach into the adjoining parcel. A shorter taper may be needed to avoid encroaching into the adjoining parcel, and this deviation from Plate 116 would require an engineer to design an acceptable alternative and request an approval from Placer County's Director of Public Works. Mitigation Measure S8-4 requires the preparation of Improvement Plans meeting County standards on plate 116 for installing a separate northbound left turn lane on Bell Road and construction of a driveway entrance taper for the Twilight Ride site.

The alternative Twilight Ride access location appears to have a similar constraint as this driveway location adjoins the parcel's northern boundary. Deviation from the Plate 116 guideline may be needed in this location as well.

The methodology employed by Placer County and other public agencies was used to quantitatively determine whether left turn lanes are justified at un-signalized intersections. The American Association of State Transportation and Highway Officials (AASHTO) have identified guidelines for the installation of left turn lanes in their publication "A Policy on Geometric Design of Highways and Streets." AASHTO guidelines take two forms. These guidelines are presented the 11th Edition (2011) in their Exhibit 9-29 and in Table 8-8 (below) and base the need for a left turn lane on the volume of approaching and opposing traffic on the mainline road and the relative percentage of that traffic that turns. These criteria are applicable to intersections where the major street traffic proceeds freely and side street traffic is controlled by stop signs.

Table 8-8. Assessment of Justification for Left Turn Lanes Under 2011 AASHTO

Opposing Volume (veh/hr)	Advancing Volume (veh/hr)			
	5% Left Turns	10% Left Turns	20% Left Turns	30% Left Turns
40-mph operating speed				
800	330	240	180	160
600	410	305	225	200
400	510	380	275	245
200	640	470	350	305
100	720	515	390	340
95		119	119	

Source: A Policy on Geometric Design of Highway and Streets, AASHTO, 2011.

RED values are Cumulative plus Project Saturday volumes at the Twilight Ride access.

AASHTO = American Association of State Transportation and Highway Officials; mph = miles per hour; veh/hr = vehicles per hour

The volumes shown in red in Table 8-8 represent the cumulative plus project Saturday peak volumes at the Twilight Ride access. As noted in red in Table 8-8, for an opposing volume of 100 vehicles per hour, the advancing volume would have to be 515 VPH, for 10 percent left turns, or 390 VPH for 20 percent left turns. As such, the advancing volume of 119 vehicles per hour falls well below the level justifying a left turn lane under 2011 AASHTO guidelines with an opposing volume of 95 VPH. The AASHTO publication was updated in December 2018 and different guidelines are now available. The new guidelines suggest that a left turn lane could be beneficial based on the volume of traffic turning and the total volume per lane on the street. This guidance is presented in their Figure 9-36 Table 8-9 which follows. The information supporting the 2018 guidelines note, however, that "*The volume based guidelines or warrants presented below indicate situations where a left turn lane may be desirable, not necessarily situations where a left-turn lane is definitely needed*.

Placer County has considered the need for left turn lanes on rural roads as part of consideration of other development proposals. Factors such as the frequency of volumes reaching warrants levels, the availability of adequate sight distance and the nature of motorists attracted to the site are considered. In this case, a left turn lane would be required at the Twilight Ride site.

Table 8-9. Assessment of Justification for Left Turn Lanes Under 2018 AASHTO

Left Turn Lane Volume (VPH)	Major Road Two-Lane Highway Peak-Hour Volume (VPH/Lane)	
	Three-Leg Intersection	Four-Leg Intersection
	Warrants a Left Turn Lane	Warrants a Left Turn Lane
5	200	150
10	100	50
12	104	-
15	100	50
20	50	<50
25	50	< 50
30	50	< 50
35	50	< 50
40	50	< 50
45	50	< 50
50 or more	50	< 50

Source: A Policy on Geometric Design of Highway and Streets, AASHTO, 2018.

RED values are the Cumulative plus Project Saturday volumes at the Twilight Ride access.

AASHTO = American Association of State Transportation and Highway Officials; vph = volume per hour; VPH/lane = volume per hour per lane

The extent to which a portion of Twilight Ride can be operated without a left turn lane has been considered. Based on Table 8-9, a left turn lane would not be needed when the left turn volume was fewer than 10 left turns per hour. Proportionately 9 left turns represent 75 percent of the left turn demand at full occupancy. Therefore, 75 percent of the Twilight Ride parking supply could be created before a left turn lane was needed. The proposed phasing at Twilight Ride includes 53 percent of the overall parking supply in Phase 1 with the remainder developed in Phase 2. Mitigation Measure S8-5 requires the construction of a left turn lane at the access to the Twilight Ride site prior to Phase 2 opening to the public.

The characteristics of an applicable left turn lane can be determined from the guidelines contained in Chapter 4 of the Caltrans Highway Design Manual (HDM). Under HDM guidelines, the lane and its entry bay taper should be long enough to accommodate storage for a two-minute accumulation of turning cars, or a minimum of two vehicles. In addition, the lane and bay taper should also provide space for deceleration, which in the case of 40 mph design is 315 feet. HDM guidelines do allow a reduction in deceleration speed at the bay taper of up to 20 mph, which would reduce the deceleration requirement appreciably. A full 40 mph design would have a bay taper and lane that totaled 365 feet. Assuming that the deceleration distance into the pocket to the back of queue from 20 mph was 150 feet, the bay taper and pocket could be as short as 200 feet. The final left turn lane design will need to meet Placer County requirements or obtain approval of a design exception from the Placer County Director of Public Works.

In addition to the lane itself, a transition area is needed at each end to create the lane. Depending on whether the lane is created by widening on one or both sides of centerline, these transitions are 320 or 160 feet long for 40 mph design.

With the implementation of Mitigation Measure S8-4 requiring the construction of a tapered entrance during Phase 1 and Mitigation Measure S8-5 requiring a left turn lane during Phase 2 of improvements at the Twilight Ride access, the proposed expansion project would not result in new significant environmental effects or

substantially increase the severity of previously identified significant effects based on changes in the project, circumstances or new information.

IMPACT 8-5	Cause a substantial increase in hazards to motorists, pedestrians, and bicyclists attributable to a geometric design feature or incompatible uses. *The project will take access from multiple points along public roads including Cramer Road, which experienced collisions at a rate exceeding the statewide average for similar facilities (3 accidents in 3 years were recorded). Hazards to motorists are considered to be* ***potentially significant****.* *Without mitigation, there is no guarantee that visitors may not occasionally elect to park off-site and walk to the new trail expansion areas. Pedestrian travel between off-site parking and the proposed expansion entrances could create automobile / pedestrian / bicyclist safety conflicts. Hazards to motorists, pedestrians and bicyclists is* ***potentially significant****.*
Significance	Potentially significant impact *(New impacts not previously considered in the prior analysis in the 2010 HFRP Certified EIR)*
Mitigation Proposed	*Implement Mitigation Measure S8-1 through Mitigation Measure S8-4*
Residual Significance	*Less than Significant*

2010 HFRP Certified EIR Impact Summary

The 2010 HFRP Certified EIR evaluated impacts of additional vehicle trips and turning movements of automobiles and equestrian trailers entering and exiting the park entrances. The analysis indicated that project-related vehicles trying to access the HFRP at Garden Bar Road could cause an increase in traffic impacts in the area. A series of road and signage improvements were identified at Garden Bar Road and the park entrance to be implemented under a phased improvement program. The analysis found the park entrance was designed for safe ingress and egress of automobiles and vehicles with equestrian trailers. Public automobile and bus access to the park via Garden Bar Road would be restricted until Phase 2 improvements were constructed while equestrian trailer access would not be allowed until completion of Phase 3 (final) improvements. Because the improvements to the road and the park entrance would be completed before automobiles, and vehicles with trailers would be allowed to access the park from Garden Bar Road, the 2010 HFRP certified EIR found the impact **less than significant**.

2019 HFRP Trails Expansion Project Impact Analysis

Operation of the HFRP Trails Expansion would introduce vehicles and equestrian trailers and potentially increase bicycle and pedestrian activity onto a rural roadway network where the roads are narrow, with short sight distance and little room for pull outs. If new access driveways are not properly designed, there is a potential for conflict between pedestrians, motor vehicles, and bicyclists**.** Each is discussed below.

Pedestrians: While the rural location of existing and proposed trail expansion facilities would suggest that the project would be unlikely to generate appreciable pedestrian activity, experience over the history of HFRP suggests that pedestrians could walk to future sites from off-site parking locations if measures are not taken to preclude this activity. After the existing HFRP opened in 2013, within about a year, overflow parking demand spilled over onto adjoining streets and generated pedestrians walking to and from HFRP. Because pedestrian facilities were not available and road width was insufficient for concurrent two-way automobile travel and pedestrians, Placer County responded by installing numerous "No Parking" signs on the roads around the HFRP entrance roads which virtually eliminated off-site parking and corresponding pedestrian travel to the park.

The expanded HFRP trails network assumes that access to all new areas will be managed and limited on peak days in the same manner as the existing HFRP entrance, thereby eliminating overflow conditions. Except for the Garden Bar Road access and Phase 1 and 2 of the Harvego Bear River Preserve entry, parking lot access would not be controlled on low demand days, with the expectation that the available parking spaces will exceed demand with little reason for visitors to park off-site. However, there is no guarantee that occasionally visitors may not elect to park along the roads adjoining HFRP entrances. Pedestrian traffic along roads that lack applicable facilities for this activity and two-way automobile travel is a potential safety issue. While not expected to occur, this potential impact can be reduced to "Less than Significant" by installing 'No Parking" restrictions along impacted roads, per Mitigation Measure S8-2.

Bicycles: To the extent that trail expansion visitors might elect to bicycle to the proposed new parking areas, the project could generate additional bicycle traffic on study area roads. As noted in the existing setting, study area roads are used frequently by recreational bicyclists who share the roads which lack bicycle lanes or wide, paved shoulders. It is important to note that off-road cyclists who would use HFRP facilities would generally not ride their bicycles to the site, as mountain bicycles are preferred for off-road, while road bicycles are preferred for on-road, and road bicycles are generally not dual-purpose. While the amount of regular bicycle activity that might be generated by the trail expansion visitors is unknown, the project could incrementally contribute to the use of study area roads for this purpose.

Alternatively, the project will add automobile traffic to rural roads that are already used by bicyclists. As noted in Table 8-14 below, the HFRP Trail Expansion project could increase the traffic volume on rural roads (on peak usage Saturdays) from 34 to 664 vehicles per day, depending on the roadway section. However, the amount of traffic added to these roads does not result in a capacity deficiency as measured in terms of roadway segment Level of Service, and the traffic increase would not appreciably worsen the existing situation for bicyclists.

Automobile Safety Impacts - Collision Frequency – County Roads: The project will add traffic to the existing Placer County roads surrounding the project. Incrementally, any traffic increase is likely to result in a proportionate increase in the number of collisions based on historic accident frequency rates. For example, the project could add 177 (weekday) to 407 (Saturday) vehicles per day to Cramer Road. This represents an increase of roughly 32 percent in the current weekday volume and 74 percent of the current Saturday volume occurring on Cramer Road, between Bell Road and SR 49. As noted earlier, 3 collisions have occurred over the last 3 years in this area. After accounting for weekly traffic variation, the traffic volume increase accompanying the project could result in another 0.6 collisions per year. Similarly, the project's traffic increase on Lone Star Road would represent 22 percent of current weekday and 52 percent of current Saturday traffic, and because the collision experience on this road is lower, the project could result in another 0.10 collisions per year.

The project will add traffic to a roadway that experiences collisions at a rate that currently exceeds the statewide average for similar facilities, and as a result the project's impact to safety on Cramer Road is considered to be **potentially significant**.

Implementation of Mitigation Measure S8-3, which includes the installation or upgrade of traffic control devices along Cramer Road to meet current MUTCD standards for message, location and sign condition to the satisfaction of the Department of Public Works prior to the public use of the Twilight Ride facility in Phase 1, would reduce the project's impact to safety on Cramer Road to **less than significant**.

IMPACT 8-6	R*esult in inadequate* emergency access or access to nearby uses. *The proposed HFRP trail expansion project would have several access points to provide adequate access for emergency response vehicles and personnel.*
Significance	*Less than Significant. (Consistent with prior analysis in 2010 HFRP Certified EIR)*
Mitigation Proposed	*None Warranted*
Residual Significance	*Less than Significant*

2010 HFRP CERTIFIED EIR IMPACT SUMMARY

The 2010 analysis determined no known existing emergency response or evacuation routes were in the HFRP area. The 2010 HFRP EIR evaluated the benefits of the addition of 24 miles of new trails, a new and relocated helistop, and the proposed trail system which would improve access for emergency response vehicles, helicopter, and personnel within HFRP. Garden Bar Road would also be improved to County Fire Department's requirements prior to allowing automobiles in Phase 2, as well as most bus access. Because the HFRP project would not interfere with any emergency response routes and would provide adequate emergency access on-site, the impact was found to be **less than significant**.

2019 HFRP TRAILS EXPANSION PROJECT IMPACT ANALYSIS

Like 2010 HFRP analysis, no designated emergency evacuation plans are in place with CAL FIRE/Placer County Fire Department for the existing residential areas surrounding the expansion areas. However, the project improves access to rural areas of the County for emergency responders. The project would include improvements to on-site access roads in order to provide public and emergency service access to the parking lots and trailheads as well as 2 helicopter landing zones (one each at Harvego Bear River Preserve and Twilight Ride parking areas; the Garden Bar area already has an approved helicopter landing zone). The proposed trail network is designed at a sufficient width to allow emergency vehicles to reach a call for service at remote locations and for people to exit HFRP and the expansion area in an emergency. Barriers will be placed at each public access point to ensure public vehicle access is confined to the designated parking areas.

The proposed HFRP Trail Expansion project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects regarding potential interference with

emergency response routes or result in an inundated emergency access based on changes in the project, circumstances or new information.

8.5 MITIGATION MEASURES

Mitigation Measure S8-1: Implement Traffic Control Measures During Park Reservation-based Events.

Reservation-based events (involving less than 200 people on-site at a given time) entering at the Garden Bar entrance would be regulated by the County Parks Division Reservation System. The Reservation System would include, but not be limited to, applicable restrictions on:

- number of events – limited to six (6) times per year;
- event start and end times so as to minimize impacts to traffic along Garden Bar Road and not to exceed peak usage capacity or coincide with scheduled use of the road by school buses;
- regulate the days and/or times of reservation-based events to avoid peak days or times such as holiday weekends, as necessary;
- regulation of number and types of vehicles so as not to exceed parking capacity of the unimproved event parking area at the Garden Bar 40 parking area in combination with daily use. The County may regulate the days and/or times of reservation-based events to avoid peak days or times such as holiday weekends, as necessary.

Measure S8-2: Install No Parking Signs to discourage Pedestrian Travel on Local Roads

Prior to the use of the new parking areas, install “No Parking” signs along public roads serving the Project site at the discretion of the County Department of Public Works to discourage offsite parking and limit pedestrian movement between offsite street parking and each project entry. If parking on side streets near park entrances becomes a repetitive problem, the County shall institute “No Parking” areas along the impacted portions of the roadways.

Measure S8-3: Install or Upgrade Traffic Control Devices along Cramer Road

Prior to the public use of the Twilight Ride facility in Phase 1, install or upgrade traffic control devices along Cramer Road to meet current MUTCD standards for message, location and sign condition to the satisfaction of the Department of Public Works.

Measure S8-4: Prepare Improvement Plans and Construct Improvements for Access to Twilight Ride

With the initial Phase of the parking space construction and access at the Twilight Ride site, Improvement Plans shall be prepared showing the construction of a driveway encroachment onto Bell Road to a Plate 116 Major Land Development Manual standard, unless an alternative is approved by the County Department of Public Works that results in an equal level of performance based on the considerations listed in General Plan Policy 3.A.7(5) (listed earlier in this chapter). The design speed along Bell Road shall be 40 miles per hour, unless an alternate design speed is approved by the Department of Public Works (DPW). The improvements shall begin at the outside edge of any future lane(s) as directed by the DPW and the Engineering and Surveying Division (ESD). The Plate 116 structural section within the

main roadway right-of-way shall be designed for a Traffic Index of 7.5 but said section shall not be less than 3 inches of Hot Mix Asphalt (HMA) over 8 inches of Class 2 Aggregate Base (AB) unless otherwise approved by the ESD.

Measure S8-5: Construct Left Turn Lane at Access to Twilight Ride

Prior to operation of Phase 2 (time at which point 75 percent of the parking stalls at the Twilight Ride access are constructed), Improvement Plans meeting County standards shall be prepared showing the construction of a left turn lane at the Twilight Ride access encroachment from Bell Road onto the site to the satisfaction of the Department of Public Works. Traffic stripe removal, new striping and pavement markings shall conform to criteria specified in the latest version of the Caltrans Highway Design Manual for a design speed of 40 miles per hour (mph), unless an alternative is approved by the Department of Public Works.

8.6 TRAFFIC OPERATIONS ANALYSIS

As discussed above, lead agencies are not yet required to analyze transportation impacts under the VMT metric, however they can no longer draw a transportation impact significance conclusion solely through a metric that measures traffic congestion (e.g., level of service (LOS)).

While this section focuses primarily on the traffic congestion effects of the proposed project, LOS is not considered a significant impact on the environment. The LOS analysis presented is included as additional information only.

8.6.1 EXISTING SETTING

Analysis of LOS primarily focuses on roadway segments and intersections in rural areas. The affected roadway segments are described above. This section describes several of the intersections in the study area. Even in rural areas, the quality of traffic flow is often governed by the operation of key intersections, particularly where all-way stop control is employed. The following intersections have been identified for evaluation in this study in consultation with Placer County based on their location along primary routes to the project.

- The **Garden Bar Road (North)/Mt. Pleasant Road** intersection is a “tee” intersection controlled by a stop sign on the southbound Garden Bar Road approach. The intersection is located on a horizontal curve along Mt. Pleasant Road. There are no turn lanes on Mt. Pleasant Road at the northern Garden Bar Road intersection.

- The **Bell Road/Auburn Valley Road/Lone Star Road** intersection is a “tee” intersection controlled by a stop sign on the eastbound Auburn Valley Road approach. The intersection is located on a horizontal curve that follows Bell Road and Lone Star Road. There are no turn lanes at the intersection.

- The **Mt. Vernon Road/Mears Drive** intersection is the primary access to HFRP. The intersection is a “tee” controlled by a stop sign on the southbound Mears Drive approach. There are no auxiliary turn lanes at this location.

- The **SR 49/Lone Star Road** intersection is controlled by stop signs on the eastbound and westbound Lone Star Road approaches. The eastbound Lone Star Road approach follows a short (i.e., 60 foot radius curve)

horizontal curve as it approaches SR 49. Separate left turn and right turn lanes are provided on both SR 49 approaches, and the left turn lanes continue beyond the area of the intersection as continuous two-way left-turn (TWLT) lanes. The eastbound Lone Star Road approach is a single lane, but the westbound approach has short right turn lane. The intersection is illuminated by street lights.

- The **SR 49/Cramer Road intersection** is controlled by a stop sign on the eastbound Cramer Road approach. A separate left turn lane is provided on the northbound SR 49 approach, and the left turn lane continues beyond the area of the intersection as a continuous TWLT lane. A separate southbound right turn lane is provided on SR 49. The eastbound Cramer Road approach is a single lane. The intersection is illuminated by street lights.

8.6.2 APPLICABLE POLICIES AND STANDARDS

To assess the quality of existing traffic conditions, Levels of Service were calculated at study area intersections, the project access and on individual roadway segments identified by Placer County in response to the Subsequent EIR Notice of Preparation. “Level of Service” (LOS) is a qualitative measure of traffic operating conditions whereby a letter grade “A” through “F”, corresponding to progressively worsening operating conditions, is assigned to an intersection or roadway segment. Traffic conditions are assessed in relation to the LOS Policy in the Placer County General Plan and the County’s Impact Analysis Methodology of Assessment. As noted above, LOS is no longer considered an appropriate metric for determining impact on the environment under the CEQA Guidelines, however it remains a policy within the Placer County General Plan.

Placer County General Plan: Minimum acceptable LOS standards for roadway and intersections is LOS C except at locations within ½ mile of a state highway where LOS D is acceptable. Placer County General Plan Policy 3.A.7 allows for temporary slippage of LOS at specific locations until adequate funding has been collected for construction of programmed improvements. The County may allow for exceptions to these LOS standards, based on a variety of established criteria.

> **GOAL 3.A:** To provide for the long-range planning and development of the County’s roadway system to ensure the safe and efficient movement of people and goods.
>
> - **Policy 3.A.7.** The County shall develop and manage its roadway system to maintain the following minimum levels of service (LOS), or as otherwise specified in a community or specific plan.
>
> 1. LOS “C” on rural roadways, except within one-half mile of state highways where the standard shall be LOS “D.”
> 2. LOS “C” on urban/suburban roadways except within one-half mile of state highways where the standard shall be LOS “D.”
> 3. A LOS no worse than specified in the Placer County Congestion Management Program (CMP) for the state highway system.
>
> Temporary slippage in LOS C may be acceptable at specific locations until adequate funding has been collected for the construction of programmed improvements.

The County may allow exceptions to the level of service standards where it finds that the improvements or other measures required to achieve the LOS standards are unacceptable based on established criteria. In allowing any exception to the standards, the County shall consider the following factors:

- The number of hours per day that the intersection or roadway segment would operate at conditions worse than the standard.
- The ability of the required improvement to significantly reduce peak hour delay and improve traffic operations.
- The right-of-way needs and the physical impacts on surrounding properties.
- The visual aesthetics of the required improvement and its impact on community identity and character.
- Environmental impacts including air quality and noise impacts.
- Construction and right-of-way acquisition costs.
- The impacts on general safety.
- The impacts of the required construction phasing and traffic maintenance.
- The impacts on quality of life as perceived by residents.
- Consideration of other environmental, social, or economic factors on which the County may base findings to allow an exceedance of the standards.

Exceptions to the standards will only be allowed after all feasible measures and options are explored, including alternative forms of transportation.

- **Policy 3.A.9.** The County shall strive to meet the level of service standards through a balanced transportation system that provides alternatives to the automobile.

- **Policy 3.A.12.** The County shall secure financing in a timely manner for all components of the transportation system to achieve and maintain adopted level of service standards.

Placer County Impact Analysis Methodology of Assessment: Placer County has adopted a methodology for determining a project's effects within the context of the LOS goals established by the General Plan and local community plans. This methodology is noted below.

Roadway Segment Assessment Methodology:

A project may be considered to exceed the minimum LOS policies if;

1) *A roadway segment operating at or above the established Placer County policy without the project will decrease to an unacceptable LOS with the project; or*

2) *A roadway segment currently operating below the applicable established policy will experience an increase in V/C (volume to capacity) ratio of 0.05 or greater; or*

3) *A roadway segment currently operating below the established acceptable LOS Policy experiences an increase in Average Daily Traffic (ADT) of 100 or more project generated trips, per lane.*

Signalized Intersections Assessment Methodology:

A project may be considered to exceed the minimum LOS policies if;

1) *An intersection operating at or above the established Placer County policies without the project will decrease to an unacceptable LOS with the project; or*

2) *An intersection currently operating below the acceptable LOS established policy will experience an increase in V/C (volume to capacity) ratio of 0.05 (5%) or greater; or*

3) *An intersection currently operating below the established acceptable LOS policy will experience an increase in overall average intersection delay of 4 seconds or greater.*

Un-signalized Intersection Assessment Methodology:

A project may be considered to exceed the minimum LOS policies if;

1) *An all-way stop or side street controlled intersection which currently operates at or above the established Placer County policies without the project will deteriorate to an unacceptable LOS with the project and cause the intersection to meet California Manual of Uniform Traffic Control Devices (MUTCD) traffic signal warrant(s); or*

2) *An all-way stop or side-street controlled intersection which currently operates below the established acceptable LOS policy and meets MUTCD signal warrant(s) will experience an overall increase of 2.5 seconds or more with the project.*

Further consideration will be given in situations where the existing level of service is just above or at the approved minimum level of service and any increase in vehicle trips, or even daily fluctuations in traffic, will deteriorate the level of service to an unacceptable level. In such cases, it may be determined by the County that part (2) or (3) of the above exceptions for intersection methodology is more applicable and should be used to analyze a proposed project's impacts.

8.6.3 ANALYSIS METHODOLOGIES

Intersections: Different methodologies are available to address intersection operations and LOS based on the type of facility and traffic control. Table 8-10 presents general characteristics associated with each LOS grade.

Signalized Intersections. No study intersection is currently signalized, but accepted methodologies would govern evaluation if a traffic signal was found to be needed. Various methodologies exist to determine operating LOS at intersections. The available techniques for addressing intersections vary with regard to factors such as traffic signal timing, interaction between adjoining signals, etc. Caltrans and Placer County make use of the procedures contained in the *Highway Capacity Manual (6th Edition)* for determining operating LOS. This methodology expresses the quality of intersection traffic operations in terms of average delay per vehicle.

Table 8-10. Level of Service Definitions

Level of Service	Signalized Intersection	Unsignalized Intersection	Roadway (Daily)
"A"	Uncongested operations, all queues clear in a single-signal cycle. Average Delay ≤ 10 seconds per vehicle	Little or no delay. Average Delay ≤ 10 sec/veh	Completely free flow.
"B"	Uncongested operations, all queues clear in a single cycle. Delay > 10 sec/veh and ≤ 20 sec/veh	Short traffic delays. Delay > 10 sec/veh and < 15 sec/veh	Free flow, presence of other vehicles noticeable.
"C"	Light congestion, occasional backups on critical approaches. Delay >20 sec/veh and <35 sec/veh	Average traffic delays. Delay > 15 sec/veh and < 25 sec/veh	Ability to maneuver and select operating speed affected.
"D"	Significant congestions of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. Delay > 35 sec/veh and < 55 sec/veh	Long traffic delays. Delay > 25 sec/veh and ≤ 35 sec/veh	Unstable flow, speeds and ability to maneuver restricted.
"E"	Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es). Delay >55 sec and ≤ 80 sec/veh	Very long traffic delays, failure, extreme congestion. Delay > 35 sec/veh and ≤ 50 sec/veh	At or near capacity, flow quite unstable.
"F"	Total breakdown, stop-and-go operation. Delay > 80 sec/veh	Intersection often blocked by external causes. Delay > 50 sec/veh	Forced flow, breakdown.

Sources: 6th Edition Highway Capacity Manual, and Transportation Research Board (TRB) Special Report 209.

Un-signalized Intersections. At un-signalized intersections the number of gaps in through-traffic, gap acceptance time and corresponding length of delays for motorists waiting to turn are used for LOS analysis. Procedures used for calculating un-signalized intersection LOS are as presented in the *Highway Capacity Manual (6th Edition).* At un-signalized intersections controlled by side street stop signs, the Highway Capacity Manual (HCM) methodology identifies the average delay, and how the LOS for all movements that must yield the right of way can be determined. Typically, the "worst case" LOS is associated with side street traffic waiting to turn onto the major street. For environmental analysis, Placer County also identified the overall average delay experienced by those motorists who yield the right of way, and this is the measure used to determine the significance of traffic impacts to un-signalized intersections in Placer County.

Roadway Segments: The Placer County General Plan presents daily traffic volume levels that are to be indicative of LOS on arterials streets and rural roads. These volume thresholds are shown in Table 8-11.

Table 8-11. Placer County Evaluation Criteria for Roadway Segment Level of Service

Roadway Capacity Class	Maximum Daily Traffic Volume Per Lane Level of Service				
	A	B	C	D	E
1. Freeway – Level Terrain	6,300	10,620	13,680	17,740	18,000
2. Freeway – Rolling Terrain	5,290	8,920	11,650	14,070	15,120
3. Freeway – Mountainous Terrain	3,400	5,740	7,490	9,040	9,720
4. Arterial – High Access Control	6,000	7,000	8,000	9,000	10,000
5. Arterial – Moderate Access Control	5,400	6,300	7,200	8,100	9,000
6. Arterial – Low Access Control	4,500	5,250	6,000	6,870	7,500
7. Rural 2-lane Highway – Level Terrain	1,500	2,950	4,800	7,750	12,500
8. Rural 2-lane Highway – Rolling Terrain	800	2,100	3,800	5,700	10,500
9. Rural 2-lane Highway – Mountainous Terrain	400	1,200	2,100	3,400	7,000
Rural 2 lane road – Mountainous Terrain (> 18 feet of pavement)	*320*	*960*	*1,680*	*2,720*	*5,600*
Rural 2 lane road – Mountainous Terrain (< 18 feet of pavement)	*265*	*795*	*1,390*	*2,250*	*4,635*

Source: Placer County General Plan FEIR and HFRP Expansion DEIR (2010)

Placer County thresholds account for the general terrain and alignment of rural collector and local roads. Some of the roads towards the western portion of the study area are fairly straight and level, while others follow the rolling terrain, and the roads toward the east mostly follow the rolling terrain of the foothills. For this analysis it has been assumed that roadways located in the study area would classify as "rolling." Specific roadway classifications are noted in subsequent tables.

OTHER EVALUATION CRITERIA

Traffic Signal Warrants: Evaluation of un-signalized LOS has been supplemented by consideration of the need for traffic signals based on the Traffic Signal Warrant criteria published in the *California Manual of Uniform Traffic Control Devices (MUTCD).* Traffic signal warrants provide for an analysis of traffic operations, pedestrian and bicycle needs, and other factors that define the minimum conditions under which installing traffic control signals might be justified.

8.6.4 EXISTING TRAFFIC OPERATIONS

Traffic Volumes: Recognizing the operational characteristics of HFRP, traffic operations have been assessed under both weekday and weekend (Saturday) conditions. Daily traffic volumes were tabulated on key roadway segments, and hourly traffic volume counts were conducted at intersections during the typical weekday p.m. peak hour (4:00 to 6:00 p.m.). Based on review of traffic volume counts in the study area and at HFRP, Saturday turning movement counts were conducted during the midday peak hour on Saturday (noon to 2:00 p.m.).

Daily Traffic Volume: 24-hr traffic volume counts were collected on study area roadways from new counts or from data available from Placer County. Figure 3 in the KD Anderson Traffic Impact Analysis (2019) identifies the locations of these traffic counts. Saturday data was collected at various locations on May 21, 2016, June 4, 2016, and October 8, 2016. Weekday data was collected on October 3, 2017 and December 7, 2018. The results of these counts form the basis for Table 8-12, Existing Roadway Segment Level of Service.

Table 8-12. Existing Daily Traffic Volumes and Levels of Service

Road	From	To	Class/Terrain	Weekend		Weekday	
				Daily Volume	Level of Service	Daily Volume	Level of Service
Public Roads							
Mears Drive	Mt. Vernon Road	HFRP Entrance	Local – R	790[1]	A	493	A
Mt. Vernon Road	Ayers Holmes Road	Buffalo Road	RC – R	1,328	A	1,714	B
Mt. Vernon Road	Mears Drive	Meyers Lane	RC – R	2,679	B	2,010	B
Garden Bar Road	Wise Road	Mt. Pleasant Road	Local-R	691	A	748	A
Garden Bar Road	Mt. Pleasant Road	Big Hill Road	Local-M[2]	316	A	318	A
Bell Road	Lone Star Road	Cramer Road	RC –R	543	A	614	A
Bell Road	Cramer Road	Joeger Road	RC – R[1]	1,329	A	1,400	A
Lone Star Road	Bell Road	SR 49	Local-R	1,223	A	1,328	A
Cramer Road	Bell Road	SR 49	Local-R	548	A	558	A
Private Roads							
Auburn Valley Road	Bell Road	View Ridge Drive	Local-R	884	A	935	A
Auburn Valley Road	Fairway Court	Curtola Ranch Road	Local-R	399	A	295	A

Source: Data provided by KD Anderson & Associates, Inc. in 2019

R is Rolling terrain, M is Mountainous terrain

[1] Volume is the average of three Saturdays 5/21/2016, 6/04/2016 and 10/8/2016 (Counts were taken prior to implementation of the reservation system)

[2] Roadway with capacity adjustment for reduced width.

Peak Hour Intersection Traffic Counts: Weekday intersection turning movement counts were collected at various study locations on October 5, 2017 and December 7, 2018. Saturday data was collected on May 21, 2016, May 28, 2016, June 4, 2016, October 8, 2016, October 7, 2017 and August 18, 2018. Intersection count data was collected during the typical weekday p.m. peak hour (i.e., 4:00 to 6:00 p.m.) and during the highest volume hour for activity HFRP (i.e., noon to 2:00 p.m.) on Saturdays. The locations of study intersections and the results of these counts along with traffic count worksheets are included in the traffic study (Appendix D).

Levels of Service: Levels of Service were determined using methodologies accepted by Placer County.

Roadway Segment Levels of Service: Table 8-12 identifies the current LOS on study area roads based on daily traffic volume. As indicated, all roadways carry traffic volumes that result in LOS that satisfy Placer County's minimums standards for rural areas (i.e., LOS C or LOS D based on proximity to a state highway). Studied roadways and intersections in the project vicinity are shown in Exhibit 8-1 "Existing Traffic Volumes on Studied Roadway Segments."

Intersection Levels of Service: Table 8-13 identifies current peak hour LOS at study area intersections. As shown, with one exception all study area intersections operate with LOS that satisfy Placer County's overall minimum LOS C standard for locations more than ½ mile from a state highway or LOS D for locations within ½ mile of a state highway. The exception is the SR 49 / Lone Star Road where side street approaches operate at LOS F and where the overall weighted average Level of Service is LOS F.

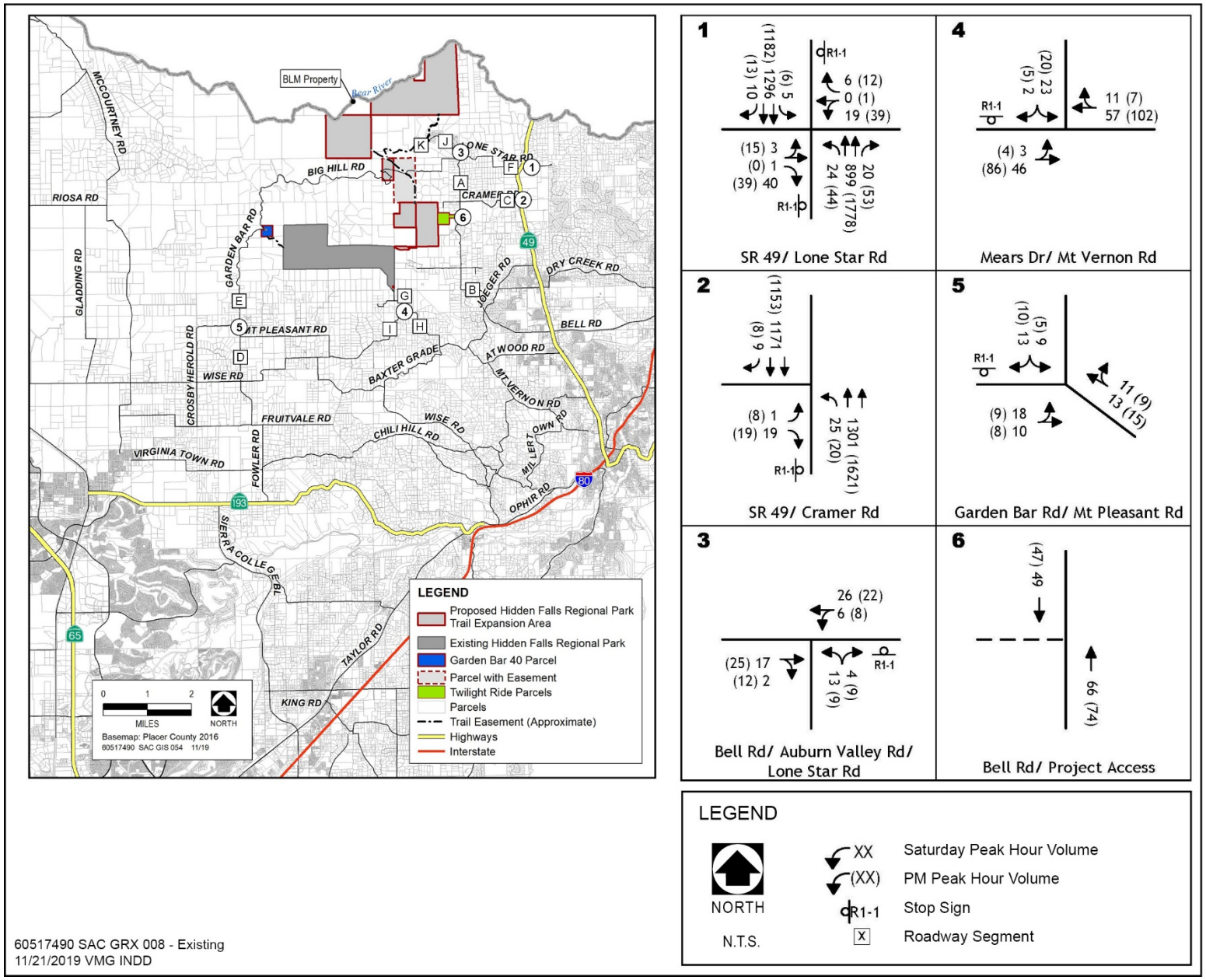

Exhibit 8-1. Existing Traffic Volumes and Lane Configurations

Table 8-13. Existing Intersection Levels of Service

#	Location	Control	Weekday P.M. Peak Hour		Saturday Peak Hour	
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1	SR 49 / Lone Star Road	EB/WB Stop				
	(overall)		**(106.3)**	**(F)**	**(93.4)**	**(F)**
	Eastbound approach		103.5	F	26.0	D
	Westbound approach		>300	F	195.6	F
	Northbound left turn		11.9	B	12.9	B
	Southbound left turn		16.5	C	10.2	B
2	SR 49 / Cramer Road	EB Stop				
	(overall)		(15.6)	(C)	(13.0)	(B)
	Eastbound approach		18.8	C	14.6	B
	Northbound left turn		11.3	B	11.8	B
3	Bell Road/Auburn Valley Road/Lone Star Road	EB Stop				
	(overall)		(8.5)	(A)	(8.3)	(A)
	Eastbound approach		8.8	A	9.0	A
	Northbound left turn		7.3	A	7.3	A
4	Mt. Vernon Road / Mears Drive	SB Stop				
	(overall)		(9.5)	(A)	(9.2)	(A)
	Southbound approach		9.8	A	9.4	A
	Eastbound left turn		7.5	A	7.4	A
5	Mt. Pleasant Road/ Garden Bar Road	SB Stop				
	(overall)		(8.1)	(A)	(8.1)	(A)
	Southbound approach		8.6	A	8.8	A
	Eastbound left turn		7.3	A	7.3	A

Source: Data provided by KD Anderson & Associates, Inc. in 2019

EB = eastbound; NB = northbound; SB = southbound; WB = westbound; LOS = level of service; sec/veh = seconds per vehicle

(XX) is overall weighted average delay and LOS for those movements yielding right of way

BOLD values exceed minimum LOS standard

Traffic Signal Warrants: The extent to which existing traffic volumes reach the level that satisfy peak hour traffic signal warrants has been evaluated. Peak hour warrants differentiate between *urban* and *rural* conditions based on the prevailing travel speed. Rural warrants are applied for speeds of 40 mph or greater, while urban criteria are employed at lower speeds. For this investigation rural warrant thresholds have been employed in all cases. Current traffic volumes at all study intersections fall below the level that would satisfy peak hour warrant requirements.

8.6.5 EXISTING PLUS PROJECT TRAFFIC OPERATIONS

The trip generation and trip distribution described data above was used to assign project trips to the study intersections and roadway segments. The assignment of project traffic to the local area street system will reflect the alternative routes available between various areas of HFRP, the expansion project, and ultimate destinations. The choice of access route was determined based on the relative difference in travel time along each route. Using the regional trip distribution assumptions noted previously, project trips were assigned to the local street system based on the least time path to each destination. Figure 9 of the traffic impact study presents resulting “project only” traffic for the trips associated with proposed and approved but unbuilt HFRP uses (Appendix D).

Table 8-14 identifies the amount of daily traffic added to study area roads by the project and compares Existing and Existing Plus Project volumes. As indicated, the addition of project traffic does not result in any roadway segment operating with a Level of Service that falls below the applicable minimum LOS C/D standard.

Table 8-14. Existing Plus Project Roadway Segment Traffic Volumes and Level of Service

#	Road	Location	Class	Roadway Volume and Segment Level of Service									
				Weekday					Saturday				
				Existing		Existing Plus Project			Existing		Existing Plus Project		
				Daily Volume	LOS	Daily Volume		LOS	Daily Volume	LOS	Daily Volume		LOS
						Project	Total				Project	Total	
Public Roads													
A	Bell Rd	Lone Star Rd to Cramer Rd	RC	614	A	14	628	A	543	A	34	577	A
B	Bell Rd	Joeger Rd to Cramer Rd	RC	1,400	A	200	1,600	A	1,329	A	402	1,731	B
C	Cramer Rd	Bell Rd to SR 49	Local	558	A	177	735	A	548	A	407	955	B
D	Garden Bar Road	Wise Road to Mt. Pleasant Road	Local	748	A	100	848	A	691	A	215	906	A
E	Garden Bar Road	Mt. Pleasant Road to Park Entrance	Local	318	A	154	472	A	316	A	331	647	A
F	Lone Star Rd	Bell Rd to SR 49	Local	1,328	A	280	1,608	B	1,223	A	630	1,853	B
G	Mears Drive	Mt. Vernon Road to Park Entrance	Local	493	A	56	549	A	790	A	120	910	A
H	Mt. Vernon Rd	Mears Drive to Meyers Lane	RC	2,010	B	80	2,090	B	2,679	B	168	2,847	B
I	Mt. Vernon Rd	Ayers Holms Road to Buffalo Road	RC	1,714	B	96	1,810	B	1,328	A	216	1,544	A
Private Roads													
J	Auburn Valley Road	Bell Road to View Ridge Drive	Local	935	A	294	1,229	A	884	A	664	1,548	A
K	Auburn Valley Road	Fairway Court to Curtola Ranch Road	Local	295	A	294	589	A	399	A	664	1,063	A

Source: KD Anderson & Associates, Inc. in 2019

BOLD values exceed LOS C.

SR = State Route

LOS = level of service

Exhibit 8-2 depicts HFRP project-generated vehicle trips superimposed onto current traffic volumes. Table 8-15 compares the existing and "Plus Project" Levels of Service at study intersections. As indicated the addition of project trips does not result in any additional intersections operating with a Level of Service that exceeds the adopted minimum standard.

The SR 49 / Lone Star Road intersection currently operates at an overall Level of Service that exceeds the LOS D minimum standard and with the proposed project, will continue to operate with an overall Level of Service that exceeds the LOS D minimum. Because conditions exceed the minimum LOS standard with and without the HFRP project, the standard is evaluated based on 1) change in overall average delay and 2) satisfaction of peak hour traffic signal warrants. In this case, while the incremental change in delay caused by the project exceeds the 2.5 seconds allowed under Placer County criteria, rural peak hour traffic signal warrants are not satisfied.

Existing Plus Project traffic volumes were compared to peak hour warrant requirements to determine whether the addition of project trips results in the need for signalization. No study intersection will carry volumes that reach a level that warrants construction of a traffic signal.

The proposed expansion of the HFRP would not result in new significant effects or substantially increase the severity of previously identified significant effects of "Existing plus Project traffic conditions and Levels of Service" based on changes in the project, circumstances or new information.

8.6.6 CUMULATIVE NO PROJECT TRAFFIC OPERATIONS

The cumulative traffic operations analysis considers the relative effect of the HFRP Trails Expansion Project within the context of long-term traffic conditions in the study area. In addition to the HFRP Trails Expansion Project, the analysis of long-term cumulative effects considers the combined effect of regional traffic growth on study area roads and includes trips associated with other reasonably foreseeable development proposals.

Background Growth: Because the HFRP expansion area is rural with relatively limited development prospects, Placer County staff reviewed traffic model results and the configuration of each model with regards to the level of detail provided and the reliability of forecasts to determine the best approach for this analysis. Placer County staff also reviewed available traffic studies and Caltrans planning documents and compared traffic model results to historic traffic volume counts on study area roads. Based on this comprehensive review, Placer County staff determined that the best approach yielding conservative results while incorporating the effects of growth in all jurisdictions would assume a uniform annual growth rate of 2.0% on each roadway segment. The resulting 20-year growth factor (i.e., 1.49) has been applied to the traffic volumes on each roadway and at study intersections.

Reasonably Foreseeable Projects: Placer County staff considered the extent of other development projects that might add traffic to the study area that would not reasonably be addressed by a background growth rate. For this analysis it was assumed that projects within the immediate study area could be considered but projects located at more distant locations would be assumed to be part of the background growth rate.

The **HFRP Garden Bar Road** site has been previously evaluated under CEQA and approved with conditions. This analysis assumes this portion of the HFRP Trails Expansion occurs as part of the Cumulative baseline condition, although the location of the parking lot has been changed to the 40-acre parcel adjacent to Garden Bar Road. Two other projects were identified:

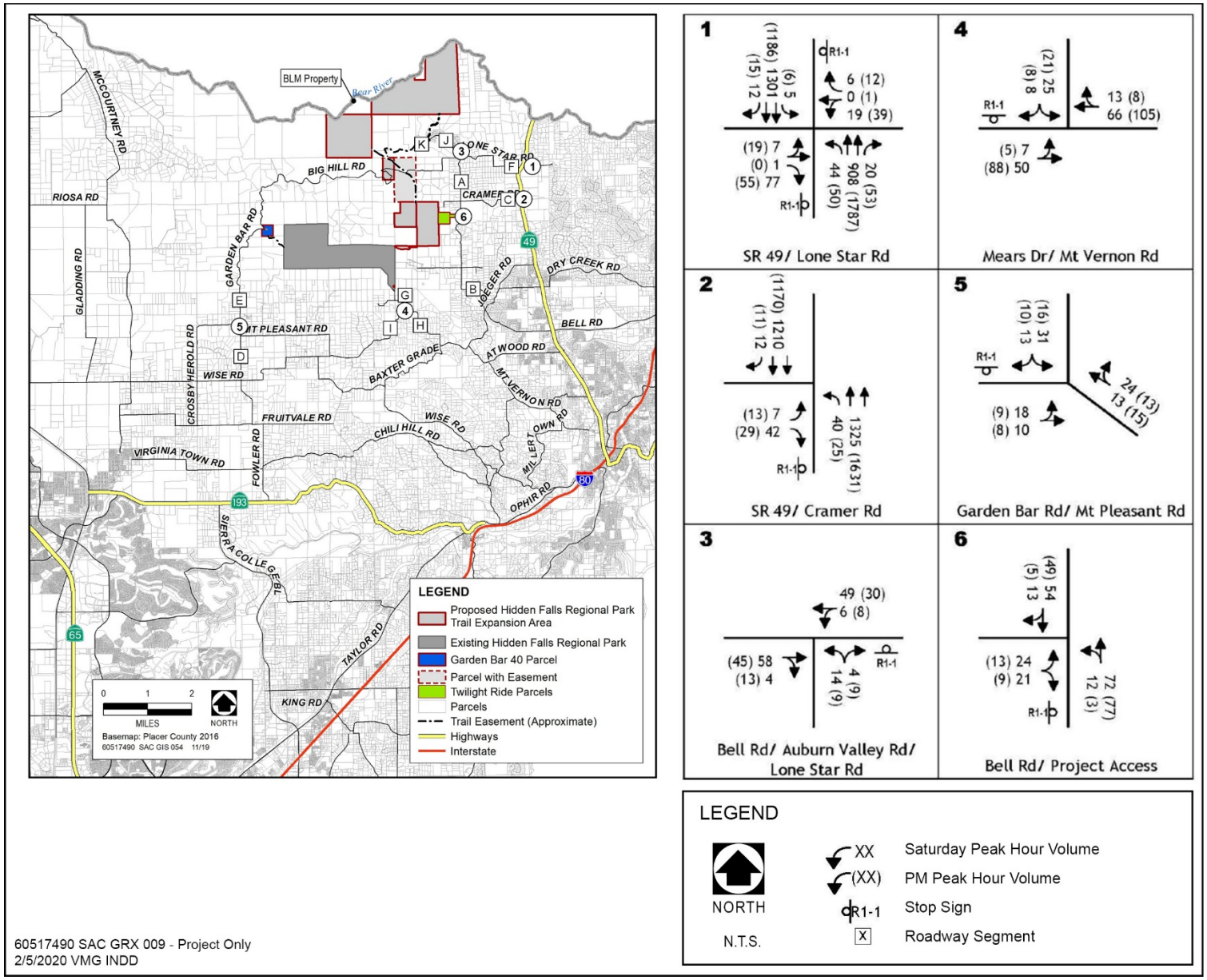

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Exhibit 8-2. Existing Plus Project Traffic Volumes and Lane Configurations

Table 8-15. Existing Plus Project Intersection Levels of Service

#	Location	Control	Weekday PM Peak Hour				Saturday Peak Hour			
			Existing		EX Plus Project		Existing		EX Plus Project	
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1	SR 49 / Lone Star Road									
	(overall)	EB/WB Stop	**(106.3)**	**(F)**	**(110.3)**	**(F)**	**(93.4)**	**(F)**	**(101.2)**	**(F)**
	Eastbound approach		103.5	F	120.2	F	26.0	D	31.2	D
	Westbound approach		>300	F	>300	F	195.6	F	298.8	F
	Northbound left turn		11.9	B	12.0	B	12.9	B	13.3	B
	Southbound left turn		16.5	C	16.6	C	10.2	B	10.3	B
2	SR 49 / Cramer Road									
	(overall)	EB Stop	(15.6)	(C)	(16.9)	(C)	(13.0)	(B)	(15.5)	(C)
	Eastbound approach		18.8	C	20.0	C	14.6	B	17.9	C
	Northbound left turn		11.3	B	11.5	B	11.8	B	12.3	B
3	Bell Rd/Auburn Valley Rd/Lone Star Rd									
	(overall)	EB Stop	(8.5)	(A)	(8.7)	(A)	(8.3)	(A)	(9.0)	(A)
	Eastbound approach		8.8	A	9.0	A	9.0	A	9.4	A
	Northbound left turn		7.3	A	7.3	A	7.3	A	7.4	A
4	Mt. Vernon Road / Mears Drive									
	(overall)	SB Stop	(9.5)	(A)	(9.5)	(A)	(9.2)	(A)	(9.1)	(A)
	Southbound approach		9.8	A	9.8	A	9.4	A	9.5	A
	Eastbound left turn		7.5	A	7.5	A	7.4	A	7.4	A
5	Mt. Pleasant Road / Garden Bar Road									
	(overall)	SB Stop	(8.1)	(A)	(8.4)	(A)	(8.1)	(A)	(8.7)	(A)
	Southbound approach		8.6	A	8.8	A	8.8	A	9.2	A
	Eastbound left turn		7.3	A	7.3	A	7.3	A	7.4	A
6	Bell Road / Twilight Ride Access									
	(overall)	EB Stop	-	-	(8.8)	(A)	-	-	(8.9)	(A)
	Eastbound approach				9.1	A			9.3	A
	Northbound left turn				7.3	A			7.4	A

Source: KD Anderson & Associates, Inc. in 2019

(XX) is overall weighted average delay and LOS for those movements yielding right of way

BOLD values exceed minimum overall LOS standard.

EB = eastbound; LOS = level of service; SB = southbound; sec/veh = seconds per vehicle; SR = State Route; WB = westbound

Placer County Winery and Farm Brewery Zoning Text Amendment Project: Placer County has prepared an Environmental Impact Report evaluating the impacts of amending the Winery & Farm Brewery Ordinance. In general, the proposed amendment is intended to provide additional flexibility with respect to holding events at existing and future wineries and farm breweries. From a standpoint of traffic and transportation, the amendments do not change the day-to-day operation of wineries and farm breweries nor does the amendment change the process undertaken by the County to process new winery and farm brewery applications. The amendment will change the number of agricultural promotional events permitted at wineries and farm breweries and will increase the number of special events that are allowed at existing and future facilities located on large (10+ acre) parcel sizes.

The approach to estimating the traffic contribution accompanying the amendment identifies the immediate impacts of implementing the ordinance at existing facilities as well as the long-term cumulative effect of operating new, existing and pending wineries and farm breweries with the change in events permitted under the ordinance. Very conservative assumptions for the activity associated with additional events were identified based on data collected at existing wineries and farm breweries and permitted attendance. Additional events were assumed to occur at each existing winery and farm brewery because of the proposed amendments to the ordinance, and the resulting vehicle trips were assigned to the study area circulation system. The cumulative impacts of developing new wineries and farm breweries under the amended ordinance were also evaluated, assuming that 30 new facilities would be developed over twenty years. Under the conservative assumptions made for the EIR, a total of 3,728 daily trips and 1,044 peak hour trips were anticipated as a result of additional events at the 11 existing and 30 future wineries or rural breweries.

Sierra College Blvd and SR 193 Commercial Project: Placer County has also been in pre-development discussions regarding a possible retail center to be constructed at the intersection of Sierra College Blvd and SR193. This 10-acre development would require a GPA/rezone and would be subject to an EIR before consideration by the Placer County Planning Commission and Board of Supervisors. However, for this analysis this project has been assumed to be completed to provide a very conservative assessment of cumulative effects.

For this analysis, traffic associated with development in the City of Lincoln, projects south of SR 193, such as Bickford Ranch, the Village at Loomis and Loomis Costco, and development in North Auburn is reflected in the background growth rate.

Roadway Improvements: Improvements to study area roads and intersections that are reasonably certain have been determined based on consideration of projects included in adopted plans with established funding mechanisms. Placer County administers the Countywide Traffic Mitigation Fee Program, which requires new development to contribute to the cost of circulation system improvements of countywide benefit. Individual benefit districts have been established for specific areas of the County. Table 8-16 notes improvements included in the Countywide Capital Improvement Program (CIP) that affect study area roads. These improvements are assumed to be in place under cumulative conditions. In addition, the improvements to Garden Bar Road that were required to support full use of the site have been assumed to be constructed under the cumulative base condition.

Table 8-16. Placer County CIP Benefit District Projects

Street / Intersection	Segment	Description of Improvements
Auburn Bowman Benefit District		
Mt. Vernon Road	City of Auburn to Joeger Road	Improve Existing 2-lanes
Ophir Road	At Wise Road	Reconstruct pavement
SR 49	Dry Creek Road to Bell Road	Widen to 6-lanes
Newcastle / Horseshoe Bar / Penryn Benefit District		
Bald Hill Road	Mt. Vernon Rd to Lozanos Road	Widen / Reconstruct
Crater Hill Road	At Chili Hill Road	Realign intersection
Chili Hill Road	West of Lozanos Road	Realign Horizontal Curve
Lozanos Road	At Auburn Ravine	Replace Bridge
	Ophir Road to Wise Road	Shoulder widening
Sierra College Blvd	King Road to English Colony Way	Widen to 4-lanes
	At Delmar Avenue	Signalize
Wise Road	Ophir Road to Crater Hill Road	Shoulder widening
SR 193	Taylor Road to Gold Hill Road	Shoulder widening
Placer Central Benefit District		
Mt. Vernon Road	At Ayers Holmes Road	Improve sight distance
	At Mount Pleasant Road	Reconstruct intersection
Sierra College Blvd	English Colony Way to SR 193	Widen to 4 lanes
SR 193	Gold Hill Road to Sierra College Blvd	Shoulder widening
	Sierra College Blvd to City of Lincoln	Widen to 4 lanes

Roadway Traffic Volumes: Tables 8-17 and 8-18 present a forecast of daily traffic volumes that compare conditions with and without the HFRP Trail Expansion project. As indicated, if the project does not proceed and no new facilities are created, all study area roadways will carry traffic volumes that result in Levels of Service that remain within Placer County's minimum LOS C or LOS D (i.e., ½ mile of state highway) standards.

Table 8-17. Cumulative No Project Saturday Daily Traffic Volumes and Levels of Service

Road	From	To	Class	Saturday	
				Daily Volume	LOS
Public Roads					
Mears Drive	Mt. Vernon Road	Park Entrance	Local - R	915	A
Mt. Vernon Road	Ayers Holmes Road	Buffalo Road	RC - R	2,160	B
Mt. Vernon Road	Mears Drive	Meyers Lane	RC - R	4,190	C
Garden Bar Road	Wise Road	Mt. Pleasant Rd	Local - R	1,284	A
Garden Bar Road	Mt. Pleasant Road	Big Hill Road	Local - R	802	A
Bell Road	Lone Star Road	Cramer Road	EC - R	986	A
Bell Road	Cramer Road	Joeger Road	RC - R	2,254	B
Lone Star Road	Bell Road	SR 49	Local - R	1,944	B
Cramer Road	Bell Road	SR 49	Local - R	1,158	A
Private Roads					
Auburn Valley Road	Bell Road	View Ridge Drive	Local - R	1,290	A
Auburn Valley Road	Fairway Court	Curtola Ranch Rd	Local - R	585	A

BOLD values exceed minimum LOS C or LOS D standard.
HIGHLIGHTED values are a significant impact

Table 8-18. Cumulative No Project Weekday Daily Traffic Volumes and Levels of Service

Road	From	To	Class	Weekday	
				Daily Volume	LOS
Public Roads					
Mears Drive	Mt. Vernon Road	Park Entrance	Local – R	979	A
Mt. Vernon Road	Ayers Holmes Rd	Buffalo Road	RC – R	2,734	B
Mt. Vernon Road	Mears Drive	Meyers Lane	RC – R	4,278	B
Garden Bar Road	Wise Road	Mt. Pleasant Rd	Local - R	1,237	A
Garden Bar Road	Mt. Pleasant Road	Big Hill Road	Local – R	628	A
Bell Road	Lone Star Road	Cramer Road	EC – R	1,091	A
Bell Road	Crammer Road	Joeger Road	RC – R	2,272	A
Lone Star Road	Bell Road	SR 49	Local – R	2,294	B
Cramer Road	Bell Road	SR 49	Local – R	1,388	A
Private Roads					
Auburn Valley Road	Bell Road	View Ridge Drive	Local - R	1,393	A
Auburn Valley Road	Fairway Court	Curtola Ranch Rd	Local - R	440	A

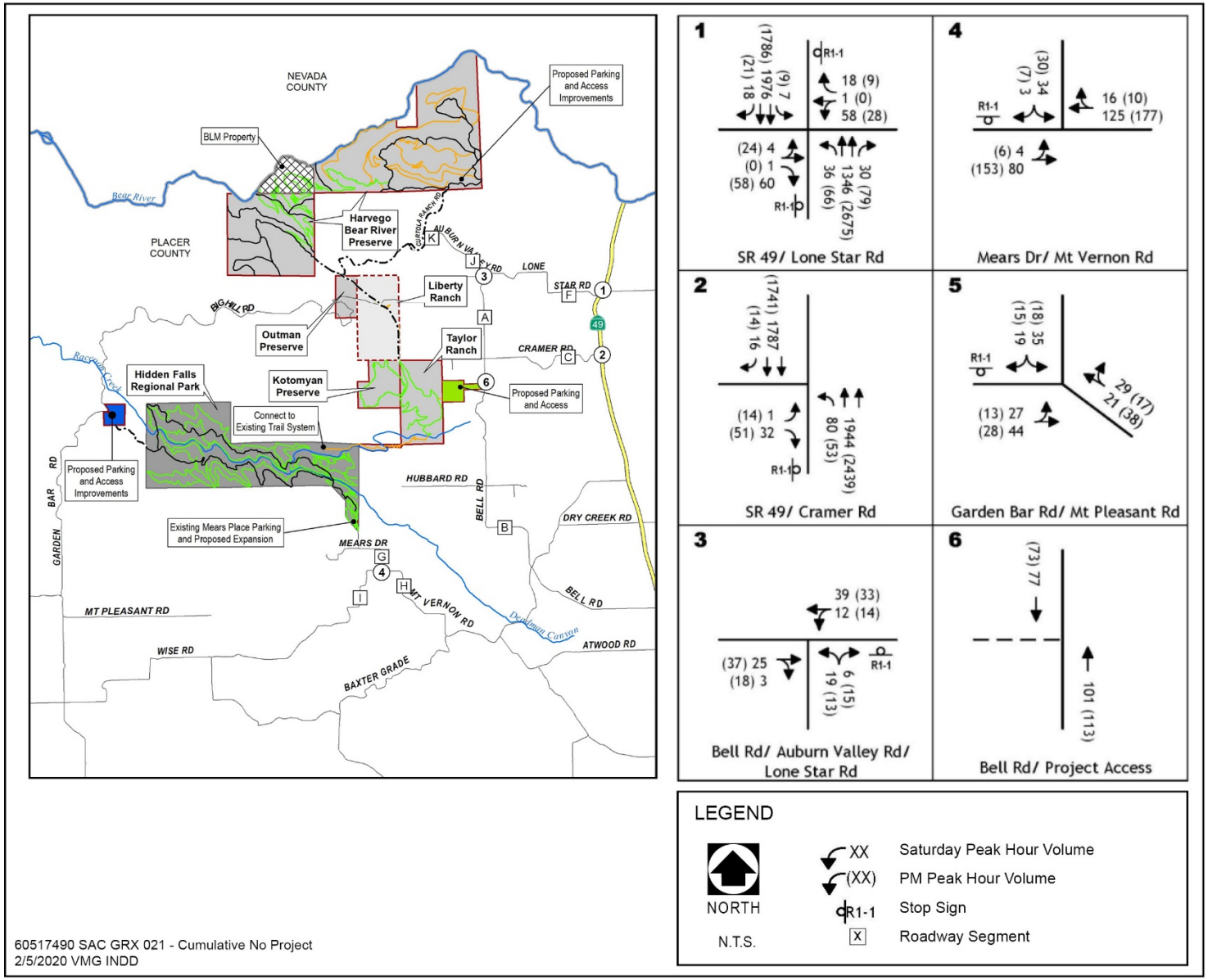
BOLD values exceed minimum LOS C or LOS D standard.

HIGHLIGHTED values are a significant impact

Peak Hour Traffic Volume Forecasts: Exhibit 8-3 presents cumulative peak hour traffic volumes without the trips associated with implementing the HFRP Trails Expansion project. These forecasts reflect the identified background growth rate as well as trips from reasonably foreseeable projects.

Cumulative No Project Intersection Level of Service: Table 8-19 below identifies the long-term cumulative Level of Service projected at study intersections under the Cumulative No Project scenario. While most locations will satisfy the adopted minimum LOS standard, one intersection will operate with conditions that exceed the minimum LOS standard based on overall LOS.

The **SR 49 / Lone Star Road** intersection currently operates and will continue to operate at LOS F in both the weekday p.m. peak hour and the Saturday peak hour. If background traffic on Lone Star Road increases at the assumed rate, the westbound volume would satisfy peak hour warrants in the weekday p.m. peak hour and Saturday peak hour. Therefore, even without the proposed trails expansion project, the SR 49/Lone Star Road intersection would operate unacceptably.



Source: KD Anderson & Associates in 2019

Exhibit 8-3. Cumulative No Project Volumes and Lane Configurations

Table 8-19. Cumulative No Project Intersection Levels of Service

# Location	Control	Weekday PM Peak Hour		Saturday Peak Hour	
		Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1 SR 49 / Lone Star Road					
(overall)	EB/WB Stop	**(192.0)**	**(F)**	**(174.8)**	**(F)**
Eastbound approach		>300	F	>300	F
Westbound approach		>300	F	>300	F
Northbound left turn		18.9	C	22.1	C
Southbound left turn		33.6	D	13.1	B
2 SR 49 / Cramer Road					
(overall)	EB Stop	(30.9)	(D)	(21.5)	(C)
Eastbound approach		42.0	E	23.0	C
Northbound left turn		17.3	C	20.9	C
3 Bell Rd / Auburn Valley Rd / Lone Star Rd					
(overall)	EB Stop	(8.7)	(A)	(8.5)	(A)
Eastbound approach		9.0	A	9.2	A
Northbound left turn		7.3	A	7.4	A
4 Mt. Vernon Road / Mears Drive					
(overall)	SB Stop	(10.7)	(B)	(10.0)	(B)
Southbound approach		11.2	B	10.3	B
Eastbound left turn		7.7	A	7.6	A
5 Mt. Pleasant Road / Garden Bar Rd					
(overall)	SB Stop	(8.5)	(A)	(8.9)	(A)
Southbound approach		9.0	A	9.7	A
Eastbound left turn		7.4	A	7.4	A
6 Bell Road / Twilight Access					
(overall)	EB Stop	-	-	-	-
Eastbound approach					
Northbound left turn					

(XX) is overall weighted average delay and LOS for those movements yielding right of way
BOLD values exceed minimum overall LOS C or D Standard. **HIGHLIGHTED** values are a significant impact

8.6.7 CUMULATIVE PLUS PROJECT TRAFFIC OPERATIONS

Tables 8-20 and 8-21, below, present the daily traffic volumes anticipated on study area roads in the future if the HFRP Trails Expansion project is completed and other growth also occurs. As indicated, all roadways will remain within Placer County's minimum LOS C/D standard. Thus, the effects of the HFRP Trails Expansion project are not significant in these areas. Exhibit 8-4 presents the Weekday and Saturday peak hour traffic volumes occurring with the HFRP Trails Expansion project and other growth.

Table 8-20. Cumulative Saturday Daily Traffic Volumes and Levels of Service

Road	From	To	Class	Saturday				
				Cumulative		Cumulative Plus HFRP		
				Daily Volume	LOS	Daily Volume		LOS
						HFRP Only	Total	
Public Roads								
Mears Drive	Mt. Vernon Road	Park Entrance	Local - R	915	A	120	1,035	A
Mt. Vernon Road	Ayers Holmes Road	Buffalo Road	RC - R	2,160	B	216	2,376	B
Mt. Vernon Road	Mears Drive	Meyers Lane	RC - R	4,190	C	168	4,358	C
Garden Bar Road	Wise Road	Mt. Pleasant Rd	Local - R	1,284	A	0	1,284	A
Garden Bar Road	Mt. Pleasant Road	Big Hill Road	Local - R	802	A	0	802	A
Bell Road	Lone Star Road	Cramer Road	EC - R	986	A	34	1,020	A
Bell Road	Cramer Road	Joeger Road	RC - R	2,254	B	402	2,656	B
Lone Star Road	Bell Road	SR 49	Local - R	1,944	B	630	2,574	B
Cramer Road	Bell Road	SR 49	Local - R	1,158	A	407	1,565	A
Private Roads								
Auburn Valley Road	Bell Road	View Ridge Drive	Local - R	1,290	A	664	1,954	B
Auburn Valley Road	Fairway Court	Curtola Ranch Rd	Local - R	585	A	664	1,249	A

BOLD values exceed minimum LOS C or LOS D standard.

HIGHLIGHTED values are a significant impact

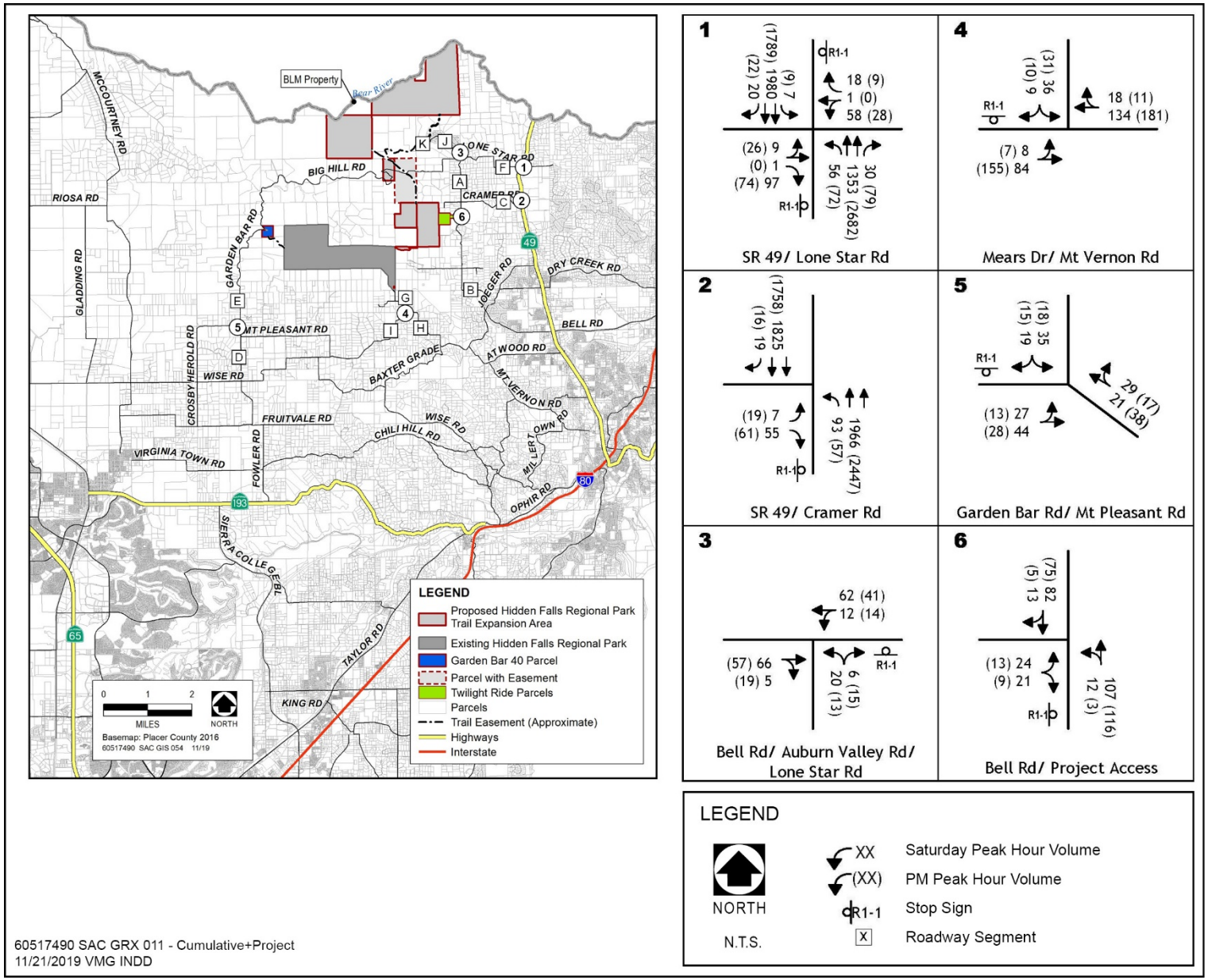
Table 8-21. Cumulative Weekday Daily Traffic Volumes and Levels of Service

Road	From	To	Class	Weekday				
				Cumulative		Cumulative Plus HFRP		
				Daily Volume	LOS	Daily Volume		LOS
						HFRP Only	Total	
Public Roads								
Mears Drive	Mt. Vernon Road	Park Entrance	Local – R	979	A	56	1,035	A
Mt. Vernon Road	Ayers Holmes Rd	Buffalo Road	RC – R	2,734	B	96	2,830	B
Mt. Vernon Road	Mears Drive	Meyers Lane	RC – R	4,278	B	80	4,358	C
Garden Bar Road	Wise Road	Mt. Pleasant Rd	Local - R	1,237	A	0	1,237	A
Garden Bar Road	Mt. Pleasant Road	Big Hill Road	Local – R	628	A	0	628	A
Bell Road	Lone Star Road	Cramer Road	EC – R	1,091	A	14	1,105	A
Bell Road	Crammer Road	Joeger Road	RC – R	2,272	A	170	2,442	B
Lone Star Road	Bell Road	SR 49	Local – R	2,294	B	280	2,574	B
Cramer Road	Bell Road	SR 49	Local – R	1,388	A	217	1,605	B
Private Roads								
Auburn Valley Road	Bell Road	View Ridge Drive	Local - R	1,393	A	294	1,687	B
Auburn Valley Road	Fairway Court	Curtola Ranch Rd	Local - R	440	A	294	734	A

BOLD values exceed minimum LOS C or LOS D standard.

HIGHLIGHTED values are a significant impact

Table 8-22 compares the long-term cumulative Level of Service projected at study intersections under the No Project and Plus Project conditions. While many locations will continue to satisfy the adopted minimum LOS standard, two intersections will operate with conditions will that exceed the minimum standard for overall LOS if the HFRP Trails Expansion project proceeds.



Source: KD Anderson & Associates in 2019

Exhibit 8-4. Cumulative Plus HFRP Trails Expansion Project Volumes and Lane Configurations

Table 8-22. Cumulative Plus Project Intersection Levels of Service

#	Location	Control	Weekday PM Peak Hour				Saturday Peak Hour			
			Cumulative No Project		Cumulative Plus Project		Cumulative No Project		Cumulative Plus Project	
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1	SR 49 / Lone Star Road									
	(overall)		**(192.0)**	**(F)**	**(197.2)**	**(F)**	**(174.8)**	**(F)**	**(229.3)**	**(F)**
	Eastbound approach	EB/WB Stop	>300	F	>300	F	>300	F	>300	F
	Westbound approach		>300	F	>300	F	>300	F	>300	F
	Northbound left turn		18.9	C	19.3	C	22.1	C	24.2	C
	Southbound left turn		33.6	D	33.8	D	13.1	B	13.2	B
2	SR 49 / Cramer Road									
	(overall)	EB Stop	(30.9)	(D)	**(36.6)**	**(E)**	(21.5)	(C)	(30.3)	(C)
	Eastbound approach		42.0	E	50.0	E	23.0	C	37.3	E
	Northbound left turn		17.3	C	17.7	C	20.9	C	22.9	C
3	Bell Rd / Auburn Valley Rd / Lone Star Rd									
	(overall)	EB Stop	(8.7)	(A)	(8.8)	(A)	(8.5)	(A)	(9.2)	(A)
	Eastbound approach		9.0	A	9.1	A	9.2	A	9.7	A
	Northbound left turn		7.3	A	7.3	A	7.4	A	7.5	A
4	Mt. Vernon Road / Mears Drive									
	(overall)	SB Stop	(10.7)	(B)	(10.7)	(B)	(10.0)	(B)	(10.1)	(B)
	Southbound approach		11.2	B	11.2	B	10.3	B	10.5	B
	Eastbound left turn		7.7	A	7.7	A	7.6	A	7.6	A
5	Mt. Pleasant Road / Garden Bar Rd									
	(overall)	SB Stop	(8.5)	(A)	(8.5)	(A)	(8.9)	(A)	(8.9)	(A)
	Southbound approach		9.0	A	9.0	A	9.7	A	9.7	A
	Eastbound left turn		7.4	A	7.4	A	7.4	A	7.4	A
6	Bell Road / Twilight Access									
	(overall)	EB Stop			(9.1)	(A)			(9.2)	(A)
	Eastbound approach				8.9	A			9.6	A
	Northbound left turn		-	-	7.4	A	-	-	7.4	A

(XX) is overall weighted average delay and LOS for those movements yielding right of way
BOLD values exceed minimum overall LOS C or D Standard. **HIGHLIGHTED** values are a significant impact

As discussed above, the California Transportation Commission (CTC) approved the programming of the SR 49 Safety Improvements Project into the 2018 State Highway Operation and Protection Program (SHOPP) with $26.3 million in project funding during their August 2019 meeting. The project includes two roundabouts and a concrete median barrier from 0.3 miles south of Lorenson Road/Florence Lane to 0.3 miles north of Lone Star Road. This project has not been assumed in the cumulative analysis as it was not programmed or funded at the time of the release of the NOP.

The **SR 49 / Lone Star Road** intersection currently operates and will continue to operate at LOS F in the weekday p.m. and Saturday peak hour. Traffic operations exceed LOS D with and without the project during both peak hours. The significance of the project's impact at intersections controlled by side street stop signs is based on the incremental change in delay and is also predicated on satisfaction of peak hour traffic signal warrants. In this case, the incremental change in overall delay (5.2 seconds in p.m. and 54.5 seconds on Saturday) exceeds the

incremental change allowed under Placer County methodology (i.e., 2.5 seconds) and projected traffic volumes do satisfy peak hour warrants under this scenario. For the reasons stated above, the project's traffic contribution to the SR 49/Lone Star Road intersection is considered to be substantial.

Traffic operations at the **SR 49 / Cramer Road** intersection would degrade from LOS D to LOS E during the weekday PM peak hour with the proposed project. Caltrans' SR 49 Safety Improvements Project would restrict turning movements to right turns only to and from the Cramer Road. Construction of the Caltrans project will reduce delay and improve LOS to meet the County's standards at this location.

Measures to achieve acceptable LOS are subject to Caltrans approval on this state highway, and as noted in the SR-49 TCR, a regional approach incorporating roundabouts at selected intersections may be pursued by Caltrans and the County. Alternatively, a traffic signal at this location would result in LOS D conditions, which would satisfy Placer County's minimum LOS standards. Any improvement to the state highway is subject to an additional level of analysis before a decision can be made as to the applicable choice of traffic control. Current Caltrans policy requires that an Intersection Control Evaluation (ICE) report be prepared to evaluate the best choice among all-way stop, traffic signal, or roundabout.

As noted earlier, funding sources have just recently been identified for improvements to the SR 49 corridor north of Dry Creek Road. If not otherwise funded, Placer County could elect to identify a strategy for the overall traffic controls in the area and update its fee program to address the local share of these costs. The HFRP Trails Expansion Project is subject to the traffic mitigation fee program and could contribute its fair share toward the cost of constructing SR 49 corridor improvements through payment of adopted fees. However, any improvements on SR 49 would require approval from Caltrans and the County cannot guarantee that the improvements would occur.

The SR 49/Cramer Road intersection will operate at LOS E in the weekday peak hour. Because LOS E conditions exceed LOS D standard and peak hour traffic signal warrants are satisfied, the project's impact is potentially significant at this intersection. However, long range planning is underway for the SR 49 corridor. As part of these efforts, improvements could be made that would reduce the volume of traffic on Cramer Road. For example, the plan for SR 49 roundabouts could involve new roundabout intersections at Lone Star Road and Lorensen Road with a continuous raised median between these locations. Thus, access at the SR 49 / Cramer Road intersection may be limited to right turns in and out only, and this measure would reduce the amount of background traffic on Cramer Road as well as the amount of HFRP project traffic.

Measures to reduce this impact to a less than significant level are subject to Caltrans approval on this state highway, and as noted earlier a regional approach incorporating roundabouts at selected intersections may be pursued by Caltrans and the County. Any improvements on SR 49 would require approval from Caltrans and the County cannot guarantee that the improvements would occur.

Cumulative Plus Project Traffic Signal Warrants: The status of peak hour traffic signal warrants with implementation of the HFRP Trails Expansion project was determined. Beyond the two locations on SR 49, no additional intersections carry volumes that satisfy rural traffic signal warrants.