



FINAL ENVIRONMENTAL IMPACT STATEMENT

TEJON INDIAN TRIBE TRUST ACQUISITION AND CASINO PROJECT

VOLUME I - EIS

OCTOBER 2020

LEAD AGENCY:

U.S. Department of the Interior
Bureau of Indian Affairs
Pacific Region Office
2800 Cottage Way # W2820
Sacramento, CA 95825



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EXECUTIVE SUMMARY

***TEJON INDIAN TRIBE
TRUST ACQUISITION AND CASINO PROJECT
FINAL ENVIRONMENTAL IMPACT STATEMENT***

EXECUTIVE SUMMARY

TEJON INDIAN TRIBE TRUST ACQUISITION AND CASINO FINAL ENVIRONMENTAL IMPACT STATEMENT

ES.1 INTRODUCTION

The Bureau of Indian Affairs (BIA) has prepared the Final Environmental Impact Statement (EIS) for the proposed trust acquisition of approximately 306 acres for the Tejon Indian Tribe (Tribe) in an unincorporated area of Kern County, California, in compliance with the National Environmental Policy Act (NEPA). The three Proposed Actions consist of the transfer of an approximately 306-acre property (Mettler Site) from fee to federal trust status for the benefit of the Tribe, issuing a Secretarial Determination, also known as a Two-Part Determination, to determine whether the Tribe can conduct gaming on the Mettler Site, and the approval of a management contract by the National Indian Gaming Commission (NIGC). This Final EIS was prepared to assess the environmental consequences of the Proposed Action and various alternatives.

NEPA integrates environmental considerations into the planning process and decisions of federal agencies and provides an interdisciplinary framework to ensure that federal agency decision makers consider environmental factors. NEPA requires the preparation of an EIS for major federal actions that may significantly affect the quality of the environment. The BIA serves as the Lead Agency for NEPA compliance with the U.S. Environmental Protection Agency, Kern County, the Tribe, and the NIGC serving as Cooperating Agencies.

The Tribe proposes to develop approximately 80 acres of the Mettler Site with a casino resort and associated facilities, a fire and sheriff station, water infrastructure, and wastewater treatment and disposal facilities (Proposed Project). The casino would be managed by a professional management company on behalf of the Tribe pursuant to the terms of a management contract to be approved by the NIGC.

ES.2 PURPOSE AND NEED

The federal Proposed Actions consist of: (1) the transfer of the Mettler Site into trust pursuant to the authority of the Secretary of Interior (Secretary) under Section 5 of the Indian Reorganization Act, 25 USC § 5108; (2) the issuance of a Two-Part Determination under Section 20 of the Indian Gaming Regulatory Act, 25 USC § 2719 (b)(1)(A); and (3) the approval of a management contract by the Chairman of the NIGC under 25 USC § 2711. The purpose of the Proposed Actions is to facilitate tribal self-sufficiency, self-determination, and economic development. This purpose satisfies the Department of the Interior's (Department) land acquisition policy as articulated in Department's trust land acquisition regulations at 25 CFR Part 151, and is the principle goal of IGRA as articulated in 25 USC § 2701. The need for the Department to act on the Tribe's application is established by the Department's trust land acquisition regulations at 25 CFR §§ 151.10(h) and 151.12, the Department's Two-Part regulations at § 292.18(a), and the NIGC's regulations for review of management contracts at 25 CFR Part 533.

ES.3 ALTERNATIVES

This document describes and analyzes four development alternatives (Alternatives A1, A2, A3, and B) and the No Action Alternative (Alternative C) that are described in detail in **Section 2.0** and summarized below. Other alternatives, described in **Appendix B**, were evaluated and eliminated from consideration.

The Executive Summary Table (included as **Appendix A**) summarizes potential environmental effects for each alternative, mitigation measures to avoid or minimize impacts, and levels of significance for each environmental impact.

ALTERNATIVE A – DEVELOPMENT ON THE METTLER SITE

Alternative A1 – Casino and Mixed-Use Development Alternative

Alternative A1 is the Proposed Project and includes the following: (1) the transfer of the Mettler Site from fee to federal trust status for the benefit of the Tribe; (2) issuance of a Two-Part Determination by the Secretary; (3) approval of the proposed management contract by the Chairperson of the NIGC; and (4) subsequent development by the Tribe of a portion of the Mettler Site with a variety of uses including a casino resort, recreational vehicle (RV) park, fire and sheriff station, water infrastructure, wastewater treatment and disposal facilities, and other supporting facilities.

Alternative A2 – Reduced Casino and Mixed-Use Development Alternative

Alternative A2 would involve the same federal actions as Alternative A1; however, the Tribe would construct a smaller scale development. Under Alternative A2, the size of the casino, restaurants, hotel, and associated parking would be reduced by approximately 23 percent as compared to Alternative A1, and the RV park would be eliminated.

Alternative A3 – Organic Farming Alternative

Alternative A3 would involve the fee-to-trust transfer of the Mettler Site, and the conversion of the existing conventional agriculture within the Mettler Site to organic farming.

ALTERNATIVE B – CASINO DEVELOPMENT ON THE MARICOPA HIGHWAY SITE

Alternative B would involve the same federal actions as Alternative A1 but specific to a 118-acre site in Kern County (Maricopa Highway Site) instead of the Mettler Site. The Tribe would develop a similar casino resort as under Alternative A1, but the RV park would be 50 spaces rather than the 220 spaces under Alternative A1 (refer to **Table 2-2**).

ALTERNATIVE C – NO ACTION ALTERNATIVE

Under the No Action Alternative, none of the development alternatives considered within this EIS would be implemented. The No Action Alternative assumes that neither the Mettler Site nor the Maricopa Highway Site would be taken into trust.

ALTERNATIVES ELIMINATED FROM CONSIDERATION

The BIA considered and rejected additional alternatives from the full EIS analysis because the suggested alternative did not: (1) meet the purpose and need for the Proposed Actions, (2) appear to be reasonably feasible, (3) reduce environmental impacts, or (4) contribute to a reasonable range of alternatives. These rejected alternatives include gaming and non-gaming alternatives. The Department's consideration of the additional alternatives and reasons for rejecting each of them is set forth in **Appendix B**.

ES.4 POTENTIAL ISSUES IDENTIFIED IN THE SCOPING PROCESS

Potential areas of controversy were identified early in the NEPA review process during “scoping.” Scoping included the issuance of a Notice of Intent that described the Proposed Actions and alternatives, and the announcement of the intent of the BIA to prepare an EIS. The results of the scoping process were made available in a Scoping Report published by the BIA in February 2019. Potential issues raised during scoping generally fell into the following categories.

- Aesthetics
- Air Quality and Greenhouse Gases
- Alternatives and Purpose and Need
- Biological Resources
- Cultural and Paleontological Resources
- Cumulative Effects
- Geology and Soils
- Hazardous Materials
- Indirect/Growth-Inducing Effects
- Noise
- Procedural and Non-EIS Issues
- Socioeconomics and Environmental Justice
- Transportation
- Water Resources

To the extent required by NEPA, this EIS has analyzed and incorporated these potential issues.

ES.5 SUMMARY MATRIX

The potential adverse and beneficial effects, as well as mitigation measures, relevant to each alternative are presented in **Table ES-1**, included as **Appendix A**. For a detailed discussion of environmental consequences and mitigation measures, refer to **Section 3.0** and **Section 4.0** of this EIS.

SECTION 1.0

INTRODUCTION

SECTION 1.0

INTRODUCTION

1.1 SUMMARY OF THE PROPOSED ACTION

This Environmental Impact Statement (EIS) has been prepared pursuant to the National Environmental Policy Act (NEPA) to assess the environmental impacts of the proposed trust acquisition of approximately 306 acres for the Tejon Indian Tribe (Tribe) in an unincorporated area of Kern County, California. The three Proposed Actions and subsequent development of the site by the Tribe are:

- the transfer of approximately 306 acres in Kern County (County), California (referred to herein as the Mettler Site), into federal trust status for the benefit of the Tribe under Section 5 of the Indian Reorganization Act (IRA) (25 USC § 5108),
- the issuance of a Two-Part Determination by the Secretary of the Interior (Secretary) under Section 20 of the Indian Gaming Regulatory Act (IGRA) (25 USC § 2719(b)(1)(A)),
- the approval by the Chairperson of the National Indian Gaming Commission (NIGC) of a management contract, and
- subsequent development of a portion of the Mettler Site by the Tribe with a variety of uses including a casino resort, recreational vehicle (RV) park, fire and sheriff station, water infrastructure, wastewater treatment and disposal facilities, and other supporting facilities (Proposed Project).

The Secretary of the Interior will use the information and analysis in the EIS to determine whether to transfer the Mettler Site into trust, and to prepare the Two-Part Determination that will determine whether the Tribe is eligible to conduct gaming activities on the Mettler Site.

This EIS has been completed in accordance with the applicable requirements of NEPA, its implementing regulations and guidance, and the BIA NEPA Guidebook (59 Indian Affairs Manual [IAM] 3-H). NEPA requires the Lead Agency to review and analyze the environmental impacts associated with the Proposed Action and alternatives. This document provides a detailed description of a reasonable range of alternatives, including four development alternatives and the no action alternative; an analysis of the potential environmental consequences associated with the five alternatives; and a discussion of avoidance and mitigation measures. Detailed descriptions of the five alternatives are included in **Section 2.0** of this EIS. For this EIS, the BIA serves as the Lead Agency for compliance with NEPA with the U.S. Environmental Protection Agency (USEPA), NIGC, the Tribe, and the County serving as Cooperating Agencies.

At the request of the tribe, this EIS has been prepared to comply with the expected requirements of a tribal environmental ordinance, which may require a Tribal Environmental Impact Report (TEIR). To reduce paperwork and eliminate redundancy, the EIS and the TEIR have been prepared in coordination, resulting in a joint EIS/TEIR, hereinafter referred to as an EIS. A TEIR checklist is provided in **Appendix C**.

1.2 PURPOSE AND NEED

The purpose of the Proposed Actions is to facilitate tribal self-sufficiency, self-determination, and economic development. This purpose satisfies the Department of the Interior's (Department) land acquisition policy as articulated in Department's trust land acquisition regulations at 25 CFR Part 151, and is the principle goal of IGRA as articulated in 25 USC § 2701. The need for the Department to act on the Tribe's application is established by the Department's trust land acquisition

regulations at 25 CFR §§ 151.10(h) and 151.12, the Department's Two-Part regulations at § 292.18(a), and the NIGC's regulations for review of management contracts at 25 CFR Part 533.

1.3 BACKGROUND

In 1851, the United States established treaties with certain tribes including the Tejon Tribe (herein referred to as the 1851 Treaty). Under the terms of the 1851 Treaty, the signatory tribes agreed to cede their aboriginal lands to the United States in exchange for a 763,000-acre reservation between Tejon Pass and the Kern River. By February 1852, the 1851 Treaty – along with seventeen additional treaties negotiated with other California Indians – had been submitted to the United States Senate for consideration and ratification. On June 8, 1852, the Senate declined to ratify any of the treaties negotiated with the California tribes. The described reservation, identified as Royce Area 285, C. Royce, *Eighteenth Annual Report of the Bureau of American Ethnology, Part 2*, p. 782 (Bureau of American Ethnology, 1851), was never formally set aside; nonetheless, the BIA brought the treating tribes to the would-be reservation, and administered a smaller portion of the area as a reservation. The subject property is located within 15 miles of this informal reservation.

The Tribe has requested the trust acquisition of the Mettler Site to reestablish a homeland and generate its own governmental revenues through gaming to improve its short-term and long-term socioeconomic conditions, to promote its self-sufficiency, and to strengthen its ability to serve its citizens. The Mettler Site is located within the boundaries of the reservation that would have been set aside had the 1851 treaty been ratified. The Mettler Site is also located approximately five miles from the Tribe's Community Center Property; the BIA announced on September 8, 2020, its final decision to place this 10.36 acre parcel into trust for the Tribe, to be used as a tribal government and community center. 85 Fed. Reg. No. 174, Sept. 8, 2020.

1.4 OVERVIEW OF THE ENVIRONMENTAL REVIEW PROCESS

NEPA requires that an EIS be prepared for major federal actions that could significantly affect the quality of the human environment. This document has been completed in accordance with the requirements set forth in NEPA (42 USC § 4321 et seq.); the Council on Environmental Quality (CEQ) Regulations for Implementing NEPA (40 CFR §§ 1500-1508); and the BIA NEPA handbook (59 IAM 3-H). The two primary purposes of NEPA are to assess impacts and disclose those impacts before the BIA selects an alternative.

The BIA published a Notice of Intent (NOI) in the *Federal Register* (FR) on August 13, 2015, describing the Proposed Action and announcing intent to prepare an EIS. The 30-day public comment period began on August 13, 2015, and ended on September 14, 2015. In addition to accepting written comments, the BIA held a public scoping hearing on September 1, 2015, in the City of Bakersfield. Approximately 66 people attended the public hearing, and oral comments were transcribed for the administrative record. The issues that were raised during the NOI comment period have been summarized within the *Scoping Report for the Tejon Indian Tribe Trust Acquisition and Casino Project* (AES, 2019). This report, dated February 2019, is available for review at www.tejoneis.com. To the extent required by NEPA, this EIS addresses the issues and concerns summarized in the Scoping Report. The reasonable range of alternatives analyzed in this EIS was developed in part based on comments received during the scoping process as well as consultation with the Tribe.

The Draft EIS was distributed to federal, tribal, State, and local agencies; and other interested parties for a 45-day review and comment period. The review and comment period began after the Notice of Filing with the USEPA in the FR on June 12, 2020. The Notice of Availability (NOA) and newspaper notice in the *Bakersfield Californian* were published by the BIA on June 12th, 2020 and provided the locations for viewing the Draft EIS (e.g. www.tejoneis.com), and information regarding the virtual public hearing that was held on July 8, 2020. Approximately 210 people attended this virtual public hearing event. Notices and newspaper publications regarding the Draft EIS are included in **Appendix AA**.

The Response to Comments document included in **Appendix V** includes all comments received during the public comment period, as well as responses to substantive comments. The BIA considered the comments received and revisions have been made in this Final EIS to reflect the content of these comments. This Final EIS will be filed with the USEPA, and the USEPA will then publish an NOA for this Final EIS in the FR. This will mark the beginning of a 30-day period after which the BIA may proceed with a decision. At the time of the decision, the BIA will prepare a public Record of Decision (ROD). The ROD states what the decision is, identifies all the alternatives considered in reaching the decision, and discusses preferences among alternatives based on relevant factors including economic and technical considerations as well as the statutory mission of the BIA. The ROD also identifies and discusses all such factors that were balanced, and it discusses whether all practicable mitigation measures have been adopted to minimize the environmental effects. If all practicable measures are not adopted, the BIA must state why such measures were not adopted. A monitoring and enforcement program shall be adopted and summarized within the ROD where applicable for any mitigation (CEQ Regulations for Implementing NEPA, 40 CFR § 1505.2).

1.5 REGULATORY REQUIREMENTS, PERMITS, AND APPROVALS

The Proposed Project and alternatives, as described in **Section 2.0**, may require governmental approvals as described in **Table 1-1**.

TABLE 1-1
POTENTIAL PERMITS AND APPROVALS REQUIRED

Agency	Permit or Approval	Alternatives
Federal		
Secretary	Transfer of the Mettler Site into federal trust status for the Tribe under IRA	A
	Transfer of the Maricopa Highway Site into federal trust status for the Tribe under IRA	B
	Issuance of a Two-Part Determination under Section 20 of IGRA	A1, A2, B
NIGC	Approval of tribal gaming ordinances	A1, A2, B
	Approval of gaming management contract	A1, A2, B
USEPA	National Pollutant Discharge Elimination System (NPDES) Construction General Permit for Stormwater Discharges from Construction Activities as required by the Clean Water Act (CWA)	A1, A2, B
	Water quality certification (or waiver) as required by the CWA	A1, A2, B
	Classification of wells as a Non-Transient/Non-Community Public Water System under the Safe Drinking Water Act (SDWA)	A1, A2, B
	Issuance of a Tribal New Source Review (NSR) permit under the Clean Air Act	A1, A2, B
U.S. Fish & Wildlife Service (USFWS)	Section 7 consultation under the federal Endangered Species Act (ESA) if threatened or endangered species may be affected ¹	A1, A2, B
State		
Governor	Concurrence with Secretary's Two-Part Determination	A1, A2, B
State Office of Historic Preservation	Consultation under Section 106 of the National Historic Preservation Act (NHPA)	A, B
California Department of Transportation (Caltrans)	Approval of an Encroachment Permit for the construction of intersection and utility improvements	A1, A2, B
Local		
County	Approval of off-site road improvements	A1, A2, B
1) Consultation approved as of April 9, 2020. See Appendix X .		
2) Consultation completed as of July 17, 2020. See Appendix Y .		

SECTION 2.0

ALTERNATIVES

SECTION 2.0

ALTERNATIVES

2.1 INTRODUCTION

Consistent with CEQ guidelines (40 CFR § 1502.14) and the BIA NEPA Guidebook (59 IAM 3-H), this section includes a discussion and comparison of the alternatives analyzed in this EIS. Alternatives that were considered but are not analyzed in this EIS are described in **Section 2.5**. A reasonable range of alternatives has been selected based on consideration of the purpose and need of the Proposed Actions and opportunities for potentially reducing environmental effects. The range of alternatives includes three alternatives on the Mettler Site (Alternatives A1, A2, and A3), one alternative on the Maricopa Highway Site (Alternative B), and the no action alternative (Alternative C). These alternatives are described below and analyzed throughout this EIS.

2.2 ALTERNATIVE A – DEVELOPMENT ON THE METTLER SITE

2.2.1 METTLER SITE DESCRIPTION

The approximately 306-acre Mettler Site (**Table 2-1**) is located in an unincorporated portion of the County, west of the Town of Mettler and State Route 99 (SR-99), north of State Route 166 (SR-166), east of Interstate 5 (I-5), south of Valpredo Road, and approximately 14 miles south of the City of Bakersfield. The Mettler Site is located within Township 11 North, Range 20 West, Section 2, San Bernardino Baseline and Meridian, of the “Mettler, CA” U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle. **Figures 2-1 and 2-2 in Appendix E** show the location of the Mettler Site. The Mettler Site is comprised of four parcels: Assessor’s Parcel Numbers (APN) 238-204-02, -04, -07, and -14 as shown on **Figure 2-3 in Appendix E** and in **Table 2-1** below.

TABLE 2-1
METTLER SITE PARCELS

APN	Acreage
238-204-02	152.47
238-204-04	38.33
238-204-07	114.99
238-204-14	0.03
Total Acreage	305.82
Notes: Acreages are approximate. Source: Kern County GIS, 2019.	

The Mettler Site is zoned by the County as Limited Agriculture (A-1) (Kern County, 2017). The Mettler Site is currently developed with agricultural fields, a single residence, and agricultural storage buildings. Land uses surrounding the Mettler Site consist primarily of agricultural land with rural residential housing and commercial development within the unincorporated area of Mettler to the east and Tejon Ranch commercial development approximately 5 miles to the south. **Table 2-2** provides a breakdown of the project components with associated square footage (sf) for Alternatives A1, A2, and B.

2.2.2 ALTERNATIVE A1 – PROPOSED PROJECT

Alternative A1 is the Tribe’s proposed project and includes the following three independent and distinct federal actions and subsequent development by the Tribe: (1) the transfer of the approximately 306-acre Mettler Site from fee into federal trust status for the benefit of the Tribe; (2) issuance of a Two-Part Determination by the Secretary; (3) the approval of the

proposed management contract by the Chairperson of the NIGC; and (4) subsequent development of the Mettler Site with a variety of uses including a casino resort, parking, and other supporting facilities including a fire and sheriff station, water infrastructure, and wastewater treatment and disposal facilities.

TABLE 2-2
PROJECT COMPONENTS

Area	Alternative A1		Alternative A2		Alternative B	
	Size of Components	Total Area	Size of Components	Total Area	Size of Components	Total Area
<i>Proposed Development</i>						
Casino	-	166,500 sf	-	147,000 sf	-	166,500 sf
Main Floor	153,000 sf	-	133,500 sf	-	153,000 sf	-
High Limit/Asian Gaming	13,500 sf	-	13,500 sf	-	13,500 sf	-
Restaurants	-	73,300 sf	-	56,700 sf	-	73,300 sf
Hotel	-	226,000 sf	-	177,500 sf	-	226,000 sf
Standard/Suites	400 rooms	-	300 rooms	-	400 rooms	-
Entertainment and Retail	-	38,000 sf	-	33,000 sf	-	38,000 sf
Meeting Rooms	-	53,000 sf	-	32,000 sf	-	53,000 sf
Pool	-	66,000 sf	-	47,000 sf	-	66,000 sf
Spa and Fitness	-	16,000 sf	-	1,200 sf	-	16,000 sf
Back of House	-	77,000 sf	-	58,000 sf	-	77,000 sf
Total Casino Resort-Related	-	715,800 sf	-	552,400 sf	-	715,800 sf
Parking	4,500 spaces	-	3,600 spaces	-	4,500 spaces	-
Water/Wastewater Facilities	-	13 acres	-	13 acres	-	2 acres
RV Parking	220 spaces	22 acres	-	-	50 spaces	5 acres
Fire/Sheriff Station	-	10,000 sf	-	10,000 sf	-	10,000 sf
Notes: Line items do not precisely add to total due to rounding. sf = square feet. Dash represents table items that are not available or not applicable.						
Source: Friedmutter Group, 2018a; Friedmutter Group, 2018b; Friedmutter Group, 2018c.						

2.2.2.1 Project Components

Alternative A1 consists of the construction of an approximately 715,800-sf casino resort, an RV park, fire and sheriff stations, and associated facilities such as water treatment and disposal facilities on the Mettler Site (Friedmutter Group, 2018a). The gaming component of the resort would consist of electronic gaming devices and table games within an approximately 166,500-sf gaming floor area. The hotel tower would be approximately 11 stories, or 134 feet high, and contain 400 hotel rooms. Proposed restaurant facilities include a buffet, café, food court, and other specialty restaurants and bars. Alternative A1 also includes the construction of an approximately 38,000-sf multi-purpose event center and approximately 53,000 sf of convention space. The event center would include an entertainment venue and associated supporting facilities to host shows and midweek entertainment, including concerts and stage performances. The convention space would include a divisible banquet room and meeting rooms for business events and conferences. These events would occur periodically, not daily. The 10,000-sf joint fire/sheriff station would be located on 4 acres of land in the southwest corner of the property and would be staffed and operated by the County in accordance with the intergovernmental agreement (IGA) executed in July of 2019.

The remainder of the Mettler Site would remain in agricultural production in the near term, however in the coming decades the Tribe's vision is to utilize the remaining acreage to deliver governmental services to its members such as housing, health care, and wellness. The Tribe would determine, in accordance with applicable law, what developments are needed to facilitate the provision of governmental services to its members. These potential future developments of the remainder of the Mettler Site are described in **Section 3.1** and evaluated in **Section 3.14.2**. A site plan for the proposed

facilities under Alternative A1 is presented in **Figure 2-4** and **Figure 2-5** in **Appendix E** and an architectural rendering is presented as **Figure 2-6** in **Appendix E**. The Proposed Project is anticipated to be consistent with County building and fire codes according to the 2019 IGA between the Tribe and the County described in **Section 2.2.2.8**. Construction is anticipated to begin in 2022 with a 12-month construction schedule. The facilities are expected to open in 2023.

2.2.2.2 Site Access

Under Alternative A1, the majority of the project traffic would access the casino resort from the northerly extension of S. Sabodan Street, north of SR-166. The remaining project traffic (approximately 10 percent inbound) would access the Mettler Site via the SR-99/Valpredo Avenue interchange and the S. Sabodan Street extension to Valpredo Avenue. For this alternative, road improvements would be implemented to efficiently direct the flow of traffic, including turn lanes and stop signs. The following improvements are proposed.

1. Extend the existing S. Sabodan Street north of SR-166 to Valpredo Avenue.
2. Provide for a future 4-lane cross-section between SR-166 and the main casino resort driveway on S. Sabodan Street, and construct two lanes prior to the resort opening. Provide two lanes from the main entrance to Valpredo Avenue.
3. Initially, provide a stop sign at the main casino resort driveway at S. Sabodan Street for traffic exiting the casino resort and use the following geometry.

Southbound (SB) – One thru/right-turn lane

Northbound (NB) – One left-turn lane and one thru lane

Eastbound (EB) – One left-turn lane and one right-turn lane (with overlap phase when signalized)
outbound

This intersection would need to be signalized in the near future once traffic volumes on S. Sabodan Street reach approximately 7,000 average daily trips.

4. Extend Wildflower Street from its western terminus to the western boundary of the Alternative A1 site along the southern frontage so that a secondary parking lot access is available to patrons.

A figure of this access layout can be found in **Figure 18-1** in **Appendix F**.

2.2.2.3 Architecture, Signage, Lighting, and Landscaping

The architecture and exterior signage of the building would enhance the natural and rural characteristics of the site and vicinity by incorporating native materials and colors. Illuminated signs would be designed to blend with the light levels of the building and landscape lighting in both illumination levels and color characteristics. The exterior lighting of the project would be integrated into components of the architecture and would be strategically positioned to minimize off-site lighting. The architectural design of the project would be enhanced by landscaping using drought tolerant plants native to the region.

2.2.2.4 Water Supply

Domestic Water Supply

The on-site water supply would be provided by the two proposed groundwater wells that are shown in **Figure 2-7** in **Appendix E**. The estimated average daily water demand for Alternative A1 is approximately 178,000 gallons per day (gpd) (**Appendix G**). Groundwater would be treated onsite through filtration, disinfection, and/or reverse osmosis for potable use depending on the purification needs. Use of recycled water, as described below, would reduce the average water demand by approximately 23,000 gpd.

Fire Flow

Fire flows would be provided for the fire hydrants and sprinkler systems as specified in the International Fire Code, National Fire Protection Association Code 13, and County fire codes. Alternative A1 would require an estimated 2,500 gallons per minute of fire flow. Fire flow water would be supplied from a non-potable distribution system and would use an on-site storage tank and booster pump. Approximately 400,000 gallons of storage is proposed to meet both the fire flow and operational demands of Alternative A1.

2.2.2.5 Wastewater Treatment and Reuse

Wastewater reclamation facilities, including a wastewater treatment plant (WWTP), would be located onsite as shown in **Figure 2-7 in Appendix E**. The projected average daily wastewater flow for Alternative A1 would be approximately 130,000 gpd (**Appendix G**). The on-site WWTP would be sized to treat peak flow. An on-site gravity sewer collection system would flow into the on-site wastewater treatment system. The WWTP would use either a membrane bioreactor (MBR) system or a package sequencing batch reactor (SBR). An MBR would not require any additional treatment beyond disinfection, whereas an SBR could require a supplemental filtration system. Biological solids or sludge would be stored onsite for periodic disposal to an approved landfill. Sludge generation is estimated to be approximately 100-150 gpd, and the sludge accumulated would require a single truck disposal every two weeks. A detailed description of the WWTP and associated infrastructure is presented in **Appendix G**.

Reclaimed water from the on-site WWTP may be utilized for toilet flushing at the casino resort, landscape irrigation, crop irrigation, and/or groundwater recharge. To use recycled water for “in-building” purposes, the plumbing system within the building would have recycled water lines plumbed separately from the potable water system in the building with no cross connections. The dual plumbing systems would be distinctly marked and color coded.

All water used for reclamation/recharge would meet the equivalent of State standards governing the use of recycled water as described in Title 22 of the California Code of Regulations. Title 22 specifies redundancy and reliability features that must be incorporated into the reclamation plant. Under the current version of the Title 22 Water Recycling Criteria, the highest level of treatment is referred to as “Disinfected Tertiary Recycled Water.” The proposed WWTP would produce effluent meeting the criteria for this highest level of recycled water. Disinfected tertiary-treated recycled water can be used for irrigation of park landscaping, residential landscaping, golf courses, and food crops.

Treated Effluent Disposal

Treated effluent that is not used as reclaimed water would be discharged to on-site ponds that would hold excess treated effluent and allow it to infiltrate into the soil. Soil conditions at the Mettler Site show infiltration rates to be between 0.57 to 1.98 inches per hour. Final siting and design of the percolation ponds would ensure that percolation rates would meet current County standards of a minimum of 1.0 inch per hour. Assuming that conservative percolation/infiltration factor, a maximum percolation area of approximately 35,000 sf would be required to accommodate the peak sewer flow rate of Alternative A1.

2.2.2.6 Grading and Drainage

Construction would involve grading and excavation for building pads and parking lots. Approximately 75 acres of impervious surfaces would be created during construction of Alternative A1. It is anticipated that a net of approximately 485,000 cubic yards of fill would be necessary to develop the on-site components of Alternative A1 (**Appendix H**). Approximately 80,000 cubic yards of cut soil would be available from the excavation of the proposed detention basins to be used as fill. Additional fill soil could be excavated from other areas of the Mettler Site that are not currently planned for immediate development (i.e., the northwest portion of the site), and any remaining soil needs would be addressed with the importation of suitable fill material from within the region from either construction sites with excess fill material or from qualified suppliers. Any imported fill material would be screened by a qualified engineer prior to its use on the

Mettler Site to ensure that it is of adequate quality, including testing to ensure the fill is not contaminated (see **Section 2.2.2.9**).

A storm drain system would be required to convey the on-site runoff from the developed areas of the site to the proposed on-site basin for storage and percolation. Parking lots would have a series of drain inlets and vegetated bioswales that would be connected to the storm drain conveyance system. Runoff from buildings would be collected via roof leaders directly connected to storm drain conveyance pipes. The site would be graded to allow stormwater runoff from the proposed improvements to drain via gravity.

Under Alternative A1, the Mettler Site would require a stormwater detention basin with a capacity of approximately 32 acre-feet (AF). The basin would retain the 10-year, 5-day storm event and have a minimum of 1 foot of freeboard. The basin would occupy approximately 6 acres of the water retention and wastewater reclamation area. Structures and access driveways associated with Alternative A1 would be raised approximately 2.5 feet above the existing ground level in order to be a minimum of 1 foot above the base flood elevation.

2.2.2.7 Public Services and Utilities

Pursuant to the IGA described in **Section 2.2.2.8**, the Tribe would develop, build, and furnish a new fire and sheriff joint substation for lease by the Kern County Fire Department (KCFD) and Kern County Sheriff's Department (KCSO), to be located on approximately 4 acres of the Mettler Site. The substation would provide fire protection, law enforcement, and emergency medical response services to the Mettler Site and surrounding areas in the County. The KCSO would have the authority to enforce non-gaming state criminal laws on the proposed trust lands pursuant to Public Law (PL) 23-280 (PL 280). The Tribe would employ security personnel to patrol the facilities to reduce and prevent criminal and civil incidents. Additionally, surveillance equipment would be installed in the casino resort and parking areas, and tribal security personnel would work cooperatively with the KCSO to provide general law enforcement services. Electrical service to the Mettler Site is currently provided by Pacific Gas and Electric Company (PG&E). No existing natural gas service lines connect to the site. Southern California Gas (SoCalGas) and other private providers currently supply natural gas services to customers in the vicinity of the Mettler Site, and service may be extended to the site.

2.2.2.8 Agreements with Local Agencies

Kern County – Tribal Intergovernmental Agreement

The Tribe and Kern County executed an intergovernmental agreement (IGA) on July 24, 2019 (**Appendix D**). The primary purpose of the IGA is to provide a funding mechanism for the Tribe to compensate the County for law enforcement, fire protection, emergency services, and to provide reasonable compensation for programs designed to treat problem gambling, to mitigate any effect to public safety attributable to the project, and to mitigate all other impacts of the project on the County. The funding mechanisms incorporated into the IGA include, but are not limited to, general fund payments, capital maintenance payments, and occupied room fee payments. Per the IGA, the Tribe would also provide to the County proof of a reasonable effort to encourage all contractors of the Proposed Project to hire at least 50 percent of their workers from local communities in the County. The IGA applies to Alternative A1 and Alternative A2. The IGA does not apply to Alternatives A3, B, or C.

The Tribe is committed to strong public health and safety standards in both building and operation of the Proposed Project. Thus, for Alternatives A1 and A2 the Tribe has agreed to incorporate inspection and enforcement mechanisms for the public health and safety standards noted in IGA Section 6(c) (**Appendix D**). The Tribe has made this commitment irrespective of the requirements in the IGA or any other agreement.

Arvin-Edison Water Storage District – Tribal Water Agreement

The Tribe and the Arvin-Edison Water Storage District (AEWSD) executed an agreement (Water Agreement; **Appendix W**), the purpose of which is to (i) to effectively and responsibly manage the AEWSD’s water resources, and (ii) to assist Tribe in maintaining the “neutral to positive” groundwater levels in the vicinity of the Mettler Site. Pursuant to the Water Agreement, surface water available to the Mettler Site for agriculture use under Contract for Agricultural Water Services (CAWS; up to the amount of 734 AF per year [AFY]) would be assigned to other landowners within the AEWSD that are eligible to receive surface water service from the AEWSD. Eligibility would be based on such factors as the AEWSD deems relevant in its sole discretion, including without limitation, whether the land to which the water to be transferred is reliant solely on groundwater, and whether the proximity of such land to the Mettler Site would further the purpose of the Water Agreement. The Water Agreement applies to Alternative A1 and Alternative A2. The Water Agreement does not apply to Alternatives A3, B, or C.

2.2.2.9 Best Management Practices

Construction and operation of Alternative A1 would incorporate a variety of industry standard Best Management Practices (BMP). The BMPs presented below would be incorporated into the project design and, as applicable, construction contracts to avoid or minimize potential adverse effects resulting from the development of Alternative A1.

Air Quality – Construction

- A. A Dust Control Plan will be prepared prior to construction which meets the general requirements of San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 8021 6.3. The following dust suppression measures will be implemented by the Tribe to control the production of fugitive dust (particulate matter 10 microns in size [PM₁₀] and particulate matter 2.5 microns in size [PM_{2.5}]) and prevent wind erosion of bare and stockpiled soils.
1. All on-site unpaved roads will be effectively stabilized using water or chemical soil stabilizers that can be determined to be as efficient or more efficient for fugitive dust control than California Air Resources Board (CARB)-approved soil stabilizers, and that will not increase any other environmental impacts including loss of vegetation.
 2. All material excavated or graded will be sufficiently watered to prevent excessive dust. Watering will occur as needed with complete coverage of disturbed areas. The excavated soil piles will be watered as needed to limit dust emissions to less than 20 percent opacity or covered with temporary coverings.
 3. Construction activities that occur on unpaved surfaces will be discontinued during windy conditions when winds exceed 25 miles per hour (mph) and those activities cause visible dust plumes. Construction activities may continue if dust suppression measures are used to minimize visible dust plumes.
 4. Track-out debris onto public paved roads will not extend 50 feet or more from an active operation and track-out will be removed or isolated behind a locked gate, or similar, at the conclusion of each workday.
 5. All hauling materials will be moist while being loaded into dump trucks.
 6. All haul trucks hauling soil, sand, and other loose materials on public roads will be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions).
 7. Soil loads will be kept below 6 inches of the freeboard of the truck.
 8. Drop heights will be minimized when loaders dump soil into trucks.
 9. Gate seals will be tight on dump trucks.
 10. Traffic speeds on unpaved roads will be limited to a maximum of 15 mph.
 11. All grading activities will be suspended when visible dust emissions exceed 20 percent.
 12. Other fugitive dust control measures will be implemented as necessary to comply with SJVAPCD rules and regulations.
 13. Disturbed areas will be minimized.

- B. The following measures will be implemented by the Tribe to reduce emissions of criteria pollutants, greenhouse gases (GHG), and diesel particulate matter (DPM) from construction.
1. The Tribe will control criteria pollutants and GHG emissions by requiring all diesel-powered equipment be properly maintained and will minimize idling time to five minutes when construction equipment is not in use, unless more time is required per engine manufacturer's specifications or for safety reasons. Since these emissions would be generated primarily by construction equipment, machinery engines will be kept in good mechanical condition to minimize exhaust emissions. The Tribe will employ periodic and unscheduled inspections to accomplish the above measures.
 2. All construction equipment with a horsepower rating of greater than 50 will be required to be equipped with diesel particulate filters, which reduce approximately 85 percent of DPM.
 3. All construction equipment with a horsepower rating of greater than 50 will be required to be equipped with CARB-rated Tier 3 engines, with the exception of scrapers.
 4. Low reactive organic gases (ROG) (150 grams per liter or less) will be required for architectural coatings to the extent practicable.
 5. Environmentally preferable materials, including recycled materials, will be used to the extent readily available and economically practicable for construction of facilities.

Air Quality – Operation

- C. The Tribe will reduce emissions of criteria air pollutants and GHGs during operation through the following actions as appropriate and practical.
1. The Tribe will use clean fuel vehicles in its vehicle fleet where practicable, including vehicles that meet the Low Carbon Fuel Standard rule set by CARB.
 2. The Tribe will provide preferential parking for vanpools and carpools.
 3. The Tribe will use low-flow appliances and utilize recycled water to the extent practicable. The Tribe will also use drought-tolerant landscaping and provide "Save Water" signs near water faucets. Low-flow appliances include, but are not limited to, toilets, faucets, dishwashers, ice makers, and steam cookers that meet USEPA Energy Star criteria.
 4. The Tribe will control criteria pollutants, GHG, and DPM emissions during operation by requiring that all diesel-powered vehicles and equipment be properly maintained and by minimizing idling time to 5 minutes at loading docks when loading or unloading food, merchandise, etc. If idle time is more than 5 minutes or the diesel-powered vehicle or equipment are not in use, then the equipment should be turned off unless it is required to remain on per the specifications of the engine manufacturer or for safety reasons. The Tribe will employ periodic and unscheduled inspections to accomplish the above BMP.
 5. The Tribe will use energy-efficient lighting that will reduce indirect criteria pollutants and GHG emissions. Using energy-efficient lighting will reduce energy usage and, thus, reduce the indirect GHG emissions from the project. Energy-efficient lighting includes adaptive lighting systems or systems that achieve energy savings beyond those required by Title 24 lighting requirements.
 6. The Tribe will install recycling bins throughout the casino resort for glass, cans, and paper products. Trash and recycling receptacles will be placed strategically outside to encourage recycling.
 7. The Tribe will plant trees and vegetation onsite or fund such plantings offsite. The addition of photosynthesizing plants would reduce atmospheric carbon dioxide (CO₂), because plants use CO₂ for elemental carbon and energy production. Trees planted near buildings would result in additional benefits by providing shade to the building, thus reducing heat absorption and air conditioning needs and saving overall energy.
 8. The Tribe will use energy-efficient appliances in the residences where available. These include appliances that meet USEPA Energy Star Criteria.

Socioeconomics

D. Implementation of the BMPs below will minimize potential impacts related to problem gambling.

1. The Tribe will implement operation policies at the casino resort that will include, but are not limited to, employee training, self-help brochures available onsite, signage near automatic teller machines and cashiers, and self-banning procedures to help those who may be affected by problem gaming. The signage and brochures should include problem gambler hotlines and websites.

Transportation/Circulation

E. Implementation of the BMPs below will minimize the potential impacts of project construction to transportation/circulation.

1. A traffic management plan will be prepared in accordance with standards set forth in the *Manual on Uniform Traffic Control Devices for Streets and Highways* (Federal Highway Administration [FHWA], 2003). The traffic management plan will be submitted to each affected local jurisdiction and/or agency. Also, prior to construction, the contractor will coordinate with emergency service providers to avoid obstructing emergency response service. Police, fire, ambulance, and other emergency response providers will be notified in advance of the details of the construction schedule, location of construction activities, duration of the construction period, and any access restrictions that could impact emergency response services. Traffic management plans will include details regarding emergency service coordination. Copies of the traffic management plans will be provided to all affected emergency service providers.
2. Flagging, performed in consultation with the California Highway Patrol (CHP) and Caltrans, will be provided when necessary to assist with construction traffic control.
3. Transport of construction material will be scheduled outside of the area-wide commute peak hours.
4. Where feasible, lane closures or obstructions associated with construction of the project will be limited to off-peak hours to reduce traffic congestion and delays.
5. Roadways subject to fill truck traffic will be assessed by an independent third party consultant prior to the start of construction and following the completion of construction. If the third party determines that roadway deterioration has occurred as a result of the casino resort construction, the Tribe will pay to have surrounding roadways resurfaced to restore the pavement to at least pre-construction condition. The Tribe, however, will not finance this if the resurfacing is already expected to occur within a year or sooner in conjunction with other planned or proposed roadway improvements.

Public Services

F. Implementation of the BMPs below will minimize potential impacts related to fire protection services.

1. During construction, any construction equipment that normally includes a spark arrester will be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws. Staging areas, welding areas, or areas slated for development using spark-producing equipment will be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor will keep these areas clear of combustible materials in order to maintain a firebreak.

G. Implementation of the BMPs below will minimize potential impacts related to law enforcement services.

1. Parking areas will be well lit and monitored by parking staff and/or roving security guards at all times during operation. This will aid in the prevention of auto theft and other similar criminal activity.
2. Areas surrounding the gaming facilities will have “No Loitering” signs in place, be well lit, and be patrolled regularly by roving security guards.
3. The Tribe will provide traffic control with appropriate signage and the presence of peak-hour traffic control staff during special events. This will aid in the prevention of off-site parking.

4. The Tribe will conduct background checks of all gaming employees and ensure that all employees meet licensure requirements established by IGRA and the Tribe's Gaming Ordinance.
 5. The Tribe shall adopt a Responsible Alcoholic Beverage Policy that will include, but not be limited to, checking identification of patrons and refusing service to those who are suspected to be inebriated at an unsafe level.
- H. Implementation of the BMPs below will minimize potential impacts related to solid waste.
1. Construction waste will be recycled to the fullest extent practicable by diverting green waste and recyclable building materials (including, but not limited to, metals, steel, wood, etc.) away from the solid waste stream.
 2. Environmentally preferable materials, including recycled materials, will be used to the extent readily available and economically practicable for construction of facilities.
 3. During construction, the site will be cleaned daily of trash and debris to the maximum extent practicable.
 4. A solid waste management plan will be developed and adopted by the Tribe that addresses recycling and solid waste reduction on the site. These measures will include, but not be limited to, the installation of a trash compactor for cardboard and paper products, and periodic waste stream audits.
 5. Trash and recycling receptacles will be placed strategically throughout the site to discourage littering.
 6. Security guards will be trained to discourage littering on the site.
- I. Implementation of the BMP below will minimize potential impacts related to underground utilities.
1. The Tribe will contact the Utility Notification Center to notify the utility service providers of excavation at the work site. In response, the utility service providers will mark or stake the horizontal path of underground utilities, provide information about the utilities, and/or give clearance to dig.

Noise

- J. Implementation of the BMPs below will minimize potential effects associated with construction noise consistent with Kern County Noise Ordinance 836.020(h).
1. Construction will not be conducted between the hours 9:00 p.m. and 6:00 a.m. on weekdays and 9:00 p.m. and 8:00 a.m. on weekends.
 2. All engine-powered equipment will be equipped with adequate mufflers. Haul trucks will be operated in accordance with posted speed limits. Truck engine exhaust brake use will be limited to emergencies.
 3. Loud stationary construction equipment will be located as far away from residential receptor areas as feasible.
 4. All generator sets will be provided with enclosures.

Hazardous Materials and Health and Safety

- K. BMPs to reduce the probability of hazardous material impacts and for health and safety are described below.
1. Personnel will follow BMPs for filling and servicing construction equipment and vehicles. BMPs that are designed to reduce the potential for incidents/spills involving the hazardous materials include the following.
 - a. To reduce the potential for accidental release, fuel, oil, and hydraulic fluids will be transferred directly from a service truck to construction equipment.
 - b. Catch-pans will be placed under equipment to catch potential spills during servicing.
 - c. Refueling will be conducted only with approved pumps, hoses, and nozzles.
 - d. All disconnected hoses will be placed in containers to collect residual fuel from the hose.
 - e. Vehicle engines will be shut down during refueling.
 - f. No smoking, open flames, or welding will be allowed in refueling or service areas.
 - g. Refueling will be performed away from roadside ditches to prevent contamination of water in the event of a leak or spill.
 - h. Service trucks will be provided with fire extinguishers and spill containment equipment, such as absorbents.
 - i. Should a spill contaminate soil, the soil will be put into containers and disposed of in accordance with local, State, and federal regulations.

- j. All containers used to store hazardous materials will be inspected at least once per week for signs of leakage or failure.
2. In the event that contaminated soil and/or groundwater is suspected prior to or encountered during construction-related earth-moving activities, all work will be halted until a professional hazardous materials specialist or other qualified individual assesses the extent of contamination. If contamination is determined to be hazardous, the Tribe will consult with the USEPA to determine the appropriate course of action, including development of a Sampling and Remediation Plan if necessary. Contaminated soils that are determined to be hazardous will be disposed of in accordance with federal regulations.
3. Hazardous materials must be stored in appropriate and approved containers in accordance with applicable regulatory agency protocols.
4. Potentially hazardous materials, including fuels, will be stored away from drainages and secondary containment will be provided for all hazardous materials stored during construction and operation.
5. Prior to demolishing building(s) constructed or suspected of being constructed before 1978, it should be assumed that the building(s) could contain lead paint. The building(s) will be tested for the presence of lead paint by certified personnel. If the presence of lead paint is detected, then construction personnel must follow USEPA guidelines on the proper conduct around and disposal of lead paint-containing materials.
6. During the demolition of any building(s) potentially containing asbestos, mercury, and/or polychlorinated biphenyl caulk, construction personnel will follow proper state and federal regulations (e.g., 29 CFR 1926.1101 [Occupational Safety and Health Administration {OSHA}]) concerning proper demolition practices for buildings with these hazardous materials, as well as proper conduct around and the disposal of these hazardous material containing materials.
7. Prior to the commencement of operations, the Tribe would develop policies and procedures to address risks associated with disease pandemics, including Coronavirus Disease 2019 (COVID-19). These policies and procedures would include appropriate measures such as training, sanitation, social distancing, testing, signage, and reporting. In the event that the COVID-19 pandemic continues to exist prior to the commencement of operations, the Tribe would cause these policies and procedures to be implemented to safeguard the wellbeing of patrons, staff, contractors and tribal members.
8. Prior to construction, visual spot checking for potential pesticide residues, specifically organochlorinated pesticides, residues shall be performed onsite. Furthermore, soil testing near the facility developments, such as the casino resort, shall be performed to assess the presence of organochlorinated pesticides. Should contamination levels of organochlorinated pesticides exceed screening levels set by the USEPA, the Tribe will consult with the USEPA to determine the appropriate course of action, including development of a Sampling and Remediation Plan if necessary. Contaminated soils that are determined to be hazardous will be disposed of in accordance with federal regulations.

Aesthetics

- L. The following BMPs will be implemented consistent with International Dark-Sky Association Model Lighting Ordinance and County zoning ordinance Chapter 19.81 Outdoor Lighting – Dark Skies.
 1. Lighting will consist of limiting pole-mounted lights to a maximum of 30 feet high.
 2. All lighting will be a light-emitting diode with cut-off lenses and downcast illumination unless an alternative light configuration is needed for security or emergency purposes.
 3. Placement of lights on buildings will be designed in accordance with Unified Facilities Criteria 3-530-01, Interior, Exterior Lighting, and Controls so as not to cast light or glare off the site. No strobe lights, spotlights, or floodlights will be used.

4. All outdoor lighting fixtures which utilize 100 watts or more (based on an incandescent bulb), or emit 1,600 lumens or more per fixture, will be fully shielded.
 5. To the extent practicable, all exterior glass will be non-reflective low-glare glass.
 6. Lighting will not utilize swivel mounting hardware; instead, lighting will be permanently installed to direct light away from natural and residential areas adjacent to the site.
 7. Lighting fixtures that project upward or horizontally will not be used.
 8. Outdoor light fixtures will be kept in good working order and will be continuously maintained in a manner that serves the original design intent of the system.
- M. Design elements will be incorporated into the project to minimize the impact of buildings and parking lots on the viewshed.
1. Landscape amenities will be incorporated to complement buildings and parking areas, including setbacks, raised landscaped berms, and trees and shrubs.
 2. Earth tones in paints and coatings will be used whenever possible.

2.2.3 ALTERNATIVE A2 – REDUCED CASINO RESORT ALTERNATIVE

Alternative A2 includes the same components as Alternative A1, however, the size of the casino, restaurants, hotel, entertainment and retail, meeting rooms, pool, and parking facilities are reduced under Alternative A2 compared to Alternative A1 (refer to **Table 2-2**). No RV parking would be provided under Alternative A2. Proposed site access, architecture, signage, lighting, landscaping, public services, and utilities would be the same as described under Alternative A1. As with Alternative A1, the remainder of the Mettler Site would remain in agricultural production in the near term, but the Tribe's long-term goal of eventually developing the remainder of the Mettler Site to facilitate the provision of governmental services to its members would remain, albeit over a much longer term based on reduced available net revenues. Potential development of the remainder of the Mettler Site, including housing, governmental offices, and health and wellness facilities, is described in **Section 3.1** and is evaluated in **Section 3.14.2**. Site plans for Alternative A2 are shown in **Figures 2-8 and 2-9** in **Appendix E**, and an architectural rendering is provided as **Figure 2-6** in **Appendix E**. Construction of Alternative A2 would be similar to Alternative A1, including construction at or better than County Building Code. The opening year is expected to be 2023.

2.2.3.1 Casino Resort Facility

The proposed casino resort would have a gross footprint of approximately 552,000 sf, which represents an approximately 23 percent reduction in square footage when compared to Alternative A1. The gaming component of the facility would consist of electronic gaming devices, table games, and poker room tables within a 147,000-sf gaming floor area. Restaurant facilities include a buffet as well as a café, bars, food court, specialty restaurants, and other food and beverage providers. The proposed hotel has a total of 300 guest rooms. Other components of the casino resort in Alternative A2 would be similar to those described for Alternative A1, as shown in **Table 2-2**.

2.2.3.2 Water Supply and Wastewater Treatment and Reuse

Alternative A2 would be served by the proposed on-site water supply facilities as described for Alternative A1 (refer to **Figure 2-10** in **Appendix E**). The estimated average daily water consumption for Alternative A2 (including landscape and irrigation) is approximately 127,000 gpd (**Appendix G**). The use of recycled water, as described under Alternative A1, would reduce the average water demand by approximately 17,000 gpd. Similar to Alternative A1, the Water Agreement would apply. Alternative A2 would feature a similar fire flow supply system to that of Alternative A1. The projected average daily wastewater flow for Alternative A2 would be approximately 92,000 gpd. Wastewater reclamation facilities including a WWTP would be located onsite as shown in **Figure 2-10** in **Appendix E**.

2.2.3.3 Grading and Drainage

Under Alternative A2, approximately 58 acres of impervious surfaces would be created on the site for development. As discussed in the Grading and Drainage Analysis Report (**Appendix H**), it is anticipated that approximately 362,000 cubic yards of fill would be necessary to construct Alternative A2. Approximately 79,000 cubic yards of cut soil would be available from excavation of the detention basins to be used as fill. Additional fill soil could be excavated from other areas of the Mettler Site that are not currently planned for immediate development (i.e., the northwest portion of the site), and any remaining soil needs would be addressed with the importation of suitable fill material from within the region from either construction sites with excess fill material or from qualified suppliers. Any imported fill material would be screened by a qualified engineer prior to its use on the Mettler Site to ensure adequate quality, including testing to ensure the fill is not contaminated (see **Section 2.2.2.9**).

Alternative A2 would feature a storm drain system identical to that of Alternative A1. Under Alternative A2, the Mettler Site would require a stormwater detention basin with a capacity of approximately 31 AF. The basin would be sized to retain a 10-year, 5-day storm event and its banks would be raised approximately 2.5 feet above the existing ground level in order to be a minimum of 1 foot above the base flood elevation.

2.2.3.4 Best Management Practices and Intergovernmental Agreements

As noted in **Section 2.2.2.8**, the IGA and Water Agreement apply to Alternative A2 and the Tribe has additionally committed to public health and safety standards noted in the IGA for casino development on the Mettler Site. Construction and operation of Alternative A2 would incorporate a variety of industry standard BMPs. **Section 2.2.2.9** presents select BMPs that have been specifically incorporated into the project design to avoid or minimize potential adverse effects resulting from the development of Alternative A2.

2.2.4 ALTERNATIVE A3 – ORGANIC FARMING ALTERNATIVE

Alternative A3 consists of the transfer of the Mettler Site from fee to trust status (**Figure 2-2** in **Appendix E**), and would convert the Mettler Site from conventional agriculture to an organic farm. No casino resort or associated facilities would be developed as a part of Alternative A3. Components of Alternative A3 are described below.

2.2.4.1 Site Access

Site access would remain as-is for Alternative 3. No road improvements are proposed.

2.2.4.2 Agricultural Operations

The alternative would convert the Mettler Site from conventional agriculture to an organic farm. The existing residence in the central-eastern portion of the site would remain in place and be used for storage. The existing agricultural practices on the Mettler Site would be altered to follow U.S. Department of Agriculture (USDA) organic farming principles and regulations found in 7 CFR § 205.

2.2.4.3 Public Services and Energy

Alternative A3 would be served by the same public service and energy facilities and providers as are currently provided to the Mettler Site.

2.2.4.4 Water Supply

Under Alternative A3, irrigation water for agricultural use would continue to be provided to the Mettler Site by the surface water contract with the Arvin-Edison Water Storage District and existing on-site wells.

2.2.4.5 Wastewater Treatment and Disposal

Under Alternative A3, no additional wastewater treatments facilities would be required.

2.2.4.6 Grading and Drainage

Under Alternative A3, no additional impervious surfaces would be created on the site.

2.2.4.7 Best Management Practices

Operation of Alternative A3 would not require BMPs more than those already utilized by the conventional farming at the site.

2.3 ALTERNATIVE B – CASINO RESORT ON THE MARICOPA HIGHWAY SITE

2.3.1 MARICOPA HIGHWAY SITE DESCRIPTION

The approximately 118-acre Maricopa Highway Site is located in an unincorporated portion of the County, less than 1 mile west of the Mettler Site and 14 miles south of the City of Bakersfield. The Maricopa Highway Site is located within Township 11 North, Range 20 West, Section 10, San Bernardino Baseline and Meridian, of the “Mettler, CA” and “Coal Oil Canyon, CA” USGS 7.5-minute topographic quadrangles. **Figures 2-1 and 2-11 in Appendix E** show the location of the Maricopa Highway Site. The property is comprised of two parcels (APNs 238-203-14 and -22) as shown on **Figure 2-12 in Appendix E**. The parcels within the Maricopa Highway Site are approximately 47 and 70.5 acres, respectively (Kern County GIS, 2019).

The Maricopa Highway Site is zoned by the County as Exclusive Agriculture (A) (Kern County, 2017b). The Maricopa Highway Site is currently developed for agriculture and is bound by agricultural fields in all directions with some commercial development located immediately north of the site. Regional access to the Maricopa Highway Site is provided by I-5, and local access is provided by SR-166 (also called the Maricopa Highway) to the north and the Wheeler Ridge Access Road to the west.

2.3.2 PROJECT COMPONENTS

Alternative B includes same federal actions as Alternative A1 but specific to the Maricopa Highway Site instead of the Mettler Site. The Tribe would develop a similar casino resort as under Alternative A1. The size of the casino, restaurants, hotel, entertainment and retail, pool, and parking facilities are the same under Alternative B as under Alternative A1 (refer to **Table 2-2**). RV parking under Alternative B, however, would be 50 spaces rather than the 220 spaces under Alternative A1. Public services, architecture, signage, lighting, landscaping, and utilities would be similar to what was described under Alternative A1. As with Alternative A1, the remainder of the Maricopa Highway Site would continue to be undeveloped for a number of years and the area available to facilitate the Tribe’s long-term goal of eventually developing the remainder of the site to facilitate the provision of governmental services to its members is significantly reduced under this alternative. Potential development of the remainder of the Maricopa Highway Site is described in **Section 3.1** and is evaluated in **Section 3.14.2**. Site plans for Alternative B are shown in **Figures 2-13 and 2-14 in Appendix E**. Construction of Alternative B would be similar to Alternative A1, and the opening year is expected to be 2023.

2.3.2.1 Site Access

A majority of the traffic is assumed to access the site from the easterly driveway on SR-166 in Alternative B. The remaining traffic is assumed to access the site at the westerly driveway on SR-166. The following improvements are recommended.

1. Ensure the main driveway leading to the casino resort lines up with the existing eastern Chevron Driveway, with the Chevron Driveway being the fourth (north leg) of the intersection.
2. Provide a traffic signal at the main driveway leading to the casino resort and use the following geometry:

Westbound (WB) – One right-turn lane, one through lane and dual left-turn lanes

NB – One shared through/left-turn lane and one right-turn lane with an overlap phasing

EB – One left-turn lane, one through lane and one through/right lane

3. Provide a second EB lane along the site frontage on SR-166 trapping (right-turn) onto the I-5 SB on-ramp.
4. Provide a second parking lot access on SR-166, west of the main access.

A figure of this access situation can be found in **Figure 18-2** in **Appendix F**.

2.3.2.2 Water Supply

The on-site water supply would be provided by the two proposed groundwater wells shown in **Figure 2-15** in **Appendix E**. The estimated average daily water consumption for Alternative B (including landscape and irrigation) would be approximately 161,000 gpd (**Appendix E**). Groundwater would be treated onsite through filtration, disinfection, and/or reverse osmosis similar to Alternative A1. Use of recycled water, as described below, would reduce the average water demand by approximately 21,000 gpd. Alternative B would feature a similar fire flow supply system to that of Alternative A1.

2.3.2.3 Wastewater Treatment and Reuse

Wastewater reclamation facilities, including a WWTP, would be located on the site as shown in **Figure 2-15** in **Appendix E**. The projected average daily wastewater flow for Alternative B would be approximately 116,000 gpd (**Appendix G**). Reclaimed water from the on-site WWTP may be utilized for toilet flushing at the casino resort, landscape irrigation, and/or crop irrigation. Treated effluent that is not used as reclaimed water would be discharged to a percolation pond located in the water retention and wastewater reclamation area. A description of the WWTP and associated infrastructure is presented in **Appendix G**.

2.3.2.4 Grading and Drainage

Under Alternative B, approximately 49 acres of impervious surfaces would be created on the site for development. It is anticipated that 126,000 cubic yards of fill would be necessary to construct Alternative B (**Appendix H**). Approximately 119,000 cubic yards of cut soil would be available from excavation of the detention basin. Additional fill soil could be excavated from other areas of the Maricopa Highway Site that are not currently planned for immediate development (i.e., the southwest portion of the site), and any remaining soil needs would be addressed with the importation of suitable fill material from within the region from either construction sites with excess fill material or from qualified suppliers. Any imported fill material would be screened by a qualified engineer prior to its use on the Maricopa Highway Site to ensure that it is of adequate quality, including testing to ensure the fill is not contaminated (see **Section 2.2.2.9**).

Alternative B would feature a storm drain system similar to that of Alternative A1. The site would be graded to allow stormwater runoff from the proposed improvements to drain via gravity. Parking lots would have a series of drain inlets and vegetated bioswales that would be connected to the storm drain conveyance system, and runoff from buildings would be collected via roof leaders directly connected to storm drain conveyance pipes.

Under Alternative B, the Maricopa Highway Site would require a stormwater detention basin with a capacity of approximately 15 AF, and the basin would be sized to retain a 10-year, 5-day storm event.

2.3.2.5 Agreements with Local Agencies

As noted above, the IGA does not apply to Alternative B. If Alternative B is implemented, the Tribe expects to negotiate an IGA with Kern County similar to that contained in **Appendix D**. Regardless of the language included within any potential IGA for Alternative B, the Tribe has agreed to incorporate the public health and safety standards noted in IGA Section 6(c). The Water Agreement also does not apply to Alternative B, because the Maricopa Highway Site is not in the Arvin-Edison Water Storage District.

2.3.2.6 Best Management Practices

Construction and operation of Alternative B would incorporate a variety of industry standard BMPs. **Section 2.2.2.9** presents select BMPs that have been specifically incorporated into the project design to avoid or minimize potential adverse effects resulting from the development of Alternative B. In addition to the BMPs identified in **Section 2.2.2.9**, Alternative B would incorporate the following additional component to BMP K regarding Hazardous Materials, Health, and Safety:

9. Testing for aerially deposited lead (ADL)-contaminated soils will be performed within 20 feet of I-5, SR-166, and Wheeler Ridge Access Road prior to the initiation of construction on the Maricopa Highway Site. Should contamination levels of lead exceed applicable human health levels at the time of testing, the Tribe will consult with the USEPA to determine the appropriate course of action, including development of a Sampling and Remediation Plan if necessary. Contaminated soils that are determined to be hazardous will be disposed of in accordance with federal regulations.

2.4 ALTERNATIVE C – NO ACTION ALTERNATIVE

Under the No Action Alternative, the BIA would not acquire land in trust for the Tribe. None of the development alternatives considered within this EIS would be implemented. The No Action Alternative assumes that existing uses on the Mettler and Maricopa Highway sites would not change in the near term. Other than the proposed development alternatives described herein, there are no development plans for the Mettler and Maricopa Highway Sites. Development of the Mettler and Maricopa Highway Sites are not reasonably foreseeable under Alternative C due to the following.

- Lack of demand for commercial development
- Lack of infrastructure (e.g., roads, water, wastewater, etc.) in the absence of infrastructure that would be constructed as a result of the development of Alternatives A1, A2, A3, or B
- Available commercial/ industrial zoned land for lease, with supporting infrastructure, a reasonable distance to the south

Under the No Action Alternative, there would be no change to existing uses on the Mettler and Maricopa Highway Sites. The Mettler Site would remain in its agricultural/rural-residential state and the Maricopa Highway Site would remain in its agricultural state for the foreseeable future.

2.5 ALTERNATIVES ELIMINATED FROM CONSIDERATION

The intent of the analysis of alternatives in an EIS is to present to decision makers and the public a reasonable range of alternatives that are both feasible and sufficiently different from each other in critical aspects. Section 1502.14(a) of the CEQ's Regulations for Implementing NEPA requires a brief discussion of alternatives that were eliminated from further study and the reasons for their having been eliminated. Alternatives, other than the No Action Alternative, were screened based on four criteria: (1) extent to which they meet the purpose and need for the Proposed Actions, (2) feasibility, (3) ability to reduce environmental impacts, and (4) ability to contribute to a reasonable range of alternatives. Several alternatives were considered and rejected for full EIS analysis based on the above criteria. The Department's analysis regarding the elimination of those alternatives is set forth in **Appendix B**.

2.6 COMPARISON OF ALTERNATIVES

Section 1502.14 of the CEQ's Regulations for Implementing NEPA states that an EIS should present environmental impacts of proposed alternatives in a comparative form in order to sharply define the issues and provide a clear basis for the decision maker and the public to make a choice among the options. Alternatives considered must include those that could be feasibly accomplished in a successful manner that considers economic, environmental, social, technological, and legal factors. A summary comparison of each of the considered alternatives, is provided below.

2.6.1 SUMMARY OF ALTERNATIVES

Alternatives A1 and A2 have the following three independent federal action and subsequent development: (1) transfer of the approximately 306-acre Mettler Site into trust; (2) issuance of a Two-Part Determination by the Secretary; (3) approval of the proposed management contract by the Chairperson of the NIGC; and (4) subsequent development of the Mettler Site with a variety of uses including; a casino resort, hotel, fire/police station, parking, wastewater treatment, and other supporting facilities. Alternative A2 includes the development of these facilities at a reduced scale.

Alternative A3 is similar to Alternatives A1 and A2 in that the Mettler Site would be transferred into trust status; however, no determination would be required from the Secretary nor would Alternative A3 provide for approval of a management contract by the Chairman of NIGC as this alternative would not be used for gaming. Alternative A3 would result in the operation of an organic farm and no development would occur.

Alternative B has the following similar components to Alternative A1: (1) transfer of the Maricopa Highway Site into trust; (2) issuance of a Two-Part Determination by the Secretary; (3) approval of the proposed management contract by the Chairperson of the NIGC; and (4) development of the Maricopa Highway Site with a variety of uses including, a casino resort facility, fire/police station, parking, water treatment and infrastructure, and other supporting facilities.

Alternative C is the No Action Alternative, and would involve a no trust acquisition of the Mettler or Maricopa Highway Sites. No change in economic benefits to the Tribe would result from the implementation of Alternative C.

2.6.2 COMPARISON OF ENVIRONMENTAL AND ECONOMIC CONSEQUENCES

In accordance with CEQ regulations, the alternatives considered in this EIS include those which could accomplish most of the purpose and need for the Proposed Actions, and that could avoid or substantially lessen one or more of the significant effects of the Proposed Actions. **Section 3.0** describes potential environmental impacts as a result of each alternative, while **Section 4.0** identifies appropriate mitigation to reduce potential adverse effects of development. A summary comparison of environmental impacts is provided below.

- Alternative A1 would result in an increase in employment and economic growth and in the demand for goods and services, and the Tribe has purchased and invested capita into the potential development of the Mettler Site. The County supports development on the Mettler Site versus the Maricopa Highway Site because less valuable farmland according to County Zoning would be converted to non-agricultural uses (**Appendix AB**). Development on the site would increase air emissions and noise during construction and casino resort operation. The overall water demand at the Mettler Site under this alternative would be reduced by approximately 50 AF per year (AFY), a 22 percent reduction. The Water Agreement would assist the Tribe in maintaining neutral to positive groundwater levels in the vicinity of the Mettler Site. There is a potential flood risk as the Mettler Site is located within a floodplain. Alternative A1 is the Tribe's Proposed Project and would provide the Tribe with the opportunity for securing a viable means of attracting and maintaining a long-term, sustainable revenue stream to support the Tribal.
- Alternative A2 would result in increased employment and economic growth and in an increase in demand for goods and services, but to a lesser extent than under Alternative A1. Alternative A2 would generate less traffic than Alternative A1. Therefore, there would be fewer impacts associated with traffic congestion, mobile air emissions, and traffic-related noise effects. During construction, traffic impacts would also be less than under Alternative A1 as the footprint would be smaller, requiring fewer trips to deliver materials, less equipment, and fewer trips to transport fill. Under this alternative, overall water demand at the Mettler Site would be reduced by 56 AFY, an 9 percent larger reduction than Alternative A1. The Water Agreement would assist the Tribe in maintaining neutral to positive groundwater levels in the vicinity of the Mettler Site. Similar to Alternative A1, there is a potential flood risk as the Mettler Site is located within a floodplain. Alternative A2 would provide

economic development opportunities for the Tribe; however, the net revenues would be less than under Alternative A1 and, therefore, would be substantially less effective in generating a long-term, sustainable revenue stream for the Tribal government.

- Alternative A3 would avoid most of the environmental effects associated with the development and construction of Alternatives A1 and A2, and thus have significantly less environmental effects, aside from water use. Alternatives A1 and A2 would significantly reduce water demand at the Mettler Site while Alternative A3 would not. However, operations under Alternative A3 would not be affected by flood risk compared to Alternatives A1 and A2. An analysis of the economic output and wages of the organic farm (**Section 3.7.4.1**) revealed that Alternative A3 would produce 51 full-time employees compared to approximately 3,000 full-time employees under Alternatives A1 and A2. Alternative A3 would generate negligible economic output for businesses in the region as well as negligible tax revenues for the State and County. Therefore, this alternative would not be the most effective means of attracting and maintaining a long-term, sustainable revenue stream.
- Alternative B would result in an increase in employment and economic growth and the demand for goods and services to the same extent as Alternative A1. However, the economic losses during initial development would be greater for the Tribe with Alternative B because the Tribe has not purchased the Maricopa Highway Site. Environmentally, Alternative B would generate less traffic than Alternative A1 (**Appendix F**). Therefore, there would be fewer impacts associated with traffic congestion, mobile air emissions, and traffic-related noise effects. Alternative B would use approximately 140 AFY (equal to existing agriculture water use), which this is a lesser quantity than Alternative A1 and a greater quantity than Alternative A2. However, unlike the Mettler Site, there is no current Water Agreement with the local water district that would serve to mitigate the increased groundwater extraction. Because of this, Alternative B could have a greater impact on groundwater than Alternative A1. Alternative B has a lesser flood risk than Alternative A as the Maricopa Highway Site is not located within a 100-year floodplain like the Mettler Site, but highly valued farmland zoned Exclusively Agriculture (A) would be lost with development of Alternative B. Because of this, County is opposed to development on the Maricopa Highway Site (**Appendix AB**). Although the Maricopa Highway Site is large enough for the development of a casino resort and related infrastructure, it would limit the Tribe's ability to provide future governmental services on its homeland due to the smaller size of the Maricopa Highway Site compared to the Mettler Site. Furthermore, more intense development to extend natural gas facilities to the Maricopa Highway Site would be required.
- Alternative C would avoid all environmental effects associated with the development of Alternatives A and B, and thus would have significantly fewer environmental effects. However, this alternative would be the least effective in meeting the purpose and need for the Proposed Actions.

For a detailed discussion of potential environmental consequences associated with each of the alternatives, refer to **Section 3.0**. Measures to avoid, minimize, or mitigate adverse effects are provided in **Section 4.0**.

2.7 PREFERRED ALTERNATIVE

Consistent with the BIA NEPA Handbook, the Department of the Interior Departmental Manual (516 DM 4), the CEQ NEPA Regulations (40 C.F.R. § 1502.14), and the CEQ NEPA Forty Most Asked Questions guidance document (46 Fed. Reg. 18026 (1981)), the BIA considers an alternative's ability to meet the purpose and need of the Proposed Action and the overall impact on the environment when selecting a Preferred Alternative. The BIA's mission is to enhance the quality of life and to promote economic opportunity in balance with meeting the responsibility to protect and improve the trust resources of American Indians, Indian Tribes, and Alaska Natives. This mission is reflected in the policies underlying the statutory authorities governing the Proposed Action, namely, the IRA, which was enacted to promote Indian self-government and economic self-sufficiency, and IGRA, which was enacted to govern Indian gaming as a means of promoting tribal economic development, self-sufficiency, and strong tribal governments. Of the alternatives evaluated

within the EIS, Alternative A1 would best meet the purposes and needs of the BIA, consistent with its statutory mission and responsibilities to promote the long-term economic vitality, self-sufficiency, self-determination, and self-governance of the Tribe.

The casino-resort complex described under Alternative A1 would provide the Tribe with the best opportunity for securing a viable means of attracting and maintaining a long-term, sustainable revenue stream for the tribal government. Under such conditions, the tribal government would be stable and better prepared to establish, fund, and maintain governmental programs to meet the unmet needs of the Tribe, as well as reestablish a homeland for the Tribe, as described in **Section 1.3**. The development of Alternative A1 would meet the purpose and need of the Proposed Action better than the other development alternatives due to the reduced revenues and beneficial effects to the Tribe and surrounding community that would be expected from the operation of Alternatives A2, A3, B, and C. While Alternative A1 would have greater environmental impacts than the No Action Alternative, that alternative does not meet the purpose and need for the Proposed Action, and the environmental impacts of the Preferred Alternative are adequately addressed by the mitigation measures identified in **Section 4.0**.

SECTION 3.0

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

SECTION 3.0

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 INTRODUCTION

As required by the BIA NEPA manual and 40 CFR § 1502.15, this section describes the existing environment of the area affected by the project alternatives as well as the environmental consequences for each project alternative. Resource areas or issues that are addressed in this section include the following.

Section	Resource Area/Issue
3.2	Geology and Soils
3.3	Water Resources
3.4	Air Quality
3.5	Biological Resources
3.6	Cultural and Paleontological Resources
3.7	Socioeconomic Conditions
3.8	Transportation/Circulation
3.9	Land Use
3.10	Public Services
3.11	Noise
3.12	Hazardous Materials
3.13	Aesthetics
3.14	Indirect and Growth-Inducing Effect

Direct impacts are caused by an action and occur at the same time and place while indirect impacts are caused by the action and occur later in time or further in distance, but are still reasonably foreseeable (40 CFR § 1508.8). Indirect and growth-inducing effects of the alternatives to each resource area are assessed in **Section 3.14**, and cumulative effects are assessed individually within **Sections 3.2** to **3.13**. Note that, consistent with 40 CFR § 1508.8, the term “effects” is used synonymously with the term “impacts.”

3.1.1 CUMULATIVE ANALYSIS

Cumulative effects are defined as those effects to the environment resulting from the incremental effect of the Proposed Actions when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time (40 CFR § 1508.7). Cumulative effects analysis broadens the scope of analysis to include effects beyond those solely attributable to the direct effects of the alternatives. The purpose of cumulative effects analysis, as stated by the CEQ, “is to ensure that federal decisions consider the full range of consequences” (CEQ, 1997). For a discussion of the growth-inducing effects of the proposed alternatives, including governmental services envisioned by the Tribe in the years following the opening of the gaming facility, please refer to **Section 3.14** and **Table 3.1-1**.

TABLE 3.1-1
POTENTIAL FUTURE DEVELOPMENT

Area	Alternative A1		Alternative A2		Alternative B	
	Size of Components	Total Area	Size of Components	Total Area	Size of Components	Total Area
Potential Future Development (Phase 2)						
Organic Farm	-	40 acres	-	40 acres	-	30 acres
Residential Community	92 homes	102 acres	92 homes	102 acres	15 homes	16 acres
Community Park	-	29 acres	-	52 acres	-	2.5 acres
Community/Tribal Area	153,500 sf	25 acres	153,500 sf	25 acres	30,000 sf	7 acres
Community Center	68,000 sf	-	68,000 sf	-	9,000 sf	-
Health Center	43,000 sf	-	43,000 sf	-	9,000 sf	-
Tribal Administration	42,500 sf	-	42,500 sf	-	12,000 sf	-
Notes: Line items do not precisely add to total due to rounding. sf = square feet. Dash represents table items that are not available or not applicable.						
Source: Friedmutter Group, 2018a; Friedmutter Group, 2018b; Friedmutter Group, 2018c.						

The process of analyzing cumulative effects requires consideration of issues in each of the traditional components of an EIS, including scoping, describing the affected environment, and determining environmental consequences. The incorporation of cumulative effects analysis also aids in the development of alternatives and appropriate mitigation measures.

The analysis in this section considers the incremental effects of the project alternatives on specific resources, ecosystems, and human communities that could occur in conjunction with other reasonably foreseeable actions, projects, and trends. As recommended by *Considering Cumulative Effects*, only those potential cumulative effects that are considered to be relevant or consequential have been discussed in depth (CEQ, 1997).

The geographic boundaries of the cumulative effects zone have been determined based on the nature of the resources affected and the distance that such effects may travel. As an example, increased sedimentation of waterways that result from a project is limited to the watershed in which they occur. As a result, it is only necessary to examine effects within that watershed. Air quality emissions from a project travel over far greater distances and, therefore, necessitate analysis on a county, air basin, or regional level. For this analysis, the geographic boundary of the cumulative effects zone is generally that of the county, but with some resources (water, biological, etc.) smaller natural or cultural boundaries are used. The temporal frame of analysis for cumulative effects must also be determined to evaluate impacts. The year 2040 was chosen as the cumulative year for analysis because it represents a reasonable prediction for future conditions with the population growth and traffic projections available.

Cumulative Setting

The cumulative setting includes past, present, and reasonably foreseeable future actions that are not part of the Proposed Actions, but are related to the cumulative effects. This includes the Tribe's long-term goal of developing the delivery of services from the Mettler Site. It furthers includes projected growth and zoning as detailed in County and City of Bakersfield General Plans. The cumulative impact analysis within this EIS and associated technical studies (including the traffic impact analysis provided as **Appendix F**) considered the implementation of potential cumulative actions, projects in the vicinity and additional growth in accordance with the County and City of Bakersfield General Plans.

The status of affected resources is based upon the information provided in **Section 3.0** of this EIS, from specific resource studies conducted for the project alternatives and additional review and analysis. 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 and City of Bakersfield General Plans.

The most substantial changes that are expected to occur in the regional environment will occur as a result of the population and employment growth that is projected to occur over the next 20 years; this growth is discussed in **Section 3.7**. Several casinos in the expanded region of central and southern California, two of which are proposed and several of which are existing, are considered in the cumulative environment and are discussed in both **Section 3.7** and **Appendix I**. The cumulative analysis addresses residential and commercial growth as identified in regional growth projections and local land use plans, and in **Appendix I**.

Major development projects proposed and/or currently being constructed in the vicinity of the Mettler and Maricopa Highway Sites are listed below and are assumed under cumulative conditions. These projects were determined based on consultation with local government agencies, including the nearby City of Bakersfield and the County, and the traffic impact analysis (**Appendix F**).

Transportation Projects – All Alternative Sites

A number of transportation projects separate from the alternatives are planned to be completed or in progress during the opening year (2023); these projects are listed in **Appendix J**. It should be noted that the cumulative analysis influence area incorporates the vicinities of both alternative sites (i.e., the Mettler and Maricopa Highway Sites) analyzed in this EIS. A review of these projects indicates that they would not add significant traffic to the project study area intersections, roadway segments, or freeway mainline segments. Instead, the projects would generally improve road conditions, safety, and traffic flow in the vicinity.

Regional Development Projects

There are several planned development projects in the County and in Los Angeles County that have been considered as part of the cumulative analysis. The Mettler and Maricopa Highway Sites are within 10 miles of the Sphere of Influence (SOI) for the City of Bakersfield. A number of development projects that are anticipated to occur outside of the SOI for the City of Bakersfield, but within the southwest area of the County, have been considered for the cumulative effects analysis at both alternative sites. Cumulative projects are listed in Table 1 in **Appendix J**.

Other Potential Future Development of the Alternative Sites

The Mettler and Maricopa Highway sites could eventually be able to support higher density development than described in Alternatives A1, A2, and B. While somewhat speculative, since no firm proposals or funding are in place, potential future developments could include the buildout of residential, governmental, and agricultural areas (**Figures 2-3, 2-7, and 2-11 of Appendix E**). The specifics of these envisioned potential future developments vary between alternatives and are described in Table 2 in **Appendix J**. This potential future development may occur over the course of 10 to 20 years following the initial development of the proposed casino resort facilities. The Tribe envisions a long-term goal of providing housing a health clinic, governmental offices from which to provide services such as social services and education, a community center, an organic farm, and wellness and recreational facilities. However, to provide a conservative analysis of maximum year emissions, the air quality modeling assumed that future development would occur over a two-year period, from 2030 to 2032, and would be fully operational by 2032. The effects of this potential induced growth are discussed independently in **Section 3.14.2** because they are a distinct subset of indirect effects from the project alternatives.

3.2 GEOLOGY AND SOILS

This section assesses the environmental consequences of the alternatives described in **Section 2.0** as they relate to geology and soils. Applicable regulatory policies and plans related to geology and soils are summarized in **Section 3.2.1** and described in detail in **Appendix K**. Effects are measured against the environmental baseline, which is described in

Section 3.2.2. Direct and cumulative effects are identified in **Section 3.2.3**, while indirect effects and growth-inducing effects are discussed in **Section 3.14**. Measures to mitigate for adverse impacts identified in this section are presented in **Section 4.0**.

3.2.1 REGULATORY SETTING

The geology and soils regulatory setting is summarized in **Table 3.2-1**, and additional information on the regulatory setting can be found in **Appendix K**.

TABLE 3.2-1
REGULATORY POLICIES AND PLANS RELATED TO GEOLOGY AND SOILS

Regulation	Description
Federal	
CWA	<ul style="list-style-type: none"> Prohibits sediment and erosion discharge into navigable waters of the United States and establishes water quality goals
State	
California Code of Regulations, Title 22	<ul style="list-style-type: none"> Establishes minimum requirements to protect public health, safety, and general welfare; also known as the California Building Code (CBC)
Alquist-Priolo Earthquake Fault Zoning Act	<ul style="list-style-type: none"> Ensures public safety by prohibiting the siting of most structures for human occupancy across traces of active faults
Seismic Hazards Mapping Act	<ul style="list-style-type: none"> Requires the California State Geologist to create maps delineating zones where data suggest amplified ground shaking, liquefaction, or earthquake-induced landslides may occur
Local	
Kern County General Plan	<ul style="list-style-type: none"> Guides development in the County including safety, land use, open space, and conservation elements; describes policies and goals for mineral and soil resources and identifies borax, cement, and construction aggregates
Kern County Code of Building Regulations	<ul style="list-style-type: none"> Incorporates the 2016 California Code of Regulations with local modifications, additions, and amendments due to local climatic, geological, or topographical conditions

3.2.2 ENVIRONMENTAL SETTING

3.2.2.1 Regional Geologic Setting

The Mettler and Maricopa Highway sites are situated in the San Joaquin Valley in the southwest portion of the County. The sites are within the Great Valley geomorphic province, which is 50 miles wide and 400 miles long, and consists of a relatively flat alluvial plain and thick sequences of sedimentary deposits of Tertiary and Quaternary age (California Department of Parks and Recreation, 2018). The San Joaquin Valley is bound on the east by the Sierra Nevada Mountains and the west by the California Coast Mountain Range.

3.2.2.2 Mettler Site

Topography and Soils

The Mettler Site is composed of generally flat terrain; slopes range from 0-2 percent with an average natural slope of 1.4 percent (**Appendix H**). The site gently slopes downward from southeast to northwest, with on-site elevations ranging from approximately 470 to 530 feet above mean sea level (amsl).

The USDA Natural Resources Conservation Service (NRCS) aggregates soil survey and mapping data. Each survey charts soil units and provides a summary of major physical characteristics for each unit with management recommendations. A soil map of the Mettler Site is shown in **Figure 3.2-1** in **Appendix E**. A brief description of each soil unit and approximate percentages are provided below. **Table 3.2-2** outlines soil characteristics that pertain to stormwater runoff and erosion potential of soils on the Mettler Site.

TABLE 3.2-2
SITE SOIL PROPERTIES

Soil	Percent of Site	Hydrologic Soil Group	Drainage Class	Ksat (µm/s)	Erosion Susceptibility	Corrosion of Concrete	Corrosion of Steel	Shrink-Swell Potential
Mettler Site								
Cerini Loam	96.1	B	Well Drained	9.0	Slight	Moderate	High	Low
Excelsior Sandy Loam	3.9	A	Well Drained	28.0	Slight	Low	Moderate	Low
Maricopa Highway Site								
Cerini Loam	39.1	B	Well Drained	9.0	Slight	Moderate	High	Low
Excelsior Loam	60.9	B	Well Drained	9.0	Slight	Moderate	High	Low
Notes: µm/s = micrometer per second Ksat = saturated hydraulic conductivity Source: NRCS, 2018a; NRCS, 2018b.								

Soil Types

Cerini Loam

This well-drained, nearly level soil is often located in alluvial fans and is characterized by slopes ranging from 0-2 percent in elevations ranging from 165-1,000 feet amsl. Cerini loam is formed within alluvium and is comprised of clay loam, silt loam, fine sandy loam, and sandy loam to a depth of 62 inches. This soil makes up approximately 96.1 percent of the Mettler Site and is located primarily in the central portion of the site (NRCS, 2003; NRCS, 2018a).

Excelsior Sandy Loam

This well-drained, nearly level soil is often located in alluvial fans and is characterized by slopes ranging from 0-2 percent in elevations ranging from 200-1,000 feet amsl. Excelsior sandy loam is formed in igneous and calcareous alluvium and consists of sandy loam to a depth of 70 inches. This soil makes up approximately 3.9 percent of the Mettler Site and is located primarily in the northeast and southwest corners of the property (NRCS, 2002; NRCS, 2018a).

Soil Hazards

The hydrologic soil group is a classification based on the runoff potential of the soils when thoroughly saturated by a long duration storm. Soils are grouped into four classes that grade from A to D with A being coarse-grained soils with high infiltration and low runoff potential, and D being mostly fine-grained clays with extremely slow infiltration and high runoff potential. The soils on the Mettler Site have hydrologic ratings of both A (3.9 percent) and B (96.1 percent) indicating that the majority of the soils have high to moderate infiltration rates and low runoff potential with a generally coarser-grain texture (**Table 3.2-2**; NRCS, 2018a).

Saturated hydraulic conductivity [Ksat] is a quantitative measurement for the movement of water through saturated soil or the ease with which pores in a saturated soil transmit water. Ksat is a factor in determining the hydrologic soil group, and is often used in the design of water and wastewater disposal features such as percolation ponds and septic systems. Ksat measures transport only in a vertical direction under completely saturated conditions. The following descriptions for the range of measured Ksat are used by the NRCS.

- very high: >100 micrometers per second (µm/s)
- high: 10–100 µm/s
- moderately high: 1–10 µm/s

- moderately low: 0.1–1 $\mu\text{m/s}$
- low: 0.01–0.1 $\mu\text{m/s}$
- very low: $<0.01 \mu\text{m/s}$

As shown in **Table 3.2-2**, all soils on the Mettler Site transmit water from a moderately high to high rate. This indicates that water infiltrates at a high rate instead of running off; in addition, relatively flat topography would reduce runoff potential. Erosion potential on the Mettler Site is slight (NRCS, 2018a).

Corrosivity pertains to a soil-induced electrochemical or chemical reaction that corrodes concrete or steel. Both of the soils within the Mettler Site have a low risk of corrosion to concrete but vary in corrosivity to steel; Cerini loam has a low risk of corrosion to steel while the Excelsior sandy loam has a moderate corrosivity to steel (NRCS, 2018a).

Expansive soils may increase in volume when water is absorbed and may shrink when dried, as expansive soils are largely comprised of clays. The property of expansion is measured using linear extensibility. Expansive soils are of concern because they can cause building foundations to rise during the rainy season and fall during the dry season, causing structural distortion. As shown in **Table 3.2-2**, the Cerini loam as well as the Excelsior sandy loam have a low shrink-swell potential and are therefore not considered to be expansive soils (NRCS, 2018a).

Seismicity

Seismic Conditions

The San Joaquin Valley, like most of California, is a seismically active region. At least 20 faults occur within the vicinity of the Mettler Site (USGS, 2017). Most of these faults are considered small, historical (occurring within the last 150 years), and active. **Figure 3.2-2 in Appendix E** depicts the faults nearest to the Mettler Site. The closest fault, located approximately 240 feet from the southern boundary of the Mettler Site, is classified as quaternary and active within the last 1.6 million years (California Geological Survey [CGS], 2018a), indicating a potentially active fault. The Mettler Site is not within an Earthquake Fault Zone, which is defined as a regulatory zone around an active fault (Department of Conservation [DOC], 2019a). The closest Earthquake Fault Zone is the Wheeler Ridge Fault Zone, which is approximately 3 miles southwest of the Mettler Site. In addition, the Mettler Site is not within a fault zone identified in the Kern County Seismic Hazard Atlas (Kern County, 1968).

Liquefaction

Soil liquefaction can occur in seismic conditions. Liquefaction is the temporary transformation of saturated, non-cohesive material from a relatively stable, solid condition to a liquefied state as a result of increased soil pore water pressure. Soil pore water pressure is the water pressure between soil particles. Liquefaction can occur if three factors are present: seismic activity, loose sand or silt, and shallow groundwater.

The County General Plan identified one area that has been suggested as posing potential liquefaction problems: the edge of the County adjacent to the unincorporated community of Rosamond on Los Angeles County property (Kern County, 2009). The known liquefaction area is not located in the vicinity of the Mettler Site and no DOC liquefaction zones are located within the County (DOC, 2019b). Additionally, the soils in the Mettler Site do not have a shallow depth to groundwater (NRCS, 2018a).

Lateral Spreading

Lateral spreading can occur during a seismic event in the form of horizontal ground displacement and is typical where the ground surface is relatively flat and comprised of alluvium or depositional sediment. This movement in soils is generally due to failure along a weak sub-layer that is formed within an underlying liquefied layer. Cracks develop within the weakened material while blocks of soil move laterally toward the free face.

The Mettler Site is generally flat and composed of depositional soil types that are typical features that can lead to lateral spreading. However, due to the well-drained soils and low linear extensibility within the Mettler Site, it is unlikely that lateral spreading would occur.

Mineral Resources

The Mettler Site is not located within the County General Plan mineral and petroleum resource areas (Kern County, 1982). In addition, no identified mineral resources (e.g., gravel and/or sand) or notable geothermal resource areas exist within the vicinity of the Mettler Site (Data Basin, 2009).

3.2.2.3 Maricopa Highway Site

Topography and Soils

The Maricopa Highway Site lies on level terrain with slopes less than 2 percent. The site slopes gently from the northeast corner to the southwest corner of the site. The site elevation ranges from approximately 460 to 515 feet amsl.

The USDA NRCS soil survey map of the Maricopa Highway Site is shown in **Figure 3.2-3** in **Appendix E**. A brief description of the Excelsior loam map unit, which makes up approximately 60 percent of the Maricopa Highway Site, is provided below. A brief description of Cerini loam, located in the northern half of the Maricopa Highway Site and comprising approximately 40 percent of the soil on the site, is provided above in **Section 3.2.2.2**. **Table 3.2-2** describes soil characteristics that pertain to stormwater runoff and erosion potential.

Soil Types

Excelsior Loam

Similar to the Excelsior sandy loam described in **Section 3.2.2.2**, this well-drained, nearly level soil is often located in alluvial fans and is characterized by slopes ranging from 0-2 percent in elevations ranging from 360 to 720 feet amsl. It is formed in alluvium derived from sedimentary rock and consists of sandy loam, loamy sand, and silt loam to a depth of 60 inches (NRCS, 2002; NRCS, 2018b).

Soil Hazards

The Maricopa Highway Site consists of well-drained soils with hydrologic soil group ratings of B, indicating moderately high infiltration rates and low runoff rates; as a result, the erosion potential is slight (**Table 3.2-2**; NRCS, 2018b). All of the soils within the Maricopa Highway Site have a moderate risk of corrosion to concrete, high corrosivity to steel, and low shrink-swell potential (NRCS, 2018b). Refer to **Section 3.2.2.2** for a more detailed description of these hazards.

Seismicity

Figure 3.2-2 (**Appendix E**) shows the nearest fault lines to the Maricopa Highway Site. As with the Mettler Site, numerous faults are located nearby with one quaternary fault approximately 390 feet from the southeastern corner of the Maricopa Highway Site. Seismic hazards at the Maricopa Highway Site are similar to those of the Mettler Site due to the close proximity of the two sites; refer to the description of seismic hazards in **Section 3.2.2.2**. The Maricopa Highway Site is also not within an Earthquake Fault Zone, and it is not within a designated Kern County Seismic Hazard Fault Zone (CGS, 2010).

The Maricopa Highway Site is not within a known liquefaction area (Kern County, 2009; DOC 2019b). Additionally, the soils on the Maricopa Highway Site have a deep depth to groundwater that prevent liquefaction (NRCS, 2018b). As with the Mettler Site, due to the well-drained soils and low linear extensibility within the Maricopa Highway Site, it is also unlikely that lateral spreading would occur.

Mineral Resources

The Maricopa Highway Site is not located within the County General Plan mineral and petroleum resource areas (Kern County, 1982). In addition, no identified mineral resources (e.g., gravel and/or sand) or notable geothermal resource areas exist within the vicinity of the Maricopa Highway Site (Data Basin, 2009).

3.2.3 IMPACTS

Assessment Criteria

Each alternative is analyzed to determine if construction or operation would result in direct significant impacts to the proposed site topography, soils, or mineral resources. Furthermore, each geological hazard associated with the sites is assessed to determine if it would pose limitations to the development of each alternative.

3.2.3.1 Alternative A – Development on the Mettler Site

Alternatives A1 and A2

Site Topography

Development of Alternatives A1 and A2 on the Mettler Site would result in similar effects to geological and soil resources. The Preliminary Grading, Drainage, and Flood Impact Analysis for Alternatives A1 and A2 is included in **Appendix H** and summarized in **Section 2.0**. As described therein, the construction of Alternative A1 would require approximately 485,000 cubic yards of fill to raise the building pads above the base flood elevation. Approximately 80,000 cubic yards of fill would likely be available from the excavation of the proposed stormwater drainage basins located in the development area. Similar to Alternative A1, construction of Alternative A2 would require approximately 362,000 cubic yards of fill to raise the building pads above the base flood elevation. Approximately 79,000 cubic yards of fill would likely be available from the excavation of the proposed stormwater drainage basins located in the development area. Any additional fill soil required to fulfill soil needs would be acquired from the sources discussed in **Section 2.2**.

The Mettler Site is generally flat and does not contain any distinctive topographical features. On-site grading would raise the development above flood elevations and facilitate proper drainage. Development of Alternatives A1 and A2 would result in a minimal impact on topography, therefore no mitigation is recommended. Impacts associated with the floodplain are evaluated in **Section 3.3**.

Soils and Geology

The development of Alternatives A1 or A2 could impact soils and thus cause soil erosion during construction. Construction activities such as clearing, grading, trenching, and backfilling could reduce the integrity of the soil structures, thereby increasing the likelihood of erosion from wind and/or stormwater runoff. However, the soils on the Mettler Site have a low erosion potential based on soil properties and the flatness of the site (**Table 3.2-2**). Nevertheless, this is a potentially significant impact due to the extensive level of construction over an extended period of time.

Construction of Alternatives A1 or A2 would disturb more than 1 acre of soil; therefore, the Tribe is required by the CWA to obtain coverage under and to comply with the terms of the NPDES Construction General Permit. Pursuant to the NPDES Construction General Permit, a site-specific Stormwater Pollution Prevention Plan (SWPPP) would be prepared and implemented. The SWPPP would make provisions for erosion prevention and sediment control and control of other potential pollutants to prevent discharge into Waters of the U.S. With incorporation of Mitigation Measures 1-A and 1-B in **Section 4.0**, effects related to erosion and sedimentation from construction of Alternatives A1 or A2 would be less than significant.

Seismicity

Although the Mettler Site is not in an Earthquake Hazard Zone, there are at least 20 nearby historical faults. Therefore, development on the Mettler Site is subject to building restrictions. As discussed in **Sections 2.2.2** and **2.2.3**, the casino

resort and related facilities under Alternatives A1 and A2 would be constructed to standards no less stringent than the CBC (California Code of Regulations, Title 24), particularly those pertaining to earthquake design, in order to safeguard against major structural failures and loss of life. Refer to **Appendix K** for more information regarding the CBC. As the Mettler Site is not within any Earthquake Hazard Zones and would be developed to standards at or better than CBC, development of Alternative A1 or A2 would have no adverse effects related to seismic hazards. Consequently, no mitigation is recommended.

Mineral Resources

Given there are no known or recorded mineral resources within the Mettler Site, construction and operation of Alternative A1 or A2 would not adversely affect known or recorded mineral resources. No adverse impacts to mineral resources would occur under Alternative A1 or A2; therefore, no mitigation is recommended.

Alternative A3

Operation of Alternative A3 would not result in any soil disturbance beyond what is currently occurring as part of the existing agricultural operations at the Mettler Site. Therefore, the impact to erosion and sedimentation would be less than significant and no mitigation is recommended. Alternative A3 does not involve the development of any new structures; therefore, no adverse effects related to seismic hazards would occur. Given there are no known or recorded mineral resources within the Mettler Site, construction and operation of Alternative A3 would not adversely affect known or recorded mineral resources and no mitigation is recommended.

Cumulative Geology and Soils Impacts

Alternatives A1 and A2

Cumulative effects associated with geology and soil resources could occur as a result of future development in combination with Alternatives A1 or A2. A description of potential future development is provided in **Section 3.1.1**. Topographic changes may be cumulatively significant if the topography contributes significantly to environmental quality with respect to habitat, public safety, or other values. However, no significant changes to topography are proposed under Alternatives A1 and A2.

Soil loss could be cumulatively considerable even if the developments alone would not result in significant loss of topsoil, but taken together with all other developments may result in significant depletion of available soils. Local permitting requirements for construction would address regional geotechnical and topographic conflicts, seismic hazards, and resource extraction availability. Approved developments would be required to follow applicable permitting procedures. In addition, Alternatives A1 and A2 and all other developments that disturb 1 acre or more, including the potential future developments for the Mettler Site, must comply with the requirements of the NPDES Construction General Permit. Therefore, implementation of Alternative A1 or A2 would not result in significant cumulative effects to geology or soils.

Alternative A3

Alternative A3 does not result in any changes to topography and therefore would not have cumulative effects.

3.2.3.2 Alternative B – Casino Resort on the Maricopa Highway Site

Site Topography

The preliminary Grading and Drainage Plan for Alternative B is included in **Appendix H**. Grading would consist primarily of excavating soil for some project components and filling for building pads. Given the almost completely level nature of the Maricopa Highway Site, minimal grading would be required except for that mentioned above. Construction of Alternative B would require approximately 126,000 cubic yards of fill to create a level building pad. Approximately 119,000 cubic yards of fill would likely be available from the excavation of the proposed stormwater drainage basins

located in the development area. Additional fill soil would be acquired from the sources discussed in **Section 2.3** to fulfill any remaining soil needs.

The site is generally flat and does not contain any distinctive topographical features. On-site grading would facilitate proper drainage. Development of Alternative B, given the proposed design (**Section 2.3**), would result in a minimal impact on topography; therefore, no mitigation is recommended.

Soils and Geology

The development of Alternative B could impact soils and cause soil erosion during construction activities. Construction activities such as clearing, grading, trenching, and backfilling could reduce the integrity of the soil structures, thereby increasing the likelihood of erosion from wind and/or stormwater runoff. The majority of the soils in the Maricopa Highway Site have low erosion potential based on soil type and slope gradient (**Table 3.2-2**).

Construction of Alternative B would disturb more than 1 acre of soil; therefore, the Tribe is required by the CWA to obtain coverage under and comply with the terms of the NPDES Construction General Permit that are similar to Alternatives A1 and A2. With incorporation of Mitigation Measures 1-A and 1-B in **Section 4.0**, effects related to erosion and sedimentation from construction of Alternative B would be less than significant.

Seismicity

Impacts related to seismic hazards for Alternative B are similar to Alternatives A1 and A2 due to proximity of location (refer to **Section 3.2.3.1**). Development would also be constructed to standards consistent with the CBC to safeguard against major structural failures and loss of life. The Maricopa Highway Site is not within any Earthquake Hazard Zones. Therefore, no mitigation is recommended.

Mineral Resources

Given that there are no known or recorded mineral resources within the Maricopa Highway Site, construction and operation of Alternative B would not adversely affect known or recorded mineral resources. No adverse impacts to mineral resources would occur under Alternative B; therefore, no mitigation is recommended.

Cumulative Geology and Soils Impacts

Cumulative effects associated with geology and soil resources are unlikely to occur as a result of cumulative projects listed in **Appendix J** in combination with Alternative B. No major changes to topography are proposed under Alternative B. No significant cumulative impacts in this area related to topography are anticipated.

As with Alternative A1, soil loss could be cumulatively considerable, but local permitting requirements for construction would address regional geotechnical and topographic conflicts, seismic hazards, and resource extraction availability. Approved developments would be required to follow applicable local permitting procedures. In addition, Alternative B and all other developments that disturb 1 acre or more, including the potential future development of the Maricopa Highway Site, must comply with the requirements of the NPDES Construction General Permit. Therefore, implementation of Alternative B would not result in significant cumulative effects to geology or soils.

3.2.3.3 Alternative C – No Action Alternative

Under the No Action Alternative, none of the alternative sites would be taken into trust and no development would occur in the near future on the alternative sites. Topographic features and soils would remain undisturbed. No significant effects relating to geology and soils would occur as a result of the No Action Alternative.

3.3 WATER RESOURCES

This section assesses the environmental consequences of the alternatives described in **Section 2.0** as they relate to water resources. Applicable regulatory policies and plans related to water resources are briefly summarized in **Section 3.3.1** and

described in detail in **Appendix K**. Effects are measured against the environmental baseline that is described in **Section 3.3.2**. Direct and cumulative effects are identified in **Section 3.3.3**, while indirect effects are discussed in **Section 3.14**. Measures to mitigate for adverse impacts identified in this section are presented in **Section 4.0**.

3.3.1 REGULATORY SETTING

The water resources regulatory setting is summarized in **Table 3.3-1**, and additional information on the regulatory setting is provided in **Appendix K**.

TABLE 3.3-1
FEDERAL AND STATE WATER RESOURCES REGULATIONS

Regulation	Description
Federal	
Executive Order (EO) 11988	<ul style="list-style-type: none"> Requires federal agencies to evaluate the potential effects of any actions they may take in a floodplain; floodplain is defined as an area that has a 1 percent or greater chance of flooding in any given year Requires agencies proposing that an action be allowed in a floodplain to consider alternatives to avoid adverse effects; if the only practicable alternative action requires siting in a floodplain, EO 11988 requires the agency to minimize potential harm to or within the floodplain
CWA	<ul style="list-style-type: none"> Establishes national water quality goals Regulates both point and non-point sources of pollution through the NPDES Requires an NPDES permit be obtained to discharge pollutants into Waters of the U.S. Requires states to establish water quality standards for waters in their jurisdiction and to periodically prepare a list of surface waters where beneficial uses are impaired by pollutants
SDWA	<ul style="list-style-type: none"> The USEPA sets National Primary Drinking Water Regulations (primary standards) that apply to public water systems and also defines National Secondary Drinking Water Regulations (secondary standards) for contaminants that cause cosmetic and aesthetic effects, but not health effects.
Federal Emergency Management Agency (FEMA)	<ul style="list-style-type: none"> Responsible for determining base flood elevations and publishing Flood Insurance Rate Maps
State	
Porter-Cologne Water Quality Act	<ul style="list-style-type: none"> Requires the State, through the State Water Resources Control Board and Regional Water Quality Control Boards, to designate beneficial uses of surface and groundwater and to specify water quality objectives for those uses per the water quality objectives described in Regional Water Quality Control Plans
Sustainable Groundwater Management Act (SGMA)	<ul style="list-style-type: none"> Established a definition of “sustainable groundwater management” based on halting overdraft and balancing levels of pumping from and recharge of groundwater basins Requires the adoption of a Groundwater Sustainability Plan (GSP) for the most important groundwater basins in the State Encourages local agencies to form or join Groundwater Sustainability Agencies (GSA) to draft GSPs for their respective groundwater basins
Title 22 California Code of Regulations	<ul style="list-style-type: none"> Regulates the sources, uses, and quality standards of recycled water in the State Requires that recycled water used for the irrigation of food crops, parks and playgrounds, and residential landscaping be disinfected tertiary recycled water

3.3.2 ENVIRONMENTAL SETTING

Since the Mettler and Maricopa Highway sites are within the same watershed and overlay the same groundwater basin, the sites share many similar environmental conditions related to water resources. Any differences in the relevant environmental setting are described below.

3.3.2.1 Surface Water

Floodplain

The Mettler Site is located within Flood Zone A (an area in which no base flood elevation has been determined) in a Special Flood Hazard Area subject to inundation by the 1 percent annual chance (100-year) flood (**Figure 3.3-1** in **Appendix E**). Therefore, the Mettler Site is within a floodplain as defined by EO 11988 (FEMA, 2008a; FEMA, 2008b).

The Maricopa Highway Site is located in Flood Zone X, an area determined to be outside the 1 percent and 0.2 percent annual chance floodplains (**Figure 3.3-1** in **Appendix E**). Therefore, the Maricopa Highway Site is not within a floodplain (FEMA, 2008a; FEMA, 2008b).

Regional Watershed

The Mettler and Maricopa Highway sites are located within the Middle Kern-Upper Tehachapi-Grapevine Subbasin of the Tulare-Buena Vista Lakes Basin (USEPA, 2018a). Both sites are also located within the Arvin-Wheeler Ridge Hydrologic Area of the South Valley Floor Hydrologic Unit in the Tulare Lake Hydrologic Region (Caltrans, 2018). The northeast corner of the Mettler Site is located within the Caparell Creek-Frontal Kern Lake Bed Watershed (180300031000) while the remainder of the Mettler Site is located within the Tecuya Creek-Frontal Kern Lake Bed Watershed (180300031103; USEPA, 2018a). The Maricopa Highway Site is located within the Tecuya Creek-Frontal Kern Lake Bed Watershed.

The surface waterbody nearest to the Mettler and Maricopa Highway sites is Tecuya Creek. Tecuya Creek is a natural stream originating from the San Emigdio Mountains, approximately 15 miles south of Mettler. Tecuya Creek is approximately 0.1 miles west of the southern portion of the Mettler Site and approximately 0.5 miles northeast of the Maricopa Highway Site. The segment of the stream in the vicinity of both sites passes through agricultural fields and is heavily channelized. Tecuya Creek terminates approximately 2.4 miles northwest of the sites near the southern boundary of the now-dry historical Kern Lake bed (USEPA, 2018a). The California Aqueduct is located approximately 2.6 miles from the southern boundary of the Mettler Site and 1.3 miles from the southern border of the Maricopa Highway Site. Aside from Tecuya Creek, there are no natural surface waterbodies within 1 mile of the Mettler or Maricopa Highway Sites. There are several small agricultural irrigation ponds in the agricultural fields within a 1-mile radius of the Mettler Site.

There are no water bodies listed on the California state 303(d) list of impaired waters on or adjacent to the Mettler and Maricopa Highway Sites or within the Middle Kern-Upper Tehachapi-Grapevine Subbasin (USEPA, 2018b). The nearest impaired waterbody is Piru Creek, which runs in a west-east direction approximately 25 miles south of Mettler. Piru Creek is listed for high potential hydrogen and chloride (Caltrans, 2018).

Site Drainage

Three agricultural stock ponds are in the northwest corner of the Mettler Site, and a drainage ditch along the west perimeter of the Mettler Site directs surface and flood waters to the agricultural ponds (**Appendix L**). A man-made agricultural roadside drainage ditch runs along the north, east, and west perimeters of the Maricopa Highway Site.

3.3.2.2 Groundwater

The Mettler and Maricopa Highway sites are located near the southern boundary of the approximately 2,900-square mile Kern County Subbasin that is located within the broader San Joaquin Valley Groundwater Basin (Department of Water Resources [DWR], 2006). The Kern County Subbasin is bound by the County line and the Tule Groundwater Subbasin to the north, the granitic bedrock of the Sierra Nevada and Tehachapi Mountains to the east (DWR, 2006), and the White Wolf Fault and the White Wolf Groundwater Subbasin in the south and southeast (Erler & Kalinowski, Inc., 2016). The Edison and Pond-Poso faults and the Elk and Buena Vista hills act as barriers to groundwater movement within the Kern County Subbasin. Furthermore, layers of Corcoran clay, where present, impede the vertical movement of groundwater (DWR, 2006). The primary water-bearing materials in the Kern County Subbasin are continental deposits. These water-bearing deposits can be roughly sorted into four groups of formations, consisting predominately of silt and clay (DWR, 2006). Groundwater elevation within the vicinity of the Mettler and Maricopa Highway Sites ranged from 100 to 150 feet below ground level in 2015 (Kern Groundwater Authority [KGA], 2019).

There are 15 active and one historic/inactive wells located within a 1-mile radius of the Mettler Site (DWR, 2018a). Groundwater elevations in active wells in the vicinity are summarized in **Table 3.3-2**. The general area of the Kern County Subbasin that the Mettler Site is located in has experienced average declines in groundwater levels of 40 to 50 feet in the period from 2008 to 2018 (DWR, 2018c). In addition to the wells listed in **Table 3.3-2**, the Mettler County Water District (MCWD) is a small municipal water district adjacent to the Mettler Site that currently serves a population of 157

with two active MCWD groundwater wells that are approximately 3,000 feet away from the proposed well at the Mettler Site. These active wells are drilled to depths of 700 feet below ground, which the maximum groundwater depths at any given time is 400 feet below ground (**Appendix G**).

TABLE 3.3-2
GROUNDWATER ELEVATIONS IN THE VICINITY OF THE ALTERNATIVE SITES

State Well ID	Distance From Sites (miles)	2018 Groundwater Elevation (feet)	2008 Groundwater Elevation (feet)	Groundwater elevation change (feet)
Mettler Site				
11N20W02L001S	0.90	79.0	135.0	-56.0
Maricopa Highway Site				
11N20W02L001S	0.90	79.0	135.0	-56.0
11N20W09C001S	0.75	187.6	204.5	-16.9
11N20W04G001S	0.75	165.5	128.5	+37.0
Source: DWR, 2018b, 2018d, 2018e.				

There are 16 active wells located within a 1-mile radius of the Maricopa Highway Site (DWR, 2018a). Groundwater elevations for the three active wells with available data are summarized in **Table 3.3-2**. Well 11N20W09C001S is used for irrigation use and is over 1,000 feet deep (DWR, 2018d). None of the other wells are utilized for water usage. The general area of the Kern County Subbasin that the Maricopa Highway Site is located in has experienced average declines in groundwater levels of 30 to 40 feet in the period from 2008 to 2018 (DWR, 2018c).

Groundwater Supply

The Kern County Water Agency estimated the total water storage of the Kern County Subbasin to be 40,000,000 AF, with an additional dewatered aquifer storage capacity of 10,000,000 AF (DWR, 2006). However, the southeastern portion of the Kern County Subbasin has since been split and designated as its own subbasin called the White Wolf Fault Subbasin (Erler & Kalinowski, Inc., 2016). The estimated total storage capacity of the White Wolf Fault Subbasin is approximately 8 percent (4,000,000 AF) of the estimated 50,000,000 AF total storage capacity of the pre-modified Kern County Subbasin.

The various water agencies within the Kern County Subbasin have been participating in water banking and constructing groundwater banking infrastructure since approximately 1977. Water banking is the practice of diverting surface water and storing it underground during wet years for later use in dry years. The existing groundwater banks within the Kern County Subbasin have the capacity to store up to 5,700,000 AF of water (Water Association of Kern County, 2018). The primary natural source of groundwater recharge in the Kern County Subbasin occurs in the east from the Kern River and the Sierra Nevada mountain range. Very little natural recharge occurs in the western part of the subbasin (KGA, 2019). Groundwater elevation contour maps prepared in 2011 and 2015 indicate that the primary direction of groundwater flow in the immediate vicinity of the Mettler and Maricopa Highway Sites is northwest to southeast. The general flow within the broader region is typically to the southwest and parallel to the White Wolf Fault (Erler & Kalinowski, Inc., 2016). The Kern County Subbasin experienced significant overdraft throughout most of the 20th century as groundwater pumping for agricultural and municipal purposes exceeded recharge. Compounded by the extraction of petroleum, this overdraft caused land subsidence throughout large portions of the San Joaquin Valley (Arvin-Edison Water Storage District [AEWSD], 2003). In the south-central portion of the Kern County Subbasin, where the Mettler and Maricopa Highway Sites are located, overdraft led to subsidence of up to 8 feet between 1926 and 1970 (KGA, 2019). Currently, the Kern County Subbasin is unadjudicated, meaning that a court has not set limits on the amounts of groundwater that can be extracted by users within the subbasin.

The portion of the Kern County Subbasin in which the Mettler and Maricopa Highway Sites are located is managed by the KGA GSA, whose 16 member agencies include 14 local water agencies, the City of Shafter, and the County. Under the 2014 SGMA, the Kern County Subbasin was identified by DWR as a high-priority, critically overdrafted basin. Based on this designation, local water agencies within the Kern County Subbasin were required to establish a GSA by June 30, 2017 and draft a GSP by January 31, 2020 (Kern County, 2018b). In response, the KGA formed the GSA (KGA GSA, 2017a); the KGA GSA is in the process of developing a GSP and a draft has been released for public comment as of August 30, 2019. The GSP indicates that the Mettler Site is located within the Arvin-Edison Management Area (Arvin-Edison Water Storage District and Arvin Community Services District [ARVIN CSD], 2019) while the Maricopa Highway Site is located within the Wheeler Ridge-Maricopa Management Area (Wheeler Ridge-Maricopa Water Storage District [WRMWSD], 2019). Currently, the annual groundwater demand from the KGA members on the Kern County Subbasin is approximately 1,939,409 AFY, and the total supply is approximately 1,683,128 AFY, which means a deficit of -256,281 AFY exists. The Arvin-Edison Management Area comprises of -8,418 AFY of this deficit (ARVIN CSD, 2019) while the Wheeler Ridge-Maricopa Management Area comprises of approximately -14,655 AFY of this deficit (WRMWSD, 2019).

Groundwater Quality

The Central Valley Regional Water Quality Control Board (CVRWQCB) is responsible for formulating and implementing water quality control plans for basins within its region. The Tulare Lake Basin Water Quality Control Plan (Tulare Basin Plan) designates beneficial uses for water bodies within the Tulare-Buena Vista Lake Basin, sets water quality objectives based on these uses, and proposes a plan to implement these objectives. Municipal and domestic supply, agricultural supply, and industrial service supply are considered beneficial uses for groundwater within the Detailed Analysis Unit 261 for DWR, in which the Mettler and Maricopa Highway sites are located (CVRWQCB, 2018).

In general, the Tulare Basin Plan identifies increasing salinity in groundwater as the most significant long-term issue in the area. Although increasing salinity is a natural occurrence in a closed basin, anthropogenic sources have contributed to an acceleration in this process with agricultural irrigation being the primary catalyst. Agricultural irrigation has the potential to cause both naturally occurring and anthropogenic salts to leach from the soil into the underlying groundwater. Additionally, as groundwater is extracted for agricultural and other purposes, the volume of water in the underlying aquifer is reduced, and the salinity concentration of the groundwater remaining in that aquifer increases correspondingly. Other major issues facing water quality in the Tulare Basin include nonpoint pollution from agricultural operations and livestock grazing (CVRWQCB, 2018).

Groundwater quality within the vicinity of the Mettler and Maricopa Highway Sites is generally good, though groundwater within the area has historically exhibited elevated levels of total dissolved solids, and the area north of the Mettler Site has experienced elevated nitrate levels (AEWSD, 2003). In 2017, the MCWD, which provides potable water service to the immediate vicinity of the Mettler and Maricopa Highway Sites, reported a single-sample violation of the federal maximum contaminant level (MCL) for nitrate; the reported nitrate concentration of 11.3 milligrams per Liter (mg/L) exceeded the federal MCL of 10 mg/L (USEPA, 2018c).

3.3.2.3 Existing Water Supply

The Mettler Site is within the service area of the AEWSD. AEWSD provides raw water for agricultural use in portions of the County, and is supplied by a combination of surface water from the Central Valley Project, surface water exchanges, and local groundwater (AEWSD, 2003). AEWSD operates groundwater banking facilities to recharge the groundwater aquifer when surface water is available (AEWSD, 2003). The Mettler Site is currently under a surface water contract with AEWSD, enabling the Mettler Site to obtain agricultural irrigation water. The Mettler Site also has several active groundwater wells to supplement delivered irrigation water as needed. Groundwater use at the Mettler Site and within the AEWSD is subject to a Groundwater Assessment Charge (Hough, 2019). The annual agricultural water use on the Mettler

Site is currently estimated to be approximately 606,000 gpd or 680 AFY (**Appendix G**). The Maricopa Highway Site lies within the Wheeler Ridge-Maricopa Water Storage District (California Natural Resources Agency, 2018), and is currently under a surface water contract which enables the Maricopa Highway Site to obtain agricultural irrigation water (Nicholas, 2019). The annual agricultural water use on the Maricopa Highway Site is currently estimated to be approximately 234,000 gpd or 260 AFY (**Appendix G**).

3.3.3 IMPACTS

Assessment Criteria

Adverse effects to surface water resources would result if either construction or operation would substantially alter, impede, or degrade drainage patterns, floodplain management, and/or water quality. Adverse effects to groundwater resources would result if either construction or operation would substantially decrease groundwater levels, reduce or impede groundwater recharge, and/or degrade groundwater quality.

3.3.3.1 Alternative A – Development on the Mettler Site

Alternatives A1 and A2

Floodplain

As shown on **Figure 3.3-1** in **Appendix E**, the Mettler Site is within the 100-year floodplain; however, no base flood elevations have been determined. Pursuant to EO 11988, a flood impact analysis was prepared for the alternative sites and is included in **Appendix H**. Using 100-year storm event peak flows from USGS StreamStats and a Meyer Civil Engineering, Inc. flood study of Tecuya Creek, a water surface elevation model (FLO-2D) was used to determine base flood water depths under the existing and proposed conditions at the alternative sites. Under Alternatives A1 and A2, flood water depths would increase at maximum 0.41 feet and 0.36 feet, respectively. Neither of the alternatives caused an increase of 1.0 foot when compared to the existing conditions on neighboring properties. Therefore, implementation of either alternative would not cause a substantial increase in flood elevations in the surrounding environment. Onsite, the highest elevation increase was 2.6 feet, which occurred on the south side of the casino building and resulted in a flood water depth of 3.3 feet in total.

In order to minimize potential harm to or within the floodplain in compliance with EO 11988 Floodplain Management, the structures that are included as components of Alternatives A1 and A2 would be raised approximately 2.5 feet above the existing ground level (1 foot above the base flood elevation). Furthermore, access routes from the on-site fire and sheriff station to the casino resort would remain above the base flood elevation for safety purposes during emergency situations, and all aboveground fuel storage tanks would be built to National Fire Protection Association standards and be above the floodplain in order to prevent accident release. The raising of the casino resort and access aisles would serve to slow down the flood flow on the south side of the structures and road; this slightly increases the floodplain storage at the Mettler Site. Alternative A1 shows an increase of 1.58 AF, whereas Alternative A2 shows an increase of 1.29 AF. Retaining walls around the casino resort would also help to isolate the building, keeping it above the base flood elevations, while allowing surface parking areas to stay lower. To avoid potential flood impacts, Alternatives A1 and A2 would feature a stormwater drainage basin that is sized to retain potential flood waters displaced by the proposed development. The on-site water treatment plant and WWTP and associated facilities would be raised a minimum of 2.5 feet above ground level, be enclosed by a 2 to 4-foot flood control levee, and have flood safety features to prevent accidental wastewater release via infiltration of flood water into the WWTP system, such as flood-activated float switches to override/disable pump operation. Furthermore, during a wet weather event, treated wastewater would be directed to the percolation ponds for groundwater recharge because there would be capacity for treated effluent during storm events. The actual rainfall during a storm event within the percolation pond area would be captured and collected in the ponds. By designing the percolation ponds with greater than 1 foot of freeboard, there would be adequate capacity for all expected storm events. Thus, the

operation of on-site wastewater treatment facilities would not significantly impact flooding. Potential flooding impacts associated with Alternatives A1 and A2 would be less than significant.

Surface Water

Construction Impacts

Construction activities under Alternatives A1 and A2 would include ground-disturbing activities such as grading and excavation that could lead to erosion of topsoil. Erosion from construction could increase sediment discharge to surface waters during storm events thereby degrading downstream water quality. Construction activities, typical of development projects would also include the routine use of potentially hazardous construction materials, such as concrete washings, solvents, paint, oil, and grease, that could spill onto the ground and be picked up by stormwater. Discharges of pollutants to surface waters from construction activities and accidents are a potentially significant impact.

As discussed in Mitigation Measure 1-A of **Section 4.0**, erosion control measures would be employed in compliance with the Phase I NPDES Construction General Permit for construction activities. A SWPPP would be developed prior to any ground disturbance and would include BMPs to reduce potential surface water contamination during storm events. Implementation of Mitigation Measures 1-A and 1-B in **Section 4.0** would reduce or prevent adverse effects to the local and regional watershed from construction activities on the Mettler Site. Therefore, after mitigation, Alternatives A1 and A2 would result in a less-than-significant effect on water quality.

Stormwater Runoff

Implementation of Alternatives A1 and A2 would alter the existing drainage pattern of the Mettler Site and increase stormwater runoff over pre-development rates during storm events (**Appendix H**) as a result of increased impervious surfaces. It is expected that approximately 75 acres of impervious surfaces would be created during the construction of Alternative A1 while approximately 58 acres of impervious surfaces would be created during construction of Alternative A2.

Due to the increase in surface water runoff, a stormwater detention basin is included in the project design for Alternatives A1 and A2. The basin would be sized to retain a 10-year, 5-day storm event and have a minimum of 1 foot of freeboard. As described in the Preliminary Grading, Drainage, and Flood Impact Analysis (**Appendix H**), the stormwater detention basin for Alternatives A1 and A2 would require approximately 32 AF of storage. The stormwater detention basin would occupy approximately 6 acres of the water retention and wastewater reclamation area.

Parking lots would have a series of drain inlets and vegetated bioswales that would be connected to the storm drain conveyance system. The conveyance pipes would be sized to convey 10-year, 5-day storm event flow and be routed to either one of the detention basins. Runoff from buildings would be collected via roof leaders directly connected to storm drain conveyance pipes. Fill would be incorporated into the site design to allow stormwater runoff from the proposed improvements to drain via gravity.

If not treated properly prior to discharge, stormwater runoff has the potential to significantly impact surface water quality. The project design for Alternatives A1 and A2 includes various features to improve stormwater quality, as described above and in **Section 2.0**, and would ensure protection of surface water quality. Accordingly, the implementation of Alternatives A1 and A2 would not result in significant adverse effects to stormwater runoff.

Groundwater

As discussed in **Section 2.2.2**, the domestic water supply for Alternatives A1 and A2 would be provided by on-site groundwater wells. The estimated average daily water demand for Alternative A1 (including landscape irrigation) would be approximately 178,000 gpd (**Appendix G**). Reclaimed water from the on-site WWTP would be used for casino resort toilet flushing and landscape irrigation, which would reduce the average water demand by approximately 23,000 gpd. The

estimated average daily water demand for Alternative A2 (including landscape irrigation) would be approximately 127,000 gpd (**Appendix G**). Reclaimed water from the on-site WWTP would be used for casino resort toilet flushing and landscape irrigation, which would reduce the average water demand by approximately 17,000 gpd. BMP C3 (**Section 2.2.2.9**) would ensure that low-water usage appliances are utilized onsite and drought tolerant landscaping is used in addition to signage promoting water conservation.

Groundwater Supply

The proposed casino resort water system is described in **Section 2.2.2** and detailed in **Appendix G**. Groundwater would be used for drinking water and general commercial purposes within the proposed casino resort, emergency supplies, and fire protection. Approximately 400,000 gallons of water storage are anticipated to be needed for fire protection. Reclaimed water may be used for this purpose. See **Appendix G** for storage tank sizing.

The implementation of Alternatives A1 and A2 would result in the conversion of approximately 100 and 80 acres of agriculture land, respectively. This would result in a reduction of existing agriculture water use of 200,000 gpd (224 AFY) under Alternative A1, and a reduction of 160,000 gpd (179 AFY) under Alternative A2. As noted above, average daily water demand for Alternatives A1 and A2 would be approximately 155,000 gpd (174 AFY) and 110,000 gpd (123 AFY), respectively. Compared to existing agricultural water use, overall water demand at the Mettler Site would be reduced by 50 AFY, or 22 percent, under Alternative A1 and 56 AFY, or 31 percent, under Alternative A2.

Alternatives A1 and A2 would increase the amount of groundwater extraction at the Mettler Site, as the water currently provided by AEWSO cannot be used for non-agricultural uses. As described in **Section 2.2.2.8**, the Tribe and the AEWSO executed an agreement (Water Agreement; **Appendix W**). Pursuant to the Water Agreement, surface water available to the Mettler Site for agriculture use under CAWS (up to the amount of 734 AFY) would be assigned to other landowners within the AEWSO that are eligible to receive surface water service from the AEWSO. Eligibility would be based on such factors as the AEWSO deems relevant in its sole discretion, including without limitation, whether the land to which the water to be transferred is reliant solely on groundwater, and whether the proximity of such land to the Mettler Site would further the purpose of the Water Agreement (i.e., maintain “neutral to positive” groundwater levels in the vicinity of the Mettler Site). For the purposes of determining the net groundwater use of the selected alternative (Alternatives A1 or A2), a “credit” (95 percent of metered discharge to the percolation ponds) would be given to account for the amount of water treated at the proposed WWTP and discharged into the proposed on-site percolation ponds for groundwater recharge. For example, if Alternative A1 uses the estimated average groundwater demand of approximately 174 AFY and after using reclaimed water for landscape irrigation approximately 150 AFY of treated effluent is discharged to the on-site percolation ponds, approximately 142.5 AFY (95 percent of metered discharge to the percolation ponds) would be assumed to infiltrate back into the groundwater basin. Therefore, the net groundwater use of Alternative A1 would be 31.5 AFY. Pursuant to the Water Agreement, the AEWSO would assign a minimum of 31.5 AFY of surface water available to the Mettler Site to another landowner within the vicinity of the Mettler Site who uses groundwater for agriculture irrigation. The selected landowner would irrigate using the 31.5 AFY of surface water in lieu of groundwater; thereby, reducing the net groundwater use of Alternative A1 to at least zero. Therefore, implementation of the Water Agreement would ensure that impacts to the groundwater basin from Alternatives A1 and A2 are neutral to positive. No mitigation would be warranted. Groundwater Recharge

The conversion of agricultural land to commercial uses would introduce areas of impermeable surfaces, including the casino resort and paved parking lots. The introduction of these surfaces can reduce groundwater recharge in areas where surface percolation accounts for a large percentage of natural recharge. However, as described above, the development of detention ponds for capturing stormwater runoff onsite would allow collected stormwater to percolate into the groundwater table. On-site treated effluent percolation ponds would also contribute to groundwater recharge, and the percolation pond area would be sized to accept peak sewer flow rate. Furthermore, testing would be performed before

construction of the percolation ponds to ensure that the infiltration rates meet County standards of no faster than 1 minute per inch (mpi) nor slower than 60 mpi. Therefore, the introduction of impermeable surfaces on the Mettler Site under Alternatives A1 and A2 would not have a significant adverse impact on groundwater recharge. No mitigation would be warranted.

Neighboring Groundwater Wells

As described above, the existing MCWD groundwater wells are approximately 3,000 feet away from the proposed well sites on the Mettler Site and have well depths in excess of 300 feet. With current groundwater level at maximum depth of approximately 400 feet, the effect of the new groundwater wells for Alternatives A1 and A2 on the existing neighboring wells would be insignificant and no adverse impact would occur (**Appendix G**). To further ensure that no adverse impacts would occur, Mitigation Measures 2-E and 2-F in **Section 4.0** would be implemented.

Groundwater Quality

The construction of Alternatives A1 and A2, similar to other development projects, would include the routine use of potentially hazardous construction materials such as concrete washings, solvents, paint, oil, and grease, which may spill onto the ground and enter stormwater. These pollutants could percolate to shallow groundwater from construction activities and cause a potentially significant impact. However, as discussed with construction impacts to surface waters, the implementation of Mitigation Measures 1-A and 1-B in **Section 4.0** would prevent surface water pollution and thus groundwater pollution during construction. These impacts would reduce potential impacts to groundwater quality from construction to a less-than-significant level.

During project operation, runoff from Alternatives A1 and A2 could potentially flush trash, debris, oil, sediment, and grease that accumulate on pavement and other impervious surfaces into stormwater runoff. Fertilizers used in landscaped areas could also enter stormwater if over applied. As noted in **Appendix H** and **Section 2.2.2**, several features designed to filter surface runoff have been incorporated into the project design. These features include stormwater detention basins to remove suspended solids, such as trash and sediment, and the use of vegetated swales that would provide filtration for stormwater by capturing sediment and pollutants within vegetation and the surface soil matrix, thereby adequately filtering stormwater before it percolates to the groundwater table. Thus, given the project design, the impact to groundwater quality from stormwater runoff would be less than significant under Alternatives A1 and A2.

In addition to the above-mentioned operation issues, the on-site WWTP would treat and discharge treated effluent into the on-site percolation ponds if it is not reused for operations or irrigation. If not treated sufficiently, the effluent could cause contamination of the groundwater and thus influence groundwater quality for on-site and off-site supplies. This would be a significant impact. However, Mitigation Measures 2-A through 2-D and 2-G in **Section 4.0** would ensure that the WWTP would be operated properly, including treating effluent to at least a tertiary level, and on-site portable water transmission lines would not be located within the percolation ponds' cone of influence. Therefore, discharge of treated effluent would not adversely impact groundwater quality and potable water would not be exposed to treated effluent in the percolation ponds during transmission. Additionally, percolation through the soil would provide additional filtration. Therefore, with the implementation of mitigation, this impact would be less than significant.

Alternative A3

Floodplain

Under Alternative A3, no casino resort or associated facilities would be developed on the Mettler Site. Therefore, potential flooding impacts associated with Alternative A3 would be less than significant.

Surface Water

No construction would occur on the Mettler Site under Alternative A3. There would be no potential for discharge of pollutants to surface waters from construction activities. Therefore, no impact would occur. Additionally, the implementation of Alternative A3 would not result in any change or significant adverse effects to stormwater runoff.

Groundwater

Under Alternative A3, irrigation water for agricultural use would continue to be provided by the existing surface water contract with the AEWS and existing on-site wells. There would be no substantial change to the current water use at the Mettler Site under this alternative. Therefore, there would be no impact to groundwater consumption, groundwater quality, or groundwater recharge under Alternative A3.

Cumulative Water Resources Impacts

Alternatives A1 and A2

Surface Water and Flooding

Cumulative effects to water resources may occur as the result of potential future buildout of the Mettler Site and regional development projects listed in **Appendix J**. Examples of potential effects include increased sedimentation, pollution, and stormwater flows. Stormwater discharges from residential and commercial areas are of concern in managing surface water quality. Pollutants that accumulate in the dry summer months, such as oil and grease, asbestos, pesticides, and herbicides, could create water quality problems due to their presence in high concentrations during the first major storm event.

Runoff characteristics of a watershed are altered when impervious surfaces replace natural vegetation, row crops, or bare soil. Changes in runoff characteristics could increase drainage volumes, increase stream velocities, increase peak discharges, shorten the time to peak flows, and lessen groundwater contributions to stream base-flows during non-precipitation periods. Construction and implementation of the proposed development projects listed in **Appendix J** may likewise affect water quality by increasing sedimentation, pollution, and stormwater flows. However, the alternatives would include erosion control measures in compliance with the NPDES permit program. As detailed in **Appendix H**, the stormwater detention basin would be designed to retain the overall required volume for Alternatives A1 and A2, including the potential future development of the Mettler Site. The federal and State water resources regulations discussed in **Table 3.3-1** would require that other cumulative projects would have similar precautionary features incorporated into their design. Therefore, implementation of Alternatives A1 and A2, in combination with other cumulative development, would not result in significant cumulative effects to surface water and flooding.

Surface Water Quality

Concurrent construction of Alternatives A1 or A2 and the other cumulative projects identified in **Appendix J** could result in cumulative effects to water quality. Construction activities could result in erosion and sediment discharge to surface waters, potentially effecting water quality in downstream water bodies. In addition, construction equipment and materials have the potential to leak, thereby discharging oil, grease, and construction supplies into stormwater, potentially affecting both surface water and groundwater. To mitigate potential adverse effects, approved developments would be required to implement erosion control measures and construction BMPs via a site-specific SWPPP in compliance with the State of California General Permit for Discharges of Storm Water Associated with Construction Activity or compliance with USEPA stormwater regulations. With the implementation of Mitigation Measures 1-A, 1-B, and 2-A through 2-E in **Section 4.0**, Alternatives A1 and A2 in combination with other development projects in the region would not result in adverse cumulative effects to surface water quality.

Groundwater Supply

Buildout of Alternatives A1 and A2, along with other cumulative projects, could result in cumulative effects to groundwater if the total water demand of approved projects exceeds the recharge of the groundwater basin. As discussed

in **Section 3.3.2.2**, the County obtains its primary water supply from the Kern County Subbasin of the San Joaquin Valley Groundwater Basin and through water exchanges with various water agencies throughout the County.

Future demands on the groundwater basin from cumulative development would be controlled by County land use authorities, as well as by the recently passed Senate Bill 1168 that requires local agencies to create groundwater management plans, and Assembly Bill (AB) 1739 that allows the state to intervene if local groups do not adequately manage groundwater resources. Based on the short-term availability of groundwater for existing uses and planned development and the requirement for future groundwater management activities, cumulative impacts to groundwater would not be substantial.

Groundwater Quality

Wastewater generated by Alternatives A1 and A2 would be treated at an on-site WWTP. As discussed in **Appendix G**, the WWTP would have sufficient capacity to meet the wastewater demands of Alternatives A1 and A2, including the potential future development of the Mettler Site. To meet the USEPA wastewater treatment criteria, the WWTP would provide tertiary-treated water for reuse or percolation. Reclaimed water from the on-site WWTP would be utilized for casino resort toilet flushing and landscape irrigation. Treated effluent would be discharged to the on-site percolation ponds. Discharge of treated effluent would not adversely impact groundwater quality due to the high level of treatment. Additionally, percolation through the soils would provide additional filtration. The implementation of Mitigation Measures 2-A through 2-D in **Section 4.0** would prevent groundwater pollution during construction and reduce potential impacts to groundwater quality from construction to a less-than-significant level. Therefore, Alternatives A1 and A2 would not result in significant adverse cumulative effects to groundwater quality.

Alternative A3

Implementation of Alternative A3 would not result in significant cumulative effects to flooding, surface water, groundwater, or water quality.

3.3.3.2 Alternative B – Casino Resort on the Maricopa Highway Site

Floodplain

As shown in **Figure 3.3-1** in **Appendix E**, the Maricopa Highway Site is located outside of both the 1 percent (100-year) and 0.2 percent (500-year) annual chance floodplain. No associated structures, utilities, or storage areas are proposed for development within the 100-year or 500-year floodplain. However, during a wet weather event, treated wastewater would be directed to the on-site percolation ponds. Similar to Alternative A, the percolation ponds would have capacity for treated effluent during storm events, and the percolation ponds would have greater than 1 foot of freeboard capacity to accept the rainfall that would be captured and directed to the pond. Therefore, Alternative B's on-site wastewater treatment system is adequately designed for a wet weather event, and Alternative B is in compliance with EO 11988 Floodplain Management. No significant impacts associated with flooding or a wet weather event would occur as a result of Alternative B (40 CFR § 1508.27 (b)(10)).

Surface Water

Construction Impacts

Construction of Alternative B would be similar to that of Alternative A1 and could result in sediment erosion, off-site movement of hazardous materials and pollutants, and impacts to surface water and groundwater quality. As with Alternative A1, construction of Alternative B would implement erosion control measures in compliance with the NPDES and require development of a SWPPP with BMPs to reduce potential surface water contamination during storm events. Implementation of Mitigation Measures 1-A and 1-B in **Section 4.0** would reduce or prevent adverse effects to the local and regional watershed from construction activities on the Maricopa Highway Site. Therefore, after mitigation, Alternative B would not result in a significant adverse effect on water quality.

Stormwater Runoff

Impacts to surface water related to stormwater runoff as a result of the development of Alternative B would be similar to those of Alternative A1. As with Alternative A1, implementation of Alternative B would alter the existing drainage pattern of the Maricopa Highway Site and increase stormwater runoff as a result of increased impervious surfaces. This increase in impervious surfaces could impact quantity and quality of stormwater runoff. Alternative B would convert approximately 58 acres of the agricultural parcels into a casino resort, surface roads, and parking areas, which would result in an increase in stormwater runoff over pre-development rates during storm events (**Appendix H**). Due to the increase in surface water runoff, a stormwater detention basin is included in the project design for Alternative B. As described in **Appendix H**, the stormwater detention basin for Alternative B would require approximately 15 AF of storage. The basin would be sized to retain a 10-year, 5-day storm event and have a minimum of 1 foot of freeboard. The stormwater detention basin would occupy approximately 2 acres of the water retention and wastewater reclamation area.

Alternative B would include project design features to improve stormwater quality, similar to that of Alternative A1, and would ensure protection of surface water quality, along with erosion control measures listed in **Section 3.2**. Accordingly, the implementation of Alternative B would not result in significant adverse effects to stormwater runoff.

Groundwater

As with Alternative A1, the domestic water supply for Alternative B would be provided by on-site groundwater wells. The estimated average daily water demand for Alternative B (including landscape and irrigation) would be approximately 161,000 gpd (**Appendix G**). Reclaimed water from the on-site WWTP would be used for casino resort toilet flushing and landscape irrigation, reducing the average water demand by approximately 21,000 gpd, and BMP C3 would ensure that low-water usage appliances and drought tolerant landscaping are utilized onsite in addition to signage promoting water conservation.

On-Site Water Supply

Groundwater would be used for drinking water and general commercial purposes within the proposed casino resort, as well as for an emergency supply and fire protection. Approximately 400,000 gallons of water storage is anticipated to be needed for fire protection. Reclaimed water may be used for this purpose.

The implementation of Alternative B would result in the conversion of approximately 70 acres of agriculture land. This would result in a reduction of existing agriculture water use of 140,000 gpd (157 AFY). As noted above, the average daily water demand for Alternative B would be approximately 140,000 gpd (157 AFY). Compared to existing agricultural water use, overall water demand at the Maricopa Highway Site would not increase as a result of Alternative B.

Because the Maricopa Site is currently irrigated with surface water, there would be a net increase in groundwater extraction. As described above, the Kern County Subbasin is considered a critically overdraft basin and any increase in groundwater extraction is a significant impact. Mitigation Measure 2-H in **Section 4.0** would require the Tribe to implement measures to fully offset groundwater extraction associated with the selected project alternative. Implementation of this mitigation would reduce the impact to the groundwater basin to less-than-significant levels.

Groundwater Recharge

The conversion of agricultural land to commercial uses under Alternative B would introduce areas of impermeable surfaces comparable to Alternative A1, and this could reduce groundwater recharge. As discussed in **Section 2.3.2**, Alternative B would include development of a stormwater detention basin sized appropriately to accommodate all stormwater runoff, and thus allow for groundwater recharge at a rate consistent with pre-development. On-site treated effluent percolation ponds would also contribute to groundwater recharge, and the percolation pond area would be sized to accept peak sewer flow rate. Furthermore, testing would be performed before construction of the percolation ponds to ensure that the infiltration rates meet County standards of no faster than 1 mpi nor slower than 60 mpi. Therefore, the

introduction of impermeable surfaces under Alternative B would not have a significant adverse impact on groundwater recharge. No mitigation is warranted.

Neighboring Water Supply

As described above, the existing neighboring groundwater wells are over 3,000 feet away from the proposed well sites on the Maricopa Highway Site. With current groundwater level at maximum depth of approximately 400 feet, the effect of the new groundwater wells for Alternative B on the existing neighboring wells would be insignificant and no adverse impact would occur (**Appendix G**). To further ensure that no adverse impacts would occur, Mitigation Measures 2-E and 2-F in **Section 4.0** would be implemented.

Groundwater Quality

The construction activities associated with Alternative B would include the routine use of potentially hazardous materials that have the potential to percolate to shallow groundwater if accidental releases were to occur. This would constitute a potentially significant impact. However, as discussed with construction impacts to surface waters, the implementation of Mitigation Measures 1-A and 1-B in **Section 4.0** would prevent surface water pollution and thus groundwater pollution during construction. These impacts would be reduced potential impacts to groundwater quality from construction to a less-than-significant level.

During project operation, runoff from Alternative B project facilities could flush contaminants that accumulate on pavement and other impervious surfaces into stormwater. Fertilizers used in landscaped areas could also enter stormwater if over applied. The stormwater contained on the site within the detention basins would percolate to the shallow unconfined alluvial aquifer, and this could potentially transport contaminants into the groundwater. As noted in **Section 2.3.2**, several features designed to filter surface runoff have been incorporated into the project design and are similar to those that would be included under Alternative A1 (refer to **Section 3.3.3.1** for further discussion). Thus, given the project design and mitigation, the impact to groundwater quality would be less than significant under Alternative B.

In addition to the above mentioned operational issues, the on-site WWTP plant would be treating and discharging treated effluent into the on-site percolation ponds if it not reused for casino-hotel operations or irrigation. This could be a significant impact to groundwater quality if the effluent is not treated sufficiently before being discharged into the percolation ponds or used for irrigation. However, Alternative B would have similar mitigation measures and design features as Alternative A1. With these incorporated design features and mitigation measures, the potential adverse effect to groundwater quality would be reduced to less-than-significant levels.

Cumulative Water Resources Impacts

Cumulative effects to water resources on the Maricopa Highway Site under Alternative B would be similar as those described for Alternative A1. Implementation of Alternative B, in combination with other cumulative development, would not result in significant cumulative effects to flooding, surface water, groundwater, or water quality.

3.3.3.3 Alternative C – No Action Alternative

Under the No Action Alternative, no development would occur on any of the sites in the near term. No change in land use would occur, and all sites would remain in their current state. None of the potentially adverse effects identified for Alternatives A or B would occur under Alternative C. No mitigation would be required.

3.4 AIR QUALITY

This section assesses the environmental consequences of the alternatives described in **Section 2.0** as they relate to air quality. Applicable regulatory policies and plans related to air quality are briefly summarized in **Section 3.4.1** and described in detail in **Appendix K**. Effects are measured against the environmental baseline and are described in **Section 3.4.2**. Direct

and cumulative effects are identified in **Section 3.4.4**, while indirect effects are discussed in **Section 3.14**. Measures to mitigate for adverse impacts identified in this section are presented in **Section 4.0**.

3.4.1 REGULATORY SETTING

The air quality regulatory setting is summarized in **Table 3.4-1**, and additional information on the regulatory setting can be found in **Appendix K**.

TABLE 3.4-1
REGULATORY POLICIES AND PLANS RELATED TO AIR QUALITY

Regulation	Description
Federal	
Clean Air Act (CAA) of 1970	<ul style="list-style-type: none"> ▪ Created the National Ambient Air Quality Standards (NAAQS) for six criteria air pollutants (CAP): ozone, carbon monoxide (CO), particulate matter, nitrogen dioxide, sulfur dioxide (SO₂), and lead ▪ Required states to develop State Implementation Plans (SIP) for areas that are not achieving the NAAQS (nonattainment areas) ▪ Requires demonstrating a proposed federal action will conform to the applicable SIP via the General Conformity Rule ▪ Protects Class I areas via the Prevention of Significant Deterioration (PSD) Program ▪ Requires Tribal minor new source review (NSR) permits if emissions would exceed certain standards ▪ Authorizes technology-based National Emissions Standards for Hazardous Air Pollutants
Draft CEQ Guidance	<ul style="list-style-type: none"> ▪ Directs agencies to attempt to quantify projected direct and indirect GHG emissions resulting from a proposed action when the amount of emissions is substantial enough to warrant quantification, and when it is practicable to quantify using available data/tools
State	
EO S-3-05	<ul style="list-style-type: none"> ▪ Sets GHG emission reductions targets ▪ Created a Climate Action Team (CAT)
California Global Warming Solutions Act of 2006 (AB 32)	<ul style="list-style-type: none"> ▪ Codifies GHG emission reduction goals, including the reduction of GHG emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050
EO S-1-07	<ul style="list-style-type: none"> ▪ Mandates a state-wide goal to reduce carbon intensity of transportation fuels by at least 10 percent by 2020 from the 2010 baseline level
EO B-30-15	<ul style="list-style-type: none"> ▪ Set an interim GHG target of 40 percent below 1990 levels by 2030
Senate Bill 375	<ul style="list-style-type: none"> ▪ Provides for the creation of a new regional planning document called a “sustainable communities strategy.” This is a blueprint for regional transportation infrastructure and development designed to reduce GHG emission from cars and light trucks to target levels throughout the State.

3.4.2 AIR QUALITY ENVIRONMENTAL SETTING

3.4.2.1 Regional Meteorology

The Mettler and Maricopa Highway Sites are located within the San Joaquin Valley Air Basin (SJVAB). The geography of the SJVAB consists of the Coast Range to the west, the Sierra Nevada mountain range to the north and east, and the Tehachapi mountains to the south. These mountain ranges channel winds through the SJVAB, but they also inhibit dispersion of pollutant emissions.

The SJVAB is subject to two main seasonal wind patterns. The spring, summer, and fall wind patterns consist of winds that originate from the Pacific Ocean and flow through sea-level gaps in the Coast Range. In the winter season, northerly winds predominate. The SJVAB has hot, dry summers with historically cool, rainy winters characterized by dense tule fog.

3.4.2.2 Regional Air Quality

Sources of Emissions

County emissions are estimated through the combined effort of the SJVAPCD and CARB. The dominant source of pollutants in the County and the urban area of the City of Bakersfield comes from the transportation sector; industry and waste disposal are the next largest sources of emissions in these areas.

National Ambient Air Quality Standards Designations

Pollutants of concern for an air basin include CAPs that are currently listed as having a nonattainment or maintenance status according to the NAAQS. The USEPA has designated the SJVAB as extreme nonattainment for the NAAQS 8-hour ozone and serious nonattainment for PM_{2.5} in accordance with the CAA; all other CAPs are in attainment in the SJVAB (Table 3.4-2). Therefore, ozone and PM_{2.5} are considered pollutants of concern in the SJVAB. The applicable SIP for ozone in the SJVAB is the *2016 Ozone Plan for 2008 8-Hour Ozone Standard*, approved by the Governing Board of the SJVAPCD on June 16, 2016 (SJVAPCD, 2016a). The applicable SIP for PM_{2.5} in the SJVAB is the *2016 Moderate Area Plan for the 2012 PM_{2.5} Standard* (SJVAPCD, 2016b). The SJVAPCD developed an attainment strategy to address the 1997, 2006, and 2012 PM_{2.5} standards; the plan was adopted on November 15, 2018.

TABLE 3.4-2
SJVAB FEDERAL ATTAINMENT STATUS

Pollutant	NAAQS
Ozone	Nonattainment/Extreme
PM ₁₀	Attainment
PM _{2.5}	Nonattainment/Serious
CO	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified
SO ₂	Attainment/Unclassified
Lead	No Designation/Classification
Source: USEPA, 2019.	

Odor

Types of operations that are typically evaluated for odor concerns include waste processing and heavy industrial facilities such as WWTPs, landfills and composting facilities, chemical manufacturing facilities, and confined animal facilities (e.g., dairies). Odor concerns generally occur when facilities are located within 2 miles of a project site (SJVAPCD, 2018). There are no major odor causing facilities, including confined animal facilities, within 2 miles of any of the alternative project sites. Adjacent agricultural operations are a source of periodic odor, particularly those associated with the application of fertilizers and pesticides. Land use compatibility effects associated with odor from agricultural operations are addressed in Section 3.9.

Sensitive Receptors

Sensitive receptors are facilities that house or attract children, the elderly, and 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.

Mettler Site

The nearest off-site residential sensitive receptor to the Mettler Site is a residence located approximately 850 feet east of the site at the northwest end of Lupine Street. The next closest off-site residential sensitive receptors are a group of residences located between Wildflower Street and Lupine Street, approximately 0.9 miles southeast of the Mettler Site. The nearest schools to the Mettler Site are the El Camino Real Elementary School and General Shafter Elementary

School, both located approximately 11 miles from the Mettler Site. There are no medical facilities within 5 miles of the site.

Maricopa Highway Site

The nearest off-site residential sensitive receptors to the Maricopa Highway Site are two residences located approximately 340 feet north of the site. The nearest school to the Maricopa Highway Site is the General Shafter Elementary School, located approximately 11.8 miles northeast of the site. There are no medical facilities within 5 miles of the site.

3.4.3 CLIMATE CHANGE ENVIRONMENTAL SETTING

Climate change is a global phenomenon. Certain gases in the atmosphere, classified as GHGs, play a critical role in determining the surface temperature of the earth. GHGs include CO₂, methane (CH₄), nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (Health & Safety Code § 38505[g]). The primary sources of GHG emissions in the County are transportation; electricity generation facilities; petroleum and natural gas production facilities; industrial processes; and commercial, residential, and agricultural land uses. However, there are many other sources of direct and indirect GHG emissions in the County. Climate change has the potential to impact the natural and economic environment of both the State and the SJVAB. **Appendix K** provides a summary of the potential effects from climate change that could occur in the region.

3.4.4 IMPACTS

Assessment Criteria

Adverse effects to ambient air quality could result if either construction or operation would result in violations of the CAA provisions, or if emissions would impede the ability of a state to meet NAAQSs. The effects of proposed federal actions on SJVAPCD air quality management are assessed under the **General Conformity** section as required under the CAA.

3.4.4.1 Methodology

Construction Analysis

Construction emissions were calculated using the USEPA-approved *2016 California Emissions Estimator Model, Version 16.3.2* (CalEEMod; CalEEMod, 2016). Emissions were estimated assuming that construction would begin in June 2022 and continue at an average rate of 22 days per month for all project alternatives. The construction duration for Alternatives A1, A2, and B is estimated to be 18 months. CalEEMod input tables and emissions results are summarized below and included in **Appendix M**.

Operational Analysis

CalEEMod was also used to estimate emissions associated with annual operation of the project alternatives. The assumptions and inputs incorporated into CalEEMod for each alternative are detailed in **Appendix M** and summarized below.

- Trip generation rates were derived from the Transportation Impact Analysis (TIA) provided as **Appendix F**.
- Trip length values specific to each of the project alternatives are based on the primary market area as defined in **Appendix I** and are longer than the CalEEMod default values.
- The vehicle type distribution is based on CalEEMod default values.
- Full buildout of the project is assumed to be December 2023.
- Water/wastewater and solid waste generation model inputs are from **Sections 3.3** and **3.10**, respectively.
- Three 2,923-horsepower emergency generators operating 500 hours per year

Federal General Conformity

Conformity regulations apply to federal actions that would cause emissions of CAPs to occur in locations designated as nonattainment or maintenance areas for the emitted pollutants. As noted in **Section 3.4.2.2**, the SJVAB is in

nonattainment of the NAAQS for ozone and PM_{2.5}. The requirements for a conformity determination for each project alternative are discussed in **Section 3.4.4.2**.

Carbon Monoxide Hot Spot Analysis

Implementation of the project alternatives would result in emissions of CO. Because CO disperses rapidly with increased distance from the source, emissions of CO are considered localized pollutants of concern rather than regional pollutants and can therefore be evaluated through Hot Spot Analysis. In accordance with 40 CFR § 93.123, quantitative analyses, if certain criteria are met, include the following.

- Projects in or affecting locations, areas, or categories of sites that are identified in the applicable implementation plan as sites of violation or possible violation
- Projects affecting intersections that are at Level of Service (LOS) D, E, or F, or those that will change to LOS D, E, or F because of increased traffic volumes related to the project.

The project alternatives are in an area or category of sites that has been identified in an implementation plan; however, these alternatives have not been identified in a CO implementation plan. As shown in the TIA (**Appendix F**), no intersection currently operating at LOS D, E, or F would be affected by project-related traffic and after mitigation, no intersection in the study area would operate at LOS D, E, or F. The project alternatives are not located in a CO nonattainment or maintenance area. Therefore, no quantitative analysis would be required.

Climate Change

Climate change is a global issue that is not being caused by any single development project but by global increases in atmospheric GHG concentrations. Thus, climate change is most effectively addressed on a global or regional level. Global warming policies and legislation (most notably EO S-3-05 and AB 32) by the State are intended to be regional approaches to ensure that state-wide emissions are reduced substantially in the future (to levels much lower than existing levels). No specific quantitative thresholds have been established by the County, CARB, USEPA, or any other State or federal agency for climate change and GHG emissions. While there is currently no adopted federal guidance related to consideration of GHG emissions in NEPA documentation, the CEQ issued a draft memo entitled *Draft National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions* in June 2019 (Draft CEQ Guidance Memo). The Draft CEQ Guidance Memo, currently in public and agency review, recommends that agencies attempt to quantify the projected direct and reasonably foreseeable indirect GHG emissions of a proposed action when the amount of those emissions is substantial enough to warrant quantification, and when it is practicable to quantify the emissions using available data and GHG quantification tools. The Draft CEQ Guidance Memo has not been finalized or adopted. However, this EIS includes a quantification of GHG emissions resulting from the project alternatives in carbon dioxide equivalents (CO₂e), and a discussion of reduction measures to address comments received during scoping and from cooperating agencies. CO₂e is a method by which GHGs other than CO₂ are converted to a CO₂-like emission value based on a heat-capturing ratio. Emissions are multiplied by the CO₂e value to achieve one GHG emission value. By providing a common measurement, CO₂e provides a means for presenting the relative overall effectiveness of emission reduction measures for various GHGs in reducing project contributions to global climate change.

In addition to quantification of GHG emissions and recommended reduction measures, this EIS considers the impacts of the project alternatives in relation to the GHG reduction targets established by the State. The CARB and the CAT identified approximately 126 strategies and measures that may be utilized by the State to meet its emissions reduction targets in 2010, 2020, and 2050. Most of these measures focus on state-wide action meant to curb emissions by changes in state-wide planning or policies rather than changes to individual development projects. However, some of the measures may be directly applicable to specific industries or individual commercial developments. Should a development alternative comply with all directly applicable measures, the alternative would support efforts by the State to significantly

reduce its cumulative contribution to global climate change (to levels recommended by the Intergovernmental Panel on Climate Change and the *Updated Climate Change Scoping Report* issued by CARB [CARB, 2014]) and the associated impacts.

CalEEMod emissions modeling software was used to estimate construction, area, mobile, energy, waste, and water GHG emissions resulting from the proposed alternatives.

Federal Class I Areas

There are two federal Class I Areas, the San Rafael and Domeland wildernesses, which are within 100 kilometers of the Mettler and Maricopa Highway Sites; therefore, if any alternative exceeds the PSD threshold of 250 tons per year (tpy) of any CAP from stationary sources, a best available control technology analysis would be conducted. As shown in **Table 3.4-4** below, none of the proposed alternatives would result in the stationary source emissions in excess of federal Class I Areas source thresholds; therefore, no further analysis is needed.

Tribal New Source Review

The Tribe would be required to apply for a permit under the newly implemented minor NSR requirements of the CAA if stationary source operational emissions of regulated pollutants would exceed the thresholds presented in Table 1 of 40 CFR 49.153. For this analysis, stationary source project-related operational emissions would be quantified and compared to the applicable threshold as follows: 5 tpy for CO; 5 tpy for nitrogen oxides (NO_x); 5 tpy for sulfur oxides; 2 tpy for ROG_s; 5 tpy for PM₁₀; and 0.6 tpy for PM_{2.5}.

3.4.4.2 Alternative A – Development on the Mettler Site

Alternatives A1 and A2

Construction Emissions

Construction would entail building, road, and parking lot construction; mass earthwork; and fine grading. A variety of heavy equipment, including trucks, scrapers, excavators, and graders, would be used to complete each phase. Effects on air quality during construction were evaluated by estimating the amount of criteria pollutants that would be emitted over the duration of the construction period for each phase of construction that is applicable. PM₁₀, PM_{2.5}, and ozone precursors are the primary pollutants of concern resulting from operation of construction equipment, earth-moving activities, and soil hauling. ROG_s, NO_x, SO₂, CO, PM_{2.5}, PM₁₀, and DPM emissions from the construction of Alternatives A1 and A2 would primarily be produced by the use of diesel-fueled equipment and earth-moving activities. The majority of these emissions would be from on- and off-road construction equipment used at the Mettler Site. Construction emission totals for Alternatives A1 and A2 are shown in **Table 3.4-3**. Emissions estimates assume the implementation of construction BMPs described in **Section 2.0**. Implementation of construction BMPs is expected to control the production of fugitive dust (PM₁₀ and PM_{2.5}) and to reduce emissions of criteria pollutants and DPM.

As shown in **Table 3.4-3**, emissions of individual criteria pollutants from the construction of Alternatives A1 and A2 would not exceed applicable *de minimis* levels; therefore, a conformity determination is not required for these pollutants. Construction of Alternatives A1 and A2 would not result in significant adverse effects associated with the regional air quality environment.

Operational Vehicle and Area Emissions

Buildout of Alternatives A1 and A2 would result in the generation of mobile emissions from patron, employee, and delivery vehicles and area and energy criteria pollutant emissions from the combustion of natural gas in boilers, stoves, heating units, and other equipment on the Mettler Site. Operational emissions for Alternatives A1 and A2 are shown in **Table 3.4-4**. Emissions estimates assumed the implementation of the BMPs described in **Section 2.0**, including the use of

energy efficient lighting, recycled water, and clean fuel vehicles. Detailed calculations of emissions are included as **Appendix M**.

TABLE 3.4-3
CONSTRUCTION EMISSIONS

Construction Year	Alternative A1	Alternative A1	Alternative A1	Alternative A2	Alternative A2	Alternative A2	Alternative B	Alternative B	Alternative B
	Criteria Pollutant: ROG	Criteria Pollutant: NOx	Criteria Pollutant: PM _{2.5}	Criteria Pollutant: ROG	Criteria Pollutant: NOx	Criteria Pollutant: PM _{2.5}	Criteria Pollutant: ROG	Criteria Pollutant: NOx	Criteria Pollutant: PM _{2.5}
2022	0.77	9.87	0.48	0.58	7.41	0.38	0.69	3.87	0.51
2023	6.47	8.28	0.82	4.86	6.31	0.56	7.66	6.91	0.72
Maximum Year Emissions	6.47	9.87	0.82	4.86	7.41	0.56	7.66	6.91	0.72
<i>de minimis</i> Levels	10	10	70	10	10	70	10	10	70
Exceed Level?	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Note: Criteria pollutants are measured in tons per year.
Source: CalEEMod, 2016.

TABLE 3.4-4
OPERATIONAL EMISSIONS

Sources	Alternative A1	Alternative A1	Alternative A1	Alternative A2	Alternative A2	Alternative A2	Alternative B	Alternative B	Alternative B
	ROG	NOx	PM _{2.5}	ROG	NOx	PM _{2.5}	ROG	NOx	PM _{2.5}
Stationary	3.64	17.00	0.56	2.43	11.41	0.38	3.64	17.00	0.56
<i>Total Exempt Emissions</i>	<i>3.64</i>	<i>17.00</i>	<i>0.56</i>	<i>2.43</i>	<i>11.41</i>	<i>0.38</i>	<i>3.64</i>	<i>17.00</i>	<i>0.56</i>
Energy	3.32	30.17	2.29	2.53	23.01	1.75	3.31	30.08	2.29
Area	7.24	0.0004	0.0002	2.56	0.0003	0.0001	4.47	0.0004	0.0002
Mobile	7.92	81.66	14.58	7.01	72.59	12.80	7.78	80.33	14.33
Total Non-Exempt Emissions	18.48	111.83	16.87	12.10	95.60	14.55	15.56	110.41	16.62
<i>de minimis</i> Levels ¹	10	10	70	10	10	70	10	10	70
Exceed Level?	Yes	Yes	<i>No</i>	Yes	Yes	<i>No</i>	Yes	Yes	<i>No</i>

Note: Criteria pollutants are measured in tons per year.
1 - Only applies to Non-Exempt Emissions.
Source: CalEEMod, 2016.

As shown in **Table 3.4-4**, emissions of individual criteria pollutants from stationary sources would exceed the Tribal NSR threshold of 2 tpy for ROG and 5 tpy for NOx; therefore, a Tribal NSR permit would be required. The Tribe is therefore required to apply for and obtain a Tribal NSR permit in accordance with the USEPA guidelines and Tribal NSR regulations. Because the Tribe is required to apply for a Tribal NSR permit for stationary source emissions, these emissions are considered exempt from the conformity determination. Accordingly, the area, energy use, and mobile emissions from the Proposed Project are not exempt from a conformity determination and are thereby considered the total annual emissions that must be compared to the *de minimis* thresholds.

Emissions of ROG and NOx from the operation of Alternative A1 or Alternative A2 would exceed applicable levels (Table 3.4-4). This would be a significant adverse impact. Mitigation Measures 3-A and 3-B in Section 4.0 require the purchase of credits to fully offset ROG and NOx emissions. After mitigation, impacts to the regional air quality environment resulting from Alternative A1 or A2 would be reduced to less-than-significant levels.

General Conformity

Because project-related direct and indirect emissions occur in a nonattainment area and project-related operational emissions (Table 3.4-4) would exceed levels for the ozone precursors ROG and NOx, a general conformity determination for ozone would be required. A Final General Conformity Determination is provided in Appendix Z.

Alternative A3

Under Alternative A3, no construction would occur and no additional operational emissions would be produced. Therefore, no construction or operational mobile or stationary criteria pollutants or DPM emissions would be generated under this alternative.

Cumulative Air Quality Impacts

Alternatives A1 and A2

Operational Emissions/General Conformity Review

Operation of Alternatives A1 and A2 would result in the generation of mobile emissions from patron, employee, and delivery vehicles and stationary source emissions from the combustion of natural gas in boilers and other equipment. In the cumulative year 2040, operational emissions are expected to decrease due to improved fuel efficiency technology and stricter federal and state regulations.

Past, present, and future development projects contribute to a regional air quality conditions on a cumulative basis; therefore, by its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to result in nonattainment of the NAAQS. If individual emissions from a project contribute toward exceedance of the NAAQS, then the 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. As stated in Section 3.4.2, the Mettler Site and the near vicinity is in nonattainment for ozone and PM_{2.5}. Because project emissions are above the thresholds for these pollutants, Alternatives A1 and A2 have the potential to contribute towards significant cumulative impacts to air quality. Further, as discussed in detail in Section 3.14.2, Alternatives A1 and A2 have the potential to induce growth within the Mettler Site that would result in additional emissions. The cumulative air quality effects of induced growth within the site in combination with emissions resulting from Alternatives A1 and A2 are addressed within the Final General Conformity Determination provided in Appendix Z. With the implementation of Mitigation Measures 3-A and 3-B in Section 4.0, the cumulative emissions from Alternatives A1 and A2 in combination with the indirect emissions from induced growth would be reduced below *de minimis* levels. Therefore, cumulative air quality effects would be less than significant after mitigation.

Carbon Monoxide Hot Spot Analysis

Hot Spot Analysis is conducted on intersections that, after mitigation, would have an LOS of D, E, or F (40 CFR § 93.123). After the implementation of recommended mitigation for the project alternatives, no intersection would have an LOS or an increase in delay in the cumulative year 2040 that would warrant a Hot Spot Analysis (Appendix F). No significant cumulative impacts would occur and no further analysis is needed.

Climate Change

Climate change would have global impacts, such as more erratic weather patterns, more frequent droughts, and a rising sea level, as well as regional and local impacts. For California, climate change has the potential to reduce the snow pack

in mountainous regions, increase drought periods, and reduce water tables (CARB, 2007). Development of Alternatives A1 and A2 would result in an increase in GHG emissions related to construction, mobile sources (trips generated), stationary and area sources (components of Alternative A that directly emit GHG), and indirect sources related to electrical power generation. **Table 3.4-5** estimates total GHG emissions per year for Alternatives A1 and A2. Total GHG emissions are estimated to be approximately 118,000 metric tons (MT) CO₂e per year for Alternative A1 and approximately 98,000 MT CO₂e per year for Alternative A2.

GHG emissions resulting from Alternatives A1 and A2 are primarily indirect (indirect mobile emissions from delivery, patron, and employee vehicles). The federal government has 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. BMPs have been provided in **Section 2.0** to reduce project-related GHG emissions, such as reduction of the idling of heavy equipment and the resulting CO₂ emissions. Operational BMPs 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 BMPs 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.

TABLE 3.4-5
GHG EMISSIONS

Emission Source	Alternative A1 MT of CO ₂ e/year	Alternative A2 MT of CO ₂ e/year	Alternative B MT of CO ₂ e/year
Construction			
Construction ¹	4,084	2,604	2,147
Operation			
Area	0.10	0.08	0.10
Energy	35,173	26,703	34,892
Mobile	74,121	65,182	72,844
Stationary	4,514	3,246	4,514
Solid Waste	312	248	294
Water/Wastewater	145	103	131
<i>Operation Subtotal</i>	<i>114,265</i>	<i>95,482</i>	<i>112,675</i>
Total GHG Emissions	118,349	98,086	114,822
Notes: CO ₂ e = carbon dioxide equivalent MT = metric tons ¹ Construction-related GHG emissions were amortized over the construction period to determine annual construction emissions.			
Source: CalEEMod, 2016.			

As required by AB 32, the State has adopted a Climate Change Scoping Plan that identifies GHG reduction targets and the types of measures that will be used to reach them. Of the approximately 126 strategies and measures identified that would achieve a state-wide reduction in GHG emissions, only three would apply to Alternatives A1 and A2 (refer to **Table 3.4-6**). The other policies do not apply to Alternatives A1 and A2 because they either apply to State entities, such as CARB, are planning-level measures, or apply to particular industries, such as the auto repair industry. As shown in **Table 3.4-6**, Alternatives A1 and A2 would comply with applicable emission reduction strategies of the State. Therefore, with the implementation of BMPs, implementation of Alternatives A1 or A2 would not result in a significant adverse cumulative impact associated with climate change.

The effect of climate change on the alternatives is also considered in this EIS. Average temperatures in the County could increase. This would result in projected extreme heat days, increased wildfire risk, and increased chances of extreme weather conditions. The intensity of these effects is uncertain and will depend on future GHG emissions worldwide (California Energy Commission, 2012).

No characteristics of Alternatives A1 and A2 are unique or especially vulnerable to the impacts from climate change. The effects of increasing temperatures and frequency of extreme heat days or extreme weather conditions will be dampened by the use of on-site heating and air conditioning. The Mettler Site is not susceptible to impacts from sea level rise. The Mettler Site is located on agricultural land surrounded by developed and paved areas that is adequately served by emergency services and, therefore, is not uniquely sensitive to increased risk from wildfires or extreme weather conditions as a result of climate change.

Alternative A3

Alternative A3 would not result in additional operational emissions over existing conditions. Therefore, Alternative A3 combined with other future projects in the area would not result in an adverse cumulative effect to air quality.

TABLE 3.4-6
COMPLIANCE WITH STATE EMISSIONS REDUCTION STRATEGIES

EO S-3-05/AB 32 Strategy	Project Compliance
Diesel Anti-Idling: In July 2004, CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.	Alternative A would be located on trust lands and thus not subject to CARB restrictions for on-site diesel-fueled commercial vehicle idling. BMPs provided in Section 2.0 would ensure project consistent with this strategy.
Achieve 50 Percent State-Wide Recycling Goal: Achieving the 50 percent waste diversion mandate of the State as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989), would reduce climate change emissions associated with energy intensive material extraction and production as well as CH ₄ emission from landfills. A diversion rate of 48 percent has been achieved on a state-wide basis. Therefore, a 2 percent additional reduction is needed.	The development would not affect County and State diversion goals as waste from tribal land is classified as out-of-state waste and is not calculated in local waste diversion statistics. Although the diversion stream would not be affected, the waste stream would increase. BMPs are provided in Section 2.0 , which ensure the project is consistent with this strategy.
Water Use Efficiency: Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute, and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions.	With implementation of BMPs provided in Section 2.0 , water use would be reduced through the installation of low-flow appliances and utilization of recycled water, and the installation of drought-tolerant landscaping that would make the project consistent with this strategy.
Note: AB = Assembly Bill EO = Executive Order Source: CARB, 2014.	

3.4.4.3 Alternative B – Development on the Maricopa Highway Site

Construction Emissions

Construction of Alternative B would be similar to that of Alternative A1 and would emit PM₁₀, NO_x, SO₂, CO, ROG, GHGs, and hazardous air pollutants primarily in the form of DPM from the operation of construction equipment and grading activities. Construction emission totals for Alternative B are shown in **Table 3.4-3**, and emissions estimates include the construction BMPs described in **Section 2.0**. As shown in **Table 3.4-3**, emissions of individual criteria pollutants from construction of Alternative B would not exceed applicable *de minimis* levels; therefore, a conformity determination is not required for these pollutants. Construction of Alternative B would not result in significant adverse effects associated with the regional air quality environment.

Operational Vehicle and Area Emissions

Buildout of Alternative B would result in the generation of operational emissions similar to that of Alternative A1. Operational emissions for Alternative B are shown in **Table 3.4-4**, and emissions estimates include the construction BMPs described in **Section 2.0**. As shown in **Table 3.4-4**, emissions of the ozone precursors ROG and NO_x from operation of Alternative B would exceed applicable levels. This would be a significant adverse impact. Mitigation Measures 3-A and 3-B in **Section 4.0** require the purchase of credits to fully offset ROG and NO_x emissions. After mitigation, impacts to the regional air quality environment resulting from the operation of Alternative B would be reduced to less-than-significant levels. As shown in **Table 3.4-4**, emissions of individual criteria pollutants from stationary sources would exceed the Tribal NSR threshold of 2 tpy for ROG and 5 tpy for NO_x; therefore, a Tribal NSR permit would be required. The Tribe would apply for and obtain a Tribal NSR permit in accordance with the USEPA guidelines and Tribal NSR regulations.

General Conformity

Since project-related direct and indirect emissions occur in a nonattainment area and project-related operational emissions (**Table 3.4-4**) would exceed levels for the ozone precursors ROG and NO_x, a general conformity determination for ozone would be required prior to federal action. As operational emissions from Alternative B would be less than those from Alternative A, the Final General Conformity Determination provided in **Appendix Z** may be used for Alternative B.

Cumulative Air Quality Impacts

Operational Emissions/General Conformity Review

Operation of Alternative B would result in the generation of emissions from mobile and stationary sources similar to Alternative A1. Because emissions would exceed *de minimis* levels for ozone precursors, Alternative B has the potential to contribute towards significant cumulative impacts to air quality. Further, as discussed in detail in **Section 3.14.2**, Alternative B has the potential to induce growth within the Maricopa Highway Site that would result in additional emissions. The cumulative air quality effects of induced growth within the site in combination with emissions resulting from Alternative B are addressed within the Final General Conformity Determination provided in **Appendix Z**. With the implementation of Mitigation Measures 3-A and 3-B in **Section 4.0**, the cumulative emissions from Alternative B in combination with the indirect emissions from induced growth would be reduced below *de minimis* levels. Therefore, cumulative air quality effects would be less than significant after mitigation.

Carbon Monoxide Hot Spot Analysis

After the implementation of recommended mitigation for the project alternatives, no intersection would have an LOS or an increase in delay in the cumulative year 2040 that would warrant a Hot Spot Analysis (refer to **Appendix F**). No significant cumulative impacts would occur and no further analysis is needed.

Climate Change

Development of Alternative B would result in an increase in GHG emissions related to mobile sources, area sources, and indirect sources related to electrical power generation. Total GHG emissions per year for Alternative B are shown in **Table 3.4-5** and are estimated to be approximately 115,000 MT of CO_{2e} per year. GHG emissions resulting from Alternative B are primarily indirect (indirect mobile emissions from delivery, patron, and employee vehicles) and would be reduced in future years with improvements to fuel economy. BMPs provided in **Section 2.0** would reduce project-related GHG emissions. Additionally, similar to Alternative A1, Alternative B would be generally consistent with emissions reduction strategies developed by the State (**Table 3.4-6**) in relation to diesel idling, waste diversion, and water use efficiency. Therefore, with the implementation of BMPs, Alternative B would not result in a significant adverse cumulative impact associated with climate change.

3.4.4.4 Alternative C – No Action Alternative

Under the No Action Alternative, development of the Mettler or Maricopa Highway Sites is not reasonably foreseeable. No construction or operational mobile or stationary criteria pollutants or DPM emissions would be generated under this alternative.

3.5 BIOLOGICAL RESOURCES

This section assesses the environmental consequences of the alternatives described in **Section 2.0** as they relate to biological resources. Applicable regulatory policies and plans related to biological resources are briefly summarized in **Section 3.5.1** and described in detail in **Appendix K**. Effects are measured against the environmental baseline, which is described in **Section 3.5.2**. Direct and cumulative effects are identified in **Section 3.5.3**, while indirect and growth-inducing effects are discussed in **Section 3.14**. Measures to mitigate for adverse impacts identified in this section are presented in **Section 4.0**.

3.5.1 REGULATORY SETTING

The regulatory setting concerning biological resources is summarized in **Table 3.5-1**, and additional information on the regulatory setting can be found in **Appendix K**.

TABLE 3.5-1
REGULATORY POLICIES AND PLANS RELATED TO BIOLOGICAL RESOURCES

Regulation	Description
Federal	
ESA	<ul style="list-style-type: none"> ▪ Enforced by the USFWS for terrestrial species ▪ Protects federally listed wildlife and their habitat from take through provisions ▪ Requires consultation under Section 7 of the ESA for federal agencies if take of a listed species is necessary to complete an otherwise lawful activity ▪ Considers habitat loss an impact to the species ▪ Defines critical habitat as specific geographic areas within a listed species range that contain features considered essential for the conservation of the listed species
Migratory Bird Treaty Act (MBTA)	<ul style="list-style-type: none"> ▪ Protects migratory birds and requires project-related disturbances to be reduced or eliminated during the nesting season (February 15 through September 15)
Bald and Golden Eagle Protection Act	<ul style="list-style-type: none"> ▪ Prohibits take, possession, and commerce of bald and golden eagles and associated parts, feathers, nests, or eggs with limited exceptions ▪ The bald eagle was federally delisted under the ESA in 2007; however, provisions of the act remain in place for bald and golden eagles.
CWA – Section 404 and 401	<ul style="list-style-type: none"> ▪ May consider natural drainage channels and adjacent wetlands as “Waters of the United States” subject to jurisdiction of the U.S. Army Corps of Engineers (USACE) ▪ Affords for the regulation of filling or dredging of Waters of the U.S. under the authority of Section 404 of the CWA by USACE or the USEPA
State	
California Endangered Species Act (CESA)	<ul style="list-style-type: none"> ▪ Provisions protect species of wildlife designated by the California Fish and Game Commission as endangered, threatened, or candidate species and their habitat from take
California Fish and Game Code	<ul style="list-style-type: none"> ▪ Prohibits take of a species listed under the CESA or otherwise special-status ▪ Allows the California Department of Fish and Wildlife (CDFW) to issue an incidental take permit for a state-listed species if specific criteria outlined in Title 14 California Code of Regulations, Sections 783.4(a), (b) and CDFW Code Section 2081(b) are met
Native Plant Protection Act of 1977	<ul style="list-style-type: none"> ▪ Administered by the CDFW ▪ Designates special-status plant species and provides protection measures for identified populations
Local	
County General Plan	<ul style="list-style-type: none"> ▪ Serves as the framework for development by providing the distribution, location, and extent of uses of land for housing, business, industry, open space, agriculture, natural resources, and other uses (Kern County, 2009)

Regulation	Description
County Zoning Ordinance	<ul style="list-style-type: none"> ▪ Consistent with the County General Plan, the zoning ordinance establishes basic regulations for the development of land. ▪ Title 19 promotes and protects the public health, safety, and welfare through the orderly regulation on land uses throughout the unincorporated areas of the County.

3.5.2 ENVIRONMENTAL SETTING

A Biological Assessment (BA) was prepared for the Mettler Site to determine the extent to which the project may affect federally listed or candidate special-status species as well as designated or proposed critical habitat. The BA is included as **Appendix L**. Section 7 consultation with the USFWS has been completed and a letter of concurrence was issued on April 9, 2020 (**Appendix X**). Additionally, a Technical Memorandum was prepared to provide supporting information to the EIS and BA. This Technical Memorandum addressed habitat types and quality present on the Maricopa Highway Site, analysis of state special-status species with the potential to occur on either the Mettler and Maricopa Highway Sites, and an analysis of federal special-status species with the potential to occur on the Maricopa Highway Site that have not been analyzed in the BA. The Technical Memorandum is included as **Appendix O**. The existing settings for both the Mettler and Maricopa Highway Sites are detailed in these reports and summarized briefly below. General methodology for preliminary data reviews, biological surveys, and data analysis is provided in **Section 3.0** of **Appendix L**.

3.5.2.1 Mettler Site

Terrestrial Habitat Types

Terrestrial habitat types on the Mettler Site include agriculture and ruderal/developed areas that are highly disturbed and offer low-quality habitat to native plants or wildlife. Habitat maps with associated acreages are illustrated in **Figure 3.5-1** in **Appendix E**. Photographs of the community types are presented in **Figure 3.5-2** in **Appendix E**. A full description and analysis of terrestrial habitat types on the Mettler Site is included in Section 4.0 of the BA (**Appendix L**).

Potential Waters of the U.S.

During the site assessment conducted on October 3, 2018, the Mettler Site was informally assessed for wetlands and waterways. Water features were assessed for their potential to be regulated under the CWA (Waters of the U.S.). Two aquatic habitat types were identified within the Mettler Site.

1. Agricultural ponds: three ponds, approximately 70 feet, 85 feet, and 170 feet across and approximately 10 to 12 feet deep, respectively; located in the northwestern corner of the site to which the drainage ditch flows
2. Drainage ditch: a man-made agricultural ditch that does not meet jurisdictional Waters of the U.S. criteria; located along a majority of the west perimeter of the site

A habitat map that shows these features is presented in **Figure 3.5-1** in **Appendix E**. Photographs of the aquatic habitats are shown in **Figure 3.5-2** in **Appendix E**. These site features are described in further detail in Section 4.0 of the BA (**Appendix L**).

Plants and Wildlife

Species observed on the Mettler Site are included in **Appendix L**. Plants and animals observed were consistent with areas of high disturbance, and no special-status species were observed.

Special-Status Species

The Mettler Site may provide habitat for four special-status species: blunt-nosed leopard lizard (*Gambelia sila*), Tipton kangaroo rat (*Dipodomys nitratoides*), San Joaquin kit fox (*Vulpes macrotis mutica*), and burrowing owl (*Athene cunicularia*). The blunt-nosed leopard lizard, Tipton kangaroo rat, and San Joaquin kit fox are federally listed species while the burrowing owl is a state-listed species. A full analysis of all regionally occurring federal special-status species is

included in **Section 5.2** of the BA (**Appendix L**). State special-status species are analyzed in **Section 3.0** and **4.0** of the Technical Memorandum (**Appendix O**).

Migratory Birds and Other Birds of Prey

Migratory birds and other birds of prey have the potential to nest within the limited trees and vegetation surrounding the residential and farming-related structures in the disturbed areas onsite. No birds were observed nesting during field surveys. The nesting season ranges from February 15 to September 15.

Critical Habitat

No USFWS critical habitat is located on the Mettler Site (USFWS, 2019a; USFWS, 2019b; CDFW, 2019a). The nearest critical habitat designated by USFWS is for the Buena Vista Lake ornate shrew (*Sorex ornatus relictus*) that is approximately 4.0 miles northwest, and for the California condor (*Gymnogyps californianus*) that is located approximately 5.5 miles southeast (USFWS, 2019b).

3.5.2.2 Maricopa Highway Site

Terrestrial Habitat Types

Terrestrial habitat types in the Maricopa Highway Site include agriculture and ruderal/developed areas that are highly disturbed and offer low-quality habitat to native plants or wildlife. A habitat map with associated acreages of the Maricopa Highway Site is illustrated in **Figure 3.5-3** in **Appendix E**. Photographs of the community types within the Maricopa Highway Site are provided in **Figure 3.5-4** in **Appendix E**. A full description and analysis of terrestrial habitat present onsite is included in Section 2.2 of the Technical Memorandum (**Appendix O**).

Potential Waters of the U.S.

During the site assessments conducted from October 3-4, 2018, the Maricopa Highway Site was informally assessed for wetlands and waterways, pursuant to their potential to be regulated under the CWA (Waters of the U.S.). Aquatic habitats are illustrated in **Figure 3.5-3** in **Appendix E**. Photographs of the community types within the Maricopa Highway Site are provided in **Figure 3.5-4** in **Appendix E**. One aquatic habitat type was identified: a man-made agricultural roadside drainage ditch running along the north, east, and west perimeter of the site. This habitat lacks features required to be subject to USACE jurisdiction under CWA Section 404.

Plants and Wildlife

Species observed on the Maricopa Highway Site are included in **Appendix O**. Plants and animals observed were consistent with areas of high disturbance, and no special-status species were observed.

Special-Status Species

Special-status species with the potential to occur on the Maricopa Highway Site are described in the Technical Memorandum (**Appendix O**). A full description and analysis of these species is included in Sections 3.0 and 4.0 of the Technical Memorandum (**Appendix O**).

Migratory Birds and Other Birds of Prey

Migratory birds and other birds of prey have the potential to nest within the herbaceous and shrubby vegetation of the ruderal habitat and in the isolated trees associated with the agricultural drainage ditch. While birds were observed foraging, no active nests were detected during the October 3-4, 2018 biological survey. The nesting season ranges from February 15 to September 15.

Critical Habitat

No USFWS critical habitat is located on the Maricopa Highway Site (USFWS, 2019b; USFWS, 2019c; CDFW, 2019b). The nearest critical habitat designated by USFWS is for the Buena Vista Lake ornate shrew, which is located

approximately 4.2 miles to the northwest (USFWS, 2019b). Additionally, the next nearest designated critical habitat is for the California condor, which is located approximately 5.7 miles southeast (USFWS, 2019b).

3.5.3 IMPACTS

Assessment Criteria

Each alternative is analyzed to determine if construction or operation would result in direct significant impacts to biological resources. A project would have a significant adverse impact if the development or operation would result in the loss of sensitive or critical habitat or in the take of sensitive plant or wildlife species. Consideration is also given to wildlife corridors, nursery sites, and conservation plans.

3.5.3.1 Alternative A – Development on the Mettler Site

Alternatives A1 and A2

Potential Effects to Habitats

No USFWS-designated critical habitat occurs within or near the Mettler Site. The development of the casino/hotel and supporting structures under Alternatives A1 and A2 would only directly affect habitat types within the Mettler Site that are not sensitive. Most of the disturbance would occur in agricultural areas that have low habitat value. A portion of the drainage ditch along the western perimeter would also be impacted under Alternatives A1 and A2. This ditch also has low habitat value and does not meet the criteria to be considered as USACE jurisdictional waters. The Mettler Site does not provide habitat connectivity, corridors, or nursery habitat due to nearby main roadways and high levels of disturbance on site and in the surrounding area.

The stormwater facilities proposed for the Mettler Site would minimize indirect effects to habitat by ensuring that the stormwater runoff generated from parking lots and rooftops is captured and infiltrated into native soils in percolation basins. Effluent produced by the proposed WWTP would be tertiary-treated on the site for beneficial reuse, or would be of suitable quality to recharge the groundwater basin through percolation. Impacts to habitat would be less than significant.

Potential Effects to Special-Status Species

As discussed in **Section 3.5.2**, three federally listed wildlife species have the potential to occur on the Mettler Site: San Joaquin Kit Fox, blunt-nosed leopard lizard, and Tipton kangaroo rat. The only state special-status species with the potential to occur onsite is the burrowing owl.

In the event that any of these species exist on the Mettler Site, development could result in take of that species. Potential effects to federally listed species are outlined in Section 5.2 of the BA (**Appendix L**) and potential effects to state-listed species are outlined in Section 4.0 of the Technical Memorandum (**Appendix O**). Mitigation measures including and beyond those recommended in the BA are identified in **Section 4.0** as Mitigation Measures 4-A through 4-N. There would be a less-than-significant impact with mitigation.

Potential Effects to Migratory Birds and Other Birds of Prey

Alternatives A1 and A2 could adversely affect active migratory bird nests if vegetation removal and noise-producing activities associated with construction were to occur during the nesting season. Increased lighting could increase the collisions of birds with structures and cause a disorientation effect on avian species. Potential adverse direct effects to migratory birds and other special-status bird species would be avoided or minimized by implementation of Mitigation Measures 4-O and 4-P in **Section 4.0**. There would be a less-than-significant impact with mitigation.

Potential Effects to Wetlands and Waters of the U.S.

On-Site aquatic drainage ditches and agricultural ponds do not meet standards of Waters of the U.S., and therefore do not require protecting or permitting if they are altered or removed. The Tribe would comply with Mitigation Measures 1-A and 1-B in **Section 4.0** to prevent discharge of pollutants to surface waters. There would be a less-than-significant impact.

Alternative A3***Potential Effects to Habitat***

There is no critical habitat present on the site. Additionally, there would be no conversion of habitat types as the agricultural habitat would be retained for agricultural use, and the drainage ditch and agricultural ponds would remain unchanged. There would be no impact.

Potential Effects to Special-Status Species

Alternative A3 would not result in changes to the land use of the site. Conversion of the farm to an organic farm would not result in operational effects to special-status species beyond the existing operations. There would be a less-than-significant impact.

Potential Effects to Migratory Birds and Other Birds of Prey

Alternative A3 would not result in changes to the land use of the site. Conversion of the farm to a USDA organic farm would not result in operational effects to migratory birds beyond the existing operations. There would be a less-than-significant impact.

Potential Effects to Wetlands and Waters of the U.S.

No Waters of the U.S. were present on the Mettler Site. Existing aquatic habitats would be retained and operate the same under the A3 alternative as they would under the Alternative C. There would be no impact.

Cumulative Biological Resources Impacts***Habitats***

The Mettler Site does not contain designated critical habitat. Cumulative habitat disturbance from other projects in the vicinity would occur primarily in agricultural areas or disturbed areas of low habitat value. These are not sensitive biological communities; therefore, impacts would be less than significant.

Federally Listed Species

Federally listed wildlife species have minimal potential to occur on the Mettler Site. Mitigation Measures 4-A through 4-N in **Section 4.0** would avoid or minimize impacts to federally listed species. Similarly, all other projects in the region are required to comply with the ESA by avoiding or minimizing effects to protected species. Therefore, adverse cumulative effects to federally listed species would be less than significant with mitigation.

Migratory Birds and Other Birds of Prey

Cumulative disturbance and nighttime lighting due to the proposed facilities under Alternative A1 and A2 could incrementally affect migratory birds. Mitigation Measures 4-O and 4-P in **Section 4.0** would avoid or minimize impacts to migratory bird species. Additionally, BMPs provided in **Section 2.0** regarding nighttime lighting would minimize significant effects to migratory birds. The development of other reasonably foreseeable projects in the area would also be subject to the MBTA. Therefore, cumulative effects to nesting and migratory birds would be less than significant with mitigation.

Wetlands and Waters of the U.S.

As required by the CWA, wetlands and Waters of the U.S. must either be avoided or mitigated via the Section 404 permitting process. This is the case for the project alternatives and all other cumulative projects in the vicinity. Indirect effects to wetlands and waterways therefore would be avoided, or project features would be implemented to minimize

impacts and provide buffers to wetlands, control stormwater and wastewater discharges, and protect the quality of runoff water through conditions of the NPDES permit. Other cumulative projects would likewise avoid or mitigate for impacts to wetlands and Waters of the U.S. in compliance with Section 404 of the CWA. Therefore, cumulative effects to wetlands and Waters of the U.S. would be less than significant with Mitigation Measures in 1-A and 1-B in **Section 4.0**.

3.5.3.2 Alternative B – Casino Resort on the Maricopa Highway Site

Potential Effects to Habitats

The development of Alternative B would be located on the Maricopa Highway Site and would result predominantly in the development of agricultural land, like the Mettler Site. Portions of the drainage ditch along the north perimeter would also be impacted. Both of these provide low-quality habitat. No sensitive biological resources are present in the Maricopa Highway Site. Potential indirect impacts to off-site sensitive habitats are similar to those outlined in **Section 3.5.3.1**, and will be addressed in a similar fashion to reduce impacts to sensitive habitats to insignificant levels. The Maricopa Highway Site does not provide habitat connectivity, corridors, or nursery habitat due to nearby main roadways and the high levels of disturbance onsite and in the surrounding area. Therefore, impacts to habitat would be less than significant.

Potential Effects to Special-Status Species

Four federally listed wildlife species have the potential to occur on the Maricopa Highway Site: San Joaquin Kit Fox, blunt-nosed leopard lizard, giant kangaroo rat (*Dipodomys ingens*), and the Tipton kangaroo rat. The only state special-status species with potential to occur onsite is the burrowing owl.

Potential effects to federally listed species are outlined in Section 5.2 of the BA (**Appendix L**). Potential effects to state-listed species and those federal special-status species unique to the Alternative B Site are outlined in Section 4.0 of the Technical Memorandum (**Appendix O**). Mitigation measures including and beyond those recommended in the BA are identified in **Section 4.0** as Mitigation Measures 4-A through 4-N. There would be a less-than-significant impact with mitigation.

Potential Effects to Migratory Birds and Other Birds of Prey

Alternative B has the potential to cumulatively affect migratory and nesting birds in a similar way as Alternatives A1 and A2. Potential adverse direct effects to migratory birds and other special-status bird species would be avoided or minimized by implementation of the Mitigation Measures 4-O and 4-P in **Section 4.0**. There would be a less-than-significant impact with mitigation.

Potential Effects to Wetlands and Waters of the U.S.

On-Site drainage ditches do not meet the definition of Waters of the U.S., and therefore do not require protection or permitting if altered or removed. The Tribe would comply with Mitigation Measures 1-A and 1-B in **Section 4.0** to prevent discharge of pollutants to surface waters during construction. There would be a less-than-significant impact with mitigation.

Cumulative Biological Resources Impacts

Habitats

Cumulative effects to wildlife and habitats are comparable to those under Alternatives A1 and A2. Impacts would only occur on habitat that offers very little value to plant and wildlife species. There would be a less-than-significant impact.

Federally Listed Species

Mitigation Measures 4-A through 4-N in **Section 4.0** would avoid or minimize impacts to federally listed species. Similarly, all other projects in the region are required to comply with the ESA by avoiding or minimizing effects to protected species. There would be a less-than-significant impact with mitigation.

Migratory Birds and Other Birds of Prey

Cumulative effects of Alternative B to nesting or migratory birds would be similar to those outlined for Alternatives A1 and A2. There would be a less-than-significant impact with mitigation.

Wetlands and/or Waters of the U.S.

As required by the CWA, wetlands and Waters of the U.S. must either be avoided or mitigated via the Section 404 permitting process. This is the case for the project alternatives and all other cumulative project in the vicinity. Indirect effects to wetlands and waterways would be avoided, or project features would be implemented to minimize impacts and provide buffers to wetlands, control stormwater and wastewater discharges, and protect the quality of runoff water through conditions of the NPDES permit. Other cumulative projects would likewise avoid or mitigate for impacts to wetlands and Waters of the U.S. in compliance with Section 404 of the CWA. There would be a less-than-significant impact with mitigation.

3.5.3.4 Alternative C – No Action Alternative

Existing biological resources would remain unchanged in the near term, and habitats would not be disturbed under the No Action Alternative. Because these habitats would not be disturbed, it is assumed that all existing plant and animal species would continue to remain undisturbed, and no impact to biological resources would result.

3.6 CULTURAL AND PALEONTOLOGICAL RESOURCES

This section assesses the environmental consequences of the alternatives described in **Section 2.0** as they relate to cultural and paleontological resources. Applicable regulatory policies and plans related to cultural and paleontological resources are briefly summarized in **Section 3.6.1** and described in detail in **Appendix K**. Effects are measured against the environmental baseline that is described in **Section 3.6.2**. Direct and cumulative effects are identified in **Section 3.6.4**, while indirect and growth-inducing effects are discussed in **Section 3.14**. Measures to mitigate for adverse impacts identified in this section are presented in **Section 4.0**. This work is based on tribal consultation included in **Appendix P**, findings from archaeological surveys completed in 2015 and 2018, and background information compiled in **Appendix Q** for the Area of Potential Effects (APE) for each alternative.

3.6.1 REGULATORY SETTING

The cultural resources regulatory setting information is summarized in **Table 3.6-1** and more detailed information may be found in **Appendix K**.

3.6.2 ENVIRONMENTAL SETTING**3.6.2.1 Background Research*****Southern San Joaquin Valley Information Center***

Multiple records searches were completed at the Southern San Joaquin Valley Information Center (SSJVIC) for the alternative sites; the SSJVIC is the official state repository of archaeological and historic records and reports for the County. These searches include one for the Mettler Site in 2013 (SSJVIC File No. 13-298, dated August 8, 2013), a second for the Mettler Site in 2018 (SSJVIC File No. 18-013, dated January 16, 2018), and one for the Maricopa Highway Site in 2018 (SSJVIC File No. 18-365, dated September 10, 2018).

Mettler Site

The 2015 Mettler Site record search found no record of any prehistoric or historic period cultural resources on the property or within a 0.5-mile radius of it. However, the search indicated that archaeologists have completed nine cultural resource studies within the records search radius, including one linear study from 1996 that crossed the Mettler Site. There were no significant changes noted in the 2018 SSJVIC results.

Background research indicates that portions of the APE were patented by Elizabeth Harmon in 1891 and Elmer E. Nickell in 1892 (**Appendix Q**), but no additional significant information about either landholder could be found.

TABLE 3.6-1
REGULATORY POLICIES AND PLANS RELATED TO CULTURAL RESOURCES

Regulation	Description
Federal	
Section 106 of the NHPA	<ul style="list-style-type: none"> ▪ Federal agencies must identify cultural resources that may be affected by actions involving federal lands, funds, or permitting actions. ▪ Significance of the resources must be evaluated for National Register of Historic Places (NRHP) eligibility. ▪ If an NRHP-eligible resource will be adversely affected, measures to avoid or reduce adverse effects must be taken.
Archaeological Resources Protection Act	<ul style="list-style-type: none"> ▪ Archaeological resources and sites on public and Indian lands are protected resources.
Native American Graves Protection and Repatriation Act	<ul style="list-style-type: none"> ▪ Includes provisions governing the repatriation of Native American remains and cultural items under the control of federal agencies and institutions that receive federal funding ("museums"), as well as the ownership or control of cultural items and human remains discovered on federal or tribal lands.
Paleontological Resources Preservation Act	<ul style="list-style-type: none"> ▪ Paleontological resources on federal lands are protected resources.
Local	
County General Plan	<ul style="list-style-type: none"> ▪ Archaeological, historical, and paleontological resources are protected resources.

Maricopa Highway Site

The Maricopa Highway Site record search found no record of any prehistoric or historic period cultural resources on the property or within a 0.5-mile radius of it. However, the search indicated that archaeologists have completed two cultural resource studies within the records search radius as well as a rural highway survey; none of these studies crossed the Maricopa Highway Site.

Background research indicates that portions of the APE were patented separately by both Joseph M. Duty and Peter J. Skillman in 1901. However, none of the additional information found regarding the two men indicates that either was a prominent individual who was significant in regional history (**Appendix Q**).

Native American Contact Program

A review of the Sacred Lands File by the California Native American Heritage Commission (NAHC) for the alternative sites was requested in September 2018 (**Appendix P**). The NAHC responded in a letter dated September 26, 2018 and indicated that they have no record of sacred lands within the project APE. The NAHC also supplied a list (included in **Appendix P**) of 13 Native American individuals who may have additional information about cultural resources in the two project areas. On behalf of the BIA, AES performed the Native American consultation required under Section 106. AES sent letters and performed follow-up phone calls to the individuals identified by the NAHC; responses are summarized in **Table 3.6-2**. The Tejon Tribe, as a Cooperating Agency, notes that the area is historically significant for the Tribe in that the Mettler Site is centrally located within the reservation area established by the 1851 Treaty with the United States and within miles of the Tribe's cemetery and former residences on the Tejon Ranch.

Paleontological Resources

A search of the University of California Museum of Paleontology (UCMP) database for the County shows that 40,006 fossils have been documented in all parts of the County that represent microfossils, reptiles, amphibians, mammals, birds, sharks, bony fish, whales, sea urchins, and similar underwater species (UCMP, 2018). Fossils have been found within

approximately 5 miles of each of the alternative sites, primarily (but not exclusively) in the hills and canyons of the more rugged terrain bounding the Southern San Joaquin Valley south of the APE. For information regarding the geological context for paleontological resources within County, please refer to **Section 3.2.2.1**.

TABLE 3.6-2
NATIVE AMERICAN CONTACT PROGRAM RESULTS

Tribe	Response
Kern Valley Indian Community	The APE is outside their consultation area, but they know the area is sensitive for cultural resources and construction should be monitored.
Kitanemuk & Yowlumne Tejon Indians	They have seen the Draft EIS and have general concerns as the area is sensitive for cultural resources.
Tejon Indian Tribe	Colin Rambo, the Tejon Tribal Historic Preservation Officer, does not know of any resources that would be affected by the project and believes that the APE has a low potential for buried resources that could be uncovered during construction.

3.6.3 FIELD SURVEYS

3.6.3.1 Mettler Site

An archaeological pedestrian survey of the property utilizing parallel transects spaced from 15 to 20 meters (49 - 66 feet) apart was completed on January 6 and 7, 2014. Ground surface visibility was unobstructed over the entire property due to the almost complete absence of vegetation. No archaeological features or artifacts were identified, but a farm complex comprised of four buildings and some ornamental vegetation were recorded. These buildings are described in detail in **Appendix Q** and briefly below.

Corrugated Metal Industrial Building and Attached Residence: This is a rectangular industrial building/garage with a flat-roofed residence attached to the west side of the building. A long rectangular Class 2 building (not meant for human habitation) is shown in the same location as the corrugated metal building on a 1955 USGS map that is based on aerial photographs taken in 1952. The building does not appear on the preceding 1934 USGS map. Because the unincorporated area of Mettler was apparently established in the 1940s, the building is estimated to be approximately 65 to 70 years old. There is also a wood shed with siding that matches the exterior of the residence.

Metal Pre-Engineered Residence: This is a steel, rigid-frame, pre-engineered temporary military-style building on a raised concrete foundation. A mixed clapboard- and plank-sided enclosed utility porch has been added to the east end of the building. The structure is similar to a Butler Building. As a rigid-framed building, the Butler Building, developed around 1940, represented an innovation over existing arched buildings (such as Quonset huts), because it provided more interior space, used less steel, and could be erected more quickly and with fewer personnel (Butler Manufacturing, 2014). Given that a building at this location is present on a 1955 USGS map with cultural features based on 1952 aerial photographs, and that the unincorporated area of Mettler was established in the 1940s, the building may represent a World War II era military building that was salvaged from a military installation following the war.

Metal Manufactured Home: The green manufactured/pre-fabricated residence on the property has a rectangular plan that measures approximately 24 feet by 36 feet and has a very low gabled roof. A concrete slab and aluminum awning are attached to the west side of the building. Manufactured homes such as this one are generally dated to the 1960s or later. The 1973 USGS quadrangle map does not show a building at the present location. These factors indicate that the building was placed on the site after 1973 and is no more than 45 years old.

3.6.3.2 Maricopa Highway Site

An archaeological pedestrian survey of the property that utilized parallel transects spaced 30 meters (98 feet) apart was completed on from October 3-5, 2018. The entire property was developed as a vineyard, and the survey took place

between rows of vines where ground surface visibility ranged from 25 percent to 50 percent. No archaeological features or artifacts were identified.

3.6.4 IMPACTS

Assessment Criteria

A significant effect would occur if the implementation of a project alternative resulted in physical destruction, alteration, removal, neglect, or change in characteristics or reduction of integrity of historic features of a cultural resource. A significant effect to paleontological resources would occur if a project alternative directly or indirectly destroyed such a resource.

3.6.4.1 Alternative A – Development on the Mettler Site

The small farm complex includes structures that are both more or less than 50 years old. The complex as a whole is representative of mid-20th century farming in the lower San Joaquin Valley, however none of the structures appears to contain values that would make them eligible for listing on the NRHP. The BIA and SHPO concurred with this assessment in a letter from SHPO to the BIA dated July 17, 2020 (**Appendix Y**). This letter in combination with the Native American consultation described above concludes the Section 106 process. Neither of the structures are old enough to be associated with patent holders Elizabeth Harmon or Elmer Nickell.

Buried Resources

Based on the results of the records search and field surveys described above, there is low potential for previously unknown archaeological resources that could be encountered during ground-disturbing activities associated with Alternative A. There are no water sources onsite or adjacent to either property that would have increased the presence of significant subsistence resources (e.g., plants or wildlife) on either property. The Mettler parcel is in an area south of historic Kern Lake and was likely used by Tejon ancestors for subsistence and trade purposes. If cultural resources were revealed during construction, they would represent a potentially significant impact. Mitigation measures are presented in **Section 4.0** for the treatment of unanticipated archaeological discoveries; application of Mitigation Measures 5-A, 5-B, and 5-D that are discussed in **Section 4.0** would reduce impacts of unanticipated discoveries to a less-than-significant level. Therefore, Alternative A would not result in significant adverse effects to unknown archaeological resources after mitigation.

As described in **Section 3.6.2** and **Section 3.6.3**, the investigation of the APE (**Appendix Q**) revealed three previously unrecorded historic-era resources on the Mettler Site. However, the resources have been recommended not eligible for listing on the NRHP. SHPO's concurrence with this recommendation is included in **Appendix Y**.

Paleontological Resources

No paleontological resources were observed during any of the field surveys. Therefore, none of the alternatives would result in significant adverse effects to known paleontological resources. There is a possibility that previously unknown paleontological resources would be discovered during earth-moving activities. Mitigation measures are presented in **Section 4.0** for the treatment of unanticipated paleontological discoveries to ensure that no development would result in significant adverse effects to previously unknown paleontological resources under Section 101 (b)(4) of NEPA (40 CFR §§ 1500-1508). Implementation of Mitigation Measures 5-A, 5-C, and 5-D (see **Section 4.0**) would reduce impacts of unanticipated discoveries to a less-than-significant level.

As described above, an archaeological investigation of the Mettler Site did not identify any other resources. Given the absence of NRHP-eligible cultural resources or associations on the Mettler Site, there would be no direct adverse effects to known cultural resources if Alternative A is selected.

3.6.4.2 Alternative B – Casino Resort on the Maricopa Highway Site

Similar to Alternative A, there is a low potential for buried cultural or paleontological resources if Alternative B is selected. Given the absence of NRHP-eligible cultural resources or associations on the Maricopa Highway Site, there would be no direct adverse effects to known cultural resources if Alternative B is selected.

3.6.4.3 Cumulative Cultural and Paleontological Resources Impacts

Both Alternative A and Alternative B have the slight potential to affect previously unknown buried archaeological resources. However, direct effects to unknown cultural resources associated with Alternative A or Alternative B would be reduced to a minimal level with the implementation of Mitigation Measures 5-A through 5-D (**Section 4.0**). Other approved projects would be required to follow federal, state, and local regulations regarding cultural resources and inadvertent discoveries of cultural resource, requiring mitigation or avoidance of impacts to cultural resources. Therefore, with the implementation of Mitigation Measures 5-A through 5-D discussed in **Section 4.0**, construction of either Alternative A or Alternative B would not result in adverse cumulative effects to cultural resources.

3.6.4.4 Alternative C – No Action Alternative

The No Action Alternative would not result in any significant adverse effects to cultural or paleontological resources.

3.7 SOCIOECONOMIC CONDITIONS

This section assesses the environmental consequences of the alternatives described in **Section 2.0** as they relate to socioeconomics. Applicable regulatory policies and plans related to socioeconomics are briefly summarized in **Section 3.7.3.1** and described in detail in **Appendix K**. Effects are measured against the environmental baseline that is described in **Section 3.7**. Direct and cumulative effects are identified in **Section 3.7.4**, while indirect effects are discussed in **Section 3.14**. Measures to mitigate for adverse impacts identified in this section are presented in **Section 4.0**.

3.7.1 SOCIOECONOMIC CHARACTERISTICS OF THE TEJON INDIAN TRIBE

The Tribe has a total enrollment of over 1,050 members. The Tribe has a large amount (32 percent) of members under the age of 18; the median age in the Tribe is 26 years. This is significantly higher than the 24 percent of the overall population under the age of 18 in the United States, as well as the national median age of 38 years. Furthermore, Tejon elders represent 5 percent of the population compared to the national average of 13 percent (Tejon Indian Tribe, 2018).

The young and growing population of the Tribe is also one that is in need of jobs, housing, and education. The median annual household income is \$17,208 and more than half of the population lives below the federal poverty line for a household of three. One-third of tribal households participate in the Supplemental Nutrition Assistance Program, which is nearly twice the rate of Kern County (17 percent) (Tejon Indian Tribe, 2018 and U.S. Census Bureau, 2016a). Permanent housing is also an issue for the Tribe. Whereas nationally 64 percent either own or have a home mortgage, 62 percent of tribal citizens either rent or live at a location without payment of rent (U.S. Census Bureau, 2016b and Tejon Indian Tribe, 2018). Finally, Tejon citizens lag far behind both Kern County residents and the United States in education with only 11 percent holding an associate's degree or higher compared to 40.5 percent in Kern County and 46 percent nationally (Tejon Indian Tribe, 2018; U.S. Census Bureau, 2016c).

3.7.2 SOCIOECONOMIC CHARACTERISTICS OF KERN COUNTY, CALIFORNIA

3.7.2.1 Population

The County was home to a total population of approximately 896,000 in 2018 with expected growth to approximately 932,000 by 2023, a projected growth rate of 4.1 percent (**Appendix I**, Table 32). The population of California is projected to increase to approximately 51 million people by 2060 (Public Policy Institute of California [PPIC], 2019) with inland areas projected to grow faster than coastal areas (PPIC, 2008).

3.7.2.2 Housing

Between 2010 and 2018, the number of housing units in the County increased by 5.8 percent. There were an estimated 300,789 housing units in 2018, with an expected increase of 3.6 percent by 2023 (**Appendix I**, Table 32). There is currently a 9.6 percent vacancy rate for housing units (approximately 28,700 units) in the County (**Appendix I**).

3.7.2.3 Employment

In 2017, the U.S. unemployment rate was estimated at an average of 4.3 percent (Bureau of Labor Statistics, 2018). Unemployment in the County in 2017 was 9.2 percent (**Appendix I**, Table 23). The dominant employers in the County are educational services, health care, and social assistance (20 percent of employees); agriculture (17 percent of employees); and retail trade (11 percent of employees) (U.S. Census, 2019a). The exact number of employees listed in each category is likely to fluctuate due to several factors including, but not limited to, the annual State budget; federal, state, and local economic conditions; newly implemented federal, local, and regional policies; and changes to the business base of an employer that may include technological advancements and competition from similar industries.

Due to the onset of the COVID-19 pandemic, the U.S. entered an economic recession in February of 2020 (Bloomberg News, 2020). The unemployment rate subsequently increased markedly. As of July 2020, the unemployment rate in the U.S. and Kern County increased to 10.2 percent and 16.5 percent, respectively (Bureau of Labor Statistics, 2020; California EDD, 2020). The Federal Reserve Bank of Cleveland estimates that the U.S. unemployment rate will decline during the remainder of 2020 as the U.S. adjusts and recovers from the COVID-19 pandemic (Federal Reserve Bank of Cleveland, 2020).

3.7.2.4 Income

The median household income for the County in 2018 was \$51,579, and \$75,277 for California in the same year (U.S. Census, 2018b; U.S. Census, 2019b).

3.7.2.5 Property Tax

County property tax information for the Mettler and Maricopa Highway Sites is displayed in **Table 3.7-1** below. For the 2017–2018 fiscal year, County property tax-related revenue was approximately \$262,404,404 (Kern County, 2018a).

TABLE 3.7-1
2018-2019 KERN COUNTY PROPERTY TAX BILLS

APNs	Property Taxes	APNs	Property Taxes
Mettler Site		Maricopa Highway Site	
238-204-02	\$20,197	238-203-14	\$9,449
238-204-04	\$5,124	238-203-22	\$13,291
238-204-07	\$15,340	-	-
238-204-14	\$35	-	-
Total	\$40,696	Total	\$22,740
Source: Appendix I , Table 55; Kern County Tax Treasurer-Tax Collector, 2018.			

3.7.3 ENVIRONMENTAL JUSTICE

3.7.3.1 Regulatory Setting

The socioeconomic regulatory setting is summarized in **Table 3.7-2**, and additional information on the regulatory setting is discussed in **Appendix K**. Refer to **Appendix R** for a listing of census tracts and minority populations in the vicinity of the alternative sites.

TABLE 3.7-2
REGULATORY POLICIES AND PLANS RELATED TO SOCIOECONOMICS

Regulation	Description
Federal	
EO 12898	<ul style="list-style-type: none"> ▪ Disproportionately high impacts to minority or low-income populations should be considered. ▪ A minority population is defined as a census tract containing greater than 50 percent minorities, or a census tract with a meaningfully greater percentage of minorities than the surrounding tracts.⁽¹⁾ ▪ A low-income population is defined as a census tract with a median household income lower than the poverty threshold.
<p>1. Although not specified in EO 12898, for purposes of the social justice analysis, minority races include American Indian or Alaskan Native, Asian or Pacific Islander, Black (not of Hispanic origin), and Hispanic. Populations of two or more races and populations classified as "Other" were also considered to be minority races.</p>	

3.7.3.2 Affected Environment

Census tracts are designed to be relatively homogeneous units with respect to population characteristics, economic status, and living conditions at the time of establishment. Therefore, statistics of census tracts provide a more accurate representation of the racial and economic composition of a community than other geographic areas. The census tracts that were analyzed include Census Tract 33.04 that includes the Mettler Site and Census Tract 33.06 that includes the Maricopa Highway Site as well as 14 neighboring sites (**Figure 3.7-1 in Appendix E**).

Race

Table 3.7-1 in **Appendix R** displays the population of each minority race by census tract in the vicinity of the alternative project. Since the data was reported in 2018, the racial composition of the census tracts is not expected to have changed substantially. The State has a 62 percent minority population out of approximately 39 million residents, the County has a 65 percent minority population out of approximately 883,000 residents, and the City of Bakersfield has a 67 percent minority population out of approximately 376,000 residents (Table 3.7-1 in **Appendix R**). The population in the census tract containing the Mettler Site and the Maricopa Highway Site is composed of approximately 51 percent and 42 percent minorities, respectively (Table 3.7-1 in **Appendix R**). As shown in Table 3.7-1 in **Appendix R**, 7 of the 16 census tracts reviewed include minority populations that exceed 50 percent or that exceed the State and County averages. Members of the Tribe are considered a minority population for the purposes of the EO 12898 analysis, regardless of residency.

Income

Table 3.7-2 in **Appendix R** displays the median household income and poverty income limit for each identified census tract. A low-income community is defined as a census tract where the median household income falls below the poverty threshold. None of the census tracts analyzed are classified as low-income communities.

3.7.4 IMPACTS

Assessment Criteria

Socioeconomic Impacts

To determine the potential effects of the alternatives associated with socioeconomic conditions, the economic effects of temporary construction and ongoing operational activities of each alternative were evaluated. Because socioeconomic effects would be most pronounced in the vicinity of the alternative sites, the scope of the analysis focuses on impacts to the sites and surrounding areas of the County.

Impacts from construction would be a one-time occurrence while those from operation would be generated continuously after opening. An adverse economic, fiscal, or social impact would occur if the effect of the alternative were to negatively alter the ability of governments to perform at existing levels, or alter the ability of people to obtain public health and safety services. Much of the analysis presented herein relies on data presented in the *Economic & Community Impact Analysis, Tejon Indian Tribe* (**Appendix I**). Economic effects in this analysis are based on the Impact Analysis for

Planning (IMPLAN) model that allocates operational effects within the County based, in part, on the current mix of businesses and workers within the County. IMPLAN accounts closely follow the accounting conventions used in the *Input-Output Study of the U.S. Economy* by the Bureau of Economic Analysis (**Appendix I**).

Environmental Justice Impacts

To determine the impacts of the alternatives on environmental justice, the location and status of minority and low-income communities of concern, as identified in **Section 3.7.3.2**, are compared to the effect and nature of the impacts of each alternative. An adverse environmental justice impact would result if any adverse impact within the scope of this document disproportionately affected an identified minority or low-income community or Native American tribe. The document *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses* provides guidance on how to analyze the impacts of actions on low-income and minority populations and comply with regulations.

3.7.4.1 Alternative A – Development on the Mettler Site

Alternatives A1 and A2

Economic Effects

Expenditures on goods and services for construction and operational activities would generate substantial direct economic output as well as indirect and induced economic output. Output is defined as the total value of all goods and services produced at the establishment or construction site. Direct output would result from money spent on activities for construction and operational activities. Indirect output would result from expenditures on goods and services by businesses that receive funds directly from the construction and operation of Alternatives A1 and A2. Induced output would result from expenditures on goods and services by employees directly generated from construction and operation of Alternatives A1 and A2.

Construction

Expenditures on goods and services from the construction of Alternatives A1 and A2 were calculated from estimated costs for construction, construction-in-progress, architectural and engineering services, insurance (during the construction process), furniture, fixtures, and equipment.

The cost to develop Alternative A1 is estimated at \$596 million (Table 20 in **Appendix I**). \$516 million of this amount is comprised of hard construction costs that are expected to generate a one-time total output of approximately \$604 million within the County (Table 22 in **Appendix I**). Direct output is estimated to total approximately \$429 million, indirect output would be approximately \$65 million, and induced output is estimated at \$109 million. Direct output is centered within the construction industry while indirect and induced output would be dispersed and distributed among a variety of different industries and businesses in the County (**Appendix I**).

Alternative A2 is similar to Alternative A1 in terms of offerings, but with reduced square footage totals for each element and the elimination of the spa and structured parking. The total square footage for the hotel is reduced by 21 percent and the casino floor is reduced by 12 percent. Additionally, entertainment/retail, back of house, and parking spaces are reduced by 35 percent, 25 percent, and 20 percent, respectively. There may be certain expenses that would remain relatively fixed such as site work and architecture and engineering fees; therefore, construction costs would not be reduced by the same percentage as square footage. The expected budget and economic impacts from construction are expected to be 20 percent less than Alternative A1 (**Appendix I**).

Construction of Alternatives A1 and A2 would generate substantial output to a variety of businesses in the County. Output received by area businesses would in turn increase their spending and labor demand, thereby further stimulating the local economy. This would be considered a beneficial impact.

Operation

Expenditures on goods and services from the operation of Alternatives A1 and A2 are estimated for the first stabilized year of operations, which is assumed to occur in the year 2024. The direct output under Alternative A1 is estimated at \$378.2 million. Indirect and induced outputs are estimated at \$97.0 million and \$75.9 million, respectively. Overall, it is projected that approximately \$551.1 million (in 2019 dollars) would be generated annually once Alternative A1 becomes operational (Table 18 in **Appendix I**). It is estimated that approximately 75 percent of these economic effects would accrue to County residents and businesses, with the remaining 25 percent accruing to residents and businesses located in California and throughout the United States.

The direct output under Alternative A2 is estimated at \$347.4 million. Indirect and induced outputs are estimated at \$89.2 million and \$67.9 million, respectively. Overall, it is projected that approximately \$504.5 million (in 2019 dollars) would be generated annually once Alternative A2 becomes operational (Table 19 in **Appendix I**). It is estimated that approximately 75 percent of these economic effects would accrue to County residents and businesses. The remaining 25 percent would accrue to residents and businesses located in California and the remainder of the United States.

Substitution Effects

Potential substitution effects (the loss of revenue at existing commercial businesses to the new business) of a tribal casino resort on existing restaurant, recreation, and retail establishments have been considered when evaluating the magnitude of the impact on the economy. The magnitude of the substitution effect can generally be expected to vary greatly by specific location and according to a number of variables. That is, how much of the revenue of a casino resort comes at the expense of other business establishments in the area depends on how many and what type of other establishments are within the same market area. Furthermore, the disposable income levels of local residents and their spending habits as well as other economic and psychological factors affecting the consumption decisions of local residents will affect this.

Gaming Market Substitution Effects

An analysis of the potential substitution effects of Alternative A1 on other gaming facilities based on the gaming market and the distance, size, and quality of nearby facilities was conducted and is included in **Appendix I**. The potential substitution effects of Alternative A2 would be similar to those described for Alternative A1, but of a lesser scale since Alternative A2 is reduced in size and scope. The analysis included collecting background information and developing a gaming market gravity model. The gravity model is based on an assessment of overall gaming revenues supported by population, incomes, typical win per visit, and casino gaming participation both nationally and within the State.

Whenever a new casino opens in a new market area, a certain amount of market substitution is to be expected. The various gaming alternatives may cause an estimated year 1 (2024) decline in revenue of facilities in California. The two tribal casinos that may experience the highest competitive impacts from the opening of Alternative A1 are the Eagle Mountain Casino (pro forma for its anticipated relocation to the California Central Valley) and Tachi Palace Hotel and Casino. The closest tribe to Alternative A1 is the Tule River Tribe. The Tule River Tribe has written a letter of support for the Tejon Tribe's efforts to reestablish a permanent homeland in the County. Estimates of initial declines are difficult to predict the farther a facility is outside of the primary market (generally a 25-mile radius). As such, the initial declines described in Table 13 in **Appendix I** may overestimate the actual impacts especially given the difficult topography and drive times to reach the Mettler Site. However, even after the impact from the Tejon Tribe, estimated gaming revenue at the relocated Eagle Mountain Casino would remain higher than at its current location.

There are two cardroom venues within the market area of the proposed project: the Aviator in Delano and the Golden West Casino in Bakersfield (Table 2 in **Appendix I**). These facilities are not permitted to offer slot machines or house-banked card games, therefore they are not anticipated to experience significant substitution effects from the implementation of Alternatives A1 and A2 (**Appendix I**).

Estimated substitution effects are anticipated to diminish after the first year of operation of the resort casino because local residents will have experienced the casino resort and will gradually return to more typical and more diverse spending patterns. Substitution effects also tend to diminish after the first full year of operations because, over time, growth in the total population and economic growth tend to increase the dollar value of demand for particular goods and services. The substitution effects resulting from Alternatives A1 and A2 on competing gaming facility revenues are not anticipated to significantly impact these casinos. Therefore, it is anticipated that under Alternative A1, the above-listed facilities would continue to operate and generate a meaningful level of profit. This profit would be utilized by the tribal governments that own the facilities to provide services to their respective memberships. Existing cardrooms would also continue to operate. No physical environmental effects would occur. As upheld by the U.S. District Court for the Eastern District of California, “competition...is not sufficient, in and of itself, to conclude [there would be] a detrimental impact on” a tribe (Citizens for a Better Way, et al. v. U.S. Department of the Interior, E.D. Cal., 2015). Therefore, because Alternatives A1 and A2 would not cause significant substitution effects and because competition alone does not constitute an impact, Alternatives A1 and A2 would have less-than-significant gaming market substitution effects.

Non-Gaming Substitution Effects

The hotel component of Alternatives A1 and A2 would be an integral part of the casino resort. Consequently, the patrons to the hotel would primarily be casino resort patrons, which is a distinct market segment from those patrons who stay at the existing non-gaming hotels in the vicinities of the Mettler Site. Of the 147 hotels in the local hotel market, only 12 are classified as Upscale or Upper Upscale. These categories are consistent with the amenities of the hotel component of Alternatives A1 and A2 (Table 16 in **Appendix I**). As such, the hotel component of Alternatives A1 and A2 is not likely to compete with existing local hotels for patrons. In addition, local hotels would benefit from the overflow patronage that would result from the operation of the Alternatives A1 and A2 gaming venue. For these reasons, Alternatives A1 and A2 would not result in a significant competitive effect on local hotel facilities (**Appendix I**).

Numerous studies have been conducted to estimate the substitution effects of gaming venues on existing retail business in the surrounding communities. The results of these studies are inconclusive, but collectively imply that newly introduced gaming venues do not typically have negative or adverse substitution effects on surrounding retail establishments. These studies include one published in 2008 by Barrow and Hirschy that discussed the trends in Atlantic City and a 2008 study conducted by the Center for Policy Analysis of the University of Massachusetts Dartmouth (Center for Policy Analysis, 2013). These studies suggest that any substitution effect that could occur would be counteracted by increased activity at local retail businesses by casino patrons. This conclusion is substantiated by the dominance of the gaming component of Alternatives A1 and A2. The retail element of Alternatives A1 and A2 exists only to complement the gaming component. The overwhelming majority of patrons who visit the site would be drawn there because of the gaming element. Therefore, these persons would not otherwise patronize local retail establishments if not for the existence of Alternatives A1 and A2. Alternatives A1 and A2 are anticipated to have a positive impact on local businesses (**Appendix I**).

Fiscal Effects

Alternatives A1 and A2 would result in a variety of fiscal impacts. The Tribe would not pay corporate income taxes on revenue or property taxes on tribal land. Alternatives A1 and A2 would also increase demand for public services, resulting in increased costs for local governments to provide these services. Tax revenues would be generated for the County from activities including secondary economic activity generated by tribal gaming (i.e., the indirect and induced effects of the economic impact analysis). The taxes on secondary economic activity include corporate profits tax, income tax, sales tax, excise tax, property tax, and personal non-taxes, such as motor vehicle licensing fees, fishing/hunting license fees, other fees, and fines. The sales tax rate applicable to the Mettler Site is 7.250 percent (California Department of Tax and Fee Administration, 2019).

Alternatives A1 and A2 would include the transfer of three parcels from fee status to federal trust for the benefit of the Tribe, which would result in the loss of local property taxes. During the 2018–2019 tax year, the parcels that comprise the Mettler Site generated \$40,696 in property taxes (Table 55 in **Appendix I**). Because federal land is not subject to local taxes, these property taxes would be lost to the County. The reduction in property taxes would be more than offset by the sales tax revenues on secondary economic activity generated by Alternatives A1 and A2. Excluding the property tax reduction described above, ongoing operations from Alternatives A1 and A2 would directly contribute to local governments on an annual basis approximately \$944,000 and \$853,573, respectively (Table 56 in **Appendix I**). Indirect and induced effects from ongoing operations would generate an estimated \$5.4 million in tax revenue to local government (Tables 57 and 58 in **Appendix I**). The direct, indirect, and induced tax revenues that the project would generate for the County would more than compensate for the loss in property taxes from the land being taken into trust. Furthermore, spending for unemployment and social services can be expected to decrease due to the new employment and earnings. For Alternatives A1 and A2, spending on municipal services (including emergency services such as police, fire, medical and other emergency services, as well as other governmental activities) are expected to increase by approximately \$1,456,000 and \$1,357,000 per year, respectively (Table 54 in **Appendix I**). This increase would occur because of the visitation and commercial activity associated with Alternatives A1 and A2. Operation of Alternatives A1 and A2 would generate substantial economic output for a variety of business in the region and thus generate substantial tax revenues for local governments. Potential effects due to the loss of tax revenues resulting from the operation as a sovereign nation on trust land would be offset by increased local tax revenues resulting from the operation of Alternatives A1 and A2. Overall, Alternatives A1 and A2 would result in a beneficial impact to the local economy in the County.

Fiscal effects would be further reduced by recurring payments made pursuant to the 2019 IGA between the County and the Tribe. These funding mechanisms are described in **Appendix D** and are summarized below in **Table 3.7-3**. Ongoing operation of Alternatives A1 and A2 would directly contribute approximately \$5.4 million to the State government on an annual basis (Table 56 in **Appendix I**). Indirect and induced effects from ongoing operations from Alternative A1 would generate an estimated \$12.1 million in tax revenue to State government (Tables 57 and 58 in **Appendix I**). Operation of Alternatives A1 and A2 would generate substantial economic output for a variety of businesses in the region and thus generate substantial tax revenues for the State. Potential effects due to the loss of tax revenues resulting from the operation as a sovereign nation on trust land would be offset by increased state tax revenues resulting from operation of Alternatives A1 and A2. Overall, Alternatives A1 and A2 would result in a beneficial impact to the economy of the State.

Summary of Economic Effects

Construction and operation of Alternatives A1 and A2 would generate substantial economic output for a variety of businesses in the region. Additionally, Alternatives A1 and A2 would generate substantial tax revenues for State, County, and local governments. Potential effects due to the loss of County property tax revenues would be more than offset by increased County tax revenues resulting from construction and operation of Alternatives A1 and A2. Overall, Alternatives A1 and A2 would result in a significant beneficial impact to the local economy in the region. Payments made pursuant to the IGA would provide significant additional mitigation.

Employment

Investment in construction and operational activities would generate substantial direct employment opportunities and wages as well as indirect and induced employment opportunities and wages. The source of direct, indirect, and induced employment opportunities and wages would be similar to those industries for economic output as discussed above. The IMPLAN model was used to estimate employment positions generated by Alternatives A1 and A2 as described in **Appendix I**.

TABLE 3.7-3
SUMMARY OF IGA PAYMENTS TO THE COUNTY – ALTERNATIVES A1 AND A2

One-time payments:	
Construction of police/fire substation	Up to \$10,000,000
Reimburse County for purchase of fire/ladder truck	Up to \$1,800,000
Reimburse County for purchase of up to 12 patrol vehicles	Up to \$962,000
Reimburse County for personnel training costs	Up to \$500,000
Reimburse County for six wildland fire vehicles	Up to \$130,000
Total	Up to \$13,392,000
Recurring annual payments:	
Fire services payments (i.e., staffing of substation)	Up to \$2,875,000
Law enforcement payments (i.e., staffing of substation)	Up to \$2,500,000
General fund – property tax formula ¹	\$2,073,000
General fund – fire/law enforcement capital outlay ¹	\$606,444
General fund – payment in lieu of hotel occupancy tax	To Be Determined
Problem gambling payments	\$50,000
Total ⁽²⁾	\$8,104,444
Notes:	
¹ The amounts shown represent the example provided in the IGA. See Appendix D for details regarding the calculation methodology.	
² This is an estimate only, shown for illustrative purposes. It does not include the amount of any payments in lieu of hotel occupancy tax.	
Source: Appendix D .	

Construction

As shown below in **Table 3.7-4**, the construction of Alternatives A1 and A2 would generate substantial jobs and wages. The generation of employment, wages, and economic output during the construction phase is considered a beneficial effect of Alternatives A1 and A2.

Operation

Employment opportunities generated from the operation of Alternatives A1 and A2 would include entry-level, mid-level, and management positions. Average salaries offered would be consistent with those of other tribal gaming facilities and competitive in the local labor market. As shown below in **Table 3.7-4**, the operation of Alternatives A1 and A2 would generate substantial jobs and wages. For Alternatives A1 and A2, it is estimated that approximately 75 percent of the effects listed in **Table 3.7-4** would accrue to the residents of the County. The generation of operational employment and wages is considered a beneficial effect of Alternatives A-1 and A2.

Of the 2,356 jobs directly generated from Alternative A1, 1,975 of those jobs would be filled by the existing area workforce from within the County and nearby area. Further, the Tribe maintains an Indian hiring preference and has agreed in the IGA to a local hiring provision that would promote employment of County residents. This means only 16.3 percent of the jobs would come from residents moving to the area (Table 25 in **Appendix I**). Casino resort employment is comprised mainly of workers already residing within commuting distance, with the majority of casino resort workers not having prior casino resort work experience (Table 25 in **Appendix I**). Similarly, of the 2,061 jobs directly generated from Alternative A2, 1,801 of those jobs would be filled by the existing area workforce, meaning only 12.6 percent of the jobs would come from residents moving to the area (Table 25 in **Appendix I**).

For the purposes of this analysis, it is assumed that the unemployment rate for the County would decline in a fashion similar to anticipated national trends. As of 2017, the County unemployment rate was 9.2 percent, and the size of the labor force was estimated at 384,944 people (Table 23 in **Appendix I**). This implies that approximately 35,442 people in the County were unemployed in 2017. Similarly, due to the local trends of consistent declines in levels of unemployment, it is

forecasted that the County would contain approximately 27,246 unemployed residents in 2024 (**Appendix I**). This is a conservative estimate, as the 2020 COVID-19 pandemic and associated recession may cause the 2024 unemployment rate to be higher than the estimates included in **Appendix I**. Consequently, there are anticipated to be more than enough people available to fill the total 3,594 and 3,187 employment positions generated by the operation of Alternatives A1 and A2, respectively.

TABLE 3.7-4
SUMMARY OF EMPLOYMENT EFFECTS

	Alternative A1	Alternative A2
Construction employment – one time (Full-Time Equivalents [FTE]):		
Direct	2,879	2,302 ⁽¹⁾
Indirect and induced	1,095	876 ⁽¹⁾
Total	3,974	3,179 ⁽¹⁾
Construction wages and benefits – one time:		
Direct	\$176,500,000	\$141,200,000 ⁽¹⁾
Indirect and induced	\$56,600,000	\$45,200,000 ⁽¹⁾
Total	\$233,100,000	\$186,400,000 ⁽¹⁾
Operational employment – annual (FTEs): ⁽²⁾		
Direct	2,356	2,061
Indirect and induced	1,238	1,126
Total	3,594	3,187
Operational wages and benefits – annual:		
Direct	\$104,800,000	\$93,000,000
Indirect and induced	\$56,500,000	\$51,400,000
Total	\$161,300,000	144,400,000
Notes:		
¹ It is estimated that the expected budget and economic impacts of Alternative A2 are approximately 20 percent less than Alternative A1 due to the reduced size of the alternative.		
² Note that employment for operations is based on “jobs” and not “FTEs.” Because some employees are less than full-time, the number of jobs listed exceeds the number of equivalent FTEs at a ratio of approximately 1 job to 0.821 FTE (Appendix I).		
Source: Tables 18, 19, and 22 in Appendix I . Some amounts listed in Appendix I have been rounded.		

Summary of Employment Effects

Construction and operation of Alternatives A1 and A2 would generate substantial temporary and ongoing employment opportunities and wages that would be primarily filled by the available labor force in the region. Similarly, construction and operation of Alternative A3 would generate temporary and ongoing employment opportunities and wages that would be primarily filled by the available labor force in the region. Given the projected unemployment rate, and the dynamics of the local labor market, the County is anticipated to be able to accommodate the increased demand for labor during the operation of Alternatives A1 and A2. This would result in employment and wages for persons previously unemployed and would contribute to the alleviation of poverty among lower income households. Specifically, for Alternative A1, assuming that approximately 75 percent of the new 3,594 employment positions would accrue to County residents and all other factors remain unchanged, this implies Kern County unemployment would decline substantially from the approximate 27,246 persons predicted for 2024, as described above. Similarly, for Alternative A2, assuming that approximately 75 percent of the new 3,187 employment positions would accrue to County residents and all other factors remain unchanged, this implies that County unemployment would decline substantially from the approximate 27,246 persons predicted for 2024. Alternatives A1 and A2 would result in a significant beneficial effect.

Housing

As stated in the above subsection, new employment is not expected to strain the labor market capacity. Nevertheless, it is possible that some new employees would relocate due to the specialized nature of some casino resort positions, the limited amount of gaming in the County, and the presence of casinos in the region in other counties. Most job relocation is not likely to require employees to relocate their housing but it could change their commute patterns. Based on the anticipated levels of in-migration, it is estimated that the number of housing units required to house employees seeking to relocate their place of residence to the County to accept a position as a result of Alternative A1 would be 347 and for Alternative A2 would be 237 (Table 29 in **Appendix I**). There were approximately 28,700 vacant housing units in the County during 2017 (**Appendix I**), which is more than enough vacant homes to support potential housing impacts under Alternatives A1 and A2. Alternatives A1 and A2 would not cause a significant adverse impact to the housing market.

Social Effects

Problem and Pathological Gambling

The American Psychiatric Association describes a pathological gambler as a person who features a continuous loss of control over gambling. Furthermore, this gambler illustrates a progression in the following areas: gambling frequency and the amounts wagered, preoccupation with gambling, and obtaining monies with which to gamble (**Appendix I**).

Problem gambling prevalence is not anticipated to increase as a result of the proposed casino resort given the availability of casino gaming already present throughout the area and State and other readily accessible forms of gambling. Specifically, there are a number of existing gaming venues located in the County and the surrounding areas.

Consequently, the potential impacts to problem gambling as a result of Alternative A1 would be less than significant. The IGA provides for a recurring payment of approximately \$50,000 towards a gambling treatment program. Additionally, BMPs regarding problem gambling to be implemented during the operation of the casino resort described in **Section 2.2.1** would further reduce the likelihood of problem gambling at the casino resort.

Crime

There is a general belief that the introduction of legalized gambling into a community will increase crime. However, this argument is based more on anecdotal evidence than empirical evidence. Casinos, by their nature, increase the volume of people entering a given area. When large volumes of people are introduced into an area, the volume of crime is also expected to increase. This is relevant for any large-scale development. Taken as a whole, literature on the relationship between casino gambling and crime rates suggests that communities with casinos have the same increase, if any, in crime as any large-scale development. For example, a study published in 2011 compared crime effects from different forms of tourism growth. The study revealed that ski tourism resulted in a larger increase in crime than casino development (Park and Stokowski, 2011). In addition, Nichols and Tosun (2017) examined casinos and crime rates across the United States from 1994 to 2012 and found that, on average, there was an increase in crime in counties that opened tribal casinos for the first two years. Afterwards, there was a decreased crime rate from pre-casino levels. There was no long-term increase in crime resulting from casinos (Nichols and Tosun, 2017).

Alternatives A1 and A2 would result in an increased number of patrons and employees traveling/commuting into the area on a daily basis. As a result, under Alternatives A1 and A2, criminal incidents would increase in the vicinity of the Mettler Site, which would be expected with a large development of any type. Specifically, police calls for service in the County for Alternatives A1 and A2 would increase by an estimated 0.46 percent and 0.42 percent, respectively (Table 41 in **Appendix I**). Such increases constitute a less-than-significant effect on law enforcement services and crime. Additionally, the gains in tax revenues that would accrue to the County as a result of increased economic activity generated by Alternatives A1 and A2 would likely offset any increase in expenditures for the provision of law enforcement. Also, pursuant to the IGA, the Tribe would develop a joint police and fire substation on the Mettler Site. Pursuant to the IGA,

the Tribe would compensate the County for the cost of providing law enforcement, fire protection, and emergency response services. Consequently, the implementation of the IGA would further reduce the effects of Alternatives A1 and A2 on law enforcement services and crime.

Community Effects

Schools

An estimated 347 households are anticipated to relocate to the area, including approximately 138 to 203 new students for the local public school districts. There were 49 public elementary through high schools with 189,949 enrolled students within the County in 2018. There are five high school districts and an additional eight unified districts. Both proposed sites fall within the western portion of the County, therefore three districts (Mojave Unified, Joint Unified, and Sierra Sands Unified) in the eastern portion of the County were excluded due to their distance from the proposed sites (**Appendix I**). General Shafter School District (GSSD) and the Kern High School District (KHSD) are the nearest public school districts to the alternative sites. Employees that relocate to the project area in order to accept a position at the proposed casino resort may increase the number of kindergarten through 12th grade students enrolled in the GSSD and KHSD. However, due to the limited number of households that are expected to relocate to the project area as a result of Alternatives A1 and A2, as noted in the **Housing** section above, it is expected that these effects would be negligible. Additionally, given that any anticipated new students would be distributed across all grade levels, any new students that may enroll in area school districts as a result of the project would be considered a nominal impact. Furthermore, if Alternatives A1 and A2 were to result in the relocation of any families to the area, the schools would likely collect additional tax revenue from the families of new students and would use these taxes to hire additional teachers to meet additional demand if necessary. Therefore, any potential increased enrollment would have a nominal effect on the ability of GSSD or KHSD to provide education services at existing levels. Alternatives A1 and A2 would not result in significant adverse impacts to schools.

Libraries and Parks

Effects to area libraries and parks could occur if the employees or patrons of Alternatives A1 and A2 significantly increase the demand on these resources. Due to the limited number of employees expected to relocate due to Alternatives A1 and A2, as noted in the **Housing** section above, it is expected that these effects would be negligible. Additionally, due to the location of Alternatives A1 and A2, it is not anticipated that patrons would frequent local libraries or parks. Therefore, there would be a less-than-significant effect to libraries and parks.

Effects to the Tejon Indian Tribe

Alternatives A1 and A2 would benefit the Tribe in several ways. First, it would generate new income to fund the operation of the Tribal government. This income is anticipated to have a beneficial effect by funding programs that serve Tribal members, including education, health care, housing, social services, and cultural events and to provide additional employment opportunities with the Tribal Government. Furthermore, it would support tribal self-sufficiency and self-determination, and Tribal members would have access to new jobs that are associated with Alternatives A1 and A2. The employment generated would not only allow tribal members to enjoy a better standard of living, but it would also provide an opportunity for Tribal members to reduce or end their dependence on government funding. As discussed in **Section 3.7.1**, approximately 50 percent of the families in the Tribe live below the federal poverty line (Tejon Indian Tribe, 2018). Therefore, the creation of employment opportunities is expected to benefit Tribal members as well as local taxpayers in general.

The casino resort is projected to generate millions of dollars annually for the Tribe. According to IGRA,

...net revenues from any tribal gaming are not to be used for purposes other than (i) to fund tribal government operations or programs; (ii) to provide for the general welfare of the Indian tribe and its members; (iii) to promote tribal economic development; (iv) to donate to charitable organizations; or (v) to help fund operations of local government agencies. 25 U.S.C. § 2710 (b)(2)(B)

IGRA also requires that the Tribe develop a plan to use gaming revenues for these purposes. This must be approved by the Secretary before any distributions are made to individual Tribal members.

Environmental Justice

Section 3.7.3 and **Appendix R** describe local populations near the Mettler Site that could be affected by the development of Alternatives A1 or A2 to determine if any minority or low-income populations exist. The review of the demographics of census tracts in the vicinity of the Mettler Site showed that seven census tracts contain a substantial minority community, but no low-income communities. The project would inherently impact members of the Tribe, and the Tribe is considered a minority community that would be affected by the alternatives. Effects to the Tribe are positive in nature and discussed above, and the effects to other minority communities would also be positive. Specifically, the increased economic development and opportunity for employment would positively affect other minority communities. Other effects on minority communities, such as traffic and air quality, would be neutral after the implementation of the specific mitigation measures related to these environmental effects. Therefore, with the implementation of Mitigation Measures 3-A, 3-B, and 7-A through 7-H in **Section 4.0**, Alternatives A1 and A2 would not result in significant adverse effects to minority or low-income communities.

Alternative A3

Economic Effects

Expenditures on goods and services for construction and operational activities would generate substantial direct economic output as well as indirect and induced economic output. Output is defined as the total value of all goods and services produced at the establishment or construction site. Direct output would result from money spent on activities for construction and operational activities of the project. Indirect output would result from expenditures on goods and services by businesses that receive funds directly from the construction and operation of Alternative A3. Induced output would result from expenditures on goods and services by employees directly generated from construction and operation of Alternative A3.

Construction

Alternative A3 would develop the entire 306-acre Mettler Site as an organic farm. The Mettler Site, currently agriculture fields, is surrounded by agriculture. The main cost of construction for Alternative A3 would be obtaining a USDA Organic Certification. The costs and fees of USDA Organic Certification vary from a few hundred to several thousand dollars depending on operation factors such as, size, type, and complexity. Furthermore, there are several fees, including an application fee, annual renewal fee, assessment on annual production or sales, and inspection fees. After the certification process is complete, the USDA Organic Cost-Share Programs can assist eligible operations with reimbursement of up to 75 percent of their certification costs (USDA, 2019). Therefore, Alternative A3 would result in negligible generation of output and would therefore result in a negligible impact to the local economy in the region.

Operation

Expenditures on goods and services from the operation of Alternative A3 are estimated for the first stabilized year of operation, assumed to be 2024. The economics output and wages of the organic farm option would depend on the mix of crops planted and the level of mechanization. For purposes of this analysis, it is assumed that carrots, a common organic

vegetable crop in the County, would be planted. Organic carrots have a recorded wholesale price of approximately \$22.00 for a 25 pound (lb) loose sack (USDA, 2014). The crop yield for organic carrots is approximately 19,500 lb/acre, therefore a farm of 306 acres should yield approximately 6 million lb of product (Louisiana State University, 2007). Therefore, considering the wholesale price of \$22 for 25 lb of organic carrots, a 306-acre organic carrot farm would generate approximately \$5 million in annual revenues, or direct economic output. Indirect and induced economic activity is typically approximately half of direct impacts. In 2016, fruit and vegetable crop farm wages were approximately 26.7 percent of sales (USDA, 2017). Consequently, direct wages of Alternative A3 are estimated at approximately \$1,335,000 per year. Assuming that total wages equal \$12.47 per hour, this implies a total of approximately 51 FTE employees.

Fiscal Effects

Alternative A3 would include the transfer of three parcels from fee status to federal trust for the benefit of the Tribe, resulting in the loss of local property taxes. During the 2018–2019 tax year, the parcels that comprise the Mettler Site generated \$40,696 in property taxes (Table 55 in **Appendix I**). Property in trust is not subject to local taxes, therefore these property taxes would be lost to local governments. Property tax income loss in the County from the parcels being taken into trust would be approximately \$40,696. For the 2017–2018 fiscal year, property tax-related revenue in the County was approximately \$262,404,404 (Kern County, 2018a). Therefore, the property tax reduction from the implementation of Alternative A3 would be approximately 0.016 percent of the total revenue from the 2017–2018 fiscal year. Therefore, the amount of property tax revenue that the County would lose under Alternative A3 would be less than significant.

Summary of Economic Effects

Alternative A3 would generate negligible economic output for businesses in the region as well as negligible tax revenues for State, County, and local governments. Property tax income loss from the parcels being taken into trust would be between approximately \$40,696, which would be approximately 0.016 percent of the total revenue by the County from the 2017–2018 fiscal year. Because of the negligible change in County employment and property tax revenue, Alternative A3 would result in a less-than-significant impact to the local economy in the region.

Employment

For Alternative A3, investment in construction and operational activities would generate minor direct employment opportunities and wages, as well as minor indirect and induced employment opportunities and wages. The operational activities for Alternative A3 would be similar to the previous agriculture activities of the parcels and similar to surrounding uses as well.

Construction

For Alternative A3, converting the Mettler Site to an organic farm would not be a labor intensive operation due to the current agriculture land use. Accordingly, employment for construction of Alternative A3 is predicted to be similar to the operational employment.

Operation

Employment opportunities generated from the operation of Alternative A3 would include entry-level, mid-level, and management positions. Average salaries offered would be consistent with those of other farms and competitive in the local labor market. The labor intensive nature of organic farms would result in Alternative A3 generating more employment opportunities than other farms that are not organic.

As previously described, the County will contain approximately 27,246 unemployed residents in 2024. Consequently, there are anticipated to be more than enough people available to fill the employment positions generated by the operation of Alternative A3.

Summary of Employment Effects

Alternative A3 would not generate a substantial increase in employment opportunities; the skilled labor required for Alternative A3 is prevalent in the region. The County is estimated to contain approximately 27,246 unemployed residents in 2024 which indicates a substantial amount of available labor, therefore Alternative A3 would not strain the job market within the County. Therefore, employment effects for Alternative A3 would be less than significant.

Housing

As stated in above in the **Employment** subsection, the new employment for Alternative A3 is not expected to strain labor market capacity. Furthermore, due to the prevalence of farming in the region, skilled employees would be abundant in the region. The region labor market would be able to fulfill employment needs and would not result in relocation for Alternative A3. There would not be a change in housing due to the lack of workers needing to relocate, resulting in a less-than-significant adverse impact on the housing market.

Community Effects

Schools

Although the operation of Alternative A3 would likely be slightly more labor intensive than the current agricultural use of the site, the number of additional employees is assumed to be negligible. Consequently, any potential increased enrollment would be very small and would have a negligible effect on the ability of the GSSD and KHSD to provide education services at existing levels. Alternative A3 would not result in adverse effects to local school districts.

Libraries and Parks

Effects to area libraries and parks could occur if the employees or patrons of Alternative A3 significantly increases the demand on these resources. Due to the negligible amount of employees expected to relocate due to Alternative A3, as noted in the **Housing** section above, it is expected that these effects would be negligible. Additionally, due to the location of Alternative A3, it is not anticipated that employees would frequent local libraries or parks. Therefore, there would be a less-than-significant effect to libraries and parks.

Effects to the Tejon Indian Tribe

Alternative A3 would negligibly benefit the Tribe because tribal members would have access to only a small number of new jobs created from Alternative A3. Employment generated by Alternatives A3 would allow a few Tribal members to enjoy a better standard of living and may provide an opportunity to reduce or end their dependence on government funding. As discussed in **Section 3.7.1**, approximately 50 percent of families in the Tribe live below the federal poverty line (Tejon Indian Tribe, 2018). Therefore, the creation of employment opportunities is expected to be of limited benefit to tribal members. Further, Alternative A3 would not serve the Tribe's broader vision and governmental purposes possible under Alternative A1 in that the entire 306 acres would be used for an organic farm.

Environmental Justice

Section 3.7.3 and **Appendix I** describe local populations near the Mettler Site that could be affected by development of Alternative A3 in order to determine if any minority or low-income populations exist. The review of the demographics of census tracts in the vicinity of the Mettler Site showed seven census tracts with a substantial minority community, but no low-income communities. The project would inherently impact members of the Tejon Indian Tribe, and the Tribe is considered a minority community that would be affected by the alternatives. Effects to the Tribe are positive in nature and discussed above; no effects to other minority communities are anticipated. Therefore, Alternative A3 would not result in significant adverse effects to minority or low-income communities.

Cumulative Socioeconomic Impacts

Alternatives A1 and A2

Cumulative socioeconomic effects could occur in the project area as the result of developments that affect the lifestyle and economic wellbeing of residents.

Alternatives A1 and A2 would introduce new economic activity in the County and in the City of Bakersfield, and would beneficially effect the region on several different socioeconomic levels. Because the region was significantly impacted by the 2009 economic recession and the recession had an outsized impact on regional housing values and vacancy rates, the greater Kern County area has not yet fully recovered from the recession. Excess economic capacity in the areas of employment and housing may continue to linger through the anticipated project opening. When considered in the context of the General Plan for the City of Bakersfield, Alternatives A1 and A2 may contribute towards cumulative socioeconomic effects including impacts to the local labor market, housing availability, increased costs due to problem gambling, and impacts to local government. These effects would occur as regional economic and demographic characteristics change, the population grows, and the specific industries expand or contract. However, these cumulative effects would not be significant due to the existing economic and housing capacity in the region. Planning documents for the County and the City of Bakersfield will continue to designate land uses for businesses, industry, and housing as well as plan public services for anticipated growth in the region. Alternatives A1 and A2 would not contribute to significant adverse cumulative socioeconomic effects. However, specific potential cumulative effects are described below.

Problem and Pathological Gambling and Crime

The anticipated impact from Alternatives A1 and A2 to crime and problem gambling are analyzed in **Section 3.7.4.1**. Alternatives A1 and A2 and subsequent buildout would result in an increased number of patrons and employees traveling/commuting to the area on a daily basis. As a result, criminal incidents would increase in the vicinity of the Mettler Site, as would be expected with a large development of any type. When considered in the context of the General Plan for the County, Alternatives A1 and A2 would not cause significant cumulative impacts related to crime. There would be no increase in cumulative problem gambling because there are no other existing or proposed gaming developments in the vicinity. These less-than-significant cumulative impacts would be further mitigated through additional tax revenues generated by Alternatives A1 and A2, and from payments made pursuant to the IGA.

Economy and Employment

As described previously, the operation of Alternatives A1 and A2 are anticipated to generate FTE employment positions of approximately 3,594 and 3,187, respectively. When analyzed in combination with other future buildout, Alternatives A1 and A2 would have a positive effect on regional employment. The operation of Alternative A1 would significantly increase economic reliance in the area on the entertainment and recreation business while simultaneously increasing draw and market share of this industry segment.

Population and Housing

The anticipated impact of Alternatives A1 and A2 to area housing is analyzed in **Section 3.7.4.1**. Specifically, the operation of Alternatives A1 and A2 is anticipated to result in the creation of approximately 3,549 and 3,187 FTE jobs, respectively. Based on the anticipated levels of in-migration, it is estimated that the number of housing units required to house employees seeking to relocate their place of residence to the County to accept a position due to Alternatives A1 and A2 would be 347 and 237, respectively. The projected 30,000 vacant housing units would be sufficient to absorb the households estimated to relocate (Table 29 in **Appendix I**). In addition, and as discussed previously, there is a large number of vacant housing units available for new residents. The amount of anticipated non-residential development that would likely occur in the region is minor and is unlikely to be large enough to create significant in-migration to the region. Consequently, when analyzed at a cumulative level, Alternatives A1 and A2 may create some incremental demand for housing and some increases in population in the foreseeable future, but such increases would not be significant.

Substitution Effects

Competitive effects anticipated to occur from the first full year of operations of the various alternatives, including Alternatives A1 and A2, are addressed above. No additional casino or cardrooms, other than the ones previously discussed, are currently anticipated to be built in the vicinity of the alternative sites. Subsequently, it is anticipated that the competitive effects from cumulative operations would be the same as substitution effects addressed previously.

Alternative A3

Alternative A3 would have negligible socioeconomic effects from the conversion of conventional farming to organic farming; therefore, this alternative would not result in cumulative impacts when combined with future developments in the area.

3.7.4.2 Alternative B – Casino Resort on the Maricopa Highway Site

Alternatives A1 and B are similar except for the project site location. The following socioeconomic effects are estimated to be essentially equivalent: economic, employment, housing, social, community, effects to the Tribe, and environmental justice. Accordingly, refer to the socioeconomic effects for Alternative A1 for Alternative B.

3.7.4.3 Alternative C – No Action Alternative

Under the No Action Alternative, none of the development alternatives (Alternatives A1, A2, A3, and B) considered would be implemented. The No Action Alternative assumes that existing uses on the Mettler Site (Alternatives A1, A2, and A3) would not change in the near term, nor would the Maricopa Highway Site (Alternative B). None of the potentially beneficial or adverse effects identified for Alternatives A1, A2, A3, or B would occur.

3.8 TRANSPORTATION/CIRCULATION

This section assesses the environmental consequences of the alternatives described in **Section 2.0** as they relate to transportation and circulation. Applicable regulatory policies and plans related to transportation/circulation are briefly summarized in **Section 3.8.1** and described in detail in **Appendix K**. Effects are measured against the environmental baseline that is described in **Section 3.8.2**. Direct and cumulative effects are identified in **Section 3.8.3**, while indirect and growth-inducing effects are discussed in **Section 3.14**. Measures to mitigate for adverse impacts identified in this section are presented in **Section 4.0**.

3.8.1 LEVEL OF SERVICE STANDARDS

The transportation regulatory setting includes the jurisdiction of the County and Caltrans. The measure of effectiveness for intersection and segment operations is LOS, which denotes the operating conditions at a given intersection or roadway segment under various traffic volume loads. LOS is a qualitative measurement used to describe a quantitative analysis considering factors such as roadway geometries, signal phasing, speed, travel delay, freedom to maneuver, and safety. LOS provides an index to the operational qualities of a roadway segment or an intersection. LOS designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst. **Table 3.8-1** describes the LOS criteria utilized throughout this analysis.

3.8.2 ENVIRONMENTAL SETTING

3.8.2.1 Transportation Study Area

The study area was determined based on Section 902-2 Traffic Study Format from the Standards for Traffic Engineering, (Kern County Public Works, 2019). The facilities studied include any City of Bakersfield, State, or County facility (mainline, interchange structure, intersection, or any project on the Transportation Impact Fee list) in which the peak hour trip generation onto said facility exceeds 50 trips. Existing LOS conditions in the study area are presented in **Tables 3.8-3** and **3.8-4**. For those facilities currently experiencing an LOS of “C” or less, a sliding scale of “added peak project trips” was applied to determine whether the facility should be included, with higher LOS facilities receiving a higher number of

added peak project trips and lower LOS facilities receiving a lower number or added peak project trips (Section 4.1 in **Appendix F**).

TABLE 3.8-1
LEVEL OF SERVICE STANDARDS ACCORDING TO FACILITY TYPE

Facility Type	Level of Service Criteria
Roadway Segments	Roadway LOS standards for various street classifications are quantified according to traffic volumes and road characteristics (number of lanes/type). The County does not have published capacity standards, therefore LOS significance criteria for roadway segments are based on guidelines from the <i>Fresno County General Plan</i> and are listed in Table 4-3 in Appendix F .
Intersections and Ramps	Intersection and ramp LOS standards are quantified according to control delay and intersection characteristics (signalized/unsignalized). LOS significance criteria for intersections are based on guidelines from Caltrans and are listed in Tables 4-1 and 4-2 in Appendix F .
Merge/Diverge	Ramp merge/diverge LOS standards are quantified based on density at stable operations as it relates to the capacity of the facility. Because neither the County nor Caltrans have published merge/diverge criteria, LOS significance criteria for ramp merge/diverge situations are based on guidelines from the City of San Diego and are listed in Table 5-1 in Appendix F .
Pavement Condition	County roadways are evaluated annually and are most commonly graded by the American Society of Civil Engineers using the Pavement Condition Index. Ratings of 51 to 70 are in the fair (at risk) category. A common goal is to achieve an overall "good" rating of 70 or better.
Sources: American Society of Civil Engineers, 2018; Caltrans, 2002; Fresno County, 2000; City of San Diego 1998; Appendix F .	

Since the casino resort is likely to generate substantial traffic on Saturdays, the TIA includes analysis of the Saturday PM peak hour in addition to weekday AM and PM peak hours. Based on the above standards, the study area described in **Table 3.8-2** was established based on the project trip generation and distribution.

In addition to an analysis of project impacts on roadway segments, intersections, and ramps, a merge/diverge analysis was included at the request of Caltrans. The merge/diverge analysis estimates the indirect effect that traffic added to an on- or off-ramp would have on its associated segment of freeway. The merge/diverge analysis is included for each Alternative in **Appendix F**.

These facilities are illustrated in Figure 3-1 and described in Section 3.1 in **Appendix F**. All intersections, ramps, roadway segments, and freeway segments within the study area currently operate at an acceptable LOS of D or better; several ramp merge/diverge locations currently operate at LOS E or F. **Table 3.8-3** describes the existing LOS for each facility on weekdays and Saturdays.

3.8.2.2 Transit Services and Bicycle and Pedestrian Facilities

Kern Transit offers Dial-A-Ride service to all areas within the County. Dial-A-Ride service is only available on paved and maintained roadways at safe locations for passenger loading and unloading (Kern Transit, 2018a). Kern Transit Routes 130 and X-92 pass the community of Mettler but do not pick up or drop off passengers on a daily basis (Kern Transit, 2018b). No transit services are provided to the Maricopa Highway Site. Therefore, no reliable daily transit services are provided to the Mettler and Maricopa Highway Sites. No pedestrian or bicycle facilities currently exist in the vicinity of the Mettler and Maricopa Highway Sites.

3.8.3 IMPACTS

Analysis Methodology

The project would result in the addition of vehicle traffic to local intersections, roadways, freeway ramps, and freeways. A TIA was prepared for Alternatives A1, A2, and B, and is provided in **Appendix F**. This section incorporates the results of the study and any potential adverse effects to the transportation network.

The County Standards for Traffic Engineering and the Caltrans Traffic Impact Study guidelines (Appendix A in **Appendix F**) were reviewed and utilized as the basis for determining the significance criteria (**Appendix F**). Based on these suggestions, LOS D or better operations were considered acceptable and LOS E/F operations were considered unacceptable (Section 5 in **Appendix F**).

TABLE 3.8-2
STUDY AREA

Intersections	Segments	Freeway Mainline Segments	Ramp Merge/Diverge
Mettler Frontage Road W./Valpredo Avenue/SR-99 SB Ramps	Mettler Frontage Road West: Copus Road to Valpredo Avenue	I-5: Copus Road to Maricopa Highway	SR-166 to SB SR-99 (3 mainline lanes/1-lane on-ramp)
Maricopa Highway/Wheeler Ridge Access Road	Mettler Frontage Road West: Valpredo Avenue to Maricopa Highway	I-5: Maricopa Highway to SR-99	SR-166 to NB SR-99 (3 mainline lanes/1-lane on-ramp)
Maricopa Highway/I-5 SB Ramps	Valpredo Ave: I-5 Ramps to SR-99 Ramps	I-5: SR-99 to Wheeler Ridge Road	SR-166 to SB I-5 (2 mainline lanes/1-lane on-ramp)
Maricopa Highway/I-5 NB Ramps	Maricopa Highway: East of Wheeler Ridge Access Road	SR-99: Valpredo Avenue to Maricopa Highway	SR-166 to NB I-5 (2 mainline lanes/1-lane on-ramp)
Maricopa Highway/S. Sabodan Street	Maricopa Highway: Wheeler Ridge Access Road to I-5 SB Ramps	SR 99: Maricopa Highway to I-5	SB SR-99 to Valpredo Avenue (3 mainline lanes/1-lane on-ramp)
SR-99 SB Off-Ramp/Stevens Drive	Maricopa Highway: I-5 NB Ramps to S. Sabodan Street	---	SB SR-99 to SR-166 (3 mainline lanes/1-lane on-ramp)
Maricopa Highway/Stevens Drive	Maricopa Highway: S. Sabodan Street to SR-99 Ramps	---	NB SR-99 to SR-166 (3 mainline lanes/1-lane on-ramp)
Maricopa Highway/SR-99 NB Ramps	---	---	SB I-5 to SR-166 (2 mainline lanes/1-lane on-ramp)
---	---	---	NB I-5 to SR-166 (2 mainline lanes/1-lane on-ramp)

Source: Section 4.1 and 6.4 in **Appendix F**.

A significant impact is calculated if traffic from a project would cause the facility to degrade from acceptable (LOS D or better) to unacceptable (LOS E or F) operations. If the degradation occurs in the near term, the impact is considered direct, and if the degradation occurs in the long term, the impact is considered direct cumulative.

Neither the County nor Caltrans has criteria for the amount of delay, volume to capacity ratio, or speed that a project can add to a facility operating below standards (LOS E/F) in the pre-project condition. Therefore, the City of San Diego criteria was utilized (Table 5-1 in **Appendix F**) for cases where the pre-project LOS was E or F. Appendix A of **Appendix F** contains the complete City of San Diego guidelines. These guidelines do not address ramp merge/diverge analyses. Therefore, the threshold for the freeway mainline analysis in the San Diego Traffic Engineers Council/Institute of Transportation Engineers guidelines was used for the analysis. This criteria states that a decrease in speed on the freeway mainline of 1 mph due to the project is significant as seen in Table 5-1 in **Appendix F**.

In addition to the above, Page 5-68 of the 2014 Regional Transportation Plan/Sustainable Communities Strategy (RTP) (Kern Council of Governments, 2014) states that:

LOS E has been established as the minimum system-wide LOS traffic standard in the Kern COG Congestion Management Plan.

The RTP lists I-5, SR-99, and SR-166 as corridors where LOS E operations are acceptable.

TABLE 3.8-3
INTERSECTION/SEGMENT: LEVEL OF SERVICE WITHOUT PROJECT

Intersection Operations			
Intersections	Existing LOS (Weekday AM/ Weekday PM/ Saturday)	Year 2023 without Project (Weekday AM/Weekday PM/ Saturday)	Year 2040 without Project (Weekday AM/Weekday PM/Saturday)
Mettler Frontage Road W./Valpredo Avenue/SR-99 SB Ramps	B/B/B	B/B/B	B/B/--
Maricopa Highway/Wheeler Ridge Access Road	B/B/B	C/B/B	C/B/--
Maricopa Highway /I-5 SB Ramp	B/B/B	C/B/B	C/B/--
Maricopa Highway /I-5 NB Ramp	B/B/B	D/B/B	E*/B/--
Maricopa Highway /S. Sabodan Street	B/B/B	B/B/B	B/B/--
SR-99 SB Off-Ramp/Stevens Drive	B/A/B	B/B/B	B/B/--
Maricopa Highway/Stevens Drive	A/B/C	B/B/C	B/C/--
Maricopa Highway/SR-99 NB Ramps	A/A/A	A/A/A	A/A/--
Street and Freeway Segment Operations			
Street and Freeway Segments	Existing LOS (Weekday/Saturday)	Year 2023 without Project (Weekday/Saturday)	Year 2040 without Project (Weekday/Saturday)
I-5			
Copus Road to SR-166 (Maricopa Highway)	B/C	C/C	C/--
SR-166 (Maricopa Highway) to SR-99	B/C	C/C	C/--
SR-99 to S. Wheeler Ridge Road	C/C	C/D	C/--
SR-99			
Valpredo Avenue to SR-166 (Maricopa Highway)	B/C	C/C	C/--
SR-166 (Maricopa Highway) to I-5	B/C	C/C	C/--
Mettler Frontage Road West			
Copus Road to Valpredo Avenue	A/A	A/A	A/--
Valpredo Avenue to Maricopa Highway	A/A	A/A	A/--
Valpredo Avenue			
I-5 Ramps to SR-99 Ramps	A/A	A/A	A/--
Maricopa Highway			
East of Wheeler Ridge Access Road	A/A	B/A	B/--
Wheeler Ridge Access Road to I-5 SB Ramps	A/A	B/A	B/--
I-5 NB Ramps to S. Sabodan Street	A/A	A/A	B/--
S. Sabodan Street to SR-99 Ramps	A/A	B/A	B/--
Note: *Unacceptable LOS according to applicable standards, see Appendix K . Source: Appendix F .			

Trip Generation Rates

A trip generation rate, which can also be defined as daily traffic volumes, was developed by Linscott, Law & Greenspan Engineers (LLG) using traffic industry standards and the professional judgement of LLG personnel for Alternatives A1, A2, and B. The final trip generation rates utilized to quantify trip generation for each land use are listed in Tables 9-1, 9-2, 12-1, 12-2, 15-1, and 15-2 in **Appendix F**. The methodology for how the trip generation rates were determined is

described in Section 8.0 in **Appendix F**. Trip generation estimates for each alternative are included in the impact analysis below.

Trip Reductions

Pass-by-trips represent those trips made by a driver to any existing location along the path to the ultimate destination. In other words, pass-by-trips are convenience stops. Diverted link trips represent those trips made by a driver to any existing location not along the path to the ultimate destination. Diverted link trips require a diversion from the destination route. The location of a project influences the amount of pass-by and diverted link trips that drivers experience when accessing the site.

As seen in **Figure 2-1** in **Appendix E**, the Mettler and Maricopa Highway Sites are located near I-5 and SR-99; together they carry approximately 90,000 vehicles per day. Diverted link trips would be generated from the existing traffic on both I-5 and SR-99. For the purposes of this analysis, the base daily and peak hour trip generation estimates are adjusted based on a conservative diverted link rate of 10 percent, which is less than the 15 percent identified by the Caltrans guidance for diverted link trip reductions for retail-oriented development (Caltrans, 2002). Since the average traffic volumes on the surface streets adjacent to the Mettler and Maricopa Highway Sites are low, diverted link reductions are only applied to freeway traffic volumes (**Appendix F**).

Opening Year 2023

In order to forecast opening year 2023 volumes, research was conducted to identify planned developments in the vicinity of the Mettler and Maricopa Highway Sites that could add traffic to the study area intersections and segments. Section 7.1 in **Appendix F** includes a comprehensive list and description of these planned projects, including which projects are considered in the opening year 2023 analysis and the reason(s) for their consideration. These planned projects are categorized into “Transportation Projects” and “Development Projects.”

In addition to the traffic resulting from the planned projects identified, a growth factor of 2 percent per year for five years (2018 to 2023) was applied to the existing traffic to account for any future development projects not yet known at this time. Year 2023 traffic without implementation of the development alternatives is described in **Tables 3.8-3** and **3.8-4**. Without implementation of the development alternatives, all intersections and segments would operate at an acceptable LOS. The project traffic volumes were then added to obtain the year 2023+ project traffic volumes to determine whether any impacts would occur based on the significance criteria discussed above.

Cumulative Year 2040

Long-term traffic volumes for the study area intersections and segments are not available. A 1 percent per annum growth factor was applied to the opening year 2023 volumes to obtain the year 2040 without project traffic volumes. Year 2040 traffic without implementation of the project is described in **Table 3.8-3** and **Table 3.8-4**. Without implementation of the project, all intersections and segments would operate at an acceptable LOS of D or better in year 2040 except for the intersections at the Maricopa Highway/I-5 SB Ramp, the Maricopa Highway/I-5 NB Ramp, and Maricopa Highway/S. Sabodan Street, which would operate at an acceptable LOS of E. The project traffic volumes were then added to obtain the year 2040 + project traffic volumes to determine whether any impacts would occur based on the significance criteria discussed above.

3.8.3.1 Alternative A – Development on the Mettler Site

The following sections address the traffic impacts of Alternatives A1 and A2. Because Alternative A3 involves the transition of an existing conventional farm into an organic farm, it is assumed that there would be no significant effects to transportation/circulation with the implementation of Alternative A3. Consequently, no traffic analysis was completed for Alternative A3.

TABLE 3.8-4
RAMP MERGE/RAMP DIVERGE: LEVEL OF SERVICE WITHOUT PROJECT

Ramp Merge/Ramp Diverge Operations (Weekday AM/Weekday PM/Saturday)			
Ramp Merge	Existing LOS	Year 2023 without Project	Year 2040 without Project
SR-166 to SB SR-99 (3 Mainline lanes/1-lane On-Ramp)	B/C/D	C/C/D	C/D/--
SR-166 to NB SR-99 (3 Mainline lanes/1-lane On-Ramp)	B/B/C	B/C/C	C/C/--
SR-166 to SB I-5 (2 Mainline lanes/1-lane On-Ramp)	C/D/E	C/D/F*	C/F*/--
SR-166 to NB I-5 (2 Mainline lanes/1-lane On-Ramp)	D/F/F	D/F*/F*	F*/F*/--
Ramp Diverge	Existing LOS	Year 2023 without Project	Year 2040 without Project
SB SR-99 to Valpredo Avenue (3 Mainline lanes/1-lane On-Ramp)	C/C/D	C/D/F*	D/D/--
SB SR-99 to SR-166 (3 Mainline lanes/1-lane On-Ramp)	C/C/D	C/D/D	C/D/--
NB SR-99 to SR-166 (3 Mainline lanes/1-lane On-Ramp)	C/C/C	C/C/D	C/C/--
SB I-5 to SR-166 (2 Mainline lanes/1-lane On-Ramp)	C/D/E	C/E*/F*	D/F*/--
NB I-5 to SR-166 (2 Mainline lanes/1-lane On-Ramp)	D/E/F	D/F*/F*	F*/F*/--
Note: *Unacceptable LOS according to applicable standards, see Appendix K . Source: Appendix F .			

Construction Traffic

Impacts related to construction traffic would be temporary in nature and would cease upon completion of the project. Although most construction trips would likely take place outside of peak traffic hours, trips are assumed to occur during peak hours for the purpose of this analysis.

During construction, there would be an estimated maximum of 53,724 trips (1,298 one-way worker trips and 52,426 one-way material haul trips) to and from the Mettler Site (“Refined CalEEMod Output Files” Section of **Appendix M**). All construction traffic would utilize I-5, SR-99, and SR-166 as a regional route to access S. Sabodan Street. SR-99 and SR-166 are state-maintained roads designed as major arterial routes currently operating well above the acceptable LOS; the short-term addition of minimal construction traffic would not result in significant adverse impacts to these roadways. I-5 is operating well above the acceptable LOS, except the segment between SR-99 and S. Wheeler Ridge Road, which is operating at an LOS of D. Construction traffic would be approaching the site from the north, avoiding interaction with the segment of I-5 between SR-99 and S. Wheeler Ridge Road and resulting in no adverse impact to this road segment.

South Sabodan Street is the only construction access road that is maintained by the County, and because the road only provides access to the Mettler and Maricopa Highway Sites, the road would not experience any traffic besides that of construction vehicles. Major improvements to this roadway are included in the project plans, and therefore, the addition of traffic associated with Alternatives A1 and A2 would not result in significant adverse impacts.

Implementation of the BMPs described in **Section 2.2.2** would further reduce potential effects of project construction to transportation/circulation.

Project Traffic

Trip Generation

Using the trip generation rates described in Section 8.0 of **Appendix F**, weekday and Saturday trip generations were estimated for Alternatives A1 and A2, as described below.

Weekday and Saturday

Table 3.8-5 summarizes weekday and Saturday trip generation for Alternatives A1 and A2. Tables 9-4, 9-5, 12-1, and 12-2 in **Appendix F** provide more detail regarding weekday and Saturday trip generation for Alternatives A1 and A2.

TABLE 3.8-5
ALTERNATIVES A1 AND A2 TRIP GENERATION

Component Name	Daily Trips	Daily Trips	Peak Hour Trips	Peak Hour Trips	Peak Hour Trips
	Weekday	Weekend	Weekday	Weekday	Saturday
			AM Peak Hour	PM Peak Hour	PM Peak Hour
Alternative A1					
Casino ¹	8,173	13,545	424	707	918
Hotel	1,200	1,200	67	86	101
RV Parking	165	220	11	22	22
Total Trips	9,538	14,965	502	815	1,041
Diverted Link Trips ²	-817	-1,355	-42	-71	-92
Primary Trips³	8,721	13,611	460	744	949
Alternative A2					
Casino ¹	7,841	19,902	401	668	862
Hotel	900	900	51	65	76
Total Trips	8,741	13,802	452	733	938
Diverted Link Trips ²	-784	-1,290	-40	-67	-86
Primary Trips³	7,957	12,512	412	666	852
Notes:					
¹ Based on gaming floor area; includes trips generated by meeting rooms, restaurants, and event venues					
² 10 percent diverted link trips are generated by the casino resort only					
³ Diverted link trip reduction is applied only to freeway traffic					
Source: Appendix F .					

Trip Distribution

The Mettler Site is well connected (accessed) from both I-5 and SR-99. There is little to no local traffic. Most of the traffic to the site is regional in nature. For Alternatives A1 and A2, it is assumed that 50 percent of the Mettler Site traffic is oriented to the north, 25 percent each on I-5 and SR-99, 35 percent is oriented to the south on SR-99, 10 percent is to the south on I-5, and 5 percent to the west on Maricopa Highway. Trip distribution figures for Alternatives A1 and A2 can be found in Figures 9-1 and 12-1 in **Appendix F**.

Site access for Alternatives A1 and A2 is described in **Section 2.0** and shown in Figure 18-1 in **Appendix F**. With implementation of Mitigation Measures 7-A and 7-B in **Section 4.0**, construction and operation of site access facilities would not result in significant adverse impacts.

Analysis of Opening Year 2023 Scenarios

Table 3.8-6 illustrates the intersection and roadway operations in year 2023 for Alternatives A1 and A2 without mitigation. Under Alternatives A1 and A2, all intersections and roadway segments would operate at an acceptable LOS of D or better in year 2023 except for those outlined in **Table 3.8-7**.

All of the study intersections and segments are projected to operate at acceptable LOS conditions in the year 2023 with implementation of the recommended improvements and mitigation measures referenced in **Table 3.8-7** and outlined as Mitigation Measures 7-A and 7-B in **Section 4.0**. Therefore, Alternatives A1 and A2 would have no significant adverse impacts on traffic.

TABLE 3.8-6
NEAR-TERM AND LONG-TERM IMPACTS OF ALTERNATIVES A1, A2, AND B WITHOUT MITIGATION

Intersection Operations (Weekday AM/Weekday PM/Saturday)						
Intersections	Alternative A1 LOS	Alternative A1 LOS	Alternative A2 LOS	Alternative A2 LOS	Alternative B LOS	Alternative B LOS
	2023	2040	2023	2040	2023	2040
Mettler Frontage Road W./Valpredo Avenue/ SR-99 SB Ramps	B/B/B	B/B/--	B/B/B	B/B/--	B/B/B	B/B/--
Maricopa Highway/Wheeler Ridge Access Road	C/B/B	C/B/--	C/B/B	C/B/--	C/B/B	C/B/--
Maricopa Highway/I-5 SB Ramp	D/C/C	F*/C/--	D/C/C	F*/C/--	E*/C/D	F*/C/--
Maricopa Highway/I-5 NB Ramp	D/B/B	F*/C/--	D/B/B	F*/C/--	F*/F*/F*	F*/F*/--
Maricopa Highway/S. Sabodan Street	F*/F*/F*	F*/F*/--	E*/F*/F*	F*/F*/--	C/B/C	C/C/--
SR-99 SB Off-Ramp/Stevens Drive	B/B/B	C/B/--	B/B/B	C/B/--	B/B/B	C/B/--
Maricopa Highway/Stevens Drive	B/C/F*	B/D/--	B/C/E*	B/D/--	B/C/E*	B/C/--
Maricopa Highway/SR-99 NB Ramps	A/B/B	A/B/--	A/A/B	A/B/--	A/A/B	A/B/--
Street and Freeway Segment Operations (Weekday/Saturday)						
Street and Freeway Segments	Alternative A1 LOS	Alternative A1 LOS	Alternative A2 LOS	Alternative A2 LOS	Alternative B LOS	Alternative B LOS
	2023	2040	2023	2040	2023	2040
I-5:						
Copus Road to SR-166 (Maricopa Highway)	C/C	C/--	C/C	C/--	C/D	D/--
SR-166 (Maricopa Highway) to SR-99	C/C	C/--	C/C	C/--	C/D	D/--
SR-99 to S. Wheeler Ridge Road	C/D	D/--	C/D	D/--	D/E	D/--
SR-99:						
Valpredo Avenue to SR-166 (Maricopa Highway)	C/C	C/--	C/C	C/--	C/D	C/--
SR-166 (Maricopa Highway) to I-5	C/D	C/--	C/D	C/--	C/D	C/--
Mettler Frontage Road West:						
Copus Road to Valpredo Avenue	A/A	A/--	A/A	A/--	A/A	A/--
Valpredo Avenue to Maricopa Highway	A/A	A/--	A/A	A/--	A/A	A/--
Valpredo Avenue:						
I-5 Ramps to SR-99 Ramps	A/A	A/--	A/A	A/--	A/A	A/--
Maricopa Highway:						
East of Wheeler Ridge Access Road	B/A	C/--	B/A	C/--	C/B	C/--
Wheeler Ridge Access Road to I-5 SB Ramps	B/A	C/--	B/A	C/--	E/E	E/--
I-5 NB Ramps to S. Sabodan Street	C/C	C/--	C/C	C/--	D/D	D/--
S. Sabodan Street to SR-99 Ramps	C/C	C/--	C/C	C/--	D/D	D/--
Ramp Merge/Ramp Diverge Operations (Weekday AM/Weekday PM/Saturday)						
Ramp Merge	Alternative A1 LOS	Alternative A1 LOS	Alternative A2 LOS	Alternative A2 LOS	Alternative B LOS	Alternative B LOS
	2023	2040	2023	2040	2023	2040
SR-166 to SB SR-99	C/C/F	C/D/--	C/C/F	C/D/--	C/C/F	C/D/--
SR-166 to NB SR-99	B/C/D	C/C/--	B/C/D	C/C/--	B/C/D	C/C/--
SR-166 to SB I-5	C/D/F	C/F/--	C/D/F	C/F/--	C/D/F	C/F/--
SR-166 to NB I-5	D/F*/F*	F*/F*/--	D/F*/F*	F*/F*/--	D/F*/F*	F*/F*/--
<i>Ramp Diverge</i>	Alternative A1 LOS	Alternative A1 LOS	Alternative A2 LOS	Alternative A2 LOS	Alternative B LOS	Alternative B LOS

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	2023	2040	2023	2040	2023	2040
SB SR-99 to Valpredo Avenue	C/D/F	D/D/--	C/D/F	D/D/--	C/D/F	D/D/--
SB SR-99 to SR-166	C/D/D	C/D/--	C/D/D	C/D/--	C/D/D	C/D/--
NB SR-99 to SR-166	C/C/D	C/C/--	C/C/D	C/C/--	C/C/D	C/C/--
SB I-5 to SR-166	C/E/F	D/F/--	C/E/F	D/F/--	C/E/F	D/F/--
NB I-5 to SR-166	D/F/F	F/F/--	D/F/F	F*/F/--	D/F/F	F*/F/--

Note: *Impact is significant and requires mitigation, see **Section 4.0**.
Source: **Appendix F**.

TABLE 3.8-7
ALTERNATIVES A1 AND A2: UNACCEPTABLE LOS IN YEAR 2023 AND ASSOCIATED MITIGATION

Facility	Mitigation Measure	LOS After Mitigation (Weekday AM/Weekday PM/Saturday)
A1 and A2: Maricopa Highway/S. Sabodan Street	B	B/B/C
A1 and A2: Maricopa Highway/Stevens Drive	A	--/--/B

Source: Section 9.0 through Section 19 of **Appendix F**, Figure 4-1

According to the ramp merge/diverge analysis, Alternatives A1 and A2 would not result in a decrease in speed of 1 mph on the freeway mainline (Tables 10-8, 10-9, 13-6, and 13-7 in **Appendix F**). Therefore, the ramp merge/diverge analysis identifies no significant impacts caused by the effects of Alternatives A1 or A2 on on-ramps or off-ramps in opening year 2023.

Roadway Conditions

County road maintenance is funded primarily through the accrual of an excise tax on gasoline and bonds approved by State voters. Trucks and other vehicles driving to and from the Mettler Site would contribute to County roadway maintenance funds when purchasing gasoline within the County, similar to other developments in the region. As needed, the County would perform maintenance activities on roadways affected by trips to and from the Mettler Site as is typical for all roadways within the County. Impact fees paid by new developments are typically identified for construction of new facilities or for operational enhancements, such as the addition of travel lanes. Impact fees are not typically utilized for pavement maintenance. Operation of Alternatives A1 and A2 would not generate a large volume of truck traffic that would increase the rate of roadway deterioration. Therefore, the need for ongoing roadway maintenance would not be considered a significant impact that would warrant mitigation.

Transit, Bicycle, and Pedestrian Facilities

Alternatives A1 and A2 do not include the addition of transit, bicycle, or pedestrian facilities. Alternatives A1 and A2 would have no impact in this category because there are not currently any pedestrian or bicycle facilities in the vicinity of the Mettler Site and there are no plans regarding the alteration of the current local transit services.

Cumulative Year 2040

Under Alternative A1, all intersections and segments would operate at an acceptable LOS of D or better in year 2040 except those outlined in **Table 3.8-8**. All of the study intersections and segments are projected to operate at acceptable LOS conditions through the year 2040 with implementation of the recommended improvements and mitigation measures referenced in **Table 3.8-8** and outlined as Mitigation Measures 7-C through 7-E in **Section 4.0**. Therefore, Alternative A1 and A2 would have no significant adverse impact on traffic.

TABLE 3.8-8
ALTERNATIVES A1 AND A2: UNACCEPTABLE LOS IN YEAR 2040 AND ASSOCIATED MITIGATION

Facility	Mitigation Measure	LOS After Mitigation (Weekday AM/Weekday PM/Saturday)
A1 and A2: Maricopa Highway/I-5 SB Ramp	C	D/--/--
A1 and A2: Maricopa Highway/I-5 NB Ramp	D	C/--/--
A1 and A2: SR-166 to NB I-5 Ramp Merge	E	C/C/--

Source: Section 9.0 through Section 19 of **Appendix F**, Figure 4-1 of **Appendix F**.

3.8.3.2 Alternative B – Casino Resort on the Maricopa Highway Site

Construction Traffic

During construction, there would be an estimated maximum of 38,354 trips (876 one-way worker trips and 37,478 one-way material haul trips) to and from the Maricopa Highway Site (“Refined CalEEMod Output Files” Section of **Appendix M**). Therefore, impacts resulting from construction traffic for Alternative B would be less than those described for Alternative A.

Project Traffic

Trip Generation

Using the trip generation rates described in Section 8.0 in **Appendix F**, weekday and Saturday trip generation was estimated for Alternative B.

Weekday and Saturday

Table 3.8-9 summarizes weekday and Saturday trip generation from Alternative B. Table 15-1 and 15-2 in **Appendix F** provide more detail regarding weekday and Saturday trip generation from Alternative B.

TABLE 3.8-9
ALTERNATIVE B TRIP GENERATION

Component Name	Daily Trips	Daily Trips	Peak Hour Trips	Peak Hour Trips	Peak Hour Trips
	Weekday	Weekend	Weekday	Weekday	Weekend
			AM Peak Hour	PM Peak Hour	PM Peak Hour
Casino ¹	8,173	13,545	424	707	918
Hotel	1,200	1,200	67	86	101
RV Parking	35	50	2	5	5
Total Trips	9,408	14,795	493	798	1,024
Diverted Link Trips ²	-817	-1,355	-42	-71	-92
Primary Trips³	8,591	13,440	451	727	932

Notes:
¹ Based on gaming floor area; includes trips generated by meeting rooms, restaurants, and event venues
² 10 percent diverted link trips are generated by the casino resort only
³ Diverted link trip reduction is applied only to freeway traffic
Source: **Appendix F**.

Trip Distribution

The Maricopa Highway Site is well connected (accessed) from both I-5 and SR-99. There is little to no local traffic. Most of the traffic to the casino resort is regional in nature. It is assumed that 50 percent of the project traffic is oriented to the north, 25 percent each on I-5 and SR-99, 25 percent is oriented to the south on SR-99, 20 percent to the south on I-5, and 5 percent to the west on Maricopa Highway. Trip distribution figures for Alternative B are provided in Table 15-1 in **Appendix F**.

Site access for Alternative B is described in **Section 2.0** and shown in Figure 18-2 in **Appendix F**. Vehicle trips associated with the construction of the access situation could negatively impact roadways and significantly increase traffic volume. Construction and operation of this access situation would result in no significant adverse impacts with implementation of Mitigation Measures 7-F through 7-H discussed in **Section 4.0**.

Analysis of Opening Year 2023 Scenario

Table 3.8-6 illustrates the intersection and roadway operation in year 2023 for Alternative B without mitigation. Under Alternative B, all intersections and segments would operate at an acceptable LOS of D or better in year 2023, except those outlined in **Table 3.8-10**.

All of the study intersections and segments are projected to operate at acceptable LOS conditions in the year 2023 with implementation of the recommended improvements and mitigation measures referenced in **Table 3.8-10** and outlined as Mitigation Measure 7-F in **Section 4.0**. Therefore, Alternative B would have no significant adverse impact on traffic.

TABLE 3.8-10
ALTERNATIVE B: UNACCEPTABLE LOS IN YEAR 2023 AND ASSOCIATED MITIGATION

Facility	Mitigation Measure	LOS After Mitigation (Weekday AM/Weekday PM/Saturday)
Maricopa Highway/I-5 SB Ramp	G	C/--/--
Maricopa Highway/I-5 NB Ramp	H	C/C/C
Maricopa Highway/Stevens Drive	F	--/--/B

Source: Section 9.0 through Section 19 in **Appendix F**, Figure 4-1 in **Appendix F**.

Roadway Conditions

Roadway conditions and relevant actions for Alternative B would be similar to those described for Alternatives A1 and A2. The need for ongoing roadway maintenance would not be considered a significant impact that would warrant mitigation. Furthermore, development of Alternative B would not conflict with future configuration plans for the Maricopa Highway after implementation of Mitigation Measure 7-I.

Transit, Bicycle, and Pedestrian Facilities

Alternative B does not include the addition of transit, bicycle, or pedestrian facilities. Since no pedestrian or bicycle facilities currently exist in the vicinity of the Maricopa Highway Site and there are no plans regarding the alteration of the current local transit services, Alternative B would have no impact in this category.

Cumulative Year 2040

Under Alternative B, with implementation of the mitigation measures provided for the direct impacts (Mitigation Measures 7-F, 7-G, and 7-H in **Section 4.0**), all intersections and segments would operate at an acceptable LOS of D or better in year 2040. Therefore, Alternative B would have no significant adverse impact on traffic.

3.8.3.3 Alternative C – No Action Alternative

Traffic conditions under the No Action Alternative are characterized by the baseline conditions discussed in **Section 3.8.2**. No additional traffic would be added to the local intersections; therefore, no adverse effects would occur under this alternative.

3.9 LAND USE

This section assesses the environmental consequences of the alternatives described in **Section 2.0** as they relate to land use. Applicable regulatory policies and plans related to land use are briefly summarized in **Section 3.9.1** and described in detail in **Appendix K**. Effects are measured against the environmental baseline that is described in **Section 3.9.2**. Direct

and cumulative effects are identified in **Section 3.9.3** while indirect effects are discussed in **Section 3.14**. Measures to mitigate for adverse impacts identified in this section are presented in **Section 4.0**.

3.9.1 REGULATORY SETTING

The land use regulatory setting is summarized in **Table 3.9-1**; additional information on the regulatory setting can be found in **Appendix K**.

TABLE 3.9-1
REGULATORY POLICIES AND PLANS RELATED TO LAND USE

Regulation	Description
Federal	
Farmland Protection Policy Act (FPPA)	<ul style="list-style-type: none"> Intended to minimize the impact that federal programs have on unnecessary and irreversible conversion of farmland to non-agricultural uses Assures that federal programs are administered in a manner that is compatible with state and local units of government, private programs, and policies to protect farmland Requires that alternative sites be considered when the Farmland Conversion Impact Report score for site is over the threshold
State	
Farmland Mapping and Monitoring Program (FMMP)	<ul style="list-style-type: none"> Provides data to decision makers for use in planning for the present and future of agricultural land resources in the State Provides maps and statistical data to the public; academia; and local, State, and federal governments to assist them in making informed decisions for the best utilization of farmland in California
Williamson Act	<ul style="list-style-type: none"> Designed to preserve farmlands and open space lands by discouraging premature and unnecessary conversion to urban uses Landowners can contract with the county to maintain agricultural or open space use of their lands in return for a reduced property tax assessment. The contract is self-renewing and the landowner may notify the county at any time of intent to withdraw the land from its preserve status.
California Civil Code Section 3482.5	<ul style="list-style-type: none"> Ensures that agricultural operations are not considered nuisances as long as they do not obstruct waterways or public areas; also known as the Right-to-Farm Act
Local	
County General Plan	<ul style="list-style-type: none"> Serves as the framework for development by providing the distribution, location, and extent of uses of land for housing, business, industry, open space, agriculture, natural resources, and other uses
County Zoning Ordinance	<ul style="list-style-type: none"> Consistent with the County General Plan, the Zoning Ordinance establishes basic regulations for the development of land Title 19 promotes and protects the public health, safety, and welfare through the orderly regulation of land uses throughout unincorporated areas of the County
County Ordinance Code 8.56	<ul style="list-style-type: none"> Protects agricultural land uses from conflicts with non-agricultural uses. Furthermore, it helps purchasers and residents understand the inconveniences that may occur as a natural result of living in or near agricultural areas.
County General Plan	<ul style="list-style-type: none"> All General Plan Amendments, zone changes, conditional use permit, discretionary commercial developments, and variations from height limits established by zoning for properties that are located in the Airport Influence areas or near a military airport shall be reviewed by the Planning Department for compatibility with the Kern County Airport Land Use Compatibility Plan.

3.9.2 ENVIRONMENTAL SETTING

3.9.2.1 Mettler Site

Regional Setting

The Mettler Site is located within unincorporated Kern County, California, just south of the City of Bakersfield along the highly trafficked I-5 and SR-99 corridors. In close proximity to both sites, near the base of the Grapevine, a section of I-5 that starts at Grapevine Canyon and extends to Tejon Pass, are developments such as restaurants, hotels, gas stations, and the Outlets at Tejon. As seen in **Figure 3.9-1** in **Appendix E**, southeast of the Mettler and Maricopa Highway Sites, along the I-5, the proposed Grapevine Specific and Community Plan intends to develop mixed use commercial uses on approximately 8,010 acres.

The predominantly agricultural County is located in San Joaquin Valley. In 2017, 2,295,497 acres (or approximately 44 percent) of the total 5,224,320 acres in the County were used for farming. The market value of agricultural products sold by the 1,731 farms in the County in 2017 was approximately \$4,076,783,000 (National Agriculture Statistics Services, 2017). For the San Joaquin Valley to achieve groundwater sustainability, which is necessary under the SGMA, it is estimated that farmland may need to shrink by as much as 500,000 acres by early 2040 (Public Policy Institute of California, 2019). This is an estimated farmland decrease of approximately 10 percent.

Local Land Use Setting

The approximately 306-acre Mettler Site property is bound by Valpredo Avenue to the north, and undeveloped agricultural land to the west, east, and south. As seen in **Figure 3.9-2** in **Appendix E**, the Mettler Site is zoned for limited agriculture (A-1), and is currently undeveloped except for a small area near the eastern edge that includes a rural residence and agricultural storage buildings. Adjacent parcels to the north, east, and west are zoned by the County as exclusive agriculture (A), parcels to the south are zoned for limited agriculture (A-1), and parcels to the east are zoned as Low Density Residential (R-1) and exclusive agriculture (A:) (Kern County, 2019a).

As seen in **Figure 3.9-3** in **Appendix E**, the County General Plan designated the Mettler Site property and adjacent land to the north and west as intensive agriculture land use. An adjacent property to the east of the Mettler Site was designated as highway commercial and the town of Mettler, to the south and east of the Mettler Site, was designated as a rural community (Kern County, 2010). The closest military base is Edwards Air Force Base which is 79 miles southeast of the site. The Mettler Site is not within the boundaries of the Joint Service Restricted R-2508 Complex. (Kern County, 2017a).

The Mettler Site is not within any Natural Community Conservation Plans or any Habitat Conservation Plan (CDFW, 2019b).

Agriculture

As shown in **Figure 3.9-4** in **Appendix E**, the majority the Mettler Site is classified as Prime Farmland under the State FMMP (see Section 3.9 in **Appendix K**) while the southwest corner is classified as Farmland of Statewide Importance. Prime Farmland is a designation applied to lands with the best combination of physical and chemical features able to sustain long-term agriculture. Farmland of Statewide Importance is a designation applied to lands that are similar to Prime Farmland but with minor shortcomings, such as large slopes or the diminished ability to store soil moisture (DOC, 2016). The Mettler Site predominantly consists of Cerini loam, classified as Prime Farmland if irrigated, with small patches of Excelsior sandy loam in the southwest and northeastern corners; Excelsior sandy loam is classified as Farmland of Statewide Importance (NRCS, 2018a). There are current farming operations occurring on the Mettler Site; however, the Mettler Site is not under a Williamson Act contract (DOC, 2014).

3.9.2.2 Maricopa Highway Site

Regional Setting

The Maricopa Highway Site is in the general vicinity of the Mettler Site; refer to the regional setting section for the Mettler Site for discussion on this topic.

Local Land Use Setting

The 118-acre Maricopa Highway Site is bound by agricultural fields in all directions with some commercial development located immediately to the north. The Maricopa Highway Site is located along I-5 southwest at its intersection with SR-166 (Maricopa Highway).

As seen in **Figure 3.9-2** in **Appendix E**, the County zoning map designates the Maricopa Highway Site as exclusive agriculture (A). A road runs along the west side while SR-166 runs along the north side of the parcel. The property immediately to the north is zoned for limited agriculture, light industrial, and general commercial/precise development

combined while the property to the east is zoned for exclusive agriculture (Kern County, 1970). Precise development zoning districts are used to ensure land use compatibility when commercial zoning is near sensitive uses, such as agriculture (Kern County, 2009). The nearest military base is the U.S. Army Department located approximately 19 miles north of the Maricopa Highway Site in the City of Bakersfield. The Maricopa Highway Site is within the area of influence of Edwards Air Force Base that is approximately 63 miles southeast of the site (Kern County, 2017).

The County General Plan Land Use map designated the Maricopa Highway Site as highway commercial. Adjacent land use to the south and west was designated as agriculture, while land to the north was designated as light industrial (Kern County, 2010). The Maricopa Highway Site is not within any Natural Community Conservation Plans or any Habitat Conservation Plan (CDFW, 2019b).

Agriculture

As shown on **Figure 3.9-4 of Appendix E**, approximately 45 percent of the Maricopa Highway Site is classified as Prime Farmland under the State FMMP (see Section 3.9 in **Appendix K**). There are current farming operations occurring on the Maricopa Highway Site, but the Maricopa Highway Site is not under a Williamson Act contract (DOC, 2014).

3.9.3 IMPACTS

Assessment Criteria

An impact to the surrounding lands would be defined by the project type, the current land use and zoning of the site, regional setting, and adjacent land uses. A project would have significant adverse effects if the development would inhibit adjacent land uses, conflict with regional zoning or ordinances of surrounding properties, or convert a significant amount of prime farmland as determined by the Farmland Conversion Impact Rating (FCIR).

3.9.3.1 Alternative A – Development on the Mettler Site

Alternatives A1 and A2

Land Use Plans

The planning document currently in effect for the Mettler Site is the County General Plan, which designates the Mettler Site as limited agriculture. However, the area around the Mettler Site includes rest stops along I-5, the Outlets at Tejon, and the proposed Grapevine Specific and Community Plan. Recent development patterns show a regional shift to a more commercially and residentially developed area, particularly along I-5 and SR-99. Although the development proposed under Alternatives A1 and A2 would not be consistent with the land use designation of the Mettler Site, it is generally compatible with the surrounding land uses along the I-5 corridor. Thus, the inconsistency of Alternatives A1 and A2 with existing zoning would not result in significant adverse land use effects.

The Mettler Site is within the Edwards Air Force Base area of influence. However, the proposed developments under Alternatives A1 and A2 would not exceed 500 feet in height. Therefore, a military review is not required because the developments would not create significant military mission impacts due to height (Kern County, 2017).

The Mettler Site is not within any Natural Community Conservation Plans or any Habitat Conservation Plans (CDFW, 2019b; USFWS, 2019d). Therefore, no significant adverse land use effects would result from Alternatives A1 or A2.

Land Use Compatibility

Alternatives A1 and A2 would result in approximately 306 acres of land being transferred from fee to federal trust, thereby removing the property from County land use jurisdiction. County land use regulations would not apply to the Mettler Site once the land is taken into trust. The only applicable land use regulations would be federal and tribal as the Mettler Site would be converted to reservation land.

The Right to Farm Kern County Ordinance Code 8.56 allows for agriculture surrounding the Mettler Site to continue as normal even if it acts as a nuisance to the Mettler Site (Kern County, 2017d). Agricultural operations on adjacent properties to the east, west, and south of the Mettler Site could result in land use compatibility impacts with Alternatives A1 and A2. These land use compatibility impacts would be associated with odor, dust, and noise from the operation of farm equipment and the use of pesticides and other chemical applications. Periodic odor, dust, and noise represent a potentially minor annoyance for on-site customers.

Alternative A1 would include the development of a casino resort, an RV park, and associated facilities on the Mettler Site. These land uses would replace existing agricultural land use and would differ from adjacent land uses as the property is currently zoned for agriculture (Kern County, 1970). Alternatives A1 and A2 would be implemented in a manner consistent with most of the policies of the County General Plan, excluding the previous discussed land use and zoning. Furthermore, it would not physically disrupt neighboring land uses, would not prohibit access to neighboring parcels, and would not otherwise significantly conflict with neighboring land uses (Kern County, 2009). Therefore, significant land use effects would not occur.

Agriculture

Alternatives A1 and A2 would result in the direct conversion of approximately 100 acres and 80 acres, respectively, of farmland on the 306-acre Mettler Site to a casino resort, RV park, and associated facilities.

In accordance with the FPPA, an FCIR form was completed for Alternative A1. The form was submitted to the NRCS on May 10, 2019 (**Appendix S**). Alternative A1 is represented on the May 2019 FCIR form under Site A. This farmland received a combined land evaluation and site assessment score of 189, indicating the potential for adverse effects to farmland resources and a need to consider alternative sites.

Per FPPA guidelines, if a site receives an FCIR combined score of 160 or more, alternative sites should be considered to examine if an alternative site would serve the proposed purpose and have a lower combined score or convert fewer acres of farmland (FPPA, 1994). Although Site A exceeds an FCIR score of 160, the score of 189 for Site A is less than the other alternatives considered. Furthermore, the area of conversion is relatively small, approximately 0.004 percent of the farmland in the County.

The County General Plan has no specific policies against the conversion of farmland. Furthermore, under Alternatives A1 and A2, county land use regulations would not apply to the Mettler Site once the land is taken into trust. The farmland converted by Alternatives A1 and A2 would decrease the County's agricultural land by 0.004 percent, but it has been predicted that 10 percent of the farmland in the San Joaquin Valley will need to be converted to other uses for water conservation. Therefore, Alternatives A1 and A2 are consistent with FPPA based on the consideration of alternative sites. Accordingly, there would be a less-than-significant effect to agricultural resources due to conversion of farmland within the Mettler Site.

Alternative A3

The planning document currently in effect for the Mettler Site is the County General Plan, which designates the Mettler Site as limited agriculture land use (A-1). As discussed in **Section 2.0**, Alternative A3 would result in approximately 306 acres of land being transferred from fee status to federal trust, thereby removing the property from County land use jurisdiction. Alternative A3 would result in an organic farm that is similar to the current use of the site and agricultural land uses adjacent to the site. Furthermore, it would be consistent with all goals, objectives, and policies of the County General Plan and ordinances as described in **Table 3.9-1**. As such, Alternative A3 would not physically disrupt neighboring land uses, would not prohibit access to neighboring parcels, and would not otherwise significantly conflict with neighboring land uses. Alternative A3 would not result in a conversion of farmland, and agriculture resources would not be impacted. Accordingly, Alternative A3 would result in a less-than-significant impact to land use.

Cumulative Land Use Impacts

Alternatives A1 and A2

Development in the County and the City of Bakersfield is guided in part by general plans, applicable specific plans, zoning ordinances, and redevelopment plans. Future planned development projects within the County and the City of Bakersfield would be consistent with these documents and policies, thus preventing disorderly growth or incompatible land uses.

While Alternatives A1 and A2 would not be subject to local land use policies, the development would occur in a manner that is generally consistent with County building codes. Alternatives A1 and A2 would not disrupt neighboring land uses, prohibit access to neighboring parcels, or otherwise conflict with neighboring land uses. Therefore, Alternatives A1 and A2 would not result in adverse cumulative effects to land use planning.

The FPPA is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to non-agricultural uses. Although the Mettler Site is currently being used for agricultural production, it is not under Williamson Act contracts and has a score of 189 under the FPPA. Although the score is higher than the FPPA threshold, other sites were considered (per FPPA regulations) and it was determined that the Mettler Site FCIR had fewer total points than other considered alternatives. Hence, removing the Mettler Site from agriculture would be aligned with USDA regulations. Implementation of Alternatives A1 or A2 would not contribute to significant cumulative adverse effects to agricultural lands.

Alternative A3

Alternative A3 would not change the land use of the Mettler Site, disrupt neighboring land uses, or convert farmland to non-agricultural uses. No future development is anticipated for Alternative A3. Therefore, Alternative A3 would not result in adverse cumulative effects to land use planning or agriculture lands.

3.9.3.2 Alternative B – Casino Resort on the Maricopa Highway Site

Land Use Plans

The planning document currently in effect for the Maricopa Highway Site is the County General Plan that designates the Maricopa Highway Site as exclusive agriculture land use. However, the area in the general vicinity of the site includes rest stops along I-5 and SR-99, the shopping center “Outlets at Tejon,” and the proposed Grapevine Specific and Community Plan. This pattern shows a regional shift to a more commercially and residentially developed area, especially along the I-5 and SR-99 corridors. Although the development proposed under Alternative B would conflict with the land use designation of the Maricopa Highway Site, it is generally compatible with the surrounding land uses in the vicinity. Thus, the inconsistency of Alternative B with existing zoning would not result in significant adverse land use effects.

The Maricopa Highway Site is within the Edwards Air Force Base area of influence. However, the proposed developments under Alternative B would not exceed 500 feet in height. Therefore, a military review is not required because the developments would not create significant military mission impacts due to height (Kern County, 2017).

The Maricopa Highway Site is not within any Natural Community Conservation Plans or any Habitat Conservation Plans (CDFW, 2019b; USFWS, 2019d). Therefore, no significant adverse land use effects would result from Alternative B.

Land Use Compatibility

Alternative B would result in approximately 118 acres of land being transferred from fee status to federal trust, which thereby removes the property from County land use jurisdiction. County land use regulations would not apply to the Maricopa Highway Site once the land is taken into trust. Alternative B would be consistent with most goals, objectives, and policies of the County, including the Highway Commercial land use designation of the eastern portion of the Maricopa Highway Site and excluding the previously discussed land use and zoning.

The Right to Farm Ordinance of the County Ordinance Code allows for agriculture surrounding the Maricopa Highway Site to continue as normal, even if it acts as a nuisance to the Maricopa Highway Site (Kern County, 2017d). As with Alternative A1, agricultural operations on adjacent property to the north, west, and south of the Maricopa Highway Site could result in land use compatibility impacts with Alternative B. These land use compatibility impacts would be associated with the dust and noise from the operation of farm equipment, and the use of pesticides and other chemical applications. Periodic dust and noise represent a potentially minor annoyance for on-site customers.

Alternative B consists of the construction of a casino resort and the associated support infrastructure. Similar to Alternative A1, Alternative B land uses would replace existing agriculture and thus differ from adjacent land uses. The County General Plan has no specific policies prohibiting the conversion of farmland. Furthermore, under Alternative B, county land use regulations would not apply to the Maricopa Highway Site once the land is taken into trust. Alternative B would not physically disrupt neighboring land uses, prohibit access to neighboring parcels, or otherwise significantly conflict with neighboring land uses. Therefore, significant land use effects would not occur.

Agriculture

In accordance with the FPPA, an FCIR form was completed for Alternative B. The first form was submitted to the NRCS on May 10, 2019 (**Appendix S**). Alternative B is represented on the May 2019 FCIR form under Site C and received a combined land evaluation and site assessment score of 196, indicating the potential for adverse effects to farmland resources.

The area of conversion is approximately 0.003 percent of the farmland in the County. Although Site C exceeds the FCIR score threshold of 160 points, the area of conversion for Site C (59 acres) is less than the other considered alternatives. Per FPPA guidelines, the potential for adverse effects is minimal.

The County General Plan has no specific policies against the conversion of farmland. Furthermore, under Alternative B, county land use regulations would not apply to the Maricopa Highway Site once the land is taken into trust. Alternative B would result in the conversion of 59 acres of farmland; eventually, a majority of the land would be converted to impervious surfaces under Alternative B. However, this conversion would decrease agricultural land in the County by approximately 0.003 percent. Furthermore, it has been predicted that 10 percent of the farmland in the San Joaquin Valley would need to be converted to other uses for water conservation. Therefore, Alternative B is consistent with the FPPA based on the consideration of alternative sites. Accordingly, there would be a less-than-significant effect to agricultural resources due to the conversion of farmland within the Maricopa Highway Site.

Cumulative Land Use Impacts

Development in the County is guided in part by the General Plan. Planned development projects within the County are consistent with General Plan policies, thus preventing disorderly growth or incompatible land uses.

While Alternative B would not be subject to local land use policies, the development would occur in a manner that is generally consistent with International Building Codes. Alternative B would not disrupt neighboring land uses, prohibit access to neighboring parcels, or otherwise conflict with neighboring land uses. Therefore, Alternative B would not result in adverse cumulative effects to land use planning.

The FPPA is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to non-agricultural uses. The Maricopa Highway Site is currently being used for agricultural production, but it is not under Williamson Act contracts and has a score of 196 under the FPPA. Although the score is higher than the FPPA threshold, other sites were considered (per FPPA regulations) and it was determined that the acreage of the Maricopa Highway Site converts fewer acres of farmland than the other considered alternatives. Therefore, removing the Maricopa

Highway Site from agriculture use would be aligned with USDA regulations. Implementation of Alternative B would not contribute to significant cumulative adverse effects to agricultural lands.

3.9.3.3 Alternative C – No Action Alternative

Under the No Action Alternative, Alternatives A1, A2, A3, and B would not be taken into trust or developed. Current land uses would continue on the alternative sites. No impacts associated with land use and agricultural resources would occur.

3.10 PUBLIC SERVICES

This section assesses the environmental consequences of the alternatives described in **Section 2.0** as they relate to water supply, wastewater collection and treatment, solid waste service, law enforcement, fire protection, emergency medical services, electricity, and natural gas. Applicable regulatory policies and plans related to land use are briefly summarized in **Section 3.10.1** and described in detail in **Appendix K**. Effects are measured against the environmental baseline that is described in **Section 3.10.2**. Direct and cumulative effects are identified in **Section 3.10.3**, while indirect and growth inducing effects are discussed in **Section 3.14**. Measures to mitigate for adverse impacts identified in this section are presented in **Section 4.0**.

3.10.1 REGULATORY SETTING

The public services regulatory setting is summarized in **Table 3.10-1**, and additional information on the regulatory setting can be found in **Appendix K**.

TABLE 3.10-1
REGULATORY POLICIES AND PLANS RELATED TO PUBLIC SERVICES

Regulation	Description
AB 939	Requires jurisdictions to conduct a solid waste disposal needs assessment that estimates the disposal capacity needed to accommodate projected solid waste generated within the jurisdiction

3.10.2 ENVIRONMENTAL SETTING

3.10.2.1 Water Supply

Mettler Site

The Mettler Site is not currently connected to a municipal water system. There is one historic/inactive well and 15 active wells located within a 1-mile radius of the Mettler Site (DWR, 2018a). Municipal water service in the nearby unincorporated town of Mettler is provided by the MCWD that supplies domestic water via two groundwater wells. The wells access groundwater at a depth of 600 to 900 feet below ground surface (MCWD, personal communication, 2013). As described in **Section 3.3.2.3**, the Mettler Site is currently under a surface water contract with AEWS, enabling the Mettler Site to obtain agricultural irrigation water. The Mettler Site also has several active groundwater wells to supplement delivered irrigation water as needed. The nearest municipal water line is located approximately 0.5 miles southeast of the site. The County primarily relies upon groundwater from the Kern County Subbasin of the San Joaquin Valley Groundwater Basin as its source of domestic potable water. The Kern County Subbasin is an un-adjudicated basin that supports both municipal and agricultural users.

Maricopa Highway Site

The Maricopa Highway Site lies within the Wheeler Ridge-Maricopa Water Storage District and has no current connection to a municipal water system (California Natural Resources Agency, 2018).

3.10.2.2 Wastewater Services

Mettler Site

Kern Sanitation Authority

The Mettler Site is within the Kern Sanitation Authority, operated by the Kern County Waste Management Department, although it is in an undeveloped rural area with no connections to an existing sewer system. There are currently no sewer lines in the vicinity of the site or in the unincorporated town of Mettler (Houchin, personal communication, 2018). The closest municipal sewer system is located in the City of Arvin, approximately 12.5 miles northeast of the Mettler Site, with sewer lines running as far south as El Camino Real Road, approximately 11.5 miles northeast of the Mettler Site; a WWTP is located at 2401 El Camino Real Road, Arvin (City of Arvin, 2018).

Maricopa Highway Site

Like the Mettler Site, the Maricopa Highway Site is also within the Kern Sanitation Authority, and the closest municipal sewer system is in the City of Arvin.

3.10.2.3 Waste Services

The County Public Works Department provides solid waste hauling services primarily through contracts with private hauling companies. The private hauling companies are under franchise agreements with the County Public Works Department to perform collection and disposal at properties and convey waste to landfills and recycling stations, as appropriate. The County operates seven landfills and four transfer stations throughout the County (Kern County, 2019b).

The closest disposal facility to the Mettler and Maricopa Highway Sites is the Lebec Transfer Station, located at 300 Landfill Road, Lebec, CA, approximately 14 miles south of the Mettler Site. The area is served by Mountainside Disposal trash collection service, and the trash collected is taken to the Bena Landfill at 2951 Neumarkel Road in Bakersfield (Mountainside Disposal, personal communication, 2018).

The Bena Landfill facility is permitted to accept general residential and commercial refuse for disposal, including construction and demolition debris, green materials, electronic waste, and other non-hazardous designated debris (Kern County, 2019b). The Bena Landfill is also permitted to accept dried biosolids (Burston, 2019). The Bena Landfill maintains a permitted capacity of 4,500 tons per day. The landfill facility sits on 2,285 acres, but currently uses approximately 10 percent of the total area as landfill. The landfill has nearly 33 million cubic yards of available capacity, and is estimated to have sufficient capacity to maintain operations through 2046 (CalRecycle, 2018).

3.10.2.4 Law Enforcement Services

Kern County Sheriff's Department

The KCSD provides specialized law enforcement services to the County as well as local police protection to both the incorporated and unincorporated areas. The Mettler and Maricopa Highway Sites are within the KCSD Taft Substation area of responsibility. The response area for the Taft Substation includes oilfield and agriculture areas, remote business locations, and the surrounding unincorporated communities of McKittrick, Fellows, Derby Acres, Dustin Acres, and Valley Acres across 787 square miles that borders Ventura, San Luis Obispo, and Santa Barbara counties. The Taft Substation employs one sergeant, two senior deputies, 11 deputy sheriffs, and one sheriff support technician. The Taft Substation is located at 315 Lincoln Street in Taft, CA, approximately 28.5 miles west northwest of the Mettler Site (KCSD, 2019).

California Highway Patrol

The CHP responds to all traffic-related incidents in unincorporated areas of the County. Additionally, CHP responds to all incidents on SR-99 and I-5. Mettler is located within the CHP Central Division. The Central Division oversees a 275-mile stretch of I-5 and 244 miles of SR-99. The Central Division is comprised of 15 Area Offices, two Commercial Vehicle

Inspection Facilities, and three Communications/Dispatch Centers (CHP, 2019). More specifically, the Buttonwillow CHP was created in 1992 to better service the I-5 corridor and the communities in the western portion of Kern County. The Buttonwillow Area is responsible for approximately 3,200 square miles of western Kern County, which is approximately 20 percent of County roadways. Buttonwillow officers patrol just over 60 miles of I-5 from the Kern/Kings County Line to SR-66. The central division southern end is by the Grapevine where the I-5 leaves the Central Valley (CHP, 2019).

3.10.2.5 Fire Protection and Emergency Medical Services

There are two medical centers in the vicinity of the Mettler and Maricopa Highway Sites that provide 24-hour emergency services: the Mercy Hospital of Bakersfield, located at 2215 Truxtun Avenue, Bakersfield, CA, approximately 21 miles north of the Mettler and Maricopa Highway Sites; and Bakersfield Memorial Hospital, located at 420 34th Street, Bakersfield, CA, approximately 22 miles north of the Mettler and Maricopa Highway Sites.

Kern County Fire Department

The Mettler and Maricopa Highway Sites are currently within the service boundaries of the KCFD. The KCFD provides fire safety services to Bakersfield and Mettler, as well as surrounding areas of the unincorporated County (including the Mettler Site). The service area covers a population of approximately 840,000 (KCFD, 2019). The KCFD has 546 sworn personnel and operates out of 46, soon to be 47 fire stations, with 55 engines, four ladder trucks, two helicopters, as well as other apparatus for specialized emergency circumstances (KCFD, 2019). Station 55, Tejon Ranch, located at 5441 Dennis McCarthy Road, Mettler, CA 93243 is located approximately 5 miles south of the Mettler and Maricopa Highway Sites and adjacent to I-5. This station has a response area of 300 square miles with four fire engines and one ladder truck. Five other KCFD stations are located within a 20-mile radius of the alternative project sites.

The Mettler and Maricopa Highway Sites are located within exclusive operating area 8 of the County that is designated for Hall Ambulance Service Inc. Hall Ambulance Service Post 57, located at 3213 Mt. Pinos Way, Lebec, CA, is the nearest emergency medical transport service. Hall Ambulance provides medical transport services to 88 percent of the County and is located within 20 miles of the Mettler and Maricopa Highway Sites. In 2017, Hall Ambulance dispatch received approximately 11,393 calls (Kern Public Health, 2017).

3.10.2.6 Energy and Natural Gas

Mettler Site

Pacific Gas and Electric Company

PG&E is the electric utility provider for approximately 5.4 million consumers in central and northern California (PG&E, 2017), including the western two-thirds of the County where the Mettler Site and surrounding residential and commercial areas are located. The closest power transmission line to the Mettler Site runs along the western boundary of the property from Valpredo Avenue south to Wildflower Street, and the nearest substation is the Midway Substation that is located approximately 35.5 miles northwest of the Mettler Site (California Energy Commission, 2016).

Southern California Gas

SoCalGas provides natural gas service to approximately 21.6 million consumers in over 500 communities within a 20,000-square-mile service area in central and southern California (SoCalGas, 2017) and is the natural gas provider for the Mettler Site area. The closest existing SoCalGas transmission line to the Mettler Site is a high pressure distribution line that terminates near the intersection of S. Sabodan Street and Maricopa Highway (SR-166), approximately 0.2 miles south of the Mettler Site (SoCalGas, 2018). No existing natural gas service lines connect to the Mettler Site; however, a gas line does run south of the Mettler Site along Maricopa Highway and the Maricopa-Wheeler Ridge gas substation west of the Mettler Site (California Energy Commission, 2015).

Maricopa Highway Site

As with the Mettler Site, PG&E provides electric service and SoCalGas provides natural gas service to the Maricopa Highway Site vicinity. No existing natural gas service lines connect to the Maricopa Highway Site; the closest existing transmission line is a southeast to northwest trending line that crosses the Maricopa Highway, approximately 0.75 miles west of the Maricopa Highway Site. The nearest natural gas line is located approximately 0.25 miles north of the Maricopa Highway Site. A SoCalGas high distribution gas line is located east of the Maricopa Highway Site (California Energy Commission, 2015; California Energy Commission, 2016; SoCalGas, 2018).

3.10.2.7 Schools, Libraries, and Parks

The Mettler and Maricopa Highway Sites are served by GSSD and KHSD; both districts are part of the public school system. GSSD (K-8) had 159 students enrolled for the 2018–2019 school year (California Department of Education [CDE], 2019a). KHSD had more than 40,340 students, with 2,630 students attending Ridgeview High School, the closest high school to the Mettler and Maricopa Highway Sites (CDE, 2019b). Lakeside Union School District is a public school located within 20 miles of the Mettler and Maricopa Highway Sites. For the 2018–2019 school year, it had 1,397 students enrolled (CDE, 2019c).

The nearest library to the Mettler and Maricopa Highway Sites is the Lamont Public Library, approximately 13 miles northeast. The Beale Memorial Library and the Southwest Branch Library are located just over 20 miles away from the Mettler and Maricopa Highway Sites in the City of Bakersfield. Smothermon Park in the City of Arvin (approximately 11.7 miles to the northeast), Granite Pointe Park in the City of Bakersfield (approximately 15.5 miles north), and Seasons Park in the City of Bakersfield (approximately 16.2 miles north) are the nearest parks to the Mettler and Maricopa Highway Sites.

3.10.3 IMPACTS

This section identifies and analyzes the direct effects associated with public services that would result from the development of each alternative (as described in **Section 2.0**) to determine if construction or operation would result in direct adverse impacts to any public service. An adverse effect would occur if project-related demands on public services would cause an exceedance of system capacities that result in significant effects to the physical environment.

3.10.3.1 Alternative A – Development on the Mettler Site

Water Supply

Alternatives A1 and A2

Alternatives A1 and A2 would include the development of an on-site water supply system using on-site groundwater wells. The on-site system is described in **Section 2.2**. Under Alternatives A1 and A2, an on-site WWTP would be developed. Recycled water from the WWTP would be used for indoor non-potable uses and for landscape irrigation, thus reducing potable water demand (**Appendix G**). Impacts to water resources are discussed in **Section 3.3.3**. No municipal water systems would be affected by Alternatives A1 and A2.

Alternative A3

Under Alternative A3, there would be no change to the current water use and supply at the Mettler Site. Therefore, no municipal water systems would be affected.

Wastewater Service

Alternatives A1 and A2

As described in **Section 2.0**, Alternatives A1 and A2 would include the development of an on-site WWTP. No municipal wastewater systems would be affected under Alternatives A1 and A2 as no connections are proposed.

Alternative A3

Under Alternative A3, there would be no change to the current wastewater disposal system at the Mettler Site and no wastewater infrastructure would be developed. Therefore, no municipal wastewater systems would be affected as no connections are proposed.

Waste Services

Alternatives A1 and A2

Construction

Construction of the casino resort and associated infrastructure under Alternatives A1 and A2 would result in a temporary increase in solid waste generation. Potential solid waste streams from construction would include paper, wood, glass, aluminum, and plastics from packing materials; waste lumber; insulation; empty non-hazardous chemical containers; concrete; metal, including steel from welding/cutting operations; and electrical wiring.

Construction waste that is not recycled would be collected by Mountainside Disposal, or a similar company, and disposed of at the Bena Landfill or other permitted landfills that accept construction and demolition material. This impact would be temporary and not significant given that the landfill has an adequate capacity to accommodate the temporary increase in waste generated by the construction of Alternatives A1 and A2 (CalRecycle, 2018). BMPs presented in **Section 2.0** would further reduce the amount of construction and demolition materials disposed of at the landfill and ensure impacts remain less than significant.

Operation

As described in **Section 3.10.2.3**, the Mettler Site is located within the service area of Mountainside Disposal trash collection service. Waste generated under Alternatives A1 and A2 would be hauled appropriately to facilities described in **Section 3.10.2.3**. CalRecycle has established waste generation rates for the operation of different business types and residences. Based on those generation rates, it is estimated that Alternative A1 would generate approximately 3.4 tons per day or 1,241 tpy of solid waste while Alternative A2 would generate approximately 2.7 tons per day or 986 tpy of solid waste (**Table 3.10-2**). Decorative receptacles for trash and recycling would be placed strategically throughout the casino resort and associated facilities to discourage littering. Landscaping and maintenance staff would also pick up trash at the property. As discussed above, waste that cannot be recycled would be disposed of at the Bena Landfill or another permitted facility. The Bena Landfill has sufficient capacity to maintain operations through 2046 (CalRecycle, 2018). The solid waste streams for Alternatives A1 and A2 would represent approximately 0.076 percent and 0.0006 percent, respectively, of the daily and annual capacity of the Bena Landfill. Therefore, Alternatives A1 and A2 would not result in a significant impact.

The on-site WWTP facility would produce approximately 100 to 150 gpd of biosolids (sludge) in addition to solids (e.g., debris). This quantity of biosolids, which would be dried before being transported offsite for disposal, would equate to a single disposal truck trip every two weeks (**Appendix G**). Both the biosolids and solids would be transported to the Bena Landfill for disposal. As the Bena Landfill has adequate capacity, waste from the WWTP would not result in a significant impact to solid waste services.

The treatment of groundwater to meet potable standards would produce brine waste from the reverse osmosis treatment process. Approximately 2,800 gpd of brine would be produced by operation of Alternative A1, and 2,200 gpd would be produced by Alternative A2 (**Appendix G**). The brine waste produced would be evaporated onsite and/or hauled to the Joint Water Pollution Control Plant in Carson, California. No impact would occur because brine waste would be properly disposed of.

Operation of Alternative A1 or Alternative A2 would not result in significant effects to waste services. BMPs presented in **Section 2.0** would further reduce the amount of solid waste disposed of in landfills.

TABLE 3.10-2
ESTIMATED SOLID WASTE DISPOSAL – ALTERNATIVES A1 AND A2

Waste Generation Source	Waste Generation Rate	Units	Alternative A1 Value	Alternative A2 Value	Alternative A1 Total Waste (lb/day)	Alternative A2 Total Waste (lb/day)
Hotel	2.0	lb/room/day	400	300	800.0	600
Casino (other services)	3.12	lb/100 sf/day	1,665	1,470	5,194.8	4,586.4
Restaurant	0.005	lb/sf/day	73,300	56,700	366.5	283.5
RV Parking (hotel/motel)	2.0	lb/unit/day	220	-	440.0	-
Fire and Police Station	12.23	lb/household/day	1	1	12.23	12.23
Subtotal lb/day					6,801	5,493
Subtotal ton/day					3.4	2.7
Subtotal ton/year					1,241	986
Subtotal cubic yards/year (assumes 320 lb/cubic yard)					7,757	6,239
Note: Zero waste generation assumed for Organic Farm and Community Park Source: CalRecycle, 2019.						

Alternative A3

Alternative A3 would result in a negligible change to the current waste stream of the Mettler Site because the agricultural use of the property would continue. Therefore, there would be a less-than-significant impact.

Law Enforcement Services

Alternatives A1 and A2

An analysis of the impact of casino gambling on local crime rates is included in **Section 3.7**. While there is no definitive link between casinos and crime, it is anticipated that the increased number of people that Alternatives A1 and A2 would bring to the Mettler Site would result in an increase in the number of service calls to local law enforcement.

The Tribe negotiated an IGA with the County for law enforcement services. Please see **Sections 1.6** and **3.7.4.1** for a description of the IGA and how it addresses law enforcement, fire protection, and emergency response issues.

Furthermore, the BMPs described for law enforcement services in **Section 2.0** would ensure further protection onsite for the casino resort and associated facilities.

Additionally, an increase in service demands to the CHP may result from the development of Alternatives A1 and A2 due to the increased traffic that would occur. However, as described in **Section 3.7.4.1**, ongoing operation of Alternatives A1 and A2 would directly contribute approximately \$5.4 million to the State government on an annual basis (Table 56 in **Appendix I**) and indirect and induced effects from ongoing operations from Alternative A1 would generate an estimated \$12.1 million in tax revenue to State government (Tables 57 and 58 in **Appendix I**). Potential effects to CHP would be offset by increased State tax revenues resulting from operation of Alternatives A1 and A2. Therefore, a less-than-significant impact would occur and no mitigation is required.

With implementation of the on-site security measures and the development of a joint police and fire substation on the Mettler Site pursuant to the IGA, impacts would be addressed and Alternatives A1 and A2 would result in a less-than-significant effect on law enforcement services.

Alternative A3

Alternative A3 would not change the land use of the Mettler Site and would not increase the concentration of people in the area or change law enforcement demand. Alternative A3 would have a less-than-significant impact on law enforcement.

Criminal Jurisdiction

In 1963, the State of California assumed partial jurisdiction over certain offenses occurring in Indian Country pursuant to PL 83-280 (PL 280). The trust acquisition would result in changes in criminal jurisdiction on the Mettler Site. California would continue to exercise criminal jurisdiction over most matters. Accordingly, changes in criminal jurisdiction would not be significant.

Fire Protection and Emergency Medical Services

Alternatives A1 and A2

Construction

Construction could introduce potential sources of fire to the Mettler Site. During construction, equipment and vehicles could accidentally spark and ignite vegetation. Furthermore, equipment used during grading and construction activities could create sparks that could ignite dry grass on the site. This risk would be similar to those found at other construction sites and BMPs presented in **Section 2.0** would ensure impacts are less than significant.

Operation

Implementation of Alternatives A1 and A2 on the Mettler Site would include the construction of a KCFD station onsite that would meet the needs of the Mettler Site as well as the surrounding area. Pursuant to the IGA, the onsite substation would include three captains, three engineers, and six firefighter emergency medical technicians, as well as a 110-foot ladder truck. Development of the resort structure would create additional risks from fires and add to firefighting responsibilities in the area. The timely detection of fires by individuals working in the casino resort, as well as early intervention and firebreaks created by driveways, parking lots, and roads would reduce the risk of fires. The casino resort structure would be constructed to meet CBCs, or better, as well as County fire codes. Furthermore, adequate fire flows would be provided as discussed in the “water supply” section. Due to the on-site fire station, Alternatives A1 and A2 would result in a less-than-significant effect on public fire protection services.

Hall Ambulance Service, Inc. provides first responder emergency medical services such as ground ambulance, basic life support, and advanced life support standby services through paramedic staffing on ambulances. Due to the number of patrons and employees at the proposed casino resort facility, demands on emergency services would be expected to increase. Per the IGA, first responder and ambulance services would be provided to the casino resort and the Tribe would permit Hall Ambulance Service, Inc. to access the Mettler Site. Due to services provided by Hall Ambulance Services and suitable site access, Alternatives A1 and A2 would result in a less-than-significant effect on emergency medical services.

There are two medical centers in the vicinity of the Mettler Site that provide 24-hour emergency services: the Mercy Hospital of Bakersfield and Bakersfield Memorial Hospital; each is located just over 20 miles from the Mettler Site. Due to adequate hospital services in the area, a less-than-significant impact would occur.

Alternative A3

Alternative A3 would not alter the land use of the Mettler Site and would not increase the number of people in the area. Accordingly, Alternative A3 would not increase the demand for fire protection, emergency medical transportation, or emergency medical services. Therefore, Alternative A3 would result in a less-than-significant impact.

Energy*Alternatives A1 and A2*Construction

All buildings would be built to meet or exceed the standards set forth in the CBC. Construction on the Mettler Site could damage underground utilities and lead to outages and/or serious injury. This would result in an adverse effect. A BMP presented in **Section 2.0** would reduce impacts to less-than-significant levels.

Operation

Electricity would be obtained from PG&E, the current provider of electricity to the Mettler Site vicinity. PG&E serves the project vicinity from the Midway Substation, located approximately 35.5 miles to the northwest in Buttonwillow, CA. Mitigation Measure 9-A in **Section 4.0** would ensure that no significant financial impacts would occur as a result of the relocation of existing PG&E facilities to accommodate the operation of the facilities under Alternatives A1 and A2. Therefore, a less-than-significant impact would occur. During the operation of the facilities, energy usage would be less than significant as all buildings would be consistent with CBCs, specifically the California Energy Code.

Natural gas would be provided by SoCalGas, the current provider of natural gas to the Mettler Site vicinity. Natural gas service is not currently available at the Mettler Site; however, the nearest natural gas line is located approximately 0.2 miles to the south. The Tribe would contract with SoCalGas to provide service to the site or could use propane. If a connection to natural gas lines is required, then the construction of this line could result in a direct and indirect impact. However, Mitigation Measure 9-A in **Section 4.0** would reduce expenditure impacts related to extending natural gas facilities to the Mettler Site to a less-than-significant level for direct impacts. For the indirect impact analysis, refer to **Section 3.14**.

Alternative A3

Alternative A3 would not require a change to electricity or natural gas at the Mettler Site. Implementation of Alternative A3 would result in a less-than-significant impact to electricity and natural gas.

Schools, Libraries, and Parks*Alternatives A1 and A2*

The majority of employees for Alternatives A1 and A2 are anticipated to come from the local labor market, thus they would not relocate to the area but would rather change their commute patterns (**Section 3.7.4.1**). However, an estimated 347 households, including approximately 138 to 203 new students who would alter the enrollment numbers in the local public schools, are anticipated to relocate to the area to work at the casino resort (Table 29 in **Appendix I**). There were 49 elementary through high public school districts with 189,949 enrolled students within the County in 2018, including five high school districts and an additional eight unified districts. Both proposed sites fall within the western portion of the County; therefore, three districts (Mojave Unified, Joint Unified, and Sierra Sands Unified) in the eastern portion of the County were excluded from the analysis due to their distance from the proposed sites (**Appendix I**). GSSD and KHSD are the nearest public school districts to the alternative sites. Employees that relocate to the project area to accept a position at the proposed casino resort may increase the number of kindergarten through 12th grade students enrolled in GSSD and KHSD. However, due to the limited number of households that are expected to relocate to the project area as a result of Alternatives A1 and A2, these effects would be negligible. Additionally, given that any new students would be distributed across all grade levels, any new students that may enroll as a result of the project would have a nominal impact on the district. Furthermore, the schools would collect additional funding from the State for each student. Therefore, increased enrollment would have a negligible effect on the ability of GSSD or KHSD to provide education services at existing levels. Similarly, the parks and libraries in the region are adequate to accommodate the nominal increase in population

caused by employees relocating to the region. Accordingly, school districts, libraries, and parks would not be significantly impacted.

Alternative A3

Alternative A3 is not anticipated to increase the number of people in the area or require employees to relocate to the region. Accordingly, Alternative A3 should have a less-than-significant impact on schools, libraries, and parks.

Cumulative Public Services Impacts

Alternatives A1 and A2

Water Supply

Alternatives A1 and A2 would receive domestic water supply from the development of on-site groundwater wells. Refer to **Section 2.2** for a further discussion of water supply options under Alternatives A1 and A2. No municipal water systems would be affected as no connections are proposed. Therefore, implementation of Alternatives A1 and A2 would have no cumulative adverse effect on municipal water supply systems.

Wastewater

As described in **Section 2.2**, Alternatives A1 and A2 would develop on-site wastewater utilities for treatment of all wastewater generated by the alternatives. Therefore, no municipal wastewater systems would be affected, and Alternatives A1 and A2 would not result in significant cumulative effects to municipal wastewater systems.

Waste Services

As previously discussed, projected solid waste generation for Alternative A1 is a small addition to the waste stream and would not significantly decrease the life expectancy of the disposal site and landfills. Since capacity is available for Alternatives A1 and A2 and cumulative growth in the region, less-than-significant cumulative effects to solid waste services would occur.

Brine waste produced from groundwater treatment on the Mettler Site would be limited in quantity, and the brine would be properly disposed of. Furthermore, cumulative projects in the area are unlikely to produce significant quantities of brine waste. Therefore, no significant cumulative impact would occur as a result brine waste.

Law Enforcement

As previously discussed, per the IGA, a KCSD station would be built outside the casino resort area that would be adequate to serve the Mettler Site as well as the surrounding areas. The station would be adequately staffed to serve the region. Therefore, Alternatives A1 and A2 would result in a less-than-significant cumulative effect on public law enforcement services.

Fire Protection and Emergency Medical Services

Although Alternatives A1 and A2 have the potential to increase calls for fire protection services, an on-site fire station would address the additional demand created. Therefore, with implementation of an on-site fire station, Alternatives A1 and A2 would result in a less-than-significant cumulative impact on public fire protection services.

Emergency medical and emergency medical transportation costs are paid primarily by the individual requiring service. Accordingly, Alternatives A1 and A2 would not result in a significant cumulative effect on emergency medical services.

Electricity and Natural Gas

The Tribe would be responsible for paying development or user fees to receive additional electrical and natural gas services for future development. As such, the Tribe would pay for upgrades needed to avoid affecting the service of existing customers and any infrastructure necessary to provide service for Alternatives A1 and A2. Alternatives A1 and A2 would not cause significant cumulative effects to energy or telecommunications providers.

Schools, Libraries, and Parks

Alternatives A1 and A2 could cause a small population increase in the County that would add users of schools, libraries, and parks. This would add to the new demands created by other cumulative projects. The IGA described in **Section 2.2.2.8** would compensate local governments and thus schools, libraries, and parks for any impacts. Therefore, Alternatives A1 and A2 would result in a less-than-significant cumulative effect on schools, libraries, and parks.

Alternative A3

Alternative A3 would not have a cumulative impact on public services because the Mettler Site would remain as agriculture. Accordingly, Alternative A3 would have a less-than-significant cumulative impact in combination with other future projects in the area.

3.10.3.2 Alternative B – Casino Resort on the Maricopa Highway Site***Water Supply***

Alternative B would include the development of an on-site water supply system using on-site groundwater wells for potable use, irrigation, and fire protection. The on-site system is described in **Section 2.3.2**. The impacts to water resources, including groundwater supply, are discussed in **Section 3.3.3**. No municipal water systems would be affected as no connections are proposed, and the conversion of the property from agriculture to a casino resort would result in a net decrease in water use.

Wastewater Service

As described in **Section 2.0**, Alternative B would include the development of an on-site WWTP. No municipal wastewater systems would be affected under Alternative B as no connections are proposed.

Waste Services*Construction*

Alternatives A1 and B are similar except for the project site location. Accordingly, refer to **Section 3.10.3.1** for an analysis of construction impacts on solid waste from Alternative B. Alternative B would result in less-than-significant impacts on solid waste service during construction.

Operation

As described in **Section 3.10.2.3**, the Maricopa Highway Site is located within the service boundaries of Mountainside Disposal trash collection service area. Waste generated under Alternative B would be hauled to facilities described in **Section 3.10.2.3**.

Based on CalRecycle generation rates, it is estimated that Alternative B would generate approximately 3.2 tons per day or 1,168 tpy of solid waste (**Table 3.10-3**). Receptacles for trash and recycling would be placed throughout the casino resort and associated facilities to discourage littering and landscaping and maintenance staff would pick up trash on the property. As discussed previously, waste that cannot be recycled would be disposed of at the Bena Landfill or another permitted facility. The Bena Landfill has sufficient capacity to maintain operations through 2046 (CalRecycle, 2018). The Alternative B solid waste stream would represent approximately 0.071 percent of the daily and annual capacity of the Bena Landfill. Therefore, the operation of Alternative B would not result in significant effects on solid waste services. BMPs are presented in **Section 2.0** to further reduce the amount of solid waste disposed of at the landfill and ensure impacts remain less than significant.

The WWTP would produce biosolids and other solids that would require disposal. The potential effects would be similar to Alternative A1. As with Alternative A1, no significant impact would occur as a result of the waste produced from the WWTP.

TABLE 3.10-3
ESTIMATED SOLID WASTE DISPOSAL – ALTERNATIVE B

Waste Generation Source	Waste Generation Rate	Units	Value	Total Waste (lb/day)
Hotel	2.0	lb/room/day	400	800.0
Casino (other services)	3.12	lb/100 sf/day	1,665	5,195
Restaurant	0.005	lb/sf/day	73,300	366.5
RV Parking (hotel/motel)	2.0	lb/unit/day	50	100.0
Fire and Police Station	12.23	lb/household/day	1	12.23
Subtotal lb/day				6,474
Subtotal ton/day				3.2
Subtotal ton/year				1,168
Subtotal cubic yard/year (assumes 320 lb/cubic yard)				7,371
Note: Zero waste generation assumed for Organic Farm and Community Park Source: CalRecycle, 2019.				

The treatment of the groundwater would produce brine waste from the reverse osmosis treatment process. The potential effects would be similar to Alternative A1. As with Alternative A1, no impact would occur as a result of the brine waste.

Law Enforcement Services

Like Alternative A1, Alternative B would have an on-site law enforcement and fire station that would serve the Maricopa Highway Site as well as the surrounding areas. The on-site law enforcement and fire station would be similar to the on-site station described for Alternative A1. Therefore, with implementation of the on-site security measures, the development of an on-site KCSD station, and the IGA between the Tribe and KCSD, impacts would be addressed and Alternative B would result in a less-than-significant effect on law enforcement services.

Fire Protection and Emergency Medical Services

Operation

Alternatives A1 and B are similar except for the project site location. Refer to the Alternative A1 fire and emergency medical services discussion for Alternative B impacts on fire and emergency medical services. Similar to Alternative A1, Alternative B would result in less-than-significant impacts on fire and emergency medical services with mitigation and after implementing BMPs in **Section 2.0**.

Energy

Construction

Construction on the Maricopa Highway Site could damage underground utilities, leading to outages and/or serious injury. This would result in an adverse effect. Mitigation Measure 9-A in **Section 4.0** would reduce energy demand to electrical services and result in a less-than-significant impact.

Operation

Electricity would be obtained from PG&E, the current provider of electricity to the Maricopa Highway Site vicinity. PG&E serves the project vicinity from the Midway Substation. Any direct impact from extending or upgrading services would be reduced with Mitigation Measure 9-A in **Section 4.0** to a less-than-significant level. The indirect effects that could occur are discussed in **Section 3.14**. During operation of the facilities, energy usage would be less than significant as all buildings would be consistent with CBCs, specifically the California Energy Code.

Natural gas would be provided by SoCalGas, the current provider of natural gas to the Maricopa Highway Site vicinity. Natural gas service is not currently available at the site. If a connection to natural gas lines is made, the impact to natural gas services would be insignificant as capacity is available. Mitigation Measure 9-A in **Section 4.0** would reduce impacts

related to extending natural gas to the Maricopa Highway Site to a less-than-significant level. The indirect effects that could occur are discussed in **Section 3.14**.

Schools, Libraries, and Parks

Alternatives A1 and B are similar except for the project site location. Accordingly, refer to the analysis for Alternative A1 of schools, libraries, and parks for impacts by Alternative B on schools, libraries, and parks. Similar to Alternative A1, Alternative B would result in a less-than-significant impact on these facilities.

Cumulative Public Services Impacts

Water Supply

Alternative B would receive water from of on-site groundwater wells. Refer to **Section 2.2** for a further discussion of water supply options under Alternative B. No municipal water systems would be affected as no connections are proposed, and the overall water use onsite would decrease with implementation of Alternative B. Therefore, Alternative B would not contribute to cumulative adverse effects on municipal water supply systems.

Wastewater

As described in **Section 2.2**, Alternative B would develop on-site wastewater facilities for treatment of all wastewater from the casino resort. Therefore, no municipal wastewater systems would be affected, and Alternative B would not result in significant cumulative effects to municipal wastewater systems.

Waste Services

As described in **Section 3.10.2.3**, the Maricopa Highway Site is located within the service boundary of Mountainside Disposal, and the Bena Landfill has sufficient capacity to maintain operations through 2046. Growth resulting from the cumulative projects listed in **Appendix J** would add solid waste volume to the Bena Landfill. Projected solid waste generation for Alternative B and the cumulative projects are a small addition to the waste stream and would not significantly decrease the life expectancy of landfill. Since capacity is available for cumulative growth including Alternative B, no significant cumulative effects to solid waste services would occur.

Brine waste produced from groundwater treatment at the Maricopa Highway Site would be limited in quantity and properly disposed of. Cumulative projects in the area are unlikely to produce significant quantities of brine waste. Therefore, no significant cumulative impact would occur.

Law Enforcement

As previously discussed, a KCSO station that is adequate to serve the Maricopa Highway Site as well as surrounding areas would be developed. The station would be adequately staffed to serve the casino resort and vicinity. General growth within the County would be addressed by the annual County budgeting process. Therefore, Alternative B would result in a less-than-significant cumulative effect on public law enforcement services.

Fire Protection and Emergency Medical Services

An on-site KCFD station would be developed to serve the Maricopa Highway Site as well as the surrounding area. Cumulative impacts from Alternative B plus cumulative projects would be similar. Accordingly, Alternative B would result in a less-than-significant cumulative impact on fire protection and emergency medical services.

Energy

The Tribe would be responsible for paying development or user fees to receive additional electrical and natural gas services for future development. Alternative B would not cause significant cumulative effects to energy or telecommunications providers.

Schools, Libraries, and Parks

Cumulative buildout of Alternative B plus other cumulative projects would lead to a population increase in the County. As described in **Section 2.3.2.5**, the IGA does not apply to Alternative B; however, If Alternative B is implemented, the Tribe expects to negotiate an IGA with Kern County similar to that contained in **Appendix D**, including providing additional funding to the County that could be directed to schools, libraries, and parks. Therefore, Alternative B would result in a less-than-significant cumulative effect.

3.10.3.3 Alternative C – No Action Alternative

Under the No Action Alternative, no significant change in the current land use of the Mettler and Maricopa Highway Sites would occur. None of the potentially adverse effects identified for Alternatives A1, A2, A3, and B would occur.

3.11 NOISE

This section assesses the environmental consequences of the alternatives described in **Section 2.0** as they relate to noise. Applicable regulatory policies and plans related to noise are briefly summarized in **Section 3.11.1** and described in detail in **Appendix K**. Effects are measured against the environmental baseline that is described in **Section 3.11.2**. Direct and cumulative effects are identified in **Section 3.11.3** while indirect and growth-inducing effects are discussed in **Section 3.14**. Measures to mitigate for adverse impacts identified in this section are presented in **Section 4.0**.

3.11.1 REGULATORY SETTING

The noise regulatory setting is summarized in **Table 3.11-1**, and additional information on the regulatory setting can be found in **Appendix K**.

TABLE 3.11-1
REGULATORY POLICIES AND PLANS RELATED TO NOISE

Regulation	Description
Federal	
FHWA Construction Noise Thresholds ¹	<ul style="list-style-type: none"> ▪ Noise sensitive locations: (Daytime: 7 a.m. to 6 p.m.) 72 decibels (dBA) equivalent sound level (Leq) or Baseline + 5 (whichever is louder) ▪ Commercial areas: (Daytime) 77 dBA Leq or Baseline + 5 (whichever is louder)
Noise Abatement Criteria (NAC) ²	<ul style="list-style-type: none"> ▪ Applicable to traffic and other project-related noise sources ▪ Park and residential areas threshold: 67 dBA Leq ▪ Developed areas threshold: 72 dBA Leq
Vibration Standards ³	<ul style="list-style-type: none"> ▪ Peak particle velocity (PPV) is the maximum instantaneous peak (inches per second) of the vibration signal. ▪ The Federal Transportation Administration's (FTA) guideline vibration damage criteria for structures is 0.5 PPV and 0.1 PPV for annoyance of people.
Local	
Kern County General Plan Noise Element ⁴	<ul style="list-style-type: none"> ▪ Outdoor activity areas: 65 Day-Night Average Level (Ldn); Interior living spaces: 45 dB Ldn
Kern County Noise Ordinance 8.36	<ul style="list-style-type: none"> ▪ Construction noise shall not be created between the hours of 9:00 p.m. and 6:00 a.m. on weekdays and 9:00 p.m. and 8:00 a.m. on weekends.
Source: ¹ FHWA, 2006; ² FHWA, 2011; ³ FTA, 2006; ⁴ Kern County, 2009.	

3.11.1.1 Acoustical Background and Terminology

The perceived loudness of sounds is dependent upon many factors including sound pressure level and frequency content, environmental noise levels, and the relatively predictable perception of loudness. Furthermore, it can be approximated by weighing the frequency response of a sound level meter by means of the standardized A-weighting network. Community noise is commonly described in terms of the “ambient” noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or

Leq, over a given time (usually 1 hour). The Leq is the foundation of the Ldn noise descriptor, and shows very good correlation with community response to noise. Common indoor and outdoor noise can range from 110 dBA (maximum stereo output, outdoor concert, or airplane) to 10 to 0 dBA (Grand Canyon at night to the threshold of noise).

Effects of Noise on People

Human reaction to a new noise can be estimated through comparison of the new noise to the existing ambient noise level within a given environment. With regard to increases in dBA 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 just-perceivable difference.
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected.

Most noise is generated by transportation systems, principally motor vehicle noise, but also aircraft noise and rail noise. The level of traffic noise depends on three things: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the number of trucks in the flow of the traffic. Because noise is measured on a logarithmic scale, 70 dBA plus 70 dBA does not equal 140 dBA. Instead, two sources of equal noise added together have been found to result in an increase of 3 dBA. That is, if a certain volume of traffic results in a noise level of 70 dBA, the addition of the same volume of traffic, or doubling, would result in a noise level of 73 dBA (Caltrans, 2013). As stated above, 3 dBA is just audible; therefore, if a project doubles the traffic volume there would be an audible increase in the ambient noise level.

Stationary points of noise attenuate (lessen) at a rate of 6-9 dBA per doubling of distance from the source, depending on environmental conditions (e.g., atmospheric conditions and noise barriers, vegetative or manufactured, etc.). Widely distributed noises, such as a large industrial facility or a street with moving vehicles, would typically attenuate at a lower rate, approximately 4-6 dBA per doubling of distance.

3.11.2 ENVIRONMENTAL SETTING

Existing noise levels in the vicinity of the alternative sites were measured at locations adjacent to sensitive noise receptors and/or where project-related noise has the potential to increase the ambient noise level. Noise measurements were taken at the locations shown in Figure 1 and Figure 2 of **Appendix T**. Measurement equipment consisted of Quest Sound Pro® SE/DL sound level meters. An acoustical calibrator was used to calibrate the sound level meters before and after use. All instrumentation satisfies Type II (precision) requirements.

3.11.2.1 Existing Noise Levels

Noise at the Mettler Site primarily originates from SR-99 east of the site. Noise at the Maricopa Highway Site originates from I-5 and the SR-166 east and south of the site, respectively. **Table 3.11-2** shows 24-hour measurements at noise monitoring sites 1, 2, and 3, and 15-minute readings of noise levels were measured at Sites A, B, and C (Figures 1 and 2 of **Appendix T**). Noise measurement reports are provided in **Appendix T**.

3.11.2.2 Existing Vibration Levels

There are no existing vibration sources on or in the vicinity of the Mettler or Maricopa Highway Sites with the potential to create vibration levels that would create audible noise levels or cause noticeable groundborne vibrations.

3.11.2.3 Noise-Sensitive Receptors

Noise-sensitive land uses are generally defined as land uses with the potential to be adversely affected by the presence of noise. Examples include residential housing, schools, and health care facilities.

TABLE 3.11-2
SUMMARY OF 15-MINUTE AND 24-HOUR NOISE LEVEL MEASUREMENTS

Site	Date	Start Time	End Time	Noise Source	Receptor	Measured Noise Level (dBA Leq)
Mettler Site						
1	10/04/2018 – 10/05/2018	7:11 a.m.	8:32 a.m.	SR-99 and Truck Stop	Residences	51.4
2	10/04/2018 – 10/05/2018	7:29 a.m.	8:54 a.m.	SR-99 and Agri Ops	Residences	48.4
A	10/03/2018	1:30 p.m.	1:45 p.m.	SR-99 and Truck Stop	Residences	60.6
B	10/03/2018	1:01 p.m.	1:26 p.m.	SR-99 and Agri Ops	Residences	64.2
Maricopa Highway Site						
3	10/04/2018 – 10/05/2018	6:29 a.m.	6:30 a.m.	I-5, Agri Ops, and SR-166	Residences	63.5
C	10/03/2018	12:37 p.m.	12:52 p.m.	I-5, Agri Ops, and SR-166	Residences	56.1

Source: Appendix T.

Mettler Site

The nearest off-site residential sensitive receptor to the Mettler Site is a residence located approximately 850 feet east of the site at the northwest end of Lupine Street. The next closest off-site residential sensitive receptors are a group of residences located between Wildflower Street and Lupine Street, approximately 1,000 to 1,200 feet southeast of the Mettler Site. The nearest schools to the Mettler Site are the El Camino Real Elementary School and General Shafter Elementary School, located approximately 11 miles northeast and north of the site. There is no medical facility within 5 miles of the site.

Maricopa Highway Site

The nearest off-site residential sensitive receptors to the Maricopa Highway Site are two residences located approximately 340 feet north of the Maricopa Highway Site. The nearest school to the Maricopa Highway Site is the General Shafter Elementary School, located approximately 11 miles northeast of the site. There is no medical facility within 5 miles of the site.

3.11.3 IMPACTS

Assessment Criteria

The assessment of project effects is based on the FHWA Construction Noise Handbook (2006) and the federal NAC standards (FHWA, 2010). Adverse noise-related effects would occur during construction if project implementation would result in a noise level of 72 dB or an increase of 5 dB over the baseline, whichever is louder (FHWA, 2006). Adverse noise-related effects would occur during operation if project implementation would result in an increase in the ambient noise environment to greater than 67 dB (FHWA, 2010). The assessment of vibration noise is based on the FTA standards of 0.5 PPV for structures and 0.1 PPV for annoyance of people (FTA, 2006).

Stationary point sources of construction noise attenuate (lessen) at a rate of 6-9 dBA per doubling of distance from the source, depending on environmental conditions (e.g., atmospheric conditions, topography and type of ground surfaces, natural and man-made noise barriers, etc.). An attenuation factor of 6.0 dBA per doubling of distance is appropriate for this analysis given the flat topography and lack of dense vegetation.

3.11.3.1 Development on the Mettler Site

Alternatives A1 and A2

Construction

Noise

Grading and construction activities associated with Alternatives A1 and A2 would be intermittent and temporary in nature. Construction noise levels at and near the sites would fluctuate depending on the particular type, number, and duration of uses of various pieces of construction equipment.

Construction of Alternatives A1 and A2 would include ground clearing, excavation, erection of foundations and buildings, and finishing work. No pile driving is proposed. Due to sparse trees and man-made and geographical barriers, an attenuation factor of 6 dBA Leq per doubling of distance was used in the analysis. The maximum noise level during construction without impact equipment (pile drivers) is approximately 89 dBA Leq at 100 feet (Table 8-1 in FHWA, 2006). The noise level at the nearest sensitive noise receptors, private residences located approximately 850 feet east of the Mettler Site, are approximately 70.4 dBA Leq, which is less than the FHWA threshold of 72 dBA Leq. BMPs provided in **Section 2.0** would reduce further the potential for stationary construction noise effects. Additionally, construction would be temporary and intermittent in nature. Therefore construction noise associated with Alternatives A1 and A2 would not result in significant adverse effects associated with the ambient noise environment.

Traffic

Construction-related material haul trips and worker trips have the potential to raise ambient noise levels along local routes, depending on the number of worker/haul trips made and the types of vehicles used. Construction traffic and haul trips would access the Mettler Site via SR-166 to S. Sabodan Street.

Since Alternative A1 would create the greatest volume of traffic, Alternative A1 was analyzed as a “worst case.” During construction, up to of 252 one-way worker trips would occur per day. Although construction trips would generally occur outside of the peak hour, it is assumed for this noise analysis, as a worst case scenario, that all construction trips occur during the AM peak traffic hour. It is conservatively estimated that an average of 117 material hauling trips originating offsite per day would occur during construction. Because these haul trucks are louder than passenger cars, a passenger car equivalence multiplier of eight cars per truck is used (Transportation Research Board, 2000). Therefore, combining the worker trips and the material trips, the total equivalent passenger car trips per AM peak hour would be 936.

The existing ambient noise level in the vicinity of sensitive noise receptors is approximately 51.4 dBA Leq at the Mettler Site (**Table 3.11-2**). Construction trips would increase traffic volumes on roads near sensitive receptors by approximately 1,188 vehicles during the AM peak hour. This would result in an increase in the ambient noise level at residential receptors of approximately 0.10 dBA Leq along construction roads at the Mettler Site. The ambient noise level due to the increase in vehicles on area roadways during construction would be approximately 51.5 dBA Leq, which is less than the FHWA noise thresholds for residential of 72 dBA Leq. Therefore, noise resulting from increased construction traffic for Alternatives A1 and A2 would not result in a significant adverse effect.

Vibration

Vibration impacts from construction generally occur within 500 feet of a project site (FTA, 2006) and the most vibration-prone construction methods (such as pile driving) are not anticipated to be necessary for any alternative. As the nearest sensitive receptor at the Mettler Site is located more than 800 feet from the construction site, the impacts would be less than significant.

Operation

The following identifies potential impacts from project-related noise sources, such as traffic; heating, ventilation, and air conditioning (HVAC) systems; traffic in parking lots; and delivery trucks.

Traffic

It is not anticipated that average vehicle speeds would change in the vicinity of the Mettler Site or that the mix of trucks in the traffic would change during the operational phase; however, with the implementation of Alternatives A1 and A2, traffic volumes from project patrons and employees would increase.

- **State Route 99:** SR-99 is located east of the eastern project boundary, approximately 180 feet from existing sensitive noise receptors to the west. The existing traffic volume on SR-99 is approximately 49,000 daily vehicles in the vicinity of the Mettler Site (**Appendix F**). Alternative A1 would add 1,740 daily vehicle trips to SR-99. The existing ambient noise level in the vicinity of SR-99 was measured at 51.4 dBA Leq (**Table 3.11-2**). Alternatives A1 and A2 would not double the existing traffic volume on SR-99, but would result in a 0.015 dBA Leq increase in the ambient noise level. With implementation of Alternative A1, the ambient noise level would increase to a maximum of 51.42 dBA Leq, an imperceptible increase that is less than the NAC of 67 dBA Leq for residential sensitive receptors. Therefore, Alternative A1 would not result in significant adverse effects associated with traffic noise levels for sensitive receptors located along SR-99. Alternative A2 generates far less vehicles on SR-99 and, therefore, would also have a less-than-significant impact on ambient noise levels.
- **State Route 166:** SR-166 is located south of the Mettler Site approximately 1,100 feet from existing sensitive noise receptors. The existing traffic volume is approximately 4,380 daily vehicles in the vicinity of the Mettler Site (**Appendix F**). Alternative A1 would add 1,910 daily vehicle trips to SR-166 (**Appendix F**). Due to the smaller traffic volume as compared to SR-99, the ambient noise level would be negligible compared to SR-99. Therefore, Alternatives A1 and A2 would have a less-than-significant impact on ambient noise.
- **Mettler Frontage Road West:** Mettler Frontage Road West is located 1,700 feet east of the Mettler Site, approximately 100 feet from existing sensitive noise receptors to the east. The existing traffic volume on Mettler Frontage Road West is approximately 860 daily vehicles in the vicinity of the Mettler Site (**Appendix F**). Alternatives A1 and A2 would not add any daily vehicle trips to Mettler Frontage Road West. Therefore, Alternatives A1 and A2 would result in a less-than-significant impact to the ambient noise level.
- **S. Sabodan Street:** The Mettler Site is located between SR-99 and SR-166, which accommodate between 49,000 and 4,300 vehicles per day, respectively, (**Appendix F**) and create an ambient noise level of 48.4 dBA (**Table 3.11-2**, Site 2). South Sabodan Street would add approximately 13,700 trips to the area. Due to the lower traffic volume compared to SR-99, the ambient noise would be negligible compared to SR-99. Therefore, Alternatives A1 and A2 would result in a less-than-significant impact to ambient noise.

Other Noise Sources

Commercial uses on the Mettler Site would possibly generate noise due to the operation of roof-mounted air handling units associated with building HVAC equipment in addition to noise from loading docks and surface parking lots. The noise levels produced by HVAC systems vary with the capacities of the units as well as with individual unit design. In this case, HVAC systems on commercial buildings would be located at higher elevations than those on surrounding residences; therefore, roof-mounted HVAC equipment has the potential to be heard at nearby sensitive noise receptors. Idling trucks at loading docks or loading sites, proposed under Alternatives A1 and A2, have the potential to emit 80 dBA at 50 feet from the source. The proposed loading docks would be located along the western side of the casino resort and commercial structures away from the nearest sensitive receptor.

Given the distance to the nearest sensitive noise receptor (approximately 850 feet) and the ambient noise associated with the Mettler Site, 63.5 dBA (**Table 3.11-2**), noise from roof-mounted HVAC equipment and the proposed loading docks would not be audible. Therefore, under Alternatives A1 and A2, HVAC equipment and the loading dock noise would not result in significant adverse effects associated with the ambient noise environment.

Under Alternatives A1 and A2, paved surface parking lot noise increases would be mainly due to slow moving and idling vehicles, opening and closing doors, and patron conversation. The noise level in parking lots and parking structures is generally dominated by slow moving vehicles; therefore, the ambient noise level in parking structures and parking lots is approximately 60 dBA, which is less than the NAC of 67 dBA. Therefore, under Alternatives A1 and A2, internal vehicle noise levels would not result in significant adverse effects associated with the off-site ambient noise environment.

Vibration

Commercial, agricultural, and hotel uses do not include sources of perceptible vibration. Therefore, operation of all of the alternatives would not result in significant adverse effects associated with vibration.

Alternative A3

Alternative A3 would have no building construction and would consist of the current agricultural land uses. Therefore, no increase in the ambient noise levels beyond those shown in **Table 3.11-2** are expected. No existing ambient noise levels are greater than the 75 dBA construction or 67 dBA operational noise levels; therefore, Alternative A3 would have a less-than-significant impact on the ambient noise level in the vicinity of the Mettler Site.

Cumulative Noise Impacts

Alternatives A1 and A2

Noise and vibration from HVAC systems, parking structures and lots, and deliveries would be similar as in the buildout year. The following identifies possible traffic impacts from project-related noise sources in the cumulative year 2040 for Alternatives A1 and A2.

Traffic Noise

The cumulative year 2040 baseline traffic volumes and project traffic volumes would increase. Cumulative traffic conditions are described in detail in **Appendix F**. Alternatives A1 and A2 would increase traffic in the cumulative year 2040 over the buildout year 2023, and the baseline traffic would also increase over 2023 traffic volumes (refer to the TIA, Cumulative Growth Rate, Section 11.1 [**Appendix F**]). The baseline traffic and project would have approximately the same increase between the buildout year and the cumulative year, and since the increase in ambient noise level is a ratio of the increase in project traffic and existing 2040 traffic, the ambient traffic noise levels would not increase beyond the noise threshold of 67 dBA. Traffic-related noise impact would be less than significant in the buildout year and, therefore, would be less than significant in the cumulative year 2040.

Alternative A3

Alternative A3 would have no changes in ambient noise levels and therefore no cumulative impacts in association with other cumulative projects. Therefore, Alternative A3 would not have adverse cumulative noise effects.

3.11.3.2 Alternative B – Casino Resort on the Maricopa Highway Site

Construction

Noise

Construction of Alternative B would be similar to Alternative A1. The noise level at the nearest sensitive noise receptors, private residences approximately 300 feet north of the Maricopa Highway Site, is 63.5 dBA Leq (**Table 3.11-2**). With construction, the approximate ambient noise level would be 77.1 dBA Leq, which is greater than the FHWA threshold of

72 dBA Leq. However, BMPs provided in **Section 2.0** would reduce the potential for stationary construction noise effects. Additionally, construction would be temporary and intermittent in nature. Therefore, with implementation of BMPs, construction noise associated with Alternative B would not result in significant adverse effects associated with the ambient noise environment.

Traffic

As with Alternative A1, construction-related material haul trips and worker trips have the potential to raise ambient noise levels along local routes, depending on the number of worker/haul trips made and the types of vehicles used. Construction traffic and haul trips would access the Maricopa Highway Site via SR-166.

The existing ambient noise level in the vicinity of sensitive noise receptors is approximately 63.5 dBA Leq at the Maricopa Highway Site (**Table 3.11-2**). Construction trips would increase traffic volumes on roads near sensitive receptors by approximately 1,188 vehicles during the AM peak hour, which would result in an increase in the ambient noise level at residential receptors of approximately 1 dBA Leq along construction roads. The ambient noise levels due to the increase in vehicles on area roadways during construction at the Maricopa Highway Site would be 64.5 dBA Leq, which is less than the FHWA noise threshold of 72 dBA Leq for residential receptors. Therefore, noise resulting from increased construction traffic for all alternatives would not result in a significant adverse effect to the ambient noise level during any phase of construction.

Vibration

Vibration impacts from construction generally occur within 500 feet of a project site (FTA, 2006). The nearest sensitive receptor is approximately 300 feet from the construction site, however, BMPs provided in **Section 2.0** would reduce the potential for stationary construction noise effects. The most vibration-prone construction methods (such as pile driving) are not anticipated to be necessary for any alternatives. Additionally, construction would be temporary and intermittent in nature. Therefore, with implementation of BMPs, construction noise associated with Alternative B would not result in significant adverse effects associated with vibration.

Operation

The following identifies potential impacts from project-related noise sources such as traffic. Vibration and other operational noises, HVAC systems, parking lots, and delivery trucks would be the same as Alternative A1.

Traffic

It is not anticipated that average vehicle speeds would change in the vicinity of the Maricopa Highway Site or that the mix of trucks in the traffic would change during the operational phase; however, with the implementation of Alternative B, traffic volumes from project patrons and employees would increase.

- **Interstate 5:** I-5 is located adjacent to the eastern boundary of the Maricopa Highway Site, approximately 1,200 feet from existing sensitive noise receptors to the west. The existing traffic volume on I-5 is approximately 33,600 vehicles per day (**Appendix F**). Alternative B would add 2,180 vehicle trips to I-5 per day. The existing ambient noise level at in the vicinity of sensitive noise receptors was measured at 63.4 dBA Leq (refer to **Table 3.11-2**). Alternative B would not double the existing traffic volume on I-5, but would result in a 0.027 dBA Leq increase in the ambient noise level. With the implementation of Alternative B, the ambient noise level would increase to approximately 63.43 dBA Leq. The ambient noise level at sensitive receptors near I-5 would be less than the NAC of 67 dBA Leq for residential sensitive receptors. Therefore, Alternative B would not result in significant adverse effects associated with traffic noise levels for sensitive receptors located near I-5.
- **State Route 166:** SR-166 is located adjacent to the northern boundary of the Maricopa Highway Site, approximately 280 feet from existing sensitive noise receptors. The existing traffic volume is approximately 4,380 vehicles per day in the vicinity of the Maricopa Highway Site (**Appendix F**). Alternative B would add 1,910

vehicle trips to SR-166 per day. Due to the lower traffic volume compared to I-5, the ambient noise level of SR-166 would be negligible compared to I-5. Therefore, Alternative B would result in a less-than-significant impact to ambient noise.

- **State Route 99:** SR-99 is located east of the eastern project boundary, approximately 180 feet from existing sensitive noise receptors to the west. The existing traffic volume on SR-99 is approximately 49,000 daily vehicles in the vicinity of the Maricopa Highway Site (**Appendix F**). Alternative B would add 1,740 vehicle trips to SR-99 per day. The existing ambient noise level at in the vicinity of SR-99 was measured at 51.4 dBA Leq (refer to **Table 3.11-2**). Alternative B would not double the existing traffic volume on SR-99, but would result in a 0.015 dBA Leq increase in the ambient noise level. With implementation of Alternative B, the ambient noise level would increase to a maximum of 51.42 dBA Leq, which is less than the NAC of 67 dBA Leq for residential sensitive receptors. Therefore, Alternative B would not result in significant adverse effects associated with traffic noise levels for sensitive receptors located along SR-99.

Cumulative Noise Impacts

Vibration and other source noise, HVAC systems, parking structures and lots, and deliveries would be the same as in the buildout year. The possible traffic impacts from project-related noise in the cumulative year 2040 for Alternative B would be similar to Alternative A1. Therefore, no significant cumulative effects would occur.

3.11.3.3 Alternative C – No Action Alternative

Under the No Action Alternative, no significant changes in the current land use at the Mettler and Maricopa Highway sites would occur. Therefore, none of the potential effects identified for Alternatives A and B would occur.

3.12 HAZARDOUS MATERIALS

This section assesses the environmental consequences of the alternatives described in **Section 2.0** as they relate to hazardous materials. Applicable regulatory policies and plans related to hazardous materials are briefly summarized in **Section 3.12.1** and described in detail in **Appendix K**. Effects are measured against the environmental baseline that this is described in **Section 3.12.2**. Direct and cumulative effects are identified in **Section 3.12.3** while indirect and growth-inducing effects are discussed in **Section 3.14**. Measures to mitigate for adverse impacts identified in this section are presented in **Section 4.0**.

3.12.1 REGULATORY SETTING

The hazardous materials regulatory setting is summarized in **Table 3.12-1**, and additional information on the regulatory setting can be found in **Appendix K**.

3.12.2 ENVIRONMENTAL SETTING

3.12.2.1 Database Searches and Historical Review

Hazardous material database searches and historical review were conducted of the Mettler and Maricopa Highway Sites. The database inquiries specifically sought information pertaining to records of known storage tank sites and hazardous materials(s) generation, storage, and/or release sites. In addition, a historical review was performed using historical aerial photographs, topographic maps, fire insurance maps, and city directory listings to understand what historically existed on the sites. The historical review and database searches were both used to identify Recognized Environmental Condition (REC), Historical Recognized Environmental Condition (HREC), and Controlled Recognized Environmental Condition sites that may pose immediate environmental risks or potentially affect future uses of the Mettler and Maricopa Highway Sites. The relevant results of the database searches and historical review are provided in **Table 3.12-2** and are discussed further in the Phase I included in **Appendix U**.

TABLE 3.12-1
REGULATIONS FOR HAZARDOUS MATERIALS

Regulation	Description
Federal	
Resource Conservation and Recovery Act	<ul style="list-style-type: none"> ▪ Grants the USEPA the authority to manage hazardous waste throughout its life cycle, including storage, treatment, transportation, production, and disposal ▪ Establishes a management framework for non-hazardous solid wastes ▪ Authorizes the USEPA to respond to environmental problems related to underground hazardous substance storage tanks, including petroleum
Federal Food, Drug, and Cosmetic Act	<ul style="list-style-type: none"> ▪ Enables the USEPA to determine the maximum pesticide residue amount on food. Maximum limits are based on findings that the maximum limit will be reasonably safe in terms of accumulated exposure to the pesticide residue. For pesticides without a set maximum residue limit, the USEPA has the authority to seize these commodities.
Hazard Communication Standard	<ul style="list-style-type: none"> ▪ Ensures that information about chemical and toxic substance hazards in the workplace and associated protective measures are disseminated to workers exposed to hazardous chemicals, including labels, safety data sheets, and proper handling training for hazardous chemicals ▪ Chemical manufacturers and importers that produce and import chemicals are required to assess their products for hazards; safety data sheets and labels must be created with information that outlines the dangers of the products
Federal Hazardous Substances Act (FHSA)	<ul style="list-style-type: none"> ▪ Necessitates that hazardous household products have precautionary labeling to alert consumers of hazards, proper storage, and immediate first aid steps in case of an accident ▪ Enables the Consumer Product Safety Commission to prohibit severely dangerous products and products with hazards that cannot be labeled accordingly to FHSA standards
Federal Insecticide, Fungicide, and Rodenticide Act	<ul style="list-style-type: none"> ▪ Mandates that all pesticides sold or distributed be licensed with the USEPA; a pesticide cannot be licensed until it is proven that the pesticide will not generally cause unreasonable adverse effects on the environment if utilized in accordance with its specifications
Toxic Substance Control Act	<ul style="list-style-type: none"> ▪ Authorizes the USEPA with the authority to require record keeping, reporting, test requirements, and restrictions associated with certain chemical substances and/or mixtures ▪ Addresses the production, importation, use, and disposal of certain chemicals (e.g., lead paint)
Emergency Planning and Community Right-to-Know Act	<ul style="list-style-type: none"> ▪ Requires industry to report on the use, storage, and release of hazardous substances to federal, state, and local governments ▪ Requires Indian tribes and state and local governments to utilize this information to prepare their communities for potential risks

3.12.2.2 Existing Conditions

The Mettler and Maricopa Highway Sites were historically and are currently developed with agricultural fields, and the majority of the surrounding areas are also agricultural. Current hazardous materials used on the sites and in the surrounding areas include pesticides and materials required for farm equipment maintenance/operation. These pesticides could have included organochlorinated pesticides (e.g. DTT). The quantity of hazardous materials currently generated, used, stored, and/or disposed of at the Mettler and Maricopa Highway Sites are typical for agricultural operations in the Central Valley.

Five electrical transmission towers are located along the western boundary of the Mettler Site, and a small residential area with a few small businesses (e.g., Ken's Chevron) is located on the eastern boundary. There is also a farm complex consisting of three residential buildings and a wooden shed on the Mettler Site (**Section 3.6**). These buildings could contain lead-based paint, mercury, polychlorinated biphenyl caulk, and/or asbestos containing materials. No structures exist on the Maricopa Highway Site. It is possible that aeri ally deposited lead (ADL) from before lead was banned as a fuel additive in 1992 could have contaminated soil along major roadways. This type of contamination is most probable to occur within 20 feet of a roadway with a possible depth of 2-3 feet (Department of Toxic Substances Control, 2016). While the Mettler Site has no major roadways within 20 feet of the site, the Maricopa Highway Site is bound by Interstate I-5 to the east, SR-166 to the north, and Wheeler Ridge Access Road to the west.

Several hazardous material sites, one REC, and five HREC sites are reportedly within 1 mile of both the Mettler and Maricopa Highway Sites (Table 3.12-2). The REC site, U.S. Auxiliary Landing Field, has been mistakenly reported to be within the Mettler Site boundaries. Consultation with the Lead Agency (California Department of Toxic Substance Control) for the site confirmed that the site is not in fact located within the Mettler Site. Instead, it is located southeast of the community of Mettler (Ridenour, 2019).

TABLE 3.12-2
HAZARDOUS MATERIAL DATABASE SEARCH RESULTS

Site Name	Distance from Mettler Site (miles)	Distance from Maricopa Highway Site (miles)	Status	Potential Contaminants of Concern	Potential Media Affected	Database(s) Identified In
U.S. Auxiliary Landing Field	0*	>1	Inactive - needs evaluation	Explosives (unexploded ordnance, munitions and explosives of concern)	None specified	EnviroStor
Ken's Chevron	0.325	>1	Complete - case closed	Gasoline, Diesel	Soil	LUST, HIST CORTESE
Renegade Service Cen	0.375	>1	Complete – case closed	Gasoline	Soil	LUST, CERS
Flyers #223	0.403	>1	Complete – case closed	Benzene, Diesel, Ethylbenzene, Naphthalene, Toluene, Xylene	Soil	LUST, CHMIRS, HAZNET, CERS
Tosco Bulk Plant No. 0428	0.112	>1	Complete – case closed	Total Petroleum Hydrocarbons	Soil	CPS-SLIC, CERS
Clifford A. Mettler	>1	0.09	Case closed	Gasoline	Soil	LUST, CERS
* This site has been misreported within EnviroStor and is not within Mettler Site, but southeast of the community of Mettler (Ridenour, 2019). Source: Appendix U .						

The Mettler and Maricopa Highway Sites are located in a County with reported cases of an illness called Coccidioidomycosis, or Valley Fever. The County has one of the highest rates of Valley Fever in California (California Department of Public Health, 2019). This illness is caused by the fungus *Coccidioides immitis* that dwells in the top 2 to 12 inches of soil. When the soil the fungi inhabit is disturbed (such as from earth-moving equipment), spores can become airborne and subsequently enter the lungs through inhalation (California Department of Public Health, 2013). Humans and other mammals (e.g., dogs) can exhibit symptoms from *C. immitis* infections, but the illness cannot be transferred from mammal to mammal (College of Medicine Tucson, n.d.). Specifically in cases where humans breathed in *C. immitis* spores, 50 percent to 60 percent of individuals exhibited either no or mild symptoms; 40 percent to 50 percent developed more severe, flu-like symptoms; and 1 percent to 5 percent experienced a serious illness known as Disseminated Valley Fever. This is a condition when the fungi inside the lungs spread to other parts of the body (e.g., bones). The majority of people who develop Valley Fever do not seek treatment, and only individuals with fast-developing, severe symptoms, such as pneumonia-like symptoms, typically seek treatment (Kern County Public Health Services Department, n.d.).

3.12.3 IMPACTS

Assessment Criteria

Impacts associated with hazardous materials include a release of hazardous materials and improper hazardous material management. A project would be considered to have significant hazardous material impacts if the site had existing hazardous materials onsite that would require remediation or mitigation prior to development of a proposed project. Additionally, if a project results in the use, handling, or generation of a controlled hazardous material that the regulated

amount would increase the potential risk of exposure that results in the reduction in the quality or loss of life, then the project would have a significant impact. Measures to mitigate for the potentially adverse effects identified in this section are presented in **Section 4.0**.

3.12.3.1 Alternative A – Development on the Mettler Site

Alternatives A1 and A2

Alternatives A1 and A2 would have similar hazardous material effects, although Alternative A2 would have a reduced footprint size, would not include a RV park, and the parking structure and casino resort would be reduced in size (see **Table 2-2** for specifics). Unless otherwise stated, the information below pertains to both Alternatives A1 and A2.

Construction

Undiscovered contaminated soil could be present on the Mettler Site, but this is not anticipated because there are no records of hazardous material incidents at the site. Agricultural chemicals utilized on conventional farms can be hazardous to human health and the environment. The Mettler Site has a long history of agricultural use and there could be pesticide residues in the soil, such as organochlorinated pesticides. However, there is no indication of improper use of these agricultural chemicals. In the unlikely case that construction personnel do encounter contaminated soil of any type prior to or during earth-moving activities, a significant hazardous material impact would exist. However, the BMP K2 listed in **Section 2.2.2** would minimize the possible hazards associated with existing contamination. Furthermore, BMP K8 would ensure that the project site is properly investigated for the presence of organochlorinated pesticides and managed properly if the concentrations exceeds screening levels. With these BMPs, Alternatives A1 and A2 would not result in significant adverse effects associated with existing conditions.

C. immitis could inhabit the Mettler Site and thus pose a significant adverse effect when construction personnel disturb the soil. Furthermore, wind could transport *C. immitis* spores to off-site areas and expose nearby people and animals to *C. immitis* spores. If spore inhalation occurred, it could lead to an infection; however, the risk for spore exposure is reduced in areas of disturbed soil, such as cultivated soils (Kern County Public Health Services Department, n.d.; California Department of Public Health, 2013). Because the Mettler Site is actively used for agricultural purposes, the probability of *C. immitis* on the site is reduced. Mitigation Measures 11-A and 11-B in **Section 4.0** are specified to reduce the impact to a less-than-significant level. *C. immitis* spores could also potentially be introduced from off-site sources if off-site fill is utilized for construction. This could be a significant impact, but BMPs under Air Quality in **Section 2.2.2** would reduce fugitive dust, and thus the potential to inhale airborne *C. immitis* spores by construction personnel and the nearby populace. Overall, *C. immitis* would not result in significant adverse effects.

During construction operations, the existing farming complex buildings would be demolished, and construction workers could be exposed to hazardous materials typical during construction if they are present (e.g., lead paint). However, following BMPs in **Section 2.2.2** would reduce or eliminate the risk (e.g., inhaling asbestos particles) associated with demolition activities for construction personnel.

Hazardous materials used during construction may include gasoline, diesel fuel, motor oil, hydraulic fluid, solvents, cleaners, sealants, welding flux, various lubricants, paint, paint thinner, and other products. While these hazardous materials could potentially cause significant effects if leaked or spilled, the hazardous materials used would be small in quantity (e.g., oil dripping from equipment). To reduce the risk from these hazardous materials, BMPs (e.g., regular servicing) specified in **Section 2.2.2** would be implemented for construction equipment, hazardous material spills, and hazardous material storage. Therefore, no significant adverse effects would result.

Operation

The U.S. Department of Labor OSHA regulations include provisions that require facilities to document potential risks associated with the storage, use, and handling of toxic and flammable substances under the Hazard Communication Standard. OSHA regulations codified in 29 CFR Part 1910 are applicable to the Mettler Site.

During the operation of the facilities in Alternatives A1 and A2, the potential of *C. immitis* both offsite and onsite poses a possible risk to facility workers and patrons. Landscape maintenance could disturb the soil and cause spores to become airborne either through actively disrupting the soil (e.g., digging) or wind. Furthermore, earth-disrupting agricultural activities (e.g., tilling) from the surrounding agricultural lands could cause *C. immitis* spores to become airborne. However, as discussed above, the risk for *C. immitis* is reduced in areas with disturbed soil, such as actively cultivated areas. Additionally, the soil disrupted from landscape maintenance would be small once plants are established. Consequently, *C. immitis* does not pose a significant risk to the facility employees or patrons.

Diesel fuel storage tanks would be needed for emergency generators at the casino resort. The transport of diesel fuel would be infrequent and would not present a significant hazard to the public. The storage tanks would have secondary containment systems, comply with National Fire Protection Association standards for aboveground storage tanks (including for hazards, such as flooding), and would not pose unusual storage, handling, or disposal issues. Materials would be stored, handled, and disposed of according to federal and manufacturer's guidelines. Therefore, the fuel storage tanks would not result in significant adverse effects.

The storage and use of potential hazardous materials would be necessary for the operation of the on-site WWTP and the hotel pool. For example, liquid chlorine and liquid muriatic acid or dry granular sodium bisulfate are the primary chemicals that could be utilized for the WWTP and pool. These chemicals would be stored within a secure building and only qualified personnel would handle these chemicals. Furthermore, the quantities of these chemicals would be relatively small, and with appropriate management—such as following manufacturer's guidelines—no significant adverse effects would result from storage and use. The transportation of these chemicals would also cause no significant adverse effects as applicable regulations would be followed during their transport.

The transportation, storage, and use of fertilizers and pesticides would be necessary for landscape maintenance and the remaining agricultural land on the Mettler Site. The presence of landscaping and agricultural related chemicals could pose a risk to employees and casino resort patrons, especially certain pesticides, if not transported, stored, or applied appropriately. However, no significant adverse effects would occur result from the transportation, storage, and use of fertilizers and pesticides required for landscaping and agriculture as appropriate regulations and the manufacturer's guidelines for each hazardous material would be followed.

Small quantities of hazardous materials may be utilized during the operation and maintenance of the casino resort and other project facilities, including motor oil, hydraulic fluid, solvents, cleaners, lubricants, paint, and paint thinner. The waste that is produced from the facilities are typical to commercial facilities and do not require specialized storage or disposal. All hazardous materials and waste would be stored, handled, and disposed of according to federal and manufacturer's guidelines. Therefore, Alternatives A1 and A2 would not result in significant adverse effects related to the waste produced or hazardous materials used.

Alternative A3 – Organic Farming

Construction

No construction would be required to convert the Mettler Site into an organic farm as the site is currently agricultural. Therefore, no significant hazardous material effects would result.

Operations

The operation of an organic farm would be relatively similar as the conventional farming operation currently on the Mettler Site, but overall the hazardous materials utilized would be less with organic farming. Therefore, Alternative A3 would not result in significant adverse effects.

The risk of *C. immitis* becoming airborne is higher in Alternative A3 than in Alternatives A1 or A2 because of the increased earth-moving activities required in farming, but the risks would be similar to the current conventional farming activities on the Mettler Site. Employees with exposure to loose soil or earth-moving activities (e.g., tilling) would be at the highest risk of inhaling airborne *C. immitis* spores. Furthermore, wind could cause spores from loose soil to become airborne. This would be a significant risk to people and wildlife in the vicinity of the Mettler Site if the spores are inhaled. However, areas of disturbance have less risk of *C. immitis* than undisturbed areas. Nevertheless, to reduce the risks associated with *C. immitis* for the employees, mitigations measures 11-A and 11-B in **Section 4.0** are recommended. Therefore, Alternative A3 would not result in significant adverse effects.

Cumulative Hazardous Material Impacts

Alternatives A1 and A2

As described above, the current existing conditions and the construction and operation of the facilities under Alternatives A1 and A2 would not result in significant adverse effects provided that the BMPs and mitigations measures specified are implemented. However, the potential future development on the Mettler Site (**Appendix J**) and other cumulative projects listed in **Appendix J** could lead to cumulative hazardous material effects. Potential future development on the Mettler Site would not require any unusual hazardous material use, storage, or disposal. Additionally, for the hazardous materials utilized, manufacturer's guidelines along with proper regulations would be followed for each hazardous material. These factors also apply to other cumulative projects in the area (**Appendix J**). Therefore, no significant adverse cumulative effects would result from current or potential hazardous materials under Alternatives A1 and A2.

Alternative A3

As described in **Section 3.12.2** and **Section 3.12.3.1**, the current existing conditions and the operation of the organic farm under Alternative A3 would not result in significant adverse effects provided that the BMPs and mitigations measures specified are followed. Furthermore, under Alternative A3, no future development is proposed. Alternative A3 combined with other cumulative projects (**Appendix J**) in the area would not create a cumulative hazardous material impact due to the low quantity of hazardous materials used in organic farming and the cumulative projects. The cumulative projects in the area would be required to follow regulations related to hazardous materials. Therefore, Alternative A3 would not result in a cumulative hazardous material impact.

3.12.3.2 Alternative B – Casino Resort on the Maricopa Highway Site

Construction

The Maricopa Highway Site has no current hazardous materials risks, and Alternative B is similar to Alternative A1 in terms of hazardous materials issues. Although, Alternative B's footprint is smaller due to the smaller WWTP and RV park, and the lack of existing buildings on the Maricopa Highway Site. Therefore, there are no risks from asbestos, mercury, polychlorinated diphenyl caulk, or lead paint during demolition. However, lead could be encountered during construction within 20 feet of roadways and to a depth of 2-3 feet (Department of Toxic Substances Control, 2016). BMP K9 in **Section 2.3.2.6** would ensure that this possible lead contamination is properly investigated for and managed if present. For the remaining hazardous material issues, the BMPs specified for Alternative A1—with the exception of BMPs K5 and K6—and Mitigation Measures 11-A and 11-B in **Section 4.0** are applicable. Therefore, Alternative B would not result in significant adverse effects during construction due to hazardous materials or *C. immitis*.

Operations

Since Alternative B includes similar facilities as Alternative A1, the hazardous material risks associated with operations would be similar. Therefore, no significant adverse effects would result from hazardous materials or *C. immitis* if the mitigations measures specified in Alternative A1 are implemented in Alternative B.

Cumulative Hazardous Material Impacts

As described above, the current existing conditions and the construction and operation of the facilities under Alternative B would not result in significant adverse effects provided that the BMPs and mitigation measures specified are implemented. However, the potential future development at the Maricopa Highway Site and other future projects in the area (**Appendix J**) could lead to cumulative hazardous material effects. Due to the similarity of Alternative B to Alternative A1, the cumulative effects would be comparable. Therefore, refer to the Alternative A1 cumulative analysis for Alternative B. Alternative B, consequently, would not result in adverse cumulative effects.

3.12.3.3 Alternative C – No Action Alternative

With the No Action Alternative, neither Alternatives A1, A2, A3, nor B would be implemented. The existing conditions and conventional farming on Mettler and Maricopa Highway Sites would continue. *C. immitis* would continue to be a potentially significant adverse effect to persons and wildlife within and in the vicinity of the sites whenever soil disrupting activities are performed (e.g., tilling soil).

3.13 AESTHETICS

This section assesses the environmental consequences of the alternatives described in **Section 2.0** as they relate to aesthetics. Applicable regulatory policies and plans related to aesthetics are briefly summarized in **Section 3.13.1** and described in detail in **Appendix K**. Effects are measured against the environmental baseline that is described in **Section 3.13.2**. Direct and cumulative effects are identified in **Section 3.13.3**, while indirect and growth-inducing effects are discussed in **Section 3.14**.

3.13.1 REGULATORY SETTING

Development of the alternative sites is currently guided by the County General Plan. The visual resources regulatory setting is summarized in **Table 3.13-1**. Additional information about the regulatory setting can be found in **Appendix K**.

TABLE 3.13-1
REGULATORY POLICIES AND PLANS RELATED TO VISUAL RESOURCES

Regulation	Description
County General Plan	<ul style="list-style-type: none"> ▪ Minimizes light and glare in rural as well as urban areas ▪ Encourages the use of low-glare lighting to minimize nighttime glare effects on neighboring properties ▪ Encourages aesthetically pleasing and unifying design features that promote a visually pleasing environment
County Zoning Code	<ul style="list-style-type: none"> ▪ Establishes basic regulations for the development of land within the jurisdiction of the County ▪ Promotes and protects the public health, safety, and welfare through the orderly regulation on land uses throughout unincorporated areas ▪ Sets height limitations within the vicinity of flight zones

3.13.2 ENVIRONMENTAL SETTING

3.13.2.1 Site Description

Mettler Site

The Mettler Site is currently developed with agricultural operations (cultivated row crops), including an agricultural pond in the northwest corner. A single-family residence and agricultural storage area is located on the southeast portion of the site. The land uses surrounding the site are dominated by agriculture and industrial development with the unincorporated town of Mettler and SR-99 to the east, and agriculture to the north, west, and south (Kern County, 2009).

Maricopa Highway Site

The Maricopa Highway Site is currently developed with agricultural operations (cultivated row crops). The land uses surrounding the site are dominated by agriculture and commercial development with several commercial buildings located north of the site at the I-5 and SR-166 interchange (Kern County, 2009).

3.13.2.2 Description of Viewsheds

A viewshed is comprised of one or more viewing corridors or vistas from a specific location or viewpoint. Each vista provides a line-of-sight that can be characterized uniquely from among other vistas within the viewshed. The following constituent elements compose the visual experience within each vista.

- **Clarity in Line of Sight:** The overall visibility of the object within the viewshed that can be influenced by such factors as trees, buildings, topography, or any other potential visual obstruction within the viewshed.
- **Duration of Visibility:** The amount of time the object is exposed to viewers within the viewshed. For example, a passing commuter will experience a shorter period of viewing time than a resident within the viewshed.
- **Proximity of the Viewer:** The effects of foreshortening due to the distance of the viewer from the object will influence the dominance of the object in the perspective of the viewer within the viewshed.
- **Number of Viewers:** The number of viewers anticipated to experience the visual character of the object in forward-oriented view (i.e., not through a rearview mirror). A densely populated residential district or a busy highway within the viewshed of the object would present more viewers than unpopulated areas.

Viewsheds and viewpoints are described by expressing the strength of the viewing experience, framed within the analytical criteria listed above. While the viewing experience is personal and subjective in nature, the application of the above criteria allows for an objective, baseline assessment of the visual environment and subsequent visual impacts.

Mettler Site

Photographs of the Mettler Site and its surroundings are shown in **Figure 3.13-1** in **Appendix E**. The locations of these individual viewpoints were selected based on their coverage and overall representation of typical viewsheds in the vicinity of the site. The following are brief descriptions of the depicted viewpoints.

- **Viewpoint A (Photo 1):** This southeast-facing photograph was taken from the northwestern border of the Mettler Site on **Figure 3.13-1 (Appendix E)**. It depicts a typical view of an agricultural setting in the Central Valley from the perspective of a motorist traveling along Valpredo Avenue looking south.
- **Viewpoint B (Photos 2 and 3):** These west- and north-facing photographs were taken along Wildflower Street from the southeast corner of the site. It depicts a typical view of an agricultural setting in the Central Valley from the perspective of a motorist traveling along Wildflower Street.
- **Viewpoint C (Photo 4):** This north-facing photograph was taken on SR-166, immediately south of the Mettler Site. It depicts a typical long-range view of a cleared agricultural area from the perspective of a motorist traveling along SR-166.
- **Viewpoint D (Photo 5):** This east-facing photograph was taken from SR-99. It depicts a typical view of a rural town from the perspective of a motorist traveling along SR-99.

Maricopa Highway Site

Representative photographs of the Maricopa Highway Site and its surroundings are shown in **Figure 3.13-2** in **Appendix E**. The following are brief descriptions of the depicted viewpoints.

- **Viewpoint A (Photo 1):** This northwest-facing photograph was taken from I-5 adjacent to the southeastern corner of the Maricopa Highway Site. Grapevines can be seen on the left side of the photograph from the perspective of a motorist traveling along I-5 looking north.

- **Viewpoint B (Photo 2):** This south-facing photograph was taken along I-5 from the southbound off-ramp to SR-166. It depicts the vineyard straight ahead from the perspective of a motorist exiting I-5 to the south.
- **Viewpoint C (Photo 3):** This southeast-facing photograph was taken on SR-166, immediately north of the Maricopa Highway Site. It depicts the northwestern corner of the vineyard from the perspective of a motorist traveling east along SR-166.

3.13.2.3 Scenic Resources

There is no comprehensive list of specific features that automatically classifies a resource as scenic; however, certain characteristics can be identified that contribute to the determination of a scenic resource. The following is a partial list of visual qualities and conditions that, if present, may indicate the presence of a scenic resource.

- A tree that displays outstanding features from form or age
- A landmark tree or a group of distinctive trees accented in a setting as a focus of attention
- An unusual planting that has historical value
- A unique, massive rock formation
- A historic building that is a rare example of its period, style, design, or that has special architectural features and details of importance
- A feature specifically identified in applicable planning documents as having a special scenic value
- A unique focus or a feature integrated with its surroundings or overlapping other scenic elements to form a panorama
- A vegetative or structural feature that has local, regional, or state-wide importance

As described in **Appendix K**, there are no state-designated scenic highways or roads adjacent to the Mettler or Maricopa Highway Sites (Caltrans, 2019). Therefore, scenic highways are not discussed further in this EIS. Additionally, the Mettler and Maricopa Highway Sites do not contain any scenic resources.

3.13.2.4 Light and Glare

No significant lighting or glare is currently emitted from any of the alternative sites. Sources of light within the vicinity of the Mettler Site include vehicle headlights from traffic on SR-99 and SR-166, east and south of the site, respectively. Sources of light within the vicinity of the Maricopa Highway Site include vehicle headlights from traffic on I-5 and SR-166, west and north of the site, respectively. During the day, sunlight reflecting from motor vehicles is the primary source of glare. The alternative sites do not contain unusually bright or uniquely noticeable lighting that affects area residents, and the existing light environment found in the vicinity is typical of rural areas adjacent to a developed urban area.

3.13.3 IMPACTS

Assessment Criteria

Assessing the impacts of a project on visual resources is subjective by nature. The impact to a viewshed is defined by the magnitude of the visual impact in terms of distance, viewer position, and the frequency of views. A project would have significant adverse effects if the development would degrade or diminish the aesthetics of scenic resources as defined above, introduce lighting that would substantially increase nighttime lighting in the area of existing conditions, or cause light to enter the eye directly from luminaires or indirectly from reflective surfaces (glare) causing visual discomfort or reduced visibility.

3.13.3.1 Alternative A – Development on the Mettler Site

Alternatives A1 and A2

Construction

Equipment and material staging would be visible during construction activities on the Mettler Site. During this time, heavy construction equipment, materials, and work crews would be readily visible to the neighboring town of Mettler as well as from vehicles traveling along SR-99. Aesthetic impacts from construction would be temporary in nature. As discussed in **Section 3.13.2.3**, there are no scenic resources within the site and vicinity, therefore construction would not obstruct views of scenic resources. Consequently, the construction of Alternatives A1 and A2 would not result in significant effects associated with visual resources.

Operation

The height of the proposed hotel would be approximately 134 feet above ground level. An architectural rendering of the casino resort is presented in **Figure 2-6** in **Appendix E**. Earth tones would be used in the building design, and ornamental landscaping would be incorporated into the site.

No designated aesthetic resources are present in the vicinity of the Mettler Site. Alternatives A1 and A2 would transform the current agricultural property to a commercial one in appearance. Alternatives A1 and A2 would not be visually incompatible with other urban development currently existing in the town of Mettler as well as along the SR-99 and I-5 corridors, including the Outlets at Tejon located approximately 5.5 miles to the south.

Alternatives A1 and A2 would result in a visually cohesive development that may be considered more aesthetically pleasing than other regional commercial strip development. Though the proposed development would alter the colors, lines, and texture of the agricultural appearance of the Mettler Site, the changes would not be out of character with typical roadside development adjacent to SR-99. Because of these factors and because no scenic resources would be affected, the developments for Alternatives A1 and A2 would have a less-than-significant aesthetic impact. Additionally, BMPs are included in **Section 2.0** to further reduce any minor aesthetic impacts that might occur.

Effects on Viewsheds Surrounding the Mettler Site

Sporadic commercial development occurs along both SR-99 and I-5 in the region, and Alternatives A1 and A2 would be consistent with other commercial developments along the highway corridors. **Section 3.13.2.2** describes the viewsheds surrounding the Mettler Site. Analysis of potential impacts to the viewsheds resulting from Alternatives A1 and A2 is presented below.

Viewpoints A through C

Viewpoints A through C include overviews of the Mettler Site clearly showing the open and undeveloped property. The viewshed would change from one of agriculture to one of commercial development under Alternatives A1 and A2.

Viewpoint D

Viewpoint D includes an overview of the rural community of Mettler, which is the view experienced by drivers traveling on SR-99. The viewshed would be altered with the addition of commercial development under Alternatives A1 and A2.

This change would not affect any designated scenic resources. Additionally, travelers on SR-99 would only be exposed to views of the Mettler Site for a short time due to high travel speeds. Furthermore, landscaping would create a visual buffer to SR-99. A significant adverse visual effect would not occur from this viewpoint. BMPs provided in **Section 2.0** would further reduce the potential for adverse effects.

Light and Glare

Alternatives A1 and A2 would introduce new sources of light into the existing setting. Light spillover into the surrounding areas and increases in regional ambient illumination could result in potentially significant effects if it were to cause traffic safety issues or create a nuisance to nearby residents. As described in **Section 2.0**, Alternatives A1 and A2 would have exterior lighting integrated into the overall design. Lighting would be strategically positioned to minimize any direct lines of sight or glare to the public. Exterior signage would enhance the building architecture and the natural characteristics of the site by incorporating natural materials in combination with architectural trim. Illuminated signs would be designed to blend with the light levels of the building and landscape lighting in both illumination levels and color characteristics. Parking lot lighting would consist of pole-mounted lights with cut-off lenses and downcast illumination. These BMPs are consistent with the Model Lighting Ordinance of the International Dark-Sky Association (2011) and County Zoning Ordinance Chapter 19.81 Outdoor Lighting – Dark Skies.

The use of glass panels and reflective ornamental detailing in the project design, including the proposed hotel, could increase the glare to adjacent residences and travelers on SR-99. Through the use of low-reflecting glass, downcast and directed lighting, and strategically positioned lighting fixtures, the impacts of off-site lighting would be minimized. With BMPs provided in **Section 2.0**, consistent with the International Dark-Sky Association’s Model Lighting Ordinance (2011) and County Zoning Ordinance Chapter 19.81 Outdoor Lighting – Dark Skies, Alternatives A1 and A2 would not result in significant adverse effects associated with light emissions and glare.

Alternative A3

Alternative A3 would not change the visual appearance of the property site as it would remain agricultural. Therefore, Alternative A3 would be compatible with the existing visual setting and compatible with all related policies and regulations. Accordingly, no significant adverse aesthetic impacts would occur.

Cumulative Aesthetics Impacts

Alternatives A1 and A2

All cumulative development, including potential future development of the Mettler Site, would be consistent with local land uses and regulations. Cumulative effects would include a shift from agriculture to views of developed areas as well as a minor increase in the density of urban uses within the County. Alternatives A1 or A2 would be visually compatible with the urban land uses in the project vicinity and would be generally consistent with local policies related to design and landscaping. Furthermore, with the proposed Grapevine Specific and Community Plan, it is anticipated that the vicinity will become more urban and, thus, future development would be even more visually compatible with nearby land uses. With the implementation of BMPs specified in **Section 2.0**, Alternatives A1 or A2 would not result in adverse cumulative impacts to aesthetic resources.

Alternative A3

Alternative A3 would not result in an adverse impact to aesthetics because the organic farm aligns with the current visual appearance of the area. Therefore, Alternative A3 would not result in an adverse cumulative aesthetic impact.

3.13.3.2 Alternative B – Casino Resort on the Maricopa Highway Site

Construction Impacts

Equipment and material staging would be visible during construction activities on the Maricopa Highway Site. During this time, heavy construction equipment, materials, and work crews would be readily visible from vehicles traveling along I-5. Aesthetic impacts from construction would be temporary in nature. As discussed in **Section 3.13.2.3**, there are no scenic resources within the site or vicinity. Construction would not obstruct views of scenic resources. Therefore, the construction of Alternative B would not result in significant adverse effects associated with visual resources.

Operational Impacts

No designated aesthetic resources are present in the vicinity of the Maricopa Highway Site. Alternative B would transform the current agricultural property to one more urban in appearance on a more compact scale than Alternative A1. The development of Alternative B on the Maricopa Highway Site would not be visually incompatible with urban development currently existing along the SR-99 and I-5 corridors. This includes the Outlets at Tejon that is located approximately 6 miles south and the highway-commercial development and rest stops along I-5. Because of these factors and because no scenic resources would be affected, operation of Alternative B would not result in significant adverse effects on aesthetics.

Effects on Viewsheds Surrounding the Project

Effects on viewsheds surrounding the Maricopa Highway Site under Alternative B would be similar to those discussed under Alternative A1. Similar to Alternative A1, the views of the Maricopa Highway Site would change from one of open space and agricultural areas to one of commercial development. Construction of Alternative B would result in significant alteration of existing agriculture viewsheds; however, Alternative B would be partially screened by landscaping and would blend with the existing industrial/commercial development adjacent to the Maricopa Highway Site on the north side. Therefore, with BMPs provided in **Section 2.0** to reduce the potential for adverse visual effects, Alternative B would not result in significant adverse effects associated with visual resources.

Light and Glare

The development of Alternative B would introduce new sources of light and glare as described under Alternative A1. Through the use of downcast and directed lighting and strategically positioned lighting fixtures, the impacts of off-site lighting would be minimized. With BMPs provided in **Section 2.0**, Alternative B would not result in significant adverse effects associated with light and glare.

Cumulative Aesthetics Impacts

Alternative B would have similar cumulative aesthetics impacts as Alternative A1. With the implementation of the BMPs listed in **Section 2.0**, Alternative B would not result in adverse cumulative impacts.

3.13.3.3 Alternative C – No Action Alternative

No changes or impacts would occur to visual resources under the No Action Alternative. The Mettler and Maricopa Sites would remain in their current state and no new development would occur. Therefore, the No Action Alternative would have no effect on aesthetics or visual resources.

3.14 INDIRECT AND GROWTH-INDUCING EFFECTS

The CEQ Regulations for Implementing NEPA require that an EIS analyze both the indirect and the “growth-inducing” effects of a proposed project (40 CFR Section 1502.16 [b], 40 CFR Section 1508.8 [b]).

...indirect effects...are caused by the action and are later in time or farther removed in the distance, but are still reasonably foreseeable. Indirect effects may include ‘growth inducing effects’ and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on...natural systems.

Direct impacts, caused by the action and occurring at the same time and place as the action, and cumulative impacts measured in conjunction with other reasonably foreseeable projects, whether past, present, or future, have been discussed in **Sections 3.2** through **3.13**. The potential indirect effects of off-site improvements are discussed in **Section 3.14.1**. Growth-inducing effects are discussed in **Section 3.14.2** as they are a distinct subset of indirect effects. Mitigation measures presented in **Section 4.0** would ensure the minimization of potential indirect effects associated with the

proposed alternatives. In addition, off-site improvements may require approvals and permits from jurisdictional agencies, including potential California Environmental Quality Act (CEQA) compliance.

3.14.1 INDIRECT EFFECTS FROM OFF-SITE MITIGATION IMPROVEMENTS

3.14.1.1 Alternative A – Development on the Mettler Site

Improvements

A description of off-site traffic mitigation recommended for Alternatives A1 and A2 is provided as Mitigation Measures 7-A through 7-H in **Section 4.0**. Also, minor off-site improvements may be required for electrical power, natural gas, and other utilities. The off-site improvements that would require construction to widen/improve intersection approaches, add lanes, and install traffic signals would require excavation and the introduction of fill material. **Figure 4-1** in **Appendix E** shows where road improvements would be needed in relation to the sites. Construction of these improvements could generate indirect impacts in several areas; potential impacts in each issue area are discussed further throughout **Section 3.14**. Alternative A3 would convert an existing conventional agricultural area to organic farming, therefore no off-site improvements would be required and no indirect effects would result.

Environmental Consequences

The following section identifies the potential indirect environmental effects of construction of off-site traffic mitigation improvements under Alternatives A1 and A2. Off-Site projects would require obtaining approvals and permits from Caltrans and/or the County and may be subject to the CEQA. Implementation of permitting and CEQA requirements would further reduce the potential for significant adverse impacts from off-site construction projects.

Geology and Soils

The construction of off-site improvements may require grading and the introduction of fill material. The increase in impervious surfaces and additional cut-and-fill could result in erosion of soils. Stable fill material, engineered embankments, and erosion control features would be used to reduce the potential for slope instability, subsidence, and erosion in accordance with the jurisdictional agency (Caltrans, County) requirements for roadway construction. In addition, in accordance with the federal CWA, construction of roadway improvements over 1 acre in area would be required to comply with the NPDES permit program. To comply with the NPDES program, a SWPPP would be developed 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. Mitigation Measure 1-A in **Section 4.0** shows examples of BMPs that may be included in the SWPPP.

With standard construction practices and specifications required by the jurisdictional agency and the NPDES Construction General Permit Program (included as Mitigation Measures 1-A and 1-B in **Section 4.0**), there would be no adverse effects to geology and soils as a result of off-site traffic mitigation specified for Alternatives A1 and A2.

Water Resources

The development of off-site improvements could affect water resources due to grading, construction activities, and the of increase impervious surfaces. Potential effects include an increase in surface runoff and erosion. This could cause changes in drainage patterns 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 1 acre of land would be required to comply with the NPDES Construction General Permit Program. This would include 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.

Curb and gutters, inlets, and other drainage features would be constructed to meet the standards of the jurisdictional agency and provide adequate facilities to direct stormwater runoff. With incorporation of these drainage features and compliance with the relevant SWPPP BMPs, 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 improvements under Alternatives A1 and A2.

Air Quality

Development of off-site improvements would result in short-term, construction-related air pollutant emissions. The construction phase would produce two types of air contaminants: exhaust emissions from construction equipment and fugitive dust generated as a result of demolition and soil movement. Due to the small size of off-site improvements compared to the project alternatives, construction-related emissions would be less than those associated with the construction of the casino resort and supporting facilities. With incorporation of BMPs to reduce fugitive dust and construction equipment emissions (**Section 2.2.2**), including watering of the site to reduce wind erosion, air quality impacts would be less than significant.

Operational effects would occur if the roadway improvements resulted in localized increases in CO concentrations or if the roadway improvements contributed to traffic congestion at large intersections. However, the roadway improvements would reduce congestion and improve traffic flow. With the improved circulation resulting from traffic mitigation, the LOS would be improved, thereby reducing idling time and associated vehicle emissions. Operational effects of the traffic improvements would, therefore, be less than significant.

Greenhouse Gases

Construction of off-site improvements would be much less extensive than that of the project alternatives; correspondingly, GHG emissions would be lesser, and the added emissions from the construction of traffic mitigation would not result in emissions above 25,000 MT of CO₂e per year. Impacts from Alternative A2 would be less than those from Alternative A1. Therefore, there would be a less-than-significant effect.

Due to the operational effects mentioned above, traffic improvements would, as a result of decreased congestion and idling, result in lesser emissions of GHGs. Therefore, no significant adverse impact would occur.

Biological Resources

Construction of off-site improvements would result in the removal of existing pavements, ruderal vegetation on roadway shoulders, and/or modification of drainage ditches. Habitats within the areas of impact provide very limited habitat to wildlife and are not considered critical or sensitive as it is an agriculturally dominated area, where habitat quality is generally low. The roadsides along S. Sabodan Street and Valpredo Avenue are largely ruderal developed and the identified aquatic habitats, drainage ditches, and agricultural ponds are unlikely to support wildlife or plants. Construction of these improvements would not result in adverse effects to sensitive plant or animal species.

Prior to construction, surveys for special-status species, nesting migratory birds, and sensitive habitats would be conducted in accordance with encroachment permit requirements. Adherence to regulatory requirements that protect special-status species, nesting migratory birds, wetlands and Waters of the U.S. as well as implementation of Mitigation Measures 4-A through 4-P in **Section 4.0** would ensure that potential impacts to biological resources from construction of off-site traffic mitigation improvements would be less than significant.

Cultural and Paleontological Resources

No cultural resources and few paleontological resources have been identified in the immediate vicinity of the Mettler Site. There is a possibility that previously unknown cultural resources and paleontological resources could be encountered during ground-disturbing activities within off-site improvement locations. These impacts would be potentially significant.

Mitigation measures are presented in **Section 4.0** for the treatment of archaeological discoveries made during construction; implementation of avoidance and Mitigation Measures 5-A through 4-D listed in **Section 4.0** would ensure that there would be no adverse effects to cultural or paleontological resources as a result of off-site improvements.

Socioeconomic Conditions

Off-Site improvements may result in short-term disturbances to traffic flow and minor delays due to constricted traffic movement. Nearby businesses and residences would remain accessible throughout construction. The area of roadway impacts would be of a limited size and would not create negative socioeconomic effects. The intersection improvements would not result in long-term disruption of access to surrounding land uses or to minority or low-income populations. The fair share costs of these roadway improvements would be borne by the Tribe. Therefore, there would be no significant indirect effects to socioeconomic conditions as a result of off-site improvements.

Transportation/Circulation

Construction of off-site improvements would require construction to widen/improve intersection approaches, add lanes, and install traffic signals. The BMPs identified in **Section 2.0** would ensure that no significant indirect effects to transportation/circulation would occur.

Land Use

Construction of off-site improvements would not result in adverse land use effects. The intersection and roadway improvements would be within existing right-of-ways. The traffic improvements would not result in changes in land use inconsistent with the County General Plan. There would be no significant indirect effects to land use.

Public Services

Off-Site improvements may require relocation of utilities near existing roadways. These utilities include overhead electricity lines and telecommunication lines. Relocation of these lines could result in a temporary disruption in service to homes and businesses in the area. However, these effects are common when upgrading and maintaining utility services and potential service interruptions would be temporary. Furthermore, each improvement would be completed to the standards of the agencies with jurisdiction. No effects to police, fire, or emergency medical services would occur; therefore, there would be no indirect effects to public services.

As discussed in **Section 3.10**, the casino resort and supporting facilities would require a source of electricity and gas. While electricity is currently available onsite, gas is not; establishing a connection to a gas source could result in indirect effects, such as temporary interruptions to services to the homes and businesses in the area. Furthermore, excavation to construct a natural gas connection to the Mettler Site could affect roadways and adjacent properties. This could occur simultaneously with the roadway improvements, therefore lessening potential impacts. Construction would be temporary in nature and Mitigation Measure 9-A in **Section 4.0** would ensure no expenditure impacts would occur as a result of off-site gas connection construction. Therefore, no significant indirect effects to public services would occur.

Noise

Construction of roadway improvements at Stevens Drive/Maricopa Highway, S. Sabodan Street, and the I-5 segment from SR-99 to S. Wheeler Ridge Road would result in short-term increases in noise. Construction activities would not occur from 9:00 p.m. to 6:00 a.m. on weekdays and from 9:00 p.m. to 8:00 a.m. on weekends if the noise is audible from 150 feet and is located within 1,000 feet of an occupied residence as specified in the Noise Element of the County General Plan. Furthermore, the primary land uses are agriculture and commercial, which are not considered sensitive noise receptors. Therefore, significant noise effects would not occur as a result of the implementation of off-site improvements.

Hazardous Materials

Off-Site improvements could pose indirect hazardous effects to construction employees, the surrounding residents, and the environment from both hazardous materials and *C. immitis* spores that become airborne when the soil is disturbed. However, the off-site improvements would be typical for road and utility construction and not involve unusual hazardous materials. Implementing BMPs similar to those included in **Section 2.0** would reduce impacts to less-than-significant levels. Indirect effects from airborne *C. immitis* spores would be reduced with implementation of Mitigation Measures 11-A and 11-B in **Section 4.0** and the BMPs for fugitive dust in **Section 2.0** for Air Quality. Consequently, the possible indirect effects from *C. immitis* and hazardous materials during construction of off-site improvements would be less than significant.

Aesthetics

With the modification and expansion of existing roadways, no significant visual effects would occur. Road improvements would be made in areas that are already developed with roadway networks. Modified intersections, interchanges, and roadways would conform to modern design standards. Improvements would not result in significant removal or alteration of vegetation, topographic features, or key visual characteristics. Additionally, off-site improvements would not change surrounding land uses and would occur in areas with existing roadway networks. Therefore, no significant indirect effects to aesthetics or community character would occur.

3.14.1.2 Alternative B – Casino Resort on the Maricopa Highway Site

Improvements

A description of off-site traffic mitigation recommended for Alternative B is provided as Mitigation Measures 7-A through 7-H in **Section 4.0**. Minor off-site improvements may be required for electrical power, natural gas, and other utilities. The off-site improvements that would require construction to widen/improve intersection approaches, add lanes, and install traffic signals would also require excavation and the introduction of fill material. **Figure 4-1** in **Appendix E** shows where the road improvement would be needed in relation to the Maricopa Highway Site. Construction of these improvements could generate indirect impacts in several areas that are discussed below under each issue area.

Environmental Consequences

The following section identifies the potential indirect environmental effects of construction of off-site traffic mitigation improvements under Alternative B. Off-site projects would require obtaining approvals and permits from Caltrans and/or the County and may be subject to CEQA. Implementation of permitting and CEQA requirements would further reduce the potential for significant adverse impacts from off-site construction projects.

Geology and Soils

The impacts to geology and soils would be similar to those described under Alternative A. With standard construction practices and specifications required by the jurisdictional agency as well as adherence to the NPDES Construction General Permit Program as detailed in Mitigation Measures 1-A and 1-B in **Section 4.0**, impacts would be less than significant.

Water Resources

Impacts to water resources would be similar to those described under Alternative A. With incorporation of drainage features meeting jurisdictional requirements and relevant SWPPP BMPs, impacts would be less than significant.

Air Quality

Development of off-site improvements would result in similar short-term, construction-related air pollutant emissions as those described under Alternative A, and the air quality effects would be similarly insignificant. As described under Alternative A, with improved circulation resulting from traffic mitigation, the LOS would be improved and idling time

and associated vehicle emissions would be reduced. The long-term effects of off-site improvements would therefore be less than significant with incorporation of the BMPs included in **Section 2.2.2**.

Biological Resources

Potential indirect impacts to biological resources would be similar to those described under Alternative A.

Cultural and Paleontological Resources

No cultural resources and few paleontological resources have been identified in the immediate vicinity of the Maricopa Highway Site. There is a possibility that previously unknown cultural resources and paleontological resources could be encountered during ground-disturbing activities within off-site improvement locations. These impacts would be potentially significant. Mitigation measures are presented in **Section 4.0** for the treatment of archaeological discoveries made during construction; implementation of avoidance and Mitigation Measures 5-A through 5-D listed in **Section 4.0** would ensure that there would be no adverse effects to cultural or paleontological resources as a result of off-site improvements.

Socioeconomic Conditions

Socioeconomic conditions would be similar to those described under Alternative A1. Impacts would be less than significant.

Transportation/Circulation

Construction of off-site improvements would require construction to widen/improve intersection approaches, add lanes, install traffic signals, and construct utility extensions. The BMPs identified in **Section 2.0** would ensure that no significant indirect effects to transportation/circulation would occur.

Land Use

Effects to land use would be similar to those under Alternative A1. Therefore, there would be no significant indirect effects to land use as a result of off-site improvements under Alternative B.

Public Services

Effects to police, fire, and emergency medical services are similar to those described under Alternative A1. Impacts would be less than significant.

As discussed in **Section 3.10**, the casino resort and supporting facilities would require a source of electricity and gas. Establishing connections to electricity and gas infrastructure could result in indirect effects, such as temporary interruptions to services to the homes and businesses in the area. Furthermore, excavation to construct a natural gas connection to the Maricopa Highway Site could affect roadways and adjacent properties. This could occur simultaneously with the roadway improvements, therefore lessening potential impacts. Construction would be temporary in nature and Mitigation Measure 9-A in **Section 4.0** would ensure that no expenditure impacts would occur as a result of off-site gas and electricity connection processes. Therefore, no significant indirect effects to public services would occur.

Noise

Construction of roadway improvements at the following roads would result in short-term increases to local ambient noise levels: Stevens Drive/Maricopa Highway; I-5 segment from SR-99 to S. Wheeler Ridge Road; Maricopa Highway/I-5 SB Ramps Intersection; Maricopa Highway/I-5 NB Ramps Intersection; and Maricopa Highway segment: Wheeler Ridge Access Road to I-5 SB Ramps. Because construction activities would occur during normal daytime hours and the closest receptors are agriculture and/or businesses, significant adverse effects to the ambient noise environment would not occur. Implementation of roadway and utility improvements for Alternative B would not result in significant adverse indirect effects associated with noise.

Hazardous Materials

Hazardous materials and *C. immitis* effects are similar to those described under Alternative A1. With the implementation of Mitigation Measures 11-A and 11-B in **Section 4.0** and the BMPs under Air Quality for fugitive dust in **Section 2.0**, impacts would be less than significant.

Aesthetics

Aesthetic impacts as a result of Alternative B would be similar to those under Alternative A1. Impacts would be less than significant.

3.14.1.3 Alternative C – No Action Alternative

Under the no action alternative, no off-site traffic improvements would take place. No indirect effect would occur under this alternative.

3.14.2 GROWTH-INDUCING EFFECTS

NEPA requires that an EIS analyze “growth-inducing effects” (40 CFR §1502.16 [b], 40 CFR §1508.8 [b]). A growth-inducing effect is defined as one that fosters economic or population growth, or the construction of additional housing. Growth inducement could result if a project establishes substantial new permanent employment opportunities (e.g., new commercial, industrial, or governmental enterprises) or if it removes obstacles to population growth (e.g., expansion of a WWTP that could allow more construction in the service area). Direct growth inducement is possible if a project contains a component that by definition would lead to “growth,” such as new residential development. None of the project alternatives includes direct growth inducement. This section assesses the potential for indirect growth inducement for each development alternative and its potential for future development.

For growth-inducing impacts, only Alternatives A1, A2, and B have the potential to create these effects and are discussed in more detail below. Alternative A3 would not produce growth-inducing effects as it converts existing conventional farming on the Mettler Site to organic farming. This conversion would not require additional infrastructure or buildings and would not require additional employees or services. Because of these factors, there is an extremely low probability of an increase in employment, housing, and commercial growth in the surrounding areas. Alternative C is similar to Alternative A3 in that it would also not create growth-inducing effects because neither the Mettler nor the Maricopa Highway Sites would be developed under Alternative C. Consequently, with no development, no growth-inducing effects would occur.

3.14.2.1 Alternatives A1 and A2 – Development on the Mettler Site

Employment and Commercial Growth

Development of Alternatives A1 and A2 would result in employment growth in two different ways, but Alternative A1 would have a larger impact than Alternative A2 due to the larger size of the facilities. First, one-time employment opportunities from construction-related activities would trigger an estimated induced effect of 460 FTE employees for Alternative A1. Alternative A2 would have a similar effect except with a 20 percent reduction (Table 22 of **Appendix I**). However, construction opportunities would be temporary in nature and not result in permanent employees nor the relocation of employees to the County. Second, new employment opportunities would be induced from the facilities’ operation. These jobs would result from direct as well as indirect and induced effects.

Alternative A1 would result in an annual total of approximately 3,594 employment opportunities, including direct, indirect, and induced opportunities. Alternative A2 would have an estimated 3,187 employment opportunities from direct, indirect, and induced opportunities. Of these new jobs for both alternatives, a majority of the positions would be filled with people already residing within the region and would, therefore, not require new housing. As discussed in **Section 3.7.4.1** and **Section 3.7.4.2**, there were approximately 28,700 vacant housing units in the local housing market of

the County in 2017. This is more than adequate to fulfill the housing requirements for employees under Alternatives A1 and A2. Since Alternatives A1 and A2 are not expected to significantly stimulate regional housing development, a significant adverse growth-inducing impact to the housing market would not occur.

The potential for commercial growth resulting from the development of Alternatives A1 and A2 would result from fiscal output generated throughout County. Under Alternatives A1 and A2, this output would be generated from direct, indirect, and induced economic activity. Construction and operation activities would result in direct output to the industries discussed in **Section 3.7.4.1** and **Section 3.7.4.2**. Businesses in these sectors would generate growth in the form of indirect output resulting from expenditures on goods and services at other area businesses. In addition, individuals employed as a result of Alternatives A1 and A2 would generate growth from induced output resulting from expenditures on goods and services at other area businesses. Indirect and induced output could stimulate further commercial growth; however, such demand would be diffused and distributed among a variety of different sectors and businesses in the County. As such, significant regional commercial growth inducing impacts would not be anticipated to occur under Alternatives A1 and A2.

Projects that generate increased traffic could trigger the development of gas stations in the area. There are two existing gas stations near the SR-99 and SR-166 interchange, less than a mile from the Mettler Site. Additionally, there are six gas stations within a 5-mile radius of the Mettler Site, and all are convenient to the anticipated site access routes (**Section 3.8**). Due to the close proximity of existing gas stations, it is not anticipated that the project would result in the development of additional gas stations, and therefore, a significant adverse growth-inducing impact would not occur under Alternatives A1 and A2.

As discussed above, the minimal amount of commercial growth that may be induced by Alternatives A1 and A2 would not result in significant growth-inducing effects. Furthermore, development within the County and its cities would be subject to the constraints of their respective general plans, local ordinances, and other planning policies and documents.

Potential Future Developments

Potential future development at the Mettler Site, as described in **Section 3.1**, could result in indirect growth-inducing effects. Due to a lack of resources and governmental funding, the Tribe's only concrete plans at the time are the development of the casino resort and associated facilities. The Tribe envisions that the Mettler Site will include a mix of potential land uses once the gaming facility has been operating for a number of years and generating net revenue sufficient for the provision of such governmental services. The Tribe's goals have been used for the purposes of this analysis. The potential future developments could include: housing, a community center, a health clinic, tribal offices for the delivery of services, community recreation, and an organic farm. For the purposes of this analysis, the potential future developments are assumed to be similar under Alternatives A1 and A2, with the exception of the community park being larger in Alternative A2 than Alternative A1. Since the potential future developments are similar, their potential growth-inducing effects were analyzed together without distinction except if appropriate.

Geology

Given that the Mettler Site is relatively flat, no significant adverse effects to topography would occur from the potential future developments. In addition, potential future developments would be built to standards appropriate for seismic activity of the region. This would result in less-than-significant effects relating to seismic hazards and mineral resources. The potential future developments would disturb more than 1 acre of soil, and therefore be subject to the NPDES Construction General Permit. Implementation of Alternatives A1 and A2, including on-site potential future development, would not result in significant growth-inducing effects related to geology or soils.

Water Resources

Potential future development under Alternatives A1 and A2 could result in additional impacts to water resources. As described in **Section 3.3** and **Appendix H**, the Mettler Site is within the 100-year floodplain. Accordingly, any future

development on the Mettler Site would be raised above the 100-year flood elevation to avoid potential flood impacts. Construction activities associated with potential future development would have the potential to affect downstream water quality from erosion and pollutant discharge. Construction activities associated with potential future development would implement erosion control measures in compliance with NPDES and develop a SWPPP with BMPs to reduce potential surface water contamination. As described in **Appendix H**, the stormwater detention basins proposed for Alternatives A1 and A2 would be sized to retain the to retain the overall required volume for full development of the site. The estimated average daily water demand for potential future development following Alternative A1 would be approximately 191,907 gpd, and for Alternative A2 approximately 221,692 gpd. While the addition of potential future development would increase water demand on the Mettler Site, proposed water demand would be reduced in comparison to existing agricultural water demand. Accounting for the potential future development, water demand at the Mettler Site would decrease by approximately 43 percent following Alternative A1 and 45 percent following Alternative A2 (**Appendix G**). As described in **Section 2.2.2.8**, the Tribe and the AEWS D executed an agreement (Water Agreement; **Appendix W**). Pursuant to the Water Agreement, surface water available to the Mettler Site for agriculture use under CAWS (up to the amount of 734 AFY) would be assigned to other landowners within the AEWS D that are eligible to receive surface water service from the AEWS D. The Water Agreement includes specific stipulations for the potential future development of the Mettler Site. Similar to the discussion for Alternatives A1 and A2 under **Section 3.3.3.1**, implementation of the Water Agreement would ensure that impacts to the groundwater basin from the on-site potential future development are neutral to positive.

Air Quality

Potential future development of tribal facilities on the Mettler Site may be completed over the course of 10 to 20 years following the initial development of the proposed casino resort facilities. As stated in **Section 3.1**, this future construction is somewhat speculative. However, to provide a conservative analysis of maximum year emissions, the air quality modeling assumed that the future development would be constructed over a two-year period, 2030 to 2032, and be fully operational by 2032.

Construction Emissions

Construction of potential future development would emit air pollutants primarily in the form of DPM from construction equipment and grading activities. Emissions from construction equipment have the potential to increase the concentration of DPM in the close vicinity of the construction site. Construction emission totals for potential future development following Alternatives A1 and A2 are shown in **Table 3.14-1**.

TABLE 3.14-1
ALTERNATIVES A1 AND A2 GROWTH-INDUCED CONSTRUCTION EMISSIONS

Construction Year	Alternative A1: Criteria Pollutant ROG (tons per year)	Alternative A1: Criteria Pollutant NOx (tons per year)	Alternative A1: Criteria Pollutant PM _{2.5} (tons per year)	Alternative A2: Criteria Pollutant ROG (tons per year)	Alternative A2: Criteria Pollutant NOx (tons per year)	Alternative A2: Criteria Pollutant PM _{2.5} (tons per year)
2030	1.75	5.17	0.66	1.89	6.30	0.83
2031	2.87	6.06	0.70	3.05	7.46	0.93
Maximum Year Emissions	2.87	6.06	0.70	3.05	7.46	0.93
<i>de minimis</i> Levels	10	10	100	10	10	100
Exceeds Level?	No	No	No	No	No	No

As shown in **Table 3.14-1**, construction emissions from potential future development following Alternatives A1 and A2 would not exceed applicable *de minimis* levels for individual criteria pollutants; therefore, no mitigation would be required.

Operational Vehicle and Area Emissions

Buildout of the potential future development would result in the generation of mobile emissions from patron, employee, and delivery vehicles. Furthermore, area and energy criteria pollutant emissions from combustion of natural gas in boilers, stoves, heating units, and other equipment on the Mettler Site would also occur. Operational emissions from potential future development are shown in **Table 3.14-2**. Emissions estimates assumed the implementation of the BMPs described in **Section 2.0**. Detailed emissions estimates are included as **Appendix M**.

Operational emissions from potential future development resulting from Alternatives A1 and A2 would exceed *de minimis* levels for ozone precursor NO_x and ROG. This would be a significant adverse impact. Operational emissions from potential future development are considered as indirect emissions from Alternatives A1 and A2 in the Final General Conformity Determination provided in **Appendix Z**. Mitigation Measure 3-B in **Section 4.0** requires the purchase of credits to fully offset NO_x and ROG emissions. After mitigation, impacts would be reduced to less-than-significant levels.

TABLE 3.14-2
ALTERNATIVES A1 AND A2 GROWTH-INDUCED OPERATIONAL EMISSIONS

Operational Emissions	Alternative A1: Criteria Pollutant ROG (tons per year)	Alternative A1: Criteria Pollutant NO _x (tons per year)	Alternative A1: Criteria Pollutant PM _{2.5} (tons per year)	Alternative A2: Criteria Pollutant ROG (tons per year)	Alternative A2: Criteria Pollutant NO _x (tons per year)	Alternative A2: Criteria Pollutant PM _{2.5} (tons per year)
Stationary	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.24	2.16	0.17	0.24	2.16	0.17
Area	9.12	0.007	0.004	9.13	0.008	0.004
Mobile	0.67	9.25	1.04	0.72	9.99	1.10
Total Emissions	10.03	11.42	1.21	10.09	12.16	1.27
<i>de minimis</i> Levels	10	10	100	10	10	100
Exceeds Level?	Yes	Yes	<i>No</i>	Yes	Yes	<i>No</i>

Source: CalEEMod, 2016.

Biology Resources

The Mettler Site does not contain known sensitive biological resources. Mitigation Measures 4-A through 4-P in **Section 4.0** include measures that would avoid or minimize impacts to biological resources during future buildout. Therefore, potential affects to biological resources associated with the potential future development would be less than significant with mitigation.

Cultural and Paleontological Resources

As described in the Cultural Resources Study included as **Appendix Q** and summarized in **Section 3.6**, there are historic-era structures on the Mettler Site. However, none are eligible for listing on the NRHP. There is a possibility that previously unknown cultural and/or paleontological resources could be encountered during ground-disturbing activities on the Mettler Site. These impacts would be potentially significant. Mitigation measures are presented in **Section 4.0** for discoveries made during construction; implementation of avoidance and Mitigation Measures 5-A through 5-D in **Section 4.0** would ensure that there would be no adverse effects as a result of development on the Mettler Site.

Socioeconomics Conditions

Future residential development on the Mettler Site would increase available housing, but could also increase the number of school age children in the area thus impacting local schools. Affected school districts had approximately 190,000 students for the 2017–2018 school year and therefore have the capacity to absorb the new students (Table 31 of **Appendix I**). Further, the Tribe may decide to operate its own school on tribal land as many tribes in the United States

provide primary and secondary education to their citizens. The future health center would require specialized employees, but similar to the casino resort, the employees are anticipated to commute rather than relocate to the area. Furthermore, due to the modest size of the health center, no strain on the local job market would be anticipated. The tribal administration building would be for tribal members who mostly reside on the Mettler Site or already reside in areas such as Bakersfield, Arvin, or other areas in reasonable proximity to the Mettler Site. Thus no strain on the job market or housing market would occur. The potential development of a community center and park would alleviate the use of local community parks and centers. Therefore, potential future development under Alternatives A1 and A2 would not have adverse effects to socioeconomic conditions.

Transportation/Circulation

Traffic generated by the potential future development is associated with near- and long-term transportation/circulation impacts and mitigation measures. Therefore, it was considered in the TIA (**Appendix F**) and discussed thoroughly in **Section 3.8**. With implementation of the transportation/circulation Mitigation Measures 7-A through 7-E in **Section 4.0**, potential future development under Alternatives A1 and A2 would not result in significant effects to transportation/circulation.

Land Use

Potential future development under Alternatives A1 and A2 would be inconsistent with the current zoning and land use designations of the Mettler Site, but generally compatible with the SR-99 corridor commercial and residential development as well as the Grapevine Specific and Community Plan. Alternatives A1 and A2 would not disrupt neighboring land uses, prohibit access to neighboring parcels, or otherwise conflict with neighboring land uses. Therefore, potential future development under Alternatives A1 and A2 would not result in adverse growth-inducing effects related to land use planning.

Public Services

Potential future developments under Alternatives A1 and A2 would increase the demand for public services such as water supply, wastewater, electricity and natural gas, law enforcement, fire protection, emergency medical service, schools, and solid waste service. For the potential future development, water would be supplied from on-site wells and therefore would not impact municipal water supply systems. An on-site WWTP would be used to serve Alternatives A1 and A2 as well as potential future developments. Accordingly, municipal wastewater systems would not be affected. To fulfill energy and natural gas needs, the Tribe would be responsible for paying development or user fees to receive additional electrical and natural gas services for any new development. The law enforcement and fire station that would be developed and equipped as part of Alternatives A1 and A2 would also be sufficient to serve any additional development. Solid waste generation from the potential future development would be a small addition to the Bena Landfill as it can currently accept 4,500 tons per a day of solid waste; this includes the increased biosolids generated from the WWTP that would result from the development. Therefore, no significant adverse effects on public services would occur from the potential future development of the Mettler Site.

Noise

Potential future developments on the Mettler Site would involve the addition of minimal amounts of ambient noise. Because the combined ambient noise level of all potential future developments under Alternatives A1 and A2 would be lower than the ambient noise level directly associated with the project itself, no significant adverse effects from noise would occur. Therefore, no significant adverse effects on noise are anticipated from potential future development.

Hazardous Materials

The potential future development under Alternatives A1 and A2 would not require unusual hazardous material handling, storage, and disposal during construction and operation. Furthermore, implementing BMPs during construction and

mitigation measures for both construction and operations would reduce any hazardous material risks. Consequently, the potential future development would not cause any significant hazardous material growth-inducing effects.

Valley Fever would be a risk if ground-disrupting activities cause *C. immitis* spores to become airborne and people onsite or offsite were to breathe in the spores during the construction and operation of the potential future development. However, implementing BMPs to reduce fugitive dust during construction and mitigation measures (similar to Mitigation Measures 11-A and 11-B in **Section 4.0**) for construction and operation would reduce the risk of *C. immitis* to less-than-significant levels. Therefore, no significant growth-inducing effects would occur from Alternatives A1 and A2 as a result of *C. immitis*.

Aesthetics

Potential future development under Alternatives A1 and A2 would include a transition from open agriculture fields to views of developed areas; however, 43 acres would remain agricultural. The additional developments would have a minor increase in the density of urban uses within the County consistent with County and City land use regulations. Furthermore, the potential future developments would be visually compatible with urban land uses in the project vicinity and generally consistent with local policies related to design, landscaping, and signage. Any adverse effects associated with the potential future development would be reduced with the implementation of BMPs provided in **Section 2.0**. Therefore, no adverse growth-inducing impacts to aesthetic resources would occur.

3.14.2.2 Alternative B – Casino Resort on the Maricopa Highway Site

Employment and Commercial Growth

Projects that generate increased traffic could trigger the development of gas stations in the area. There is an existing gas station near the I-5 and SR-166 interchange, less than 1 mile from the Maricopa Highway Site. Additionally, there are seven gas stations within a 5-mile radius of the Maricopa Highway Site, and all are convenient to the anticipated site access routes (**Section 3.8**). Due to the close proximity of existing gas stations, it is not anticipated that the project would result in the development of additional gas stations, and therefore, a significant adverse growth-inducing impact would not occur under Alternative B.

Alternative B would generate new employment opportunities that could result in additional housing and commercial demand that are similar to Alternative A1. Because Alternative A1 was not found to have growth-inducing effects due to its employment growth nor its commercial demand (**Section 3.12.3.1**), Alternative B would also not have significant growth-inducing effects for the same reasons as described in the Alternative A1 analysis.

Potential Future Developments

Potential future development at the Maricopa Highway Site, as described in **Section 3.1**, could result in indirect growth-inducing effects. As no additional development is specifically proposed at this time by the Tribe beyond the casino resort and associated facilities, a mix of potential land uses has been assumed for the purposes of this analysis. As shown in **Table 3.1-2**, the potential future developments could consist of residential, community, and agricultural facilities.

Geology

Given that the Maricopa Highway Site is relatively flat, no significant adverse effects to topography would occur due to the potential future developments. The potential future developments would be built to standards appropriate for the seismic activity of the region. This would result in less-than-significant effects relating to seismic hazards and mineral resources. Therefore, potential future development under Alternative B would not result in significant growth-inducing effects related to geology or soils.

Water Resources

Potential future development under Alternative B could result in additional impacts to water resources. Construction activities associated with potential future development would have the potential to affect downstream water quality from erosion and pollutant discharge, therefore erosion control measures would be implemented in compliance with NPDES and a SWPPP with BMPs would be developed to reduce potential surface water contamination. As described in **Appendix H**, the stormwater detention basin proposed for Alternative B would be sized to retain the overall required volume for full development of the site. The estimated average daily water demand for potential future development following Alternative B would be approximately 76,000 gpd. While the potential future development would increase water demand on the Maricopa Highway Site, proposed water demand would be reduced in comparison to existing agricultural water demand. Accounting for the potential future development, water demand at the Maricopa Highway Site would decrease by approximately 8 percent following Alternative B (**Appendix G**). Although the overall water use on the site would be reduced as a result of the potential future development, there would be a net increase in groundwater extraction as the site is currently irrigated with surface water. As described above, the Kern County Subbasin is considered a critically overdrafted basin and any increase in groundwater extraction is a significant impact. Mitigation Measure 2-H in **Section 4.0** would require the Tribe to implement measures to fully offset groundwater extraction associated with the potential future development. Implementation of this mitigation would reduce the impact to the groundwater basin to less-than-significant levels.

Air Quality

Potential future development on the Maricopa Highway Site may be completed over the course of 10 to 20 years following the initial development of the proposed casino resort facilities. As stated in this section, future construction is speculative. However, to provide a conservative analysis of maximum year emissions, the air quality modeling assumed that the future development would be constructed over a two-year period, 2030-2032, and be fully operational by 2032.

Construction Emissions

Construction of potential future development would emit air pollutants primarily in the form of DPM from construction equipment and grading activities. Emissions from construction equipment have the potential to increase the concentration of DPM in the close vicinity of the construction site. Construction emission totals for potential future development of Alternative B presented in **Table 3.14-3** show that *de minimis* levels for ROG, NO_x, and PM_{2.5} would not be exceeded; therefore, no mitigation would be required.

TABLE 3.14-3
ALTERNATIVE B GROWTH-INDUCED CONSTRUCTION EMISSIONS

Construction Year	Alternative B Criteria Pollutant ROG (tons per year)	Alternative B Criteria Pollutant NO _x (tons per year)	Alternative B Criteria Pollutant PM _{2.5} (tons per year)
2030	3.66	3.03	0.50
2031	6.87	3.41	0.31
Maximum Year Emissions	6.87	3.41	0.50
<i>de minimis</i> Levels	10	10	100
Exceeds Level?	No	No	No

Operational Vehicle and Area Emissions

Potential future development would result in the generation of mobile emissions from patron, employee, and delivery vehicles. Furthermore, area and energy criteria pollutant emissions from the combustion of natural gas in boilers, stoves, heating units, and other equipment on the Maricopa Highway Site would occur. Operational emissions from the potential future development are shown in **Table 3.14-4**. Detailed emissions estimates are included as **Appendix M**.

Operational emissions for the potential future development under Alternative B would not exceed *de minimis* levels for ROG, NO_x, and PM_{2.5}; therefore, no mitigation would be required.

TABLE 3.14-4
ALTERNATIVE B GROWTH-INDUCED OPERATIONAL EMISSIONS

Operational Emissions	Alternative B Criteria Pollutant ROG (tons per year)	Alternative B Criteria Pollutant NO _x (tons per year)	Alternative B Criteria Pollutant PM _{2.5} (tons per year)
Stationary	0.00	0.00	0.00
Energy	0.15	1.39	0.11
Area	7.26	0.02	0.14
Mobile	0.14	1.84	0.23
Total Emissions	7.55	3.25	0.48
<i>de minimis</i> Levels	10	10	100
Exceeds Level?	<i>No</i>	<i>No</i>	<i>No</i>
Source: CalEEMod, 2016.			

Biology Resources

Potential impacts to biological resources would be similar to those described for Alternative A1.

Cultural and Paleontological Resources

As described in the Cultural Resources Study included as **Appendix Q** and summarized in **Section 3.6**, there is a possibility that previously unknown cultural and/or paleontological resources could be encountered during ground-disturbing activities on the Maricopa Highway Site. These impacts would be potentially significant. Mitigation measures are presented in **Section 4.0** for discoveries made during construction; implementation of avoidance and Mitigation Measures 5-A through 5-D in **Section 4.0** would ensure that there would be no adverse effects as a result of development on the Maricopa Highway Site.

Socioeconomics Conditions

Future residential development on the Maricopa Highway Site would increase available housing, but could increase the number of school age children in the area, thereby affecting local schools. Affected school districts had approximately 190,000 students enrolled for the 2017–2018 school year and therefore have adequate capacity to absorb new students (Table 31 in **Appendix I**). The health center would require specialized employees, but, similar to the casino resort, it is anticipated that employees would commute rather than relocate to the area. Furthermore, due to the modest size of the health center, no strain on the local job market is anticipated. The tribal administration building would be for tribal members who mostly reside on the Maricopa Highway Site. The potential development of a community center and park would alleviate the use of local community park and centers. Therefore, potential future development under Alternative B would have no significant growth-inducing effects.

Transportation/Circulation

Because the traffic generated by potential future buildout is associated with near- and long-term transportation/circulation impacts and mitigation measures, traffic was considered in the TIA (**Appendix F**) and discussed thoroughly in **Section 3.8**. With implementation of the transportation/circulation Mitigation Measures 7-F through 7-H in **Section 4.0**, potential future development under Alternative B would not result in significant effects to transportation/circulation.

Land Use

Future development under Alternative B would be inconsistent with the current zoning and land use designations of the Maricopa Highway Site, but generally compatible with the I-5 corridor commercial and residential development as well as the Grapevine Specific and Community Plan. Alternative B would not disrupt neighboring land uses, prohibit access to

neighboring parcels, or otherwise conflict with neighboring land uses. Therefore, potential future development under Alternative B would not result in adverse cumulative effects related to land use planning.

Public Services

Potential future developments in Alternative B would increase the demand for public services, such as water supply, wastewater, electricity and natural gas, law enforcement, fire protection, emergency medical service, schools, and solid waste service. Potential future development under Alternative B would be supplied with water from on-site wells and an on-site WWTP would serve Alternative B as well as potential future developments. This includes the increased biosolids generated from the WWTP that would result from the development. No municipal wastewater systems would be used, therefore no impact to municipal water supply systems would exist. For energy and natural gas, the Tribe would be responsible for paying development or user fees to receive additional electrical and natural gas services for additional developments. A law enforcement and fire station would be developed and equipped as part of Alternative B, and this would be sufficient to serve any potential future development. No significant adverse effects on public services would occur from the potential future development of the Maricopa Highway Site.

Noise

Potential future developments at the Maricopa Highway Site would involve the addition of minimal amounts of ambient noise. Because the combined ambient noise level of all potential future developments relating to Alternative B is lower than the ambient noise level directly associated with the project itself, no significant adverse effects from noise would occur.

Hazardous Materials

Potential future developments in Alternative B would be similar to Alternative A1, and therefore the majority of the analysis for Alternative A1 can be used for Alternative B. However, unlike the Mettler Site, major roadways border the Maricopa Highway Site, and therefore this site has the potential for ADL. As discussed in **Section 3.12.3.2**, BMP K9 in **Section 2.3.2.6** would reduce this potential adverse effect to less than significant. Based on this, Alternative B would not result in significant growth-inducing effects from either hazardous materials or *C. immitis*.

Aesthetics

Potential future development under Alternative B would include a transition from open agriculture fields to views of developed areas, but 30 acres would remain agricultural. The potential future development would have a minor increase in the density of urban uses within the County consistent with County and City of Bakersfield land use regulations. Furthermore, it would be visually compatible with urban land uses in the project vicinity and generally consistent with local policies related to design, landscaping, and signage. For any adverse effects that might occur due to the potential future development, implementation of BMPs provided in **Section 2.0** would reduce these to less-than-significant levels. Therefore, potential future development under Alternative B would not result in adverse growth-inducing effects.

SECTION 4.0

MITIGATION MEASURES

SECTION 4.0

MITIGATION MEASURES

4.1 INTRODUCTION

The CEQ NEPA regulations require that mitigation measures be developed for all effects of a proposed action on the environment where it is feasible to do so (40 CFR § 1502.14[f] and 1502.16[h]; CEQ 40 Most Asked Questions, 19a). The NEPA regulations define mitigation as the following.

...avoiding the impact altogether by not taking a certain action or parts of an action; minimizing impacts by limiting the degree or magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; compensating for the impact by replacing or providing substitute resources or environments” (40 CFR §1508.20).

These principles have been applied to guide the design and siting criteria for the project alternatives. As described in **Section 2.0**, alternatives integrate regulatory requirements and BMPs in the overall project design in an effort to minimize the potentially adverse environmental effects identified in **Section 3.0**, including indirect and cumulatively adverse effects. Mitigation measures have been recommended as appropriate. Relevant regulatory requirements, BMPs, and recommended mitigation measures are summarized below. It should be noted that these mitigation measures only apply to alternatives analyzed in this EIS.

Mitigation measures to be implemented during construction and operation of the alternatives are described below in **Table 4-1**. All mitigation is enforceable because it is (1) inherent to the project design; and/or (2) required through provisions of the IGA, or federal or State statute, where applicable.

TABLE 4-1
PROPOSED MITIGATION MEASURES

Resource Area	Proposed Mitigation
<p align="center">1 Geology and Soils</p>	<p>The following mitigation measures are recommended for Alternatives A1, A2, and B.</p> <p>A. The project shall comply with the NPDES Construction General Permit from the USEPA for construction site runoff during the construction phase in compliance with the CWA. A SWPPP shall be prepared, implemented, and maintained throughout the construction phase of the development, consistent with Construction General Permit requirements. The SWPPP shall detail the BMPs to be implemented during construction and post-construction operation of the selected project alternative to reduce impacts related to soil erosion and water quality. The SWPPP BMPs shall include, but are not limited to, the following.</p> <ol style="list-style-type: none"> 1. Existing vegetation shall be retained where practicable. To the extent feasible, grading activities shall be limited to the immediate area required for construction. 2. Temporary erosion control measures (such as silt fences, fiber rolls, vegetated swales, a velocity dissipation structure, staked straw bales, temporary re-vegetation, rock bag dams, erosion control blankets, and sediment traps) shall be employed for disturbed areas. 3. To the maximum extent feasible, no disturbed surfaces shall be left without erosion control measures in place. 4. Construction activities shall be scheduled to minimize land disturbance during peak runoff periods. Soil conservation practices shall be completed during the fall or late winter to reduce erosion during spring runoff. 5. Creating construction zones and grading only one area or part of a construction zone at a time shall minimize exposed areas. If practicable during the wet season, grading on a particular zone shall be delayed until protective cover is restored on the previously graded zone. 6. Disturbed areas shall be re-vegetated following construction activities. 7. Construction area entrances and exits shall be stabilized with large-diameter rock. 8. Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures. 9. Petroleum products shall be stored, handled, used, and disposed of properly in accordance with provisions of the CWA [33 USC 1251 to 1387]. 10. Construction materials, including top soil and chemicals, shall be stored, covered, and isolated to prevent runoff losses and contamination of surface and groundwater. 11. Fuel and vehicle maintenance areas shall be established away from all drainage courses and designed to control runoff. 12. Sanitary facilities shall be provided for construction workers. 13. Disposal facilities shall be provided for soil wastes, including excess asphalt during construction and demolition. 14. Other potential BMPs include use of wheel wash or rumble strips and sweeping of paved surfaces to remove any and all tracked soil. <p>B. Contractors involved in the project shall be trained on the potential environmental damage resulting from soil erosion prior to construction in a pre-construction meeting. Copies of the project SWPPP shall be made available at that time. Construction bid packages, contracts, plans, and specifications shall contain language that requires adherence to the SWPPP.</p>
<p align="center">2 Water Resources</p>	<p>The following measures are recommended for Alternatives A1, A2, and B.</p> <ol style="list-style-type: none"> A. Wastewater shall be fully treated to at least a tertiary level using MBR or SBR technology. B. The on-site WWTP shall be staffed with operators who are qualified to operate the plant safely, effectively, and in compliance with all permit requirements and regulations. The operators shall have qualifications similar to those required by the Operator Certification Program for municipal WWTPs. C. Water shall be treated onsite to USEPA standards prior to reuse or discharge into percolation ponds. Percolation ponds and reuse facilities shall be closely monitored by a responsible engineer. Periodic monitoring of the wastewater facility shall ensure the wastewater system is operating safely and efficiently. D. Groundwater sampling and analysis shall be performed regularly and all drinking water shall be treated to SDWA standards. E. Prior to construction of the on-site wells, the USEPA shall be consulted in the early stages of establishing the well system. Furthermore, baseline monitoring of the groundwater shall be submitted to the USEPA prior to public water usage. F. The on-site wells shall be positioned as to avoid to the maximum extent possible adverse effects on the established wells and surface water features within a 1-mile radius of the Mettler or Maricopa Highway Sites while optimizing groundwater usage onsite, such as avoiding the percolation pond's cone of influence. A groundwater study shall be conducted in order to achieve this objective. G. To avoid potential adverse influences on the on-site potable water supply, potable water transmission pipes shall not be located within the percolation pond's cone of influence.

Resource Area	Proposed Mitigation
	<p>The following measures are recommended for Alternative B.</p> <p>H. To fully offset groundwater extraction associated with Alternative B, one or more of the following measures shall be implemented by the Tribe prior to operation:</p> <ol style="list-style-type: none"> 1. Amend the existing surface water contract for agricultural irrigation water with the Wheeler Ridge-Maricopa Water Storage District for the Maricopa Highway Site to allow the transfer of surface water to other agricultural lands within the Kern County Subbasin that currently uses groundwater for irrigation. As a condition of the agreement, the agricultural land receiving the surface water would be required to reduce groundwater pumping by at least the same amount as the surface water they are receiving. 2. Implement a groundwater recharge project, such as constructing a basin to recharge water from the selected property's existing surface water contract. 3. Work with and compensate the County or local water district to implement a water conservation program and/or a conjunctive water use program. The program shall (1) assess existing and potential sources of reclaimed wastewater within Kern County Subbasin, and determine potential points of use for the reclaimed wastewater, and/or (2) supplement the County's or local water district's existing water conservation programs to identify and implement additional conservation measures within Kern County Subbasin.
<p>3</p> <p>Air Quality Operation</p>	<p>The following mitigation is recommended for Alternatives A1, A2, and B.</p> <p>A. The Tribe shall purchase 111.83 tons of NOx emission reduction credits (ERC) and 18.48 tons of ROG ERCs for Alternative A1, as specified in the Final General Conformity Determination included in Appendix Z. Alternative A2 would require the purchase of 95.60 tons of NOx ERCs and 12.10 tons of ROG ERCs. Alternative B would require the purchase of 110.41 tons of NOx ERCs and 15.56 tons of ROG ERCs. Because the air quality effects are associated with operation of the facility and not with construction of the facility, real, surplus, permanent, quantifiable, and enforceable, ERCs shall be purchased prior to the opening day of the facility. ERCs shall be purchased in accordance with the 40 CFR 93 Subpart B, conformity regulations. With the purchase of ERCs, the project would conform to the applicable SIP and result in a less than adverse effect to regional air quality. As an alternative to or in combination with purchasing the above ERCs, the Tribe has the option to enter into a Voluntary Emission Reduction Agreement (VERA) with the SJVAPCD. The VERA would allow the Tribe to fund air quality projects that quantifiably and permanently offset project operational emissions.</p> <p>The following mitigation is recommended for Alternatives A1 and A2 for growth-inducing effects.</p> <p>B. Prior to operation of the potential future development on the Mettler or Maricopa Highway Sites as described in Table 3.14-2, the Tribe shall purchase 11.42 tons of NOx ERCs and 10.03 tons of ROG ERCs for Alternative A1, as specified in the Final General Conformity Determination included in Appendix Z. Alternative A2 would require the purchase of 12.16 tons of NOx ERCs and 10.09 tons of ROG ERCs. Because the air quality effects are associated with operation of the facility and not with construction of the facility, real, surplus, permanent, quantifiable, and enforceable, ERCs would be purchased prior to the opening day of the facility. ERCs shall be purchased in accordance with the 40 CFR 93 Subpart B, conformity regulations. With the purchase of ERCs, the project would conform to the applicable SIP and result in a less –than–adverse effect to regional air quality. As an alternative to or in combination with purchasing the above ERCs, the Tribe has the option to enter into a VERA with the SJVAPCD. The VERA would allow the Tribe to fund air quality projects that quantifiably and permanently offset project operational emissions.</p>
<p>4</p> <p>Biological Resources</p>	<p>The following mitigation is recommended for Alternatives A1, A2, and B.</p> <p>FEDERALLY LISTED AND OTHER SENSITIVE SPECIES San Joaquin Kit Fox (<i>Vulpes macrotis mutica</i>)</p> <ol style="list-style-type: none"> A. Potential dens shall be visibly marked by a qualified biologist into an exclusion zone with a 100-foot buffer. No staging of materials or equipment, construction personnel, or other construction activity shall occur within the setback areas. The avoidance buffer shall be maintained until either the completion of construction, or the proper destruction of the den as described below. The USFWS guidelines for avoidance and minimization shall be followed. B. A qualified biologist shall conduct a pre-construction survey to assess potential presence of this species two calendar weeks to 30 calendar days prior to commencement of ground disturbance. A report summarizing the findings of the survey shall be sent to the USFWS within five days of completion of any pre-construction surveys. If the construction activities stop on the site for a period of five days or more, then an additional pre-construction survey shall be conducted no more than 48 hours prior to the start of construction. If no San Joaquin kit foxes or potential dens are found during the pre-construction survey, then no further action is required regarding this species. C. If any San Joaquin kit fox potential dens are identified on the Mettler or Maricopa Highway Sites during the pre-construction survey or during construction activities (potential dens are defined as burrows at least 4 inches in diameter which open up within 2 feet), the USFWS shall be notified immediately and no construction activity shall occur within 100 feet of the potential den. An exclusionary zone shall be implemented as described in Measure A.

Resource Area	Proposed Mitigation
	<p>Potential den entrances shall be monitored with trail cameras for three consecutive days, or dusted for three consecutive days to register track of any San Joaquin kit fox present. If no activity is identified, potential dens may be destroyed by careful excavation followed by immediate filling and compacting of the soil. If activity is identified, a buffer zone of 250 feet shall be maintained around the den until the biologist determines that the den has been vacated. The den would be considered vacant when three days of den entrance dusting or trail camera monitoring results in no sign of the species, at which point only a 100-foot buffer becomes necessary. Should destruction of such a vacated natal den be necessary, USFWS shall be contacted, and the appropriate take permit issued. Where San Joaquin kit foxes are identified, the provisions of the USFWS's published <i>Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance</i> (2010) shall apply for den destruction and on-going operational recommendations.</p> <p>D. A qualified biologist shall conduct habitat sensitivity training related to San Joaquin kit fox for project contractors and shall monitor construction during initial grading activities within the Mettler or Maricopa Highway Sites. Under this program, workers shall be informed about the presence of the species and their habitat, and that unlawful take of the animal or destruction of its habitat is not permitted. Prior to construction activities, a qualified biologist shall instruct and distribute informational materials to construction personnel about: (1) the life history of the San Joaquin kit fox; (2) the importance of habitat requirements for the species; (3) sensitive areas including those identified onsite, and (4) the importance of maintaining the required setbacks and detailing the limits of the construction area. Documentation of this training shall be maintained on the site.</p> <p>E. The standards of the USFWS publication include provisions for educating construction workers regarding the San Joaquin kit fox, keeping heavy equipment operating at safe speeds, and checking construction pipes for species occupation during construction and similar activities.</p> <p>Blunt-Nosed Leopard Lizard (<i>Gambelia sila</i>)</p> <p>F. A pre-construction survey for the blunt-nosed leopard lizard shall be performed by a qualified biologist within the 30 days prior to construction activities to establish the presence of species onsite. The survey shall occur during the months of April through October to avoid surveying during peak hibernation months when the species is inactive. Should blunt-nosed leopard lizards be observed, the USFWS shall be contacted to determine appropriate removal or avoidance measures. The survey methods shall be consistent with the Approved Survey Methodology for the blunt-nosed leopard lizard by the CDFW.</p> <p>G. Access gates shall remain closed during periods of inactivity and have at least a 6-inch curtain in contact with the soil surface anchored by hay bales and sand bags. A designated individual shall check for blunt-nosed leopard lizards under vehicles and equipment such as stored pipes before the start of the work day. If the species is discovered, the vehicle or equipment shall not be moved until the animal has exited on its own. Pipes and other den-like structures should be capped at both ends until just before use to prevent potentially occurring blunt-nosed leopard lizards from being trapped.</p> <p>H. Prior to construction activities, a qualified biologist shall instruct and distribute informational materials to construction personnel about blunt-nosed leopard lizards, including life history information, habitat requirements, and appropriate response to potential observations. The qualified biologist shall monitor construction during initial grading activities. Documentation of this training shall be maintained onsite.</p> <p>I. Should blunt-nosed leopard lizards or other federally listed species be detected within the construction footprint at any point during construction or monitoring, grading activities shall halt, and the USFWS shall be consulted. No grading activities shall commence until USFWS authorizes the re-initiation of grading activities.</p> <p>Tipton Kangaroo Rat (<i>Dipodomys nitratoideus nitratoideus</i>) and Giant Kangaroo Rat (<i>Dipodomys ingens</i>; Alternative B only):</p> <p>J. A pre-construction survey for Tipton/giant kangaroo rat presence shall be conducted between two weeks and 30 calendar days before the start of ground-disturbing activities. A qualified biologist shall survey for Tipton/giant kangaroo rat signs, such as scat, burrows, tail drag marks, and tracks. Should a confirmed observation of a Tipton/giant kangaroo rat occur, the USFWS shall be contacted to determine if relocation procedures are necessary. The presence of a Tipton/giant kangaroo rat shall be assumed if positive signs for any Tipton/giant kangaroo rat are observed due to the difficulty of species-level identification without live trapping.</p> <p>K. Should an active burrow be observed onsite, a 50-foot buffer shall be marked around the burrow entrance by the qualified biologist with high-visibility fencing. Should the active burrow be within the project footprint, the USFWS shall be contacted to determine the appropriate removal or avoidance measures.</p> <p>L. Prior to construction activities, a qualified biologist shall instruct and distribute informational materials to construction personnel about Tipton/giant kangaroo rats including life history information, habitat requirements, and appropriate response to potential observations. The qualified biologist shall monitor construction during initial grading activities. Documentation of this training shall be maintained onsite.</p> <p>Burrowing Owl (<i>Athene cunicularia</i>)</p> <p>M. A qualified biologist shall conduct a pre-construction survey for burrowing owls within the 30 days prior to construction activities to establish the status of this species on the site. If ground-disturbing activities are delayed or suspended for more than 30 days after the pre-construction survey, the site shall be</p>

Resource Area	Proposed Mitigation
	<p>resurveyed. If burrowing owls are detected on or within approximately 500 feet of the site, a qualified biologist shall be consulted to develop measures to avoid “take” of this species prior to the initiation of any construction activities. Burrows observed onsite shall additionally be treated as potential burrowing owl dens and handled as outlined in the mitigation measures for burrowing owls. These measures include establishing appropriate buffers, and may require additional monitoring by a qualified biologist before destruction if burrowing owls are observed during pre-construction surveys.</p> <p>N. Prior to construction activities, a qualified biologist shall instruct and distribute informational materials to construction personnel about: (1) the life history of the burrowing owl; (2) the importance of habitat requirements; (3) sensitive areas including those identified onsite, and (4) the importance of maintaining the required setbacks and detailing the limits of the construction area. Documentation of this training shall be maintained onsite.</p> <p>MIGRATORY BIRDS</p> <p>O. Should ground-disturbing activities occur during the general nesting season (February 1 to September 15), a pre-construction nesting bird survey shall be conducted by a qualified biologist no more than 14 days prior to the start of ground-disturbing activities. Areas within 500 feet of ground-disturbing activities shall be surveyed for active nests.</p> <p>P. Should an active nest be identified, an avoidance buffer shall be established based on the needs of the species identified and pursuant to consultation with CDFW and/or USFWS if necessary prior to initiation of ground-disturbing activities. Avoidance buffers may vary in size depending on habitat characteristics, project-related activities, and disturbance levels. Avoidance buffers shall remain in place until the end of the general nesting season or upon determination by a qualified biologist that young have fledged or the nest has failed.</p>
<p>5</p> <p>Cultural and Paleontological Resources</p>	<p>The following mitigation measures are recommended for Alternatives A and B.</p> <p>A. A qualified professional archaeologist shall complete pre-construction surveys of the off-site impact areas, documenting and assessing any resources encountered. If the find is determined to be significant by the archaeologist, then an appropriate course of action shall be implemented prior to construction in the vicinity of the find. Possible actions may include recordation, archaeological testing/data recovery, development of a Treatment Plan, or other measures. All significant archaeological materials recovered shall be subject to scientific analysis, professional curation as appropriate, and documentation prepared by the archaeologist according to current professional standards.</p> <p>B. In the event of inadvertent discovery of prehistoric or historic archaeological resources during construction-related earth-moving activities, all work within 50 feet of the find shall cease until a professional archaeologist meeting the qualifications of the Secretary (36 CFR 61) can assess the significance of the find. The BIA and the Tribe shall be notified immediately, and all such finds shall be subject to procedures for post-review discoveries without prior planning pursuant to 36 CFR § 800.13. If the find is determined to be significant by the archaeologist, BIA, and/or Tribe, then the process in Mitigation Measure A shall be followed.</p> <p>C. In the event of inadvertent discovery of paleontological resources during construction earth-moving activities, all work within 50 feet of the find shall cease until a qualified professional paleontologist can assess the significance of the find; the BIA shall also be notified. All such finds shall be subject to Section 101 (b)(4) of NEPA (40 CFR §§ 1500-1508). If the find is determined to be significant by the paleontologist, then representatives of the BIA shall meet with the paleontologist to determine the appropriate course of action, including the development of an Evaluation Report and/or Mitigation Plan, if necessary. All significant paleontological materials recovered shall be subject to scientific analysis, professional curation, and a report prepared by the professional paleontologist according to current professional standards.</p> <p>D. If human remains are discovered during ground-disturbing activities on Tribal lands, all work within 100 feet of the find shall cease immediately and the Tribe, BIA, and County Coroner shall be notified immediately. No further disturbance shall occur until the Tribe, BIA, and County Coroner have made the necessary findings as to the origin and disposition of the remains. If the remains are determined to be of Native American origin, the provisions of Native American Graves Protection and Repatriation Act shall be applied.</p>
<p>6</p> <p>Socioeconomic Conditions</p>	<p>There are no mitigation measures recommended for Alternatives A1, A2, A3, B, or C.</p>

Resource Area	Proposed Mitigation
<p>7 Transportation/ Circulation</p>	<p>While the timing for the off-site roadway improvements is not within the jurisdiction or ability to control of the Tribe, the Tribe shall make good faith efforts to assist with implementation of the opening year improvements prior to opening day. The Tribe shall make fair share contributions to the traffic mitigation measures identified below to prior roadway project construction as calculated in Section 19.3 in Appendix F. Funding shall be for design standards consistent with those required for similar facilities in the region. Mitigation measures are illustrated in Figure 4-1. The following mitigation measures are recommended for Alternatives A1 and A2 in Opening Year 2023.</p> <p>A. Stevens Drive/Maricopa Highway Intersection: Install a traffic signal and provide an exclusive WB left-turn lane on Maricopa Highway at Stevens Drive, or install a roundabout, based on the recommendations of an ICE study, with an associated fair share contribution of 100% for Alternatives A1 and A2.</p> <p>B. Maricopa Highway/S. Sabodan Street: Install a traffic signal with an associated fair-share contribution of 100% for Alternatives A1 and A2 and the following geometry. SB – Construct the north leg of the intersection and provide one left-turn lane and one right-turn lane in the SB direction and one NB lane. WB – One left-turn lane, one thru lane, and one right-turn lane EB – One left-turn lane, one thru lane, and one shared thru/right lane. NB – One left-turn lane and one shared thru/right lane Alternatively, install a roundabout, based on the recommendations of an ICE study.</p> <p>The following mitigation measures are recommended under Alternatives A1 and A2 in Cumulative Year 2040.</p> <p>C. Maricopa Highway/I-5 SB Ramps Intersection: Contribute a fair share of 14% for Alternative A1 and 13% for Alternative A2 towards providing an exclusive WB left-turn lane on Maricopa Highway and installing a traffic signal or a roundabout with or without a loop ramp, based on the recommendations of an ICE study.</p> <p>D. Maricopa Highway/I-5 NB Ramps Intersection: Contribute a fair share of 26% for Alternative A1 and 24% for Alternative A2 towards providing an exclusive EB left-turn lane on Maricopa Highway and installing a traffic signal or a roundabout with or without a loop ramp, based on the recommendations of an ICE study.</p> <p>E. SR-166 to NB I-5 Ramp Merge: Contribute a fair share of 52% for Alternative A1 and 48% for Alternative A2 towards providing a 1,000-foot auxiliary lane on I-5 NB mainline at the merge.</p> <p>The following mitigation measures are recommended under Alternative B in Opening Year 2023.</p> <p>F. Stevens Drive/Maricopa Highway Intersection: Install a traffic signal and provide an exclusive WB left-turn lane on Maricopa Highway at Stevens Drive, or install a roundabout, based on the recommendations of an ICE study, with an associated fair share contribution of 100% for Alternative B.</p> <p>G. Maricopa Highway/I-5 SB Ramps Intersection: Install an exclusive WB left-turn lane on Maricopa Highway and a traffic signal or a roundabout with or without a loop ramp, based on the recommendations of an ICE study, with an associated fair share contribution of 100% for Alternative B.</p> <p>H. Maricopa Highway/I-5 NB Ramps Intersection: Install an exclusive EB left-turn lane on Maricopa Highway and a traffic signal or a roundabout with or without a loop ramp, based on the recommendations of an ICE study, with an associated fair share contribution of 100% for Alternative B.</p> <p>I. Maricopa Highway Segment: The Tribe shall make an offer of dedication to Caltrans for 23 feet of right-of-way needed to accommodate the ultimate configuration of SR-166, as described in the May 2016 Transportation Concept Report for SR-166.</p>
<p>8 Land Use</p>	<p>There are no mitigation measures recommended for Alternatives A1, A2, A3, B, or C.</p>
<p>9 Public Services</p>	<p>The following mitigation measures are recommended for Alternatives A1, A2, and B.</p> <p>A. The Tribe shall be responsible for a fair share of costs associated with any relocation of existing SoCalGas and PG&E facilities to accommodate the proposed development and traffic improvements. Appropriate funds shall be made available to conduct any necessary relocation and to construct any system upgrades required by the project.</p>
<p>10 Noise</p>	<p>There are no mitigation measures recommended for Alternatives A1, A2, A3, B, or C.</p>
<p>11 Hazardous Materials</p>	<p>The following mitigation measures are recommended for Alternatives A1, A2, and B.</p> <p>A. Workers and supervisors should be trained in Valley Fever locations, symptoms, and methods to minimize the risks of contracting Valley Fever before commencing work. This includes a “Valley Fever Training Handout,” and a set schedule of educational sessions. The following documentation shall be assembled and retained by the Tribe.</p> <ol style="list-style-type: none"> 1. A sign-in sheet of training participants, including names, signatures, and dates 2. A written flier or brochure that includes educational information on the health effects of exposure to Valley Fever 3. Training on methods that may be able to prevent Valley Fever Infection

Resource Area	Proposed Mitigation
	<p>4. A demonstration to employees on how to use personal protective equipment, such as respiratory masks, in order to reduce potential exposure to <i>C. immitis</i> spores. This protective equipment should be readily available for employees to use during work hours. Proof of this training can consist of printed materials, DVD, photographs, and/or digital media files.</p> <p>B. The Tribe shall develop a Valley Fever Dust Management Plan that addresses possible <i>C. immitis</i> spores and mitigations for potential infections from <i>C. immitis</i> spores. The plan should encompass a program to assess the possible exposure to <i>C. immitis</i> spores from construction activities and to outline appropriate safety precautions that would be implemented, as appropriate, to reduce the risk of exposure to spores from <i>C. immitis</i>. The plan shall include the following.</p> <ol style="list-style-type: none"> 1. When performing soil-disturbing related tasks, workers should be positioned upwind or crosswind when possible. 2. Heavy equipment, vehicles and machinery with factory enclosed cabs should be furnished with high efficiency particulate air (HEPA) filters when able and the windows should be closed. Furthermore, proof of workers being trained on the proper use of applicable heavy equipment cabs shall be retained (e.g., turning on the air conditioner before using equipment). 3. Communication methods within enclosed cabs should be provided, such as two-way radios. 4. When dust exposure is unavoidable, workers should wear approved respiration protection that covers the nose and mouth. The particulate filters should be rated at N95, N99, N100, or HEPA. 5. Separate, clean areas with hand-washing stations shall be provided for employees to eat at. 6. Equipment inspection stations shall be installed at access/egress points. At these stations, construction vehicles and equipment shall be inspected and cleaned of excess soil material as needed before being removed from the site. 7. Workers should be trained on how to recognize Valley Fever symptoms and report symptoms surmised as being Valley Fever to a supervisor when encountered. 8. A medical professional shall be consulted in order to develop a medical protocol for evaluating employees with suspected Valley Fever. 9. An information handout concerning Valley Fever shall be disseminated to the public within a 3-mile radius of the project and no less than 30 days before the commencement of construction activities. The handout shall address the following topics about Valley Fever: potential sources and causes, common symptoms, options or remedies available if an individual should experience symptoms, and the locations of where tests are available for verifying Valley Fever. <p>Applicable mitigation measures from Alternatives A1, A2, and B shall be implemented for Alternative A3.</p>
<p style="text-align: center;">12 Aesthetics</p>	<p>There are no mitigation measures recommended for Alternatives A1, A2, A3, B, or C.</p>

SECTION 5.0

***CONSULTATION AND COORDINATION/
LIST OF PREPARERS***

SECTION 5.0

CONSULTATION AND COORDINATION/LIST OF PREPARERS

5.1 LEAD AGENCY

BUREAU OF INDIAN AFFAIRS PACIFIC REGIONAL OFFICE

Amy L. Dutschke, Regional Director
Felix Kitto, Chief of the Division of Environmental, Cultural Resources Management & Safety
Chad Broussard, Environmental Protection Specialist
Dan Hall, Regional Archaeologist

2800 Cottage Way #W2820
Sacramento, CA 95825
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(916) 978-6000

5.2 COOPERATING AGENCIES

TEJON INDIAN TRIBE

Octavio Escobedo, Tribal Chair
Kathryn Morgan, Tribal Council

NATIONAL INDIAN GAMING COMMISSION

Austin T. Badger, Attorney

U.S. ENVIRONMENTAL PROTECTION AGENCY REGION 9

Karen Vitulano, Lead Reviewer
Kathleen Martyn Goforth, Manager, Environmental Review Section

KERN COUNTY

Lorelei H. Oviatt, Director, Planning and Natural Resources Department
Craig M. Murphy, Assistant Director, Planning and Natural Resources Department
Joshua Champlin, P.E., Supervising Engineer, County Public Works

5.3 STATE AND LOCAL AGENCIES AND UTILITIES

CALIFORNIA DEPARTMENT OF TRANSPORTATION

Sharri Bender Ehlert, Director, District 6

CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCE CONTROL

Charles Ridenour, Branch Chief of the Cleanup Program

ARVIN-EDISON WATER STORAGE DISTRICT

Mark Dawson, Engineer
Mary Hough, Land Clerk

WHEELER RIDGE-MARICOPA WATER STORAGE DISTRICT

Sheridan Nicholas, Engineer-Manager

KERN SANITATION AUTHORITY DISTRICT

Regina Houchin

MOUNTAINSIDE DISPOSAL

Employee (no name given)

5.4 ENVIRONMENTAL CONSULTANTS**ANALYTICAL ENVIRONMENTAL SERVICES**

Name	Qualifications	Participation
David Zweig, P.E.	BS; 31 years of experience	Principal-in-Charge
Bibiana Alvarez	BS; 11 years of experience	Project Manager
Joshua Goodwin	BA; 11 years of experience	Biological Resources, Growth-Inducing Effects
Cedrick Villaseñor	BS; 14 years of experience	Biological Resources
Kt Alonzo	BS; 5 years of experience	Biological Resources
Kelli Raymond	BS; 4 years of experience	Biological Resources
Charlane Gross, RPA	BA; MA; 32 years of experience	Cultural Resources, Growth-Inducing Effects
Erin Quinn	BS; 13 years of experience	Air Quality, Transportation, Noise, Growth-Inducing Effects
Dana Hirschberg	16 years of experience	Graphics
Glenn Mayfield	BA; 13 years of experience	Graphics
Darrienne Highsmith	BS; 1 year of experience	Transportation/Circulation, Growth-Inducing Effects, Technical Editing
Emily Schoenborn	BS; 1 year of experience	Socioeconomics, Aesthetics, Land Use, Public Services
Kristen Miner	BS; MS; 3 years of experience	Hazardous Materials, Editor, Growth-Inducing Effects
Mia Kawamoto	BS; 1 year of experience	Geology and Soils, Growth-Inducing Effects
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Thomas J. Zitt, Executive Vice President	PhD; 20+ years of experience	Socioeconomics
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Diversified Project Services International		
L. Alberto Lopez, QSD/P, Director of Civil Engineering	BS; 10+ years of experience	Grading and Drainage

SECTION 6.0

ACRONYMS

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ACRONYMS

A	
AB	Assembly Bill
ADL	Aerially Deposited Lead
AES	Analytical Environmental Services
AEWSD	Arvin-Edison Water Storage District
AF	acre feet
AFY	acre-feet per year
amsl	above mean sea level
APE	Area of Potential Effects
APN	Assessor's Parcel Number
ARVIN CSD	Arvin-Edison Water Storage District and Arvin Community Services District
B	
BA	Biological Assessment
BIA	Bureau of Indian Affairs
BMP	Best Management Practice
C	
CAA	Clean Air Act (federal)
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAP	Criteria Air Pollutant
CARB	California Air Resources Board
CAT	Climate Action Team
CAWS	Contract for Agricultural Water Service
CBC	California Building Code
CDE	California Department of Education
CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH ₄	methane
CHP	California Highway Patrol
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
County	Kern County
COVID-19	Coronavirus Disease 2019

CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
D	
dba	A-weighted decibel
Department	Department of the Interior
DOC	Department of Conservation
DPM	Diesel Particulate Matter
Draft CEQ Guidance Memo	<i>Draft National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions (June 2019)</i>
DWR	Department of Water Resources
E	
EB	Eastbound
EIS	Environmental Impact Statement
EO	Executive Order
ERC	Emission Reduction Credit
ESA	Endangered Species Act
F	
FCIR	Farmland Conversion Impact Rating
FEMA	Federal Emergency Management Agency
FHSA	Federal Hazardous Substances Act
FHWA	Federal Highway Administration
FMMP	Farmland Mapping and Monitoring Program
FPPA	Farmland Protection Policy Act
FR	Federal Register
FTA	Federal Transportation Administration
FTE	Full-Time Equivalent
G	
GHG	Greenhouse Gas
gpd	Gallons Per Day
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
GSSD	General Shafter School District
H	
HEPA	High Efficiency Particulate Air
HREC	Historical Recognized Environmental Condition
HVAC	Heating, Ventilation, and Air Conditioning
I	
I-5	Interstate 5
IGA	Intergovernmental Agreement
IGRA	Indian Gaming Regulatory Act

IMPLAN	Impact Analysis for Planning
IRA	Indian Reorganization Act of 1934
K	
KCFD	Kern County Fire Department
KCSD	Kern County Sheriff's Department
KGA	Kern Groundwater Authority
KHSD	Kern High School District
Ksat	Saturated Hydraulic Conductivity
L	
lb	Pound
Ldn	Day-Night Average Sound Level
Leq	Equivalent Sound Level
LLG	Liscott, Law & Greenspan Engineers
LOS	Level of Service
M	
µm/s	Micrometer Per Second
Maricopa Highway Site	118-acre property
MBR	Membrane Bioreactor
MBTA	Migratory Bird Treaty Act
MCL	Maximum Contaminant Level
MCWD	Mettler County Water District
Mettler Site	306-acre property
mg/L	milligram per Liter
mph	miles per hour
mpi	minutes per inch
MT	metric ton
N	
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NAHC	Native American Heritage Commission
NB	Northbound
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NIGC	National Indian Gaming Commission
NOA	Notice of Availability
NOI	Notice of Intent
NO _x	nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSR	New Source Review

O

OSHA Occupational Safety and Health Administration

P

PG&E Pacific Gas and Electric

PL Public Law

PL 280 Public Law 23-280

PM₁₀ Particulate matter less than 10 micrometers in diameter

PM_{2.5} Particulate matter less than 2.5 micrometers in diameter

PPIC Public Policy Institute of California

PPV Peak Particle Velocity

Proposed Project Development of the Mettler Site with a Casino, Hotel, and Associated Facilities

PSD Prevention of Significant Deterioration

R

REC Recognized Environmental Condition

ROD Record of Decision

ROG Reactive Organic Gas

RTP *2014 Regional Transportation Plan/Sustainable Communities Strategy*

RV Recreational Vehicle

S

SB Southbound

SBR Sequencing Batch Reactor

SDWA Safe Drinking Water Act

Secretary Secretary of the Interior

sf Square Foot

SGMA Sustainable Groundwater Management Act

SIP State Implementation Plan

SJVAB San Joaquin Valley Air Basin

SJVAPCD San Joaquin Valley Air Pollution Control District

SO₂ sulfur dioxide

SoCalGas Southern California Gas

SOI Sphere of Influence

SR-99 State Route 99

SR-166 State Route 166

SSJVIC Southern San Joaquin Valley Information Center

State State of California

SWPPP Stormwater Pollution Prevention Plan

T

TEIR Tribal Environmental Impact Report

TIA Transportation Impact Analysis

tpy Tons Per Year

Tribe Tejon Indian Tribe

Tulare Basin Plan

Tulare Lake Basin Water Quality Control Plan

U

UCMP University of California Museum of Paleontology
USACE U.S. Army Corps of Engineers
USC U.S. Code
USDA U.S. Department of Agriculture
USEPA U.S. Environmental Protection Agency
USFWS U.S. Fish & Wildlife Service
USGS U.S. Geological Survey

V

VERA Voluntary Emission Reduction Agreement

W

WB Westbound
WRMWSO Wheeler Ridge-Maricopa Water Storage District
WWTP Wastewater Treatment Plant

SECTION 7.0

REFERENCES

SECTION 7.0

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