

# TRIBAL ENVIRONMENTAL ASSESSMENT

## TACHI PALACE CASINO RESORT EXPANSION PROJECT

**SEPTEMBER 2020**

LEAD AGENCY:

Tachi-YokutTribe  
Santa Rosa Rancheria  
16835 Alkali Drive  
Lemoore, CA 93245



# **TRIBAL ENVIRONMENTAL ASSESSMENT**

## TACHI PALACE CASINO RESORT EXPANSION PROJECT

**SEPTEMBER 2020**

LEAD AGENCY:

Tachi-YokutTribe  
Santa Rosa Rancheria  
16835 Alkali Drive  
Lemoore, CA 93245



PREPARED BY:

Analytical Environmental Services  
1801 7th Street, Suite 100  
Sacramento, CA 95811  
(916) 447-3479  
[www.analyticalcorp.com](http://www.analyticalcorp.com)



# TABLE OF CONTENTS

## TACHI PALACE CASINO RESORT EXPANSION PROJECT TRIBAL ENVIRONMENTAL ASSESSMENT

---

<b>1.0</b>	<b>INTRODUCTION.....</b>	<b>1-1</b>
1.1	Background and Purpose of the Tribal Environmental Assessment .....	1-1
1.2	Background .....	1-1
1.2.1	Santa Rosa Rancheria.....	1-1
1.2.2	Tachi Palace Casino Resort.....	1-1
1.2.3	Local Contributions .....	1-2
1.3	Project Objectives.....	1-2
<b>2.0</b>	<b>PROJECT DESCRIPTION .....</b>	<b>2-1</b>
2.1	Project Setting and Existing Facilities.....	2-1
2.2	Proposed Project.....	2-2
2.2.1	Site Access .....	2-2
2.2.2	Surface Parking Expansion and New Parking Garage .....	2-2
2.2.3	Water Supply.....	2-5
2.2.4	Wastewater Treatment and Disposal .....	2-5
2.2.5	Gas and Electricity .....	2-6
2.2.6	Stormwater/Drainage.....	2-7
2.2.7	Construction .....	2-7
2.2.8	Best Management Practices.....	2-16
<b>3.0</b>	<b>IMPACT ANALYSIS .....</b>	<b>3-1</b>
3.1	Introduction .....	3-1
3.1.1	Cumulative Setting .....	3-1
3.2	Aesthetics .....	3-3
3.2.1	Existing Environment .....	3-3
3.2.2	Environmental Consequences.....	3-5
3.2.3	Mitigation .....	3-6
3.3	Air Quality.....	3-7
3.3.1	Existing Environment .....	3-7
3.3.2	Environmental Consequences.....	3-13
3.3.3	Mitigation .....	3-16
3.4	Greenhouse Gas Emissions .....	3-17
3.4.1	Existing Environment .....	3-17
3.4.2	Environmental Consequences.....	3-21
3.4.3	Mitigation .....	3-22
3.5	Hazards and Hazardous Materials .....	3-24
3.5.1	Existing Environment .....	3-24

3.5.2	Environmental Consequences .....	3-26
3.5.3	Mitigation .....	3-27
3.6	Hydrology and Water Quality .....	3-28
3.6.1	Existing Environment .....	3-28
3.6.2	Environmental Consequences .....	3-30
3.6.3	Mitigation .....	3-35
3.7	Noise.....	3-38
3.7.1	Existing Environment .....	3-38
3.7.2	Environmental Consequences .....	3-44
3.7.3	Mitigation .....	3-48
3.8	Public Services .....	3-49
3.8.1	Existing Environment .....	3-49
3.8.2	Environmental Consequences .....	3-51
3.8.3	Mitigation .....	3-53
3.9	Transportation .....	3-54
3.9.1	Existing Environment .....	3-54
3.9.2	Environmental Consequences .....	3-58
3.9.3	Mitigation .....	3-66
3.10	Utilities and Service Systems .....	3-68
3.10.1	Existing Environment .....	3-68
3.10.2	Environmental Consequences .....	3-68
3.10.3	Mitigation .....	3-71
3.11	Socioeconomics.....	3-72
3.11.1	Existing Environment .....	3-72
3.11.2	Environmental Consequences .....	3-73
3.11.3	Mitigation .....	3-76
3.12	Indirect Impacts of Mitigation.....	3-77
3.12.1	Aesthetics.....	3-77
3.12.2	Air Quality and Greenhouse Gas Emissions.....	3-77
3.12.3	Biological Resources .....	3-78
3.12.4	Cultural Resources .....	3-78
3.12.5	Hydrology and Water Quality.....	3-79
3.12.6	Noise.....	3-79
3.12.7	Public Services and Utilities .....	3-79
3.12.8	Transportation.....	3-80
<b>4.0</b>	<b>REPORT PREPARATION.....</b>	<b>4-1</b>
4.1	Tribal Environmental Assessment Consultants.....	4-1
<b>5.0</b>	<b>REFERENCES.....</b>	<b>5-1</b>

## LIST OF TABLES

2-1	Proposed Project Program.....	2-3
3-1	Ambient Air Quality Standards .....	3-9
3-2	SJVAPCD Thresholds of Significance .....	3-10
3-3	NAAQS Attainment Status for SJVAB .....	3-11
3-4	Air Quality Monitoring Data .....	3-12
3-5	Tribal Minor New Source Review Thresholds .....	3-13
3-6	Construction Emissions .....	3-15
3-7	Operational Emissions .....	3-16
3-8	Project-Related GHG Emissions.....	3-22
3-9	Federal Construction Noise Thresholds.....	3-39
3-10	Federal Noise Abatement Criteria Hourly A-Weighted Sound Level Decibels .....	3-40
3-11	Significance of Changes in Cumulative Noise Exposure .....	3-40
3-12	Policy B.2.1. Noise Standards for Transportation Projects.....	3-41
3-13	Kings County Non-Transportation Noise Standards .....	3-41
3-14	Summary of Noise Level Measurements .....	3-42
3-15	Proposed Project Road Segment Traffic Volume and Noise Level Changes .....	3-46
3-16	Cumulative Year Road Segment Traffic Volume and Noise Level Changes.....	3-47
3-17	Estimated Fiscal Effects – Fire and EMS .....	3-51
3-18	Estimated Fiscal Effects – Law Enforcement .....	3-52
3-19	Existing Intersection Operations.....	3-56
3-20	Existing Queuing Operations.....	3-56
3-21	Existing Roadway Segment Operations.....	3-57
3-22	Trip Generation Summary .....	3-59
3-23	Trip Generation Summary During Special Events .....	3-60
3-24	Intersection Operations .....	3-62
3-25	Queuing Operations .....	3-63
3-26	Roadway Segment Operations.....	3-64
3-27	Proposed Traffic Mitigation Measures .....	3-67
3-28	Net Increase In Solid Waste Generation.....	3-69
3-29	Kings County Employment Data .....	3-72
3-30	2018 County Employment Data.....	3-73
3-31	2017 King County Workers Residency Location .....	3-75

## LIST OF FIGURES

Figure 1	Regional Location .....	1-3
Figure 2	Site and Vicinity.....	1-4
Figure 3	Aerial Photograph and Existing Facilities.....	1-5
Figure 4	Site Plan.....	2-4
Figure 5	Location of Drying Beds and Stormwater Infrastructure .....	2-8
Figure 6	Site Photographs.....	3-4

Figure 7 FEMA Flood Zones.....3-32

Figure 8 Watershed Map.....3-33

Figure 9 Noise Monitoring Locations.....3-43

**APPENDICES**

---

Appendix A Off-Reservation Environmental Impact Analysis Checklist

Appendix B Traffic Impact Study

Appendix C Air Quality and GHG Modeling Files

Appendix D Noise Monitoring Results

## ***1.0 INTRODUCTION***

---

# SECTION 1.0

---

## INTRODUCTION

### 1.1 BACKGROUND AND PURPOSE OF THE TRIBAL ENVIRONMENTAL ASSESMENT

The Tachi-Yokut Tribe (Tribe) is considering future expansions of the existing Tachi Palace Casino Resort complex on tribal trust land located in Kings County, approximately 2.75 miles southeast of the City of Lemoore, California. As described in detail in **Section 2.0** of this Tribal Environmental Assessment (TEA), the expanded facilities could include up to approximately 43,518 square feet (sf) of additional gaming floor space, a new 35,000 sf bingo hall/event center, 200-room hotel tower, 20,000 sf conference center, three-story parking garage with 1,000 parking spaces, 1,250 surface parking spaces, and associated infrastructure improvements, including additional on-site water and wastewater treatment facilities (Proposed Project).

Section 10.8 of the current 1999 Tribal-State Gaming Compact (Compact) requires that the Tribe prepare an environmental study prior to commencement of construction or expansion of a gaming facility (casino) on tribal lands that examines off-site impacts. This TEA has been prepared to meet the requirements of Section 10.8 of the Compact and the Tribe's Regulation of the Environment for Class II Gaming, which addresses off-Reservation environmental impacts. The Tribe will use this TEA to determine if the Proposed Project would result in significant off-Reservation impacts to the environment. The scope of this TEA has been focused via the preparation of an Off-Reservation Environmental Impact Analysis Checklist (Checklist; **Appendix A**). The Checklist provides an initial assessment of the potentially significant off-Reservation environmental impacts, and determines which, if any, environmental issues merit further analysis. Potentially significant impacts identified in the Checklist have been evaluated in detail in **Section 3.0** of this TEA.

### 1.2 BACKGROUND

#### 1.2.1 SANTA ROSA RANCHERIA

The Santa Rosa Rancheria was established for the Tribe in 1934 in Kings County, California, approximately 2.75 miles southeast of the City of Lemoore, and approximately 7 miles southwest of the City of Hanford. The original Rancheria (also referred to as the Tribe's Reservation throughout this TEA) consisted of 40 acres. Since then, the Tribe has expanded its land holdings to encompass approximately 2,000 acres that is primarily held in trust.

#### 1.2.2 TACHI PALACE CASINO RESORT

The existing Tachi Palace Casino Resort is located within the western portion of the Reservation, southwest of the intersection of Jersey Avenue and 17th Avenue. The Tribe established a bingo hall on the current site of the Tachi Palace Casino Resort in 1983, and has since expanded operations pursuant to



the Indian Gaming Regulatory Act (IGRA). **Figures 1 and 2** show the location of the Reservation, the existing Tachi Palace Casino Resort, and project site under consideration for the expansion of the casino resort. The proposed expansion location site and the land located east until 17th Ave. are within the Reservation (this area is referred to as the project site throughout this TEA). **Figure 3** provides an aerial photograph of the existing Tachi Palace Casino Resort and project site.

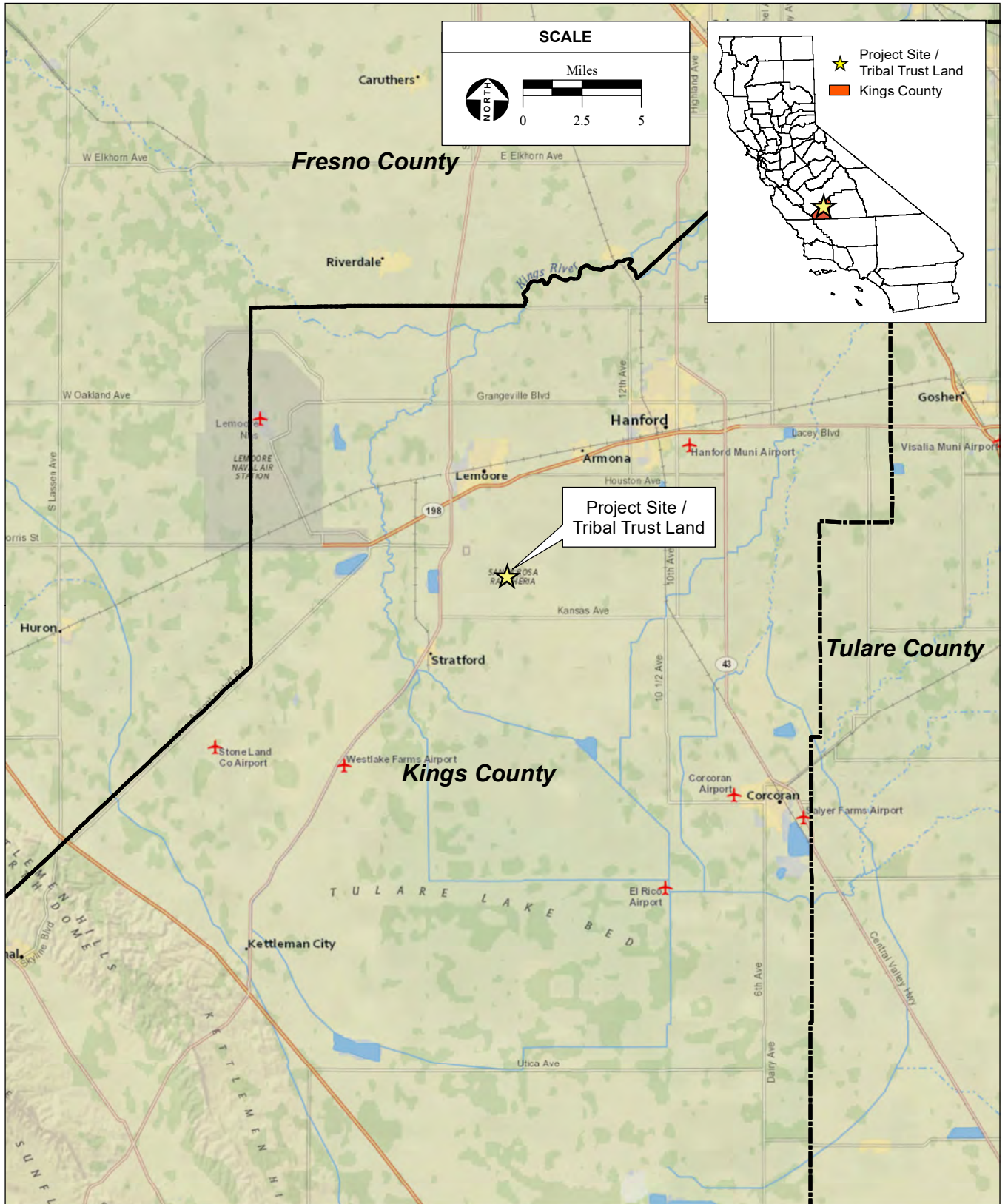
### 1.2.3 LOCAL CONTRIBUTIONS

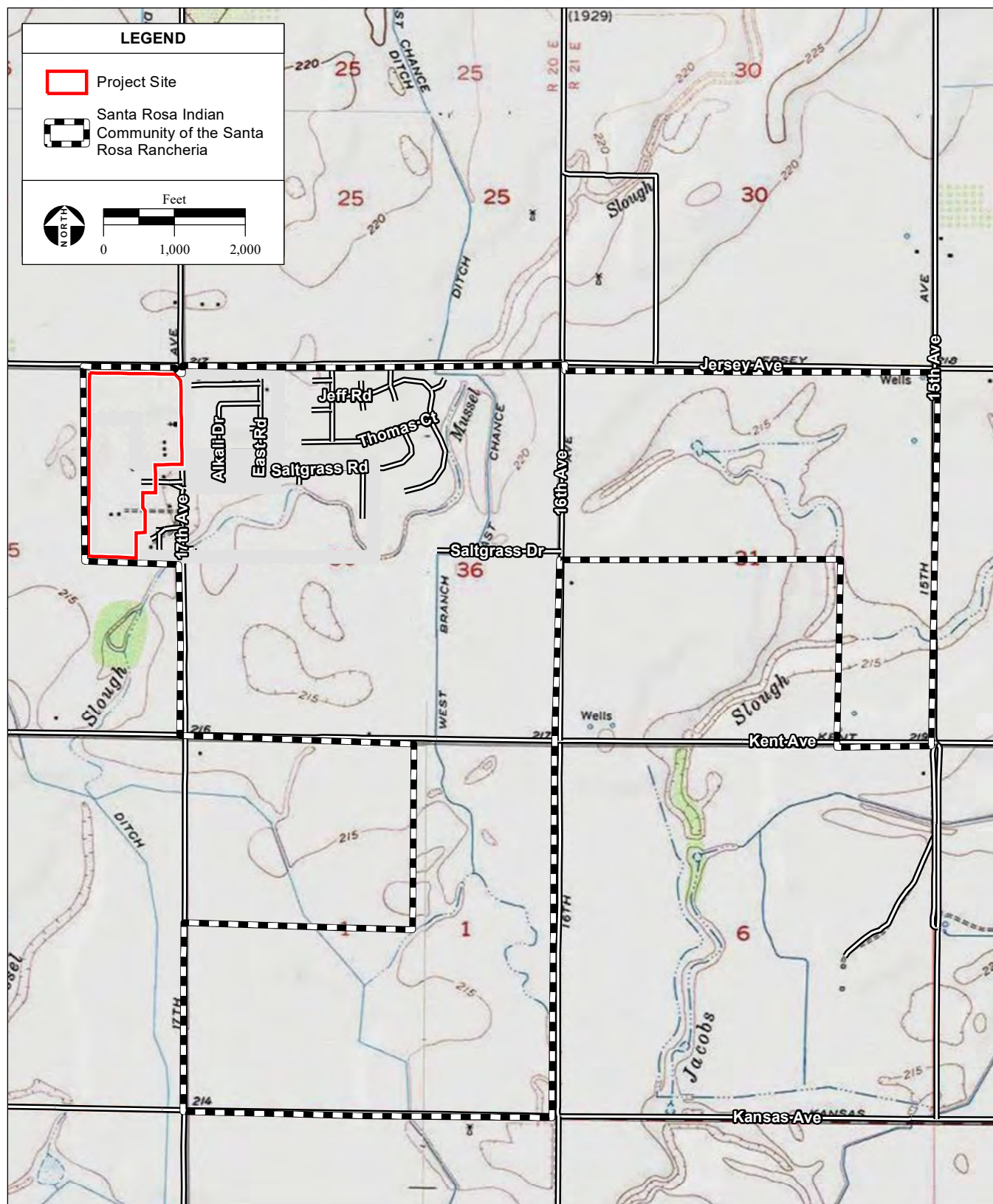
The Tribe has numerous partnerships with local agencies and groups, and regularly contributes charitable donations towards local fire, law enforcement, education facilities, and more. For example, the Tribe has donated fire trucks to fire departments in nearby cities, and equipment, such as a replacement fire apparatus and emergency defibrillators, to the Kings County Fire Department, a charitable contribution amount of \$586,054. The Tribe has also made charitable contributions to Toys for Tots and Relay for Life, and donates to the Kings County service system in order to run public services, such as fire and police protection services. Furthermore, the Tribe currently contributes \$900,000 per year to the Kings County annual budget through a Mitigation Agreement with Kings County; these funds are distributed to the Kings County Fire Department and Sheriff's Department.

## 1.3 PROJECT OBJECTIVES

Implementation of the Proposed Project would assist the Tribe in meeting the following project objectives:

- Improve the socioeconomic status of the Tribe by providing an augmented revenue source that could be used to:
  - strengthen the tribal government,
  - provide new tribal housing,
  - fund a variety of social, governmental, administrative, educational, health and welfare services to improve the quality of life of tribal members, and
  - provide capital for other economic development and investment opportunities;
- Relieve overcrowded conditions at the existing gaming facility;
- Improve infrastructure and support facilities at the Rancheria;
- Provide additional recreational amenities to the community and out-of-town guests;
- Allow tribal members to maintain their economic self-sufficiency;
- Create new jobs for tribal members and non-tribal members; and
- Reduce visitor trips on local roadways by providing overnight accommodations.



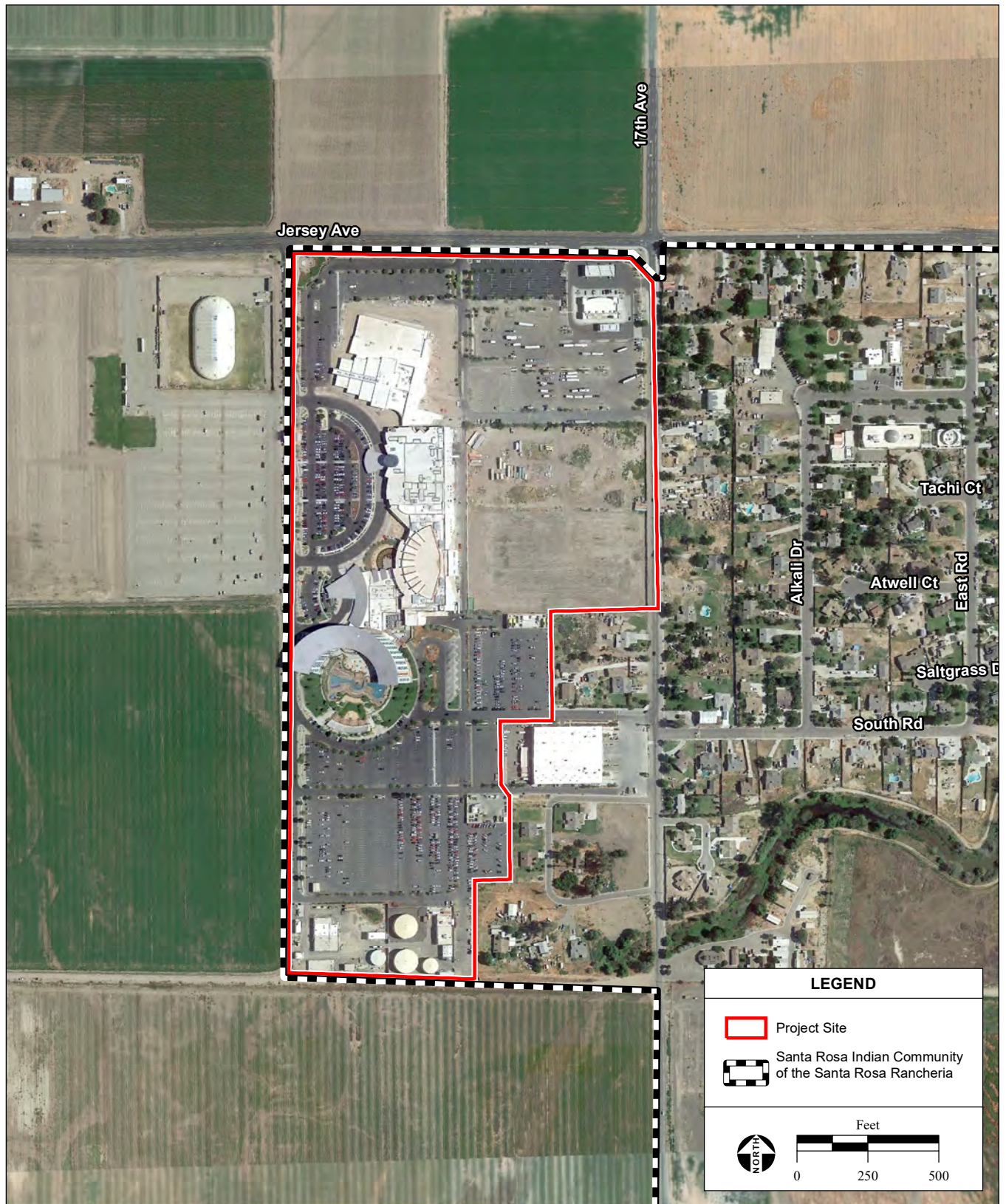


SOURCE: "Stratford, CA" USGS 7.5 Minute Topographic Quadrangle, T20S R20E Section 2  
Mt. Diablo Baseline & Meridian; AES, 5/4/2020

Tachi Palace Tribal Environmental Assessment / 219554 ■

**Figure 2**  
Site and Vicinity





SOURCE: DigitalGlobe Aerial Photograph, 6/30/2018; AES, 5/6/2020

Tachi Palace Tribal Environmental Assessment / 219554 ■

**Figure 3**  
Aerial Photograph of Existing Facilities

## ***2.0 PROJECT DESCRIPTION***

---

# SECTION 2.0

---

## PROJECT DESCRIPTION

### 2.1 PROJECT SETTING AND EXISTING FACILITIES

The project site consists of approximately 61.5 acres of land currently held in federal trust for the Tribe located within the northwestern portion of the Tribe's approximately 1,561-acre Santa Rosa Rancheria ("Rancheria", also referred to as "Reservation" throughout this TEA) in the unincorporated area of Kings County, California, approximately 2.75 miles southeast of the City of Lemoore, California, and 7 miles southwest of the City of Hanford, California. The regional location of the Rancheria is shown in **Figures 1 and 2**, and an aerial map showing the project site and surrounding vicinity is provided as **Figure 3**. The project site is located southwest of the corner of Jersey Avenue and 17th Avenue. Surrounding off-site land uses consist primarily of agricultural and rural residential uses. Developed land uses within the Rancheria are located to the east, including rural residential housing, tribal administrative offices, medical and dental buildings, a youth center, an early education facility, and a community center. Land uses to the north, south, and west of the project site consist primarily of agricultural and low density residential uses. Adjacent parcels to the north, south, and west of the project site consist of a combination of non-Tribal lands and parcels owned by the Tribe that are not part of the Rancheria.

The Tribe's existing Tachi Palace Casino Resort, Yokut Gas Station, and associated infrastructure are located on the project site, as shown on the Site Plan at **Figure 4**. The casino facility, hotel, and one parking lot are located in the northwestern area of the site. Several parking lots, a water treatment plant (WTP), wastewater treatment plant (WWTP) and associated infrastructure, including water storage tanks, are located to the south of the hotel. Parking lots, the Coyote Entertainment Center, Yokut Gas Station, and an undeveloped dirt lot are located in the northeastern area of the project site. Portions of the site are landscaped, and other areas of the site contain sparse non-native annual grasslands.

The existing Tachi Palace Casino Resort, which is owned and managed by the Tribe, currently serves approximately 5,800 patrons per day. The casino consists of one three-floor structure that contains gaming areas, bingo hall, seven restaurants, retail areas, administrative offices, and general circulation space. The gaming floor encompasses approximately 70,000 square feet (sf) of the 337,418 sf building with 1,998 Class III and 110 Class II slot machines, and 27 game tables. The Coyote Entertainment Center is connected to the casino on its northern side and is approximately 82,415 sf. The center includes a sports bar and lounge, a cinema and a variety of games, including pool, bowling and arcade games. The hotel is approximately 125,000 sf, has 255 guest rooms and suites, and includes an on-site pool, spa, fitness center, gift shops, business center, and an indoor concert theater of approximately 20,000 sf with 1,198 seats. On-site parking facilities consist of 2,000 paved surface parking spaces.

The existing Yokut Gas Station consists of 16 gas pumps and a 3,000 sf convenience with 42 Class II slot machines.

## 2.2 PROPOSED PROJECT

The Proposed Project evaluated in this TEA includes potential expansions to the existing Tachi Palace Casino Resort. Expanded and new facilities could accommodate approximately up to an additional 900 gaming devices, and would include an 18,000 sf podium expansion, a new 35,000 sf event center/bingo hall (the current bingo hall would be converted to gaming floor), a new 200-room, 7-story hotel tower with 20,000 sf of conference space, a three story parking garage with 1,000 parking spaces, and a parking lot with 1,250 parking spaces. Additionally, the Tribe is planning an expansion of the existing Yokut Gas station, including 24 new fuel dispensers (12 gasoline, 12 diesel), expanded on-site convenience store with 60 additional slot machines, and a three-car wash bay. The Proposed Project also includes infrastructure improvements to accommodate the proposed facilities, including expansion of water supply and wastewater treatment facilities (see **Section 2.2.4** and **2.2.5** for additional details). The Proposed Project would employ an estimated 100 additional employees. A site plan for the proposed facilities is presented as **Figure 4**. **Table 2-1** provides a breakdown of project components with associated square footages. As with the existing facility, the Proposed Project would be constructed to meet the applicable building code requirements of the Compact. This would include meeting or exceeding the requirements of the International Building Code (IBC).

### 2.2.1 SITE ACCESS

Ingress and egress to the Tachi Palace Casino Resort is provided through three one-way stop controlled driveways along Jersey Avenue and four one-way stop controlled driveways along 17th Avenue. The main access point to the site is provided along Jersey Avenue, approximately 1,300 feet west of 17th Avenue. This is the location of the main access road that is aligned north-south and connects the western entrances of the Tachi Palace Casino Resort facilities to Jersey Avenue. No new access points or improvements to existing site access facilities would be required.

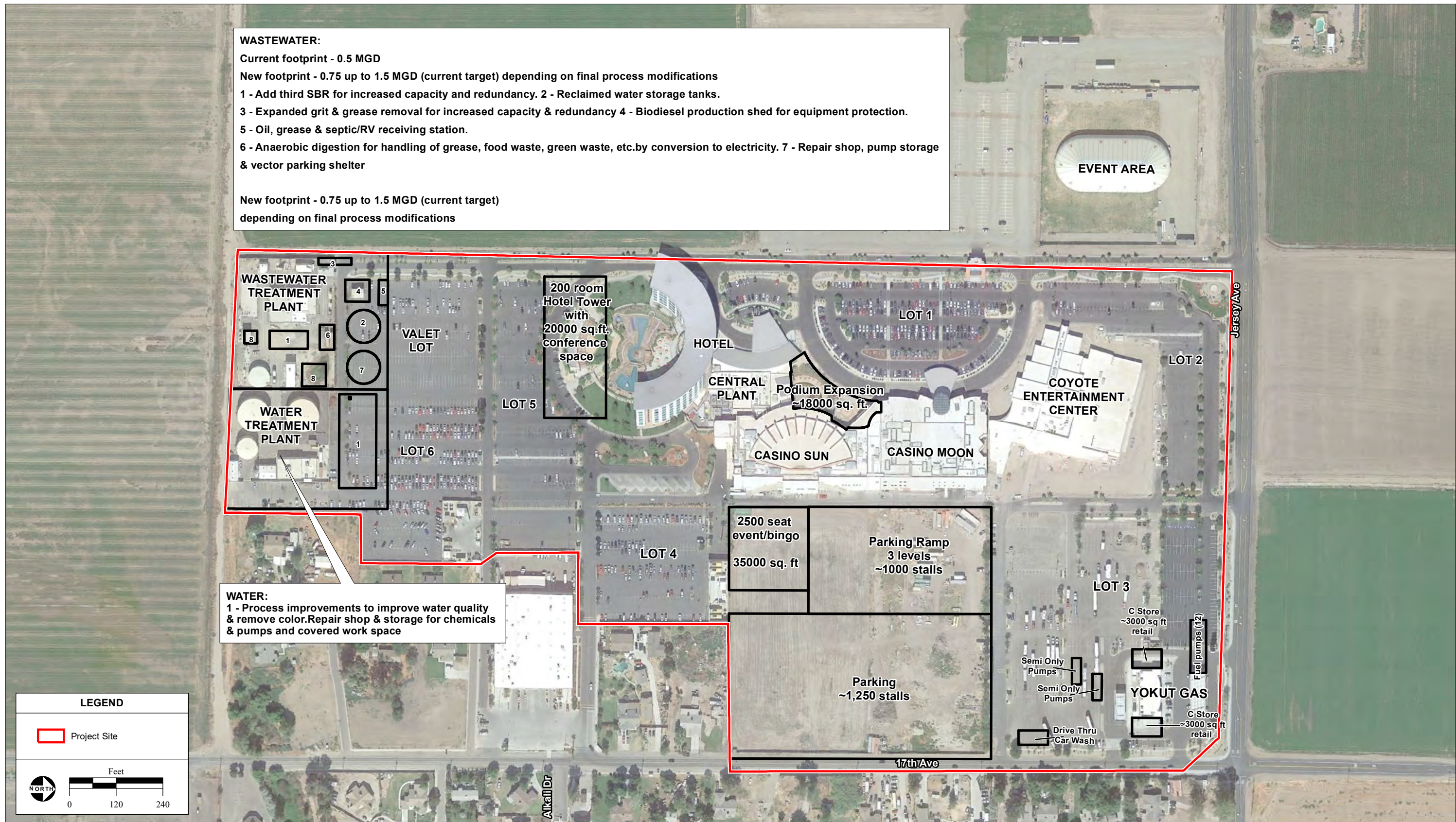
### 2.2.2 SURFACE PARKING EXPANSION AND NEW PARKING GARAGE

The Proposed Project would include the addition of 1,250 surface parking spaces in addition to 1,000 parking garage spaces, as shown in **Figure 4**. Approximately 217 existing surface parking spaces would be removed as a part of construction of the proposed new facilities at the WTP and WWTP and expansion of the hotel. Therefore, the net addition of surface parking spaces is 1,033.

**TABLE 2-1**  
**PROPOSED PROJECT PROGRAM**

<b>Facility</b>	<b>Existing Facilities</b>	<b>Existing + Expansion</b>	<b>Net Change (Proposed Project)</b>
<b>Casino Gaming Floor</b>			
Square feet, gaming area	70,500 sf	114,018 sf	43,518 sf <sup>(1)</sup>
Square feet, circulation	28,500 sf	28,500 sf	
Gaming devices	2,108	3,000	892
Table games	27	27	0
<b>Bingo Hall and Event Center</b>			
Square feet	26,418 sf <sup>(2)</sup>	35,000 sf	8,582 sf
Seats	1,100 <sup>(2)</sup>	2,500	1,400
<b>Food and Beverage</b>			
Square feet	23,418 sf	24,318 sf	900 sf <sup>(3)</sup>
Seats	952	1,102	150 <sup>(3)</sup>
<b>Hospitality / Retail</b>	1,385 sf	1,385 sf	0
<b>Back of House / Admin</b>	215,967 sf	215,967 sf	0
<b>Coyote Entertainment Center</b>	82,415 sf	82,415 sf	0
<b>Hotel and Conference Center</b>			
Rooms	103,690 sf 255 rooms	223,690 sf 455 rooms	120,000 sf 200 rooms
Concert / Theater	20,000 sf	20,000 sf	0
Conference Center	0	20,000 sf	20,000 sf
Retail and Other	1,310 sf	1,310 sf	0
<i>Subtotal</i>	<i>125,000 sf</i>	<i>265,000 sf</i>	<i>140,000 sf</i>
<b>Yokut Gas</b>			
Square feet	8,000 sf	14,000 sf	6,000 sf
Gaming devices	42	102	60
<b>Totals</b>			
Square feet	581,873 sf	780,603 sf	198,730 sf
Gaming devices	2,150	3,102	952
Table games	27	27	0
<b>Parking</b>			
Garage parking		1,000 spaces	1,000 spaces
Surface parking	2,000 spaces	3,033 Spaces	1,033 spaces <sup>(4)</sup>
Source: Tribe, 2020. 1. Includes 18,000 sf Podium Expansion, less 900 sf dedicated to F&B, plus conversion of existing 26,418 sf Bingo Hall to gaming. 2. Note that the existing Bingo Hall and Event Center is being converted into gaming floor area, as part of the expansion. A new Bingo Hall and Event Center would be constructed as a replacement, which would be located separate from the main casino structure. 3. Comprised of the wet bar component of the Podium expansion, plus other F&B seats. 4. Assumes construction of 1,250 new spaces, and 217 existing spaces lost from construction of new buildings.			







### **2.2.3 WATER SUPPLY**

#### **Existing Conditions**

Potable water for the Rancheria, including the Tachi Palace Casino Resort and the other onsite facilities, is obtained primarily through two on-site groundwater wells. These wells each have a pump rate of 1,200 gallons per minute (gpm). A third well with a pump rate of approximately 1,450 gpm currently supplies water for irrigation purposes, but it could be repurposed for potable water if necessary. These wells range in depth from 935 to 1,125 feet below ground surface (bgs). The extracted groundwater is treated at the existing onsite WTP. Two 1,000,000 gallon potable water tanks and one 400,000 gallon potable water reserve tank are located at the WTP. The current average day water demand for the Rancheria, including the Tachi Palace Casino Resort, is approximately 480,000 gallons per day (gpd) (Tribe, 2020).

#### **Proposed Project**

The Proposed Project would result in a net increase in average water demand of approximately 38,000 gpd<sup>1</sup>, which would increase the combined average day demand of existing and proposed facilities served by the Tribe's water supply system to approximately 518,000 gpd. The WTP currently has a water storage volume of two million gallons, which is sufficient for approximately four days of current potable water demand and slightly less than four days of existing plus Proposed Project potable demands. The Proposed Project would utilize the established water facilities onsite to meet its fire protection flow requirements, and therefore no new infrastructure is required. For these reasons, no new storage tanks are required for the increased water demand of the Proposed Development. Proposed WTP upgrades include improvements to the treatment process, and construction of a new building/covered area that will include a repair shop, chemical and pump storage area, and a covered work space. These expansion components are depicted on **Figure 4**.

### **2.2.4 WASTEWATER TREATMENT AND DISPOSAL**

#### **Existing Conditions**

Wastewater generated by the Rancheria, Tachi Palace Casino Resort, and its supporting facilities is currently treated by the on-Reservation WWTP. The average day wastewater flow treated by the wastewater treatment facility is approximately 350,000 gpd, and the maximum treatment capacity is approximately 500,000 gpd (Tribe, 2020). Wastewater is treated to a tertiary level and is then stored in a 280,000 gallon tank. Treated wastewater is reused within the Rancheria and project site for landscape irrigation, dust control, and the casino's central plant cooling towers. Treated wastewater that is not reused is discharged to drying beds that are located within the Rancheria boundaries, southeast of the project site. Approximately 50 percent of the drying bed capacity is utilized during peak flows (Tribe, 2020).

---

<sup>1</sup> Estimated at 80 gpd per hotel patron and 15 gpd per casino and event center patron.

## Proposed Project Water Supply

The Proposed Project is assumed to cause the average daily wastewater flow to the Tribe's wastewater treatment facility to increase by approximately 36,100 gpd. This would result in a combined wastewater flow for the Rancheria plus the Proposed Project of approximately 386,100 gpd, or 0.39 million gpd (mgpd). To accommodate the increased wastewater flow, the existing wastewater treatment facility would be expanded as part of the Proposed Project. This expansion would include the following new facilities:

- Expanded grit and grease removal for increased capacity and redundancy
- Biodiesel production shed for equipment protection
- Anaerobic digestion tank for handling grease, food waste, green waste, etc. by conversion to electricity
- Repair shop, pump storage, and vector parking shelter
- Reclaimed water storage tanks
- A third sequencing batch reactor (SBR)
- Oil, grease, and septic/RV receiving station

The upgraded and expanded wastewater facilities would have a treatment capacity of 0.75 mgpd to 1.5 mgpd of wastewater, depending on the precise configuration of the WWTP components. Even assuming the least volume intensive configuration, the increase in treatment capacity would be more than adequate to accommodate the increase in wastewater flow as a result of the Proposed Project.

Beneficial use of reclaimed wastewater would occur to the extent feasible and would increase over existing conditions under the Proposed Project. Treated wastewater may be used for landscape irrigation, cooling water at the central plant, dust control, and for toilet flushing within the Tachi Palace Casino Resort. Reclaimed water that cannot be recycled would continue to be discharged to the existing drying beds located to the southeast of the project site, within the Rancheria boundaries (**Figure 5**). These drying beds have sufficient capacity to accommodate the full increase in wastewater flows resulting from the Proposed Project.

### 2.2.5 GAS AND ELECTRICITY

Natural gas is provided to the Rancheria by the Southern California Gas Company (SoCalGas), and used for heating, cooking, pool heating, and hot water heaters. The main natural gas pipeline is a 19 inch to 26 inch diameter category pipeline that is approximately 4.6 miles northwest of the project site (California Energy Commission, 2020). The Proposed Project is anticipated to result in a 10 percent increase in natural gas use of approximately above current Rancheria usage (Tribe, 2020).

Pacific Gas & Electric (PG&E) provides electrical service to the Rancheria (including the existing Casino Resort) as well as existing homes and businesses in the broader project area (Kings County, 2012). The existing Casino Resort and the other facilities onsite have an electrical energy demand of approximately

2,258 megawatt hours (mwh) per month. Two PG&E transmission lines with less than 110 kV capacity run parallel to Jersey Avenue and Kent Avenue. There is an electricity substation located between Kent Avenue and Kansas Avenue on 18th Avenue, approximately 1 mile southwest of the project site. Currently the Tribe is in negotiations with PG&E for the Proposed Project. These discussions will determine if significant improvements or relocation of electrical infrastructure would be required to serve the Proposed Project.

The Proposed Project would incorporate energy efficient features generally consistent with the standards of Title 24 of the California Code of Regulations (CCR), which sets minimum efficiency requirements for building construction materials and energy-consuming equipment in California, or as approved by the authority having jurisdiction.

### **2.2.6 STORMWATER/DRAINAGE**

The project site is relatively flat with little elevation change. Stormwater runoff on the project site is collected via a network of storm drains and conveyed via gravity to an underground storage basin that is located in the southwestern portion of the service yard, which is adjacent to the western boundary of the project site. The retained stormwater is pumped via one of the five lift station pumps through a 36-inch diameter, 1 mile long force main pipeline to a ditch outfall, located within the Rancheria boundaries east of the project site (**Figure 5**). Should the stormwater outfall reach maximum capacity, the overflow would flow into the adjacent recessed field, which is also within the Rancheria boundaries.

### **2.2.7 CONSTRUCTION**

#### **Construction Equipment and Techniques**

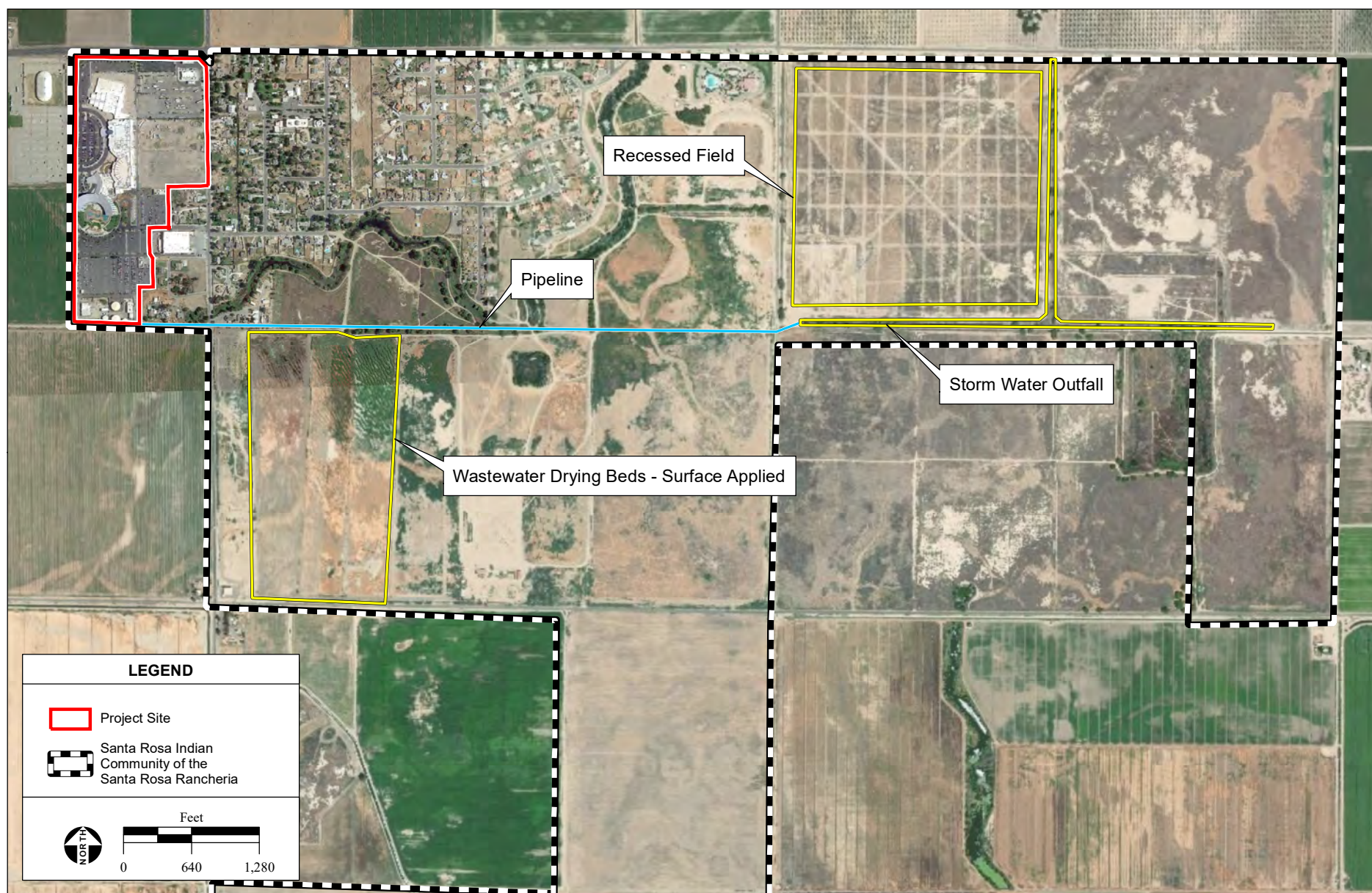
##### ***Grading Activities***

The topography of the project site is relatively flat with minimal elevation range. Furthermore, much of the project site is already developed, with the exception of the new parking facilities and bingo hall/event center, which would be constructed on an undeveloped area. This undeveloped portion of the project site is also relatively flat. Therefore, very limited grading would be required as part of the Proposed Project

##### ***Equipment***

The following construction equipment may be used during construction of the Proposed Project:

- |              |                  |                    |
|--------------|------------------|--------------------|
| ▪ Dozers     | ▪ Graders        | ▪ Welders          |
| ▪ Tractors   | ▪ Scrapers       | ▪ Pavers           |
| ▪ Loaders    | ▪ Cranes         | ▪ Paving Equipment |
| ▪ Backhoes   | ▪ Forklifts      | ▪ Rollers          |
| ▪ Excavators | ▪ Generator Sets | ▪ Air Compressors  |



SOURCE: DigitalGlobe Aerial Photograph, 6/30/2018; AES, 5/6/2020

Tachi Palace Tribal Environmental Assessment / 219554 ■

**Figure 5**  
Location of Drying Beds and Stormwater Infrastructure

## **Construction Phasing**

Construction of the Proposed Project is expected to begin in 2023 and project improvements are estimated to occur through 2050. However, most elements would be constructed and become operational in the early years of the expansion. The analyses included herein assume that construction would take approximately 24 months, with a completion date in early 2025 and first full year of operation in 2026. This assumption was used because it yields a more conservative level of impacts than if the expansion is assumed to occur over the next 30 years.

### **2.2.8 BEST MANAGEMENT PRACTICES**

Construction and operation of the Proposed Project would incorporate a variety of industry standard Best Management Practices (BMPs). In many cases, such as Stormwater Pollution Prevention Plans (SWPPPs) prepared for NPDES permits, certain BMPs are requisite conditions of permit approval.

**Section 3.0** presents select BMPs that have been specifically incorporated into the project design to avoid or minimize potential adverse effects resulting from the development of the Proposed Project.

## ***3.0 IMPACT ANALYSIS***

---

# SECTION 3.0

---

## IMPACT ANALYSIS

### 3.1 INTRODUCTION

An initial analysis of potential off-Reservation environmental effects was performed using an Off-Reservation Environmental Impact Analysis Checklist (Checklist). The Checklist is included as **Appendix A** to this Tribal Environmental Assessment (TEA). Issues identified through completion of the Checklist as having the potential to be adversely effected by the Proposed Project, as well as potential areas of controversy, are addressed in greater detail within this section. These issues include:

- Aesthetics
- Air Quality
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise
- Public Services: Fire Protection, Police Protection
- Transportation
- Utilities and Service Systems
- Socioeconomics

Issues identified within the Checklist as having the potential for indirect impacts resulting from mitigation for impacts of the Proposed Project are also addressed within this section. These issues include:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Hydrology and Water Quality
- Noise
- Public Services and Utilities
- Transportation

The remaining issue areas were eliminated from detailed discussion in this TEA because it was determined, based on analysis of these issue areas in the Checklist (**Appendix A**) that the Proposed Project would not have a potentially significant adverse off-Reservation effects in these issue areas.

#### 3.1.1 CUMULATIVE SETTING

The cumulative setting includes past, present, and reasonably foreseeable future actions not part of the Proposed Project, but related to cumulative effects. This includes projected growth as detailed in the Kings County General Plan. The cumulative impact analysis within this TEA considered the construction of the list of potential cumulative actions and projects in the vicinity provided below, as well as additional growth in accordance with the County General Plan.



Cumulative effects analysis is based on the assumed enforcement of federal, State, and local regulations, including the implementation of the policies outlined in the County General Plan. Cumulative impacts for each environmental issue area are discussed below in **Sections 3.2** through **3.11**.

The population in Kings County (County) is projected to reach approximately 167,000 by the year 2030, an increase of approximately 25% by the year 2030 per County General Plan (Kings County, 2016).

### **Potentially Cumulative Actions and Projects**

Development projects proposed and/or currently being constructed in the vicinity of the project site are listed below and are assumed under cumulative conditions:

- **12565 Kansas Ave** – Expand poultry farm, new poultry barns, 3 farm employee housing and incidental structures.
- **19101 Kent Avenue** – Helicopter repair shop, parking shade, chemical storage area.
- **11519 16<sup>th</sup> Avenue** – Small realty business
- **18556 Jackson Ave** – Open recreation facility

No significant future transportation projects were identified in the vicinity of the project site (**Appendix B**).

## **3.2 AESTHETICS**

### **3.2.1 EXISTING ENVIRONMENT**

The project site is in the western part of the San Joaquin Valley, and surrounded by developed agricultural lands with sparse undeveloped land. The entire site and the surrounding area is flat, with elevations ranging from 200 to 215 feet above mean sea level (amsl).

Landscape features that define the visual character of the project area are related to agricultural development, such as crop fields and dairy farms. The majority of the project site is developed with the existing Tachi Palace Casino Resort and non-casino related facilities, such as Yokut Gas, the wastewater treatment plant, and Coyote Entertainment Center. The non-developed portion of the project site consists of vacant land with little vegetation. The project site can be viewed from 17<sup>th</sup> Avenue, 18<sup>th</sup> Avenue, and Jersey Avenue. The viewpoints experienced by motorists traveling on Jersey Avenue at the Tachi Palace Casino Resort's main entrance, and the 17th Avenue intersection can be seen in **Figure 6**, Photo A and B, respectively. No roadways in the vicinity of the project site are designated as scenic roadways by the County or Caltrans (Kings County, 2010; Caltrans, 2019). Motorists on all roads will experience long-range views of the project site because the topography is relatively flat with little vegetation. The only obstacles to these long-range views a motorist might experience are from established structures and tall agricultural crops.

The nearest private off-Reservation residences are located approximately 600 feet northwest and 900 feet north. Views of the project site from the vantage point of nearest sensitive receptor is partially blocked by an established event area structure on the eastern side of the project site. Aside from this, the sensitive receptor has an interrupted view of the project site.

The existing Tachi Palace Casino Resort improvements include a number of signs and visual aids. These include a main entry sign that is approximately 12' tall by 40' wide, and which is located at the southeast corner of the intersection of Jersey Avenue and the main project site access road. The letters of this sign are illuminated at night. To the south on the project side access road is the main pylon sign. This sign is approximately 65' tall and 50' wide and includes an electronic screen element. This sign is located to the west of the main casino entrance. There are also a number of directional wayfinding signage placed throughout the property to direct guests to various program elements. These signs are typically less than 10' in height and some of these are illuminated at night. These signs include static images and narrative information.



**Photo A:** View of the project site looking southeast from the Jersey Ave/Casino Resort Main Entrance intersection.



**Photo B:** View of the project site looking southwest from the Jersey Ave/17th Ave intersection.

### **3.2.2 ENVIRONMENTAL CONSEQUENCES**

#### **Scenic Vistas**

The Proposed Project would include expansion of existing Tachi Palace Casino Resort facilities and a new bingo hall/event within an area already developed site. The flat topography of the project site would be maintained because little grading would be required for the Proposed Project. Furthermore, there are no notable existing landforms or mature native trees on the project site that could be altered as the result of the Proposed Project. Trees that may need to be removed or moved are ornamental in nature. The majority of established landscaping onsite would not be disturbed.

The design of the Proposed Project would continue the aesthetic concept and palette of the existing casino, hotel, Yokut Gas, and WTP/WWTP. The Proposed Project would not significantly alter the off-Reservation views of visual resources in the surrounding area as the components of development are similar in size and height to those currently on the project site. Views experienced by drivers on Jersey Avenue, 17th Avenue, and 18th Avenue, and from areas not within the reservation would not significantly change because, as mentioned above, the Proposed Project components would be a similar height to the existing facilities. Furthermore, the components would be positioned in close proximity to the existing facilities. Consequently, the proposed facilities would not significantly impede additional views of the natural scenic resources. Finally, the horizontal exposure of the Tachi Palace Casino Resort facilities, or duration of the view of the Tachi Palace Casino Resort facilities, would continue to be short term in nature due to the relatively high travel speeds of motorists. Therefore, off-Reservation effects associated with scenic and visual resources resulting from the Proposed Project are considered less than significant.

#### **Light and Glare**

Operation of the Proposed Project at night would require additional night lighting which would have the potential to adversely affect the surrounding area. This lighting would be similar to lighting systems currently located on the project site, and it would not involve excessively bright or colorful lighting, including flashing lights. Mitigation provided in **Section 3.2.3** would minimize the potential effects associated with night lighting. Potential off-Reservation effects resulting from the additional light and glare generated by the Proposed Project would be less than significant with mitigation.

#### **Cumulative**

New development would be consistent with local land use regulations, including associated design guidelines. By clustering project elements in close proximity to existing improvements on the project site, the visual effects of the project would be mitigated through the project design. The Proposed Project would not impede views of scenic resources or alter notable landforms or native mature trees. With the implementation of mitigation measures outlined in **Section 3.2.3**, the Proposed Project would not result in significant adverse cumulative impacts with regards light and glare. Overall, the Proposed Project would have a less-than-significant effect to aesthetic resources.

### **3.2.3 MITIGATION**

Project design shall ensure that project-related lighting and glare impacts to off-Reservation residences are minimized. The following mitigation measures shall be implemented to reduce lighting, and glare impacts:

- Exterior glass will be glazed with a non-reflective, tinted coating to minimize glare and nighttime illumination.
- Exterior lighting, including security, walkway, and decorative fixtures will consist of downcast, fully shielded low-pressure sodium lights.

### **3.3 AIR QUALITY**

#### **3.3.1 EXISTING ENVIRONMENT**

##### **San Joaquin Valley Air Basin**

The project site is located in Kings County, which lies within the San Joaquin Valley Air Basin (SJVAB). The SJVAB includes the following counties: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and the western portion of Kern.

Due to the complexity of the SJVAB's pollution transport system, air pollution in the region is further exacerbated. Airflow patterns within the SJVAB can generally be characterized by northwesterly up-valley winds, marine winds from the San Francisco Bay Area, down-valley and foothill drainage (down sloping) winds, and northerly (non-marine) winds resulting from the exiting of a low pressure system. During the winter, down-sloping winds from the Sierra Nevada Mountains predominate because of high-pressure systems to the east, and during the summer, northwesterly winds predominate because of the entrance and exit of low-pressure systems (WRCC, 2013). Winds from the north during the summer months transport pollutants from the Bay Area and Sacramento region south along the western portion of the SJVAB and cycle the pollutants along the southern portion of the SJVAB. Pollutants are then transported either out of the SJVAB to the south or north along the eastern portion of the SJVAB. Pollutants are sometimes carried east up the foothill valleys during the summer. Due to high pressure system in the east during the winter months, winds transport pollution west out of the foothills.

The vertical dispersion of air pollutants in the SJV is limited by the presence of persistent temperature inversions. Because of expansional cooling of the atmosphere, air temperature usually decreases with altitude. A reversal of this atmospheric state, where the air temperature increases with height, is termed an inversion. Inversions can exist at the surface, or at any height above the ground. The height of the base of the inversion is known as the "mixing height". This is the level to which pollutants can mix vertically. Semi-permanent systems of high barometric pressure fronts frequently establish themselves over the SJVAB, deflecting low-pressure systems that might otherwise bring cleansing rain and winds.

In addition to geography and climate, causes of poor air quality in the SJVAB also include mobile, agricultural, and stationary emission sources.

##### **Regulatory Setting**

Regulation of air pollution is achieved through both national and state ambient air quality standards and emissions limits for individual sources of air pollutants. The Federal Clean Air Act (CAA) requires that the United States Environmental Protection Agency (USEPA) identify National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. National standards have been established for ozone, carbon monoxide (CO), nitrogen dioxide (NO<sub>x</sub>), sulfur dioxide (SO<sub>x</sub>), particulate matter (PM<sub>10</sub>, PM<sub>2.5</sub>), and lead. These pollutants are called "criteria" air pollutants because standards have been

established for each of them to meet specific public health and welfare criteria. As the responsible agency for enforcing the CAA, the USEPA has regulatory authority over tribal lands, including the Tribe's Reservation.

Under amendments to the CAA, USEPA has classified air basins, or portions thereof, as either "attainment" or "non-attainment" for each criteria air pollutant, based on whether or not the national standards have been achieved. In 1988, the State Legislature passed the California Clean Air Act (CCAA), which is patterned after the CAA to the extent that areas are required to be designated as "attainment" or "non-attainment" for the state standards. The state standard includes the NAAQS criteria pollutants and adds four more: visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. Thus, areas in California have two sets of designations: one set with respect to the national standards and one set with respect to the state standards. NAAQS and California Ambient Air Quality Standards (CAAQS) for criteria pollutants are listed in **Table 3-1**.

The CAA requires non-attainment areas to prepare air quality plans that include strategies for achieving attainment. Air quality plans developed to meet NAAQS are referred to as State Implementation Plans. States, municipal statistical areas, air basins, and counties that contain areas of non-attainment are required to develop SIPs to outline policies and procedures designed to bring the state, municipal statistical area, air basin, or county into compliance with the NAAQS. The CCAA also requires non-attainment areas, except for those in nonattainment for PM<sub>10</sub>, to prepare plans that include strategies, which would demonstrate attainment. Thus, just as regions in California have two sets of designations, many regions in California also have two sets of air quality plans: one to meet federal requirements and another to meet state requirements.

At the state level, the California Air Resources Board (CARB) regulates mobile emissions sources such as construction equipment, trucks, and automobiles. CARB oversees the activities of regional and county air districts, which are primarily responsible for regulating stationary emissions sources. The Proposed Project lies within the San Joaquin Valley Air Pollution Control District (SJVAPCD) boundaries. The SJVAPCD is the regional agency empowered by CARB to regulate air pollutant emissions from stationary sources in the County. The SJVAPCD regulates air quality through its permit authority over most types of stationary emissions sources and through its planning and review activities. Although the SJVAPCD does not have jurisdiction on tribal lands, the SJVAPCD is the regional agency responsible for protecting public health from air pollution in Kings County. SJVAPCD thresholds of significance are provided in the SJVAPCD's Air Quality Thresholds of Significance – Criteria Pollutants and are 10 tons per year (tpy) for NO<sub>x</sub> and ROG emissions, and 15 tpy for PM<sub>2.5</sub> emissions. Thresholds of significance for all criteria pollutants are shown in **Table 3-2** below.

**TABLE 3-1**  
**AMBIENT AIR QUALITY STANDARDS**

Pollutant	Averaging Time	Standard (parts per million)		Standard (microgram per cubic meter)		Violation Criteria	
		CAAQS	NAAQS	CAAQS	NAAQS	CAAQS	NAAQS
Ozone	1 hour	0.09	-	180	-	If exceeded	N/A
	8 hours	0.070	0.070	137	137	N/A	If exceeded on more than 3 days in 3 years
CO	8 hours	9	9	10,000	10,000	If exceeded	If exceeded on more than 1 day per year
	1 hour	20	35	23,000	40,000	If exceeded	If exceeded on more than 1 day per year
NO <sub>x</sub>	Annual average	0.030	0.053	57	100	N/A	If exceeded
	1 hour	0.18	0.1	339	188	If exceeded	N/A
SO <sub>x</sub>	Annual average	N/A	0.03	N/A	-	N/A	If exceeded
	24 hours	0.04	0.14	105	-	If exceeded	If exceeded on more than 1 day per year
	1 hour	0.25	0.075	665	196	N/A	N/A
PM <sub>10</sub>	Annual arithmetic mean	-	-	20	-	If exceeded	If exceeded
	24 hours	-	-	50	150	If exceeded	If exceeded on more than 1 day per year
PM <sub>2.5</sub>	Annual arithmetic mean	-	-	12	12	If exceeded	If exceeded
	24 hours	-	-	-	35	If exceeded	If exceeded on more than 1 day per year
Lead	30 day Avg.	-	-	1.5	-	If equaled or exceeded	N/A
	Calendar Quarter	-	-	-	1.5	N/A	N/A
Visibility Reducing Particles	8 hour	Extinction coefficient of 0.23 per kilometer – visibility of ten miles or more.	No Federal Standard	-	No Federal Standard	N/A	N/A
Sulfates	24 hour	-	No Federal Standard	25	No Federal Standard	If equaled or exceeded	N/A
Hydrogen Sulfide	1 hour	0.03	No Federal Standard	42	No Federal Standard	If equaled or exceeded	N/A
Vinyl Chloride	24 hour	0.01	No Federal Standard	26	No Federal Standard	If equaled or exceeded	N/A

Source: CARB, 2016.



**TABLE 3-2**  
**SJVAPCD THRESHOLDS OF SIGNIFICANCE**

<b>Pollutant</b>	<b>Construction &amp; Operational Emissions (tpy)</b>
CO	100
NO <sub>x</sub>	10
ROG	10
SO <sub>x</sub>	27
PM <sub>10</sub>	15
PM <sub>2.5</sub>	15
Source: SJVAPCD, 2015.	

At the federal level, the General Conformity Rule requires the lead agency to compare estimated emissions of CAPs to the applicable *de minimis* levels (40 CFR §153[b][1] and [2]). *De minimis* levels are 10 tpy for NO<sub>x</sub>, and ROG emissions (the same as the SJVAPCD thresholds provided in **Table 3-2**) and 70 tpy for PM<sub>2.5</sub>.

### **State Implementation Plans (SIPs)**

The CAA requires states containing areas with air quality violating the NAAQS to prepare an air quality control plan, referred to as a SIP. The SIP contains the strategies and control measures that states such as California will use to attain the NAAQS. The SIP is not a single document, but a compilation of new and previously submitted plans, programs, rules, regulations, and controls. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, rules, and regulations of air basins as reported by the agencies with jurisdiction over them. Many SIP documents rely on the same control strategies, including federal fleet emission standards for cars and heavy trucks, fuel regulations, and limits on emissions from consumer products.

The SJVAPCD developed the San Joaquin Valley Ozone Plan (SJVOP) for the exceedance of the NAAQS, which was adopted November 1994 and published in the Federal Registry in November, 2001. The SJVOP was replaced by three documents which make up the applicable SIP. These documents are Extreme Ozone Attainment Demonstration Plan (adopted on October 8, 2004), Clarifications Regarding the 2004 Extreme Ozone Attainment Demonstration Plan (adopted on August 31, 2008), and Amendment to the Extreme Ozone Attainment Demonstration Plan (adopted on October 20, 2005). All of the documents were published in the Federal Registry on March 8, 2010 (USEPA, 2014). The SJVAPCD developed the 2007 PM<sub>10</sub> Maintenance Plan and requested redesignation from the EPA. The SJVAPCD proposed a PM<sub>2.5</sub> Plan in 2008, with the most recent plan released in 2018 (CARB, 2018).

## Pollutants of Concern

Pollutants of concern are Criteria Air Pollutants that are indicators of regional air quality and are designated as nonattainment by the USEPA. The USEPA has designated 8-hour ozone as extreme nonattainment and PM<sub>2.5</sub> as nonattainment under the NAAQS. All other criteria pollutants under the NAAQS are either in attainment or unclassified by the USEPA. **Table 3-3** shows the NAAQS attainment status for the SJVAB.

**TABLE 3-3**  
NAAQS ATTAINMENT STATUS FOR SJVAB

Pollutant	NAAQS
O <sub>3</sub> (8-hour)	Nonattainment (extreme)
PM <sub>10</sub>	Attainment
PM <sub>2.5</sub>	Nonattainment
CO	Unclassified/Attainment
NO <sub>2</sub>	Unclassified/Attainment
SO <sub>2</sub>	Unclassified/Attainment
Pb	No Designation/Classification
Source: SJVAPCD, n.d.	

The following is a brief summary of the pollutants of concern:

### **Ozone**

Photochemical reactions involving reactive organic gases (ROG) and oxides of nitrogen (NO<sub>x</sub>) from the incomplete combustion of fossil fuels are the largest source of ground-level ozone. Since photochemical reaction rates depend on the intensity of ultraviolet light and air temperature, ozone is primarily a summer air pollution problem. As a photochemical pollutant, ozone is formed only during daylight hours under appropriate conditions, but is destroyed throughout the day and night. Ozone is considered a regional pollutant, as the forming reaction occurs over time downwind from the emission sources.

### **Particulate Matter**

Particle pollution is a mixture of microscopic solids and liquid droplets suspended in air. This pollution, also known as particulate matter, is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, soil or dust particles, and allergens (such as fragments of pollen or mold spores). Particulate matter is regulated as either PM<sub>10</sub> (PM of 10 microns or less in size) or PM<sub>2.5</sub> (PM of 2.5 microns or less in size), which are the upper limit size restrictions for reaching deep into the lungs PM<sub>10</sub> or reaching the bloodstream PM<sub>2.5</sub>.

## Monitoring Data

Ambient air quality data is collected through a network of air monitoring stations located throughout the SJVAB. **Table 3-4** provides a three-year summary listing the highest annual concentrations observed for 8-hour ozone and 24-hour average PM<sub>2.5</sub> at the Hanford-S Irwin Street monitoring station in the City of Hanford. This station was selected because of its relative proximity to the project site.

**TABLE 3-4**  
AIR QUALITY MONITORING DATA

Pollutant	Standard	Monitoring Data by Year		
		2016	2017	2018
Ozone 8-hour Average:				
Highest 8-hour average, National	0.070 ppm	0.088	0.094	0.082
National Violations		49	38	29
Particulate Matter 2.5 microns in size 24-hour Average:				
Highest 24-hour average	35 ug/m³	59.7	113.4	107.8
National Violations		25	33.8	No data
Notes: Data is from Hanford-S Irwin Street monitoring station. ug/m3 = micrograms per cubic meter; ppm = parts per million.				
Source: CARB, 2020.				

## Stationary Sources – Tribal Minor New Source Review (NSR)

The Federal Indian Country Minor NSR rule of July 2011 created a mandate that minor sources in Indian country wishing to construct after September 2, 2014, must obtain a minor source permit. The Tribal Minor NSR program applies to both new minor sources and minor modifications to both major and minor projects in attainment and nonattainment areas. NSR programs must comply with the standards and control strategies of the Tribal Implementation Plan (TIP) or SIP. If there is not an applicable SIP or TIP, the USEPA issues permits and implements the program. A General Permit under the minor NSR program would be required on tribal trust land if stationary source allowable emissions of regulated pollutants would exceed the thresholds presented in 40 CFR 49.153, Table 1, which are reproduced in **Table 3-5** below. This General Permit serves as a preconstruction permit containing limitations and other restrictions specifying the construction, modification, and operation of a minor source. A General Permit under the NSR program allows USEPA to review the stationary source(s) and provide limitations for operation as necessary, resulting in lower operational emissions. As the SJVAB is in nonattainment for ozone (NO<sub>x</sub> and ROG, ozone precursors) and PM<sub>2.5</sub>, the nonattainment thresholds apply to these pollutants. All other criteria pollutants would be analyzed using attainment area thresholds. The Tribe will comply with the minor NSR program to further reduce operational emissions from stationary sources.

**TABLE 3-5**  
TRIBAL MINOR NEW SOURCE REVIEW THRESHOLDS

Pollutant	Emissions Thresholds for Attainment Areas (tpy)	Emissions Thresholds for Nonattainment Areas (tpy)
NO <sub>x</sub>	10	5
VOC	5	2
PM	10	5
PM <sub>10</sub>	5	1
PM <sub>2.5</sub>	3	0.6
CO	10	5
SO <sub>2</sub>	10	5
Pb	0.1	0.1
Source: 40 CFR 49.153.		

## Sensitive Receptors

Sensitive receptors are facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, convalescent facilities, and residential areas are examples of sensitive receptors. The nearest sensitive off-Reservation air quality receptors from the project site are a residence approximately 600 feet west and a residence approximately 800 feet north. The nearest non-residential receptor and school is Central Union Elementary School located approximately 0.8 mile northwest.

## 3.3.2 ENVIRONMENTAL CONSEQUENCES

### Methodology

The Proposed Project construction and operational emissions were estimated using the California Emissions Estimator Model Version 2016.3.2 (CalEEMod) air modeling program.

Construction and operation are considered not to overlap and therefore are analyzed separately. Construction assumptions include that construction would last approximately 28 months beginning January 2023 and ending in April 2025. The first full year of operation is assumed to occur in 2026. To estimate criteria emissions from construction equipment, CalEEMod default construction equipment was used in this analysis.

Operational emissions would result from on-site stationary sources (boilers, and emergency generators) and area sources (landscape maintenance and kitchen equipment), as well as indirect sources from electricity use and mobile emissions from vehicles traveling to and from the facility. As the Proposed Project involves the expansion of the existing Tachi Palace Casino Resort, this air quality analysis quantifies the net increase in emissions between the existing and expanded hotel and casino operations. In addition, expansion of the non-gaming facilities will also be included this analysis, including the expansion of Yokut Gas. New daily trips generated by the Proposed Project are quantified in the TIS

provided in **Appendix B** and were used to determine the mobile emissions resulting from the project. All CalEEMod data tables, including input values, assumptions used, and output values, are detailed in **Appendix C**.

## **Significance Criteria**

The Proposed Project is not subject to state or local jurisdiction and does not involve federal actions that would trigger general conformity review under the Clean Air Act. As discussed in **Section 3.3.1** the project site is located in an area that is classified as extreme nonattainment for ozone (NO<sub>x</sub> and ROG, ozone precursors) and nonattainment for PM<sub>2.5</sub> under the National Ambient Air Quality Standards (NAAQS). A significant impact would occur if the Proposed Project would result in emissions of ozone precursors (ROGs and NO<sub>x</sub>) at levels that would conflict with or obstruct an applicable air quality plan, violate an air quality standard, or contribute to an existing or projected air quality violation. To determine the potential for significant off-Reservation air quality impacts, project emissions will be compared to the *de minimis* levels set forth in 40 CFR 93.153 and the thresholds of significance established by the SJVAPCD shown in **Table 3-2** above. These thresholds were developed by the SJVAPCD to determine if a project would conflict with or obstruct the implementation of an applicable air quality plan, violate or considerable contribute to ambient air quality standards if the project is in non-attainment, expose sensitive receptors to harmful pollutant concentrations, or create objectionable odors (SJVAPCD, 2015). If project emissions exceed the SJVAPCD thresholds, then a significant off-Reservation impact may occur and mitigation measures would be necessary.

## **Air Quality Effects**

### **Construction**

Construction of the Proposed Project would generate criteria air pollutants from construction equipment (primarily diesel-operated), construction worker automobiles (primarily gasoline-operated), and physical land disturbance. Construction emissions are summarized in **Table 3-6**, and CalEEMod output files are provided in **Appendix C**.

**TABLE 3-6**  
**CONSTRUCTION EMISSIONS**

Construction Year	Pollutants of Concern					
	ROG	NOx	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	tons per year					
2023	0.47	3.95	3.89	0.01	1.35	0.65
2024	0.51	3.72	4.39	0.01	0.97	0.32
2025	2.28	0.19	0.38	0.00	0.04	0.02
<b>Maximum Year Construction Emissions</b>	<b>2.28</b>	<b>3.95</b>	<b>4.39</b>	<b>0.01</b>	<b>1.35</b>	<b>0.65</b>
<i>SJVAPCD Thresholds</i>	<i>10</i>	<i>10</i>	<i>100</i>	<i>27</i>	<i>15</i>	<i>15</i>
<i>De minimis levels</i>	<i>10</i>	<i>10</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>70</i>
<b>Exceeds Thresholds</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Source: <b>Appendix C.</b>						

As shown in **Table 3-6**, project emissions would be below thresholds of significance. However, due to the proximity of the project site to nearby sensitive receptors, construction emissions of fugitive dust have the potential to result in adverse effects associated with odor and health risk. This is a potentially significant impact. To reduce construction-related fugitive dust, emission control mitigation measures are provided in **Section 3.3.3**. The mitigation provided in **Section 3.3.3** would reduce fugitive dust and DPM emissions from construction, avoiding potentially adverse effects to nearby sensitive receptors. Therefore, the Proposed Project would not conflict with or obstruct implementation of the applicable air quality plans, violate any air quality standard or contribute to an existing or projected air quality violation, result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment, or expose off-Reservation sensitive receptors to substantial pollutant concentrations. After mitigations, construction of the Proposed Project would not result in significant off-Reservation effects associated with the regional air quality environment.

### **Operation**

Operations of the proposed facilities, including the casino, hotel, conference center/meeting rooms, and events center, would result in direct area and stationary as well as indirect mobile emissions. Indirect mobile emissions are associated with increased vehicle trips to and from the Proposed Project. Direct area and stationary emissions would result from emergency generators, boilers, heating, air conditioning, landscape maintenance, kitchen equipment use, and other combustion sources. All operational emissions are summarized in **Table 3-7** and output files are provided in **Appendix C**.

**TABLE 3-7**  
**OPERATIONAL EMISSIONS**

Emission Sources	ROG	NOx	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	tons per year					
Area	1.45	0.00	0.02	0.00	0.00	0.00
Energy	0.04	0.34	0.29	0.00	0.03	0.03
Mobile	1.40	8.31	13.49	0.05	3.30	0.92
Stationary	0.43	0.24	1.85	0.00	0.07	0.07
<b>Total Emissions</b>	<b>3.32</b>	<b>8.89</b>	<b>15.65</b>	<b>0.06</b>	<b>3.39</b>	<b>1.02</b>
<i>SJVAPCD Thresholds</i>	<i>10</i>	<i>10</i>	<i>100</i>	<i>27</i>	<i>15</i>	<i>15</i>
<i>De minimis levels</i>	<i>10</i>	<i>10</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>70</i>
<b>Exceed Threshold</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Source: <b>Appendix C.</b>						

**Table 3-7** shows that project emissions would be below thresholds of significance. Therefore, the Proposed Project would not conflict with or obstruct implementation of the applicable air quality plans, contribute to an existing or projected air quality violation, result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment, or expose off-Reservation sensitive receptors to substantial pollutant concentrations. Operation of the Proposed Project would not result in significant off-Reservation effects associated with the regional air quality environment.

### **Cumulative**

Past, present and future development projects contribute to a regions air quality conditions on a cumulative basis; therefore by its very nature, air pollution is largely a cumulative impact. If a project's individual emissions contribute toward exceedance of the NAAQS or CAAQS, then the project's cumulative impact on air quality would be significant. In developing attainment designations for criteria pollutants, the USEPA considers the regions' past, present and future emission levels. The project site and vicinity is in extreme nonattainment for 8-hour ozone and nonattainment for PM<sub>2.5</sub> under the NAAQS; therefore, air quality in the region has the potential to be cumulatively impacted by the Proposed Project. However, as shown in **Tables 3-6** and **3-7** project emissions would be less than the SJVAPCD's threshold which are based on obtaining the NAAQS and CAAQS. Therefore, the Proposed Project's emissions would not contribute to a significant cumulative adverse effect to regional air quality.

### **3.3.3 MITIGATION**

The Tribe will implement the following construction BMPs to reduce criteria pollutant emissions:

- The Tribe shall use soil stabilizer on unpaved roads.
- The Tribe shall apply water to exposed construction areas twice a day.
- The Tribe shall restrict vehicle speeds on the construction site to 15 miles per hour.
- The Tribe shall restrict construction vehicle idling to five minutes

## 3.4 GREENHOUSE GAS EMISSIONS

### 3.4.1 EXISTING ENVIRONMENT

Climate change is a global phenomenon attributable to the sum of all human activities and natural processes. Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. GHGs in the atmosphere naturally trap heat by impeding the exit of solar radiation that has hit the earth and is reflected back into space—a phenomenon sometimes referred to as the “greenhouse effect.” GHGs include all of the following: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>) (Health & Safety Code §38505[g]). In addition to natural sources, human activities are exerting a substantial and growing influence on climate by changing the composition of the atmosphere and by modifying the land surface through deforestation and urbanization, and in turn, reducing carbon capture and decreasing albedo. In particular, increased consumption of fossil fuels has substantially increased atmospheric levels of GHGs. Emissions of these gases are attributable to human activities associated with the industrial/manufacturing, utilities, transportation, residential, and agricultural sectors.

In 2017, transportation generated 40 percent of California's GHG emissions, followed by the industrial sector (21 percent), electricity generation (15 percent), commercial and residential (10 percent), agriculture (8 percent), and other sources (less than 7 percent) (CARB, 2019). Emissions of CO<sub>2</sub> and N<sub>2</sub>O are byproducts of fossil fuel combustion, among other sources. CH<sub>4</sub> results from off-gassing associated with agricultural practices and landfills. Sinks of CO<sub>2</sub> include uptake by vegetation and dissolution into the world's ocean.

In 2017, the United States emitted about 6.46 billion tons of CO<sub>2</sub>e per year. Of the five major sectors nationwide—residential and commercial, industrial, agriculture, transportation, and electricity—transportation accounts for the highest fraction of GHG emissions (approximately 29 percent), closely followed by electricity (approximately 28 percent); these emissions from energy are primarily generated from the combustion of fossil fuels (approximately 80 percent), and emissions from transportation are entirely generated from direct fossil fuel combustion (USEPA, 2019).

## Regulatory Setting

### ***Federal***

#### ***CEQ GHG Guidance***

On June 21, 2019, the Council on Environmental Quality (CEQ) published draft guidance on how National Environmental Policy Act (NEPA) analysis and documentation should address greenhouse gas (GHG) emissions. The *Draft NEPA Guidance on Consideration of Greenhouse Gas Emissions*, if finalized, would replace the final guidance CEQ issued on August 1, 2016, titled *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews*, which was withdrawn effective April 5,



2017, for further consideration pursuant to EO13783 of March 28, 2017, *Promoting Energy Independence and Economic Growth*.

The draft guidance directs agencies to attempt to quantify a proposed action's projected direct and reasonably foreseeable indirect GHG emissions when the amount of those emissions is substantial enough to warrant quantification, and when it is practicable to quantify them using available data and GHG quantification tools. Additionally, the draft guidance establishes criteria for cumulative effects analysis of GHGs under NEPA. Where GHG inventory or regional emissions information is available to provide context for understanding the relative magnitude of a proposed action's GHG emissions, a qualitative summary discussion of the effects of GHG emissions, based on an appropriate literature review, is adequate to meet NEPA requirements and no separate cumulative effects analysis is required. The draft guidance also notes that, while NEPA does not require agencies to adopt mitigation measures, comparing alternatives based on potential effects due to GHG emissions, along with other potential effects and economic and technical considerations, can help agencies differentiate among alternatives.

## **State**

California has been a leader in outlining and aggressively implementing a comprehensive climate change strategy that is designed to result in a substantial reduction in total statewide GHG emissions in the future. California's climate change strategy is multifaceted and involves a number of State agencies implementing a variety of State laws and policies. California laws and policies summarized below would assist in reducing GHG emissions associated with the Proposed Project.

### ***Executive Order S-3-05***

Signed on June 1, 2005, Executive Order (EO) S-3-05 established the following statewide emission reduction targets:

- Reduce GHG emissions to 2000 levels by 2010;
- Reduce GHG emissions to 1990 levels by 2020; and
- Reduce GHG emissions to 80 percent below 1990 levels by 2050.

EO S-3-05 created a "Climate Action Team" or "CAT" headed by the California EPA and including several other State jurisdictional agencies. The CAT is tasked by EO S-3-05 with outlining the effects of climate change on California and recommending an adaptation plan. The CAT is also tasked with creating a strategy to meet the target emission reductions. In April 2006, the CAT published an initial report that accomplished these two tasks.

### ***California Global Warming Solutions Act of 2006 (AB 32)***

Signed on September 27, 2006, AB 32 codifies a key requirement of EO S-3-05: the requirement to reduce Statewide GHG emissions to 1990 levels by 2020. AB 32 tasks CARB with monitoring State sources of GHGs and designing emission reduction measures to comply with the law's emission

reduction requirements. However, AB 32 also continues the CAT's efforts to meet the requirements of EO S-3-05 and states that the CAT should coordinate overall state climate policy.

In order to accelerate the implementation of emission reduction strategies, AB 32 requires that CARB identify a list of discrete early action measures that can be implemented relatively quickly. In October 2007, CARB published a list of early action measures that could be implemented and would serve to meet about a quarter of the required 2020 emissions reductions (CARB, 2007). In order to assist CARB in identifying early action measures, the CAT published a report in April 2007 that updated their 2006 report and identified strategies for reducing GHG emissions (CAT, 2007). In the October 2007 report, CARB cited the CAT strategies and other existing strategies that may be utilized in achieving the remainder of the emissions reductions. AB 32 required that CARB prepare a comprehensive "scoping plan" that identifies all strategies necessary to fully achieve the required 2020 emissions reductions.

A second update to the Climate Change Scoping Plan was adopted on December 14, 2017. The 2017 Scoping Plan Update addresses the 2030 target established by Senate Bill (SB) 32, as discussed below, and establishes a proposed framework of action for California to meet a 40 percent reduction in GHG by 2030 compared to 1990 levels. The key programs that the 2017 Scoping Plan Update builds on include the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, increasing the use of renewable energy in the State, and reduction of methane emissions from agricultural and other wastes (CARB, 2017).

#### *Executive Order S-01-07*

EO B-30-15 was signed by the Governor on April 29, 2015. It sets interim GHG targets of 40 percent below 1990 levels by 2030, to ensure California will meet its 2050 targets set by EO S-3-05. It also directs CARB to update the Climate Change Scoping Plan. The 2030 Target Scoping Plan Concept Paper was released on June 17, 2016.

#### *Executive Order B-30-15*

EO B-30-15 was signed by the Governor on April 29, 2015. It sets interim GHG targets of 40 percent below 1990 levels by 2030, to ensure California will meet its 2050 targets set by EO S-3-05. It also directs CARB to update the Climate Change Scoping Plan. The 2030 Target Scoping Plan Concept Paper was released on June 17, 2016.

#### *California's Scoping Plan and Cap and Trade Program*

In the 2008 initial Climate Change Scoping Plan, CARB laid out the GHG reductions that needed to be achieved and the types of measures that would be used to reach them (CARB, 2008). The Plan predicts that under a "business as usual" (BAU) scenario, 2020 GHG emissions would equal 596 million metric tons (MMT) CO<sub>2</sub>e. Consequently, compared to the 1990 GHG emissions inventory, emissions would need to be reduced by 169 MMT CO<sub>2</sub>e in 2020. The initial Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and CAT early actions

and additional GHG reduction measures by both entities, identifies additional measures to be pursued as regulations, and outlines the role of a cap-and-trade program. Some of the key elements of the Scoping Plan include expanding and strengthening existing energy efficiency programs as well as building and appliance standards, achieving a statewide renewables energy mix of 33 percent, developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions, and establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets.

The 2008 Scoping Plan set forth approximately 126 strategies and measures currently under consideration that would ensure a statewide reduction in GHG emissions, most strategies and measures are planning-level measures, or they apply to particular industries.

The first update to the 2008 Climate Action Scoping Plan was released in May 2014. The purpose of the update is to identify the next steps for California's leadership on climate change. The updated Plan outlines the progress California has made to date regarding near-term 2020 GHG limits, such as cleaner and more efficient energy, cleaner transportation, and the CARB's Cap-and-Trade Program. The 2008 Plan identifies six key areas where further control strategies are needed, which are: energy, transportation (vehicles/equipment, sustainable communities, housing, fuels, and infrastructure), agriculture, water, waste management, and natural and working lands.

In 2017, CARB provided a draft Scoping Plan, which provides strategies for achieving California's 2030 GHG reduction target. The 2017 draft Scoping Plan provides a summary of recent legislation, such as AB 398, EO B-30-15, Senate Bill (SB) 350, SB 32, SB 1383, etc.). Climate change mitigation policies provided in the draft Scoping Plan include the following:

- Implementing SB 350 by 2030, which will reduce GHG emissions in the electricity sector;
- Implement Mobile Source Strategy (cleaner technology and fuels), which will reduce GHG emissions in the transportation sector;
- Increase stringency of SB 375 (sustainable communities strategy);
- Develop pricing policies to support low-GHG transportation;
- Adopt Low Carbon Fuel Standard with and carbon Intensive reduction of 18 percent;
- Develop regulation and programs to support organic waste landfill reductions;
- Implement carbon accounting framework for natural and working lands (SB 859); and
- Implement forest carbon plans.

In addition to new mitigation policies listed above, the 2017 draft Scoping Plan incorporates past policies from both the initial (2008) and first updated (2014) Scoping Plans.

### 3.4.2 ENVIRONMENTAL CONSEQUENCES

#### Methodology

Construction and operational transportation, water and wastewater, energy, stationary source, and area GHG emissions resulting from the Proposed Project were estimated using CalEEMod Version 2016.3.2 (CalEEMod) air modeling program. Off-Reservation effects resulting from the Proposed Project were analyzed consistent with the 2019 CEQ Guidelines.

#### GHG Emission Effects

Development of the Proposed Project would result in an increase in GHG emissions related to construction, mobile sources (trips generated by the project), stationary sources (components of the project that directly emit GHGs), and indirect sources related to electricity (combustion of fuels use to produce electricity), solid waste (solid waste decomposition at the landfill and haul trucks), wastewater processing, and water transport.

CalEEMod was used to estimate construction, area, energy, mobile, stationary, water and wastewater, and solid waste project-related GHG emissions. Model input and output files are provided in **Appendix C**. The trip generation rates use to estimate GHG emissions are based on information from the TIS (**Appendix B**). **Table 3-8** provides a breakdown of project-related GHG emissions.

GHG emissions resulting from the Proposed Project are primarily indirect (either indirect mobile emissions from delivery, patron, and employee vehicles or indirect off-site electricity generation, waste pickup, water and wastewater transport, etc.). The federal government and the state of California have enacted measures that would reduce GHG emissions from mobile sources, some of which have been accounted for in the air quality model used to estimate mobile emissions.

Kings County estimates that countywide GHG emissions will reach approximately 3,289,166 MT CO<sub>2</sub>e by 2020 (Kings County, 2013). As shown in **Table 3-8**, the proposed project would result in approximately 7,308 MT CO<sub>2</sub>e per year or a 0.2 percent increase in County GHG emissions. Mitigation measures have been provided in **Section 3.4.3** to reduce project-related GHG emissions. Operational mitigation measures would reduce indirect GHG emissions from electricity use, water and wastewater transport, and waste transport through the installation of energy efficient lighting, heating and cooling systems, low-flow appliances, drought resistant landscaping, and recycling receptacles. Operational mitigation measures would also reduce indirect mobile GHG emissions by requiring adequate ingress and egress to minimize vehicle idling and preferential parking for vanpools and carpools to reduce project-related trips. Implementation of these mitigation measures is consistent with the methodology for analyzing climate change presented in the *2019 CEQ Guidance* (CEQ, 2019). Therefore, with the implementation of all feasible mitigation measures provided in **Section 3.4.3**, implementation of the Proposed Project would not result in a significant off-Reservation impacts associated with climate change.

**TABLE 3-8**  
PROJECT-RELATED GHG EMISSIONS

Emission Source	GHG Emissions	
	Unmitigated	Mitigated
<b>Construction (MT CO<sub>2</sub>e)</b>		
Construction	2,521	2,521
<b>Operation (MT CO<sub>2</sub>e/yr)</b>		
Area	0.04	0.04
Stationary	959	959
Energy	1,363	1,296
Mobile	4,549	4,549
Waste	237	118
Water	116	93
<i>Operation Subtotal</i>	<i>7,224</i>	<i>7,016</i>
<i>Amortized Construction<sup>1</sup></i>	<i>84</i>	<i>84</i>
<b>Total Project-Related GHG Emissions</b>	<b>7,308</b>	<b>7,100</b>
Notes: 1 – Construction-related GHG emissions were amortized over the life of the project (30 years) to determine annual construction emissions. Source: <b>Appendix C.</b>		

### 3.4.3 MITIGATION

The Tribe shall implement the following mitigation measures to minimize emissions of GHGs from operation:

- The Tribe shall use clean fuel vehicles in the vehicle fleet where practicable, which would reduce GHG emissions.
- The Tribe shall provide preferential parking for employee vanpools and carpools, which would reduce GHGs.
- The Tribe shall use low-flow appliances at the proposed facility. The Tribe shall use drought-tolerant landscaping and provide “Save Water” signs near water faucets.
- The Tribe shall control criteria pollutants, GHG, and DPM emissions during operation of the project by requiring all diesel-powered vehicles and equipment be properly maintained and minimizing idling time to five minutes at loading docks when loading or unloading food, merchandise, etc. or when diesel-powered vehicles or equipment are not in use; unless per engine manufacturer’s specifications or for safety reasons more time is required. The Tribe shall employ periodic and unscheduled inspections to accomplish the above mitigation.
- Energy-efficient lighting shall be installed throughout the facilities. Using energy-efficient lighting would reduce the project’s energy usage, thus reducing the project’s indirect GHG emissions.

- The Tribe shall install recycling bins throughout the hotel and casino for glass, cans and paper products. Trash and recycling receptacles shall be placed strategically outside to encourage people to recycle. The Tribe will reduce solid waste stream of the facility by 50 percent.
- The Tribe shall use energy-efficient appliances in the hotel and casino.
- The Tribe shall implement a voluntary trip reduction program for employees.
- The selected heating, ventilation, and air conditioning (HVAC) system shall minimize the use of energy by means of using high efficiency variable speed chillers, high efficiency low emission steam and/or hot water boilers, variable speed hot water and chilled water pumps, variable air volume air handling units, and air-to-air heat recovery where appropriate.

## **3.5 HAZARDS AND HAZARDOUS MATERIALS**

### **3.5.1 EXISTING ENVIRONMENT**

#### **Existing Casino, Hotel and Entertainment Center Operations**

Land uses on the Reservation, including the Tachi Palace Casino Resort and Coyote Entertainment Center, are subject to the federal Occupational Safety and Health Act (OSHA), described below. Due to the nature of the existing land uses, operation of the existing casino, hotel and entertainment center facilities does not generate significant quantities of hazardous materials. Cleaning and maintenance supplies are properly used and stored in accordance with OSHA.

#### **Existing Yokut Gas Operations**

Yokut Gas has the following underground storage tanks (USTs) underneath the gas station (Tribe, 2020):

- Unleaded fuel, 25,000 gallon and 10,000 gallon
- Unleaded premium, 11,900 gallon
- Diesel, 15,000 gallon
- 110 Octane Fuel, 7,900 gallon

The total capacity of these USTs combined is 69,800 gallons. These USTs are operated according to CFR Title 40, Chapter I, Subchapter I, Part 280, which is described in greater detail in the next section. These guidelines ensures that the USTs are operated safely, including routine monitoring and documentation and release response actions. Other hazardous materials utilized onsite are cleaning and maintenance supplies that are properly used and stored in accordance with OSHA.

#### **Existing Wastewater and Water Treatment Plant Operations**

The existing on-Reservation WWTP treats influent using two sequencing batch reactors, which is a form of activated sludge wastewater treatment. After the influent goes through the sequencing batch reactors, the wastewater is conveyed to a reclaimed water tank and then discharged into drying beds located south of the project site. The existing on-Reservation WWTP has a maximum of two 250-gallon containers of chlorine in solution and one 250-gallon container of polymer at any one time. The staff of the WWTP are trained to handle hazardous materials and a plan is in place which establishes protocols for emergencies involving hazardous materials.

The existing on-Reservation WTP treats groundwater obtained from the on-site wells to standards specified in the Section 401 of the Clean Water Act. The WTP plant utilizes materials for this process that are less hazardous than the wastewater treatment process described above, and employees adhere to standards that are similar to those employed at the WWTP.

## **Regulatory Setting**

At the federal level, the principal agency responsible for regulating the generation, transport and disposal of hazardous substances is the U.S. Environmental Protection Agency (EPA), under the authority of the Resource Conservation and Recovery Act (RCRA). The following federal regulations are applicable to the handling and storage of hazardous materials within the Tribe's Reservation.

### ***Resource Conservation and Recovery Act***

RCRA authorizes the EPA to control hazardous waste from generation to disposal, and provides a framework for managing non-hazardous wastes. The 1984 amendments to RCRA, known as the "Federal Hazardous and Solid Waste Amendments" (HSWA), require phasing out land disposal of hazardous waste.

### ***Clean Water Act***

The Clean Water Act regulates discharges of pollutants into the waters of the U.S. and authorizes the EPA to implement pollution control programs. Under the Clean Water Act, it is illegal to discharge a pollutant into navigable waters without a permit.

### ***Occupational Safety and Health Act***

OSHA sets forth standards for safe and healthful working conditions, provides for enforcement of such standards, assists states in assuring safe and healthful working conditions, and encourages research, information, education, and training.

### ***Toxic Substances Control Act***

The Toxic Substances Control Act (TSCA) of 1976 allows the EPA to track industrial chemicals produced domestically or imported. Under the TSCA, the EPA repeatedly screens these chemicals and can require reporting or testing of those that may pose an environmental or human-health hazard. EPA can also ban the manufacture and import of those chemicals that pose an unreasonable risk.

### ***Emergency Planning and Community Right-to-Know Act***

The federal Emergency Planning and Community Right-to-Know Act (EPCRA) is designed to assist local communities protect public health, safety, and the environment from chemical hazards. The Community Right-to-Know provisions help increase the public's knowledge and access to information on chemicals at individual facilities, their uses, and releases into the environment. The EPCRA also requires industry to report on the storage, usage, and releases of hazardous substances to federal, state, and local governments, and states and communities can use the information gained to improve chemical safety and protect public health and the environment.



### **CFR Title 40, Chapter I, Subchapter I, Part 280**

CFR Title 40, Chapter I, Subchapter I, Part 280 is a federal regulation that sets technical standards and corrective action requirements for owners and operators of USTs. These standards apply to the following topics: UST system design, construction, installation and notification; general operation requirements; release detection; release reporting, investigation, and confirmation; release response and corrective actions for USTs containing petroleum or hazardous substances; out of service UST systems and closure; financial responsibility; lender liability; operator training; and UST systems with field-constructed tanks and airport hydrant fuel distribution systems.

## **3.5.2 ENVIRONMENTAL CONSEQUENCES**

### **Construction**

During the construction period, it is possible that hazardous materials, such as fuel, solvents, paint, and adhesives would be brought, stored, and used on site. As with any liquid and solid, during handling and transfer from one container to another, the potential for an accidental release exists. Depending on the relative hazard of the material, if a spill were to occur of significant quantity, the accidental release could pose both a hazard to construction employees as well as to the environment. Construction BMPs limit and often eliminate the impact of such accidental releases. With the implementation of these BMPs and compliance with federal laws relating to the handling of hazardous materials, no adverse affects associated with the accidental release would occur during construction.

### **Expanded Hotel, Casino and New Bingo Hall/Event Center Operations**

During operation, no hazardous materials would be handled, stored, or disposed of in reportable quantities at the expanded casino and hotel or in the new bingo hall/event center. Furthermore, no hazardous waste in reportable quantities would be generated by the operation of the new/expanded facilities under the Proposed Project. Therefore, operation of the proposed expanded casino and hotel facilities and the new bingo hall/event center would not result in adverse off-Reservation effects associated with the handling, storage, generation, and disposal of hazardous materials.

### **Yokut Gas Operations**

Under the Proposed Project, the fuel dispensers would increase from 16 to 40, but no increase in fuel storage is proposed. Therefore, the maximum quantity of fuel stored onsite, 69,800 gallons, would remain the same. However, increased fuel dispensers can lead to increased fuel sales, and therefore an increase in routine fuel deliveries. These additional fuel deliveries would abide by the same federal and State regulations that current fuel deliveries to Yokut Gas abide by; hence, there would be no elevated risk from the increase in hazardous material transport, such as spills. This effect is less than significant.

All other operations on Yokut Gas would be similar to the expanded hotel and casino and the new bingo hall/event center in terms of hazardous material use. Only limited quantities of cleaning and maintenance

chemicals would be required, which all of these would be stored and used properly. The new car wash would not require any unusual or large quantities of hazardous materials. Therefore, this effect is less than significant.

### **Wastewater and Water Treatment Plant Operations**

The increase in wastewater generated by the Proposed Project would result in an increase of delivery and use of hazardous materials at the on-Reservation WWTP. The increase in use of chemicals (chlorine and liquid polymer) for wastewater treatment could potentially be a significant impact if spilled in such a way as to flow off site. The on-Reservation WWTP and WTP will continue to operate in accordance with federal regulations. Adherence to federal regulations and the implementation and enforcement of the existing emergency plans and training protocols for employees related to the handling of hazardous materials stored onsite would minimize the potential for accidental release into the environment. Effects would be less than significant.

### **3.5.3 MITIGATION**

None required.

## **3.6 HYDROLOGY AND WATER QUALITY**

### **3.6.1 EXISTING ENVIRONMENT**

#### **Surface Water & Drainage**

##### ***Floodplain***

The majority of the project site is located within Federal Emergency Management Agency (FEMA) Flood Zone X, which is outside the 100-year floodplain. However, a small (i.e., 1 +/- acre) part of the eastern portion of the project site that is adjacent to 17th Avenue is located in FEMA Flood Zone A, which is within the 100-year floodplain (see **Figure 7**; FEMA, 2009). This section of Flood Zone A is associated with Mussel Slough. The study area associated with Mussel Slough on the relevant FEMA Flood Insurance Rate Map (FIRM) expands and terminates downstream, southwest of the Rancheria.

There is another Flood Zone A located west of the project site that is associated with Kings River. However, this area is approximately 3 miles west of the project site, and between 21<sup>st</sup> Avenue and the Kings River. Thus, this flood zone is not in the immediate vicinity of the project site.

##### ***Regional Watershed***

The project site is located within the Tulare Lake Region, South Valley Floor Hydrologic Unit, and Hanford-Lamoore Area (Caltrans, 2020). Furthermore, the project site is within Kings River Watershed. There are no permanent surface waters on the project site. Permeant surface waters in the vicinity of the project site include Kings River that is approximately 4 miles to the west and flows north to south, and Tule River that is 13 miles south, which is a tributary of Kings River and flows west to east. There are several nearby sloughs, canals and ditches, including Mussel Sough (which passes through the Tribe's reservation to the southeast of the project site), Jacobs Slough (1.5 miles southeast), West Branch of Last Chance Ditch (0.8 mile east), and Childless Ditch (0.3 mile north). There are no nearby natural bodies of water, only irrigation and livestock ponds. The nearest of these artificial ponds to the project site is approximately 0.6 miles to the west on a dairy farm.

##### ***Site Drainage***

Storm water runoff on the project site is collected via a network of storm drains and conveyed via gravity to an underground storage basin, and is then pumped through a force main to a ditch outfall. Please refer to **Section 2.2.7** for a more detailed description of the project site drainage.

##### ***Surface Water Quality***

Section 303(d) of the federal Clean Water Act (CWA) requires states to identify waters within its borders that do not meet water quality standards and to develop Total Maximum Daily Loads (TMDLs) for these impaired waters. A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive while still meeting water quality standards. The majority of surface waters that enter the Tulare Lake Basin (Tulare Lake Region) from the Sierra Nevada Mountains, such as Kings River, Tule River,

Kern River, and Kaweah, are of good to excellent quality. Historically, the Basin has experienced pollution due to human-related activities, such as poor sanitation from recreational activities and erosion from grazing, irrigated, logging and construction (California Regional Water Quality Control Board Central Valley Region, 2018). The pollution from these activities has been reduced over time. Currently, agriculture is the largest non-point source of pollution. Pollutants from agriculture include salts, nutrients, pesticides, trace elements, sediments, and other byproducts. Point source polluters include solid waste sites, winery discharge, oil field wastewater, municipal wastewater, and other industrial dischargers. Point sources can be high in heavy metals and other toxic materials (California Regional Water Quality Control Board Central Valley Region, 2018).

## **Groundwater**

### ***Groundwater Basin and Levels***

The project site is within the Tulare Lake Groundwater Subbasin (Subbasin) (see **Figure 8**). The Subbasin's groundwater primarily occurs in the coarser-grained Sierran Sediment deposits of the alluvial fans of rivers and lesser streams that originate in the Sierra Nevada Mountains to the east and drain into the southeastern portion of the Subbasin, such as the Kings River, Kaweah River, and Tule River. Select sediments that may have Coast Range origins can be found in the western portion of the Subbasin. Corcoran Clay underlies the majority of the Subbasin and acts as an aquitard (Tri-County Water Authority et al, 2020). Because the clay acts as a barrier to water flow, the underlying Corcoran Clay essentially creates a semi-confined and unconfined aquifer system above the clay and a confined aquifer system below the clay. Within the unconfined aquifer system, there is an estimated 20.5 million acre-feet (AF) of groundwater storage. Within the confined aquifer system, there is an estimated 60.4 million AF of groundwater storage (Tri-County Water Authority et al, 2020). Depending on the location and time of the year, groundwater levels within the unconfined aquifer range from 30 to 250 feet below ground. Recharge to the Subbasin is primarily from the Kings River and irrigating crops while discharge is principally from groundwater extraction in the eastern and northern portions of the Subbasin (Tri-County Water Authority et al, 2020). Groundwater extraction is primarily used for municipal, domestic, industrial and agricultural activities. On average, total inflow (precipitation, irrigation, etc.) into the Subbasin is approximately 1,584,140 AF per year while outflow (groundwater extraction, evaporation, etc.) is approximately 1,986,130 AF per year, which equals an approximate negative deficit of 401,990 AF per year (Tri-County Water Authority et al, 2020).

The Subbasin is classified by the California Department of Water Resources as both a high priority subbasin and critically overdraft. Since 1990 to 2016, there has been estimated loss of 2.3 million AF in storage in the aquifer system. To sustainably manage the groundwater, a Groundwater Sustainability Plan was created pursuant to Sustainable Groundwater Management Act of 2014 (Tri-County Water Authority et al, 2020). This plan extends over an area of approximately 837 square miles, encompassing all of Kings County and limited parts of Fresno County and Kern County. This plan was developed by Five Groundwater Sustainability Agencies. The project site is within the South Fork Kings Groundwater

Sustainability Agency's jurisdiction, which encompasses an area of approximately 111 square miles (Tri-County Water Authority et al, 2020).

There are three active groundwater wells on the Rancheria that provide water to both the project site and Rancheria. The two wells utilized for potable water have pump rates of approximately 1,200 gpm while the third well utilized for irrigation has a pump rate of 1,400 gpm. However, the third well can be used for potable water demands if required (Tribe, 2020). No new sources of groundwater are being sought by the Tribe.

### ***Groundwater Quality***

Water quality varies across the entire San Joaquin Valley, but in general there are several pollutants of concern. For instance, in the last 100 years the total quantity of total dissolved solids (TSD) in the San Joaquin Valley has increased. Within the Subbasin, pollutants of concern include arsenic, nitrate, salinity, and volatile organic chemicals. Water quality tends to be poorer in the shallow portions of the unconfined aquifer. Groundwater quality tends to be the best in the eastern and northern portions of the Subbasin (Tri-County Water Authority et al, 2020).

## **3.6.2 ENVIRONMENTAL CONSEQUENCES**

### **Surface Water & Drainage**

#### ***Floodplain***

As described above, the project site is located entirely outside of any FEMA-designated 100-year or 500-year floodplain with the exception of the very eastern edge corner. This corner is located in Zone A, a 100-year floodplain. However, this portion of the project site would be comprised of paved parking spaces, with little or no components that would be susceptible to flood damage, and would not affect flood elevations or water quality in the event of flooding. Therefore, construction of the Proposed Project would not result in any significant adverse off-Reservation impacts related to flooding or alterations to a floodplain.

#### ***Construction Impacts***

Construction activities associated with implementation of the Proposed Project would include ground disturbing activities, such as clearing and limited grading and excavation, which could lead to erosion of topsoil. Erosion from construction sites can increase sediment discharge to surface waters during storm events, thereby degrading downstream water quality. Construction activities could also include the routine use of potentially hazardous construction materials such as concrete washings, oil, and grease, which may spill onto the ground and be dissolved in stormwater. Discharges of pollutants, which include grease, oil, fuel and sediments, to surface waters from construction activities and accidents could adversely affect the quality of off-Reservation surface water resources. The measures listed in **Section 3.6.3** would reduce the

potentially significant impacts of Proposed Project construction on surface water quality to less-than-significant levels.

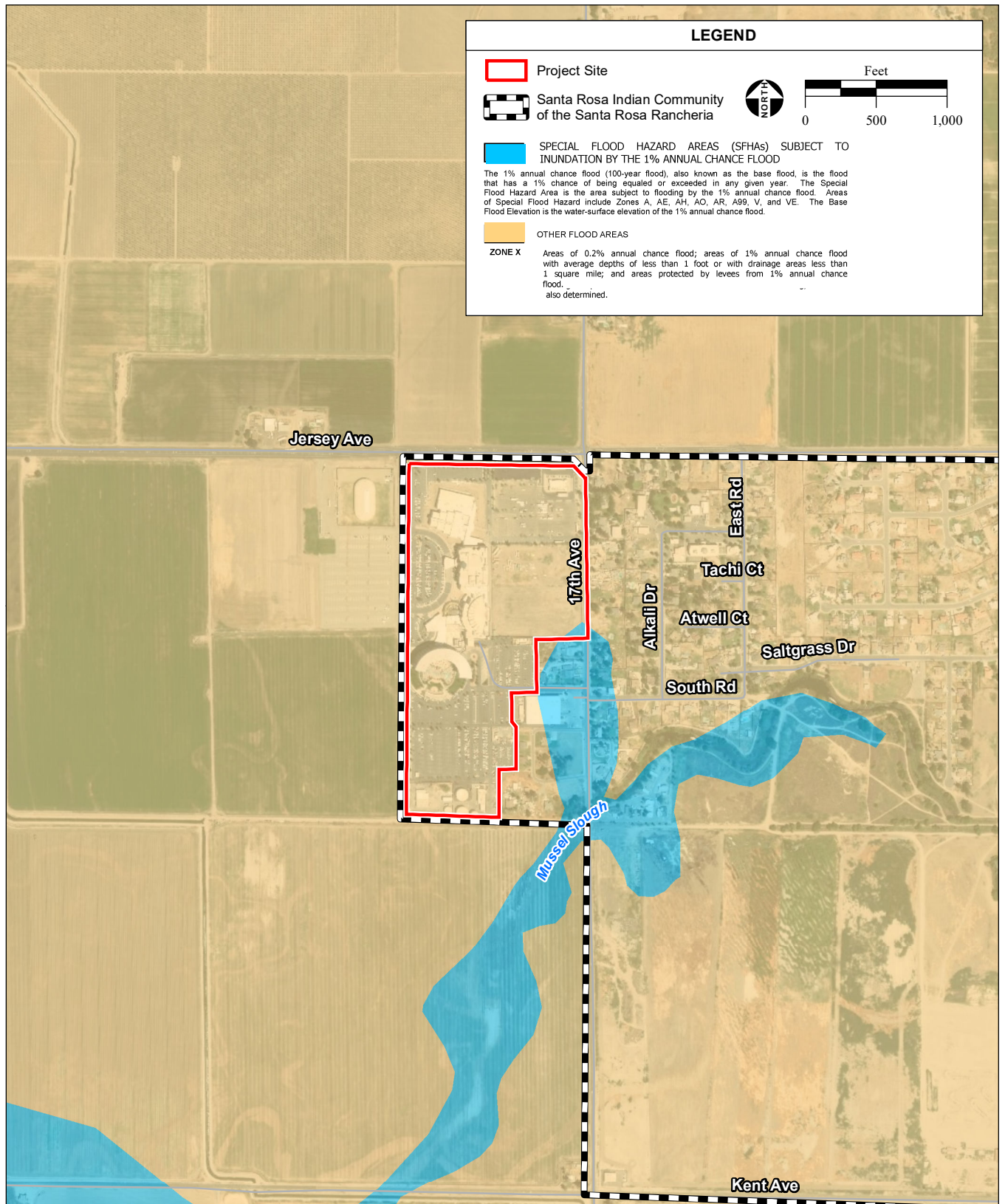
### ***Stormwater Runoff***

Construction of the Proposed Project would introduce approximately 9.4 acres of impervious surfaces to the project site from the new surface parking, parking garage and bingo hall/event center. The introduction of impervious surfaces would increase the amount of stormwater runoff generated during a storm event. As described in **Section 2.2.7**, the project site has stormwater infrastructure in place for its existing facilities. The Proposed Project would use this existing infrastructure for managing the additional stormwater runoff that would occur as a result of the additional impervious surfaces. The increased stormwater runoff would therefore be captured, stored and disposed of in the same manner as described in **Section 2.2.7**. The existing stormwater infrastructure has the capacity and capability to accommodate this increase in stormwater runoff. Therefore, Proposed Project would not have significant adverse off-Reservation impacts related to stormwater flow. Implementation of the BMPs listed in **Section 3.6.3** would prevent surface runoff from the project site from having significant adverse effects on off-Reservation surface water quality.

### ***Operational Impacts***

As described in **Section 2.2.3**, the Proposed Project would have a net average daily water demand of approximately 38,000 gpd, which would increase the combined average day demand of existing facilities, the Rancheria, and proposed facilities to approximately 518,000 gpd. This would be an approximate 7.3 percent increase in the current daily potable water demand. The two existing on-site wells used for potable water demand are capable of pumping 1,200 gpm. These two wells combined can pump up to 144,000 gallons per hours. These wells would therefore be sufficient to supply the increase in potable water, and therefore no new infrastructure or surface water would be required. As described in **Section 2.2.3**, the on-site WTP can treat up to two million gallons of water per day and therefore has sufficient capacity to treat the additional groundwater. No off-site water resources or treatment facilities would therefore be required.

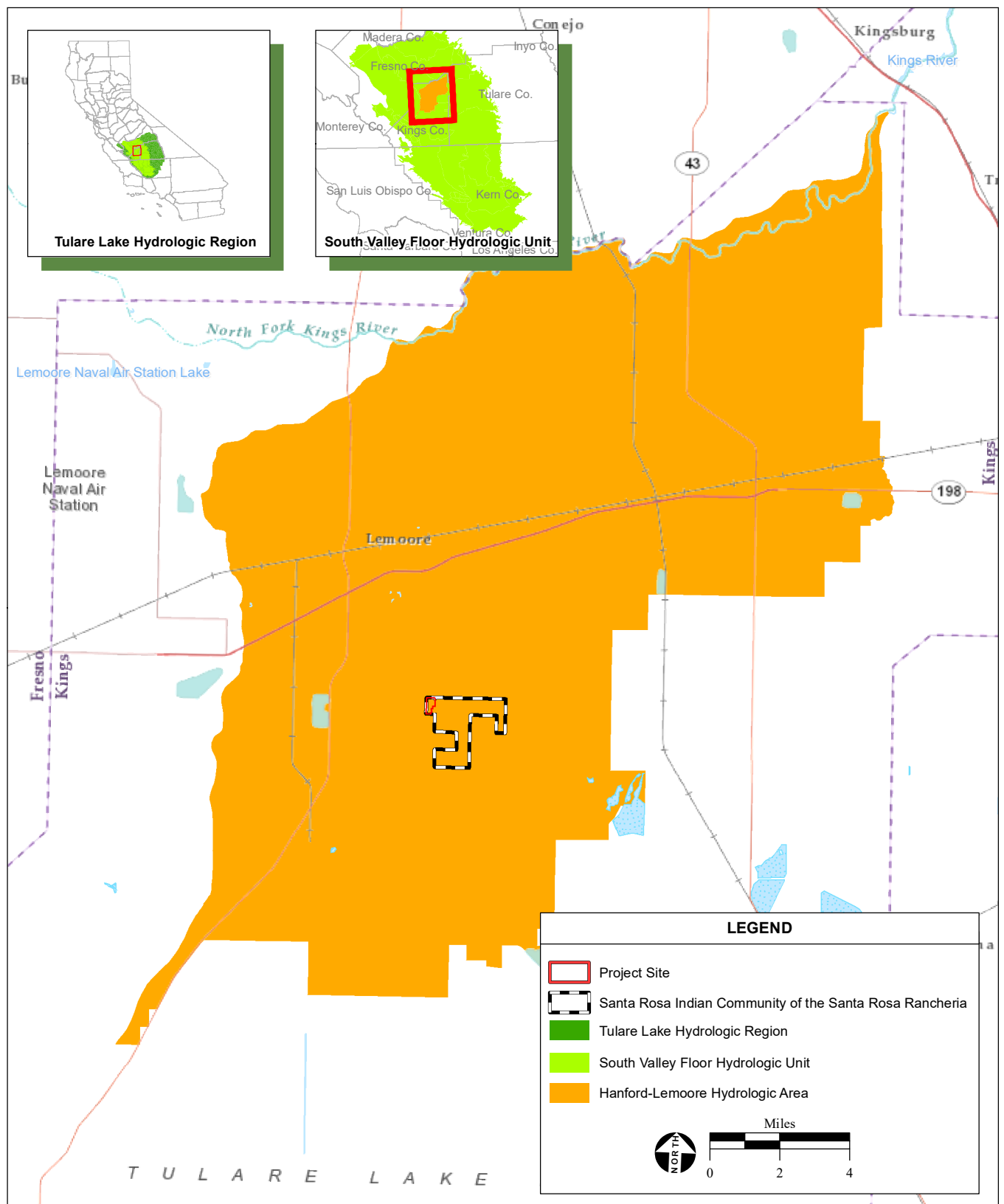
As described in **Section 2.2.4**, implementation of the Proposed Project would cause a net increase in average day wastewater flows of approximately 36,100 gpd, increasing the total combined average day wastewater flows of existing and proposed facilities within the Rancheria to approximately 386,100 gpd. Wastewater generated at Proposed Project facilities would be treated at the Tribe's WWTP and the reclaimed water would continue to be used for beneficial reuse as described in **Section 2.2.4**. Treated effluent not used for these purposes would continue to be discharged to the on-reservation drying beds for disposal.



SOURCE: FEMA FIRM Effective, 6/16/2009; DigitalGlobe Aerial Photograph, 6/30/2018; AES, 5/6/2020

Tachi Palace Tribal Environmental Assessment / 219554 ■

**Figure 7**  
FEMA Flood Zones



SOURCE: USGS National Hydrological Dataset, 2011; California Interagency Watershed Map of 1999, 2006; AES, 5/6/2020

Tachi Palace Tribal Environmental Assessment / 219554 ■

**Figure 8**  
Watershed Map



As described in **Section 2.2.4**, the existing WWTP has a maximum daily capacity of 500,000 gpd, which would be adequate to treat the increased average wastewater flows resulting from the Proposed Project. Regardless, as part of the Proposed Project, the WWTP's maximum capacity would be increased by 250,000 to 1 million gpd (Tribe, 2020). Wastewater processed at the WWTP would continue to be treated to tertiary treatment standards as defined under Title 22, Division 4, Chapter 3 of the California Code of Regulations. Wastewater treated to State tertiary standards is deemed suitable by the State of California for the irrigation of food crops, parks and playgrounds, and residential landscaping, as well as for any other irrigation use not specified or prohibited in Title 22 CCR. Therefore, based on the high quality standard to which the wastewater would be treated, the continued use of treated effluent for dust control, landscape irrigation, and the cooling towers on the Rancheria and project site and its discharge to the drying beds would not cause any significant adverse effects to off-Reservation surface water resources.

## **Groundwater**

### ***Groundwater Levels***

As described above, groundwater extracted via the on-site wells would be used to meet the increased potable water demand of the Proposed Project of up to 38,000 gpd, or 42.6 AF per year. As described above **Section 3.6.2**, the Subbasin has a total storage capacity of 80.9 million AF, total outflows of approximately 1,986,130 AF per year and a deficit of approximately 401,990 AF per year. The project-related groundwater demand of 42.6 AF equates to 0.002 percent of annual groundwater outflows in the Subbasin. As described above, the Proposed Project includes improvements to the Tribes WWTP that would increase the capacity for reuse of treated wastewater, which would in turn reduce the overall level of ground water pumping needed to serve the existing and proposed facilities. Water used at the Casino-Resort would be treated to tertiary levels and re-used within the proposed facilities, or would be discharged to drying beds that would provide a certain level of groundwater re-charge. However, a certain percentage of this water would be lost to evapotranspiration, contributing to the deficit within the Subbasin. This is considered a potentially significant adverse effect. Mitigation measures specified in **Section 3.6.3** would reduce effects to groundwater supplies to less than significant.

The introduction of impervious surfaces to the project site as a result of the Proposed Project has the potential to impede groundwater recharge by preventing the percolation of surface waters to the underlying aquifer. However, stormwater runoff captured in the established stormwater infrastructure system on the project site would be allowed to percolate to the groundwater table via the ditch outfall. Therefore, the Proposed Project's effects on groundwater recharge would be less-than-significant.

### ***Groundwater Quality***

As described in **Section 3.5**, development of the Proposed Project would include the routine use of potentially hazardous construction materials, which have the potential to percolate to shallow groundwater during construction activities and result in a potentially significant impact to groundwater quality. During operation, stormwater runoff from the Proposed Project facilities could flush debris, oil,

sediment, grease, and fertilizer that could potentially collect on impervious surfaces and landscaped areas into the underground basin and then pumped to the ditch fall where these pollutants could percolate into the underling groundwater. The measures described in **Section 3.6.3** would reduce the potentially significant off-Reservation groundwater quality impacts of the Proposed Project to less-than-significant levels. As described above, wastewater processed at the Tribe's WWTP is treated to USEPA tertiary standards, and the quality of any tertiary recycled water applied at the surface drying beds is likely to further improve by the time it percolates to the underlying aquifer due to the filtering effect of soils. Therefore, off-Reservation impacts to groundwater quality resulting from the discharge of tertiary treated wastewater would be less than significant.

## **Cumulative**

Cumulative effects associated with water resources are not expected to occur as a result of future developments in combination with the Proposed Project. All differential runoff resulting from a storm event would be retained onsite; wastewater from the Proposed Project would be treated at the Tribe's existing WWTP located on the Rancheria; and all potable water for the Proposed Project would come from sources to which the Tribe currently uses and would be treated at the Tribe's existing WTP located on the project site. The direct effects of the Proposed Project on water resources would either be less than significant or would be reduced to less-than-significant levels through the implementation of the measures described in **Section 3.6.3**. Other regional developments in the vicinity of the project site would be required to incorporate adequate stormwater control infrastructure and BMPs into their construction practices and project design. The combined measures for all these projects would ensure that cumulative impacts to off-Reservation surface water resources and stormwater drainage would be less than significant. Additionally, approved developments would be required to follow applicable local permitting procedures and would be required to contribute to the funding of any necessary improvements or additions to County water supply infrastructure through the payment of development fees and property taxes.

### **3.6.3 MITIGATION**

In order to minimize potentially significant adverse effects to off-Reservation water quality from stormwater runoff during construction activities, the following BMPs will be implemented:

- The Tribe shall apply for coverage under USEPA's NPDES Construction General Permit. Compliance with the permit shall require development of a site-specific SWPPP, which will include requirements for implementation of appropriate erosion and sediment control measures prior to and throughout construction, as described below.

The SWPPP shall describe project-specific construction practices, stabilization techniques, and structural BMPs that are to be implemented to prevent erosion and minimize sediment transport. BMPs shall be inspected, maintained, and repaired to assure continued performance of their

intended function. Reports summarizing the scope of these inspections, the personnel conducting the inspection, the dates of the inspections, major observations relating to the implementation of the SWPPP, and actions taken as a result of these inspections shall be prepared and retained as part of the SWPPP.

To minimize the potential for erosion to occur on the project site that would affect off-Reservation properties, the Tribe shall select BMPs, which shall be identified in the SWPPP and implemented during construction. These BMPs shall include but will not be limited to the following:

- Stripped areas shall be stabilized through temporary seeding using dryland grasses.
- Conveyance channels and severe erosion channels shall be mulched or matted to prevent excessive erosion.
- Exposed stockpiled soils shall be covered with plastic covering to prevent wind and rain erosion.
- The construction entrance shall be stabilized by the use of rip-rap, crushed gravel, or other such material to prevent the track-out of dirt and mud.
- Construction roadways shall be stabilized through the use of frequent watering, stabilizing chemical application, or physical covering of gravel or rip-rap.
- Filter fences shall be erected at all onsite stormwater exit points and along the edge of graded areas to stabilize non-graded areas and control siltation of onsite stormwater.
- Dust suppression measures shall be implemented to control the production of fugitive dust and prevent wind erosion of bare and stockpiled soils.

In order to minimize potentially significant adverse effects to off-Reservation water quality from stormwater runoff during operation, the following BMPs will be implemented:

- The proposed surface parking lot and parking garage would be designed and constructed so that stormwater runoff generated on the parking lot would be directed into storm drains that would subsequently direct the flow into the proposed retention basins.
- The Tribe shall adjust landscape irrigation based on weather conditions, reducing irrigation during wet weather to prevent excessive runoff.
- Fertilizer use shall be limited to the minimum amount necessary and shall be adjusted for the nutrient levels in the water used for irrigation. Fertilizer shall not be applied within 24 hours of a precipitation event predicted by the National Oceanic and Atmospheric Administration (NOAA).

In order to reduce the Proposed Project's impact to off-Reservation groundwater levels, the following BMP is recommended:

- The Tribe shall implement water conservation measures, including but not limited to use of low flow faucets and showerheads, recycled water for toilets, and voluntary towel re-use by guests in the hotel; use of low-flow faucets, recycled water for toilets, and pressure washers and brooms instead of hoses for cleaning, in public areas and the casino; use of garbage disposal on-demand, re-circulating cooling loop for water cooled refrigeration and ice machines where possible, and service of water to customers on request, in restaurants; and use of recycled and/or gray water for cooling.

## **3.7 NOISE**

### **3.7.1 EXISTING ENVIRONMENT**

#### **Introduction**

Noise is generally defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) which is measured in decibels (dB), with 0 dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 hertz (Hz) and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to low and extremely high frequencies, compared with of the frequency mid-range. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). Frequency A-weighting follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements.

An individual's noise exposure is a measure of noise over a period. A noise level is a measure of noise at a given instant in time. However, community noise varies continuously over a period because of the contributing sound sources of the community noise environment. What makes community noise constantly variable throughout a day is the addition of short-duration, single-event noise sources, such as aircraft flyovers, passing vehicles, sirens, or similar sources, all of which are readily identifiable to the individual. Human reaction to new noises is typically compared to the ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise levels, the following relationships occur:

- except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- outside of the laboratory, a 3 dBA change is considered a perceivable difference;
- outside of the laboratory, at least a 5 dBA change is required before any noticeable change in human response would be expected; and
- a 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause adverse response.

These relationships occur in part because of the logarithmic nature of sound and the decibel system. The human ear perceives sound in a non-linear fashion; hence the decibel scale was developed. Because the decibel scale is based on logarithms, two noise sources do not combine in a simple additive fashion, but rather, logarithmically. For example, if two identical noise sources each produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA.

Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate of 6 to 9 dBA per doubling of distance from the source, depending on environmental conditions (i.e., atmospheric conditions, topography and type of ground surfaces, noise barriers, etc.). Widely distributed noise, such as a large industrial facility spread over many acres or a street with moving vehicles, would typically attenuate at a lower rate, approximately 4 to 6 dBA.

## Regulations

### ***Federal Noise Abatement Criteria (NAC)***

The Federal Highway Administration (FHWA) provides construction noise level thresholds in its Construction Noise Handbook, 2006, which are provided in **Table 3-9**.

**TABLE 3-9**  
FEDERAL CONSTRUCTION NOISE THRESHOLDS

Noise Receptor Locations and Land-Uses	Daytime (7 am - 6 pm)	Evening (6 pm - 10 pm)	Nighttime (10 pm - 7 am)
	dBA, Leq <sup>1</sup>		
Noise-Sensitive Locations: (residences, Institutions, Hotels, etc.)	78 or Baseline + 5 (whichever is louder)	Baseline + 5	Baseline + 5 (if Baseline < 70) or Baseline + 3 (if Baseline > 70)
Commercial Areas: (Businesses, Offices, Stores, etc.)	83 or Baseline + 5	None	None
Industrial Areas: (factories, Plants, etc.)	88 or Baseline + 5	None	None
Notes: 1 - Leq thresholds were empirically determined (FHWA, 2006). Source: FHWA, 2006.			

The FHWA establishes Noise Abatement Criteria (NAC) for various land uses which have been categorized based upon activity. Land uses are categorized on the basis of their sensitivity to noise, as indicated in **Table 3-10**. **Table 3-10** provides standards which may be considered applicable to the Proposed Project. Activity Category B would apply to the nearest sensitive noise receptors to the project site.

**TABLE 3-10**  
FEDERAL NOISE ABATEMENT CRITERIA HOURLY A-WEIGHTED SOUND LEVEL DECIBELS

Activity Category	Activity Criteria	Evaluation Location	Activity Category Description
	Leq (h), dBA <sup>1</sup>		
A	57	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B <sup>2</sup>	67	Exterior	Residential
C <sup>2</sup>	67	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails and trail crossings.
D	52	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E <sup>2</sup>	72	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.
F	--	--	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, shipyards, utilities (water resources, water treatment, electricity), and warehousing.
G	--	--	Undeveloped lands that are not permitted
Notes: 1 – Hourly A-weighted sound level, decibels (dBA). 2 – Includes undeveloped lands permitted for this activity category. Source: FHWA, 2010.			

### ***Federal Interagency Committee on Noise (FICON) Noise Standards***

The Federal Interagency Committee on Noise (FICON) provides guidance in the assessment of changes in ambient noise levels resulting from transportation operations. The recommendations are based upon studies that relate noise levels to the percentage of persons highly annoyed by noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these criteria have been applied to other sources of noise. The FICON noise threshold is generally applied to transportation noise sources, such as traffic noise. **Table 3-11** provides the FICON noise thresholds as incremental increases over the ambient noise level. The rationale for the FICON criteria is that, as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause annoyance.

**TABLE 3-11**  
SIGNIFICANCE OF CHANGES IN CUMULATIVE NOISE EXPOSURE

Ambient Noise Level Without Project, Ldn	Increase Required for Significant Impact
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more
Source: FICON, 1992.	



## Kings County Noise Standards

Because the project site is located on trust land, the Tribe is not subject to the County noise standards. The County standards, however, are relevant to assessing the noise-related off-Reservation effects of the project. The County General Plan has a Noise Element that has policies related to acceptable noise thresholds. As shown in **Table 3-12**, Policy B1.2.1 establishes the County transportation noise standards equivalent to the FICON noise thresholds shown in **Table 3-11**.

**TABLE 3-12**  
POLICY B1.2.1 NOISE STANDARDS FOR TRANSPORTATION PROJECTS

Pre-Project Noise Environment (Ldn)	Significant Increase
Less than 60 dB	5+ dB
60 - 65 dB	3+ dB
Greater than 65	1.5+ dB
Source: Kings County, 2015a.	

As shown in **Table 3-13**, Objective B1.1 established the following standards to reduce the potential for exposure of County residents and noise-sensitive land uses to excessive noise generated from Non-Transportation Noise Sources.

**TABLE 3-13**  
KINGS COUNTY NON-TRANSPORTATION NOISE STANDARDS

Receiving Land Use	Outdoor Area		Interior
	Daytime	Nighttime	Day & Night
	Average (Leq) / Maximum (Lmax)		
All Residential	55 / 75	50 / 70	35 / 55
Transient Lodging	55 / 75	---	35 / 55
Hospitals & Nursing Homes	55 / 75	---	35 / 55
Theaters & Auditoriums	---	---	30 / 50
Churches, Meeting Halls, Schools, Libraries, etc.	55 / 75	---	35 / 60
Office Buildings	60 / 75	---	45 / 65
Commercial Buildings	55 / 75	---	45 / 65
Playgrounds, Parks, etc.	65 / 75	---	---
Industry	60 / 80	---	50 / 70
Source: Kings County, 2015a.			

The noise standards shown in **Table 3-13** apply only to operational noise sources and exclude transportation noise sources.

## Existing Ambient Noise Levels

The land surrounding the project site is rural in nature consisting of open space, isolated residential developments, agriculture, and commercial land uses. The current ambient noise environment is dominated by traffic noise generated from vehicles traveling along Jersey Avenue. There are approximately 510 weekday PM peak hour trips on Jersey Avenue in the vicinity of the project site (**Appendix B**). Existing noise levels were measured at locations adjacent to sensitive noise receptors and where potential future development-related noise has the potential to raise the ambient noise level (refer to **Figure 9**). Measurement equipment consisted of Quest Sound Pro SE/DL sound level meters. An acoustical calibrator was used to calibrate the sound level meter before and after use. All instrumentation satisfies the Type II (precision) requirements. As shown in **Table 3-14**, measurements at Site A and B were completed over 24-hours and show the ambient noise levels near the main entrance to the project site and provide PM peak hour traffic noise levels along surrounding roadways. The noise measurement output files are provided as **Appendix D**.

**TABLE 3-14**  
SUMMARY OF NOISE LEVEL MEASUREMENTS

Site	Date	Start Time	End Time	Noise Source	Measured Noise Level (dBA Leq)
A	3/12/20 - 3/13/20	9:01 AM	8:44 AM	Project site, Traffic Noise on Jersey Avenue	57.5
B	3/11/20 - 3/12/20	8:37 AM	8:49 AM	Traffic Noise on 16 <sup>th</sup> Avenue	61.8

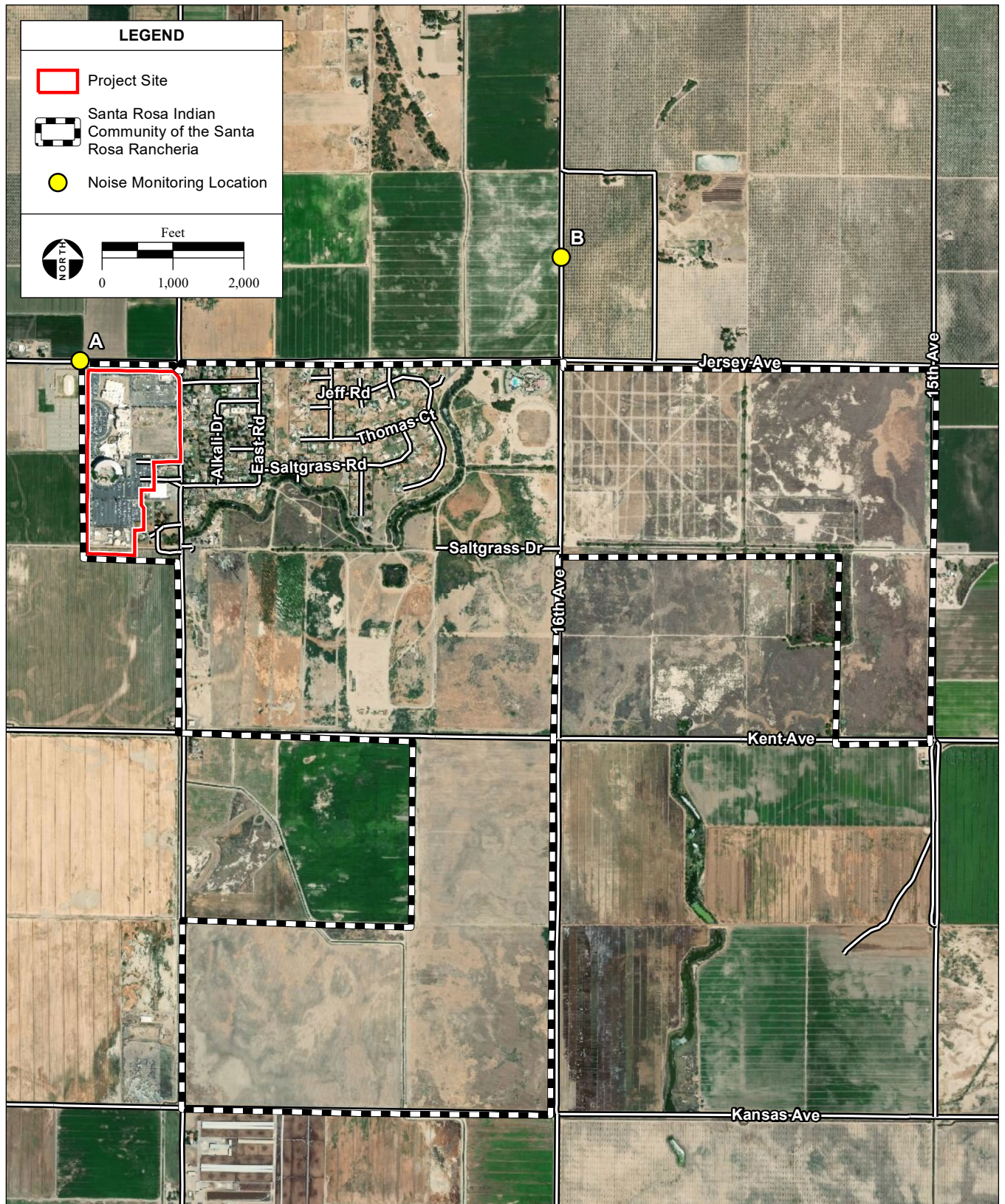
Source: **Appendix D**.

There are currently no vibration sources on the project site.

## Sensitive Receptors

Some land uses are considered more sensitive to ambient noise levels than others due to the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically involved. Residences, motels and hotels, schools, libraries, churches, hospitals, nursing homes, auditoriums, parks, and other outdoor recreation areas generally are considered more sensitive to noise than are commercial and industrial land uses.

The nearest sensitive off-Reservation noise receptors from the project site are residential homes located approximately 600 feet west of the project site and approximately 800 feet north of the project site. Additional noise sensitive receptors include various residences located along Jersey Avenue between SR-41 and the project site. The nearest school is Central Union Elementary, which is approximately 0.8 miles northwest of the project site and thus would not be affected by the project. There are no other off-Reservation sensitive receptors in the project vicinity.



SOURCE: DigitalGlobe Aerial Photograph, 6/30/2018; AES, 5/6/2020

Tachi Palace Tribal Environmental Assessment / 219554 ■

**Figure 9**  
Noise Monitoring Locations

### 3.7.2 ENVIRONMENTAL CONSEQUENCES

#### Significance Criteria

Construction noise impacts will be measured against the federal construction noise standard (78 dBA for daytime noise). Operational noise impacts will be measured against the County standards for non-transportation noise sources and the FICON standards for changes in the ambient noise level from transportation sources. Therefore, for this analysis, if transportation noise attributable to the Proposed Project increases the ambient off-Reservation noise level by 3 dBA, a potentially significant off-Reservation impact would occur.

#### Construction Noise

Construction of the Proposed Project would consist of ground clearing, erection of foundations and buildings, and finishing work. As stated in the **Section 3.7.1**, stationary point noise sources attenuate at a rate of 6 to 9 dBA per doubling of distance from the source of the noise. An attenuation factor of 6 dBA per doubling of distance is appropriate given the topography and lack of ground cover on and in the vicinity of the project site. Noise associated with construction activities on the project site, including the operation of dozers, tractors, and scrapers, would generate a noise level of approximately 85 dBA at 50 feet (FHWA, 2006). Using an attenuation factor of 6 dBA Leq per doubling of distance, the maximum noise level at the nearest sensitive noise receptor (600 feet from areas of construction equipment operation), would be approximately 63 dBA Leq, which is less than the FHWA construction threshold of 78 dBA, Leq. Therefore, effects to off-Reservation sensitive noise receptors from construction noise are considered less than significant.

#### Construction Traffic Noise

As described in **Section 3.9.2**, construction of the Proposed Project would result in a maximum of 457 worker trips and 180 material haul trips per day (refer to **Appendix B**) being added to Jersey Avenue. Material haul trips would not occur during peak traffic hours. While the vast majority of worker trips would also occur outside of the peak traffic hour, to be conservative it is assumed that all 457 daily worker trips would occur within the PM peak traffic hour. The addition of 457 construction worker trips to Jersey Avenue would cause the ambient noise level at the nearest off-Reservation sensitive receptor (a private residence located approximately 50 feet north of Jersey Avenue between 17<sup>th</sup> Avenue and 18<sup>th</sup> Avenue) to increase by approximately 2.8 dBA during the weekday PM peak traffic hour, from 57.5 dBA Leq (refer to **Table 3-14**) to 60.3 dBA Leq. Because the increase in noise levels associated with construction vehicle traffic would be less than 5.0 dBA Leq and the resulting ambient noise level at the nearest sensitive receptor would not exceed the FHWA construction noise threshold of 78.0 dBA Leq for residential uses (refer to **Table 3-9**), the impacts of construction traffic on the off-Reservation ambient noise environment would not be significant, and no mitigation is required.



## Operation Traffic Noise

The level of traffic noise depends on: 1) the volume of the traffic, 2) the speed of the traffic, and 3) the number of trucks in the flow of the traffic. It is not anticipated that speed in the vicinity of the project site or the mix of trucks in the traffic would change during the operational phase; however, with the implementation of the Proposed Project, traffic volumes would increase. The effects to the ambient noise environment due to changes in the traffic volume on Jersey Avenue resulting from the Proposed Project are shown in **Table 3-15**. A discussion of the potential increases in traffic noise levels along affected roadways is provided below:

### ***Jersey Avenue***

The ambient noise level at a distance approximately 10 feet from Jersey Avenue is 57.5 dBA Leq (based on the noise level measurements at Site A; refer to **Appendix D** and **Figure 9**). The distance from the nearest off-Reservation noise sensitive receptors to the shoulder of Jersey Avenue is conservatively assumed to be 10 feet. The estimated ambient noise level does not exceed 60.0 dBA Leq at any of the sensitive receptors closest to the three segments of Jersey Avenue. Therefore, the FICON significance standard of a 5.0 dB increase or greater applies (refer to **Table 3-11**), as well as the NAC of 67.0 dBA Leq for residential uses (refer to **Table 3-10**). As shown in **Table 3-15**, the changes in traffic on the three segments of Jersey Avenue resulting from the Proposed Project would not cause the ambient noise level at any of the nearest sensitive receptors to exceed 67.0 dBA Leq, nor would they cause an increase in noise levels of 5.0 dB or greater. Therefore, the Proposed Project's impacts on ambient noise levels resulting from operational traffic would be less than significant, and no mitigation is required.

### ***16<sup>th</sup> Avenue***

The ambient noise level at a distance approximately 10 feet from 16<sup>th</sup> Avenue is 61.8 dBA Leq (based on the noise level measurements at Site B; refer to **Appendix D** and **Figure 9**). The distance from the nearest off-Reservation noise sensitive receptors to the shoulder of 16<sup>th</sup> Avenue is conservatively assumed to be 10 feet. The estimated ambient noise level does not exceed 65.0 dBA Leq at any of the sensitive receptors along 16<sup>th</sup> Avenue. Therefore, the FICON significance standard of a 3.0 dB increase or greater applies (refer to **Table 3-11**), as well as the NAC of 67.0 dBA Leq for residential uses (refer to **Table 3-10**). As shown in **Table 3-15**, the changes in traffic on 16<sup>th</sup> Avenue resulting from the Proposed Project would not cause the ambient noise level at any of the nearest sensitive receptors to exceed 67.0 dBA Leq, nor would they cause an increase in noise levels of 3.0 dB or greater. Therefore, the Proposed Project's impacts on ambient noise levels resulting from operational traffic would be less than significant, and no mitigation is required.

**TABLE 3-15**  
**PROPOSED PROJECT ROAD SEGMENT TRAFFIC VOLUME AND NOISE LEVEL CHANGES**

Road Segment	Existing		Existing + Project		Change in Noise Level (dBA Leq)	Discernible Increase?	Exceeds Standard?	
	PM Peak Hour	dBA Leq (Segment)	PM Peak Hour	dBA Leq (Segment)			FHWA NAC	FICON
Jersey Avenue from SR-41 to 18 <sup>th</sup> Avenue	192	57.5	247	58.6	1.1	No	No	No
Jersey Avenue from 18 <sup>th</sup> Avenue to 17 <sup>th</sup> Avenue	510	57.5	708	58.9	1.4	No	No	No
Jersey Avenue from 17 <sup>th</sup> Avenue to 16 <sup>th</sup> Avenue	256	57.5	370	59.1	1.6	No	No	No
16 <sup>th</sup> Avenue from Jackson Avenue to Jersey Avenue	104	61.8	178	64.1	2.3	No	No	No
Notes: PM Peak Hour = Weekday PM Peak Hour Traffic Volume Source: <b>Appendix B, Appendix D.</b>								

## Operational Equipment Noise

Commercial uses on the project site would have the potential to increase the ambient noise level due to operations of building heating, ventilation, and air conditioning (HVAC) systems, as well as added noise from surface parking lots and driveways. Noise levels produced by HVAC systems vary, but generally result in a noise level of 60.0 dBA Leq at a distance of 20 feet (Berger et al., 2015); this is below the federal NAC standard for residential sensitive receptors of 67.0 dBA Leq. Using an attenuation factor of 6 dBA Leq per doubling of distance, noise levels produced by HVAC systems would attenuate to approximately 30 dBA Leq at the nearest noise-sensitive receptors. This is less than the County standard of 55 dBA Leq for residential receptors. Therefore, the operation of HVAC systems would not increase the ambient noise levels at sensitive receptors or result in significant adverse effects to the nearest noise-sensitive receptors under the Proposed Project.

Increases in the ambient noise level associated with paved parking lots and driveways under the Proposed Project would be mainly due to slow-moving and idling vehicles, the opening and closing of doors, and patron conversation. The noise level in parking areas is generally dominated by slow-moving vehicles; thus, the ambient noise level in parking structures and parking lots is approximately 60.0 dBA (Illingworth & Rodkin, Inc., 2014), which is less than the NAC of 67.0 dBA. Additionally, noise levels from parking areas would attenuate to approximately 30 dBA Leq at the nearest noise-sensitive receptors, which is less than the County standard of 55 dBA Leq for residential receptors. Therefore, miscellaneous noise levels from on-site vehicles and HVAC equipment under the Proposed Project would not result in significant adverse effects associated with the off-site ambient noise environment.

## Cumulative

In the cumulative year 2040 it is anticipated that traffic on roadways in the vicinity of the Proposed Project would increase due to growth in the region. The effects of changes in traffic volumes on the cumulative year ambient noise environment are shown in **Table 3-16**. A discussion of the potential increases in traffic noise levels in the cumulative setting along affected roadways is provided below:

**TABLE 3-16**  
CUMULATIVE YEAR ROAD SEGMENT TRAFFIC VOLUME AND NOISE LEVEL CHANGES

Road Segment	Cumulative		Cumulative + Project		Change in Noise Level (dBA Leq)	Discernible Increase?	Exceeds Standard?	
	PM Peak Hour	dBA Leq (Segment) <sup>1</sup>	PM Peak Hour	dBA Leq (Segment)			FHWA NAC	FICON
Jersey Avenue from SR-41 to 18 <sup>th</sup> Avenue	309	59.6	364	60.3	0.7	No	No	No
Jersey Avenue from 18 <sup>th</sup> Avenue to 17 <sup>th</sup> Avenue	823	59.6	1021	60.5	0.9	No	No	No
Jersey Avenue from 17 <sup>th</sup> Avenue to 16 <sup>th</sup> Avenue	413	59.6	527	60.6	1.1	No	No	No
16 <sup>th</sup> Avenue from Jackson Avenue to Jersey Avenue	167	63.9	241	65.4	1.6	No	No	No
Notes: PM Peak Hour = Weekday PM Peak Hour Traffic Volume Source: <b>Appendix B, Appendix D.</b>								

### Jersey Avenue

As shown in **Table 3-16**, the ambient noise levels at a distance approximately 10 feet from the affected segments of Jersey Avenue would be approximately 59.6 dBA Leq in the cumulative year due to increases in traffic volumes relative to existing conditions. The estimated ambient noise levels at the off-Reservation sensitive receptors nearest to the three affected segments would approach 60 dBA Leq in the cumulative year. Therefore, the FICON significance standard of a 3.0 dB increase or greater would apply (refer to **Table 3-11**), as well as the NAC of 67.0 dBA Leq for residential uses (refer to **Table 3-10**). As shown in **Table 3-16**, the changes in cumulative year traffic volumes on the three segments of Jersey Avenue resulting from the Proposed Project would not cause the ambient noise level at any of the nearest sensitive receptors to exceed 67.0 dBA Leq, nor would they cause an increase in noise levels of 3.0 dB or greater at any of the residential receptors. Therefore, the operational traffic impacts of the Proposed Project would be less than significant in the cumulative year, and no mitigation is required.

### 16<sup>th</sup> Avenue

As shown in **Table 3-16**, the ambient noise levels at a distance approximately 10 feet from the shoulder of 16<sup>th</sup> Avenue would be approximately 63.9 dBA Leq in the cumulative year due to increases in traffic volumes relative to existing conditions. The estimated ambient noise levels at the off-Reservation sensitive receptors nearest to the three affected segments would exceed 60 dBA Leq in the cumulative



year. Therefore, the FICON significance standard of a 3.0 dB increase or greater would apply (refer to **Table 3-11**), as well as the NAC of 67.0 dBA Leq for residential uses (refer to **Table 3-10**). As shown in **Table 3-16**, the changes in cumulative year traffic volumes on 16<sup>th</sup> Avenue resulting from the Proposed Project would not cause the ambient noise level at any of the nearest sensitive receptors to exceed 67.0 dBA Leq, nor would they cause an increase in noise levels of 3.0 dB or greater at any of the residential receptors. Therefore, the operational traffic impacts of the Proposed Project would be less than significant in the cumulative year, and no mitigation is required.

### **3.7.3 MITIGATION**

No mitigation is required.

## **3.8 PUBLIC SERVICES**

### **3.8.1 EXISTING ENVIRONMENT**

#### **Fire Protection and Emergency Medical Services**

The Kings County Fire Department (KCFD) and the California Department of Forestry and Fire Protection (CAL FIRE) provide primary fire protection and emergency medical services to the project site and surrounding vicinity. Pursuant to an agreement between the Tribe and County, service to the project site is provided by Station 7 (Kings County, 2020), which is located at 1285 South Lemoore Avenue, in Lemoore California. The project site is an approximate five-minute driving distance, and 3 miles from Station 7.

The primary responsibility of the KCFD is to provide continuous fire protection and emergency medical services to an area of approximately 1,392 square miles (KCFD, 2020a). KCFD provide services to unincorporated areas of Kings County, in which approximately 33,700 persons reside (Kings County, 2020) as well as the cities of Avenal and Corcoran. The department staffs 10 fire stations and a headquarters office with approximately 88 full-time employees. The KCFD responds to approximately 5,700 calls for service annually (Kings County, 2020), of which approximately 60 percent are medical in nature (KCFD, 2018). Calls include structure, vehicle, wildland and grass fires, medical aids, traffic accidents, hazardous materials incidents and various public assistance calls. The KCFD is comprised of the Operations Division and Training Division. The Operations Division performs the following functions (Kings County, 2020):

- Fire suppression
- Emergency Medical Services (EMS)
- Rescue operations
- Fire Prevention/public education activities
- Fire inspections
- Emergency medical response at the Basic Life Support (BLS) level
- Hazardous materials emergency response

Total projected calls for service during Fiscal Year 2019/2020 are estimated at 5,352 and expenditures are budgeted at \$14,012,056 (Kings County, 2020). The KCFD is financed by property taxes, State public safety sales taxes, Indian Gaming funds, Federal Safer grant funds, homeland security and Emergency Operations grants, and funds from the cities of Avenal and Corcoran for contracted services (Kings County, 2020). Pursuant to State law and an agreement between the Tribe and County, the County currently receives approximately \$900,000 per year from the Tribe (Kings County, 2003). Approximately \$200,000 of these funds will finance Fiscal 2019/2020 KCFD operations (Kings County, 2020). This agreement between the County and Tribe expires in 2020. In addition, during 2016 the Tribe purchased a fire truck on behalf of KCFD at a cost of \$586,000 (Tribe, 2016).

In addition to the EMS services provided by KCFD, ambulance services are also provided by American Ambulance, which serves Kings and Fresno counties. Skylife provides aeromedical transportation to the project area, with air ambulance service located at Fresno International Airport. CAL FIRE Fire Hazard Severity Zone Maps do not provide a rating for the project site (CAL FIRE, 2007).

There are several hospitals located within approximately 15 miles of the project site. The closest acute care hospital is the Adventist Health Medical Center, located at 115 Mall Drive in the city of Hanford. This medical center is located approximately 8 miles northeast of the project site.

## **Law Enforcement**

Under Public Law 280, the State of California and other local law enforcement agencies have criminal enforcement authority on tribal lands. Public and private lands surrounding the project are under the jurisdiction of the Kings County Sheriff's Office (KCSO). The KCSO headquarters is located at 1444 W Lacey Boulevard in Hanford California. The KCSO law enforcement, detention, and court services within unincorporated Kings County. The KCSO is comprised of the following divisions:

- Administration
- Radio Communications
- Operations – Patrol
- Operations – Support
- Court Security
- Detentions
- Animal Services and Field Center

The Operations – Support group Includes the Detective Unit, the K-9 Unit, the Rural Crime Task Force, the Major Crimes Task Force, the Coroner, Public Administrator, fingerprint analysis, and Evidence divisions. Operations has six Patrol Beats: Beat 1-Armona and Island District of Lemoore, Beat 2-Riverbend and North/East Kings County, Beat 3-Stratford and the Santa Rosa Rancheria, Beat 4-Home Gardens and Lakeside area of Hanford, Beat 5-Corcoran area, and Beat 6-Kettleman City and I-5 corridor (Kings County, 2020). The Beat 3 substation, which is responsible for the existing Casino Resort, is located at Stratford Elementary School. The adopted Fiscal Year 2019/2020 budget estimates 306 FTEs for the department. This includes Administration, Communications and Operations personnel of 17, 16.5, 61 FTEs, respectively. Fiscal Year 2019/2020 net expenditures are budgeted at \$16,459,757. The KCSO is projected to receive 40,000 calls for service during Fiscal Year 2019/2020 (Kings County, 2020), which is anticipated to include 34,583 operations related calls for service.

Pursuant to State law and an agreement with the Tribe, the County currently receives approximately \$900,000 per year to fund the KCSO and the KCFD. Approximately \$700,000 of these funds will finance Fiscal 2019/2020 KCSO operations (Kings County, 2020).

The KCSO and the Tribe's Public Safety Department (DPS) currently provide law enforcement services to the existing Rancheria. The DPS is primarily responsible for enforcing tribal ordinances and security on the Reservation. The existing Casino Resort also currently has a security force that is responsible for monitoring and responding to issues on the existing casino property. For criminal matters and to address issues off the Rancheria property, the KCSO provides law enforcement services. The California Highway Patrol (CHP) is the chief law enforcement agency for traffic-related issues on public highways and roads, with area offices located in Hanford and Fresno.

### 3.8.2 ENVIRONMENTAL CONSEQUENCES

#### Fire Protection and Emergency Medical Services

As described above, fire protection and emergency medical services are provided by KCFD and CAL FIRE. The Proposed Project would be constructed in accordance with applicable building code requirements, which include requirements for fire suppression systems. The increase in patrons as a result of the Proposed Project facilities would likely result in increased service demands to KCFD. This is a potentially significant impact.

Impacts to KCFD were calculated by estimating the cost for each call for service, and then multiplying this figure by the estimated increase in calls for service that would occur from the operations of the Proposed Project. As described above, the projected KCFD calls for service and total expenditures are estimated at 5,352 and \$14,012,056, respectively for Fiscal Year 2019/2020. This equates to \$2,618 per call for service. This figure is inclusive of all costs, including the direct personnel costs for field personnel, indirect personnel costs, administration and those capital costs budgeted for Fiscal Year 2019/2020. This figure was applied to the estimated increase in calls for service, as illustrated in the table below, to arrive at an estimated annual fiscal impact of providing fire and EMS services of approximately \$55,000 in 2019 dollars. This figure would likely be higher in future years, due to inflation.

**TABLE 3-17**  
**ESTIMATED FISCAL EFFECTS – FIRE AND EMS**

	<b>Calendar 2018</b>	<b>1/1/19 to 9/30/19</b>	<b>Annual Average</b>
Casino Resort calls for service <sup>(1)</sup>	116	78	110
Casino Resort patronage (2019) <sup>(2)</sup>			2,043,000
Incident rate, per 1,000 patrons			5.38%
Proposed Project patronage <sup>(2)</sup>			388,300
Estimated Increase in calls for service			21
Cost per call for service (2019 dollars)			\$2,618
Estimated fiscal impact, in 2019 dollars			\$55,000
1. Source: KCFD 2020b.			
2. Source: Tribe, 2020.			

## Law Enforcement

The Casino Resort would continue to employ full-time trained security personnel to deter criminal activities and train security personnel in detaining individuals subject to arrest. The increase in patrons as a result of the Proposed Project facilities would likely result in increased service demands to KCSO. The increase in patrons as a result of the Proposed Project facilities would likely result in increased service demands to KCFD. This is a potentially significant impact.

Estimated fiscal impacts to KCSO for the provision of law enforcement services were calculated in a manner similar to fire and EMS. As described above, the projected KCSO calls for service and total expenditures are estimated at 40,000 and \$16,459,757, respectively for Fiscal Year 2019/2020. This equates to \$411 per call for service. This figure is inclusive of all costs, including the direct personnel costs for field personnel, indirect personnel costs, administration and those capital costs budgeted for Fiscal Year 2019/2020. This figure was applied to the estimated increase in calls for service, as illustrated in the table below, to arrive at an estimated annual fiscal impact of providing law enforcement services of approximately \$70,000 in 2019 dollars. This figure would likely be higher in future years, due to inflation.

**TABLE 3-18**  
**ESTIMATED FISCAL EFFECTS – LAW ENFORCEMENT**

	<b>Fiscal Year 2016/2017</b>	<b>Fiscal Year 2017/2018</b>	<b>Annual Average</b>
Casino Resort calls for service <sup>(1)</sup>	980	809	895
Casino Resort patronage (2019) <sup>(2)</sup>			2,043,000
Incident rate, per 1,000 patrons			43.81%
Proposed Project patronage <sup>(2)</sup>			388,300
Estimated impact, in calls for service			170
Cost per call for service (2019 dollars)			\$411
Estimated fiscal impact, in 2019 dollars			\$70,000
1. Source: KCSO, 2020. Calls for Service reports for 17225 Jersey Avenue.			
2. Source: Tribe, 2020.			

## Cumulative

### ***Fire Protection and Emergency Medical Services***

New development would be required to fund County services including fire protection and emergency medical response in part through development fees and property taxes. Emergency medical costs are paid primarily by the individual requiring service. Cumulative projects would pay development fees and property taxes toward funding these services. Because the Proposed Project (through the provision of adequate funding to existing facilities) would not require the construction or expansion of fire protection

facilities, the Proposed Project would result in a less-than-significant cumulative impact on public fire protection services.

### ***Law Enforcement***

New development would fund in part County services including law enforcement through development fees and property taxes. Increases in demand for services from the Proposed Project to the KCSO would be less than significant. The provision of law enforcement services by the Tribe and recommended mitigation listed in **Section 3.8.3** below ensure that the Proposed Project would result in a less-than-significant cumulative effect on public law enforcement services.

### **3.8.3 MITIGATION**

The Tribe and County shall enter into a memorandum of understanding or services agreement to reimburse the County for public services costs that occur as a result of the Proposed Project.

## 3.9 TRANSPORTATION

A TIS was conducted for the Proposed Project and is included within **Appendix B**. The results of the TIS are summarized within this section.

### 3.9.1 EXISTING ENVIRONMENT

#### Surrounding Roadway Network

The Proposed Project is located along the south side of Jersey Avenue between 17th and 18th Avenues in the northern portion of Kings County. Regional access to the project site is provided by State Route 41 (SR-41) and Jersey Avenue. Various roadways in the vicinity of the site provide local access.

The following is a description of the roadway facilities in the project vicinity.

**SR-41** is classified as a Principal Arterial in the County General Plan. SR-41 is a two-lane road for 42 miles between the Kern County line and just south of the Hanford-Armona Road. There it becomes a four-lane expressway for about 6 miles to the Fresno County Line.

**Jersey Avenue** is classified as a local street in the County General Plan. It is currently constructed as a two-lane undivided road, which provides access to SR-41, Tachi Palace, and tribal residences.

**18<sup>th</sup> Avenue** is classified as a local street in the County General Plan. It is currently constructed as a two-lane undivided road.

**17<sup>th</sup> Avenue** is classified as a local street in the County General Plan. It is currently constructed as a two-lane undivided road, which provides access to Tachi Palace.

**16<sup>th</sup> Avenue** is classified as a local street in the County General Plan. It is currently constructed as a two-lane undivided road.

**Jackson Avenue** is classified as a local street in the County General Plan. It is currently constructed as a two-lane undivided road.

#### Study Area

The intersections and roadway segments included in this study area are listed below and shown in Figure 1-2 of **Appendix B**. The study area was developed in consultation with Kings County staff. Intersection turn movement counts were conducted for peak periods of 5:00 pm to 7:00 pm on Friday, February 21, 2020, and Saturday, February 22, 2020. The traffic counts were conducted during fair weather conditions while schools were in session.



### ***Intersections***

1. Jackson Avenue at 16th Avenue
2. Jersey Avenue at SR 41 (20th Avenue)
3. Jersey Avenue at 18th Avenue
4. Jersey Avenue at Main Tachi Palace Hotel & Casino Driveway
5. Jersey Avenue at Project Driveway 2
6. Jersey Avenue at 17th Avenue
7. Jersey Avenue at 16th Avenue

### ***Roadway Segments***

- 16th Avenue between: Jackson Avenue and Jersey Avenue
- Jersey Avenue between: SR 41 and 18th Avenue
- Jersey Avenue between: 18th Avenue and 17th Avenue
- Jersey Avenue between: 17th Avenue and 16th Avenue

### **Existing Level of Service (LOS)**

The existing setting assumes existing traffic levels from traffic counts collected in February 2020.

### ***Intersections***

**Table 3-19** summarizes the existing weekday and weekend peak hour intersection operations. As indicated in the table, all study area intersections were determined to operate at acceptable levels of service in the existing conditions scenario.

**TABLE 3-19**  
EXISTING INTERSECTION OPERATIONS

Intersection	Control Type	Target LOS	Peak Hour	Existing	
				Delay (sec)	LOS
1. Jackson Avenue / 16 <sup>th</sup> Avenue	Four-Way Stop Sign	D	Friday PM	7.6	A
			Saturday PM	7.7	A
2. Jersey Avenue / SR 41	Two-Way Stop Sign	C	Friday PM	23.9	C
			Saturday PM	16.8	C
3. Jersey Avenue / 18 <sup>th</sup> Avenue	Four-Way Stop Sign	D	Friday PM	11.3	B
			Saturday PM	11.9	B
4. Jersey Avenue / Main Tachi Palace Driveway	One-Way Stop Sign	D	Friday PM	13.2	B
			Saturday PM	13.1	B
5. Jersey Avenue / Project Driveway 2	One-Way Stop Sign	D	Friday PM	10.5	B
			Saturday PM	10.8	B
6. Jersey Avenue / 17 <sup>th</sup> Avenue	Four-Way Stop Sign	D	Friday PM	9.2	A
			Saturday PM	9.2	A
7. Jersey Avenue / 16 <sup>th</sup> Avenue	Two-Way Stop Sign	D	Friday PM	10.1	B
			Saturday PM	7.4	A
Notes: LOS = Level of Service. <b>BOLD</b> denotes LOS standard has been exceeded. Source: <b>Appendix B</b>					

## Queuing

**Table 3-20** summarizes existing queue lengths at each of the study intersections. As indicated in the table, all queues were determined to provide adequate storage, except for the southbound left turn lane at the intersection of Jersey Avenue / 18<sup>th</sup> Avenue.

**TABLE 3-20**  
EXISTING QUEUING OPERATIONS

Intersection	Existing Queue Storage Length (ft)		Existing Conditions	
			Friday PM Queue	Saturday PM Queue
Jersey Avenue / SR 41	NB Left	425	1	1
	SB Left	425	38	62
Jersey Avenue / 18 <sup>th</sup> Avenue	NB Left	100	2	2
	SB Left	100	<b>190</b>	<b>197</b>
	EB Left	200	6	3
	WB Left	100	8	8
Jersey Avenue / Main Tachi Palace Driveway	NB Right	75	40	48
	WB Left	100	43	38
Jersey Avenue / Project Driveway 2	WB Left	100	38	33
Jersey Avenue / 17 <sup>th</sup> Avenue	EB Left	100	27	23
	WB Left	100	43	39
Notes: Queue is measured in feet. <b>BOLD</b> denotes exceedance. Source: <b>Appendix B</b> .				

## Roadway Segments

**Table 3-21** summarizes the existing roadway segment operations. As indicated in **Table 3-21**, all of the roadway segments were determined to operate at acceptable levels of service in the existing condition.

**TABLE 3-21**  
EXISTING ROADWAY SEGMENT OPERATIONS

Street Segment	Segment Description	Target LOS	Peak Hour	Direction	Existing	
					Volume	LOS
16 <sup>th</sup> Avenue						
Jackson Avenue to Jersey Avenue	2 Lanes Undivided	D	Friday PM	NB	56	A
				SB	48	A
			Saturday PM	NB	57	A
				SB	53	A
Jersey Avenue						
SR 41 to 18 <sup>th</sup> Avenue	2 Lanes Undivided	D	Friday PM	EB	105	A
				WB	87	A
			Saturday PM	EB	139	A
				WB	94	A
18 <sup>th</sup> Avenue to 17 <sup>th</sup> Avenue	2 Lanes Undivided	D	Friday PM	EB	339	B
				WB	171	A
			Saturday PM	EB	384	B
				WB	228	A
17 <sup>th</sup> Avenue to 16 <sup>th</sup> Avenue	2 Lanes Undivided	D	Friday PM	EB	121	A
				WB	135	A
			Saturday PM	EB	135	A
				WB	134	A
Notes: LOS = Level of Service. <b>BOLD</b> denotes LOS standard has been exceeded. EB – eastbound; WB – westbound; NB – northbound; SB – southbound. Source: <b>Appendix B</b> .						

## Site Access

Primary access to the project site is currently provided along Jersey Avenue, approximately 1,300 feet west of 17th Avenue. Additional access to the project site is currently provided by two one-way stop controlled driveways along Jersey Avenue and four one-way stop controlled driveways along 17th Avenue.

## Existing Pedestrian, Transportation, and Bicycle Operations

Bus shuttle service is provided by the existing Casino to the Fresno, Visalia, and Bakersfield areas by reservation. Kings Area Rural Transit (KART) provides local and regional bus service in the Kings County. The nearest transit stop is approximately 4 miles from the Project Site in the city of Lemoore. There are no existing or planned bike routes in the vicinity of the Project Site (Kings County, 2015b).

## **3.9.2 ENVIRONMENTAL CONSEQUENCES**

### **Methodology**

The methodology used to analyze traffic impacts resulting from the Proposed Project is described in detail in the TIS provided as **Appendix B**. Methodologies used to analyze project related impacts are consistent with the 2016 Highway Capacity Manual and the County's *2035 General Plan Circulation Element* (**Appendix B**).

### ***Trip Generation***

#### **Casino Hotel**

The Institute of Transportation Engineers (ITE) does not have trip rates for Indian Gaming Casinos in their publications. The land use designation from the ITE Trip Generation Manual that best describes the Proposed Project is the Casino/Video Lottery Establishment (Land Use 473). However, the description of that land use isn't comparable to the existing Tachi Palace Casino or the Proposed Project. ITE Land Use 473 describes casino establishments where full food service isn't generally provided and establishments that don't include hotel facilities. Therefore, trip generation rates were estimated based on trip counts conducted for the existing Casino Resort. The existing Tachi-Palace Casino includes an attached hotel with 255 rooms, event space, and meeting space. Trip counts were conducted on Friday, February 21, 2020 and Saturday, February 22, 2020 at the primary casino entrance, as well as two additional entrances, and captured all trips to Tachi Palace Casino Resort, including patron and employee trips to the casino, bingo hall/entertainment center, Coyote Entertainment Center, on-site restaurants, hotel and other ancillary facilities. These counts were used to estimate the trip generation for the expansion of the casino, meeting space, additional 200 hotel rooms, and other ancillary facilities. Trip generation rates of 1.45 trips per 1,000 sf for the Friday PM peak hour and 1.82 trips per 1,000 sf for the Saturday PM peak hour were determined.

#### **Yokut Gas Station**

Proposed improvements to the existing Yokut Gas Station, located at the southwest corner of Jersey Avenue and 17th Avenue, include the addition of a retail store, drive-thru carwash, and additional fuel dispensers at the current fuel station on site (both semi-truck dispensers, and conventional fuel dispensers). Trip generation rates for the Friday and Saturday PM peak hour are based on counts conducted at the driveways for the existing Yokut Gas Station. Traffic counts collected at the driveways included trips associated with the existing gas station and convenience store. Therefore, trips attributed to the additional fueling pumps are captured in the trip rate associated with the expansion at the gas station.

#### **Special Events**

The special event venue trip generation rate was developed based on a weekday event at full capacity, with typical weekday activities for all other uses also occurring. The trip generation estimate is based on a

vehicle occupancy of 2.21 (or 0.45 daily vehicle trips per seat) and a reduction of 50 percent due to internal capture at the casino. Since special events are planned to be held infrequently, the trip generation summary in **Table 3-22** does not include the traffic generated by special events. Refer to **Table 3-23** for a description of the special event venue trip generation and net total trip generation during special events. Impacts from special event traffic are addressed separately in this analysis.

**Table 3-22** shows the trip generation rates for the Proposed Project, trips at the existing casino, and the net change in total weekday and weekend trips as a result of the Proposed Project.

### ***Trip Distribution***

Trip distribution is based on prevailing traffic patterns in the vicinity of the project site, complementary land uses, major transportation routes, the location of nearby population centers, and available data in the Kings County Association of Governments (KCAG) travel demand model. The majority of project traffic would travel on Jersey Avenue, with 55 percent travelling west from the project site and 25 percent travelling east from the project site. This is shown on Figure 3-1 of the TIS (**Appendix B**).

**TABLE 3-22**  
TRIP GENERATION SUMMARY

Land Use	Quantity	Friday ADT		Friday PM Peak Hour Volume				Saturday ADT		Saturday PM Peak Hour			
		Rate	Volume	Rate	In	Out	Total	Rate	Volume	Rate	In	Out	Total
Total Proposed Facility													
Hotel and Casino	737.833 ksf	14.50	10,700	1.45	674	396	1,070	18.20	13,430	1.82	806	537	1,343
Yokut Gas	14.0 ksf	238.0	3,332	19.57	139	135	274	258.86	3,624	19.57	139	135	274
Total Proposed Facility Trips			14,032		813	531	1,344		17,054		945	672	1,617
Existing Facility													
Existing Tachi Palace Hotel & Casino			7,900		500	290	790		9,910		593	398	991
Yokut Gas			1,145		47	46	93		1,246		47	46	93
Total Existing Facility Trips			9,045		547	336	883		11,156		640	444	1084
Net Total Trip Generation			4,987		266	195	461		5,898		305	228	533
Source: Appendix B.													

**TABLE 3-23**  
TRIP GENERATION SUMMARY DURING SPECIAL EVENTS

Land Use	Quantity	Friday ADT		Friday PM Peak Hour Inbound				Friday PM Peak Hour Outbound			
		Rate	Volume	Rate	In	Out	Total	Rate	In	Out	Total
Total Proposed Facility											
Hotel and Casino	676.415 ksf	14.50	9,810	1.45	618	363	981	1.45	618	363	981
Yokut Gas	14.0 ksf	238.0	3,332	19.57	139	135	274	19.57	139	135	274
Special Event	3,600 seats	0.45	1,620	0.23	787	41	828	0.23	41	787	828
Total Proposed Facility Trips			14,762		1,544	539	2,083		798	1,285	2,083
Existing Facility											
Existing Tachi Palace Hotel & Casino			7,900		500	290	790		500	290	790
Yokut Gas			1,145		47	46	93		47	46	93
Special Event	1,100 seats		495	0.23	240	13	253	0.23	13	240	253
Total Existing Facility Trips			9,540		787	349	1,136		560	576	1,136
Net Total Trip Generation			5,222		757	190	947		238	709	947
Source: Appendix B.											

## Significance Thresholds

The following significance thresholds were identified within **Appendix B.**

### **Kings County**

The Circulation Element of the Kings County General Plan guides the continued development and improvement of the circulation system to support existing and planned development. The Circulation Element addresses the circulation improvements needed to provide adequate capacity for future land uses. The Element establishes a hierarchy of transportation routes with typical development standards described for each roadway category. The County also includes additional standards, plans and programs that apply to the evaluation of transportation impacts of the Project. These standards cover the primary aspects of the transportation system.

Kings County's 2035 General Plan identifies a minimum LOS standard of E for urban areas and D for rural areas.

### **Caltrans**

Based on the 2002 Caltrans Guide for the Preparation of Traffic Impact Studies, the LOS for operating State highway facilities is based on Measures of Effectiveness (MOE) identified in the Highway Capacity Manual (HCM). Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities; however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than this target LOS, the existing MOE should be

maintained. In general, the region-wide goal for an acceptable LOS on all freeways, roadways segments, and intersections is “D”. For undeveloped or not densely developed locations, the goal may be to achieve LOS “C”.

## **Proposed Project Traffic Analysis**

### ***Construction Traffic***

Construction of the Proposed Project would require truck trips for the import of materials and equipment, and daily construction workers trips. Traffic impacts resulting from construction activities would be temporary and intermittent in nature and would generally occur during off-peak traffic hours (5:00 am to 6:00 am and 10:00 am to 4:00 pm). Construction activity impacts would be concentrated on Jersey Avenue and in the immediate vicinity of the project site. Traffic-related construction impacts may include traffic delays, one-way traffic control, temporary road closures, and traffic detours. Construction trips are estimated to be a maximum of 637 trips (457 one-way worker trips and 180 one-way material haul trips) to and from the project site, including construction worker trips, material delivery, and equipment delivery. Since construction traffic is temporary in nature, significant adverse effects associated with construction traffic would not occur.

### ***Operational Traffic – Existing Plus Project Conditions***

To assess the impacts of the Proposed Project on transportation facilities in the study area, the projected number of trips generated by the Proposed Project was added to existing traffic volumes.

### **Intersections**

**Table 3-24** shows the weekday and weekend intersection delay and LOS for the PM peak hours at each of the study intersections under Existing Plus Project Conditions. With the addition of project-related traffic, all of the study intersections are projected to operate at an acceptable LOS, except for the following intersections:

Intersection #2: Jersey Avenue / SR 41

Mitigation Measures included in **Section 3.9.3** below would reduce impacts at this intersection.

**TABLE 3-24**  
**INTERSECTION OPERATIONS**

Intersection	Target LOS	Peak Hour	Existing plus Project		Near-Term Plus Project		Cumulative Year 2043 without Project		Cumulative Year 2043 plus Project	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. Jackson Avenue / 16 <sup>th</sup> Avenue	D	Friday PM	8.0	A	8.1	A	7.9	A	8.3	A
		Saturday PM	8.2	A	8.3	A	7.9	A	8.3	A
2. Jersey Avenue / SR 41	C	Friday PM	<b>27.4</b>	<b>D+</b>	<b>30.2</b>	<b>D++</b>	<b>68.4</b>	<b>F++</b>	<b>112.1</b>	<b>F++</b>
		Saturday PM	18.7	C	19.8	C	<b>28.1</b>	<b>D++</b>	<b>38.0</b>	<b>E++</b>
3. Jersey Avenue / 18 <sup>th</sup> Avenue	D	Friday PM	15.8	C	17.2	C	18.6	C	<b>38.2</b>	<b>E++</b>
		Saturday PM	18.0	C	20.4	C	26.7	D	<b>69.8</b>	<b>F++</b>
4. Jersey Avenue / Main Tachi Palace Driveway	D	Friday PM	17.5	C	17.8	C	13.7	B	17.4	C
		Saturday PM	17.7	C	18.0	C	14.6	B	20.5	C
5. Jersey Avenue / Project Driveway 2	D	Friday PM	11.7	B	11.8	B	11.0	B	12.1	B
		Saturday PM	12.1	B	12.2	B	11.7	B	13.2	B
6. Jersey Avenue / 17 <sup>th</sup> Avenue	D	Friday PM	10.8	B	11.1	B	10.9	B	13.0	B
		Saturday PM	10.9	B	11.3	B	11.5	B	14.7	B
7. Jersey Avenue / 16 <sup>th</sup> Avenue	D	Friday PM	10.9	B	11.1	B	10.7	B	11.5	B
		Saturday PM	7.6	A	7.6	A	7.4	A	7.5	A

Notes: LOS = Level of Service. **BOLD** denotes LOS standard has been exceeded. For four-way stop intersections, delay results show the average for the entire intersection. For one-way stop intersections, delay results show the delay for the worst movement.

Source: **Appendix B**.

## Queue

**Table 3-25** shows the weekday and weekend intersection delay and LOS for the PM peak hours at each of the study intersections under Existing Plus Project Conditions. With the addition of project-related traffic, all of the study intersections are projected to operate at an acceptable LOS, except for the following intersections:

Intersection #2: Jersey Avenue / SR 41

Mitigation Measures included in **Section 3.9.3** below would reduce impacts at this intersection.



**TABLE 3-25**  
**QUEUING OPERATIONS**

Intersection	Existing Queue Storage Length (ft)		Existing plus Project		Near-Term Plus Project		Cumulative Year 2043 without Project		Cumulative Year 2043 plus Project	
			Friday PM Queue	Saturday PM Queue	Friday PM Queue	Saturday PM Queue	Friday PM Queue	Saturday PM Queue	Friday PM Queue	Saturday PM Queue
Jersey Avenue / SR 41	NB Left	425	1	1	1	1	2	2	2	2
	SB Left	425	59	88	62	93	61	99	83	126
Jersey Avenue / 18 <sup>th</sup> Avenue	NB Left	100	2	2	2	2	3	3	3	3
	SB Left	100	<b>256</b>	<b>274</b>	<b>268</b>	<b>287</b>	<b>307</b>	<b>318</b>	<b>373</b>	<b>395</b>
	EB Left	200	6	3	6	3	9	4	9	4
	WB Left	100	12	11	13	12	13	13	24	16
Jersey Avenue / Main Tachi Palace Driveway	NB Right	75	49	59	49	59	40	48	49	59
	WB Left	100	57	55	57	55	43	38	57	55
Jersey Avenue / Project Driveway 2	WB Left	100	52	51	52	51	38	33	52	51
Jersey Avenue / 17 <sup>th</sup> Avenue	EB Left	100	36	33	38	35	43	38	53	48
	WB Left	100	60	59	63	62	68	63	86	83
Notes: Queue is measured in feet. <b>BOLD</b> denotes exceedance. Source: <b>Appendix B</b> .										

### Roadway Segments

**Table 3-26** shows the roadway segment volume to capacity ratio and LOS for the weekday and weekend PM peak hours at each of the study roadway segments under Existing Plus Project Conditions. The addition of project-related traffic would not cause any of the study roadway segments to experience a significant adverse impact to LOS.

**TABLE 3-26**  
**ROADWAY SEGMENT OPERATIONS**

Street Segment	Target LOS	Peak Hour	Direction	Existing plus Project		Near-Term Plus Project		Cumulative Year 2043 without Project		Cumulative Year 2043 plus Project	
				Volume	LOS	Volume	LOS	Volume	LOS	Volume	LOS
16 <sup>th</sup> Avenue											
Jackson Avenue to Jersey Avenue	D	Friday PM	NB	86	A	90	A	90	A	120	A
			SB	92	A	95	A	77	A	121	A
		Saturday PM	NB	94	A	98	A	92	A	129	A
			SB	105	A	108	A	85	A	137	A
Jersey Avenue											
SR 41 to 18 <sup>th</sup> Avenue	D	Friday PM	EB	140	A	147	A	169	A	204	A
			WB	107	A	113	A	140	A	160	A
		Saturday PM	EB	182	A	191	A	224	A	267	A
			WB	122	A	128	A	152	A	180	A
18 <sup>th</sup> Avenue to 17 <sup>th</sup> Avenue	D	Friday PM	EB	458	C	480	C	547	C	666	D
			WB	250	A	261	A	276	B	355	B
		Saturday PM	EB	525	C	550	C	619	C	760	D
			WB	327	B	342	B	368	B	467	C
17 <sup>th</sup> Avenue to 16 <sup>th</sup> Avenue	D	Friday PM	EB	169	A	177	A	195	B	243	B
			WB	201	A	210	A	218	A	284	B
		Saturday PM	EB	192	B	201	B	218	B	275	B
			WB	210	A	219	A	216	A	292	B
Notes: LOS = Level of Service. <b>BOLD</b> denotes LOS standard has been exceeded. EB – eastbound; WB – westbound; NB – northbound; SB – southbound. Source: <b>Appendix B</b> .											

### **Operational Traffic – Near Term Plus Project Conditions**

Traffic conditions with the Proposed Project in the Near Term Year (2023) condition were estimated by applying a growth rate of 2.10% per year to the existing traffic volumes in accordance with KCAG travel model projections. Traffic impact analyses typically require the analysis of approved or pending developments that have not yet been built in the vicinity of the Project site in addition to the proposed Project. Kings County staff determined that no applicable approved/pending projects exist within the Project study area.

### **Intersections**

**Table 3-24** shows the weekday and weekend intersection delay and LOS for the PM peak hours at each of the study intersections under Near Term Plus Project Conditions. The addition of project-related traffic would cause the following study intersections to experience a significant adverse impact to LOS:

Intersection #2: Jersey Avenue / SR 41

Mitigation Measures included in **Section 3.9.3** below would reduce impacts at this intersection.

### **Roadway Segments**

**Table 3-26** shows the roadway segment volume to capacity ratio and LOS for the weekday and weekend PM peak hours at each of the study roadway segments under Near Term Plus Project Conditions. The addition of project-related traffic would not cause any of the study roadway segments to experience a significant adverse impact to LOS.

### **Summary of Near Term Plus Project Traffic Impacts**

The increase in traffic generated by the Proposed Project would contribute to unacceptable traffic operations at the intersection listed above. Implementation of mitigation measures provided in **Section 3.9.3** would restore the intersection and roadway segment to acceptable operations based on the County's standards; therefore, with the implementation of traffic improvement mitigation measures, the Proposed Project would have a less-than-significant effect on traffic and circulation.

### ***Operational Traffic – Cumulative Plus Project Conditions***

The impacts of the Project were analyzed considering future traffic conditions in the year 2043. The levels of traffic expected in 2043 relate to the cumulative effect of traffic increases resulting from the implementation of the General Plans of local agencies, including Kings County and the City of Lemoore. Traffic conditions with and without the Project in the Year 2043 were estimated by applying a growth rate of 2.10% per year to the existing traffic volumes. A comparison of the KCAG base year and future year travel model showed that the growth in the study area is approximately 2.10% per year.

### **Intersections**

**Table 3-24** shows the weekday and weekend intersection delay and LOS for the PM peak hours at each of the study intersections under Cumulative Plus Project Conditions. The addition of project-related traffic would cause the following study intersections to experience a significant adverse impact to LOS:

Intersection #2: Jersey Avenue / SR 41

Intersection #3: Jersey Avenue / 18<sup>th</sup> Avenue

Mitigation Measures included in **Section 3.9.3** below would reduce impacts to these intersections.

### **Roadway Segments**

**Table 3-26** shows the roadway segment volume to capacity ratio and LOS for the weekday and weekend PM peak hours at each of the study roadway segments under Cumulative Plus Project Conditions. The addition of project-related traffic would not cause any of the study roadway segments to experience a significant adverse impact to LOS.

### **Summary of Cumulative Traffic Impacts**

The increase in traffic generated by the Proposed Project would contribute to unacceptable traffic operations at the two study intersections listed above. Implementation of mitigation measures provided in **Section 3.9.3** would restore the intersections in Cumulative Plus Project Conditions to acceptable operations based on the County's standards; therefore, with the implementation of traffic improvement mitigation measures, the Proposed Project would have a less than significant cumulative effect on traffic and circulation.

### ***Special Event Traffic***

The proposed special event venue would be used for monthly concerts, banquets, special private events, and as a conference center. Project trip generation shown in **Table 3-23** shows the traffic generated by full capacity special events. As shown in Tables 3-4 of the TIS (**Appendix B**), special events would result in impacts to the following intersections under existing and/or cumulative conditions:

#### **Intersections**

Intersection #2: Jersey Avenue / SR 41 (existing and cumulative)

Intersection #3: Jersey Avenue / 18<sup>th</sup> Avenue (existing and cumulative)

Intersection #4: Jersey Avenue / Main Tachi Palace Driveway (existing and cumulative)

The traffic related to the special event venue has a potential to significantly impact traffic circulation in the immediate vicinity of the project site. Therefore, mitigation measures are provided in **Section 3.9.3**, which will minimize adverse effects resulting from special event traffic.

### ***Transit, Bicycle, and Pedestrian Facilities***

Implementation of the Proposed Project may result in increased use of the bus shuttle service to the Casino, as it is assumed to continue operation to the expanded casino. The Tribe would increase the capacity of this shuttle service as needed to accommodate an increase in ridership. Therefore, an increased ridership on the public transportation system would not cause an exceedance of capacity. This is a less-than-significant effect.

Currently no pedestrian facilities are located in the vicinity of the project site. The Proposed Project is not projected to generate a substantial increase in bicycling activity or pedestrian trips. Therefore, development of the Proposed Project would have a less-than-significant impact on existing or planned off-Reservation bicycle or pedestrian facilities.

### **3.9.3 MITIGATION**

The following mitigation measures listed in **Table 3-27** will be implemented to reduce project-related traffic impacts (refer to Table 4-1 and 4-2 in **Appendix B** regarding LOS after mitigation at intersections

and roadway segments). Fair share payments are also provided in **Table 3-27** for all proposed traffic improvements.

**TABLE 3-27**  
PROPOSED TRAFFIC MITIGATION MEASURES

Intersection / Roadway Segment Improvement	Applicable Scenarios	Fair Share Contribution
<b>1. Jersey Avenue / SR 41</b>		
Widen the westbound approach to 1 left turn lane and 1 through lane with a shared right (adding 1 left turn lane)	E	NA
Install Traffic Signal	N, C	14.9%
<b>2. Jersey Avenue / 18<sup>th</sup> Avenue</b>		
Install traffic signal	C	36.7%
Notes: E = Existing Plus Project Conditions; N = Near Term Plus Project Conditions; C = Cumulative Plus Project Conditions. Source: <b>Appendix B.</b>		

## Special Events

The Tribe will implement the following mitigation measure, which would reduce traffic-related impacts during special events to less than significant:

- A traffic control plan, consistent with County guidelines, will be prepared for special events occurring on the project site to ensure minimal impacts to traffic in the vicinity of the site.

## **3.10 UTILITIES AND SERVICE SYSTEMS**

### **3.10.1 EXISTING ENVIRONMENT**

#### **Solid Waste**

Solid waste from the Rancheria, including the existing facilities on the project site, is currently collected by Mid Valley Disposal. The nearest transfer station to the project site is Kingsburg Transfer Station, which is approximately 22 miles northeast of the project site. This is one of five transfer stations operated by Mid Valley Disposal. Mid Valley Disposal sorts refuse into materials suitable for recycling or reuse, and waste. Waste material is then transferred to a local or regional landfill, with the specific landfill selected based on a number of factors, including the location of the transfer station (Mid Valley Disposal, 2020). The nearest landfills to Kingsburg Transfer Station are Visalia Landfill and American Ave Landfill, located approximately 12 miles southeast and 35 miles northwest of the Kingsburg Transfer Station, respectively. The Visalia Landfill has a maximum permitted capacity of 18,630,666 cubic yards, of which approximately 79.5 percent (14,815,501 cubic yards) has not been used as of March 2014. This landfill has a maximum permitted intake of 2,000 tons per day and is expected to operate until January 2024 (CalRecycle, 2020a). American Avenue Landfill has a maximum permitted capacity of 32,700,000 cubic yards, approximately 89.8 percent (29,358,535 cubic yards) of which had not been utilized as of July 2005 (CalRecycle, 2020b). The landfill has a maximum permitted intake of 2,200 tons per day and is expected to operate until August 2031 (CalRecycle, 2020d). In 2018, Visalia Landfill accepted a total of 326,762 tons of solid waste while American Avenue Landfill accepted 443,597 tons of solid waste (CalRecycle, 2020c). These intake quantities are approximately 45 percent and 55 percent of the maximum annual permitted intake for the Visalia Landfill and American Avenue Landfill, respectively.

#### **Gas and Electricity**

As described in **Section 2.2.5**, natural gas is utilized on the Rancheria, including the existing facilities on the project site. The natural gas provider is Southern California Gas Company (SoCalGas). The Rancheria is served by a buried gas main within the adjacent road right of ways.

As described in **Section 2.2.5**, electrical service is provided by Pacific Gas and Electric Company (PG&E) with back-up power provided by on-site diesel generators. The electrical transmission lines that provide power to the Rancheria are aligned east-west along Jersey Avenue. There is also a second set of transmission lines that connect to the Rancheria at the intersection of Jersey Avenue and 17<sup>th</sup> Avenue.

### **3.10.2 ENVIRONMENTAL CONSEQUENCES**

#### **Solid Waste**

Solid waste would continue to be transported and processed by Mid Valley Disposal, which has five transfer stations. The Tribe would comply with federal regulations applicable to the Proposed Project, including the Resource Conservation and Recovery Act. As noted above in **Section 3.4.3**, the reduction

of the amount of solid waste disposed to landfills is also required as mitigation to reduce the GHG emissions of the Proposed Project.

The solid waste generated by the Proposed Project is estimated below, and is based on generation rates provided by the California Department of Resources Recycling and Recovery (CalRecycle). As shown in **Table 3-28**, the increase in solid waste generated due to the Proposed Project is estimated at 2,987 pounds per day (or approximately 1.49 tons per day).

**TABLE 3-28**  
NET INCREASE IN SOLID WASTE GENERATION

Land Use	Generation Rate	Units of Measure	Proposed Rooms/ Seats/Square Footages	Daily Generated Waste
Casino	3.12	lb/100 sf/day	43,518 sf	1,358 lb/day
Bingo Hall and Event Center	3.12	lb/100 sf/day	8,582 sf	268 lb/day
Hotel	2.0	lb/room/day	200 rooms	400 lb/day
Wet Bar	1.0	lb/seat/day	150 seats	150 lb/day
Conference Center	3.12	lb/100 sf/day	20,000 sf	624 lb/day
Yokut Gas Convenience Store	3.12	lb/100 sf/day	6,000 sf	187 lb/day
<b>Total</b>				<b>2,987 lb/day</b>
<b>Total (tons/day)</b>				<b>1.49 tons/day</b>
Source of Generation Rates: CalRecycle, 2020d.				
Note: Conference Center waste generation is calculated assuming that an event occurs each day. This is a conservative assumption.				

The mitigation measure provided below would require a reduction of 50 percent in solid waste disposal (in compliance with the Integrated Waste Management Act). Therefore, the total amount of waste generated by the Proposed Project is estimated at 1,494 pounds per day (approximately 0.75 tons per day). Assuming an increase of 0.75 tons of waste per day, this would equate to approximately 273 tons per year of solid waste. In comparison to the total solid waste collected in 2018 for Visalia Landfill and American Avenue Landfill, this represents a 0.08 percent and 0.06 percent increase in the yearly intake at the landfill, respectively. Both landfills have adequate permitted maximum intake rates to accommodate this increase. Furthermore, while the estimated 2024 closure date of Visalia Landfill coincides with the anticipated full buildout for the Proposed Project, American Avenue Landfill is not tentatively scheduled for closure until 2031. Therefore, despite the tentative closure date of Visalia Landfill, American Avenue Landfill will be available and have capacity to accept the solid waste generated from the Proposed Project. In addition, there are other available landfills in the regional area. There would therefore be a less than significant adverse effect on solid waste services.

## Gas and Electricity

Operation of the Proposed Project would increase the demand for natural gas. The Tribe would continue to contract with SoCalGas for its natural gas demand. As described in **Section 2.2.5**, it is estimated that

the Proposed Project would result in an approximate 10 percent increase in natural gas usage, compared with current usage at the Rancheria. Consequently, increases in natural gas volumes in the gas main supplying the project site would be 10 percent or less, and thus it is unlikely that off-site improvement would be required. The Tribe would confirm the adequacy of existing off-site natural gas infrastructure prior to construction. In the unlikely event that upgrades to off-site facilities are required, these improvements would likely occur in previously disturbed areas and would be subject to environmental review. Because the project site and vicinity is already served by SoCalGas, any improvements would take the form of augmentations to existing SoCalGas infrastructure and would not require the construction of new facilities on undisturbed land.

The Proposed Project would be designed to meet or exceed the standards of Title 24 of the CCR, which sets minimum efficiency requirements for building construction materials and energy-consuming equipment in California. The Rancheria, including the existing facilities on the project site, has a current electrical energy demand of approximately 2,258 mwh per month. Electricity consumption will increase after completion of the Proposed Project. Similar to natural gas, it is estimated that the Proposed Project would result in an approximate 10 percent increase in electricity usage, compared with current usage at the Rancheria.

The Tribe is currently engaged in discussions with PG&E concerning this increase in electricity demands, which includes discussions related to infrastructure improvements that could be needed to serve the Proposed Project. At this time, no off-site infrastructure improvement requirements have been identified by PG&E. In the unlikely event that upgrades to off-site facilities are required, these improvements would likely occur in previously disturbed areas and would be subject to environmental review. Because the project site and vicinity is already served by PG&E, any improvements required by the Proposed Project would take the form of augmentations to existing PG&E infrastructure and would not require the construction of new facilities on undisturbed land.

## **Cumulative**

### ***Solid Waste***

Growth resulting from buildout of the County General Plan would increase disposal of solid waste to the American Avenue Landfill. Projected solid waste generation for the Proposed Project is a small addition to the waste stream and would not significantly decrease the life expectancy of the disposal site and landfills. Further, new development would pay appropriate monthly service fees, allowing for maintenance of the landfill. As capacity is available for cumulative growth, including the Proposed Project, no significant cumulative effects to solid waste services would occur.

### ***Gas and Electricity***

Individual projects would be responsible for paying development or user fees to receive electric and natural gas services. As such, the Tribe would pay a fair share of the upgrades needed to avoid affecting



the service of existing customers and any infrastructure necessary to provide service to the project site. The Proposed Project would not cause significant cumulative effects to energy or natural gas providers.

### **3.10.3 MITIGATION**

#### **Solid Waste**

The Tribe shall recycle at least 50 percent of solid waste generated by the Proposed Project to ensure that the Proposed Project does not impede the ability of the County's solid waste facilities to meet solid waste reductions required by State law.

## 3.11 SOCIOECONOMICS

### 3.11.1 EXISTING ENVIRONMENT

#### Population

In 2018 the population of the County was approximately 151,366 people (US Census, 2020). Hanford and Lemoore are the largest cities within the County, as measured by population. As of 2018, the populations of Hanford and Lemoore were estimated at 56,910 and 26,474 persons, respectively.

#### Housing

In 2010, there were approximately 43,867 total housing units within the County (Kings County 2016). Approximately 54 percent of these were owner-occupied properties and 46 percent were rental properties. In 2010 there were approximately 2,634 vacant units, or 6.0 percent of the total housing stock (Kings County, 2016). The U.S. Census publishes vacancy rates on a statewide basis and for the 75 largest Metropolitan Statistical Areas more frequently than the 10-year cycle of the national census. From 2010 to 2019 the vacancy rate of California owner-occupied houses declined from 2.5 percent to 1.1 percent, and the vacancy rate for rental properties declined from 7.5 percent to 4.2 percent (US Census, 2019). Given these trends, it is reasonable to conclude that Kings County vacancy has declined from 6.0 percent to approximately 4.5 percent as of 2019, which equates to approximately 2,000 vacant units.

#### Employment

Data on the Kings County civilian workforce, employment and unemployment are presented below in **Table 3-29**. The median household income in the County during 2018 was approximately \$53,865. As of 2018, the median household income of the cities of Hanford and Lemoore were \$61,647 and \$56,606, respectively (US Census, 2020).

**TABLE 3-29**  
KINGS COUNTY EMPLOYMENT DATA

Year	Civilian Labor Force	Employment	Unemployment	Unemployment Rate
2012	58,807	50,049	8,758	14.9%
2013	58,198	50,387	7,811	13.4%
2014	57,441	50,599	6,842	11.9%
2015	57,756	51,691	6,065	10.5%
2016	57,189	51,492	5,697	10.0%
2017	57,376	52,280	5,096	8.9%
2018	57,865	53,384	4,481	7.7%
Source: US BLS, 2018.				

Employment data for the counties adjacent to Kings County are presented in **Table 3-30**.

**TABLE 3-30**  
2018 COUNTY EMPLOYMENT DATA

County	Civilian Labor Force	Employment	Unemployment	Unemployment Rate
Fresno	448,353	414,926	33,427	7.5%
Kern	386,997	356,132	30,865	8.0%
Kings	57,865	53,384	4,481	7.7%
Tulare	204,589	184,940	19,649	9.6%
Source: U.S. Bureau of Labor Statistics (BLS) county level data obtained from the Local Area Unemployment Statistics (LAUS) page (US BLS, 2018).				

## Property Taxes

The project site is currently held in trust for the Tribe by the federal government. As such, the project site is not subject to property taxes.

### 3.11.2 ENVIRONMENTAL CONSEQUENCES

The Proposed Project would have a positive impact on current socioeconomic conditions within the area to a greater degree than the current impact of the existing operations at the project site. New jobs for members of the Tribe, as well as jobs for non-tribal members, would be created by the Proposed Project. The revenues generated by the Proposed Project could be used by the Tribe to improve the socioeconomic status of the Tribe, as described in **Section 1.3**.

## Fiscal Analysis

There is a common misconception that operations on land held in trust do not generate fiscal benefits beyond tribal governments. This is because tribes, as sovereign governments, do not pay corporate income taxes on revenue or property taxes on tribal land; tribal members that both live and work on a Reservation do not pay state income taxes; and state and/or local sales/excise taxes are not collected on purchases by tribal members on reservations. However, taxes are paid in all other circumstances, including: purchases made by non-tribal members, income taxes paid by non-tribal members or members that live off of the Reservation, and all indirect and induced activity generated during operation. As such, federal, state, and local governments typically experience substantial fiscal benefits from tribal business operations. As stated in **Section 3.11.1** above, the project site is already held in trust by the federal government; as such, no property tax loss would occur with the project. The increased economic activity and job creation of the Proposed Project would result in increased tax collections, and thus would generate beneficial off-Reservation fiscal impacts.

The Proposed Project would introduce an increased number of patrons and employees into the community on a daily basis. As a result, criminal incidents may increase in the project area, particularly at the project site, as with any other development of this size. The Proposed Project is expected to result in a 388,300 increase in annual patrons (Tribe, 2020). Fiscal impacts related to the Proposed Project are calculated in **Section 3.8**, and are estimated at \$125,000 per year, in 2019 dollars. This is comprised of fiscal impacts to the Kings County Fire Department (KCFD) and Kings County Sheriff's Office (KCSO) of \$55,000 and \$70,000, respectively. These dollar amounts will likely increase slightly during the first full year of operations, due to the occurrence of inflation. Please see **Section 3.8.2** for a quantitative analysis of these impacts.

## **Problem Gambling**

Residents of the County are presently exposed to gaming facilities, including the existing Casino Resort. Thus, the Proposed Project would not substantially increase the availability of gaming venues to persons who are at risk of problem gambling.

## **Growth Inducement**

### *Employment Impact*

Development of the Proposed Project would result in one-time employment opportunities from construction and permanent employment opportunities from operation. These opportunities would result from direct as well as indirect and induced effects. Construction employment opportunities would be temporary in nature, and would not be anticipated to result in the permanent relocation of employees into the County. Operation of the Proposed Project is anticipated to result in approximately 100 jobs at the project (i.e., direct jobs) (Tribe, 2020). In addition, operation of the Proposed Project will generate an estimated 50 indirect and induced jobs, which would occur as a result of the direct income and wages of the Proposed Project propagating throughout the County. Jobs of the Proposed Project are expected to be filled by a combination of local unemployed workers, underemployed persons, and new residents.

The level of unemployment in Kings County is currently approximately 4,481 persons (as of 2018). Recent trends in unemployment evidence a decline in the number of unemployed persons. However, as the state and national economies are currently at levels near or at historically low levels of unemployment, it is estimated that the Kings County unemployment number has not declined substantially from 2018 levels. Also, the recent spike in unemployment from the COVID-19 Virus has caused unemployment claims to increase dramatically, although such claims are expected to moderate as the crisis abates. For these reasons, we estimate the Kings County civilian labor force, employment, unemployment rate and number of unemployed persons during the first full year of operations at approximately 58,060, 54,000, 7.0% and 4,060, respectively.

According to the most recent data from the U.S. Census Bureau, approximately 54.3 percent of the jobs that occur in Kings County are held by residents of Kings County. Information regarding the residency of persons who work in Kings County is summarized below.

**TABLE 3-31**  
2017 KING COUNTY WORKERS RESIDENCY LOCATION

County of Residence	Employment	Share
Kings	23,883	54.3%
Tulare	6,892	15.7%
Fresno	5,934	13.5%
Los Angeles	1,105	2.5%
Kern	1,070	2.4%
Other	5,103	11.6%
Total (1)	43,987	100.0%
Source: US Census, 2017.		

As illustrated in **Table 3-31**, approximately 54.3 percent of Kings County jobs are held by County residents. This implies that approximately 54.3 percent or 81 of the 150 jobs created by the Proposed Project will accrue to residents of Kings County. The remainder of jobs will accrue to residents of adjacent and nearby counties. This level of job creation would represent approximately 0.3 percent of the estimated 54,000 of County employed persons and 3.7 percent of the approximately 4,060 unemployed persons during the first full year of operations. This increase in King's County employment would be considered a beneficial effect.

### *Housing*

Employment opportunities would potentially include employees that relocate to the project area from outside of the County. As discussed in **Section 3.11.1**, as of 2019, approximately 2,000 housing units (5.5 percent) were vacant within the County. As described above, it is estimated that the operation of the Proposed Project will create 81 new jobs that will be filled by current and future residents of Kings County. The majority of these positions are anticipated to be filled by people already residing within the County. As such, there are anticipated to be more than enough vacant homes to support any potential impacts to the regional labor market under the Proposed Project. The Proposed Project is not expected to stimulate regional housing development that would result in significant adverse off-Reservation effects.

### *Commercial Development*

The potential for commercial growth resulting from the development of the Proposed Project would result from fiscal output generated throughout the County. Regional businesses would experience indirect economic growth as a result of expenditures by the Proposed Project on goods and services at off-site

businesses. In addition, employees from the Proposed Project would generate induced economic output through expenditures of employee wages at local businesses. Indirect and induced economic output could stimulate further commercial growth in the region; however, such demand would be diffused and distributed among a variety of different sectors and businesses throughout the County. As such, significant regional commercial growth would not be anticipated to occur.

Development in the County or nearby cities within the County would be subject to the constraints of their general plans, local ordinances, and other planning documents. New projects resulting from any induced effect would be subject to appropriate project-level environmental analysis. As discussed above, the minimal amount of commercial growth that may be induced by the Proposed Project would not result in significant adverse off-Reservation environmental effects.

### **3.11.3 MITIGATION**

See mitigation in **Section 3.8.3**.

### 3.12 INDIRECT IMPACTS OF MITIGATION

The implementation of traffic mitigation, as described in **Section 3.9.3**, as well as the construction of proposed access intersections along Jersey Avenue, would result in indirect off-Reservation impacts as described below. Off-site traffic mitigation improvements are conceptual at this time. Design and construction plans would be prepared after approval of this TEA.

As described in **Table 3-27**, the following traffic mitigation improvements are recommended at intersections and roadway segments along Jersey Avenue:

- Jersey Avenue and SR 41 – widen the westbound approach to one left turn lane and one through lane with a shared right (adding one left turn lane) (recommended under Existing Conditions); install traffic signal (recommended under Near-term and Cumulative Conditions);
- Jersey Avenue and 18<sup>th</sup> Avenue – install traffic signal (recommended under Cumulative Conditions).

The following section identifies the potential indirect environmental effects of construction of off-site traffic mitigation improvements. Off-site projects would require obtaining approvals and permits from the County and may be subject to CEQA, which requires additional environmental review prior to approval. Implementation of permitting and CEQA requirements would further reduce the potential for significant adverse impacts from off-site traffic mitigation.

#### 3.12.1 AESTHETICS

Visual effects would occur as the result of modification and expansion of existing roadways. However, because the improvements would occur to existing, previously developed roadways (versus the construction of new roadways in previously undeveloped areas), changes to the visual setting would not be significant. Intersection improvements would conform to the applicable County design standards. Aesthetic impacts resulting from construction of traffic mitigation would be less than significant.

#### 3.12.2 AIR QUALITY AND GREENHOUSE GAS EMISSIONS

Development of roadway improvements would result in short term, construction-related air pollutant emissions. Construction would produce two types of air contaminants: exhaust emissions from construction equipment and fugitive dust generated as a result of demolition and soil movement. Construction of improvements would be limited in scope and duration. The limited nature of roadway improvement construction activities combined with adherence to the SJVAPCD rules and regulations would result in less-than-significant indirect effects to air quality. Construction of traffic mitigation improvements would be much less extensive than the Proposed Project; correspondingly, GHG emissions would be lesser. Given the limited and temporary nature of roadway improvement construction activities, GHG emissions would be less than significant.

Operational effects would occur if the roadway or utility improvements resulted in localized increases in CO concentrations or if the improvements contributed to traffic congestion at large intersections. However, it is expected that the roadway improvements described in **Section 3.9.3** would reduce congestion and improve traffic flow. With the improved circulation resulting from traffic mitigation, LOS would be improved, thereby reducing idling time and associated vehicle emissions. The operational effects to air quality from roadway improvements would be less than significant.

### **3.12.3 BIOLOGICAL RESOURCES**

Under existing plus project conditions, traffic intersection improvements would only be required at one intersection (Jersey Avenue and SR 41). Construction of the roadway improvements would result in loss of some existing ruderal vegetation. Most of the habitat that exists in the area of proposed roadway improvements is highly disturbed and consist of paved areas, compacted dirt or graveled road shoulders, and ornamental or weedy vegetation. Due to the degraded condition of the roadside area, habitat quality is generally low, and it is unlikely that construction of the roadway or utility improvements would result in any adverse effects to sensitive plant or animal species. Prior to construction, surveys for special status species, nesting migratory birds and sensitive habitats such as riparian and wetlands would be conducted in accordance with CEQA. The County would develop site-specific mitigation measures, such as the establishment of buffer areas, and the County would acquire any necessary permits for impacts to waterways and wetlands in accordance with regulatory requirements. Compliance with CEQA and adherence to regulatory requirements that protect special status species, nesting birds, and Waters of the U.S. would ensure that impacts to biological resources from construction of traffic mitigation and utility improvements would be less than significant.

Under near term or cumulative plus project conditions, traffic intersection improvements (Jersey Avenue and SR 41; Jersey Avenue and 18<sup>th</sup> Avenue) would not result in the loss or modification of habitat in the roadside areas.

### **3.12.4 CULTURAL RESOURCES**

The construction of roadway improvements has the potential to disturb archaeological resources. Grading roadsides to add traffic lanes may disturb previously unknown sites. Due to prior grading of the existing roadways and occasional traffic on roadsides it is likely that resources remaining in these areas would be highly disturbed and lack integrity, thus diminishing their significance.

Potential off-site improvement projects would be subject to the protection of cultural resources afforded by the CEQA *Guidelines* §15064.5 and related provisions of the Public Resources Code. The lead agency under CEQA would be required to mitigate potential impacts to a less than significant level or to issue a finding of fact and statement of overriding considerations if significant impacts could not be mitigated. Mitigation may include the avoidance of resources; the preservation of key historical features; or the removal, documentation, and curation of cultural resources. Therefore, with the implementation of



measures that the County would be required to implement per CEQA *Guidelines*, a less-than-significant indirect effect to cultural resources would result.

### **3.12.5 HYDROLOGY AND WATER QUALITY**

Construction of traffic mitigation improvements could increase impervious surfaces and modify drainage patterns. Potential effects include an increase in runoff and erosion, which could cause localized flooding and adversely affect surface water quality due to increases in sediment and roadway pollutants such as grease and oil.

As discussed above, construction of improvements that exceed one acre of land would be required to comply with the NPDES General Construction Permit Program, including the development of a SWPPP that would include soil erosion and sediment control practices to reduce the amount of exposed soil, prevent runoff from flowing across disturbed areas, slow runoff from the site, and remove sediment from the runoff.

Curbs, gutters, inlets, and other drainage facilities would be constructed to meet the standards of local jurisdictional agencies and provide adequate facilities to direct stormwater runoff. With incorporation of these drainage features and compliance with the soil erosion and sediment control practices identified in the SWPPP, as well as erosion control mitigation and construction BMPs included in **Section 3.6.3**, effects to water resources would be less than significant. Therefore, there would be no significant indirect effects to water resources as a result of off-site traffic mitigation and utility improvements.

### **3.12.6 NOISE**

Construction of roadway improvements would result in short-term increases to local ambient noise levels. Because construction activities are expected to occur during normal daytime hours and the closest receptors are businesses, significant adverse effects to the ambient noise environment would not occur. Implementation of roadway improvements would not result in significant adverse indirect effects associated with noise.

### **3.12.7 PUBLIC SERVICES AND UTILITIES**

Traffic improvements may require relocation of utilities near existing roadways, including overhead electricity lines and telecommunication lines. Relocation of these lines could result in a temporary break in service to some homes and businesses in the area. However, because these effects are common when upgrading and maintaining utility services, and because potential service breaks would be temporary, these effects are considered less than significant. No effects to police, fire, or emergency medical services are expected, as access to homes and businesses would be maintained during the construction period. Therefore, there would be no indirect effects to public services as a result of off-site traffic mitigation.

### **3.12.8 TRANSPORTATION**

Construction of off-site improvements would result in short term inconveniences and minor delays due to constricted traffic movements. The intersection improvements are not expected to result in long term disruptions of access to surrounding land uses. If construction activities would require temporary lane closures to accommodate construction equipment, a traffic management plan would be prepared in accordance with the jurisdictional agency requirements, thus avoiding potentially adverse temporary effects.

## ***4.0 REPORT PREPARATION***

---

# **SECTION 4.0**

---

## **REPORT PREPARATION**

### **TRIBAL ENVIRONMENTAL ASSESSMENT CONSULTANTS**

#### **ANALYTICAL ENVIRONMENTAL SERVICES**

Project Manager: Ryan Sawyer, AICP

Technical Staff: Sally Zeff, AICP  
Kristen Miner  
Marcus Barrango  
John Fox  
Kayla Knott  
Dana Hirschberg  
Glenn Mayfield  
Charlane Gross  
Kathleen Sholty

#### **VRPA TECHNOLOGIES, INC. – TRAFFIC IMPACT STUDY**

Jason Ellard, Transportation Engineer

## ***5.0 REFERENCES***

---

# SECTION 5.0

## REFERENCES

---

Berger, Elliot, Rick Neitzel, and Cynthia A. Kladden. 2015. *Noise Navigator Sound Level Database Version 1.8*. Available online at: <http://multimedia.3m.com/mws/media/888553O/noise-navigator-sound-level-hearing-protection-database.pdf>. Accessed May 1, 2020.

California Air Resource Board (CARB). 2007. *Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration*. October 2007. Available online at: [https://www.arb.ca.gov/cc/ccea/meetings/ea\\_final\\_report.pdf](https://www.arb.ca.gov/cc/ccea/meetings/ea_final_report.pdf). Accessed May 1, 2020.

CARB. 2008. *Climate Change Scoping Plan*. December 2008. Available online at: [https://www.arb.ca.gov/cc/scopingplan/document/adopted\\_scoping\\_plan.pdf](https://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf). May 1, 2020.

CARB. 2016. *Ambient Air Quality Standards*. May 4, 2016. Available online at: <https://www.arb.ca.gov/research/aaqs/aaqs2.pdf>. Accessed February 17, 2020.

CARB. 2017. *Climate Change Scoping Plan Update, 2017*. Available online at: [https://ww3.arb.ca.gov/cc/scopingplan/scoping\\_plan\\_2017.pdf](https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf). Accessed March 2, 2020.

CARB. 2019. *California Greenhouse Gas Emissions for 2000 to 2017 – 2019 Edition*. Available online at: [https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000\\_2017/ghg\\_inventory\\_trends\\_00-17.pdf](https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2017/ghg_inventory_trends_00-17.pdf). Accessed March 2, 2020.

CARB. 2018. *San Joaquin Valley Air Quality Management Plans*. July 23, 2018. Available online at: <https://www.arb.ca.gov/planning/sip/planarea/sanjqnvllysip.htm>. Accessed February 17, 2020.

CARB. 2020. *iADAM Air Quality Data Statistics. Select 8 Summary*. Available online at: <https://www.arb.ca.gov/adam/>. Accessed February 17, 2020.

CAL FIRE, 2007. *California Department of Forestry and Fire Protection (CAL FIRE) Fire Hazard Severity Zone Maps*. Available online at: <https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/>. Accessed on April 9, 2020.

- California Department of Resources Recycling and Recovery (CalRecycle). 2020a. SWIS Facility Detail, Visalia Disposal Site (54-AA-0009). Available online at: <https://www2.calrecycle.ca.gov/swfacilities/Directory/54-AA-0009>. Accessed April 13, 2020.
- CalRecycle, 2020b. SWIS Facility Detail, American Avenue Disposal Site (10-AA-0009). Available online at: <https://www2.calrecycle.ca.gov/swfacilities/Directory/10-AA-0009/>. Accessed on April 13, 2020.
- CalRecycle. 2020c. 2018 Landfill Summary Tonnage Report. Available online at: <https://www2.calrecycle.ca.gov/LandfillTipFees/>. Accessed on April 13, 2020.
- CalRecycle. 2020d. *Estimated Solid Waste Generation Rates*. Available online at: <https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates>. Accessed April 9, 2020.
- California Department of Transportation (Caltrans). 2019. *List of eligible and officially designated State Scenic Highways*. Available online at: <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>. Accessed on February 21, 2020.
- California Energy Commission. 2020. California Energy Commission Interactive Energy Map. Available online at: <https://cecgis-caenergy.opendata.arcgis.com/app/cad8dec8bb4045d0a841573ce3ac81f5>. Accessed March 12, 2020.
- Caltrans. 2020. Water Quality Planning Tool. Available online at: <http://svctenvims.dot.ca.gov/wqpt/wqpt.aspx>. Accessed March 3, 2020.
- CEQ, 2019. Draft National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions. Available online: <https://www.govinfo.gov/content/pkg/FR-2019-06-26/pdf/2019-13576.pdf>. Accessed May 1, 2020.
- California Regional Water Quality Control Board Central Valley Region, 2018. *Water Quality Control Plan for the Tulare Lake Basin, Third Edition, Revised May 2018 (with Approved Amendments)*. Available online at: <http://dl.icdst.org/pdfs/files3/79494e12c154fb2ca7bfad9fc0c3f727.pdf>. Accessed March 16, 2020.
- Climate Action Team (CAT). 2007. *Climate Action Team Proposed Early Actions to Mitigate Climate Change in California*. Available online at: [http://www.climatechange.ca.gov/climate\\_action\\_team/reports/2007-04-20\\_CAT\\_REPORT.PDF](http://www.climatechange.ca.gov/climate_action_team/reports/2007-04-20_CAT_REPORT.PDF). Accessed May 1, 2020.

- Federal Emergency Management Agency (FEMA). 2009. *Flood Insurance Rate Map 06019C1035H*. February 18, 2009. Available online at: <https://msc.fema.gov/portal/search?AddressQuery=friant%2C%20ca#searchresultsanchor>. Accessed March 3, 2020.
- Federal Highway Administration (FHWA). 2006. *Construction Noise Handbook*. Available online at: [https://www.fhwa.dot.gov/environment/noise/construction\\_noise/handbook/handbook08.cfm](https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook08.cfm). Accessed May 1, 2020.
- FHWA. 2010. *Highway Traffic Noise: Analysis and Abatement Guidance*. Available online at: [http://www.fhwa.dot.gov/environment/noise/regulations\\_and\\_guidance/analysis\\_and\\_abatement\\_guidance/revguidance.pdf](http://www.fhwa.dot.gov/environment/noise/regulations_and_guidance/analysis_and_abatement_guidance/revguidance.pdf). Accessed May 1, 2020.
- Federal Interagency Committee on Noise (FICON). 1992. *Federal Agency Review of Selected Airport Noise Analysis Issues*. August 1992. Available online at: [http://www.gsweventcenter.com/Draft\\_SEIR\\_References/1992\\_08\\_Federal\\_Interagency\\_Committee\\_on\\_Noise.pdf](http://www.gsweventcenter.com/Draft_SEIR_References/1992_08_Federal_Interagency_Committee_on_Noise.pdf). Accessed May 1, 2020.
- Kings County, 2003. *Memorandum of Understanding between the County of Kings and the Santa Rosa Rancheria Concerning Mitigation of Significant Public Service Impacts*, dated September 9, 2003.
- Kings County, 2010. *Open Space Element*. January 26, 2010. Available online at: <https://www.countyofkings.com/home/showdocument?id=3106>. Accessed February 21, 2020.
- Kings County, 2012. Kings County Community Development Agency. February 20, 2012. Available online at: <https://www.countyofkings.com/home/showdocument?id=3176>. Accessed March 12, 2020.
- Kings County, 2013. Community-Wide Greenhouse Gas Emission Inventory for the County of Kings. Available online: <https://www.kingscog.org/vertical/sites/%7BC427AE30-9936-4733-B9D4-140709AD3BBF%7D/uploads/GHGEmissionsInventory.pdf>. Accessed May 1, 2020.
- Kings County, 2015a. Kings County General Plan Noise Element. Available online: <http://www.countyofkings.com/home/showdocument?id=3120>. Accessed May 1, 2020.
- Kings County, 2015b. Kings County General Plan Circulation Element. Available online: <https://www.countyofkings.com/home/showdocument?id=3116>. Accessed May 1, 2020.



- Kings County, 2016. *2016 – 2024 Housing Element*. January 26, 2016. Available online at: <https://www.countyofkings.com/home/showdocument?id=17093>. Accessed February 17, 2020.
- Kings County, 2020. *County of Kings Final Budget Book, Fiscal Year 2019-2020*, Volumes I and II. September 19, 2019. Available online at: <https://www.countyofkings.com/departments/administration/budget>. Accessed online April 7, 2020.
- KCFD, 2018. Kings County Fire Department (KCFD) Office of Emergency Management, 2018 presentation. Available online at: <https://www.countyofkings.com/home/showdocument?id=19674>. Accessed April 7, 2020.
- KCFD, 2020a. KCFD website, available online at: <https://www.countyofkings.com/departments/fire-department>. Accessed online April 7, 2020
- KCFD, 2020b. Email correspondence from KCFD.
- KCSO, 2020. Kings County Sheriff's Office (KCSO) Calls for Service reports for 17225 Jersey Avenue. Provided by KCSO via email.
- Mid Valley Disposal, 2020. Personal communication between AES (Kristen Miner) and Mid Valley Disposal (Customer Service Representative) on April 8, 2020.
- San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Air Quality Thresholds of Significance – Criteria Pollutants. March 19, 2015. Available online at: <http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf>. Accessed February 17, 2020.
- SJVAPCD. n.d. Ambient Air Quality Standards and Valley Attainment Status. Available online at: <https://www.valleyair.org/aqinfo/attainment.htm>. Accessed February 17, 2020.
- Tachi-Yokut Tribe (Tribe), 2016. Tribal news release dated August 25, 2016. Available online at: <https://www.tachipalace.com/august-2016-tachi-palace-and-santa-rosa-rancheria-tachi-yokut-tribe-make-donations-to-aid-local-fire-relief-efforts/>. Accessed April 7, 2020.
- Tachi-Yokut Tribe (Tribe), 2020. Documents provided by the Tribe and email correspondence with Tribal representatives.

Tri-County Water Authority, Southwest Kings Groundwater Sustainability Agency, El Rico GSA, South Fork Kings Groundwater Sustainability Agency, and Mid-Kings River Groundwater Sustainability Agency (Tri-County Water Authority et al.). 2020. *Tulare Lake Subbasin Groundwater Sustainability Plan, Volume I*. January 2020. Available online at: <https://southforkkings.org/gsp/>. Accessed April, 2020.

US BLS, 2018. United States Bureau of Labor Statistics (US BLS) county level data obtained from the Local Area Unemployment Statistics (LAUS) page, accessed online March 17, 2020 at: <https://www.bls.gov/lau/#tables>, then by accessing *Tables* in the Featured *LAU Searchable Databases function*.

US Census, 2017. United States Census Bureau (US Census) Longitudinal Employer-Household Dynamics (LEHD) data, Origin-Destination Employment Statistics (LODES) *OnTheMap* feature, and Analysis Type: Destination/Counties. Accessed online March 17, 2020 at: <https://onthemap.ces.census.gov/>

US Census, 2019. Housing Vacancies and Homeownership (CPS/HVS) screen, Quarterly Vacancy and Homeownership Rates by State and MSA. Table 1, Rental Vacancy Rates by State: 2005 to 2019 and Table 2, Homeowner Vacancy Rates by State: 2005 to 2019. Accessed online April 3, 2019 at: <https://www.census.gov/housing/hvs/data/rates.html>

US Census, 2020. US Census *QuickFacts* sheet. Accessed online April 3, 2020 at <https://www.census.gov/quickfacts/fact/table/US/PST045219>

USEPA. 2014. Federal Register/Vol. 75, No. 44. March 8, 2010. Available online at: <https://www.gpo.gov/fdsys/pkg/FR-2010-03-08/pdf/2010-4823.pdf>. Accessed May 18, 2018.

USEPA. 2019. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2017. 2019. Available online at: <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2017>. Accessed March 2, 2020.