4.12 TRANSPORTATION AND CIRCULATION

4.12.1 INTRODUCTION

The Transportation and Circulation chapter of the EIR addresses the existing and cumulative transportation and circulation conditions associated with the development of the proposed project. The analysis includes consideration of vehicle traffic impacts on roadway capacity, circulation, transit, and bicycle and pedestrian facilities, as well as vehicle miles travelled (VMT).

Documents referenced to prepare this chapter include a Transportation Impact Assessment (TIA)[1] and Vehicle Miles Travelled Impact Evaluation (VMT Memo)[2] prepared for the project by Fehr & Peers (see Appendix M), as well as the *Yolo County General Plan*[3] and the associated EIR[4]. All technical calculations are included as an appendix to the TIA.

In response to the NOP, the County received comments related to Transportation and Circulation from a number of residents in the area. These commenters expressed that the Draft EIR should consider the following:

- Cumulative transportation and circulation impacts (Resident);
- Potential impacts to County Roads 20, 21, 95B, 96, 97, and 98, State Route (SR) 16, and Kentucky Avenue (Resident);
- Increased vehicle volumes leading to wear and tear on local roadways (Resident);
- Increased hazards on roadways resulting from traffic congestion (Resident);
- Trucks entering and exiting the project site from County Road 94B (Resident);
- Damage to vehicles traveling on SR 16 from large gravel trucks and increased debris on the roadways (Resident);
- Potential impacts to SR 16 and surrounding access to roads and highways (Resident);
- Lack of traffic signal at the intersection of SR 16 and County Road 94B (Resident);
- Lack of access to Interstate (I) 505 (Resident);
- On-site vehicle parking and electric vehicle charging (EVC) stations (Resident);
- Pedestrian and bicycle infrastructure facilities (Resident);
- Traffic counting that would occur during the time of the year where background traffic activity is minimal (winter) (Resident);
- Compliance with the truck haul road regulations and standards (Resident);
- Impacts to narrow roadways that already experience a substantial amount of traffic by farmers, residents, and commuters (Resident);
- Reduction of the speed limit on County Road 96 (Resident); and
- Potential impacts regarding the stability of the County Road 94B bridge (Resident).

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1 Fehr & Peers. *Shifler Mining and Reclamation Project Traffic Impact Study.* August 2018.
2 Fehr & Peers. *Shifler Mining Project Vehicle Miles Traveled Impact Evaluation (Revised). September 25*, 2020.
3 Yolo County. *2030 Countywide General Plan.* November 10, 2009.
4 Yolo County. *Yolo County 2030 Countywide General Plan Environmental Impact Report. SCH# 2008102034*. April 2009.

The CEQA Guidelines note that comments received during the NOP scoping process can be helpful in "identifying the range of actions, alternatives, mitigation measures, and significant effects to be analyzed in depth in an EIR and in eliminating from detailed study issues found not to be important." (CEQA Guidelines Section 15083.) Neither the CEQA Guidelines nor Statutes require a lead agency to respond directly to comments received in response to the NOP, but they do require they be considered. Consistent with these requirements, these comments have been carefully reviewed and considered by Yolo County and are reflected in the analysis of impacts in this chapter. Appendix B includes all NOP comments received.

Concepts and Terminology

The following definitions are common terms used to discuss issues related to transportation and circulation:

Per the CEQA Guidelines, vehicle miles travelled (VMT) is the primary metric used to identify transportation impacts under CEQA. VMT is a measure of the total amount of vehicle travel occurring on a given roadway system.

In 2013, Senate Bill (SB) 743 was passed to amend Sections 65088.1 and 65088.4 of the Government Code, amend Sections 21181, 21183, 21186, 21187, 21189.1, and 21189.3 of the Public Resources Code (PRC), to add Section 21155.4 to the PRC, to add Chapter 2.7 (commencing with Section 21099) to Division 13 of the PRC, to add and repeal Section 21168.6.6 of the PRC, and to repeal and add Section 21185 of the PRC, relating to environmental quality. As a result of SB 743, as discussed in further detail below, local jurisdictions may no longer rely on vehicle level of service (LOS) and similar measures related to delay as the basis for determining the significance of transportation impacts under CEQA. However, because the County considers LOS as a matter of General Plan policy (Policy CI-3.1) existing LOS at the study roadway facilities is presented herein for informational purposes. Detailed methodology used for evaluation of LOS at the study roadway facilities is provided in Appendix M to this EIR.

4.12.2 EXISTING ENVIRONMENTAL SETTING

The following setting information provides an overview of the existing conditions of the project site and surrounding area in relation to the existing transportation system within the project region, including the roadway network, transit, bicycle and pedestrian facilities.

Description of Regional Environment

The project region is characterized primarily by continuous agricultural lands within a broad, alluvial valley surrounded by distant rolling hills. Cache Creek generally meanders west to east and runs into the Sacramento Valley, ending in a settling basin east of Woodland, eventually flowing into the Sacramento River. Regional topography is generally flat. Vegetation, other than agricultural crops, is primarily limited to grasslands and scattered native vegetation.

The region is rural and sparsely populated, with urban development being primarily concentrated within small towns such as Capay, Esparto, and Madison. Rural residences, farm dwellings with various accessory and agricultural structures, and commercial uses sparsely dot the landscape. Roads provide interconnections between agricultural properties having various crops, such as row crops, orchards, and vineyards. Telephone and electricity poles frequently parallel the roadways throughout the region. Aggregate mining operations, inclusive of above-ground structures and equipment, are prevalent throughout the region, in particular, along the banks of Cache Creek, within the Cache Creek Area Plan (CCAP) boundaries.

Regional access to the project area is provided by SR 16. SR 16 is an east-west highway that runs from SR 20 in Colusa County to SR 49, outside Plymouth in Amador County. SR 16 is part of the California Freeway and Expressway System. The portion of SR 16 that passes through Woodland runs from west of I-505 to County Road 98, at which point SR 16/County Road 98 runs north-south to I-5. SR 16 is a two-lane roadway with a speed limit of up to 55 miles per hour (mph) outside of developed areas. The nearest major highways to the project site are I-5 and I-505. Both are north-south highways with two lanes in each direction. The roads in the vicinity primarily service rural areas.

Description of Local Environment

The central and southern portions of the project site consist primarily of actively managed agricultural land. Crops planted at the site over the past decade have included wheat, alfalfa, tomatoes, cucumbers, canola, sunflower, and safflower. The northeastern portion of the site previously contained a ranch headquarters (Stevens Ranch); however, the structures that comprised the headquarters were burned down as part of a fire department training exercise in the late 1970s or early 1980s. Currently, structures do not exist at the location and the area is currently overgrown by low-lying brush. The northern portion of the site consists of 52 scattered oak trees and ruderal grassland vegetation.

Moore Canal, a concrete-lined water conveyance structure owned and operated by the Yolo County Flood Control and Water Conservation District (YCFCWCD), bisects the central portion of the site from west to east. Magnolia Canal is an unlined water conveyance structure owned and operated by the YCFCWCD that intersects the Moore Canal on the northeastern portion of the project site. An existing groundwater well used for agricultural purposes is located along the western site boundary. In addition, a domestic water supply well is located at the location of the former ranch headquarters. The northern portion of the site also includes an electric conveyor and associated gravel road formerly used to transport mined aggregate from the Teichert Woodland Storz mining site to the Woodland Plant located north of the project site.

The environment of the immediate vicinity is dominated by aggregate mining operations to the north; a golf course (Yolo Fliers Club), Wild Wings Subdivision, airport (Watts-Woodland), and farm dwellings to the west/southwest; rural residential and cemetery (Monument Hill Memorial Park cemetery) to the south; and farm dwellings to the east. The existing aggregate mining operations in the vicinity consist of Teichert's Storz mining site to the west and Teichert's Woodland Plant site to the northeast, beyond which is Teichert's Schwarzgruber mining site. The Teichert-Woodland Plant has been in continuous operation for over 50 years.

The following is a description of the roads extending to the project site.

County Road 20

County Road 20 is a rural east-west roadway that extends from Teichert Woodland Plant in the west to SR 16/County Road 98 in the east, at which point the roadway becomes Kentucky Avenue. County Road 20 intersects SR 16 west of I-5, and becomes Kentucky Avenue in the developed area east of SR 16. County Road 20 is a two-lane roadway with a speed limit of 50 mph within the project vicinity.

County Road 94B

County Road 94B is a rural north-south roadway that extends from County Road 24 (Gibson Road) in the south to County Road 95 in the north. County Road 94B is a two-lane roadway with a speed limit of 45 mph.

County Road 96

County Road 96 is a rural north-south roadway that extends from County Road 24 (Gibson Road) in the south to Magnolia Canal in the north. Within the project area, County Road 96 is a two-lane roadway with a speed limit of 50 mph.

Study Area

The following roadways, intersections, freeway mainline segments, and freeway ramp junctions were selected for analysis in the TIA based on the project location, estimates of project-generated traffic, and locations of planned roadways in the project vicinity (see Figure 4.12-1):

Roadways

- County Road 96 – County Road 20 to SR 16;
- County Road 20 – West of County Road 96;
- County Road 20 – County Road 96 to County Road 98;
- SR 16 – I-505 to County Road 94B;
- SR 16 – County Road 94B to County Road 96; and
- SR 16 (County Road 98) – County Road 20 to I-5.

Intersections

1. County Road 20/County Road 96;
2. SR 16/County Road 96;
3. County Road 20/County Road 97;
4. County Road 20/SR 16 (County Road 98);
5. SR 16/I-5 Southbound Ramps;
6. SR 16/I-5 Northbound Ramps;
7. SR 16/County Road 94B;
8. SR 16/I-505 Northbound Ramps; and
9. SR 16/I-505 Southbound Ramps.

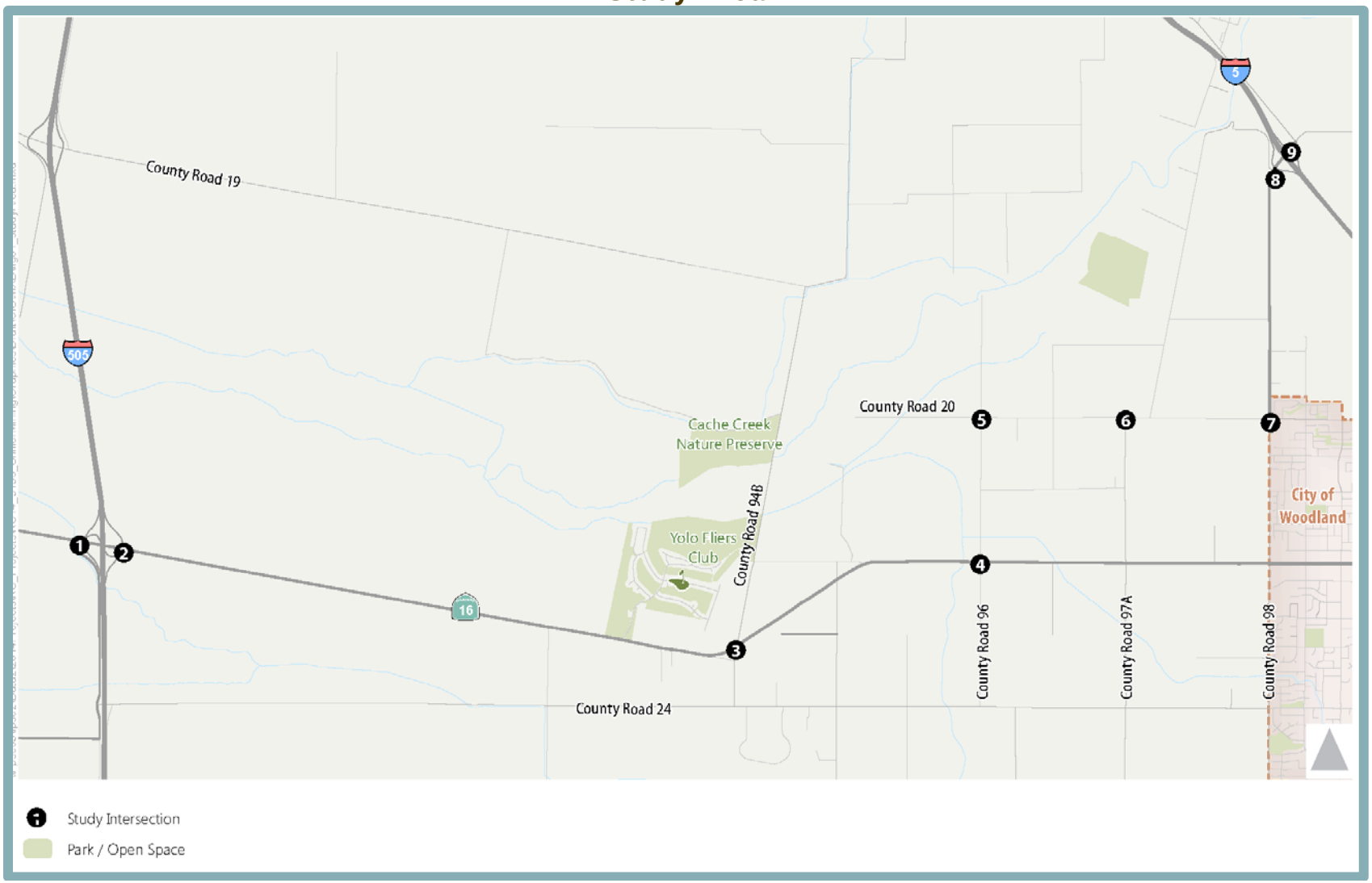
Freeway Mainline Segments

- I-5 NB south of SR 16;
- I-5 NB north of SR 16;
- I-5 SB south of SR 16;
- I-5 SB north of SR 16;
- I-505 NB south of SR 16;
- I-505 NB north of SR 16;
- I-505 SB south of SR 16; and
- I-505 SB north of SR 16.

Freeway Ramp Junctions (Merge/Diverge)

- I-5 NB off-ramp to SR 16;
- I-5 NB loop on-ramp from SR 16;
- I-5 NB on-ramp from SR 16;

Figure 4.12-1
Study Area



Source: Fehr & Peers, 2018.

- I-5 SB off-ramp to SR 16;
- I-5 SB on-ramp from SR 16;
- I-505 NB off-ramp to SR 16;
- I-505 NB loop on-ramp from SR 16;
- I-505 NB on-ramp from SR 16;
- I-505 SB off-ramp to SR 16;
- I-505 SB loop on-ramp from SR 16; and
- I-505 SB on-ramp from SR 16.

Vehicle Miles Travelled

Currently, both the Woodland Plant and the Esparto Plant generates haul truck traffic associated with ongoing processing operations at the plant. The Woodland Plant, located to the northeast of the project site, would be used to process aggregate mined at the Shifler project site.

Total vehicle traffic associated with the existing processing operations at the two plants can be quantified in terms of VMT. The existing VMT conditions evaluated in this assessment for the Teichert Woodland Plant and Esparto Plant operations were developed using the average annual production over the ten-year period between 2004 and 2014, equal to 721,257 tons per year at the Woodland Plant and 416,007 tons per year at the Esparto Plant. Based on the methodology discussed further below under the Method of Analysis section, the existing annual VMT associated with the two processing plants is summarized in Table 4.12-1 below.

Table 4.12-1
Woodland and Esparto Plants: Annual Vehicle Miles Traveled (Existing)

Metric	Existing Conditions
Annual Production (tons)	1,137,265
Employee Avg. Trip Length (mi)	34.6
Truck Avg. Trip Length (mi)	27.9
Employee VMT (VMT per total employees)	635,579
Truck VMT (truck miles travelled per year)	2,533,940
Total VMT (vehicle miles travelled per year)	**3,169,519**

Source: Fehr & Peers, 2020.

The total annual VMT presented in the table provides a reasonable estimate of existing VMT associated with the Woodland and Esparto Plants. As noted in the Method of Analysis section of this chapter, under the existing Teichert mining permits, the maximum permitted level of production at the Woodland and Esparto Plants could equal up to 1,200,000 tons per year at the Woodland Plant and 1,000,000 tons per year at the Esparto Plant. However, the County has chosen to focus on the ten-year average annual production level of 1,137,265 tons in order to provide a more realistic representation of existing traffic conditions.

Transit System

The Yolo County Transportation District operates Yolobus, the local and intercity bus service, extending to Davis, West Sacramento, Winters, Woodland, downtown Sacramento, Esparto, Madison, Dunnigan, and Knights Landing. Yolobus operates 48 compressed natural gas (CNG) buses, which are low-emission buses. The service provides an alternative to conventional transportation.

Yolobus Route 215 runs along SR 16 from Cache Creek Casino to the City of Woodland. Service is provided daily from 4:55 AM to 1:55 AM, with six round trips in the morning, six round trips in the afternoon, and five round trips at night. Route 217 runs along I-5 from the City of Woodland to Dunnigan on Tuesdays and Thursdays only. One round trip is provided in the morning (8:50 AM to 10:19 AM) and one in the afternoon (2:15 PM to 4:00 PM). Both routes provide connections to Yolobus lines extending to Davis, the Sacramento airport, West Sacramento, and downtown Sacramento.

Bicycle and Pedestrian System

The Yolo County Bicycle Transportation Plan (BTP) classifies bike paths throughout the County into the following three types:

- Class I – off-street bike paths;
- Class II – on-street bike lanes marked by pavement striping; and
- Class III – on-street bike routes that share the road with motorized vehicles.

Due to the rural nature of the project study area, existing bicycle and pedestrian facilities are minimal. Within the project area, the only existing pedestrian and bicycle facilities are located at the intersection of County Road 20 and SR 16. The intersection includes crosswalks, pedestrian push buttons, and sidewalks on all corners. The other roadways and intersections in the project area do not include existing bicycle or pedestrian facilities.

4.12.3 REGULATORY CONTEXT

The following is a description of federal, State, and local environmental laws and policies that are relevant to the review of transportation and circulation under the CEQA process.

Federal Regulations

Federal regulations applicable to transportation and circulation within the project area do not exist.

State Regulations

The following are the State environmental laws and policies relevant to transportation.

California Department of Transportation

The California Department of Transportation (Caltrans) is responsible for planning, designing, constructing, operating, and maintaining all State-owned roadways in Yolo County. Federal highway standards are implemented in California by Caltrans. Any improvements or modifications to the State highway system within the County need to be approved by Caltrans. The County does not have the ability to unilaterally make improvements to the State highway system. Caltrans' *Guide for the Preparation of Traffic Impact Studies* (December 2002) provides guidance on the evaluation of traffic impacts to State highway facilities. The document outlines when a traffic impact study is needed and what should be included in the scope of the study.

Caltrans has completed transportation or route concept reports for a number of state freeways and highways in Yolo County. The reports identify long-range improvements for specific state freeway and highway corridors and establish the "concept," or desired, LOS for specific corridor segments. The reports also identify long-range improvements needed to bring an existing facility up to expected standards needed to adequately serve 20-year traffic forecasts. Additionally, the reports identify the ultimate design concept for conditions beyond the immediate 20-year design

period. Yolo County freeways and highways that have concept reports are I-5, I-80, I-505, SR 16, SR 45, SR 84, SR 113, and SR 128.

Senate Bill 743

SB 743 (Stats. 2013, ch. 386) requires the Governor's Office of Planning and Research (OPR) to establish new metrics for determining the significance of transportation impacts of projects within transit priority areas (TPAs) and allows OPR to extend use of the metric beyond TPAs. In response, OPR released the *Technical Advisory on Evaluating Transportation Impacts in CEQA*, which identified VMT as the preferred transportation impact metric. OPR applied their discretion to require the use of VMT statewide. SB 743 requires that as of April 27, 2019, vehicle LOS and similar measures related to delay shall not be used as the sole basis for determining the significance of transportation impacts. Determination of impacts based on VMT is required Statewide as of July 1, 2020.

CEQA Guidelines Section 15064.3

Section 15064.3 of the CEQA Guidelines was added in 2018 to address the requirements of SB 743 and the OPR Technical Advisory on Evaluating Transportation Impacts in CEQA. Section 15064.3 states the following:

> (a) Purpose.
>
> This section describes specific considerations for evaluating a project's transportation impacts. Generally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, "vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) below (regarding roadway capacity), a project's effect on automobile delay shall not constitute a significant environmental impact.
>
> (b) Criteria for Analyzing Transportation Impacts.
>
> (1) Land Use Projects. Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.
> (2) Transportation Projects. Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.
> (3) Qualitative Analysis. If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other

destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.

(4) Methodology. A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled, and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.

(c) Applicability.

The provisions of this section shall apply prospectively as described in section 15007. A lead agency may elect to be governed by the provisions of this section immediately. Beginning on July 1, 2020, the provisions of this section shall apply statewide.

Technical Advisory on Evaluating Transportation Impacts in CEQA

The OPR's Technical Advisory on Evaluating Transportation Impacts in CEQA includes potential significance thresholds for different types of land use projects and transportation projects. Distinct threshold recommendations are provided for residential, office, and retail projects. Such uses tend to have the greatest influence on VMT. Lead agencies, using more location-specific information, may develop their own more specific thresholds, which may include other land use types. In developing thresholds for other project types, the Technical Advisory directs lead agencies to consider the purposes described in Section 21099 of the Public Resources Code (PRC) and regulations in the CEQA Guidelines on the development of thresholds of significance (e.g., CEQA Guidelines Section 15064.7).

The Technical Advisory suggests that lead agencies may screen out VMT impacts using project size, map-based approaches to low-VMT areas, transit availability, and provision of affordable housing. However, none of the screening criteria included in the Technical Advisory would apply to the proposed project.

Local Regulations

The following are the regulatory agencies and regulations pertinent to the proposed project on a local level.

Yolo County General Plan

The following goals and policies related to transportation and circulation are applicable to the project:

Goal CI-3 Service Thresholds. Balance the preservation of community and rural values with a safe and efficient circulation system.

Policy CI-3.1 Maintain Level of Service (LOS) C or better for roadways and intersections in the unincorporated county. In no case shall land use be approved that would either result in worse than LOS C conditions, or require additional improvements to maintain the required level of service, except as specified below. The intent

of this policy is to consider level of service as a limit on the capacity of the County's roadways.

A. Interstate 5 (County Road 6 to Interstate 505) – LOS D is acceptable to the County, assuming that one additional auxiliary lane is constructed in each direction through this segment. The County will secure a fair share towards these improvements from planned development. LOS D is anticipated by Caltrans according to the Interstate 5 Transportation Concept Report 1996 to 2016 (Caltrans, April 1997).
B. Interstate 5 (Interstate 505 to Woodland City Limit) – LOS D is acceptable to the County. LOS D is anticipated by Caltrans according to the Interstate 5 Transportation Concept Report 1996 to 2016 (Caltrans, April 1997).
C. Interstate 5 (Woodland City Limit to Sacramento County Line) – LOS F is acceptable to the County. The County will secure a fair share towards intersection improvements from all feasible sources including planned development at the Elkhorn site. LOS C is anticipated by Caltrans according to the State Route 99 and Interstate 5 Corridor System Management Plan (Caltrans, May 2009).
D. D. Interstate 80 (Davis City Limit to West Sacramento City Limit) – LOS F is acceptable to the County. LOS F is anticipated by Caltrans according to the Interstate 80 and Capital City Freeway Corridor System Management Plan (Caltrans, May 2009).
E. State Route 16 (County Road 78 to County Road 85B) – LOS D is acceptable.
F. State Route 16 (County Road 85B to County Road 21A) – LOS E is acceptable.
G. State Route 16 (County Road 21A to Interstate 505) – LOS D is acceptable, assuming that this segment is widened to four lanes with intersection improvements appropriate for an arterial roadway. The County will secure a fair share towards these improvements from planned development. Caltrans and the Rumsey Band of Wintun Indians shall be encouraged to provide funding for the project.
H. State Route 16 (Interstate 505 to County Road 98) – LOS D is acceptable, assuming that passing lanes and appropriate intersection improvements are constructed. The County will secure a fair share towards these improvements from all feasible sources. Caltrans and the Rumsey Band of Wintun Indians shall be encouraged to establish a funding mechanism to pay the remainder.
I. State Route 113 (Sutter County Line to County Road 102) – LOS F is acceptable to the County. The County

will secure a fair share towards these improvements from planned development. LOS F is anticipated by Caltrans according to the State Route 113 Transportation Concept Report 1991-2019 (Caltrans, May 2000).

J. State Route 113 (County Road 102 to Woodland City Limits) – LOS D is acceptable.
K. State Route 128 (Interstate 505 to Napa County Line) – LOS D is acceptable.
L. Old River Road (Interstate 5 to West Sacramento City limits) – LOS D is acceptable.
M. South River Road (West Sacramento City Limit to the Freeport Bridge) – LOS D is acceptable.
N. County Road 6 (County Road 99W to the Tehama Colusa Canal) – LOS D is acceptable, assuming this segment is widened to four lanes. The County will secure a fair share towards these improvements from all feasible sources.
O. County Road 24 (County Road 95 to County Road 98 – LOS D is acceptable.
P. County Road 27 (County Road 98 to State Route 113 – LOS D is acceptable.
Q. County Road 31 (County Road 95 to County Road 98) – LOS D is acceptable.
R. County Road 32A (County Road 105 to Interstate 80) – LOS D is acceptable.
S. County Road 98 (County Road 29 to County Road 27) – LOS D is acceptable.
T. County Road 99W (County Road 2 to County Road 8) – LOS D is acceptable, assuming that this segment is widened to four lanes. The County will secure a fair share towards these improvements from all feasible sources.
U. County Road 102 (County Road 13 to County Road 17) – LOS D is acceptable, assuming that passing lanes and appropriate intersection improvements are constructed. The County will secure a fair share towards these improvements from all feasible sources.
V. County Road 102 (County Road 17 to the Woodland City Limit) - LOS E is acceptable, assuming that passing lanes and appropriate intersection improvements are constructed. The County will secure a fair share towards these improvements from all feasible sources.
W. County Road 102 (Woodland City Limit to Davis City Limit) – LOS D is acceptable assuming that passing lanes and appropriate intersection improvements are constructed. The County will secure a fair share towards these improvements from all feasible sources.
X. Additional exceptions to this policy may be allowed by the Board of Supervisors on a case-by-case basis,

where reducing the level of service would result in a clear public benefit. Such circumstances may include, but are not limited to, the following:

1. Preserving agriculture or open space land;
2. Enhancing the agricultural economy;
3. Preserving scenic roadways/highways;
4. Preserving the rural character of the county;
5. Avoiding adverse impacts to alternative transportation modes;
6. Avoiding growth inducement; or
7. Preserving downtown community environments.
8. Where right-of-way constraints would make the improvements infeasible.

Policy CI-3.4 Define level of service consistent with the latest edition of the Highway Capacity Manual and calculate using the methodologies contained in that manual. At a minimum, weekday AM and PM peak hour traffic volumes will be used in determining compliance with the level of service standard. For recreational and other non-typical peak hour uses, weekday afternoon, weekday late evening, or weekends shall be considered.

Policy CI-3.7 Consider designs for planned roadway capacity improvements that recognize the unique conditions associated with rural and agricultural areas in accordance with established standards including, but not limited to, the following:

- American Association of State Highway and Transportation Officials (AASHTO) publication "A Policy on Geometric Design of Highways and Streets;"
- Caltrans' Main Streets: Flexibility in Design and Operations;
- Federal Highway Administration's Flexibility in Highway Design;
- 2007 California Fire Code; and
- Institute of Transportation Engineers' Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities.

Policy CI-3.9 To the greatest feasible extent, require new development to construct safety improvements consistent with current design standards on existing roadways that are anticipated to accommodate additional traffic from planned development.

Policy CI-3.11 Require new development to finance and construct all off-site circulation improvements necessary to mitigate a project's transportation impacts (including public transit, pedestrian and bicycle mobility, safety and level of service-related impacts, and

impacts to the State Highway System). For mitigation to be considered feasible, it must be consistent with the policies of the General Plan.

Policy CI-3.12 Collect the fair share cost of all feasible transportation improvements necessary to reduce the severity of cumulative transportation impacts (including public transit, pedestrian and bicycle mobility, safety and level of service-related impacts).

Policy CI-3.13 Ensure that transportation and circulation improvements (including improvements to comply with County design standards) are constructed and operational prior to or concurrent with the need, to the extent feasible.

Policy CI-3.16 Ensure that funding for the long-term maintenance of affected roads is provided by planned development.

Policy CI-3.18 Ensure adequate access for emergency vehicles.

Off-Channel Mining Plan

The following goal and action from the adopted Yolo County Off-Channel Mining Plan (OCMP) related to transportation and circulation are applicable to the proposed project:

Goal 2.2-3 Prevent or minimize the adverse environmental effects of surface mining.

Action 2.4-21 Ensure that each mining operation adheres to approved haul routes and approved ingress/egress locations. Ensure through conditions of approval and other appropriate mechanisms that mining operations are funding their fair share of roadway and related impacts, including both one-time improvements and ongoing operations and maintenance, along approved haul routes and in proximity to approved operation ingress/egress locations.

Capital Improvement Plan

The Yolo County Board of Supervisors established the Capital Improvement Plan (CIP) in recognition of the need to develop and adopt a consolidated capital asset management plan, budget for plan implementation, and incorporate the impact of the plan on the operating budget. The most recent 2019-2023 CIP includes capital projects that are in the stages of implementation and those projects that are scheduled to be implemented within the next five fiscal years. The CIP continues to be used as a tool for the implementation of projects included in various Board-adopted plans, including the Yolo County Strategic Plan, General Plan, Information Technology Strategic Plan, Facilities plans, Parks Master Plan, Airport Master Plan, CCAP, and other special projects.

Transportation Impact Study Guidelines

The County's *Transportation Impact Study Guidelines* document establishes protocol for transportation impact studies and reports based on the current state-of-the-practice in transportation planning and engineering. The following types of projects, which involve

development activity in and around Yolo County and affect the County's transportation system, may require a Transportation Impact Study per the Guidelines:

- Transportation infrastructure modification or expansion, including CIP projects on County roads and state highways.
- Land use entitlements requiring discretionary approval by Yolo County, including annexations, general plan amendments, specific plans, zoning changes, conditional use permits, and tentative maps.
- Land use activity advanced by agencies other than Yolo County that is subject to jurisdictional review under State and federal law.
- Land use activity advanced by agencies other than Yolo County that is inconsistent with the County's General Plan.

Off-Channel Surface Mining Ordinance

Section 10-4.402 of the Yolo County Off-Channel Surface Mining Ordinance (OCSMO) states the following regarding access standards:

> Section 10-4.402. Access Roads
> The first one-hundred (100) feet of access road intersecting a County-maintained road shall be surfaced in a manner approved by the Public Works Department, with an approach constructed to County standards. Traffic control and warning signs shall be installed as required by the Public Works Department.

Sections 10-4.408 and 10-4.409 of the OCSMO state the following regarding improvements to and maintenance of County roads:

> Section 10-4.408. County Road Improvements
> It is the intent of this program that each operator shall pay for any road improvements determined to be necessary to support their operation consistent with County and CCAP standards, and for ongoing operations and maintenance. Each operator shall pay its fair share toward improvements required to maintain a structural capacity (traffic index) sufficient for the project traffic and to maintain operations on County roads and on State Highways within the OCMP planning area consistent with applicable General Plan policies related to LOS and applicable State policy related to VMT. Fair share mitigation shall also be required to improve existing operational as well as structural deficiencies of the transportation system. Specific locations shall be identified through the project-specific environmental review process for each operator's long-term mining permit application. Each operator shall participate in a funding program operated by the County which is designed to ensure that all improvements are made in a timely manner and that a reimbursement mechanism is in place to ensure repayment of any costs contributed in excess of fair share amounts. The program shall be initiated upon the approval of the long-term mining permits and shall be updated biennially by the County to ensure any new or modified impacts or funding sources are being addressed.
>
> Each operator shall have the option to complete the work at their expense without triggering the competitive bid process, as long as they comply with the applicable legal requirements of the County. If the operator declines the option, the County shall utilize the competitive bid process.
>
> Section 10-4.409. County Road Maintenance
> The operator shall agree to assume joint pavement maintenance responsibility with the County (or shared with another producer using the same roadway) for all County roads

along a designated haul route from the access point of the surface mining operation to an appropriate State Highway. The County will provide maintenance of the county-maintained roadside drainage ditches, traffic signs, and striping. By May 15 of each year, the operator shall submit to the County an annual evaluation report documenting the structural integrity of the pavement structural section and the PCI of the roads maintained by the operator. The annual report shall be signed and sealed by a civil engineer licensed in the State of California. The report shall contain a proposed action plan for pavement maintenance and pavement improvements to maintain safe and efficient traffic operation on the roads, and a PCI of 70 or more, unless otherwise agreed by the County, as defined by American Society for Testing and Materials (ASTM) Method D6433 (Standard Practice for Roads and Parking Lots Pavement Condition Index Survey), for each upcoming year. Within 30 days, the County will review the report and recommend revisions if necessary. Following acceptance of the report by the County, the operator shall secure a County encroachment permit specific to the action plan (at no cost to the operator) and complete the proposed pavement maintenance and improvement activities prior to the submittal of the annual report. Striping may be provided by the County if County striping equipment and material are available. Otherwise striping will be provided by the operator. Once the work is completed, the operator will resubmit the annual evaluation report by November 1 each year, and include the scope and dates that work was completed.

If minor emergency asphalt repairs (work requiring a single County Public Works maintenance pick-up truck with asphalt patching material) are identified within the maintenance areas of the hauling routes after the Applicant's yearly maintenance has been completed, county crews will perform the minor asphalt repair maintenance once in a sixty (60) consecutive day period. The types of asphalt pavement failures requiring repairs include, but are not limited to, cracking, pot holes, depressions, rutting, shoving, upheaval, and raveling and any other pavement damage or failures requiring immediate repair by the county.

If major emergency roadway repairs associated with the permitted activities (work requiring more than a single County Public Works maintenance pick-up truck with asphalt patching material, or minor asphalt repairs occurring in less than the sixty (60) consecutive day period) are identified after the Applicant's yearly maintenance has been completed, the Applicant shall obtain a County encroachment permit (at no cost to Applicant) and complete the major roadway repairs. If major roadway repairs that are the Applicant's fair share obligation are not completed by the Applicant in a timely manner as determined by the County, and the County must make repairs when the public's safety is considered at risk by the County Engineer, then the Applicant will be billed for the County's major roadway repair work on a time and materials basis. An applicant may coordinate with the County to have the County complete required improvements, and in such case, must fully fund the County's costs to do so. The operator does not assume the liability for the roadway, except for cases where the operator has not fulfilled its maintenance obligations.

If a subsequent mining operation utilizes a road previously required to be improved pursuant to this subsection, then the subsequent operator shall be responsible for compliance with the agreements and requirements of the previous operator.

4.12.4 IMPACTS AND MITIGATION MEASURES

The standards of significance to be used in identifying transportation and circulation impacts are presented below. The standards are based on policies of Yolo County. In addition, the methods used to analyze the impacts of the project on the roadway, bicycle, pedestrian, and transit systems are provided in this section. A discussion of the project's impacts, as well as mitigation measures where necessary, are also presented.

Standards of Significance

The significance criteria used for this analysis were developed from Appendix G of the CEQA Guidelines, and applicable policies and regulations of Yolo County. A transportation and circulation impact is considered significant if the proposed project would:

- Conflict with a 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);
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access; or
- Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating impacts to transportation and circulation.

VMT Thresholds

The OPR *Technical Advisory On Evaluating Transportation Impacts in CEQA* recommends that lead agencies establish project-level thresholds for VMT analysis. Per Section 15064.3(b)(3) of the CEQA Guidelines, a lead agency has discretion to choose the most appropriate methodology to evaluate a project's VMT, including whether to express the change in absolute terms, per capita, per household or in any other measure. Where appropriate, a lead agency may analyze a project's VMT qualitatively based on the availability of transit, proximity to destinations, etc. Existing guidance available in the *Technical Advisory On Evaluating Transportation Impacts in CEQA* includes recommended numeric thresholds for residential, office, and retail projects. The OPR Technical Advisory states that lead agencies may develop their own specific thresholds, which may include other land use types, using more location-specific information. Therefore, Yolo County has considerable discretion in choosing a suitable VMT impact analysis approach for the purposes of the proposed project.

Yolo County does not currently have established VMT significance thresholds for environmental review purposes. For the purposes of this EIR analysis and in accordance with the CEQA Guidelines, a VMT-related impact would be considered significant if implementation of the proposed project would trigger the following condition:

- The Existing Plus Project VMT is greater than Existing (no project) VMT.

Impacts Found Less-than-Significant in Initial Study

The Initial Study prepared for the proposed project (see Appendix A) did not identify any less-than-significant impacts related to transportation and circulation.

Method of Analysis

Documents referenced to prepare this chapter include a VMT Memo[5] and TIA[6] prepared for the project by Fehr & Peers (see Appendix M). The methodology used within both documents is summarized below.

[5] Fehr & Peers. *Shifler Mining Project Vehicle Miles Traveled Impact Evaluation.* February 4, 2020.
[6] Fehr & Peers. *Shifler Mining and Reclamation Project Traffic Impact Study.* August 2018.

VMT Analysis Scenarios

The following VMT analysis scenarios are included in this EIR:

- **Existing:** VMT is analyzed under existing conditions, using a level of production at the Woodland and Esparto plants equal to the ten-year average (2005 to 2014) at the plants, equal to 721,257 tons per year at the Woodland Plant and 416,007 tons per year at the Esparto Plant.
- **Existing Plus Project:** VMT is analyzed under plus project conditions, assuming maximum permitted level of production at the Woodland Plant, equal to 2,200,000 tons per year. This scenario represents the highest VMT that could be expected from the project.
- **Baseline (Permitted Capacity):** VMT is analyzed under existing conditions, assuming maximum permitted level of production at the Woodland and Esparto plants, equal to 1,200,000 tons per year at the Woodland Plant and 1,000,000 tons per year at the Esparto Plant. This scenario is included for informational purposes only and is not used in VMT impact evaluation. This scenario is included to account for additional VMT that could reasonably occur under the existing mining permits, without the proposed project.

Project Trip Generation

Currently, the Teichert Woodland Plant is permitted to produce up to 1.2 million tons of aggregate per year. In addition to the Woodland Plant, the Esparto Plant, located approximately 13 miles west of the Woodland Plant, has a cap of 1 million tons sold per year. As part of the proposed project, Teichert is requesting to transfer the Esparto Plant's current annual permitted volume of 1 million tons sold (1.18 million tons mined) to the Woodland Plant once mining is complete at Esparto or the Esparto permit expires, whichever occurs first, allowing production at the Woodland Plant to reach up to 2.2 million tons sold in a given year. The following four trip generation scenarios were analyzed in the traffic study appendix (see Appendix M to the EIR):

- Scenario 1: Production of 1.2 million tons per year at the Woodland Plant (existing permitted maximum tons sold) and 1.0 million tons processed at Esparto.
- Scenario 2: Production of 1.5 million tons per year at the Woodland Plant (existing permitted maximum tons sold plus 300,000 tons per year of existing permitted Esparto Plant volume).
- Scenario 3: Production of 1.8 million tons per year at the Woodland Plant (existing permitted maximum tons sold plus 600,000 tons per year of existing permitted Esparto Plant volume).
- Scenario 4: Production of 2.2 million tons per year at the Woodland Plant (existing permitted maximum tons sold plus 1 million tons per year of existing permitted Esparto Plant volume) and 0 processed at Esparto (Esparto facility closed).

In order to determine AM and PM peak hour trip generation associated with the proposed project, Fehr & Peers relied on historical records of trip generation associated with other Teichert facilities in the project area, specifically, data from 2009 to 2013. The data showed that in 2010, the Woodland Plant produced approximately 1,000,000 tons of aggregate for sale. Thus, the 2010 Woodland Plant data is roughly equivalent to the total annual permitted volume of aggregate sold that would be transferred to the Shifler site from Esparto as part of the proposed project, and the 2010 data was used to develop trip generation estimates for the project.

The calculated AM and PM peak hour trips for each of the four scenarios are as follows:

- Scenario 1: 110 AM peak hour trips, 4 PM peak hour trips;
- Scenario 2: 138 AM peak hour trips, 6 PM peak hour trips;
- Scenario 3: 166 AM peak hour trips, 8 PM peak hour trips; and
- Scenario 4: 202 AM peak hour trips, 8 PM peak hour trips.

Additional information related to calculation of the total number of truck loads per year, along with the AM and PM peak hour trips, is provided in Appendix M to this EIR.

Project generated traffic volumes were distributed to the surrounding roadway network based on existing travel patterns at the Woodland Plant. Project trips were distributed based on the following:

- 4 percent to/from north on I-5 via County Road 20 and County Road 98;
- 67 percent to/from south on I-5 via County Road 20 and County Road 98;
- 5 percent to/from north on I-505 via County Road 20, County Road 96, and SR 16;
- 20 percent to/from south on I-505 via County Road 20, County Road 96, and SR 16; and
- 4 percent to/from west on SR 16 via County Road 20 and County Road 96.

In accordance with the applicant's approved haul route, project haul trips were not routed across the County Road 94B bridge.

Project Vehicle Miles Travelled

Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Per Section 15064.3, analysis of VMT attributable to a project is the most appropriate measure of transportation impacts. While changes to driving conditions that increase intersection delay are an important consideration for traffic operations and management, the method of analysis does not fully describe environmental effects associated with fuel consumption, emissions, and public health. Section 15064.3(3) changes the focus of transportation impact analysis in CEQA from measuring impact to drivers to measuring the impact of driving.

The existing VMT conditions evaluated in this assessment for the Teichert Woodland Plant operations were developed using the average annual production over the ten-year period between 2004 and 2014, similar to the existing scenario analyzed in Chapter 4.10, Noise, of this EIR. VMT generated by current agricultural land use at the Shifler site is presumed to be nominal compared to VMT generated by current mining operations, based on the type of crops planted at the site over the past decade (e.g., wheat, alfalfa, tomoatoes, cucumbers, canola, sunflower, and safflower).

For the purposes of assessing mining land use projects, VMT is a two-part formula calculated by the following equation:

$$VMT = (Avg.\ trip\ length \times Vehicle\ trips)_{Trucks} + (Avg.\ trip\ length \times Vehicle\ trips)_{Employees}$$

Teichert has historical records documenting historical aggregate production and sales for the Esparto and Woodland Plants. Such data was used to derive the average truck haul tonnage and number of truck trips to/from both plants. Teichert also has historical records regarding employee

residence locations and aggregate sales locations throughout the greater Sacramento region, which was used to develop average trip lengths for both employees and trucks traveling to/from both plants. Together, both inputs were used to develop truck and employee VMT estimates under Existing conditions.

The project will not result in an increase in the combined permitted annual capacity available to Teichert, and thus may result in the same VMT as the Existing Conditions. However, it is also feasible that Teichert will maximize its production in any given year, which would result in a significant increase in VMT. In order to fully analyze this potential impact and to advance CEQA's policy of being more protective of the environment, this EIR conservatively measures VMT assuming Teichert will maximize its production, even if historical data show actual volumes being lower. Accordingly, the Existing Plus Project conditions assume the transfer of the Esparto Plant's current annual permitted volume of one million tons sold to the Woodland Plant, which would increase the annual permitted volume at the Woodland Plant to 2.2 million tons sold. Using the average trip lengths and trip generation data developed for existing conditions, VMT estimates were developed for trucks and employees under Existing Plus Project conditions. Table 4.12-2 shows Existing and Existing Plus Project VMT analysis results.

Table 4.12-2
Vehicle Miles Traveled (Mining Operations): Existing and Existing Plus Project[1]

Metric	Existing Conditions[2]	Existing Plus Project Conditions
Production (tons)	1,137,265	2,200,000
Employee Avg. Trip Length (mi)	34.6	32.7
Truck Avg. Trip Length (mi)	27.9	26.4
Employee VMT	635,579	980,996
Truck VMT	2,533,940	4,647,016
Total VMT	3,169,519	5,628,012
Change in VMT (Compared to Existing Conditions)	0	+2,458,493

[1] VMT related to current agricultural land uses at the Shifler site are presumed to be nominal compared to current mining operations VMT, based on the type of crops planted at the site over the past decade, which include wheat, alfalfa, tomatoes, cucumbers, canola, sunflower, and safflower.
[2] Existing conditions consider the combined production of the current Esparto Plant and Woodland Plant. Current mining operations do not occur on the Shifler project site.

Source: Fehr & Peers, 2020.

It should be noted while a portion of the project site is proposed to be reclaimed to a lake upon completion of mining activities, VMT associated with members of the public visiting the lake would be relatively minimal compared to VMT occurring during active mining operations at the site. Thus, VMT associated with the reclaimed project site would not affect the analysis or conclusions presented herein, and is not discussed further.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts related to transportation and circulation resources is based on implementation of the proposed project in comparison to existing conditions and the standards of significance presented above.

4.12-1 Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, bicycle, and pedestrian facilities. This impact would be *less than significant*.

Key elements of project include the following: 1) relocation of a segment of Moore Canal to the northerly portion of the site and modification of Magnolia Canal to align with the relocated Moore Canal; 2) transfer of tonnage from the Teichert Esparto and Teichert Schwarzgruber operation to the Teichert Shifler operation; 3) continued operation and expansion of the Teichert Woodland Plant facilities (including new equipment and increased processing capacity); 4) excavation at the Shifler site; 5) reclamation of the Shifler site; 6) delayed reclamation at Woodland Plant site; 7) dedication of various reclaimed properties to the County; and 8) completion of an in-channel gravel bar removal project. The Magnolia Canal modification would include removal of a 1,200-foot-long segment of the canal. The project would also include installation of a new water pipe, to be located alongside the existing conveyor belt alignment. None of the project components are anticipated to result in substantial bicycle or pedestrian trips on the surrounding public roadway network, or substantially increased demand for transit services.

Due to the rural nature of the project study area, existing bicycle and pedestrian facilities are minimal. Within the project area, the only existing pedestrian and bicycle facilities are located at the intersection of County Road 20 and SR 16. The intersection includes crosswalks, pedestrian push buttons, and sidewalks on all corners. The other roadways and intersections in the project area do not include existing bicycle or pedestrian facilities. The Yolo County Bicycle Master Plan does not identify any planned bicycle facilities in the project vicinity.[7]

Anticipated recreation, parkway, and open space uses associated with future use of dedicated lands could increase bicycle and pedestrian use of trails throughout the Cache Creek Parkway. This activity is expected to be minimal and would be consistent with planned use of the Parkway.

Therefore, the proposed project would not conflict with any programs, plans, ordinances, or policies addressing transit, bicycle, or pedestrian facilities, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)
None required.

4.12-2 Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). The impact would be *significant*.

The applicant is requesting to transfer the annual permitted tonnage allocation associated with the Teichert Schwarzgruber operation and the Teichert Esparto operation upon completion of mining or permit expiration at both sites. Together, the

[7] Yolo County. *Bicycle Transportation Plan, Bicycle Routes and Priorities.* March 2013.

proposed transfers would allow the Teichert Shifler operation to mine a maximum of 2,588,237 tons (2.2 million tons sold) in any given year, provided that production over a consecutive 10-year period does not exceed 23,529,430 tons mined (20 million tons sold) (see Table 3-2 of this EIR).

Section 15064.3 of the CEQA Guidelines states that generally, VMT is the most appropriate measure for evaluating the transportation impacts of a project. Per Section 15064.3(b), vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Yolo County does not currently have established VMT significance thresholds for environmental review purposes. For the purposes of this EIR analysis and in accordance with the CEQA Guidelines, a VMT-related impact is considered significant if implementation of the proposed project would trigger the following condition: the annual Existing Plus Project VMT is greater than Existing (no project) VMT. Specifically, a significant impact would occur if total annual VMT associated with the Woodland and Esparto Plants is increased under the Existing Plus Project conditions (2,200,000 tons of aggregate sold per year at the Woodland Plant) compared to Existing conditions (721,257 tons of aggregate sold per year at the Woodland Plant and 416,007 tons per year at the Esparto Plant).

The data provided by Teichert indicates that compared to the Esparto plant, the Woodland plant is located closer to employee residence locations and aggregate sales locations. As a result, the proposed project would reduce the average trip length for both employee commutes and truck deliveries by approximately 5.4 percent each (as compared to existing conditions). This amounts to lower VMT per employee and lower VMT per ton produced under Existing Plus Project conditions.

If the future production matches the historic levels, VMT generated by Teichert's mining operations would decrease over existing conditions due to the proximity of the Woodland Plant. However, given that the Existing conditions are based on the average production levels, while the Existing Plus Project conditions are analyzed at the maximum production level, the level of production assumed in the Existing Plus Project scenario is approximately 93 percent higher than the level of production under the Existing Scenario. Compared to existing conditions, the proposed project would increase VMT by 2,458,493 annually, or approximately 78 percent given that VMT efficiencies gained by combining productions at the Woodland Plant are negated by the increase in production between the two scenarios (i.e., production of 1,137,265 tons per year under Existing conditions versus 2,200,000 tons per year under Existing Plus Project conditions).

As mining is completed, reclamation will occur in compliance with proposed reclamation plans resulting in approximately 86 acres of agricultural land on the west, approximately 31 acres of agricultural land on the east, a 113-acre open water lake in the central portion of the proposed mining area, 24 acres of riparian habitat along the lake frontage, and 24 acres in grassy slopes and access roads. The lake and surrounding habitat will be dedicated to the County upon completion for future public recreation, public trails, open space, and protected habitat. The applicant has also agreed to dedicate the Shifler In-Channel property, reclaimed Schwarzgruber property, and potentially the reclaimed Woodland Plant site, for similar future uses. VMT generated as a result of future recreational, parkway, open space uses is expected to be minimal because the Cache Creek Parkway will fulfill area demand for

open water and passive recreation opportunities not available locally and currently filled elsewhere in the region, primarily outside the County.

Based on the above, the proposed project could result in a ***significant*** impact with respect to conflicting with or being inconsistent with CEQA Guidelines section 15064.3, subdivision (b).

Mitigation Measure(s)

Mitigation measures that would reduce VMT must result in one of two outcomes – a decrease in average trip length or a decrease in trip generation. The proposed project's remote location and specialized land use type would limit the range and effectiveness of potential VMT mitigation options, particularly those that are commonly applicable in urban or suburban settings (e.g., co-locating complementary land uses, providing subsidized transit passes, improving pedestrian/bicycle networks, managing parking supply, etc.).

Table 4.12-3 provides an assessment of the feasibility of potential actions that would reduce average trip length and/or trip generation and, in turn, VMT generated by the proposed project. As shown in the table, feasible mitigation actions for the project are limited to those that could decrease employee trip generation through commute trip reduction strategies.

Table 4.12-3
Potential VMT Mitigation Feasibility Assessment

Action	VMT Reduction Effect	Feasibility
Decrease annual aggregate production.	Reduce trip generation associated with aggregate deliveries.	Potential feasibility issues due to mine operations/business model. Also, would prevent mine from operating up to its permitted production levels.
Decrease number of mine employees.	Reduce trip generation associated with employee commutes.	Potential feasibility issues due to mine operations/business model.
Implement transportation demand management (TDM) program.	Reduce trip generation associated with employee commutes.	Feasible.

Source: Fehr & Peers, 2020.

Given the project's land use type (an industrial mining operation) and the project site location in rural Yolo County, a TDM program aimed at reducing employee commute trips would have relatively limited effectiveness. As shown in Table 4.12-2, employee commutes would generate only 980,996 VMT under Existing Plus Project conditions, or approximately 17 percent of total annual VMT. The larger proportion of VMT is associated with the haul trips, which are already arguably minimized by ensuring a local source of aggregate. Thus, measures aimed at reducing employee commute VMT only have the potential to address a small portion of the overall VMT. An approximately 78 percent employee VMT reduction would be necessary to reduce Existing Plus Project VMT to the Existing (no project) level. Therefore, implementation of Mitigation Measure 4.12-2 below would not be sufficient to reduce Existing Plus

Project VMT to Existing conditions, and the impact would remain *significant and unavoidable*.

4.12-2 ***Transportation Demand Management (TDM) Program.*** *Prior to commencement of mining activities at the project site, the project applicant shall develop and implement a TDM program to reduce the number of daily employee commute trips made to the project site, and shall submit the TDM Program to Yolo County for review and approval. The TDM Program shall identify trip reduction strategies as well as mechanisms for funding and overseeing the delivery of trip reduction programs and strategies. The TDM Program shall be designed to achieve the following trip reduction:*

- *Reduce employee commute VMT to the maximum extent feasible.*

Feasible trip reduction strategies may include, but are not limited to, the following:

- *Develop an employer-led program that considers:*
  - *Carpooling encouragement;*
  - *Ride-matching assistance; and*
  - *Vanpool assistance.*

4.12-3 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). The impact would be *less than significant*.

Aggregate trucks going to and from the Woodland Plant currently access the plant from its entrance on County Road 20. Trucks are required to use designated haul routes of County Road 20, County Road 96, and SR 16 to and from I-5 and I-505. Local deliveries are allowed to use roads other than SR 16, County Road 20, or County Road 96.

In order to allow mining equipment to move between the Woodland Plant site and the project site, an over-crossing of the relocated Moore Canal would be constructed as part of the proposed project. Aggregate trucks would continue to access the Woodland Plant site by way of the existing entrance on County Road 20, using the existing haul routes noted above. The project does not include changes to the designated haul routes. Thus, the project would not result in any new or exacerbated hazards associated with haul truck traffic. Project workers, as well as emergency vehicles, would also access the project site through the existing driveway at County Road 20. While concerns were raised during the NOP comment period regarding trucks entering and exiting the project site from County Road 94B, the proposed project would not allow access from County Road 94B to occur. Comments were also received regarding a community petition to lower the posted speed limit on County Road 96, to improve traffic safety. The proposed project would not increase traffic volumes on County Road

96 relative to existing conditions and, thus, would not exacerbate any potential pre-existing safety concerns.

With regard to issues related to degradation of local roadways due to haul truck traffic, Section 10-4.408 of the OCSMO requires operators to pay a fair share toward improvements required to maintain a structural capacity (traffic index) sufficient for the project traffic and to maintain operations on County roads and on State Highways within the OCMP planning area consistent with applicable General Plan policies related to LOS and applicable State policy related to VMT. Fair share fees must provide for improvement of existing operational and structural deficiencies of the transportation system. See Table 4.12-20 below regarding conditions of approval to be placed on the proposed project to address maintenance concerns.

Given that only non-emergency access to the project site would occur through the existing Woodland Plant entrance at County Road 20, the proposed project would not create any substantial new hazards associated with intersection improvements or other circulation features. Therefore, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)
None required.

4.12-4 Result in inadequate emergency access. The impact would be *less than significant*.

Project workers, as well as emergency vehicles, would access the project site through the existing Woodland Plant driveway at County Road 20. The proposed project would not include any modifications to the existing access. In addition, emergency vehicles would be able to access the project site directly through a gated entrance off of County Road 22, near the Monument Hill Memorial Park cemetery. The gated entrance at County Road 22 would not be used for any other project operations. Given that two emergency access points would be provided to the project site, emergency vehicles would be afforded adequate access to the proposed mining area, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)
None required.

4.12-5 Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating impacts to transportation and circulation. The impact would be *less than significant*.

Table 4.12-20 below provides an analysis of the proposed project's consistency with applicable policies and regulations that have been adopted for the purpose of avoiding or mitigating environmental effects related to transportation and circulation. As shown in Table 4.12-20, and based on the analysis below, the proposed project is anticipated to be generally consistent with applicable standards. The applicant has agreed to dedicate the Shifler lake and surrounding habitat, Shifler In-Channel property,

reclaimed Schwarzgruber property, and potentially the reclaimed Woodland Plant site, for future recreational, parkway, trails, and open space uses. These dedications are consistent with the CCAP and the cache Creek Parkway Plan documents. Thus, a ***less-than-significant impact*** would occur.

Mitigation Measure(s)

None required.

The following LOS discussion is provided given that the County's General Plan has adopted policies related to LOS.

Study Intersections under Existing Plus Project Conditions

Operations of roadway facilities are described with the term level of service (LOS), a qualitative description of traffic flow from a vehicle driver's perspective based on factors such as speed, travel time, delay, and freedom to maneuver. LOS is a qualitative measure of traffic operating conditions, whereby a letter grade, from A to F is assigned. The grades represent the perspective of drivers and are an indication of the comfort and convenience associated with driving. In general, LOS A represents free-flow conditions, and LOS F represents severe delay under stop-and-go conditions.

The Circulation Element of the Yolo County 2030 Countywide General Plan (April 2009) defines the minimum acceptable operation level for roadways and intersections in the unincorporated county to be LOS C. Certain exceptions are outlined in Policy CI-3.1 of the General Plan. The exceptions include the following study roadways and intersections:

- Interstate 5 (Interstate 505 to Woodland City Limit) – LOS D is acceptable. LOS D is anticipated by Caltrans according to the Interstate 5 Transportation Concept Report 1996 to 2016 (Caltrans, April 1997).
- State Route 16 (Interstate 505 to County Road 98) – LOS D is acceptable, assuming that passing lanes and appropriate intersection improvements are constructed. The County will secure a fair share towards these improvements from all feasible sources.

Project generated traffic volumes were added to existing traffic volumes for the Existing Plus Project conditions peak hour operations analysis. To prevent double counting of truck trips, existing trips to and from the Woodland Plant were subtracted from the existing traffic volumes prior to adding anticipated traffic based on each production scenario.

Table 4.12-4 shows the Existing Plus Project conditions intersection LOS analysis results for Scenario 1 (1.2 million tons of aggregate per year). Table 4.12-5 shows the Existing Plus Project conditions intersection LOS analysis results for Scenario 4 (2.2 million tons of aggregate per year). As shown in the tables, the study intersections would continue to operate at acceptable levels under both Scenario 1 and Scenario 4.

The Scenario 4 intersection LOS results indicate that under Existing Plus Project conditions, the study intersections would continue to operate at acceptable LOS with

project traffic generated by the production of 2.2 million tons of aggregate per year. Scenarios 2 and 3 would generate less traffic than Scenario 4 and, therefore, would also result in acceptable operations at the study intersections.

Because all study intersections would operate at acceptable levels with implementation of the project under each of the four scenarios analyzed, the proposed project would be consistent with the County's applicable LOS standards for the study intersections under Existing Plus Project conditions.

Study Roadway Operations under Existing Plus Project Conditions

Table 4.12-6 shows the Existing Plus Project conditions roadway operations analysis results for Scenario 1. Table 4.12-7 shows the Existing Plus Project conditions roadway operations analysis results for Scenario 4. As shown in the tables, all study roadway segments would continue to operate at acceptable levels under both Scenario 1 and Scenario 4.

The Scenario 4 roadway operations results indicate that under Existing Plus Project conditions, the study roadway segments would continue to operate at acceptable LOS with project traffic generated by the production of 2.2 million tons of aggregate per year. Scenarios 2 and 3 would generate less traffic than Scenario 4 and, therefore, would also result in acceptable operations at the study roadway segments.

Because all study roadway segments would operate at acceptable levels with implementation of the project under each of the four scenarios analyzed, the proposed project would be consistent with the County's applicable LOS standards for the study roadway segments under Existing Plus Project conditions.

Study Roadway Capacity under Existing Plus Project Conditions

Table 4.12-8 shows results of the Existing Plus Project conditions roadway capacity analysis results for Scenario 1. Table 4.12-9 shows the results of the Existing Plus Project conditions roadway capacity analysis results for Scenario 4. As shown in the tables, all study roadway segments would continue to have sufficient capacity under both Scenario 1 and Scenario 4.

The Scenario 4 roadway operations results indicate that under Existing Plus Project conditions, the study roadway segments would continue to have sufficient capacity with project traffic generated by the production of 2.2 million tons of aggregate per year. Scenarios 2 and 3 would generate less traffic than Scenario 4 and, therefore, would also result in sufficient capacity at the study roadway segments.

Because all study roadway segments would have sufficient capacity with implementation of the project under each of the four scenarios analyzed, the proposed project would be consistent with the County's applicable LOS standards for the study roadway segments under Existing Plus Project conditions.

Table 4.12-4
Intersection LOS – Existing Plus Scenario 1

Intersection	Control	Existing				Existing Plus Scenario 1			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. SR 16/I-505 Southbound Ramps	Side Street Stop	1 (15)	A (B)	1 (20)	A (C)	1 (16)	A (C)	1 (20)	A (C)
2. SR 16/I-505 Northbound Ramps	Traffic Signal	6	A	7	A	6	A	7	A
3. SR 16/County Road 94B	Side Street Stop	1 (16)	A (C)	2 (22)	A (C)	1 (18)	A (C)	2 (22)	A (C)
4. SR 16/County Road 96	Side Street Stop	2 (17)	A (C)	2 (18)	A (C)	3 (19)	A (C)	2 (19)	A (C)
5. County Road 20/County Road 96	All Way Stop	7	A	7	A	10	A	8	A
6. County Road 20/County Road 97	Side Street Stop	2 (9)	A (A)	3 (9)	A (A)	1 (10)	A (A)	3 (9)	A (A)
7. County Road 20/SR 16 (County Road 98)	Traffic Signal	15	B	15	B	17	B	15	B
8. SR 16/I-5 Southbound Ramps	Side Street Stop	3 (12)	A (B)	2 (15)	A (B)	2 (13)	A (B)	2 (15)	A (B)
9. SR 16/I-5 Northbound Ramps	Side Street Stop	4 (10)	A (A)	5 (10)	A (B)	6 (11)	A (B)	5 (10)	A (B)

Note: For signalized and all-way stop controlled intersections, average intersection delay is reported in seconds per vehicle for the overall intersection. For unsignalized (side street stop controlled) intersections, average intersection delay is reported in seconds per vehicle for the overall intersection (worst movement). All results are rounded to the nearest second.

Source: Fehr & Peers, 2018.

Table 4.12-5
Intersection LOS – Existing Plus Scenario 4

Intersection	Control	Existing				Existing Plus Scenario 4			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. SR 16/I-505 Southbound Ramps	Side Street Stop	1 (15)	A (B)	1 (20)	A (C)	1 (16)	A (C)	1 (20)	A (C)
2. SR 16/I-505 Northbound Ramps	Traffic Signal	6	A	7	A	6	A	7	A
3. SR 16/County Road 94B	Side Street Stop	1 (16)	A (C)	2 (22)	A (C)	1 (18)	A (C)	2 (22)	A (C)
4. SR 16/County Road 96	Side Street Stop	2 (17)	A (C)	2 (18)	A (C)	3 (19)	A (C)	2 (19)	A (C)
5. County Road 20/County Road 96	All Way Stop	7	A	7	A	10	A	8	A
6. County Road 20/County Road 97	Side Street Stop	2 (9)	A (A)	3 (9)	A (A)	1 (10)	A (A)	3 (9)	A (A)
7. County Road 20/SR 16 (County Road 98)	Traffic Signal	15	B	15	B	17	B	15	B
8. SR 16/ I-5 Southbound Ramps	Side Street Stop	3 (12)	A (B)	2 (15)	A (B)	2 (13)	A (B)	2 (15)	A (B)
9. SR 16/I-5 Northbound Ramps	Side Street Stop	4 (10)	A (A)	5 (10)	A (B)	6 (11)	A (B)	5 (10)	A (B)

Note: For signalized and all-way stop controlled intersections, average intersection delay is reported in seconds per vehicle for the overall intersection. For unsignalized (side street stop controlled) intersections, average intersection delay is reported in seconds per vehicle for the overall intersection (worst movement). All results are rounded to the nearest second.

Source: Fehr & Peers, 2018.

Table 4.12-6
Roadway LOS – Existing Plus Scenario 1

Roadway – Location	Roadway Classification	AM Peak Hour			PM Peak Hour		
		ATS (mph)	PTSF (%)	LOS	ATS (mph)	PTSF (%)	LOS
SR 16–I-505 to County Road	Class I Hwy	EB – 44.0	EB – 70.1	D	EB – 42.9	EB – 65.6	D
		WB – 44.6	WB – 48.8	D	WB – 43.7	WB – 68.3	D
SR 16 – County Road 94B to County Road 96	Class I Hwy	EB – 43.7	EB – 68.6	D	EB – 41.7	EB – 70.4	D
		WB – 44.3	WB – 49.3	D	WB – 42.4	WB – 72.5	D
County Road 96 – County Road 20 to SR 16	Class II Hwy	NA	NB – 31.4	A	NA	NB – 16.2	A
		NA	SB – 25.5	A	NA	SB – 34.4	A
County Road 20–West of County Road 96	Class II Hwy	NA	EB – 23.7	A	NA	EB – 13.7	A
		NA	WB – 31.8	A	NA	WB – 14.7	A
County Road 20–County Road 96 to County Road 98	Class II Hwy	NA	EB – 40.0	A	NA	EB – 31.1	A
		NA	WB – 42.3	B	NA	WB – 33.2	A
SR 16 (County Road 98) – County Road 20 to I-5	Class II Hwy	NB – 46.9	NB – 45.7	C	NB – 47.4	NB – 48.9	C
		SB – 46.6	SB – 54.2	C	SB – 47.6	SB – 44.3	C

Note: Roadway classification based on HCM 2010. Average Travel Speed (ATS) is only reported for Class I Highways based on HCM 2010 methodology.
Source: Fehr & Peers, 2018.

Table 4.12-7
Roadway LOS – Existing Plus Scenario 4

Roadway – Location	Roadway Classification	AM Peak Hour			PM Peak Hour		
		ATS (mph)	PTSF (%)	LOS	ATS (mph)	PTSF (%)	LOS
SR 16–I-505 to County Road	Class I Hwy	EB – 43.7	EB – 71.6	D	EB – 42.9	EB – 65.6	D
		WB – 44.3	WB – 49.6	D	WB – 43.7	WB – 68.3	D
SR 16 – County Road 94B to County Road 96	Class I Hwy	EB – 43.4	EB – 68.4	D	EB – 41.7	EB – 70.4	D
		WB – 44.1	WB – 51.1	D	WB – 42.4	WB – 72.5	D
County Road 96 – County Road 20 to SR 16	Class II Hwy	NA	NB – 34.6	A	NA	NB – 16.2	A
		NA	SB – 28.3	A	NA	SB – 34.4	A
County Road 20–West of County Road 96	Class II Hwy	NA	EB – 34.8	A	NA	EB – 14.3	A
		NA	WB – 46.9	B	NA	WB – 15.3	A
County Road 20–County Road 96 to County Road 98	Class II Hwy	NA	EB – 45.3	B	NA	EB – 31.5	A
		NA	WB – 48.1	B	NA	WB – 33.4	A
SR 16 (County Road 98) – County Road 20 to I-5	Class II Hwy	NB – 46.2	NB – 50.5	C	NB – 47.3	NB – 48.9	C
		SB – 45.8	SB – 58.1	C	SB – 47.5	SB – 44.4	C

Note: Roadway classification based on HCM 2010. Average Travel Speed (ATS) is only reported for Class I Highways based on HCM 2010 methodology.
Source: Fehr & Peers, 2018.

Table 4.12-8
Roadway Segment Capacity – Existing Plus Scenario 1

Roadway – Location	Roadway Classification	Number of Lanes	AM Peak Hour		PM Peak Hour	
			One-Way Volume	LOS	One-Way Volume	LOS
SR 16 – I-505 to County Road 94B	Conventional Two-Lane Highway	2	EB – 422 WB – 230	C B	EB – 401 WB – 482	C C
SR 16 – County Road 94B to County Road 96	Conventional Two-Lane Highway	2	EB – 451 WB – 276	C B	EB – 478 WB – 535	C C
County Road 96 – County Road 20 to SR 16	Local Roadway	2	NB - 81 SB – 74	N/A N/A	NB - 46 SB – 90	N/A N/A
County Road 20 – West of County Road 96	Local Roadway	2	EB – 62 WB – 60	N/A N/A	EB – 6 WB – 6	N/A N/A
County Road 20 – County Road 96 to County Road 98	Local Roadway	2	EB – 138 WB – 126	N/A N/A	EB – 97 WB – 118	N/A N/A
SR 16 (County Road 98) – County Road 20 to I-5	Conventional Two-Lane Highway	2	NB – 202 SB – 235	B B	NB – 204 SB – 185	B B

Note: The General Plan does not provide capacity thresholds for Local Roadways.

Source: Fehr & Peers, 2018.

Table 4.12-9
Roadway Segment Capacity – Existing Plus Scenario 4

Roadway – Location	Roadway Classification	Number of Lanes	AM Peak Hour		PM Peak Hour	
			One-Way Volume	LOS	One-Way Volume	LOS
SR 16 – I-505 to County Road 94B	Conventional Two-Lane Highway	2	EB – 435 WB – 243	C B	EB – 401 WB – 482	C C
SR 16 – County Road 94B to County Road 96	Conventional Two-Lane Highway	2	EB – 464 WB – 289	C B	EB – 478 WB – 535	C C
County Road 96 – County Road 20 to SR 16	Local Roadway	2	NB - 94 SB – 87	N/A N/A	NB - 46 SB – 90	N/A N/A
County Road 20 – West of County Road 96	Local Roadway	2	EB – 108 WB – 106	N/A N/A	EB – 8 WB – 8	N/A N/A
County Road 20 – County Road 96 to County Road 98	Local Roadway	2	EB – 171 WB – 159	N/A N/A	EB – 99 WB – 120	N/A N/A
SR 16 (County Road 98) – County Road 20 to I-5	Conventional Two-Lane Highway	2	NB – 235 SB – 268	B B	NB – 206 SB – 187	B B

Note: The General Plan does not provide capacity thresholds for Local Roadways.

Source: Fehr & Peers, 2018.

Freeway Operations under Existing Plus Project Conditions

Table 4.12-10 shows the results of the Existing Plus Project conditions peak hour freeway facilities (including basic, merge, and diverge sections) LOS analysis results for Scenario 1. Table 4.12-11 shows the results of the Existing Plus Project conditions peak hour freeway facilities LOS analysis results for Scenario 4. As shown in the tables, the study freeway facilities are expected to operate at acceptable LOS under both Scenario 1 and Scenario 4.

The Scenario 4 freeway operations results indicate that under Existing Plus Project conditions, the study freeway facilities would continue to operate acceptably with project traffic generated by the production of 2.2 million tons of aggregate per year. Scenarios 2 and 3 would generate less traffic than Scenario 4 and, therefore, would also result in acceptable operations at the study freeway facilities.

Because all study freeway facilities would operate at acceptable levels with implementation of the project under each of the four scenarios analyzed, the proposed project would be consistent with the State's applicable LOS standards for the study freeway facilities under Existing Plus Project conditions.

Study Intersections under Cumulative Plus Project Conditions

The cumulative baseline conditions analysis assumes that the Woodland and Esparto plants will be operating at full capacity (1.2 million tons per year production at Woodland and 1 million tons per year production at Esparto) based on allowed production allotments, which is the same as the Scenario 1 analysis. In order to determine potential impacts of the proposed project, the results of the project analysis scenarios were compared to the cumulative baseline conditions analysis results. The following project scenarios were analyzed:

- Scenario 2: Production of 1.5 million tons per year at the Woodland Plant; 0.7 million tons per year at the Esparto Plant.
- Scenario 3: Production of 1.8 million tons per year at the Woodland Plant; 0.4 million tons per year at the Esparto Plant.
- Scenario 4: Production of 2.2 million tons per year at the Woodland Plant; 0 tons per year at the Esparto Plant.

Scenario 2

Table 4.12-12 shows the Cumulative Plus Project conditions intersection LOS analysis results for Scenario 2. As shown in the table, SR 16/County Road 94B intersection is expected to operate at LOS F during the AM and PM peak hours, both with and without the addition of project traffic. The SR 16/County Road 96 intersection is expected to degrade from LOS D (acceptable operations) to LOS E (unacceptable operations) during the AM peak hour under Cumulative Plus Scenario 2 conditions. The remaining study intersections would operate acceptably under Cumulative Plus Scenario 2 conditions.

Table 4.12-10
Freeway LOS – Existing Plus Scenario 1

Freeway Direction	Location	Facility Type	AM Peak Hour			PM Peak Hour		
			v/c Ratio	Density (pcplpm)	LOS	v/c Ratio	Density (pcplpm)	LOS
I-5 Northbound	South of SR 16	Basic	0.19	6.4	A	0.20	6.9	A
	SR 16 Off-Ramp	Diverge	0.20	10.7	B	0.22	11.3	B
	SR 16 Loop On-Ramp	Merge	0.16	10.1	B	0.18	10.7	B
	SR 16 On-Ramp	Merge	0.16	9.3	A	0.18	10.0	A
	North of SR 16	Basic	0.16	5.4	A	0.18	6.0	A
I-5 Southbound	North of SR 16	Basic	0.16	5.4	A	0.18	6.1	A
	SR 16 Off-Ramp	Diverge	0.17	9.0	A	0.19	9.9	A
	SR 16 On-Ramp	Merge	0.19	10.4	B	0.21	11.2	B
	South of SR 16	Basic	0.18	6.1	A	0.20	6.8	A
I-505 Northbound	South of SR 16	Basic	0.07	2.3	A	0.11	3.6	A
	SR 16 Off-Ramp	Diverge	0.07	5.5	A	0.12	7.1	A
	SR 16 Loop On-Ramp	Merge	0.05	5.7	A	0.05	5.7	A
	SR 16 On-Ramp	Merge	0.05	6.1	A	0.05	6.1	A
	North of SR 16	Basic	0.05	1.6	A	0.05	1.6	A
I-505 Southbound	North of SR 16	Basic	0.05	1.6	A	0.05	1.6	A
	SR 16 Off-Ramp	Diverge	0.05	4.9	A	0.05	4.9	A
	SR 16 Loop On-Ramp	Merge	0.06	5.9	A	0.06	5.7	A
	SR 16 On-Ramp	Merge	0.09	6.9	A	0.11	7.6	A
	South of SR 16	Basic	0.09	3.1	A	0.11	3.7	A

Source: Fehr & Peers, 2018.

Table 4.12-11
Freeway LOS – Existing Plus Scenario 4

Freeway Direction	Location	Facility Type	AM Peak Hour			PM Peak Hour		
			v/c Ratio	Density (pcplpm)	LOS	v/c Ratio	Density (pcplpm)	LOS
I-5 Northbound	South of SR 16	Basic	0.20	6.7	A	0.20	6.9	A
	SR 16 Off-Ramp	Diverge	0.21	11.1	B	0.22	11.3	B
	SR 16 Loop On-Ramp	Merge	0.16	10.1	B	0.18	10.7	B
	SR 16 On-Ramp	Merge	0.16	9.3	A	0.18	10.0	A
	North of SR 16	Basic	0.16	5.4	A	0.18	6.0	A
I-5 Southbound	North of SR 16	Basic	0.16	5.4	A	0.18	6.1	A
	SR 16 Off-Ramp	Diverge	0.17	9.1	A	0.19	9.9	A
	SR 16 On-Ramp	Merge	0.19	10.7	B	0.21	11.2	B
	South of SR 16	Basic	0.19	6.4	A	0.20	6.8	A
I-505 Northbound	South of SR 16	Basic	0.07	2.4	A	0.11	3.6	A
	SR 16 Off-Ramp	Diverge	0.08	5.6	A	0.12	7.1	A
	SR 16 Loop On-Ramp	Merge	0.05	5.7	A	0.05	5.7	A
	SR 16 On-Ramp	Merge	0.05	6.1	A	0.05	6.1	A
	North of SR 16	Basic	0.05	1.6	A	0.05	1.6	A
I-505 Southbound	North of SR 16	Basic	0.05	1.6	A	0.05	1.6	A
	SR 16 Off-Ramp	Diverge	0.05	4.9	A	0.05	4.9	A
	SR 16 Loop On-Ramp	Merge	0.06	5.9	A	0.06	5.7	A
	SR 16 On-Ramp	Merge	0.10	7.0	A	0.11	7.6	A
	South of SR 16	Basic	0.09	3.2	A	0.11	3.7	A

Source: Fehr & Peers, 2018.

Table 4.12-12
Intersection LOS – Cumulative Plus Scenario 2

Intersection	Control	Cumulative				Cumulative Plus Scenario 2			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. SR 16/I-505 Southbound Ramps	Side Street Stop	1 (25)	A (D)	1 (34)	A (D)	1 (25)	A (D)	1 (34)	A (D)
2. SR 16/I-505 Northbound Ramps	Traffic Signal	8	A	9	A	8	A	9	A
3. SR 16/County Road 94B	Side Street Stop	8 (**69**)	A (**F**)	33 (**268**)	D (**F**)	8 (**70**)	A (**F**)	33 (**268**)	D (**F**)
4. SR 16/County Road 96	Side Street Stop	3 (34)	A (D)	2 (27)	A (D)	4 (**36**)	A (**E**)	2 (27)	A (D)
5. County Road 20/County Road 96	All Way Stop	9	A	8	A	9	A	8	A
6. County Road 20/County Road 97	Side Street Stop	2 (10)	A (A)	3 (9)	A (A)	2 (10)	A (B)	3 (9)	A (A)
7. County Road 20/SR 16 (County Road 98)	Traffic Signal	17	B	16	B	17	B	16	B
8. SR 16/ I-5 Southbound Ramps	Side Street Stop	2 (13)	A (B)	2 (14)	A (B)	2 (13)	A (B)	2 (14)	A (B)
9. SR 16/I-5 Northbound Ramps	Side Street Stop	6 (11)	A (B)	5 (10)	A (B)	6 (11)	A (B)	5 (10)	A (B)

Notes:
- For signalized and all-way stop controlled intersections, average intersection delay is reported in seconds per vehicle for the overall intersection. For unsignalized (side street stop controlled) intersections, average intersection delay is reported in seconds per vehicle for the overall intersection (worst movement). All results are rounded to the nearest second.
- **Bold** text indicates unacceptable operations.
- **Bold and shaded** text indicates a significant impact.

Source: Fehr & Peers, 2018.

At the SR 16/County Road 94B intersection, the project would not add 10 or more vehicles to the intersection and, therefore, would not create a significant impact at the intersection. With regard to the SR 16/County Road 96 intersection, given that the project would degrade operations to unacceptable levels, the proposed project could conflict with the County's LOS standards at the intersection under Cumulative Plus Scenario 2 conditions.

Scenario 3

Table 4.12-13 shows the cumulative plus project conditions intersection LOS analysis results for Scenario 3. As shown in the table, the SR 16/County Road 94B intersection is expected to operate at LOS F during the AM and PM peak hours, both with and without the addition of project traffic. The SR 16/County Road 96 intersection is expected to degrade from LOS D (acceptable operations) to LOS E (unacceptable operations) during the AM peak hour under Cumulative Plus Scenario 3 conditions. The remaining study intersections would operate acceptably under Cumulative Plus Scenario 3 conditions.

Table 4.12-13
Intersection LOS – Cumulative Plus Scenario 3

Intersection	Control	Cumulative				Cumulative Plus Scenario 3			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. SR 16/I-505 Southbound Ramps	Side Street Stop	1 (25)	A (D)	1 (34)	A (D)	1 (25)	A (D)	1 (34)	A (D)
2. SR 16/I-505 Northbound Ramps	Traffic Signal	8	A	9	A	8	A	9	A
3. SR 16/County Road 94B	Side Street Stop	8 (**69**)	A (**F**)	33 (**268**)	D (**F**)	8 (**72**)	A (**F**)	33 (**268**)	D (**F**)
4. SR 16/County Road 96	Side Street Stop	3 (34)	A (D)	2 (27)	A (D)	4 (**36**)	A (**E**)	2 (27)	A (D)
5. County Road 20/County Road 96	All Way Stop	9	A	8	A	9	A	8	A
6. County Road 20/County Road 97	Side Street Stop	2 (10)	A (A)	3 (9)	A (A)	1 (10)	A (B)	3 (9)	A (A)
7. County Road 20/SR 16 (County Road 98)	Traffic Signal	17	B	16	B	17	B	16	B
8. SR 16/ I-5 Southbound Ramps	Side Street Stop	2 (13)	A (B)	2 (14)	A (B)	2 (13)	A (B)	2 (14)	A (B)
9. SR16/I-5 Northbound Ramps	Side Street Stop	6 (11)	A (B)	5 (10)	A (B)	6 (11)	A (B)	5 (10)	A (B)

Notes:
- For signalized and all-way stop controlled intersections, average intersection delay is reported in seconds per vehicle for the overall intersection. For unsignalized (side street stop controlled) intersections, average intersection delay is reported in seconds per vehicle for the overall intersection (worst movement). All results are rounded to the nearest second.
- **Bold** text indicates unacceptable operations.
- **Bold and shaded** text indicates a significant impact.

Source: Fehr & Peers, 2018.

At the SR 16/County Road 94B intersection, the project would add 10 or more vehicles to the intersection. With regard to the SR 16/County Road 96 intersection, the project would degrade operations to unacceptable levels. Therefore, the proposed project could conflict with the County's applicable LOS standards at both study intersections.

Scenario 4

Table 4.12-14 shows the cumulative plus project conditions intersection LOS analysis results for Scenario 4. As shown in the table, SR 16/County Road 94B intersection is expected to operate at LOS F during the AM and PM peak hours, both with and without the addition of project traffic. The SR 16/County Road 96 intersection is expected to degrade from LOS D (acceptable operations) to LOS E (unacceptable operations) during the AM peak hour under Cumulative Plus Scenario 4 conditions. The remaining study intersections would operate acceptably under Cumulative Plus Scenario 4 conditions.

Table 4.12-14
Intersection LOS – Cumulative Plus Scenario 4

Intersection	Control	Cumulative				Cumulative Plus Scenario 4			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. SR 16/I-505 Southbound Ramps	Side Street Stop	1 (25)	A (D)	1 (34)	A (D)	1 (25)	A (D)	1 (34)	A (D)
2. SR 16/I-505 Northbound Ramps	Traffic Signal	8	A	9	A	8	A	9	A
3. SR 16/County Road 94B	Side Street Stop	8 **(69)**	A **(F)**	33 (**268**)	D **(F)**	8 (**74**)	A (**F**)	33 **(268)**	D **(F)**
4. SR 16/County Road 96	Side Street Stop	3 (34)	A (D)	2 (27)	A (D)	4 (**37**)	A (**E**)	2 (27)	A (D)
5. County Road 20/County Road 96	All Way Stop	9	A	8	A	10	A	8	A
6. County Road 20/County Road 97	Side Street Stop	2 (10)	A (A)	3 (9)	A (A)	1 (10)	A (B)	3 (9)	A (A)
7. County Road 20/SR 16 (County Road 98)	Traffic Signal	17	B	16	B	18	B	16	B
8. SR 16/ I-5 Southbound Ramps	Side Street Stop	2 (13)	A (B)	2 (14)	A (B)	2 (13)	A (B)	2 (14)	A (B)
9. SR 16/I-5 Northbound Ramps	Side Street Stop	6 (11)	A (B)	5 (10)	A (B)	7 (12)	A (B)	5 (10)	A (B)

Notes:
- For signalized and all-way stop controlled intersections, average intersection delay is reported in seconds per vehicle for the overall intersection. For unsignalized (side street stop controlled) intersections, average intersection delay is reported in seconds per vehicle for the overall intersection (worst movement). All results are rounded to the nearest second.
- **Bold** text indicates unacceptable operations.
- **Bold and shaded** text indicates a significant impact.

Source: Fehr & Peers, 2018.

At the SR 16/County Road 94B intersection, the project would add 10 or more vehicles to the intersection. With regard to the SR 16/County Road 96 intersection, the project would degrade operations to unacceptable levels. Therefore, the proposed project could conflict with the County's LOS standards at both study intersections.

Conclusion

Based on the above, under Cumulative Plus Project conditions, the addition of project traffic could conflict with the County's applicable LOS standards at the following intersections:

- SR 16/County Road 94B (Scenarios 3 and 4); and
- SR 16/County Road 96 (Scenarios 2, 3, and 4).

The remaining study intersections would operate acceptably under all study scenarios.

As summarized earlier, as result of SB 743, local jurisdictions may no longer rely on vehicle level of service (LOS) and similar measures related to delay as the basis for determining the significance of transportation impacts under CEQA. However,

because the County considers LOS as a matter of General Plan policy (Policy CI-3.1) there is a nexus for, and the County retains full discretion to, requiring a project to ensure General Plan consistency through project conditions of approval.

Full funding and installation of improvements to these intersections sufficient to alleviate the projected LOS deficiencies would constitute costs that are beyond the project's fair share contribution, and without inclusion in the County's CIP, the full funding for the improvements cannot be guaranteed. Alternatively, the County has identified an equivalent improvement for which there is a nexus to require full funding by the applicant, commensurate with their fair share based on trip contributions to the two intersections.

The County shall condition the project, if approved, to require the applicant to fully construct the following improvement:

- The applicant shall install 5 percent shoulders with a 2:1 back slope along both sides of CR 96, for the approximately one-mile segment between CR 20 and CR 16.

Study Roadway Operations under Cumulative Plus Project Conditions

Table 4.12-15 shows the Cumulative Plus Project conditions roadway operations analysis results for Scenario 4. As shown in the table, the study roadway segments would continue to operate at acceptable LOS with project traffic generated by the production of 2.2 million tons of aggregate per year. Scenarios 2 and 3 would generate less traffic than Scenario 4 and, therefore, would also result in acceptable operations at the study roadway segments.

Study Roadway Capacity under Cumulative Plus Project Conditions

Table 4.12-16 shows results of the Cumulative Plus Project conditions roadway capacity analysis results for Scenario 4. As shown in the table, the study roadway segments would continue to have sufficient capacity with project traffic generated by the production of 2.2 million tons of aggregate per year at the Woodland Plant. Scenarios 2 and 3 would generate less traffic than Scenario 4 and, therefore, would also result in sufficient capacity at the study roadway segments.

Because all study roadway segments would have sufficient capacity with implementation of the project under each of the three scenarios analyzed, the proposed project would be consistent with the County's applicable LOS standards for the study roadway segments under Cumulative Plus Project conditions.

Table 4.12-15
Roadway LOS – Cumulative Plus Scenario 4

Roadway – Location	Roadway Classification	AM Peak Hour			PM Peak Hour		
		ATS (mph)	PTSF (%)	LOS	ATS (mph)	PTSF (%)	LOS
SR 16 – I-505 to County Road	Class I Hwy	EB – 41.3	EB – 79.7	D	EB – 40.2	EB – 75.7	D
		WB – 41.8	WB – 65.1	D	WB – 40.9	WB – 77.0	D
SR 16 – County Road 94B to County Road 96	Class I Hwy	EB – 41.8	EB – 76.6	D	EB – 40.5	EB – 74.9	D
		WB – 42.6	WB – 59.7	D	WB – 41.1	WB – 75.3	D
County Road 96 – County Road 20 to SR 16	Class II Hwy	NA	NB – 46.3	B	NA	NB – 18.9	A
		NA	SB – 35.6	A	NA	SB – 38.1	A
County Road 20 – West of County Road 96	Class II Hwy	NA	EB – 35.3	A	NA	EB – 19.3	A
		NA	WB – 50.4	B	NA	WB – 15.1	A
County Road 20 – County Road 96 to County Road 98	Class II Hwy	NA	EB – 51.8	B	NA	EB – 32.9	A
		NA	WB – 54.8	B	NA	WB – 37.0	A
SR 16 (County Road 98) – County Road 20 to I-5	Class II Hwy	NB – 45.9	NB – 56.4	C	NB – 46.9	NB – 54.3	C
		SB – 45.7	SB – 56.9	C	SB – 47.0	SB – 47.4	C

Note: Roadway classification based on HCM 2010. Average Travel Speed (ATS) is only reported for Class I Highways based on HCM 2010 methodology.
Source: Fehr & Peers, 2018.

Table 4.12-16
Roadway Segment Capacity – Cumulative Plus Scenario 4

Roadway – Location	Roadway Classification	Number of Lanes	AM Peak Hour		PM Peak Hour	
			One-Way Volume	LOS	One-Way Volume	LOS
SR 16 – I-505 to County Road 94B	Conventional Two-Lane Highway	2	EB – 669 WB – 449	C C	EB – 621 WB – 691	C C
SR 16 – County Road 94B to County Road 96	Conventional Two-Lane Highway	2	EB – 594 WB – 394	C C	EB – 596 WB – 626	C C
County Road 96 – County Road 20 to SR 16	Local Roadway	2	NB - 149 SB – 129	N/A N/A	NB - 61 SB – 111	N/A N/A
County Road 20 – West of County Road 96	Local Roadway	2	EB – 121 WB – 131	N/A N/A	EB – 19 WB – 14	N/A N/A
County Road 20 – County Road 96 to County Road 98	Local Roadway	2	EB – 222 WB – 212	N/A N/A	EB – 123 WB – 143	N/A N/A
SR 16 (County Road 98) – County Road 20 to I-5	Conventional Two-Lane Highway	2	NB – 287 SB – 292	B C	NB – 243 SB – 213	B B

Note: The General Plan does not provide capacity thresholds for Local Roadways.

Source: Fehr & Peers, 2018.

Freeway Operations under Cumulative Plus Project Conditions

Table 4.12-17 shows the results of the Cumulative Plus Project conditions peak hour freeway facilities (including basic, merge, and diverge sections) LOS analysis results for Scenario 2. Table 4.12-18 shows the results of the Cumulative Plus Project conditions peak hour freeway facilities LOS analysis results for Scenario 3. As shown in the tables, the study freeway facilities would operate at acceptable LOS under both Scenario 2 and Scenario 3. It should be noted that under Scenarios 2 and 3, the project would generate less traffic on I-5 than Scenario 4, with more traffic generated on I-505 due to trips from the Esparto Plant. As noted below, all I-5 freeway facilities would

operate acceptably under Scenario 4; thus, Table 4.12-17 and Table 4.12-18 do not include the I-5 freeway facilities.

Table 4.12-17
Freeway LOS – Cumulative Plus Scenario 2

Freeway Direction	Location	Facility Type	AM Peak Hour			PM Peak Hour		
			v/c Ratio	Density (pcplpm)	LOS	v/c Ratio	Density (pcplpm)	LOS
I-505 Northbound	South of SR 16	Basic	0.28	9.5	A	0.25	8.7	A
	SR 16 Off-Ramp	Diverge	0.24	8.2	A	0.25	8.6	A
	SR 16 Loop On-Ramp	Merge	0.26	12.6	B	0.27	13.0	B
	SR 16 On-Ramp	Merge	0.16	9.8	A	0.12	8.5	A
	North of SR 16	Basic	0.17	10.3	B	0.13	8.9	A
I-505 Southbound	North of SR 16	Basic	0.16	5.4	A	0.12	4.2	A
	SR 16 Off-Ramp	Diverge	0.16	5.4	A	0.14	4.8	A
	SR 16 Loop On-Ramp	Merge	0.17	9.5	A	0.15	8.7	A
	SR 16 On-Ramp	Merge	0.23	11.6	B	0.18	10.1	B
	South of SR 16	Basic	0.29	13.9	B	0.26	13.0	B

Source: Fehr & Peers, 2018.

Table 4.12-18
Freeway LOS – Cumulative Plus Scenario 3

Freeway Direction	Location	Facility Type	AM Peak Hour			PM Peak Hour		
			v/c Ratio	Density (pcplpm)	LOS	v/c Ratio	Density (pcplpm)	LOS
I-505 Northbound	South of SR 16	Basic	0.24	8.1	A	0.25	8.5	A
	SR 16 Off-Ramp	Diverge	0.26	12.5	B	0.27	13.0	B
	SR 16 Loop On-Ramp	Merge	0.16	9.7	A	0.12	8.5	A
	SR 16 On-Ramp	Merge	0.16	10.2	B	0.13	8.9	A
	North of SR 16	Basic	0.16	5.3	A	0.12	4.2	A
I-505 Southbound	North of SR 16	Basic	0.16	5.3	A	0.14	4.8	A
	SR 16 Off-Ramp	Diverge	0.17	9.4	A	0.15	8.7	A
	SR 16 Loop On-Ramp	Merge	0.22	11.5	B	0.18	10.1	B
	SR 16 On-Ramp	Merge	0.29	13.8	B	0.26	13.0	B
	South of SR 16	Basic	0.27	9.4	A	0.25	8.7	A

Source: Fehr & Peers, 2018.

Table 4.12-19 shows the results of the Cumulative Plus Project conditions peak hour freeway facilities LOS analysis results for Scenario 4. As shown in the table, the study freeway facilities would operate at acceptable LOS.

Because all study freeway facilities would operate at acceptable levels with implementation of the project under each of the three scenarios analyzed, the proposed project would be consistent with the State's applicable LOS standards for the study freeway facilities would occur under Cumulative Plus Project conditions.

Table 4.12-19
Freeway LOS – Cumulative Plus Scenario 4

Freeway Direction	Location	Facility Type	AM Peak Hour			PM Peak Hour		
			v/c Ratio	Density (pcplpm)	LOS	v/c Ratio	Density (pcplpm)	LOS
I-5 Northbound	South of SR 16	Basic	0.37	12.8	B	0.32	11.1	B
	SR 16 Off-Ramp	Diverge	0.41	18.4	B	0.35	16.4	B
	SR 16 Loop On-Ramp	Merge	0.35	16.8	B	0.32	15.5	B
	SR 16 On-Ramp	Merge	0.35	16.0	B	0.32	14.8	B
	North of SR 16	Basic	0.34	11.6	B	0.30	10.4	A
I-5 Southbound	North of SR 16	Basic	0.30	10.1	A	0.35	11.9	B
	SR 16 Off-Ramp	Diverge	0.32	14.7	B	0.38	16.8	B
	SR 16 On-Ramp	Merge	0.34	16.0	B	0.38	17.4	B
	South of SR 16	Basic	0.33	11.3	B	0.37	12.5	B
I-505 Northbound	South of SR 16	Basic	0.23	8.0	A	0.25	8.5	A
	SR 16 Off-Ramp	Diverge	0.26	12.4	B	0.27	13.0	B
	SR 16 Loop On-Ramp	Merge	0.15	9.6	A	0.12	8.5	A
	SR 16 On-Ramp	Merge	0.16	10.0	B	0.13	8.9	A
	North of SR 16	Basic	0.15	5.2	A	0.12	4.2	A
I-505 Southbound	North of SR 16	Basic	0.15	5.2	A	0.14	4.7	A
	SR 16 Off-Ramp	Diverge	0.17	9.2	A	0.15	8.7	A
	SR 16 Loop On-Ramp	Merge	0.22	11.4	B	0.18	10.1	B
	SR 16 On-Ramp	Merge	0.28	13.6	B	0.26	13.0	B
	South of SR 16	Basic	0.27	9.3	A	0.25	8.7	A

Source: Fehr & Peers, 2018.

Table 4.12-20
Consistency with Applicable Standards

Policy / Regulation	Consistency Discussion
Yolo County General Plan	
Policy CI-3.1 Maintain Level of Service (LOS) C or better for roadways and intersections in the unincorporated county. In no case shall land use be approved that would either result in worse than LOS C conditions, or require additional improvements to maintain the required level of service, except as specified below. The intent of this policy is to consider level of service as a limit on the capacity of the County's roadways. A. Interstate 5 (County Road 6 to Interstate 505) – LOS D is acceptable to the County, assuming that one additional auxiliary lane is constructed in each direction through this segment. The County will secure a fair share towards these improvements from planned development. LOS D is anticipated by Caltrans according to the Interstate 5 Transportation Concept Report 1996 to 2016 (Caltrans, April 1997).	As demonstrated in Appendix M, the proposed project would be consistent with the County's LOS standards for most of the study intersections. However, as noted above, the proposed project could conflict with the County's LOS standards at the following intersections, during the Cumulative Plus Project conditions: • SR 16/County Road 94B (Scenarios 3 and 4); and • SR 16/County Road 96 (Scenarios 2, 3, 4 and 4). As result of SB 743, local jurisdictions may no longer rely on vehicle level of service (LOS) and similar measures related to delay as the basis for determining the significance of transportation impacts under CEQA. However, because the County considers LOS as a matter of General Plan policy (Policy CI-3.1) there is a nexus for, and the

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Table 4.12-20
Consistency with Applicable Standards

Policy / Regulation	Consistency Discussion
B. Interstate 5 (Interstate 505 to Woodland City Limit) – LOS D is acceptable to the County. LOS D is anticipated by Caltrans according to the Interstate 5 Transportation Concept Report 1996 to 2016 (Caltrans, April 1997). C. Interstate 5 (Woodland City Limit to Sacramento County Line) – LOS F is acceptable to the County. The County will secure a fair share towards intersection improvements from all feasible sources including planned development at the Elkhorn site. LOS C is anticipated by Caltrans according to the State Route 99 and Interstate 5 Corridor System Management Plan (Caltrans, May 2009). D. Interstate 80 (Davis City Limit to West Sacramento City Limit) – LOS F is acceptable to the County. LOS F is anticipated by Caltrans according to the Interstate 80 and Capital City Freeway Corridor System Management Plan (Caltrans, May 2009). E. State Route 16 (County Road 78 to County Road 85B) – LOS D is acceptable. F. State Route 16 (County Road 85B to County Road 21A) – LOS E is acceptable. G. State Route 16 (County Road 21A to Interstate 505) – LOS D is acceptable, assuming that this segment is widened to four lanes with intersection improvements appropriate for an arterial roadway. The County will secure a fair share towards these improvements from planned development. Caltrans and the Rumsey Band of Wintun Indians shall be encouraged to provide funding for the project. H. State Route 16 (Interstate 505 to County Road 98) – LOS D is acceptable, assuming that passing lanes and appropriate intersection improvements are constructed. The County will secure a fair share towards these improvements from all feasible sources. Caltrans and the Rumsey Band of Wintun Indians shall be encouraged to establish a funding mechanism to pay the remainder. I. State Route 113 (Sutter County Line to County Road 102) – LOS F is acceptable	County retains full discretion to require a project to ensure General Plan consistency through project conditions of approval. Full funding and installation of improvements to these intersections sufficient to alleviate the projected LOS deficiencies would constitute costs that are beyond the project's fair share contribution, and without inclusion in the County's CIP, the full funding for the improvements cannot be guaranteed. Alternatively, the County has identified an equivalent improvement for which there is a nexus to require full funding by the applicant, commensurate with their fair share based on trip contributions to the two intersections. The County shall condition the project, if approved, to require the applicant to fully construct the following improvement: • The applicant shall install 5 percent shoulders with a 2:1 back slope along both sides of CR 96, for the approximately one-mile segment between CR 20 and CR 16.

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Table 4.12-20
Consistency with Applicable Standards

Policy / Regulation	Consistency Discussion
to the County. The County will secure a fair share towards these improvements from planned development. LOS F is anticipated by Caltrans according to the State Route 113 Transportation Concept Report 1991-2019 (Caltrans, May 2000). J. State Route 113 (County Road 102 to Woodland City Limits) – LOS D is acceptable. K. State Route 128 (Interstate 505 to Napa County Line) – LOS D is acceptable. L. Old River Road (Interstate 5 to West Sacramento City limits) – LOS D is acceptable. M. South River Road (West Sacramento City Limit to the Freeport Bridge) – LOS D is acceptable. N. County Road 6 (County Road 99W to the Tehama Colusa Canal) – LOS D is acceptable, assuming this segment is widened to four lanes. The County will secure a fair share towards these improvements from all feasible sources. O. County Road 24 (County Road 95 to County Road 98 – LOS D is acceptable. P. County Road 27 (County Road 98 to State Route 113 – LOS D is acceptable. Q. County Road 31 (County Road 95 to County Road 98) – LOS D is acceptable. R. County Road 32A (County Road 105 to Interstate 80) – LOS D is acceptable. S. County Road 98 (County Road 29 to County Road 27) – LOS D is acceptable. T. County Road 99W (County Road 2 to County Road 8) – LOS D is acceptable, assuming that this segment is widened to four lanes. The County will secure a fair share towards these improvements from all feasible sources. U. County Road 102 (County Road 13 to County Road 17) – LOS D is acceptable, assuming that passing lanes and appropriate intersection improvements are constructed. The County will secure a fair share towards these improvements from all feasible sources. V. County Road 102 (County Road 17 to the Woodland City Limit) - LOS E is acceptable, assuming that passing lanes and appropriate intersection improvements	

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Table 4.12-20
Consistency with Applicable Standards

Policy / Regulation	Consistency Discussion
are constructed. The County will secure a fair share towards these improvements from all feasible sources. W. County Road 102 (Woodland City Limit to Davis City Limit) – LOS D is acceptable assuming that passing lanes and appropriate intersection improvements are constructed. The County will secure a fair share towards these improvements from all feasible sources. X. Additional exceptions to this policy may be allowed by the Board of Supervisors on a case-by-case basis, where reducing the level of service would result in a clear public benefit. Such circumstances may include, but are not limited to, the following: 1. Preserving agriculture or open space land; 2. Enhancing the agricultural economy; 3. Preserving scenic roadways/highways; 4. Preserving the rural character of the county; 5. Avoiding adverse impacts to alternative transportation modes; 6. Avoiding growth inducement; or 7. Preserving downtown community environments. 8. Where right-of-way constraints would make the improvements infeasible.	
Policy CI-3.4 Define level of service consistent with the latest edition of the Highway Capacity Manual and calculate using the methodologies contained in that manual. At a minimum, weekday AM and PM peak hour traffic volumes will be used in determining compliance with the level of service standard. For recreational and other non-typical peak hour uses, weekday afternoon, weekday late evening, or weekends shall be considered.	LOS at the study roadway facilities has been evaluated consistent with the HCM 2010 (see Appendix M). Standard peak hour periods of 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM were determined to be appropriate for the proposed project. Therefore, the proposed project is consistent with this policy.
Policy CI-3.7 Consider designs for planned roadway capacity improvements that recognize the unique conditions associated with rural and agricultural areas in accordance with established standards including, but not limited to, the following:	The roadway improvements identified above as a condition of approval related to trips added to the SR 16/County Road 94B and SR 16/County Road 96 intersections would be designed in accordance with the referenced standards, and would be subject to final approval by the County Public Works Division. Therefore, the proposed project is consistent with this policy.

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Table 4.12-20
Consistency with Applicable Standards

Policy / Regulation	Consistency Discussion
• American Association of State Highway and Transportation Officials (AASHTO) publication "A Policy on Geometric Design of Highways and Streets;" • Caltrans' Main Streets: Flexibility in Design and Operations; • Federal Highway Administration's Flexibility in Highway Design; • 2007 California Fire Code; and • Institute of Transportation Engineers' Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities.	
Policy CI-3.9 To the greatest feasible extent, require new development to construct safety improvements consistent with current design standards on existing roadways that are anticipated to accommodate additional traffic from planned development.	See discussion related to Policy CI-3.1.
Policy CI-3.11 Require new development to finance and construct all off-site circulation improvements necessary to mitigate a project's transportation impacts (including public transit, pedestrian and bicycle mobility, safety and level of service-related impacts, and impacts to the State Highway System). For mitigation to be considered feasible, it must be consistent with the policies of the General Plan.	See discussion of OCSMO Section 10-4.409 below.
Policy CI-3.12 Collect the fair share cost of all feasible transportation improvements necessary to reduce the severity of cumulative transportation impacts (including public transit, pedestrian and bicycle mobility, safety and level of service-related impacts).	See discussion related to Policy CI-3.1.
Policy CI-3.13 Ensure that transportation and circulation improvements (including improvements to comply with County design standards) are constructed and operational prior to or concurrent with the need, to the extent feasible.	The conditions of approval discussed above include timing requirements based on the anticipated impact triggers (i.e., production levels at the Woodland Plant). Therefore, the proposed project would be consistent with this policy.
Policy CI-3.16 Ensure that funding for the long-term maintenance of affected roads is provided by planned development.	See discussion of OCSMO Section 10-4.409 below.
Policy CI-3.18 Ensure adequate access for emergency vehicles.	As discussed under Impact 4.12-4, the proposed project would provide for adequate emergency

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Table 4.12-20
Consistency with Applicable Standards

Policy / Regulation	Consistency Discussion
	access to the project site. Thus, the proposed project would be consistent with this policy.
Off-Channel Mining Plan	
Action 2.4-21 Ensure that each mining operation adheres to approved haul routes and approved ingress/egress locations. Ensure through conditions of approval and other appropriate mechanisms that mining operations are funding their fair share of roadway and related impacts, including both one-time improvements and ongoing operations and maintenance, along approved haul routes and in proximity to approved operation ingress/egress locations.	Aggregate trucks going to and from the Woodland Plant currently access the plant from its entrance on County Road 20. Trucks are required to use designated haul routes of County Road 20, County Road 96, and State Route 16 to and from Interstates 5 and 505. Local deliveries are allowed to use roads other than State Route 16, County Road 20, or County Road 96. The project does not propose changes to the designated haul routes. With regard to funding, see OCSMO Sections 10-4.408 and 10-4.409 below. The proposed project would comply with this action.
Off-Channel Surface Mining Ordinance	
Section 10-4.402 The first one-hundred (100) feet of access road intersecting a County-maintained road shall be surfaced in a manner approved by the Public Works Department, with an approach constructed to County standards. Traffic control and warning signs shall be installed as required by the Public Works Department.	The proposed project would use the existing driveway access at the Woodland Plant. Thus, the proposed project would be consistent with this action.
Section 10-4.408 It is the intent of this program that each operator shall pay for any road improvements determined to be necessary to support their operation consistent with County and CCAP standards, and for ongoing operations and maintenance. Each operator shall pay its fair share toward improvements required to maintain a structural capacity (traffic index) sufficient for the project traffic and to maintain operations on County roads and on State Highways within the OCMP planning area consistent with applicable General Plan policies related to LOS and applicable State policy related to VMT. Fair share mitigation shall also be required to improve existing operational as well as structural deficiencies of the transportation system. Specific locations shall be identified through the project-specific environmental review process for each operator's long-term mining permit application. Each operator shall participate in a funding program operated by the County which is designed to ensure that all improvements are made in a timely manner and that a reimbursement mechanism is in place to ensure repayment of any costs contributed in excess of fair share amounts.	See discussion of General Plan Policy CI-3.1 above.

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Table 4.12-20
Consistency with Applicable Standards

Policy / Regulation	Consistency Discussion
The program shall be initiated upon the approval of the long-term mining permits and shall be updated biennially by the County to ensure any new or modified impacts or funding sources are being addressed. Each operator shall have the option to complete the work at their expense without triggering the competitive bid process, as long as they comply with the applicable legal requirements of the County. If the operator declines the option, the County shall utilize the competitive bid process.	
Section 10-4.409 The operator shall agree to assume joint pavement maintenance responsibility with the County (or shared with another producer using the same roadway) for all County roads along a designated haul route from the access point of the surface mining operation to an appropriate State Highway. The County will provide maintenance of the county-maintained roadside drainage ditches, traffic signs, and striping. By May 15 of each year, the operator shall submit to the County an annual evaluation report documenting the structural integrity of the pavement structural section and the PCI of the roads maintained by the operator. The annual report shall be signed and sealed by a civil engineer licensed in the State of California. The report shall contain a proposed action plan for pavement maintenance and pavement improvements to maintain safe and efficient traffic operation on the roads, and a PCI of 70 or more, unless otherwise agreed by the County, as defined by American Society for Testing and Materials (ASTM) Method D6433 (Standard Practice for Roads and Parking Lots Pavement Condition Index Survey), for each upcoming year. Within 30 days, the County will review the report and recommend revisions if necessary. Following acceptance of the report by the County, the operator shall secure a County encroachment permit specific to the action plan (at no cost to the operator) and complete the proposed pavement maintenance and improvement activities prior to the submittal of the annual report. Striping may be provided by the County if County striping equipment and material are available. Otherwise striping will be provided by the operator. Once the work is completed, the operator will resubmit the annual evaluation report	The project would intensify pavement wear and tear related to increased gravel truck use. Pursuant to OCSMO Section 10-4.409 of the Mining Ordinance, the project applicant would be required to assume joint pavement maintenance responsibility with the County for the following roadway segments for the duration of the permit period: • County Road 20 and County Road 98 between the project access and I-5; and • County Road 20 and County Road 96 between the project access and SR 16. The project applicant would be required to submit an annual evaluation of the structural integrity of the roads and implement pavement improvements to maintain safe and efficient traffic operation on the roads for each upcoming year. Therefore, the proposed project would be consistent with this regulation.

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Table 4.12-20
Consistency with Applicable Standards

Policy / Regulation	Consistency Discussion
by November 1 each year, and include the scope and dates that work was completed. If minor emergency asphalt repairs (work requiring a single County Public Works maintenance pick-up truck with asphalt patching material) are identified within the maintenance areas of the hauling routes after the Applicant's yearly maintenance has been completed, county crews will perform the minor asphalt repair maintenance once in a sixty (60) consecutive day period. The types of asphalt pavement failures requiring repairs include, but are not limited to, cracking, pot holes, depressions, rutting, shoving, upheaval, and raveling and any other pavement damage or failures requiring immediate repair by the county. If major emergency roadway repairs associated with the permitted activities (work requiring more than a single County Public Works maintenance pick-up truck with asphalt patching material, or minor asphalt repairs occurring in less than the sixty (60) consecutive day period) are identified after the Applicant's yearly maintenance has been completed, the Applicant shall obtain a County encroachment permit (at no cost to Applicant) and complete the major roadway repairs. If major roadway repairs that are the Applicant's fair share obligation are not completed by the Applicant in a timely manner as determined by the County, and the County must make repairs when the public's safety is considered at risk by the County Engineer, then the Applicant will be billed for the County's major roadway repair work on a time and materials basis. An applicant may coordinate with the County to have the County complete required improvements, and in such case, must fully fund the County's costs to do so. The operator does not assume the liability for the roadway, except for cases where the operator has not fulfilled its maintenance obligations. If a subsequent mining operation utilizes a road previously required to be improved pursuant to this subsection, then the subsequent operator shall be responsible for compliance with the agreements and requirements of the previous operator.	