ENVIRONMENTAL ASSESSMENT

SCOTTS VALLEY BAND OF POMO INDIANS

Casino and Tribal Housing Fee-to-Trust Project

Solano County, CA | July 2024

Lead Agency:

Bureau of Indian Affairs
Pacific Regional Office
2800 Cottage Way
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ENVIRONMENTAL ASSESSMENT
For the Scotts Valley Band of Pomo Indians Casino and Tribal Housing Project
Fee-to-Trust Acquisition of 160-Acre Property in Solano County, California

Lead Agency: U.S. Department of the Interior, Bureau of Indian Affairs

Abstract: This Environmental Assessment (EA) has been prepared pursuant to the National Environmental Policy Act (NEPA) to assess the environmental effects resulting from the Scotts Valley Band of Pomo Indians (Scotts Valley; Tribe) Casino and Tribal Housing Project, which includes the acquisition by the U.S. Bureau of Indian Affairs (BIA) of a 160-acre property in the City of Vallejo within Solano County, California, into federal trust status for the benefit of the Tribe for gaming purposes (Proposed Action). The EA identifies potentially significant impacts resulting from the Proposed Action associated with the following issues: biological resources, cultural resources, transportation and circulation, public services and utilities, and wildfires. All potentially significant impacts would be minimized or avoided with recommended mitigation measures.

Comments on the Environmental Assessment are due to the BIA 30 days from the date the Notice of Availability is published.

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List of Acronyms

AB	assembly bill
ADT	average daily traffic
ADWF	average dry weather flow
AF	acre-feet
AFY	acre-feet per year
amsl	above mean sea level
ARD	Aquatic Resources Delineation
ATCM	airborne toxic control measure
BA	Biological Assessment
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BIA	U.S. Bureau of Indian Affairs
BO	Biological Opinion
BMP	Best Management Practice
CAA	Clean Air Act
CalEEMod	California Emissions Estimator Model
Cal Fire	California Department of Forestry and Fire Protection
CAP	criteria air pollutants
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CFS	calls for service
CH_4	methane
City	City of Vallejo
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
County	Solano County
CRLF	California red-legged frog
CWA	Clean Water Act
CY	cubic yards
DNL	day-night average noise levels
DOC	Department of Conservation
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
EA	Environmental Assessment
EFH	Essential Fish Habitat
EMS	Emergency Medical Services

EOP	Emergency Operations Plan
ESA	Environmental Site Assessment
EV	electric vehicle
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHSZ	fire hazard severity zone
FHWA	Federal Highway Administration
FICON	Federal Interagency Committee on Noise
FIRM	Flood Insurance Rate Maps
FMMP	Farmland Mapping and Monitoring Program
FPPA	Farmland Protection Policy Act
GHG	greenhouse gases
gpd	gallons per day
gpm	gallons per minute
GSP	Groundwater Sustainability Plan
HAP	Hazardous air pollutant
HCM	Highway Capacity Manual
I-80	Interstate 80
IBC	International Building Code
IGRA	Indian Gaming Regulatory Act
lb	pound
LED	light-emitting diodes
lf	linear feet
LOS	level of service
LRA	local responsibility area
MBTA	Migratory Bird Treaty Act
mg	million gallon
mgd	million gallons per day
MJHMP	Multi-Jurisdictional Hazard Mitigation Plan
MOU	Memorandum of Understanding
mph	miles per hour
MWS	Municipal Water System
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NIGC	National Indian Gaming Commission
NMFS	National Marine Fisheries Service
NO_x	nitrogen oxides
NOA	naturally occurring asbestos
NPDES	National Pollutant Discharge Elimination System
NPT	Northwestern pond turtle
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places

NSR	new source review
NWI	National Wetlands Inventory
OSHA	Occupational Safety and Health Administration
PG&E	Pacific Gas and Electric
$PM_{2.5}$	Particulate Matter 2.5 microns in size
PM_{10}	Particulate Matter 10 microns in size
PROS	Parks, Recreation, and Open Space
PSD	Prevention of Significant Deterioration
PWWF	peak wet weather flow
RC	Regional Commercial
REC	recognized environmental conditions
RWQCB	Regional Water Quality Control Board
RWFP	Recycled Water Facilities Plan
SCSO	Solano County Sheriff's Office
SCCWPP	Solano County Community Wildfire Protection Plan
sf	square foot
SIP	State Implementation Plan
SNABM	Solano Napa Activity Based Model
SO	secretary order
SO_2	sulfur dioxide
SolTrans	Solano County Transit
SR	State Route
SRA	State Responsibility Area
SSCSMP	Sanitary Sewer Collection System Master Plan
SWPPP	Stormwater Pollution Prevention Plan
TIA	Traffic Impact Analysis
Tribe	Scotts Valley Band of Pomo Indians
USACE	United States Army Corps of Engineers
USC	United States Code
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
USFWS	United States Fish and Wildlife Service
UWMP	Urban Water Management Plan
VCUSD	Vallejo City Unified School District
VFWD	Vallejo Flood and Wastewater District
VOC	volatile organic compounds
WSCP	Water Shortage Contingency Plan
WWTP	Wastewater Treatment Plant

Section 1 | Introduction

1.1 SUMMARY OF THE PROPOSED ACTION AND ENVIRONMENTAL REVIEW PROCESS

This Environmental Assessment (EA) has been prepared to assess the environmental impacts resulting from the Scotts Valley Band of Pomo Indians (Tribe) Casino and Tribal Housing Project, which includes the acquisition by the U.S. Bureau of Indian Affairs (BIA) of a 160-acre property into federal trust status for the benefit of the Tribe for gaming purposes (Proposed Action). The BIA is the federal agency charged with reviewing and approving tribal applications to take land into federal trust status. The proposed trust property, referred to throughout this EA as the Project Site, is located in the City of Vallejo (City) in Solano County (County), California (State). Following the acquisition of the Project Site into federal trust, the Tribe proposes to develop a casino facility, Tribal housing, a Tribal administration building, and associated parking and infrastructure on the Project Site (Proposed Project).

The statutory authority for acquiring lands in trust status for Indian tribes is provided in the Indian Reorganization Act of 1934 (25 United States Code [USC] § 5108) with regulations codified as 25 Code of Federal Regulations (CFR) Part 151. The Indian Gaming Regulatory Act (IGRA) was enacted in 1988 to regulate the conduct of Indian gaming and to promote tribal economic development, self-sufficiency, and strong tribal governments. IGRA generally prohibits gaming on lands acquired in trust after 1988, unless certain exceptions found in Section 20 of IGRA, 25 USC § 2719, are met. Here, the requested exception is the restored lands exception that allows gaming on land acquired in trust after 1988 if the lands are taken in trust as part of "the restoration of lands for an Indian tribe that is restored to Federal recognition" (25 USC § 2719 (b)(1)(B)(ii) and (iii)). The Section 20 exceptions are implemented through regulations found in 25 CFR Part 292.

1.1.1 National Environmental Policy Act

This EA has been completed in accordance with and to satisfy the requirements set out in the National Environmental Policy Act (NEPA) (42 USC § 4321 et seq.); the Council on Environmental Quality (CEQ) Guidelines for Implementing NEPA (40 CFR Parts 1500-1508); and the BIA NEPA guidebook (59 Indian Affairs Manual 3-H). This EA provides a detailed description of the Proposed Action and analysis of the potential environmental consequences associated with the Proposed Action and the subsequent development of the Proposed Project. This document also includes a discussion of alternatives, impact avoidance, and mitigation measures.

The BIA serves as the Lead Agency for NEPA compliance and will use this EA to determine if the Proposed Action would result in an adverse effect to the environment. The EA will be released for a 30-day comment period. Comments will be considered by the BIA, and either a Finding of No Significant Impact will be prepared or additional environmental analysis will be conducted. After the NEPA process is complete, the BIA may issue a determination on the Proposed Action.

1.2 PURPOSE AND NEED FOR THE PROPOSED ACTION

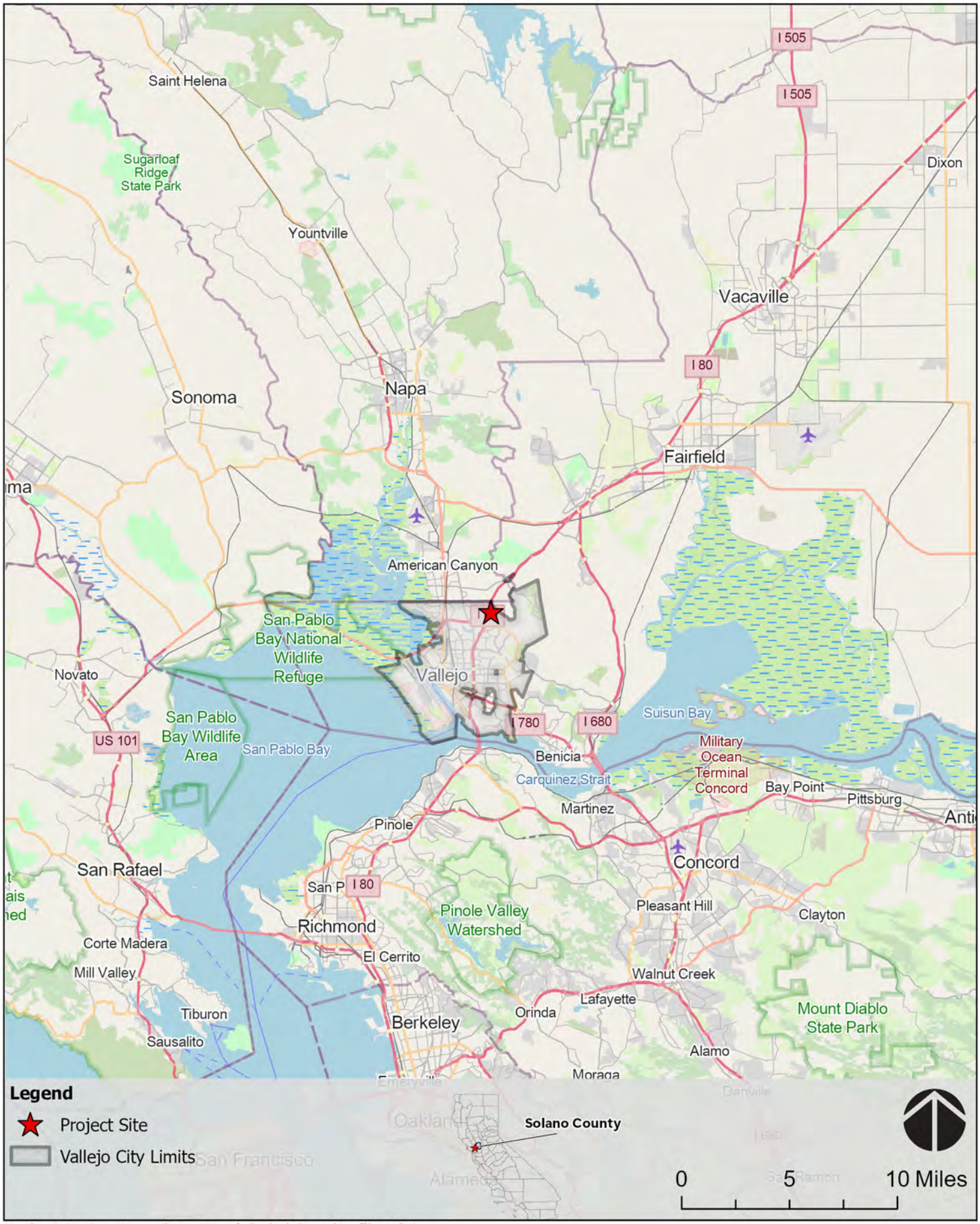
The purpose of the Proposed Action is to facilitate tribal self-sufficiency, self-determination, and economic development, thus satisfying both the Department of the Interior's (Department) land acquisition policy as articulated in the Department's trust land regulations at 25 CFR Part 151, and the principal 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 regulations at 25 CFR § 151.10(h) and 151.12.

1.3 BACKGROUND

The Tribe is a federally recognized landless tribe governed by its Constitution and a Tribal Council headquartered in two government offices it currently maintains in leased facilities in the City of Lakeport, Lake County and the City of Concord, Contra Costa County in California. The current members spans across Alameda, Contra Costa, Lake, Mendocino, and Sonoma Counties, and membership consists of approximately 300 tribal members with 41% of the members under the age of 18 years. The Tribe has no reservation and no land held in trust or restricted status. Due to the lack of trust lands and tribally owned economic development, the Tribe relies on federal funding to support Tribal government functions and the needs of its members. However, federal funding is insufficient to meet Tribal member needs, and future funding of Indian programs are regularly endangered by budgetary considerations and constraints. The Tribe seeks to have the Project Site accepted in trust status to reestablish its homeland and establish a tribal government headquarters. The Project Site is at the southern end of land that the Tribe's ancestors ceded to the United States in an unratified treaty. It is centrally located between the primary Tribal population centers in Northern California. The Tribe has selected this property for the purpose of reuniting its citizens in one location and in an area that will provide substantial social, cultural, and economic opportunities to its members. Furthermore, the Proposed Project is intended to enable the Tribe to meet its needs for economic development, self-sufficiency, and self-governance; and will provide its membership with employment and educational opportunities and needed social and governmental services.

1.4 LOCATION AND SETTING

The Project Site consists of four parcels, as identified in **Table 1-4-1**, within and adjacent to the City of Vallejo boundary in Solano County, California. The Project Site is located in Section 32, Township 4 North, Range 3 West and Section 5, Township 3 North, Range 3 West as depicted on the Mount Diablo Meridian U.S. Geological Survey (USGS) 7.5' quadrangle map. **Figure 1.4-1** and **Figure 1.4-2** show the location of the Project Site. As shown on the aerial photograph in **Figure 1.4-3**, the Project Site is undeveloped except for several unpaved ranch roads and a horse boarding facility characterized by an assemblage of wooden structures that serve to corral the horses and other animals. **Figure 1.4-4** shows existing easements on the Project Site for electricity transmission lines, including an approximately 22-acre easement along the western boundary, and water pipelines. Regional access to the Project Site is provided by Interstate 80 (I-80), which runs in a north-south direction adjacent to the site's western boundary, and Highway 37 that terminates at a junction with I-80 approximately 0.15 mile west of the Project Site. Local access to the Project Site is currently provided through an existing driveway off Columbus Parkway directly across from the termination of Admiral Callaghan Lane.



Map data © OpenStreetMap contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri

FIGURE 1.4-1
REGIONAL LOCATION

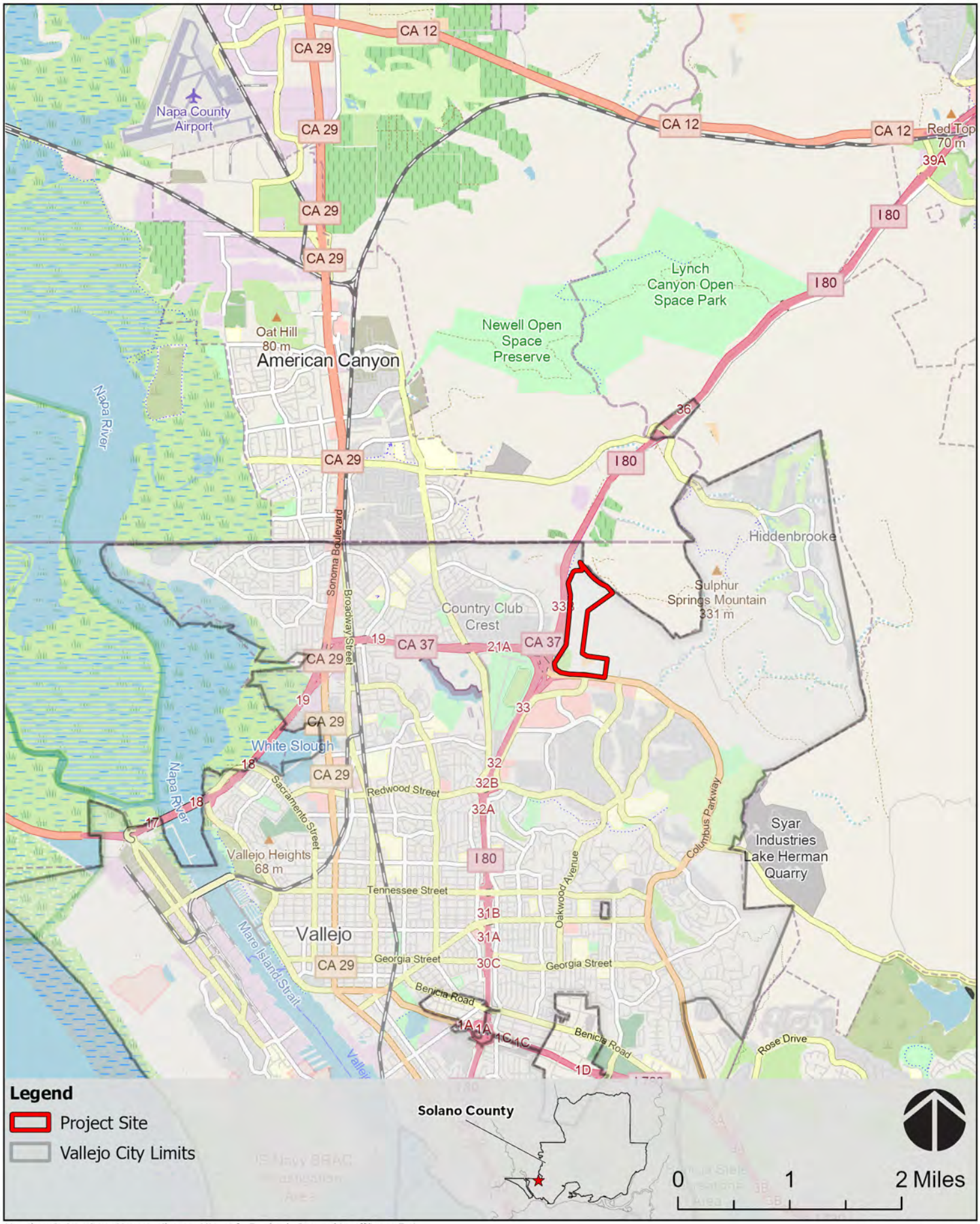
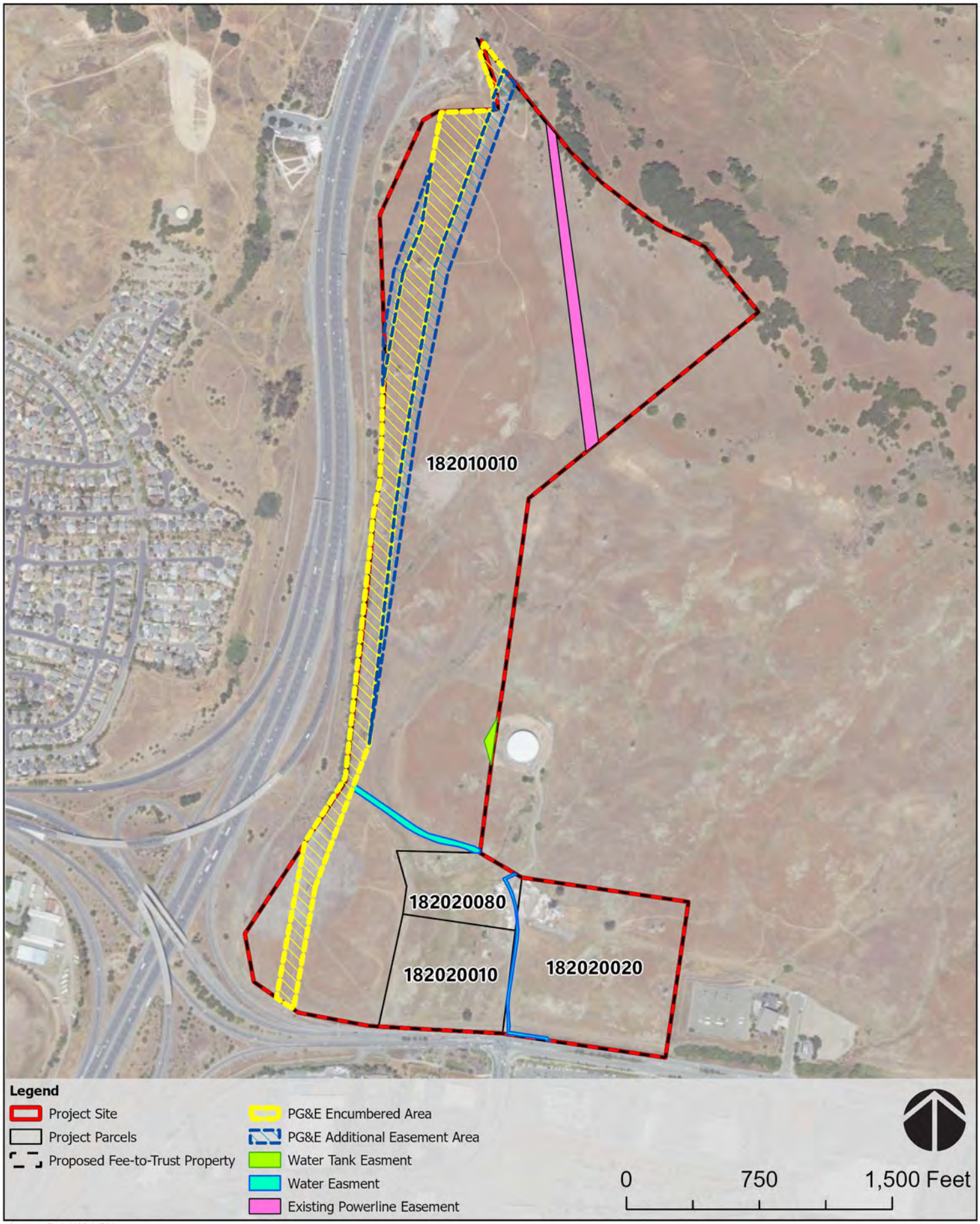


FIGURE 1.4-2
SITE AND VICINITY

Esri Community Maps Contributors, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census

FIGURE 1.4-3
AERIAL AND PARCEL MAP



Source: Esri, USDA FSA

FIGURE 1.4-4

PG&E POWERLINE AND WATER EASEMENTS

Table 1.4-1: Proposed Fee-to-Trust Parcels

Accessor Parcel Number	Acreage
0182010010	128.2
0182020020	18.2
0182020080	5.6
0182020010	8.0
Total	**160**

The Project Site is bordered by I-80 to the west; Columbus Parkway and commercial development to the south; undeveloped land to the north; and undeveloped land, City water tank, electrical substation, and Vallejo Fire Station #27 to the east. The Napa County Airport is located approximately 5 miles northwest of the Project Site.

1.1 REGULATORY REQUIREMENTS AND APPROVALS

The project alternatives, as described in **Section 2**, may require the federal, State, and local permits and approvals identified in **Table 1.5-1.**

Table 1.1-1: Potential Federal Permits and Approvals

Agency	Permit or Approval	Alternatives
Secretary of the Interior	Transfer of land into trust for gaming purposes and issuance of a reservation proclamation	A, B, and C
National Indian Gaming Commission	Approval of gaming management contract	A and B
U.S. Environmental Protection Agency (USEPA)	Approval of coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Construction Activities as required by the Clean Water Act (CWA). Approval of 401 Water Quality Certification prior to discharge of dredged or fill material into Waters of the U.S.	A, B, and C
State Historic Preservation Office	Consultation under Section 106 of the National Historic Preservation Act (NHPA)	A, B, and C
U.S. Army Corps of Engineers	Approval of a 404 Permit prior to discharge of dredged or fill material into Waters of the U.S.	A, B, and C
U.S. Fish and Wildlife Service (USFWS)	Consultation in accordance with Section 7 of the Federal Endangered Species Act (FESA)	A, B, and C
City of Vallejo	Approval of Mitigation Improvements to Access Intersection Consideration and approval of relocation of water pipeline easement and road access easement for water tank. Off-Site Water Supply Option: Approval of water service and connection to municipal water system (MWS). On-Site Wastewater Treatment Option: Approval of pipeline easements for installation of recycled water pipelines	A, B, and C
Vallejo Flood and Wastewater District (VFWD)	Off-Site Wastewater Treatment Option: Approval of wastewater service and connection to wastewater collection system	A, B, and C

Section 2 | Alternatives

A reasonable range of alternatives has been selected based on consideration of the purpose and need of the Proposed Action and opportunities for potentially reducing environmental effects. These alternatives are described below and analyzed throughout this EA. **Section 2.5** summarizes and compares the potential environmental consequences, benefits, and/or detriments of the project alternatives. **Appendix F** discusses the alternatives that were considered but are not analyzed in this EA.

2.1 ALTERNATIVE A – PROPOSED PROJECT

Alternative A consists of the following components: (1) transfer of the 160-acre Project Site into federal trust status for the benefit of the Tribe for gaming purposes (Proposed Action); and (2) the subsequent development by the Tribe of a casino facility, Tribal housing, Tribal administration building, and associated parking and infrastructure on the Project Site (Alternative A). A conceptual site plan for Alternative A is shown in **Figure 2.1-1**.

2.1.1 Proposed Land Uses

The following land uses are proposed under Alternative A:

- Gaming Facility: develop a casino facility within the western portion of the Project Site that includes an eight-story casino with restaurants, bars, and a ballroom for events. **Figures 2.1-2** and **2.1-3** depict the layout of each floor of the casino facility. A breakdown of the components of Alternative A is provided in **Table 2.1-1**. Alternative A would create an estimated 3,640 full-time equivalent jobs (**Appendix A**). The casino facility would be open 24 hours a day, 7 days a week.
- Tribal Housing and Administration: Development of 24 single-family residences and a Tribal administration building in the northern portion of the Project Site. The Tribal administration building would provide offices for up to 30 Tribal employees.
- Biological Preserve: Establishment of an approximately 45-acre biological preserve within the northeastern portion of the Project Site designed to protect high quality habitat for special-status species (see **Figure 3.5-1**). The Tribe proposes to memorialize this commitment via a Tribal ordinance and a Memorandum of Understanding (MOU) between the Tribe, BIA, and USFWS.

2.1.2 Architecture, Lighting, Signage, and Landscaping

The architecture of the casino facility, Tribal housing, and Tribal administrative building would incorporate natural materials and colors to integrate the buildings with the natural characteristics of the site and surrounding areas. As shown in **Figures 2.1-2** and **2.1-3**, the casino facility would be built onto and around the existing hillsides of the site with a maximum height of approximately 377 feet above sea level, resulting in the western side of the building reaching approximately 108 feet above ground level and the eastern side of the building having a maximum height of approximately 51 feet above ground level. The Tribal administration building will have a maximum height of approximately 20 feet above ground level. Architectural renderings of Alternative A are provided in **Figure 2.1-4**, before/after renderings from various viewpoints are included in **Section 3.13**.

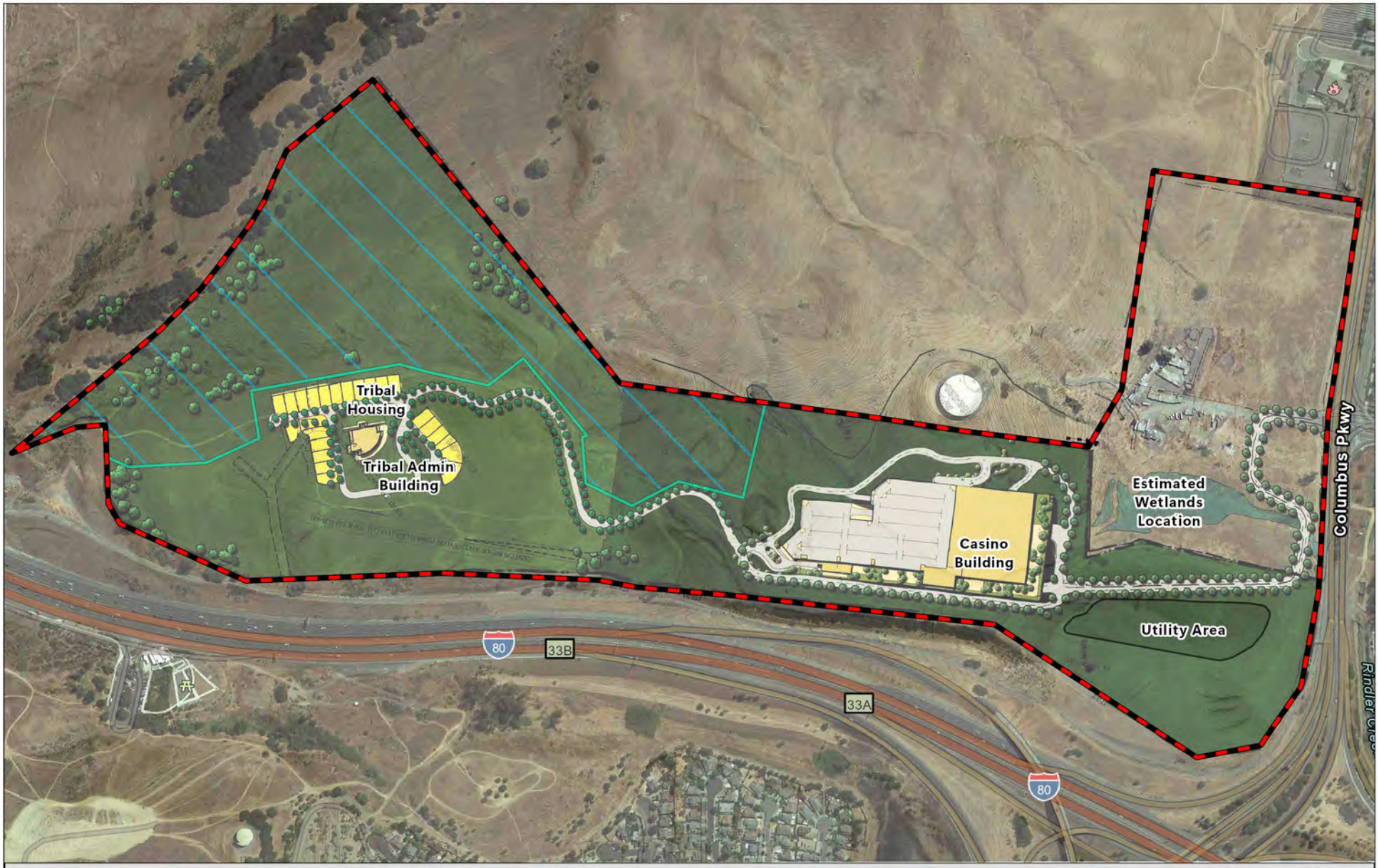
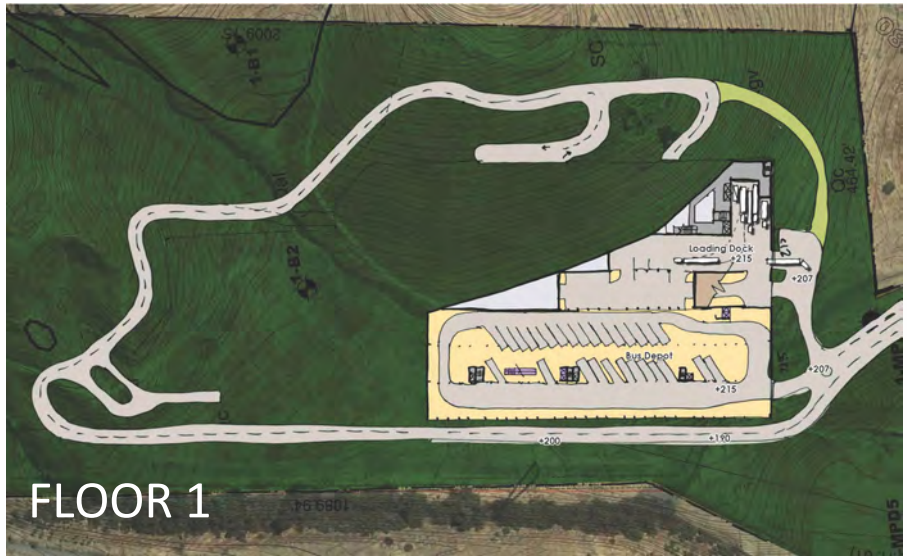
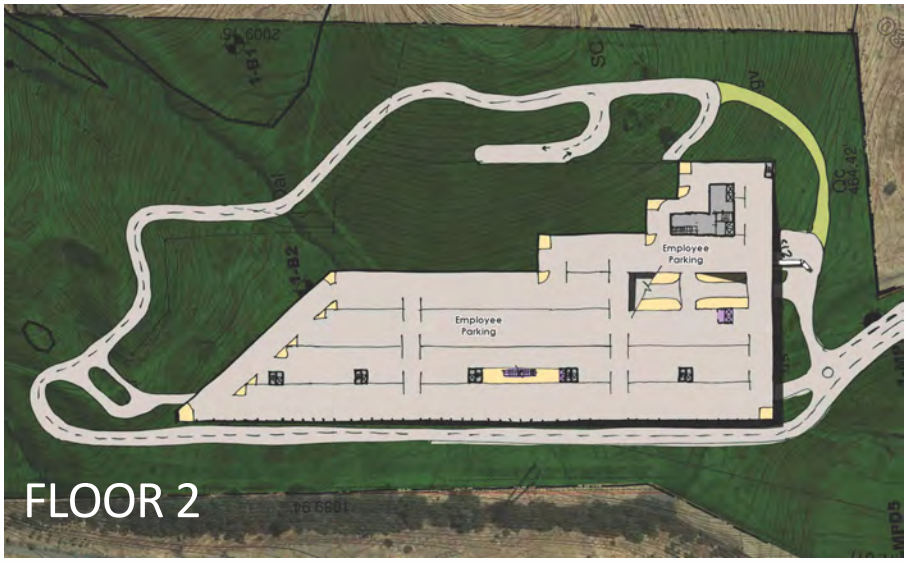


FIGURE 2.1-1

ALTERNATIVE A SITE PLAN





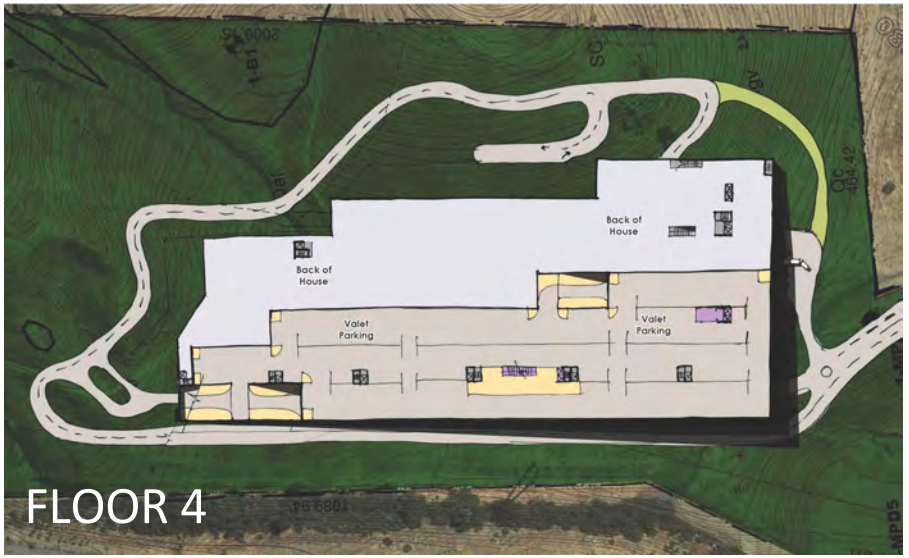


FIGURE 2.1-2

ALTERNATIVE A FLOORS 1-4

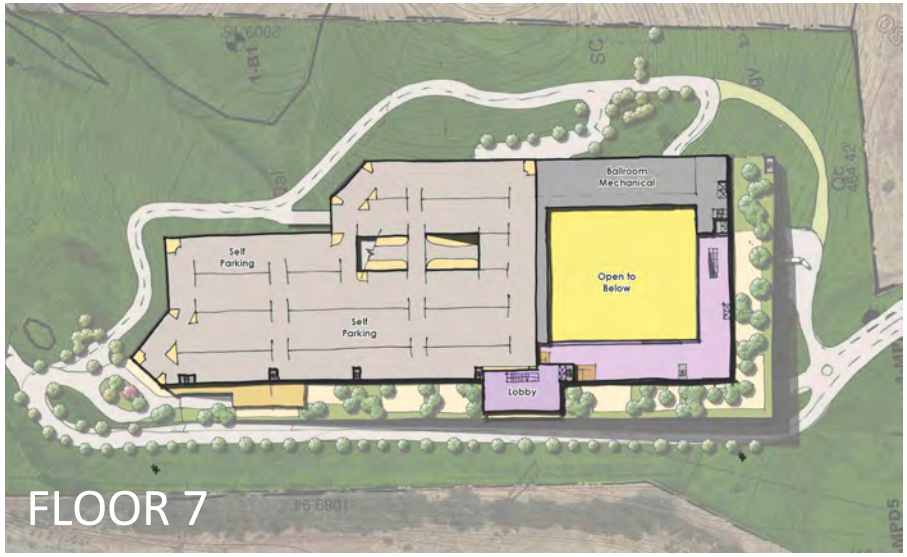


FIGURE 2.1-3

ALTERNATIVE A FLOORS 5-8

SCOTTS VALLEY RESORT | Exterior View 03

Steelman Partners℠

SCOTTS VALLEY RESORT | Exterior View 04

Steelman Partners℠

Steelman Partners 2024

FIGURE 2.1-4

ALTERNATIVE A RENDERINGS

Table 2.1-1: Alternative A Project Components

Component	Units	Approximate Square Footage (sf)
Casino		
Gaming Floor	3,500 slots / 130 tables	238,266 sf
Back of House	-	218,533 sf
Lobby/Cashier/Club	-	25,189 sf
Restaurants and Kitchens	1,067 seats	51,603 sf
Bars	602 seats	19,019 sf
Ballroom	2,500 seats	52,794 sf
Restrooms	-	9,555 sf
	Total	**614,959 sf**
Parking Garage		
Guest Parking	2,619 spaces	949,531 sf
Employee Parking	803 spaces	278,964 sf
Valet	634 spaces	217,728 sf
Bus Depot	12 spaces	112,266 sf
Loading Dock	-	36,522 sf
Total	**4,068 spaces**	**1,595,011 sf**
Tribal Housing and Administration		
Tribal Housing	24 homes	
Tribal Admin Building		12,555 sf
Total	**24 homes**	**12,555 sf**

Source: Steelman Partners, 2024

Exterior lighting would be integrated into components of the architecture and strategically positioned to minimize off-site lighting and any direct site lines to the public. No illumination would be directed towards the biological preserve area in the northeastern corner of the site, or the wetland area in the southern portion of the Project Site. A monument sign for the casino facility would be installed near the access driveway along Columbus Parkway. Lighting for the sign would be integrated into components of the sign and would be strategically positioned to minimize off-site lighting.

Landscaping will be limited to native trees and plants along the access roads and in the immediate vicinity of the casino facility, Tribal housing and administration area, and utility area. The utility area will also have a screening fence around it to screen the above ground water and/or wastewater infrastructure. The remainder of the site will remain in its natural habitat and a portion of the Project Site will be preserved for biological resources as described in **Section 2.1.3**.

2.1.3 Water Supply

The estimated average day and peak day demand, with and without assuming recycled water use (see **Section 2.1.6**), and fire flow are listed in **Table 2.1-2**. There are two options proposed for water supply to the Project Site, as described in the Water and Wastewater Feasibility Study included in **Appendix B** and summarized below.

Table 2.1-2 Approximate Project Alternative Water Demands

Alternative	Average Day (gpd)	Peak Day (gpd)	Average Day with Recycled Water Use (gpd)	Peak Day with Recycled Water Use (gpd)	Fire Demand (gpm/4 hours)
Alternative A	287,000	431,000	207,000	351,000	4,000
Alternative B	278,000	417,000	198,000	337,000	4,000
Alternative C	73,000	110,000	61,000	98,000	4,000

Notes: gpd = gallons per day; gpm = gallons per minute; Source: **Appendix B**

Off-Site Water Supply (Option 1)

Under Water Supply Option 1, the City of Vallejo's MWS would provide potable water by a connection to an existing 24-inch transition main that crosses the Project Site from the City's 6-million-gallon (mg) Columbus Parkway Tank adjacent to the eastern boundary of the Project Site. A 1.5-million-gallon, welded steel storage tank would be constructed to store City provided water, and a pump station and hydropneumatics tank would be constructed to provide distribution system pressure and fire flow. The proposed storage tanks and pump station would be in the "utility area" in the southern portion of the Project Site (**Figure 2.1-1**). All water storage and distribution facilities would be designed to comply with City standards. The Tribe would enter into an agreement with the City for the provision of potable water.

On-Site Water Supply (Option 2)

Potable water would be provided through the installation of groundwater wells on the Project Site. A minimum of two wells would be installed in order that one can be serviced without interrupting the water supply. Wells would be drilled to 500 to 1,000 feet below ground surface. Due to the fractured bedrock underlying the Project Site, more than two wells may be required to serve the development depending on the available capacity of each. Actual well capacity, location, and operating strategy would be developed during the design phase; however, no wells will be installed within the Biological Preserve described in **Section 2.1.3**. Each well would have an approximate footprint of 20 feet by 30 feet, including the pump, well, piping, and miscellaneous equipment. Additionally, around each well would be a control zone with a minimum radius of 50-feet to protect the source from vandalism, tampering, and other possible sources of contamination. Each well would also be setback from any recycled water use area or impoundment as required by Title 22 criteria.

Based on historical mining operations in the region, it is anticipated that an on-site water treatment plant would be required to meet Clean Drinking Water Act requirements, including the removal of mercury and other heavy metals. The proposed layout of the treatment plant and process flow diagram can be seen in Figures 4-1 and 4-2 of **Appendix B** (see Section 4.1.2 of **Appendix B**). A 1.5-million-gallon, welded steel storage tank would be constructed to store water after it is treated on-site and a pump station and hydropneumatics tank would be constructed to provide distribution system pressure. This tank would accommodate four hours of fire flow at 4,000 gpm. The proposed storage tanks and pump station would be located in the "utility area" in the southern portion of the Project Site (**Figure 2.1-1**).

2.1.4 Wastewater Treatment and Disposal

The estimated average day and peak day wastewater generation flows are listed in **Table 2.1-3**. There are two options proposed for wastewater treatment, as described in **Appendix B** and summarized below.

Table 2.1-3: Approximate Project Development Wastewater Generation

Alternative	Average Day (gpd)	Peak Day (gpd)
Alternative A	217,000	296,000
Alternative B	209,000	288,000
Alternative C	63,000	93,000

Notes: gpd = gallons per day; Source: **Appendix B**

Off-Site Wastewater Treatment (Option 1)

Under Wastewater Option 1, wastewater treatment would be provided by the VFWD through connection to an existing 12-inch sewer collection pipeline in Columbus Parkway that would convey wastewater to the VFWD wastewater treatment plant (WWTP) for treatment and disposal. The sewer collection system and connection to the 12-inch sewer collection pipeline would be designed to comply with VFWD standards. The Tribe would enter into an agreement with the VFWD for the provision of wastewater conveyance, treatment, and disposal.

On-Site Wastewater Treatment (Option 2)

Wastewater Treatment Plant and Recycled Water Infrastructure

Wastewater would be treated at an on-site WWTP located in the located in the "utility area" in the southern portion of the Project Site (**Figure 2.1-1**). The WWTP would treat wastewater to a tertiary level, as defined by Title 22 of the California Code of Regulations (CCR). A wastewater treatment process flow diagram is provided in Figure 5-3 of **Appendix B,** and a description of the WWTP components are detailed in Section 5.2 of **Appendix B**.

Sludge (biosolids) produced by the WWTP would be dewatered on-site and periodically hauled to a Class III landfill for disposal in accordance with federal and State regulations. Brine generated from cooling tower processes and recycled water treatment processes would be disposed off-site pursuant to federal and State regulations.

Recycled Water Disposal

On-site recycled water reuse facilities will be designed to ensure compliance with all USEPA standards (typically deferred to California's Title 22 standards), including recycled water irrigation facilities being marked in a purple color; signage informing the public recycled water is being used, using separate trenches for recycled pipelines with a minimum separation distance from other water pipelines, and the labeling to indicate recycled water valves, boxes, and sprinkler heads.

On-site recycled water would be utilized year-round for casino toilet and urinal flushing. The system would be dual-plumbed with potable and recycled water being plumbed separately with no cross connections. Recycled water will also be used for cooling tower makeup. During the dry season (approximately April through October), recycled water would be used to irrigate on-site and off-site landscaping at agronomic rates, subject to federal, State, and local regulations. Of the approximately 241 acre-feet per year (AFY) of recycled water that would be generated by Alternative A, approximately 105 AFY would be used on-site and 136 AFY would be available for off-site irrigation. **Figure 2.1-5** shows potential recycled water users that were identified in the Recycled Water Facilities Plan (RWFP) prepared by the VFWD and their respective recycled water demands. Augmenting the water supply of these users with recycled water would offset the use of raw water provided by the City. The Tribe would enter into an agreement with

individual recycled water users, the City, and/or the VFWD for the use of recycled water generated by the on-site WWTP.

A 100,000-gallon recycled water storage tank would be constructed to provide equalization storage for on-site recycled water use used by Alternative A. Additionally, up to 21 million gallons (mg) (64.5 acre-feet (AF)) of seasonal storage would be needed to store the volume of recycled water generated during the wet season when there is little to no irrigation demand. The recycled water storage tank and seasonal storage, if needed, would be located in the "utility area" in the southern portion of the Project Site (**Figure 2.1-1**) and a recycled water pump station combined with a hydropneumatic tank would be used to supply the distribution system and maintain system pressure.

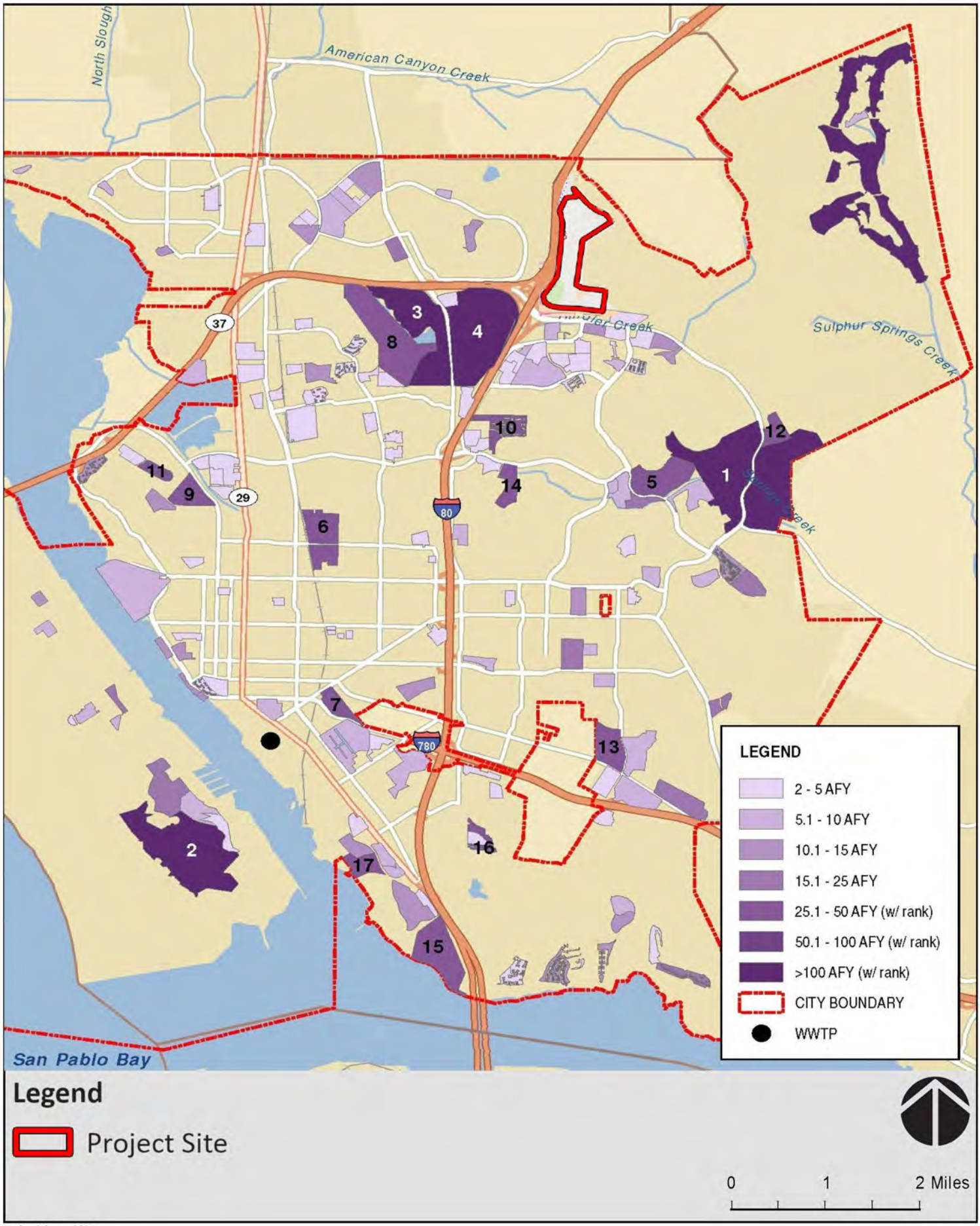
2.1.5 Grading and Drainage

Proposed Grading

A Preliminary Grading and Stormwater Plan and Geotechnical Report have been prepared for the project alternatives and are included as **Appendix C** and **Appendix D**, respectively. **Figure 2.1-6** illustrates the key components of the grading and stormwater plan for Alternative A, with the limits of grading corresponding to the orange "Drainage Management Area Boundary" line. Under Alternative A, grading activities would occur across approximately 54 acres of the Project Site.

Specialized grading and stabilization techniques would be used to address underlying geotechnical conditions on the Project Site, including four existing slow-moving landslides that occur within the Project Site, consisting of two smaller slides entirely within the site boundaries and two larger slides that extend beyond the site boundaries. These strategies would function to ensure the landslides do not impact the proposed development components and that Alternative A does not result in new areas of instability in the vicinity of the landslides (**Figure 2.1-7**). These strategies include a combination of avoidance by maintaining or exceeding recommended setbacks, minimizing types of grading within certain setback areas, and grading or structural measures to stabilize slopes and described in detail in **Appendices C** and **D**. **Figure 2.1-8** depicts two geologic cross-sections across the Project Site. Cross Section A-A' (top) depicts the northern proposed residential development in relation to the Hunter Hill Landslide, while Cross Section B-B' (bottom) depicts the casino facility below the toe of the Eastern Landslide Complex. In addition to earthmoving activities, a 20-foot retaining wall would be necessary to stabilize soils upslope of the tribal housing development, as shown in Exhibit B of **Appendix C**.

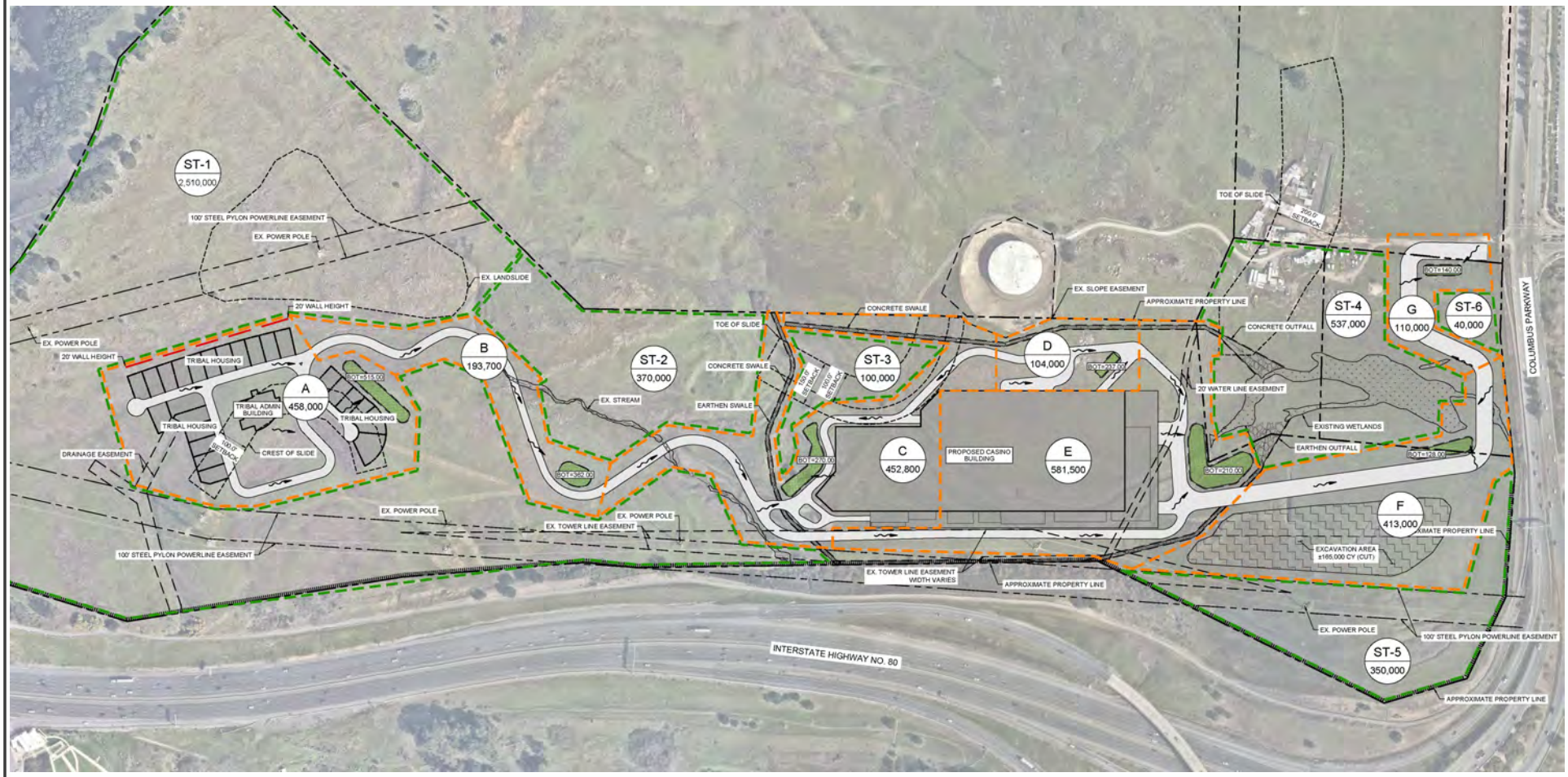
Implementation of the grading plan and stabilization techniques described above would require 767,000 cubic yards (CY) of fill. To minimize import of material, a portion of the fill would be obtained from the southwestern portion of the Project Site in an area where previous grading has already occurred. This area is shown on Exhibit B of **Appendix C** and would provide approximately 165,000 CY of fill material. The total amount of fill material originating from the Project Site would be 632,000 CY, including excavated material from the grading plan. Therefore, Alternative A would require the import of 135,000 CY of fill material.



Hydro Science 2024

FIGURE 2.1-5

POTENTIAL OFF-SITE RECYCLED WATER USERS



Legend

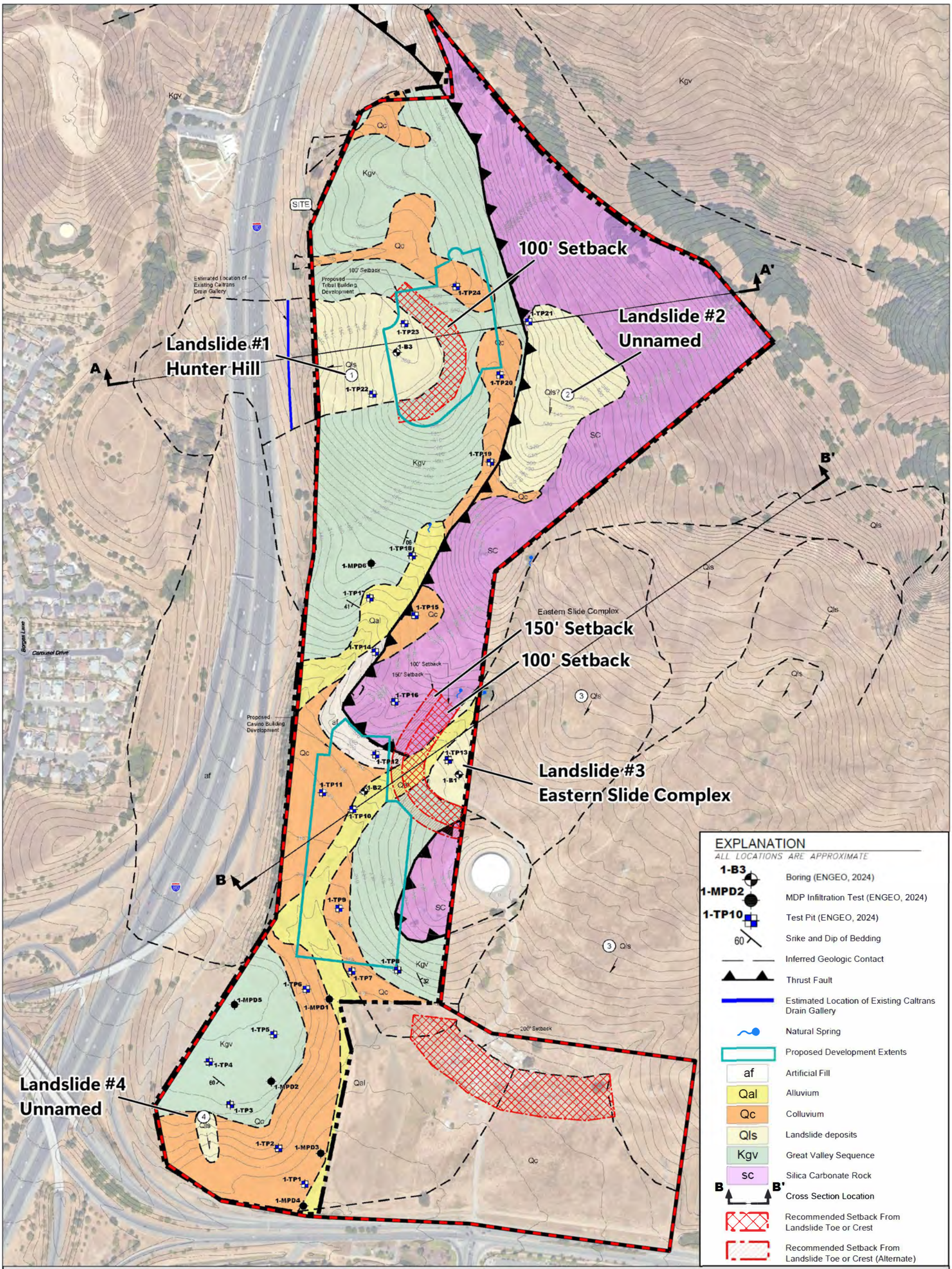
- PROPERTY LINE
- EASEMENT LINE
- RETAINING WALL
- PROPOSED BUILDING WALL AND OVERHANG
- DRAINAGE MANAGEMENT AREA BOUNDARY
- SURFACE FLOW DIRECTION
- ASPHALT CONCRETE
- WETLAND AREA
- BIORETENTION AREA

0 500 1,000 Feet

Steelman Partners 2024 and

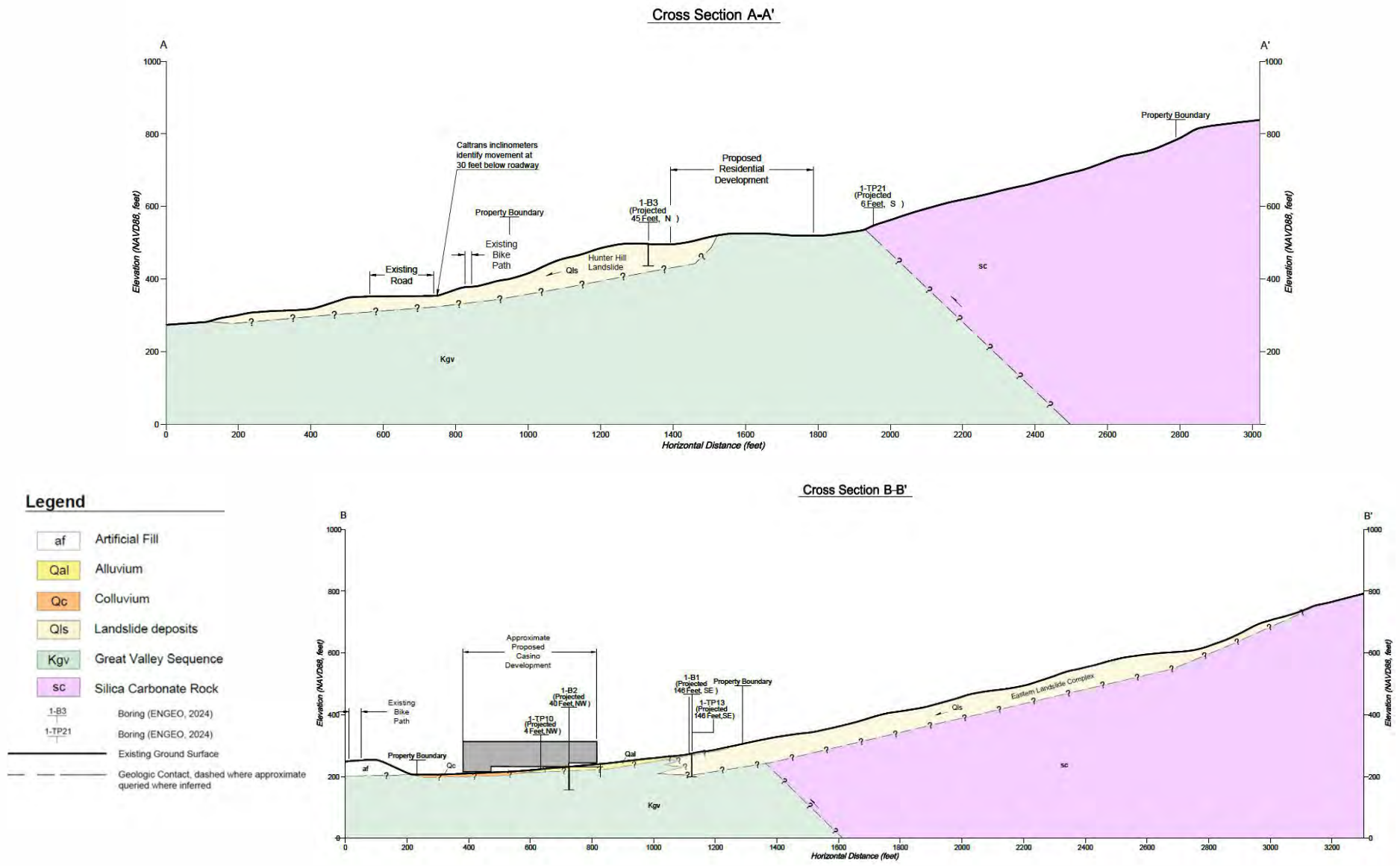
FIGURE 2.1-6

ALTERNATIVE A GRADING AND DRAINAGE



Steelman Partners 2024 and

FIGURE 2.1-7
LANDSLIDES



ENGEO 2024

FIGURE 2.1-8

GEOLOGIC CROSS SECTIONS

Stormwater and Drainage Infrastructure

Existing drainage conditions are comprised of a mixture of swales and channels that occur within naturally low-lying areas on the Project Site. These features collect runoff following storm events and do not receive sufficient water to be wetted for significant periods of time. Two primary drainages cross the Project Site and flow from the northeast to the southwest. Both of these features combine into a single channel that flows into a wetland complex, then into a double-pipe culvert south of the Project Site. This culvert directs stormwater under Columbus Parkway and into Rindler Creek, which is tributary to Lake Chabot.

Under Alternative A, stormwater from development areas within the Project Site would be collected within one of seven drainage management areas shown on **Figure 2.1-6**, each with a designated bioretention area that would collect and treat stormwater runoff from impervious surfaces. Bioretention sizing was based upon the 4% rule: a low impact development treatment strategy where 4% of the area of impervious surfaces within a drainage management area are dedicated to landscaped bioretention.

Alternative A would result in changes to the on-site drainage patterns. The northern of the two drainages would remain in its existing location. Where roadways cross this drainage, they would be designed with appropriately sized culverts to maintain flows of this feature. The southern drainage extends through the development area of the proposed casino facility. This feature would be re-routed and would discharge into the riparian area just upstream of the point that currently receives flows from this feature and eventually discharges into the same wetland complex as under existing conditions (**Figure 2.1-6**). The swale would be a vegetated earthen swale except for where it crosses within a landslide setback area. In this area, the swale would be concrete lined. The swale would be designed with a flared outfall such that discharge rates would not exceed pre-development conditions. Additionally, sheet runoff from the east of the Project Site currently flows southwest across the Project Site, eventually collecting in the same wetland complex. Sheet flow from the adjacent property to the east would be collected in a proposed concrete-lined swale that would transition into a flared earthen outfall prior to discharge into the wetland complex. Discharge into the wetland from both the earthen swale and the concrete swale would be dissipated before entering the wetland, ensuring that pre-development discharge rates are not exceeded.

2.1.6 Roadway Access and Circulation

Under Alternative A, access to the Project Site would be via a new entrance roadway that would connect to Columbus Parkway as the north leg at its existing intersection with Admiral Callaghan Lane, currently controlled by a four-way light (**Figure 2.1-1**). The existing gravel entrance would be upgraded to a paved road. A secondary emergency access would be established by a dirt road connection to the existing bike path. The onsite circulation includes a main driveway on the southern portion of the Project Site that loops around the casino facility to provide access to the various entrances to the multilevel parking garage and two porte cocheres. The on-sire roadway then continues north towards the proposed Tribal housing and Tribal administration building. Four bridges/culverts would be required along the internal roadway network to provide safe and stable crossings to stream channels and wetlands that exist on the property.

2.1.7 Public Services, Electricity, and Natural Gas

The proposed approach for law enforcement, fire services, and electricity and natural gas service are described below:

- **Law Enforcement:** The Solano County Sheriff's Office (SCSO) and/or City of Vallejo Police Department would be the public agency responsible for providing law enforcement services to

the Project Site in accordance with Public Law 280 (for additional information on Public Law 280, refer to Appendix E). The Tribe proposes to enter into a contract with either the Vallejo Police Department or the SCSO for law enforcement services on the Project Site. Tribe-managed security personnel and security cameras would provide surveillance of proposed structures, parking areas, and ancillary facilities. Fire Protection and Emergency Medical Services (EMS): The Tribe proposes to enter into a contract with the City of Vallejo Fire Department to be the primary provider of fire protection and EMS.

- **Electricity and Natural Gas:** The Tribe proposes to contract with Pacific Gas and Electric (PG&E) to provide electrical and natural gas services to the Project Site. Emergency on-site generators would be installed to provide power to the development in the event that PG&E is unable to provide electricity due to a planned or unplanned disruption in service. There would be four 3250 kilowatts diesel generators along with aboveground storage tanks (ASTs) to store the diesel fuel for the generators. Generators would be located in enclosures and mounted on concrete pads. The ASTs would have secondary containment and be situated in concrete containment areas.

2.1.8 Construction

Construction of Alternative A is conservatively assumed to occur in one phase beginning in 2027 and last approximately 18 months with an anticipated opening day in 2028. The proposed facilities would be constructed to meet the most current International Building Code (IBC) requirements. An indoor sprinkler system would be installed to provide fire protection. The horse boarding facility located on the southern portion of the Project Site would be demolished. Construction of Alternative A would require the import of 135,000 CY of fill material, transported via approximately 1,350 truck deliveries. Construction equipment and material staging areas will be located within the limits of grading shown on **Figure 2.1-6**.

Construction of the casino facility would involve coordination with the City of Vallejo to either amend the water line easement to allow construction of a building over the 24-inch transmission main that crosses the southwestern portion of the Project Site or relocation of the waterline to a mutually agreed upon alignment elsewhere on the Project Site. If the latter occurs, the existing pipeline will not be abandoned until a new pipeline is developed and operational.

2.1.9 Protective Measures and Best Management Practices

Protective measures and best management practices (BMPs), including regulatory requirements and voluntary measures that would be implemented by the Tribe, have been incorporated into the design of Alternative A. Where applicable, these measures would be incorporated into any design or construction contracts to eliminate or substantially reduce environmental consequences from Alternative A. These measures are discussed below in **Table 2.1-4**.

Table 2.1-4: Alternative A Protective Measures and Best Management Practices

Resource Area	Protective Measures and Best Management Practices
Land Resources	▪ Erosion control measures will be implemented during construction as described further under the Water Resources BMPs. ▪ A registered design professional will prepare a project-specific design-level geotechnical report conducted in accordance with standards no less stringent than the IBC. This will include additional subsurface investigations beneath the proposed development areas and improvements, laboratory testing, engineering analysis, consultation with the design team, and reporting of conclusions and design-level recommendations for the

Resource Area	Protective Measures and Best Management Practices
	development. A corrective grading plan will be developed along with the design-level geotechnical study to clarify geotechnical recommendations related to keyways, benches, cut/fill transition sub-excavation, and subdrains. The Tribe will adhere to the recommended measures within the report. ▪ The project-specific design-level geotechnical report will include at a minimum: o Additional mud-rotary borings with rock coring within the footprint of the proposed building locations to confirm depth of fill, colluvial/alluvial soil, and landslide deposits, and to collect samples for laboratory testing. o Additional test pits and/or trenches to further constrain geometry of existing landslides and confirm depth of fill and colluvial/alluvial soil. o Soil sample collection at depths relevant to foundation design. o Laboratory testing, including, but not limited to, moisture content, unit weight, gradation, Atterberg Limits, R-value, strength including remolded and residual strength, and corrosivity testing. o Design-level assessment of geologic and geotechnical hazards, including, but not limited to: ▪ Characterization of subsurface conditions ▪ Static and pseudo-static slope stability analysis of up to three critical cross sections ▪ Recommendations for treatment of expansive soil o Preparation of a remedial grading plan. o Design recommendations for foundation system design. o Design recommendations for retaining wall design. o Foundation constructability recommendations. o Design-level earthwork and improvement design and construction recommendations.
Water Resources	▪ Coverage under the NPDES General Construction Permit shall be obtained from the USEPA for construction site runoff during the construction phase in compliance with the CWA. ▪ A Stormwater Pollution Prevention Plan (SWPPP) shall be prepared, implemented, and maintained throughout the construction phase of the development, consistent with General Construction Permit requirements. The SWPPP would include, but would not be limited to, the following BMPs to minimize storm water effects to water quality during construction: o Grading activities shall be limited to the immediate area required for construction. o Temporary erosion control measures (such as silt fences, fiber rolls, staked straw bales, temporary re-vegetation, rock bag dams, erosion control blankets, and sediment traps) shall be employed as needed for disturbed areas. Plastic monofilament or similar materials that could entangle wildlife shall not be used. o Construction activities shall be scheduled to minimize land disturbance during peak runoff periods to the extent feasible.

Resource Area	Protective Measures and Best Management Practices
	○ Disturbed areas shall be paved, re-vegetated, and/or stabilized following construction activities. ○ A spill prevention and countermeasure plan shall be developed that identifies proper storage, collection, and disposal measures for potential pollutants used on-site. ○ Petroleum products shall be stored, handled, used, and disposed of properly in accordance with provisions of the CWA (33 USC §§ 1251 to 1387). ○ Construction materials shall be stored, covered, and isolated to prevent runoff loss and contamination of surface and groundwater. ○ Fuel and vehicle maintenance areas shall be limited to the impact area. ○ Sanitary facilities shall be provided for construction workers. ○ To minimize dust generation during construction, soil will be wetted down with water prior to ground disturbance as needed. ○ Generated waste shall be properly disposed of. ▪ To reduce water usage, low-flow toilets, faucets, and other water-using appliances shall be installed to the extent feasible. ▪ The stormwater system on the Project Site shall be designed according to City standards, including provisions of the Contra Costa Stormwater Guidebook.
Biological Resources	▪ Pets shall not be allowed on site during construction. ▪ Waste receptacles shall be made available within the Project Site and shall be properly maintained with regular trash removal. All trash and food items will be promptly contained within closed, wildlife-proof containers. These will be regularly removed from the Project Site to reduce the attractiveness of the area to ravens and other predators. ▪ Construction equipment shall be cleaned prior to use in the Project Site in order to prevent the spread of invasive or noxious species to the Project Site. When applicable, weed-free dirt, mulch, gravel, and other materials should be used. ▪ Open trenches shall be covered at the end of each workday or shall have ramps installed at regular intervals to prevent the entrapment of wildlife. In addition, the project proponent, its agents, or contractors shall cover or fill all potential pitfalls to wildlife or cavities in which wildlife may become trapped when not attended. These include pits, trenches, vats, buckets, pipes, etc. ▪ Equipment and materials that could provide refuge for wildlife shall be checked prior to use or movement to ensure wildlife are not present. If present, wildlife shall be allowed to vacate the area unharmed on their own. ▪ Exterior lighting shall be downcast and shielded such that lighting and glare do not overspill the built environment. ▪ Uplighting, disruptive flashing lights, or materials that cause excessive glare shall not be used.
Socioeconomic Conditions and Environmental Justice	▪ The Tribe would obtain a license to serve alcohol from the State of California Department of Alcoholic Beverage Control. Casino patrons would be required to be 21 years of age or older in areas where alcohol is served, and a "Responsible Alcoholic Beverage Policy" would be adopted to include

Resource Area	Protective Measures and Best Management Practices
	provisions related to identification verification and refusal of service to individuals who are visibly intoxicated. ▪ The Tribe will implement operation policies at the 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 will include problem gambler hotlines and websites. ▪ The Tribe shall develop an anti-human trafficking program that will include training programs to help staff recognize potential victims of trafficking, including understanding the signs of trafficking and knowing how to report suspicious activity. The anti-trafficking program will also include an awareness program that will include visible signage and brochures to educate casino and hotel patrons on what constitutes human trafficking and how to report suspicious activity.
Air Quality	The following dust suppression measures will be implemented during construction to control the production of fugitive dust (particulate matter 10 microns in size [PM_{10}]) and prevent wind erosion of bare and stockpiled soils: ▪ Exposed soil will be sprayed with water or other suppressants twice a day or as needed to suppress dust. ▪ Non-toxic chemical or organic dust suppressants will be used on unpaved roads and traffic areas. ▪ Dust emissions during transport of fill material or soil will be minimized by wetting loads, ensuring adequate freeboard (space from the top of the material to the top of the truck bed) on trucks, cleaning the interior of cargo compartments on emptied haul trucks before leaving a site, and/or covering loads. ▪ Spills of transported fill material on public roads will be promptly cleaned. ▪ Traffic speeds on the Project Site will be restricted to 15 miles per hour (mph) to reduce soil disturbance. ▪ Wheel washers will be provided to remove soil that would otherwise be carried offsite by vehicles to decrease deposition of soil on area roadways. ▪ Dirt, gravel, and debris piles will be covered as needed to reduce dust and wind-blown debris. The following measures will be implemented to reduce emissions of criteria air pollutants (CAP), greenhouse gases (GHG), and diesel particulate matter (DPM) from construction: ▪ The Tribe will control CAP and GHG emissions from the facility by requiring all diesel-powered equipment be properly maintained and limiting idling time to five minutes when construction equipment is not in use, unless per engine manufacturer's specifications or for safety reasons more time is required. 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. ▪ All construction equipment with a horsepower rating of greater than 50 will be equipped with diesel particulate filters, which would reduce

Resource Area	Protective Measures and Best Management Practices
	approximately 85% of DPM, and at a minimum be equipped with California Air Resources Board (CARB) rated Tier 3 engines. ▪ The use of low reactive organic gases (150 grams per liter or less) will be required for architectural coatings to the extent practicable. ▪ Environmentally preferable materials, including recycled materials, will be used to the extent readily available and economically practicable for construction of facilities. The Tribe will reduce emissions of CAPs and GHGs during operation through the following actions: ▪ The Tribe will use clean fuel vehicles (i.e. electric, hybrid, hydrogen, or other fuels with reduced emissions) in the vehicle fleet where practicable, which would reduce CAPs and GHG emissions. ▪ The Tribe will provide preferential parking for employee vanpools, carpools, and or other rideshare vehicles, which would reduce CAPs and GHGs. ▪ Twenty percent of parking spaces will be constructed as electric vehicle (EV) capable spaces. Twenty-five percent of the EV capable spaces will be provided with EV supply equipment (i.e., chargers). ▪ The Tribe will use electric boilers and appliances in lieu of natural gas or propane units to the extent that electric boilers and appliances are commercially available. ▪ Shuttle service to and from select population centers will be provided to reduce CAPs and GHGs. ▪ Water consumption will be reduced through low-flow appliances, drought resistant landscaping, and the incorporation of "Save Water" signs near water faucets throughout the development. ▪ The Tribe will control CAPs, GHG, and DPM emissions during operation by requiring that all diesel-powered vehicles and equipment be properly maintained and minimizing idling time to five minutes at loading docks when loading or unloading food, merchandise, etc. or when diesel-powered vehicles or equipment are not in use, unless per engine manufacturer's specifications or for safety reasons more time is required. ▪ Landscape maintenance equipment (i.e., mowers, trimmers) used on the Project Site will be electric. No equipment with gasoline engines will be used. ▪ The Tribe will use energy efficient lighting and appliances to reduce energy usage, thus reducing indirect CAP and GHG emissions from the project. ▪ The Tribe will install recycling bins throughout the facility for glass, cans, and paper products. Trash and recycling receptacles will be placed strategically outside to encourage people to recycle. In addition, the Tribe will promote the use of non-polystyrene take-out containers and encourage food waste composting programs at all restaurants. ▪ The Tribe will discourage buses from idling for extended periods. ▪ Adequate ingress and egress at entrances will be provided to minimize vehicle idling and traffic congestion. If Option 2 for wastewater treatment is implemented, the following odor-reducing components and designs will be incorporated into the design of the WWTP:

Resource Area	Protective Measures and Best Management Practices
	▪ Activated carbon filter/carbon adsorption. ▪ Biofiltration. ▪ Fine bubble aerator. ▪ Cover or enclose all anaerobic areas. ▪ Exhaust stack and vents will be positioned to limit odor exposure to sensitive receptors.
Public Services and Utilities	BMPs to be implemented during construction: ▪ 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. ▪ The site will be cleaned daily of trash and debris to the maximum extent practicable. BMPs to be implemented during operation: ▪ The Tribe will conduct background checks of all gaming employees and ensure that all employees meet licensure requirements established by the IGRA and the Tribe's Gaming Ordinance. ▪ 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 activities. ▪ Facilities will have "No Loitering" signs in place, be well lit, and be patrolled regularly by roving security guards. ▪ Security guards patrolling the facilities would carry two-way radios to request and respond to back up or emergency calls. ▪ Security cameras and tribal security personnel would provide surveillance of Project Site to both lessen and apprehend criminal activity onsite. BMPs to be implemented during construction and operation: ▪ A solid waste management plan will be developed and adopted by the Tribe that addresses recycling and solid waste reduction and proper disposal onsite during construction and operation. These measures will include, but not be limited to, the installation of a trash compactor for cardboard and paper products, the installation of ample and visible trash and recycling bins to encourage proper disposal, and periodic waste stream audits.
Visual Resources	▪ Lighting illumination levels will be designed to be consistent with the City of Vallejo zoning code, Section 16.506, Lighting and Glare ▪ Exterior lighting on buildings will be designed so as to not cast significant light or glare into the public right-of-way or any surrounding residentially zoned properties or natural areas. ▪ Lighting equipment at the project entrances will aim downward and backward toward the site to create only indirect illumination. ▪ No illumination would be directed towards the biological preserve area in the northeastern corner of the site, or the wetland area in the southern portion of the Project Site. ▪ No signage will be internally illuminated.

Resource Area	Protective Measures and Best Management Practices
	▪ Outdoor light fixtures will be fully or partially shielded and filtered and oriented downward when possible. Efforts shall be made to "capture" the light emitted upward with built or natural material. ▪ Exterior lighting will be designed in accordance with the International Dark-Sky Association's Model Lighting Ordinance so as not to cast light or glare off site and will utilize a warm correlated color temperatures (3000K or less) for exterior lighting for reduced likelihood of blue wavelengths which stimulate the photoreceptors of humans and some wildlife. Lighting will consist of pole-mounted lights up to a maximum height of 16 feet and use high pressure sodium or light-emitting diodes (LEDs) with cut-off lenses and downcast illumination unless an alternative light configuration is needed for security or emergency purposes. Additionally, no strobe lights, spotlights, or flood lights will be used. ▪ Less reflective materials will be used in uncovered areas to reduce reflected light and glare. Structures will be constructed with low-sheen and non-reflective surface materials to reduce potential for glare. Unpainted metal surfaces will not be permitted. ▪ At a minimum, finishes will be matte and roughened and concrete will be painted or will use concrete colored integrally with a shade that is two to three shades darker than the general surrounding area. Paints will be of a dull, flat, or satin finish only to reduce potential for glare, and the use of glossy paints for surfaces will be avoided.
Noise	The following BMPs will be implemented during construction: ▪ Construction activities involving noise generating equipment will be limited to daytime hours between 7:00 a.m. and 7:00 p.m. ▪ All construction equipment powered by internal combustion engines will be properly muffled and maintained. ▪ Quiet construction equipment, particularly air compressors, will be selected whenever possible. ▪ All stationary noise-generating construction equipment such as generators or air compressors will be located as far as is practical from existing residences. In addition, the project contractor will place such stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the Project Site. ▪ Unnecessary idling of internal combustion engines will be prohibited. ▪ The construction contractor will locate on-site equipment staging areas to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the Project Site during all project construction. The following BMPs will be implemented during operation: ▪ Heating, ventilation, and air conditioning equipment will be shielded to reduce noise. ▪ Under Water Supply Option 2 and Wastewater Treatment Option 2, noise generating equipment associated with water and wastewater treatment facilities will be shielded, enclosed, or located within buildings.

Resource Area	Protective Measures and Best Management Practices
Hazardous Materials and Hazards	The Tribe shall implement the following BMPs consistent with federal guidelines to ensure worker safety related to exposure to lead in the soil: ▪ Prior to site grading activities near the Tailings C area, the Tribe will off-haul the Tailings C material and ensure it is disposed of in a proper facility that can accommodate lead-contaminated soil. ▪ During onsite work with the potential for dermal exposure to lead contaminated soil, workers will be provided with and required to use protective clothing, gloves, and other appropriate personal protective equipment. ▪ Workers who are exposed to inorganic lead will be required to wash their faces, hands, and forearms thoroughly with soap and water before eating, smoking, or using toilet facilities. ▪ If determined to be needed, respirators will be provided to workers in compliance with Occupational Health and Safety Administration (OSHA) Safety and Health Standards 29 CRF 1910.134. To reduce asbestos dust generation the following BMPs are recommended as specified in Asbestos Airborne Toxic Control Measures (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations: ▪ Track-out prevention and control measures: o Removal of any visible track-out from a paved public road at any location where vehicles exit the construction site via wet sweeping or a HEPA filter-equipped vacuum device at the end of the workday or at least once per day. o Installation of one or more of the following track-out prevention measures: ▪ A gravel pad designed using good engineering practices to clean the tires of exiting vehicles; ▪ A tire shaker; ▪ A wheel wash system; or ▪ Pavement extending for not less than 50 consecutive feet from the intersection with the paved public road. ▪ Active storage piles will be adequately wetted or covered with tarps. ▪ Control for disturbed surface areas and storage piles that will remain inactive for more than seven (7) days shall have one or more of the following done: o Keep the surface adequately wetted; o Establishment and maintenance of surface crusting that is sufficient to satisfy the test in subsection (h)(6) of the Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations; o Application of chemical dust suppressants or chemical stabilizers according to the manufacturer's recommendations; o Covering with tarp(s) or vegetative cover; o Installation of wind barriers of 50% porosity around three sides of a storage pile; or o Installation of wind barriers across open areas. ▪ Control for traffic on on-site unpaved roads, parking lots, and staging areas shall include the following: o A maximum vehicle speed limit of 15 mph or less; and

Resource Area	Protective Measures and Best Management Practices
	○ One or more of the following: ▪ Watering every two hours of active operations or sufficiently often to keep the area adequately wetted; ▪ Applying chemical dust suppressants consistent with the manufacturer's directions; or ▪ Maintaining a gravel cover with a silt content that is less than 5% and asbestos content that is less than 0.25%, as determined using an approved asbestos bulk test method, to a depth of 3 inches on the surface being used for travel. ▪ Control for earthmoving activities shall include one or more of the following: ○ Pre-wetting the ground to the depth of anticipated cuts; ○ Suspending grading operations when wind speeds are high enough to result in dust emissions crossing the project boundary despite the application of dust mitigation measures; or ○ Application of water before any land clearing. ▪ No trucks shall be allowed to transport excavated material offsite until the following are performed: ○ Trucks are maintained such that no spillage can occur from holes or other openings in cargo compartments; and ○ Loads are adequately wetted and either: ▪ Covered with tarps; or ▪ Loaded such that the material does not touch the front, back, or sides of the cargo compartment at any point less than 6 inches from the top and that no point of the load extends above the top of the cargo compartment. ▪ Upon completion of the Alternative A, disturbed surfaces shall be stabilized using one or more of the following methods: ○ Establishment of a vegetative cover; ○ Placement of at least 3 inches of non-asbestos-containing material; ○ Paving; ○ Any other measure sufficient to prevent wind speeds of 10 mph or greater from causing visible dust emissions. Personnel will follow BMPs for filling and servicing construction equipment and vehicles. BMPs that are designed to reduce the potential for incidents/spills involving hazardous materials include the following. ▪ Fuel, oil, and hydraulic fluids will be transferred directly from a service truck to construction equipment to reduce the potential for accidental release. ▪ Catch-pans will be placed under equipment to catch potential spills during servicing. ▪ Refueling will be conducted only with U.S. Department of Labor Occupational Safety and Health Administration (OSHA) approved pumps, hoses, and nozzles. ▪ All disconnected hoses will be placed in containers to collect residual fuel from the hose. ▪ Vehicle engines will be shut down during refueling. ▪ Refueling will be performed away from bodies of water to prevent contamination of water in the event of a leak or spill.

Resource Area	Protective Measures and Best Management Practices
	▪ Service trucks will be provided spill containment equipment, such as absorbents. ▪ Should a spill contaminate soil, the soil will be put into containers and disposed of in accordance with local, State, and federal regulations. ▪ All containers used to store hazardous materials will be inspected at least once per week for signs of leaking or failure. In the event that contaminated soil and/or groundwater is encountered during construction-related earthmoving 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. Personnel will follow the following BMPs that are designed to reduce the potential for igniting a fire during construction: ▪ Construction equipment will contain spark arrestors, as provided by the manufacturer. ▪ 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. ▪ No smoking, open flames, or welding will be allowed in refueling or service areas. ▪ Service trucks will be provided with fire extinguishers. Diesel fuel storage tanks for on-site emergency generators would comply with the National Fire Protection Association standards for aboveground storage tanks and have secondary containments systems. Materials used for the emergency generators would be handled, stored, and disposed of according to federal and manufacturer's guidelines. BMPs to be implemented during operation to address fire hazards: ▪ Annual maintenance will be conducted to ensure fire resistive materials and construction details are maintained at their highest level to reduce ember impacts. ▪ Fire protection devices including, but not limited to, fire sprinkler systems, alarm systems, commercial kitchens, and fire hydrants will be maintained, inspected, and tested per National Fire Protection Association standards.
Transportation and Circulation	A Traffic Control Plan / Construction Traffic Management Plan shall be prepared parallel to address potential impacts related to demolition and construction activities. The plan shall include the following: ▪ Truck drivers shall be notified of and required to use the most direct routes. ▪ Site ingress and egress will occur only at the main driveways to the Project Site and construction activities may require installation of temporary traffic signals. ▪ Designated travel routes for large vehicles will be monitored and controlled by flaggers for large construction vehicle ingress and egress;

Resource Area	Protective Measures and Best Management Practices
	▪ Warning signs indicating frequent truck entry and exit will be posted on Columbus Parkway. ▪ Debris and mud on nearby streets caused by trucks will be monitored daily and may require instituting a street cleaning program. ▪ Provide for vehicle parking spaces during peak construction period for construction employees to ensure a safe flow of traffic. A Traffic Control Plan will be implemented for major special events at the theater.

2.2 ALTERNATIVE B – REDUCED INTENSITY ALTERNATIVE

Alternative B consists of the following components: (1) transfer of the 160-acre Project Site into federal trust status for the benefit of the Tribe for gaming purposes; and (2) the subsequent development by the Tribe of a casino facility as described in **Section 2.1.1**. Tribal housing and administration buildings are not proposed under Alternative B. As with Alternative A, the casino facility under Alternative B would be open 24 hours a day, 7 days a week, and the biological preserve would be approximately 45 acres. A conceptual site plan for Alternative B is shown in **Figure 2.2-1** and a breakdown of the components of Alternative B is provided in **Table 2.2-1**. Architecture, signage, lighting, and landscaping design under Alternative B would be similar to Alternative A (**Section 2.1.4**).

Architecture, signage, lighting, and landscaping design, water supply (Options 1 and 2), wastewater treatment and disposal (Options 1 and 2), grading and drainage, roadway access and circulation, fire protection, law enforcement, emergency services, and electrical and natural gas utilities under Alternative B would be to the same as Alternative A (**Section 2.1**) but with a reduced demand for services due to the smaller development size. The construction methods, protective measures, and BMPs for Alternative B would be identical to those described for Alternative A (**Sections 2.1.11** and **2.1.12**).

The estimated average day and peak day demand under Alternative B, with and without assuming recycled water use (see **Section 2.1.6**), and fire flow are listed in **Table 2.1-2** and estimated average day and peak day wastewater generation flows are listed in **Table 2.1-3**. Of the approximately 233 AFY of recycled water that would be generated by Alternative B Wastewater Treatment Option 2, approximately 105 AFY would be used on-site and 128 AFY would be available for off-site irrigation. As with Alternative A, a 1.5-million-gallon, welded steel storage tank would be constructed to store water provided by the City (Water Supply Option 1) or onsite water treatment plant (Water Supply Option 2) and a pump station and hydropneumatics tank would be constructed to provide distribution system pressure and fire flow. If Wastewater Treatment Option 2 is implemented, a 100,000-gallon recycled water storage tank would be constructed to provide equalization storage for on-site recycled water use used by Alternative B. Additionally, up to 20 mgs (61.2 AF) of seasonal storage would be needed to store the volume of recycled water generated during the wet season when there is little to no irrigation demand.

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FIGURE 2.2-1

ALTERNATIVE B SITE PLAN

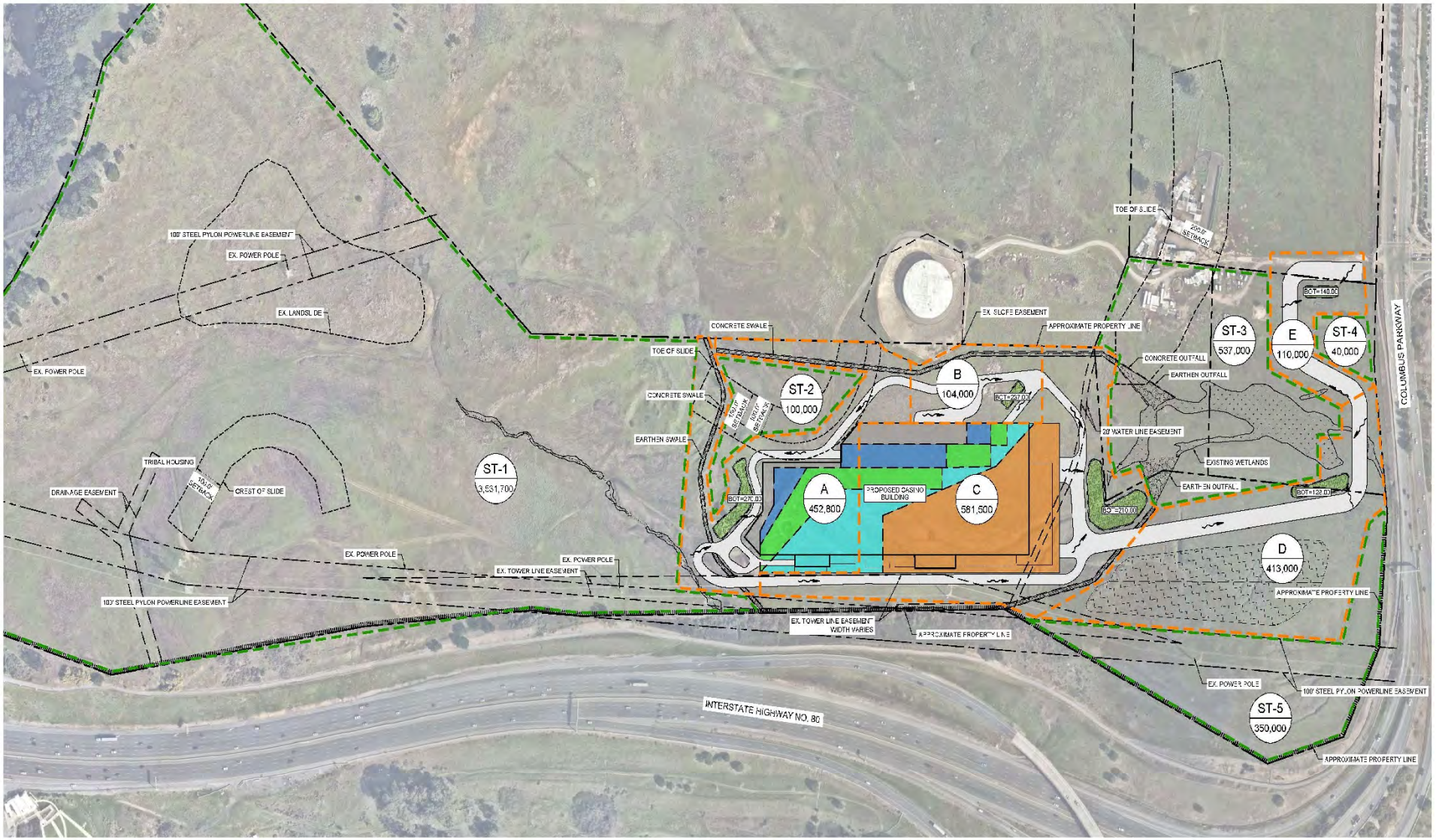
Table 2.2-1: Alternative B Project Components

Component	Units	Approximate Square Footage (sf)
Casino		
Gaming Floor	3,500 slots / 130 tables	238,266 sf
Back of House	-	218,533 sf
Lobby/Cashier/Club	-	25,189 sf
Restaurants and Kitchens	1,067 seats	51,603 sf
Bars	602 seats	19,019 sf
Ballroom	2,500 seats	52,794 sf
Restrooms	-	9,555 sf
	Total	**614,959 sf**
Parking Garage		
Guest Parking	2,619 spaces	949,531 sf
Employee Parking	803 spaces	278,964 sf
Valet	634 spaces	217,728 sf
Bus Depot	12 spaces	112,266 sf
Loading Dock	-	36,522 sf
Total	**4,068 spaces**	**1,595,011 sf**

Source: Steelman Partners, 2024

Grading activities and drainage modifications under Alternative B would be the same as grading and drainage actions related to the gaming facility under Alternative A. As Alternative B is reduced-intensity, overall grading intensity would be less. A grading and drainage figure for Alternative B is provided as **Figure 2.2-2**. Alternative B would require 510,000 CY of fill and generate 235,000 CY of cut. As with Alternative A, 165,000 CY of fill would be taken from a designated area in the southwestern portion of the Project Site. A total of 110,000 cy of imported fill would be needed, transported via approximately 1,100 truck trips. Similar to Alternative A, specialized grading and stabilization techniques would be used to address underlying geotechnical conditions on the Project Site, which would include a combination of avoidance by maintaining or exceeding recommended setbacks, minimizing types of grading within certain setback areas, and grading or structural measures to stabilize slopes. The same strategies for the access road and casino facility discussed under Alternative A would be utilized for Alternative B. Because no Tribal housing is proposed near landslide #2 or the Hunter Hill Landslide, no remediation near those slides would be necessary (**Appendix C**).

The southern drainage would be re-routed the same as described under Alternative A. The northern drainage is beyond the impact area of Alternative B and would not be altered. Sheet flow from the eastern property would be directed via a concrete swale the same as described under Alternative A. Under Alternative B, there would be five drainage management areas with bioretention areas (**Appendix C**).



Legend

- PROPERTY LINE
- EASEMENT LINE
- RETAINING WALL
- PROPOSED BUILDING WALL AND OVERHANG
- DRAINAGE MANAGEMENT AREA BOUNDARY
- SURFACE FLOW DIRECTION
- ASPHALT CONCRETE
- WETLAND AREA
- BIORETENTION AREA

0 500 1,000 Feet

Steelman Partners 2024 and

FIGURE 2.2-2

ALTERNATIVE B GRADING AND DRAINAGE

2.3 ALTERNATIVE C – NON-GAMING ALTERNATIVE

Alternative C consists of the following components: (1) transfer of the 160-acre Project Site into federal trust status for the benefit of the Tribe; and (2) the subsequent development by the Tribe of a commercial center, two hotels, tribal housing, and tribal administration building. The biological preserve established under Alternative C would be approximately 45 acres. A conceptual site plan for Alternative C is shown in **Figure 2.3-1** and a breakdown of the components of Alternative C is provided in **Table 2.3-1**.

Water supply (Options 1 and 2), wastewater treatment and disposal (Options 1 and 2), roadway access and circulation, fire protection, law enforcement, emergency services, and electrical and natural gas utilities under Alternative C would be the same as Alternative A (**Section 2.1**) but with a reduced demand for services due to the smaller development size. Architecture, signage, lighting, and landscaping design under the Alternative C would be similar to Alternatives A and B (**Section 2.1.4**) except the proposed three-story hotels would have a maximum height of approximately 60 feet above ground level. The construction methods, protective measures, and BMPs for Alternative C would be identical to those described for Alternative A (**Sections** and **2.1.9**).

The estimated average day and peak day demand under Alternative C, with and without assuming recycled water use (see **Section 2.1.6**), and fire flow are provided in **Table 2.1-2** while estimated average day and peak day wastewater generation flows are provided in **Table 2.1-3**. Of the approximately 70 AFY of recycled water that would be generated under Alternative C Wastewater Treatment Option 2, approximately 33 AFY would be used on-site and 37 AFY would be available for off-site irrigation. Under Alternative C, a 1.2-million-gallon, welded steel storage tank would be constructed to store water provided by the City (Water Supply Option 1) or onsite water treatment plant (Water Supply Option 2) and a pump station and hydropneumatics tank would be constructed to provide distribution system pressure and fire flow. If a Wastewater Treatment Option 2 is implemented, a 50,000-gallon recycled water storage tank would be constructed to provide equalization storage for on-site recycled water use. Additionally, up to 7 mgs (21.3-acre feet) of seasonal storage would be needed to store the volume of recycled water generated during the wet season when there is little to no irrigation demand.

Table 2.3-1: Alternative C Project Components

Component	Units	Approximate Square Footage (sf)
Hotel		
Hotel 1	132 Units	70,506 sf
Hotel 2	132 Units	70,506 sf
Total	**264 Units**	**141,012 sf**
Commercial		
Commercial 1		120,474 sf
Commercial 2		9,228 sf
	Total	**129,702 sf**
Tribal Housing and Administration		
Tribal Housing	50 homes	
Tribal Admin Building 1		7,900 sf
Tribal Admin Building 2		9,563 sf
Tribal Admin Building 3		5,890 sf
Total	**50 homes**	**23,353 sf**

Source: Steelman Partners, 2024

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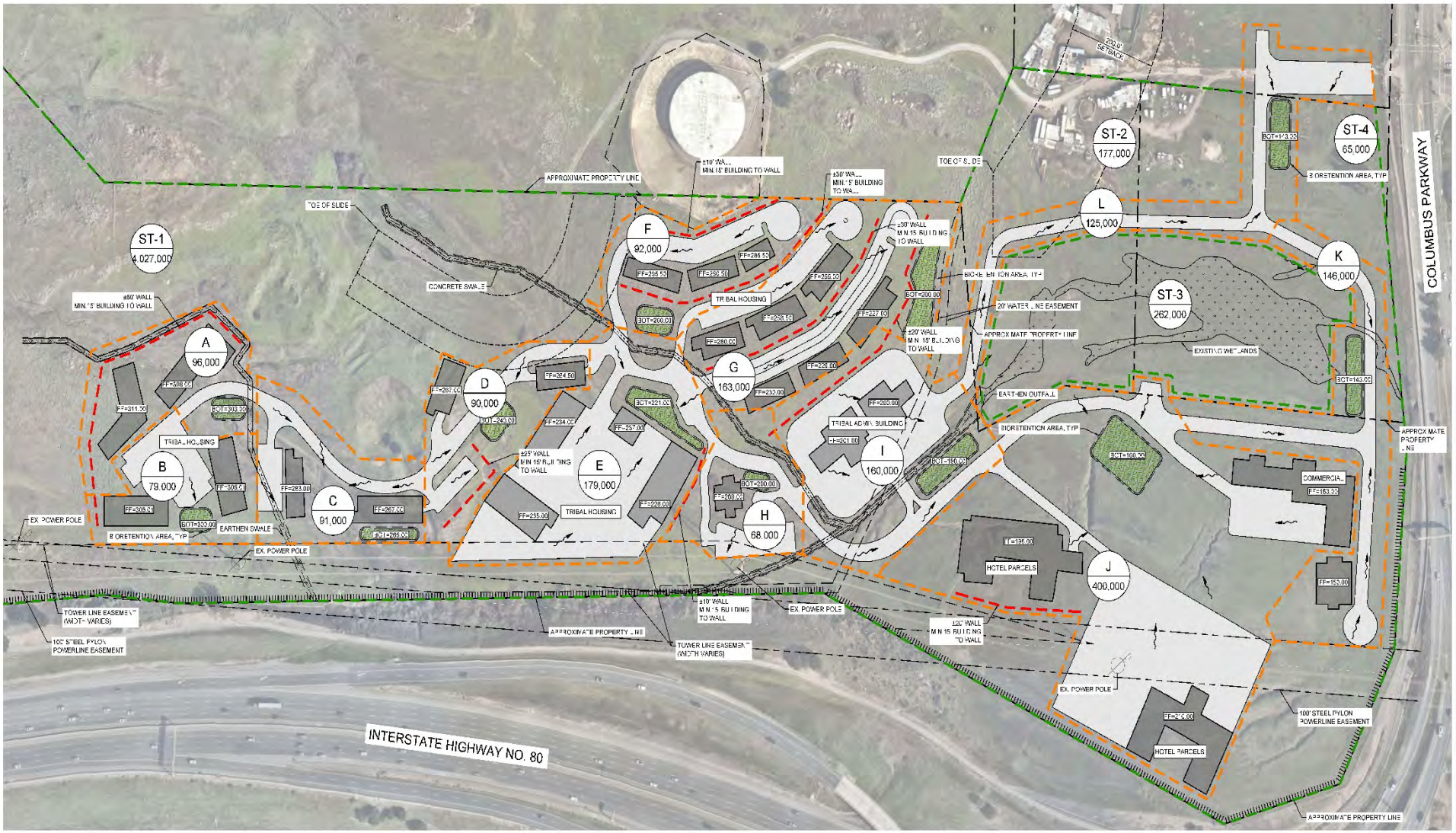
FIGURE 2.3-1

ALTERNATIVE C SITE PLAN



Legend

- PROPERTY LINE
- EASEMENT LINE
- RETAINING WALL
- PROPOSED BUILDING WALL AND OVERHANG
- DRAINAGE MANAGEMENT AREA BOUNDARY
- SURFACE FLOW DIRECTION
- ASPHALT CONCRETE
- WETLAND AREA
- BIORETENTION AREA

0 500 1,000 Feet

Steelman Partners 2024

FIGURE 2.3-2

ALTERNATIVE C GRADING AND DRAINAGE

A grading and drainage figure for Alternative C is provided as **Figure 2.3-2**. Under Alternative C, grading on the Project Site would consist of tiered areas stabilized with retaining walls. Retaining walls would vary in height from 10 feet to 50 feet. Alternative C would require import of geotechnically approved fill. Grading would result in approximately 317,500 cy of fill, with an estimated cut of 295,400 cy to include those areas necessary to cut and those areas used for the sole purpose of supplying cut materials. The remaining 22,100 cy of fill would be imported. This includes the total over-excavation volume for Alternative C of approximately 28,000 cy. Similar to Alternative B, Alternative C would not result in construction near either landslide #2 or the Hunter Hill Landslide, no remediation near those slides would be necessary (**Appendix C**). Similar to Alternative A, specialized grading and stabilization techniques would be used to address underlying geotechnical conditions on the Project Site where developments are near the Eastern Landslide Complex. The Tribal housing under Alternative C has been sited outside of the 150-foot setback from the Eastern Landslide Complex, although roads are proposed partially within the 100–150-foot setback and will require engineered stabilization measures. These may include placing fill to raise the roadway grade above the landslide toe, construction of a buttress on the uphill side of the road prism, construction of a deflection berm or wall, and/or removal of the landslide deposits and replacement with benched fill and subdrain system.

Under Alternative C, both on-site drainages would be rerouted and culverted where the drainages cross roadways. Re-routed drainages would be earthen swales where possible but would require concrete lining within landslide setbacks and adjacent to retaining walls. Both drainages would be routed to discharge into the riparian area that currently receives water from the northern drainage and is just upstream of and drains into the current alignment of the southern drainage. These features will be allowed to drain into the wetland complex that currently receives these waters. Flow would be dissipated prior to discharge such that post-development discharge flows would not exceed existing conditions. Alternative C would result in 12 drainage management areas with 11 bioretention areas. Bioretention area sizing and design uses the same LID methodology described under Alternative A. These areas are shown on Exhibit F of **Appendix C**.

2.4 ALTERNATIVE D – NO ACTION ALTERNATIVE

Under Alternative D, none of the development alternatives (Alternatives A, B, and C) would be implemented. No land would be placed in federal trust for the benefit of the Tribe. Alternative D assumes that the Project Site would remain undeveloped for the foreseeable future.

2.5 COMPARISON OF THE ALTERNATIVES

- **Alternative A – Proposed Project.** Among the project alternatives considered, Alternative A would best meet the Tribe's objectives and provide the greatest socioeconomic benefit to the Tribe and surrounding community.
- **Alternative B – Reduced Intensity Alternative.** This alternative would result in similar effects on the environment as Alternative A, but it would not provide the Tribe with housing or an administration building. Potential effects associated with most environmental issue areas would be less due to the smaller sized development that would be constructed under Alternative B.
- **Alternative C – Non-Gaming Alternative.** This alternative would result in some reduced effects to the environment compared to Alternative A, but would provide the Tribe and the community with less economic benefit than Alternative A. Potential effects associated with most environmental issue areas would be less due to the smaller sized development that would be constructed under Alternative C.

- **Alternative D – No Action Alternative.** Under Alternative D, the Project Site would remain in its existing condition and would not be taken into trust. No environmental effects would occur. This alternative would achieve the lowest net GHG emissions amongst the project alternatives. Under Alternative D, the Tribe would not achieve any of the economic benefits that would be achieved with development of Alternatives A, B, or C. Moreover, the Tribe would not be able to utilize its landholdings for Tribal housing or administration that would be achieved with the development of Alternatives A and C. This alternative would not meet the stated purpose and need of facilitating tribal self-sufficiency, self-determination, and economic development.

Section 3 | Affected Environment and Environmental Consequences

3.1 INTRODUCTION

This section describes the existing environment of the area affected by the project alternatives as well as the environmental consequences for each project alternative. Additional details on the regulatory and environmental setting are included within **Appendix E**. Measures to mitigate adverse impacts identified in this section are presented in **Section 4**. Note that, consistent with 40 CFR § 1508.8, the term "effects" is used synonymously with the term "impacts."

3.2 LAND RESOURCES

3.2.1 Regulatory Setting

The land resources regulatory setting is summarized in **Table 3.2-1** and additional information on the regulatory setting can be found in **Appendix E**.

Table 3.2-1: Regulatory Policies and Plans Related to Land Resources

Regulation	Description
Federal	
Clean Water Act	▪ Prohibits sediment and erosion discharge into navigable waters of the United States and establishes water quality goals.
State	
Alquist-Priolo Earthquake Fault Zoning Act	▪ The Alquist-Priolo Earthquake Fault Zoning Act requires the delineation of zones along active and potentially active faults in California. ▪ The California Geological Survey defines an "active" fault as one that exhibits evidence of activity during the last 11,000 years. ▪ Faults that exhibit evidence of Quaternary activity (within the last 1.6 million years) are considered to be "potentially active."
Seismic Hazards Mapping Act	▪ The Seismic Hazards Mapping Act was enacted to protect the public from the effects of strong ground shaking, liquefaction, landslides, ground failure, or other hazards caused by earthquakes.
Surface Mining and Reclamation Act	▪ The Surface Mining and Reclamation Act requires all jurisdictions to incorporate mapped mineral resources designations approved by the California Mining and Geology Board within their general plans. ▪ The Surface Mining and Reclamation Act was enacted to limit new development in areas with significant mineral deposits.
Local	

Regulation	Description
City of Vallejo General Plan	▪ Includes Goal NBE-5 within the Nature and Built Environment Element specific to hazard protection, including policies to protect life and property from natural hazards.

3.2.2 Environmental Setting

A brief summary of the geological setting and site topography is provided in **Table 3.2-2** below and a complete discussion is available in **Appendix E**.

Table 3.2-2: On-Site Land Resources Characteristics

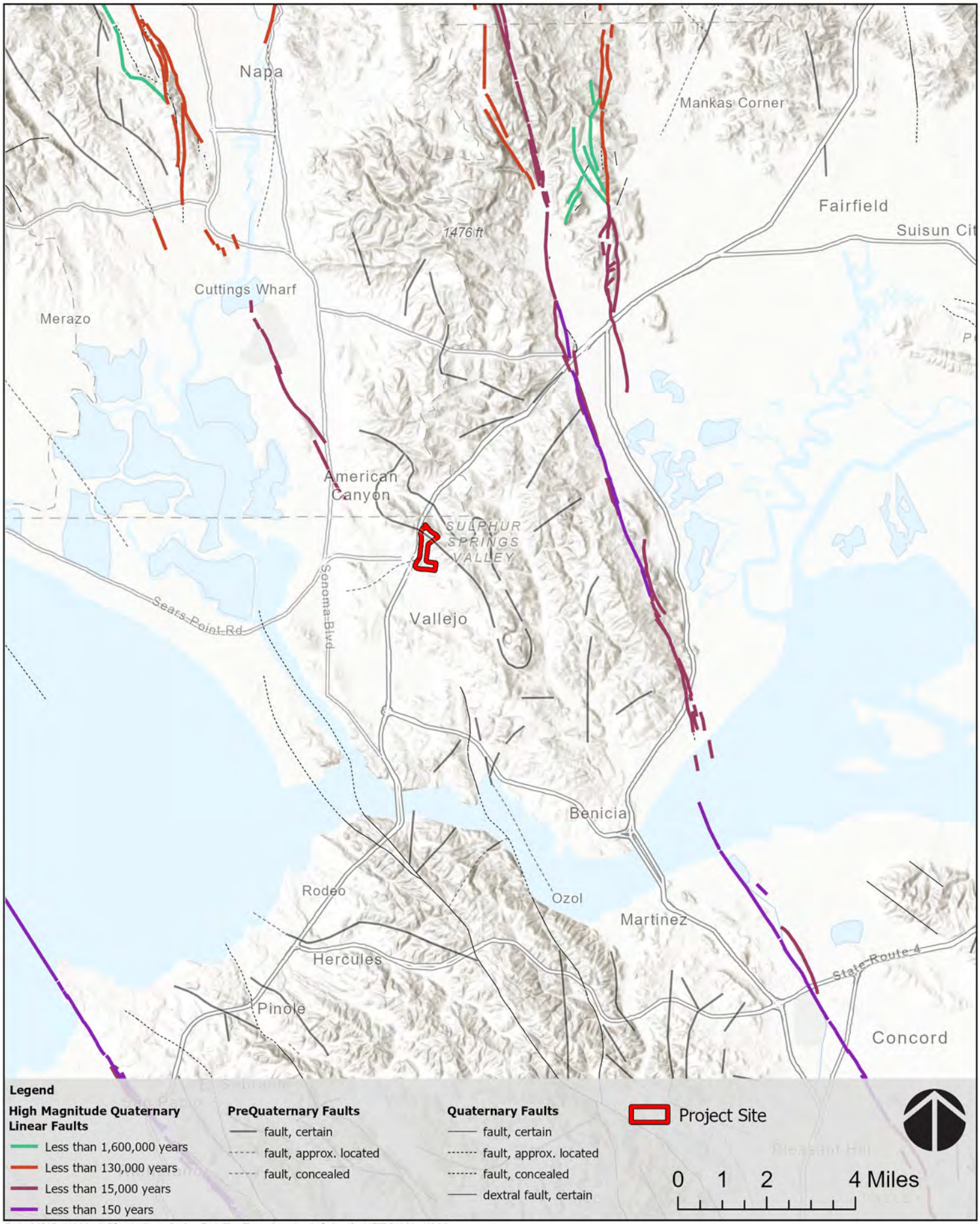
Topic	Project Site Characteristics
Geologic Province	Central portion of Coast Range Geomorphic Province
Bedrock / Geology	Jurassic and Cretaceous age Great Valley sedimentary rocks
Topography	Hilly and hummocky terrain at base of Sulphur Springs Mountain
Elevations	Ground slopes towards the southwest, with lowest elevation 130 feet (southeast corner) to highest 800 feet (northeast corner)
Slopes	Average grade is 13% from north to south

Seismic Conditions

The Project Site is in a seismically active area that contains numerous faults, although the nearest active fault is over one mile northwest of the property as shown on **Figure 3.2-1**. The inactive Lake Herman Fault transects the northern portion of the Project Site, but the Project Site is not within the zone of an active fault as defined by the Alquist-Priolo Earthquake Zoning Act. As described in **Appendix D**, the USGS Earthquake Hazard Toolbox and the 2018 National Seismic Hazard Model identified 10 faults in the vicinity considered capable of producing strong ground shaking at the Project Site. The 30-year likelihood of one or more magnitude 6.7 or greater earthquakes to occur in the Bay Area region was approximately 72%.

Landslides

Areas susceptible to landslides are comprised of weak soils on sloping terrain. Heavy rains or strong seismic shaking events can induce landslides. Historical stereoscopic aerial photographs and landslide hazard maps were reviewed to estimate the extents of existing landslides at the Project Site. As shown in **Figure 2.1-7**, four landslides were identified either entirely within or partially extending onto the Project Site. The Eastern Landslide Complex contains nested landslide planes over a 350-acre area, and the toe of the slide extends onto the eastern and southern portions of the Project Site. On the western boundary of the landslide complex it abuts two ridges comprised of silica-carbonate rock. Landslide deposits were encountered during boring exploration consisting of highly sheared and altered shale to the exploration depth of 75.5 feet. The Hunter Hill Landslide, located on the northwestern portion of the Project Site, is a deep-seated landslide that is approximately 600 feet wide, 1,300 feet long, and 60 feet deep. Landslide deposits were encountered during boring exploration to the full depth of exploration, which was greater than 60 feet deep. The Solano Bike Pathway that wraps around the south and western edges of the property was observed to have cracking, which is indicative of continued movement of the landslide.



Esri, CGIAR, USGS, California State Parks, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS

FIGURE 3.2-1
REGIONAL FAULTS

There are also two smaller, unnamed landslides on the Project Site. One is located near the southwestern corner and the second is in the northeastern portion of the Project Site (see **Figure 2.1-7**).

Soil Types and Characteristics

As shown on **Figure 3.2-2**, the Project Site contains four soil types: Clear Lake clay, 0 to 2% slopes; Clear Lake clay, drained, 2 to 5 percent slopes; Dibble-Los Osos clay loams, eroded, 30 to 50% slopes; and Toomes stony loam, eroded, 30 to 75% slopes. Characteristics for these soils are delineated in **Table 3.2-3** and defined further in **Appendix E**. As described therein, the soils on the Project Site generally have slow to very slow infiltration rates, low to moderate corrosion to concrete, and low to high corrosion to steel. In addition, site-specific subsurface field explorations were conducted on the Project Site by EnGeo Incorporated, all of which confirmed the high to critically high shrink/swell potential for soils on the Project Site but low risk of liquefaction (**Appendix D**).

Table 3.2-3: Soil Properties

Soil	Percent Slopes	Hydrologic Soil Group	Drainage Class	Ksat (µm/s)	Surface Runoff	Corrosion of Concrete	Corrosion of Steel	Linear Extensibility
Clear Lake clay	0 to 2	C/D	Poorly drained	Moderately low to moderately high	High	Moderate	High	Very High
Clear Lake clay	2 to 5	C/D	Poorly drained	Moderately low to moderately high	High	Moderate	High	Very High
Dibble-Los Osos clay	30 to 50	D	Well drained	Moderately low to moderately high	Very High	Low	High	Moderate to High
Toomes stony loam	30 to 75	D	Well drained	Moderately high to high	High	Low	Low	Low

Source: NRCS, 2024

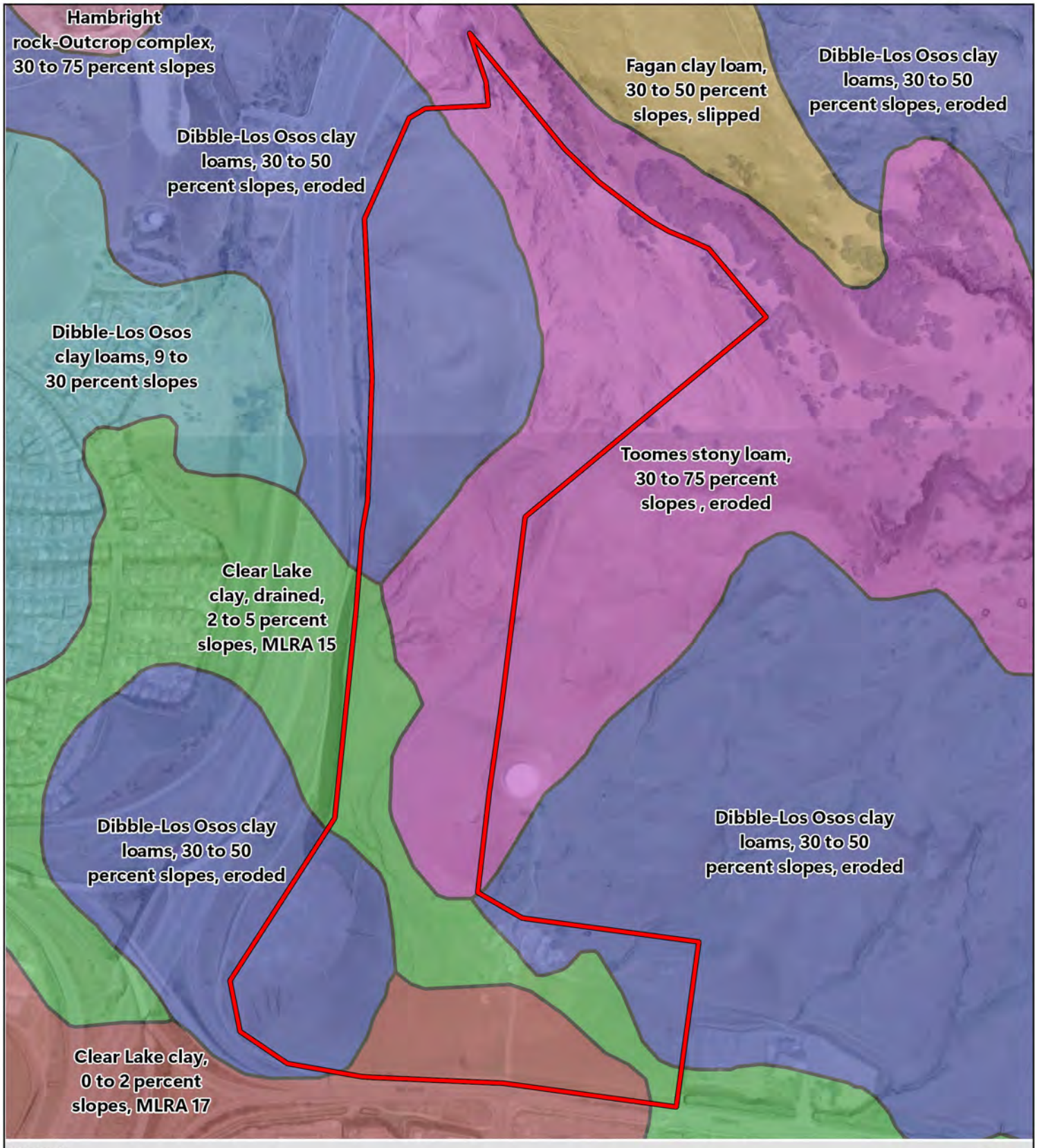
Mineral Resources

The St. Johns Mine (cinnabar/mercury) is the closest mineral resource, located approximately one mile northeast of the Project Site on the northern ridge of Sulphur Springs Mountain (USGS, 2024). This mine closed in 1923 (Bowen, 2004). The Project Site historically was used as a serpentine mine and tailing piles from quarry activities have been identified near the center of the Project Site.

3.2.3 Impacts

Assessment Criteria

Impacts to land resources would be significant if the alternative substantially alters the topography of a site or causes an adverse effect, such as landslides. Seismic conditions would be adversely affected if the alternative substantially increases the occurrence of seismic events or substantially increases the risks from seismic events. Impacts to soils would be significant if the project resulted in rapid or uncontrolled



Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community, Yolo County, Maxar

FIGURE 3.2-2
USDA SOIL SERIES

soil erosion during storms, wind, or water application. Mineral resources would be significantly affected if the project reduces the regional availability of commercial mineral resources or increases the cost of extracting mineral resources.

Alternative A – Proposed Project

Topography

Construction of Alternative A would require grading a significant portion of the Project Site (**Appendix C**). Approximately 632,000 CY of cut would be generated and 767,000 CY of fill would be required; therefore, 135,000 CY of fill would be imported. Cut would be generated onsite throughout the grading area and in a designated 'excavation area' in the southwestern portion of the site. This same area was subject to previous grading associated with the I-80 and Highway-37 interchange upgrade, and the topography was significantly altered in the 1970s. To minimize further impacts to topography, the remaining 135,000 CY would be imported. The casino facility has been intentionally designed as shown in **Figures 2.1-2** and **2.1-3** to accommodate the existing topography, with some floors differing in size or elevation to accommodate the existing hillsides. The changes in topography at the borrow site could result in a perceptible change to the existing topography, but this has been deliberately sited in an area that was previously impacted and is not in its natural configuration and will be used as the "utility area" rather than being left as an open borrow pit after construction is complete. The grading activities across the remainder of the development area would not equate to a major or perceptible change to the existing topography. The grading activities proposed during construction would largely preserve the existing site topography, thus impacts would be less than significant.

Seismic Conditions

As described above, the Project Site is in a seismically active area that contains numerous faults. The Project Site is transected by the inactive Lake Herman Fault, but no active faults or fault zones exist on the site. Due to the vicinity of active faults in the region, the Project Site could potentially be exposed to future seismic shaking and therefore prone to seismic induced hazards. As described in **Table 2.1-4**, a design-level geotechnical report would be prepared prior to construction with standards no less stringent than the IBC. Use of these standards would allow ground shaking-related hazards to be managed from a geologic, geotechnical, and structural standpoint such that risks to the health or safety of workers or members of the public would be reduced. Therefore, impacts from potential seismic conditions and induced hazards would be less than significant.

Soil Characteristics and Site Stability

Erosion: Land clearing and grading activities during construction would result in exposure of soil, increasing the risk of erosion and associated hazards. The addition of impervious surfaces to the Project Site would increase stormwater runoff volumes and the potential for associated operational erosion to occur. As described in **Section 3.3**, sediment discharge into navigable (surface) Waters of the U.S. is regulated by the CWA, which establishes water quality goals for sediment control and erosion prevention for any project that would disturb more than one acre of soil. Construction of Alternative A would disturb more than one acre of land; therefore, the Tribe is required by the CWA to obtain coverage under, and comply with the terms of, the NPDES General Construction Permit for construction activities. The NPDES General Construction Permit requirements would reduce any potential impacts to less-than-significant levels. With adherence to regulatory requirements and BMPs described in **Table 2.1-4**, erosion impacts from implementation of the Alternative A would be minimal and, therefore, less than significant.

Expansive Soils: The site-specific soil testing revealed high to critically high shrink/swell potential which could result in cracking of slabs on-grade, pavements, and structures founded on shallow foundations (**Appendix D**). There are various options available to remediate the potential damaging effects of expansive soils, including: (1) using a rigid mat foundation, (2) deepening foundations below the zone of moisture fluctuation, and/or (3) using footings at normal shallow depths but bottomed on a layer of imported or treated fill with a low-expansion potential (**Appendix D**). The design-level geotechnical report that would be prepared prior to construction would include further recommendations for each proposed structure to minimize the risk of expansive soils. With adherence to BMPs described in **Table 2.1-4**, impacts of shrink/swell soils would be minimal and, therefore, less than significant.

Landslides: Without proper design and engineering, development near the four landslides that exist entirely or partially within the Project Site boundaries (refer to **Figure 2.1-7**) could result in adverse impacts to public health and safety from structural collapse. As described further in **Section 2.1-7**, Alternative A has been designed to address potential landslide issues. Design considerations include the use of setbacks recommended by the geotechnical engineers, use of specific grading limitations and techniques, and/or structural measures (**Appendix D** and **Appendix C**). In addition, BMPs in **Table 2.1-4** include adherence to the IBC and the preparation of a design-level geotechnical report and adherence to all recommendations contained therein. With incorporation of the preliminary geotechnical recommendations into the site design and adherence to BMPs described in **Table 2.1-4**, impacts due to landslides and slope stability would be less than significant.

Mineral Resources

As stated in **Section 3.2.2**, there is a historic mine (St. John's Mine) approximately one mile northeast of the Project Site and evidence of a historic serpentine mining complex in the central portion of the Project Site. Alternative A would not reduce the regional availability of commercial mineral resources or increase the cost of extracting mineral resources. The potential impacts to the on-site mining complex as they relate to historic-era resources is discussed in **Section 3.6.3** and potential impacts due to hazards is discussed in **Section 3.12.3**. Impacts to mineral resources would be less than significant.

Alternative B – Reduced Intensity Alternative

Similar to Alternative A, Alternative B would require grading and other construction activities on the site; however, in comparison to Alternative A, Alternative B would disturb less of the site and have reduced impacts, due to the reduced building footprint and additional setbacks from landslides. The potential impacts associated with topography, seismic conditions, soil characteristics, and mineral resources would be comparable but less than Alternative A and less than significant with adherence to regulatory requirements and BMPs described **Table 2.1-4**.

Alternative C – Non-Gaming Alternative

Alternative C would require more grading than Alternative B, but the cut and fill would be closer to balanced, thus less fill import would be required under Alternative C. The Tribal housing would be terraced into the hillside and create fewer impacts to topography. While grading would be less under Alternative C, structural stability measures would be greater and there would be at least eight retaining walls (ranging from 10-foot to 50-foot tall) required to stabilize and buttress slopes. As such, the potential impacts associated with topography, seismic conditions, soil characteristics, and mineral resources would be

comparable but less than Alternative A and less than significant with adherence to regulatory requirements and BMPs described **Table 2.1-4**.

Alternative D – No Action Alternative

Under Alternative D, the land would not be taken into trust and the existing use of the site as undeveloped open space and grazing would continue. No significant alterations to topography, soils, or mineral resources would occur and thus there would be no impacts related to land resources.

3.3 WATER RESOURCES

3.3.1 Regulatory Setting

The water resources regulatory setting is summarized in **Table 3.3-1**, and additional information on the regulatory setting can be found in **Appendix E.**

Table 3.3-1: Federal and State Water Resources Regulations

Regulation	Description
Federal	
Executive Order 11988	▪ Requires federal agencies to evaluate the potential effects of any actions they may take in a floodplain, defined as an area that has a 1% 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, Executive Order 11988 requires the agency to minimize potential harm to or within the floodplain.
Clean Water Act	▪ Establishes national water quality goals. ▪ Regulates both point and non-point sources of pollution through the NPDES permit program. ▪ 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. ▪ An Anti-Degradation Policy is required to be developed for each state to maintain surface water quality to levels permissible for existing uses.
Safe Drinking Water Act	▪ 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)	▪ Responsible for the preparation of Flood Insurance Rate Maps (FIRM) for the National Flood Insurance Program.

Regulation	Description
State	
Porter-Cologne Water Quality Act	▪ Requires the State, through the State Water Resources Control Board and Regional Water Quality Control Boards (RWQCB), 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	▪ Establishes 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 to draft GSPs for their respective groundwater basins.
Title 22 CCR	▪ Regulates the sources, uses, and quality standards of recycled water in the State.
Local	
City of Vallejo General Plan	▪ Provides the City's planning goals and policies related to natural resources, including water resources.
City of Vallejo Municipal Code	▪ Outlines City regulations related to municipal or private well use, water conservation, and protection of surface water resources.

3.3.2 Environmental Setting

Surface Water

The Project Site is located in the American Canyon Creek-Frontal San Pablo Bay Estuaries watershed (HUC 180500020401) (USEPA, 2024d). There are six identified waterbodies within this watershed. The conditions of these waterbodies are discussed in **Appendix E**. An ARD was completed for the Project Site and is included as **Appendix H-2**. The delineation identified surface waters within the Project Site, as mapped in Figure 7 of **Appendix H-2**. A total of 5 channels were observed in addition to 11 wetlands and 2 riparian areas. Several swales were observed in areas where drainage flows were not intense enough to generate channels but where topography still directed stormwater runoff into distinct flow patterns (**Appendix H-2**).

The City currently utilizes surface water rights to withdraw water from three separate watersheds: the Sacramento River, Putah Creek, and Wild Horse Creek watersheds (City of Vallejo, 2021). The City also anticipates future water supplies from the Upper Suisun Creek watershed. All municipal water supplied by the City comes from surface water resources, as explained further in **Appendix E**.

Drainage and Flooding

Drainage within the Project Site generally flow to the south. There are no permanent water features within the Project Site; therefore, drainage features are only wetted during and following rain events and

do not hold water year-round. The drainage eventually combine into a single channel that dissipates through a wetland before discharging into a double-pipe culvert south of the Project Site. This culvert directs stormwater under Columbus Parkway and into Rindler Creek, tributary to Lake Chabot. The Project Site is on FIRM map number 06095C0440F and is outside of the 100- and 500-year floodplains (FEMA, 2014). Additionally, the Project Site is outside of tsunami hazard areas (CGS, 2024).

Groundwater

The Project Site is not underlain by a defined groundwater basin and therefore is not within the boundary of a Groundwater Sustainability Agency (CWB, 2024). The nearest defined groundwater basin in relation to the Project Site is the Napa-Sonoma Valley - Napa-Sonoma lowlands (2-002.03) basin. This basin is considered a medium-priority basin with a size of 40,500 square miles (City of Vallejo, 2017). The status of groundwater on and in the vicinity of the Project Site is discussed in **Appendix E**.

3.3.3 Impacts

Assessment Criteria

Impacts to water resources would be significant if runoff from the Project Site causes localized flooding resulting in adverse environmental impacts or introduces additional contaminants to stormwater runoff that leaves the Project Site. Groundwater impacts would be significant if the alternatives adversely affect local water supply by reducing the availability of potable water. Water quality would be significantly affected if wastewater or runoff generated adverse impacts to water quality standards of receiving waterbodies or groundwater.

Alternative A – Proposed Project

Surface Water

Construction

Construction of Alternative A would include ground-disturbing activities (e.g., grading and excavation) that could lead to erosion of topsoil. Erosion from construction sites can increase sediment discharge to surface waters during storm events, thereby degrading downstream water quality. Construction activities would also include the routine use of potentially hazardous construction materials, such as concrete washings, oil, and grease that could spill onto the ground and dissolve into stormwater. Discharges of pollutants, including grease, oil, fuel, and sediments, to surface waters from construction activities and accidents are a potentially significant impact. Regulated construction activities in excess of one acre are required to apply for coverage under the NPDES General Construction Permit. The provisions of this permit include preparation of a SWPPP that would be developed prior to any ground disturbance. The SWPPP would include BMPs to reduce potential surface water contamination during storm events. BMPs would include, but not be limited to, those presented in **Table 2.1-4**. The BMPs within the SWPPP would minimize adverse impacts to surface waters from construction activities associated with Alternative A by reducing detachment of soil particles from bare soil, reducing the risk of soil contamination from construction materials (e.g., fuel, fertilizer, paint), and by preventing movement of loose soil into waterways. With adherence to the NPDES permitting program and implementation of the SWPPP, impacts to surface water quality from construction activities would be less than significant.

As discussed in **Section 3.5**, Alternative A would result in impacts to 1.1 acres of freshwater marsh habitat. This would occur during roadway crossings over marsh habitat and re-routing of an existing drainage detailed in **Section 2.1.7**. The roadway crossings would be designed with appropriately sized culverts to maintain the route and flow of water. The existing drainage is currently 1,520 linear feet (lf) and the re-routed drainage would total approximately 920 lf. This would replace some of the lost surface waters resulting from the filling of the existing drainage, however the re-routed drainage is 600 lf shorter in length. Furthermore, a portion of the re-routed alignment within the landslide and its setback area requires concrete lining to ensure the stability of this feature per recommendations in the Geotechnical Investigation (**Appendix D**). Therefore, it is conservatively assumed that Alternative A would result in the complete loss of the 1.1 acres of marsh habitat. As discussed in **Section 3.5**, loss of freshwater marsh would be considered an adverse impact and require permitting under the CWA. Mitigation in **Section 4** includes acquisition of the necessary permits and in-kind creation of marsh habitat within the Project Site to ensure no net loss of marsh habitat. With consideration of mitigation, adverse impacts to surface waters resulting from construction of Alternative A would not occur.

Operation

Operation of Alternative A does not include actions such as handling of acutely toxic chemicals, ongoing filling of surface waters, or other actions that would impact surface waters on or near the Project Site. However, operation of Alternative A may utilize a municipal water connection through the City of Vallejo, which sources its supplies from surface waters. The City has evaluated surface water reliability projected through the year 2045 over multiple scenarios, including during multiple dry years. It was determined that sufficient water exists within the City's allowable withdrawal volumes to serve existing and projected demands (**Appendix B**; City of Vallejo, 2021). Within the water demand projections, the Project Site fell within an area classified as "Planned Development Commercial," which indicates the City consider municipal water use for commercial development on the Project Site in its water demands (see Section 3.1.2 of **Appendix B**). Surface water licensing includes provisions built into the allowable withdrawal rates and annual volumes that are protective of water resources such as fisheries resources, maintenance of sufficient water volumes/flows, and ongoing beneficial uses. Therefore, Alternative A could be served by City municipal services while not generating an adverse impact to surface waters.

Drainage and Flooding

Alternative A would be constructed outside of the FEMA-designated 100-year and 500-year floodplains (FEMA, 2014). Therefore, impacts to designated floodplains would not occur. Alternative A would result in an increase in impervious surfaces and changes to topography that would alter drainage patterns and runoff rates. Alternative A would increase impervious surfaces on the Project Site through the construction of buildings, circulation, parking, and infrastructure (**Appendix C**). Increased impervious surfaces would result in increased peak flows and increased total discharge from the Project Site during precipitation events. As described in **Section 2.1.7**, Alternative A includes a stormwater drainage system that identifies the drainage management areas that would result following construction and identifies LID bioretention areas for each of these areas. Each bioretention area was sized based upon the 4% rule, as described in **Section 2.1.5**, to ensure an appropriate surface area sizing for the anticipated impervious surfaces.

Changes to drainage patterns and increasing impervious surfaces can alter local drainage patterns and increase the risk of off-site flooding. As a component of Alternative A, the on-site natural drainages would be re-configured to allow for placement of the casino (**Appendix C**). One drainage would be re-aligned into another naturally occurring topographical depression. The runoff would be discharged into the same

large wetland complex that current receives water from the onsite drainages. While the same amount of water is expected to flow into the onsite wetland, it would travel along a different flow path and the timing of the runoff discharge would change after construction of Alternative A. Discharge would be dissipated at two earthen, flared outfalls designed to prevent erosion and sedimentation of the existing wetland and minimize potential adverse effects due to the rerouting of the drainage. Therefore, drainage alterations would not increase the runoff rate and would maintain the water sourcing of the receiving wetland. Drainage alterations have been designed using vegetated slopes where possible with concrete lining as needed to ensure slope stability and prevent impacts to downstream surface waters. As further discussed in **Table 2.1-4**, the stormwater system on the Project Site would be designed according to City standards. These provide standards for the design of LID features to ensure the appropriate sizing and design for storm events (Contra Costa Clean Water Program, 2024). According to this program, stormwater discharges must not exceed pre-project rates and durations where such increases may increase potential for erosion or other adverse impacts. Therefore, changes to the drainages would be localized, and no adverse effects to downstream surface waters are anticipated.

Groundwater

Water Supply

The introduction of impervious surfaces can reduce groundwater recharge in areas where surface percolation accounts for a large percentage of natural recharge. As discussed above, a stormwater collection system has been designed for Alternative A that would allow for continued percolation of runoff. Therefore, impacts to groundwater recharge would be less than significant.

Alternative A may utilize onsite groundwater well(s) to serve Alternative A under Water Supply Option 2. This assessment conservatively assumes that wastewater will not be recycled and that the full water demand of Alternative A of 287,000 gpd would be provided by onsite groundwater supplies. Project BMPs include the use of low-flow appliances and drought tolerant landscaping that would reduce water demands (**Table 2.1-4**). While geotechnical investigations identified shallow groundwater at depths of 11 to 14 feet below ground surface, indicating that shallow groundwater is available across at least part of the Project Site, the proposed groundwater wells under Water Supply Option 2 would be drilled to 500 to 1,000 feet below ground surface into the fractured bedrock. A well drawing from a deeper fractured bedrock system should not affect the surface water conditions due to confining geologic layers that act as a barrier between the upper and lower water bearing strata. As discussed in **Appendix C**, the Project Site is underlain by fractured bedrock aquifers, where availability of groundwater and anticipated well flows are difficult to predict. As discussed within **Appendix B**, water storage tanks, well testing and groundwater treatment would occur to ensure adequate groundwater quantity and quality suitable for Alternative A. Should flow tests indicate that groundwater levels would be negatively impacted and sufficient reliable water could not be provided, groundwater will not be used to supply Alternative A. Surrounding properties are connected to municipal water supplies from the City of Vallejo which utilize surface water resources, and there are no groundwater wells within a half-mile of the Project Site (**Appendix B**). Therefore, new groundwater wells that may be drilled under Alternative A Water Supply Option 2 would not cause adverse impacts to off-site users of groundwater in the vicinity. No adverse impacts would occur.

Water Quality

Groundwater quality would not be adversely affected by pollutants entering the environment during construction or operation of Alternative A because the Tribe would comply with the NPDES General Construction Permit from the USEPA for construction site runoff during the construction phase in

compliance with the CWA (**Table 2.1-4**). This permit would include the preparation and implementation of a site-specific SWPPP and proper implementation of stormwater BMPs to reduce and/or prevent water quality impacts during construction. BMPs would reduce the potential impacts to groundwater quality during construction. Operation, as discussed above under Surface Waters, does not include activities that would threaten water quality. With the inclusion of BMPs and adherence to regulatory requirements, no adverse impact to groundwater quality is anticipated.

Wastewater Treatment and Disposal

Alternative A is estimated to generate an average wastewater flow of 217,000 gpd and a peak weekend flow of 296,000 gpd. Wastewater would either be collected by the City of Vallejo and treated by municipal services (Wastewater Treatment Option 1) or treated to tertiary conditions on-site and recycled (Wastewater Treatment Option 2). Proper treatment and removal of wastewater would not pose a threat to water quality. Therefore, there are no potential adverse impacts to surface water and groundwater resources from wastewater treatment and disposal activities associated with Alternative A

Alternative B – Reduced Intensity Alternative

Alternative B would result in similar impacts to water resources, but at a lower level due to the removal of the Tribal housing. **Table 3.3-2** below compares the potential for Alternative B to impact water resources with Alternative A and discusses impact level and applicable mitigation.

Table 3.3-2: Alternative B Impacts to Water Resources

Impact	Comparison to Alternative A	Impact Discussion
Surface Water: Construction	Impacts related to the gaming facility would be identical as this component is the same under Alternative A. Impacts to freshwater marsh would be reduced from 1.1 acres to 0.9 acres.	With adherence to the NPDES permitting program and implementation of a SWPPP, adverse impacts to surface water quality from construction activities would be avoided. Loss of surface waters would still be considered significant, as further discussed in **Section 3.5**, and mitigation in **Section 4** would apply.
Surface Water: Operation	Impacts related to the gaming facility would be identical as this component is the same under Alternative A. Operation of Alternative B may utilize City water services, which sources water from surface water resources. Alternative B has a reduced demand compared to Alternative A of 278,000 gpd average daily demand and 417,000 peak day demand.	As sufficient City capacity exists to serve Alternative A without jeopardizing surface water availability, sufficient capacity is also present to serve Alternative B. As such, no adverse impacts to surface water are anticipated under Alternative B.
Drainage and Flooding	Impacts related to the gaming facility would be identical as this component is the same under Alternative A. As with Alternative A, Alternative B	The stormwater treatment system under Alternative B would be substantially similar to Alternative A, with less storage requirements due to the reduced amount of hardscape proposed under Alternative B. As with Alternative A, this

Impact	Comparison to Alternative A	Impact Discussion
	would be wholly outside of the 100- and 500-year floodplain.	system will be designed to City standards to ensure adequate stormwater detention and treatment to prevent impacts to water resources. No adverse impact would occur.
Groundwater	Potential groundwater supply and quality impacts would be similar to Alternative A but reduced, as Alternative B has a lower potable water demand and less impervious surface.	As discussed above, test wells will be dug to identify the appropriate depth, number, and locations of groundwater wells in order to serve future development and ensure a reliable, long-term water source to meet development demands. No adverse impacts to groundwater would occur under Alternative B.
Wastewater	Compared to Alternative A, Alternative B is estimated to generate a lower average wastewater flow of 209,000 gpd and a peak weekend flow of 288,000 gpd.	Wastewater treatment and disposal options under Alternative B are the same as Alternative A, although facilities may be reduced in size due to reduced wastewater demands. As effluent would meet Title 22 standards, no significant reduction in the quality of surface or groundwater is anticipated. For these reasons, no potential adverse impacts to surface water and groundwater resources from treated effluent are anticipated.

Alternative C – Non-Gaming Alternative

Alternative C would result in similar impacts to water resources, but at reduced levels. **Table 3.3-3** below compares the potential for Alternative C to impact water resources with Alternative A and discusses impact level and applicable mitigation.

Table 3.3-3: Alternative C Impacts to Water Resources

Impact	Comparison to Alternative A	Impact Discussion
Surface Water: Construction	Although the intensity of construction would be reduced, Alternative C would still disturb more than one acre of land and would still be required to adhere to the NPDES permitting program. Impacts to freshwater marsh would be reduced from 1.1 acres to 0.9 acres.	With adherence to the NPDES permitting program and implementation of a SWPPP, impacts to surface water quality from construction activities would be less than significant. Loss of surface waters would still be considered significant, as further discussed in **Section 3.5**, and mitigation in **Section 4** would apply.
Surface Water: Operation	Operation of Alternative C may utilize City water services, which sources water from surface water resources. Alternative C has a reduced demand compared to	As sufficient City capacity exists to serve Alternative A without jeopardizing surface water availability, sufficient capacity is also present to serve Alternative C. As such, no adverse impacts to surface water are anticipated under Alternative C.

Impact	Comparison to Alternative A	Impact Discussion
	Alternative A of 73,000 gpd average daily demand.	
Drainage and Flooding	As with Alternative A, Alternative C would be wholly outside of the 100- and 500-year floodplain. The stormwater treatment system under Alternative C would be substantially similar to Alternative A, with less storage requirements due to the reduced amount of hardscape proposed under Alternative C.	As with Alternative A, this system will be designed to City standards to ensure adequate stormwater detention and treatment to prevent impacts to water resources. No adverse impact would occur.
Groundwater	Potential groundwater supply and water quality impacts would be similar to Alternative A but reduced in nature as Alternative C has a lower potable water demand and less impervious surface.	As discussed above, test wells will be dug to identify the appropriate depth, number, and locations of groundwater wells in order to serve future development and ensure a reliable, long-term water source to meet development demands. No adverse impacts to groundwater would occur under Alternative B.
Wastewater	Compared to Alternative A, Alternative C is estimated to generate a lower average wastewater flow of 63,000 gpd and a peak weekend flow of 93,000 gpd. Wastewater treatment and disposal options under Alternative C are the same as Alternative A, although facilities may be reduced in size due to reduced wastewater demands.	As effluent would meet Title 22 standards, no significant reduction in the quality of surface or groundwater is anticipated. For these reasons, no potential adverse impacts to surface water and groundwater resources from treated effluent are anticipated.

Alternative D – No Action Alternative

Under Alternative D, no change in land use would occur, and the Project Site would remain in its current state, thus no new impacts to water resources would occur.

3.4 AIR QUALITY

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 E**.

Table 3.4-1: Regulatory Policies and Plans Related to Air Quality

Regulation	Description
Federal	
Clean Air Act (CAA) of 1970	▪ The CAA created the National Ambient Air Quality Standards (NAAQS) for six CAPs: ozone, carbon monoxide, particulate matter, nitrogen dioxide, sulfur dioxide (SO_2), and lead. ▪ States are required to have State Implementation Plans (SIP) for areas that are not achieving the NAAQS (nonattainment areas). ▪ General Conformity Rule requires demonstration that a proposed federal action will conform to the applicable SIP. ▪ Prevention of Significant Deterioration (PSD) program protects Class I areas. ▪ Tribal minor new source review (NSR) permits are required if emissions would exceed certain standards.
NEPA Guidance on Consideration of GHG Emissions and Climate Change (2023)	▪ The CEQ issued interim guidance to assist agencies in analyzing GHG and climate change effects under NEPA. ▪ Agencies should consider potential effects of a proposed action on climate change and the effects of climate change on a proposed action and its environmental impacts. ▪ Agencies should provide context for GHG emissions, including using best available social cost of GHG estimates. ▪ Agencies should mitigate GHG emissions associated with their proposed actions to the greatest extent possible, consistent with national, science-based GHG reduction policies established to avoid the worst impacts of climate change.
Secretarial Order 3399	▪ Secretary Order (SO) 3399 was issued to prioritize action on climate change throughout the Department and to restore transparency and integrity in the Department's decision-making processes. SO 3399 specifies that when considering the impact of GHG emissions from a proposed action, Bureaus/Offices should use appropriate tools, methodologies, and resources available to quantify GHG emissions and compare GHG quantities across alternatives.
State	
Global Warming Solutions Act of 2006 (AB 32)	▪ Assembly Bill (AB) 32 is the overarching law that requires the State to set Statewide GHG reduction targets. AB 32 required the CARB to develop a Climate Change Scoping Plan that describes the approach California will take to reduce GHGs to achieve emission reduction goals and to update the plan every five years.
Senate Bill 375	▪ 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.
EO S-3-05	▪ Sets GHG emission reductions targets and created a Climate Action Team.
EO S-1-07	▪ Mandates a State-wide goal to reduce carbon intensity of transportation fuels by at least 10% by 2020 from the 2010 baseline level.

Regulation	Description
EO B-30-15	▪ Sets an interim GHG target of 40% below 1990 levels by 2030.
EO N-79-20	▪ Bans the sale of new gas-powered cars and trucks by 2035.
AB 1279 (California Climate Crisis Act)	▪ Establishes the State policy of achieving net zero GHG emissions as soon as possible, but no later than 2045.

3.4.2 Environmental Setting

Regional Air Quality

A description of regional meteorology and weather patterns is provided in **Appendix E**. Ozone and fine particle matter with a diameter of less than 2.5 microns in size ($PM_{2.5}$) are the major regional air pollutants of concern. During summer, ozone is the primary pollutant of concern while in winter it is $PM_{2.5}$. During summer, Solano County is exposed to prevailing westerly winds through the Carquinez Strait which help lower ozone levels, however when these winds are absent ozone levels can occasionally exceed health standards. The Bay Area is nonattainment for ozone (see discussion below). $PM_{2.5}$ levels in the Bay Area can become elevated during the winter when air pollution is transported from the Central Valley due to prevailing easterly winds, and when residential wood burning is occurring (Bay Area Air Quality Management District (BAAQMD), 2017).

The area surrounding the Project Site has several permitted stationary sources of CAPs and major roadways. Within a 1,000 feet radius of the Project Site, the BAAQMD recommended radius for assessing cumulative impacts with nearby projects, there are two permitted stationary sources, The Home Depot Store and Vallejo Toyota, and three major roads, I-80, Highway 37, and Columbus Parkway, according to the BAAQMD's stationary source screening map. The Home Depot Store has an emergency backup generator, and the Vallejo Toyota has a gasoline dispensing facility (BAAQMD, 2023).

Attainment Status

The BAAQMD regulates air pollutant emissions from stationary sources within the southwestern portion of Solano County, including the Project Site. However, once the Project Site is taken into trust, air quality would be under the jurisdiction of the USEPA.

The NAAQS sets limits on atmospheric concentration of six pollutants that cause smog, acid rain, and other health hazards. These limits have been set to protect public health, including the health of sensitive populations with a margin of safety, and to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. The USEPA classifies areas in compliance with the NAAQS as being in "attainment." Areas that do not meet the NAAQS are classified as being in "nonattainment" by the USEPA.

As shown in **Table 3.4-2**, the BAAQMD portion of the County has a "marginal" nonattainment status for ozone and $PM_{2.5}$ (24-hr), and is designated attainment (maintenance) for CO. All other pollutants are in attainment (USEPA, 2024a, USEPA, 2024b).

Table 3.4-2: NAAQS Attainment Status for San Francisco Bay Area portion of Solano County

Pollutant	NAAQS
Ozone (8-hour)	Nonattainment (Marginal)
PM_{10} (24-hour, annual)	Attainment
$PM_{2.5}$ (annual)	Attainment
$PM_{2.5}$ (24-hour)	Nonattainment (Marginal)
Carbon Monoxide (8-hour, 1-hour)	Attainment (Maintenance)
Nitrogen Dioxide (annual, 1-hour)	Attainment
SO_2 (24-hour,1-hour)	Attainment
Lead (30-day average)	Attainment

Source: USEPA, 2024c

PM_{10}: Particulate matter with diameters that are generally 10 micrometers and smaller

$PM_{2.5}$: Particulate matter with diameters that are generally 2.5 micrometers and smaller

Hazardous Air Pollutants

Hazardous air pollutants (HAPs) are those pollutants that are known or suspected to cause cancer or other serious health effects. For more information on HAPs, see **Appendix E**. Of the 188 HAPs listed by the USEPA, $PM_{2.5}$ is considered the most hazardous CAP to human health in the Bay Area due to its ability to cause short-term and long-term health effects. $PM_{2.5}$ and other HAPs can be generated from mobile sources and stationary sources; common stationary sources are diesel emergency generators, dry cleaners, and gas stations. Mobile sources, which are far more common, include motor vehicles on freeways and roads and off-road sources, such as heavy equipment, ships, and trains (BAAQMD, 2017c).

Odors

There are no large-scale odor producing facilities, including confined animal facilities, within two miles of the Project Site. The Project Site itself produces no noticeable odors.

Sensitive Receptors

Sensitive receptors near the Project Site include residential areas to the south and west. The nearest sensitive receptor to the Project site is New Horizons Montessori School, located 0.25 miles southwest of the Project site, beyond the I-80 and Highway 37 junction.

The Project Site is near an area identified by the BAAQMD Community Air Risk Evaluation (CARE) Program as vulnerable to air pollution. Specifically, the area beyond the I-80 and Highway 37 junction exceeded federal PM 2.5 standards of 35 mg/m^3 for 24-hour levels during 2010–2012 and was classified in 2013 as having elevated pollution levels with significant health impacts (BAAQMD, 2023b).

The Vallejo-304 Tuolumne Street monitoring station, located approximately 2.75 miles from the Project Site, reports air quality data for $PM_{2.5}$ (CARB, 2022). The ambient air quality measurements from this station are representative of the air quality near the Project Site. **Table 4.3-3** summarizes the air quality data for the three most recent calendar years for which data is available.

Table 3.4-3: Highest Daily 24-Hour $PM_{2.5}$ Averages at Vallejo-304 Tuolumne Street

	2020	2021	2022
Maximum Concentration (24-hour µg/m³)	152.7	32.0	31.0
Threshold (24-hour 35 µg/m³)	35	35	35
Threshold Exceeded?	Yes	No	No

Notes: µg/m3=micrograms per cubic meter
Source: CARB, 2022

As demonstrated above, daily $PM_{2.5}$ averages met the federal PM2.5 standards of 35 µg/m³ for 24-hour levels in 2021 and 2022, but not in 2020. The elevated 2020 levels were due to the extensive wildfires in California in that year, which resulted in the largest area burned in recorded history (CalFire, 2020). Consequently, the area adjacent to the Project Site identified by the BAAQMD CARE program as being vulnerable to air pollution meets standards for $PM_{2.5}$ in the most recent years for which data is available.

Climate Change

Certain gases in the atmosphere, classified as GHGs, play a critical role in determining the surface temperature of the earth. **Appendix E** provides a summary of the potential effects from climate change that could occur in the region.

3.4.3 Impacts

Assessment Criteria

Significant impacts 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 the State to meet NAAQSs. The effects of proposed federal actions on BAAQMD air quality management are assessed below as required under the CAA.

Methodology

Construction Analysis

Emissions from construction trucks and heavy equipment were calculated using the USEPA-approved California Emissions Estimator Model, Version 2022.1 (CalEEMod) (CAPCOA, 2022). CalEEMod input tables and emissions results are summarized below and included in **Appendix G**.

Operation Analysis

Annual operation emissions for the project alternatives were calculated using CalEEMod. **Appendix G** includes the assumptions and inputs incorporated into CalEEMod for each alternative.

Hazardous Air Pollutants Health Screening

HAPs are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects. For more information on HAPs, see **Appendix E**. For the alternatives, HAPs are primarily associated with DPM emissions from heavy trucks, emergency generators and heavy construction equipment. DPM emissions are quantified within $PM_{2.5}$ emission estimates for construction and operation.

Federal General Conformity

Conformity regulations apply to federal actions that would cause emissions of CAPs above certain levels in areas designated as nonattainment or maintenance areas for the emitted pollutants. As discussed in **Section 3.4.2**, the Project Site is in ozone and $PM_{2.5}$ nonattainment areas, and a maintenance area for CO. The associated *de minimis* levels for ozone, CO and $PM_{2.5}$ are 100 tons per year. If the development alternatives do not exceed this level, a federal general conformity analysis is not required.

Climate Change

This EA considers whether project emissions have individual or cumulative effects on climate change. Project impacts are addressed as cumulative air quality effects in **Section 3.15.3**. GHG emissions were calculated using CalEEMod. The social cost of GHG emissions was estimated using cost estimates provided by the Interagency Working Group on Social Cost of GHG (IWG, 2021), consistent with CEQ Guidance on Consideration of GHG Emissions and Climate Change (2023).

Federal Class I Areas

The CAA designates international parks, national wilderness areas, and memorial parks larger than 5,000 acres and national parks larger than 6,000 acres as "Class I areas." If a development alternative emits greater than the PSD threshold of 250 tons per year (tpy) of any one CAP from stationary sources during construction or operation, a best available control technology analysis would be conducted. The nearest Class I area is Point Reyes National Seashore, approximately 27 miles from the Project Site.

Tribal New Source Review

NSR is a preconstruction permitting program for stationary sources under the CAA. The Tribe would be required to apply for coverage under the NSR program for the operation of the proposed diesel backup generators.

Alternative A – Proposed Project

Construction Emissions

Construction of Alternative A would result in emissions of CAPs and HAPs (primarily in the form of DPM) from the use of construction equipment, soil movement and painting. Neighboring areas could be impacted by dust generated during construction and potentially other construction-related emissions if not properly managed. Effects on air quality during construction were evaluated by estimating the quantity of CAPs that would be emitted over the duration of the construction period for each year construction would occur. The construction emissions for Alternative A are shown in **Table 3.4-4**.

Emissions estimates assume the implementation of construction BMPs described in **Table 2.1-4.** Implementation of construction BMPs is expected to control the production of fugitive dust (PM_{10} and $PM_{2.5}$) and to reduce emissions of CAPs and DPM. This would reduce the overall quantity of these emissions and dust that could disperse off-site and negatively affect neighboring areas. As shown in **Table 3.4-4**, emissions of individual CAPs from the construction of Alternative A would not exceed applicable *de minimis* levels; therefore, a conformity determination is not required and construction would not result in significant adverse effects associated with the regional air quality environment.

Table 3.4-4: Construction Emissions of Criteria Pollutants (tons per year) – Alternative A

Construction Year	NOx	VOC	CO	SO_2	PM_{10}	$PM_{2.5}$
2027	3.87	0.51	5.41	0.01	1.33	0.42
2028	1.30	4.36	2.49	0.01	0.58	0.16
Maximum Year Emissions	**3.87**	**4.36**	**5.41**	**0.01**	**1.33**	**0.42**
De minimis Level	100	100	100	N/A	N/A	100
Exceed Level?	No	No	No	No	No	No

Source: **Appendix G**
Notes: N/A = Not Applicable. VOC=volatile organic compounds; *De minimis* levels are not applicable for projects in attainment areas (refer to **Appendix E**)

Operation Emissions

Buildout and operation of Alternative A would result in the generation of mobile emissions from patron, employee, and delivery vehicles. Alternative A assumes the use of electric boilers and appliances as described in **Table 2.1-4**; however, to provide a conservative analysis in the event that natural gas is utilized, modeling assumes the generation of stationary-source emissions from emergency diesel generators and the combustion of natural gas in stoves, heating units, and other equipment. Estimated mobile-source and stationary-source emissions from operation of Alternative A are provided in **Table 3.4-5**. Emissions estimates assumed the implementation of the BMPs described in **Table 2.1-4**, including the use of electric landscape maintenance equipment.

The Tribe would be required to apply for coverage under the NSR program for the operation of the proposed diesel backup generators. Compliance with the NSR program would require emission limitations and monitoring and reporting requirements. Because stationary source emissions are subject to the NSR permitting program, they are exempt from the conformity determination. The area, energy use, and mobile emissions are not exempt from a conformity determination and are thereby considered the total annual emissions that must be compared to the *de minimis* thresholds.

As shown in **Table 3.4-5**, emissions of all CAPs are below *de minimis* levels and therefore are considered to be less than significant. Impacts to the regional air quality environment resulting from Alternative A would be less than significant.

Table 3.4-5: Operation Emissions of Criteria Pollutants (tons per year) – Alternative A

Source	NOx	VOC	CO	SO_2	PM_{10}	$PM_{2.5}$
Stationary	4.94	1.10	0.33	0.01	0.16	0.16
Total Exempt Emissions	*4.94*	*1.10*	*0.33*	*0.01*	*0.16*	*0.16*
Energy	3.72	0.20	3.11	0.02	0.28	0.28
Area	< 0.005	3.07	< 0.005	< 0.005	< 0.005	< 0.005
Mobile	12.0	7.80	94.3	0.31	29.5	7.62
Total Non-Exempt Emissions	**15.72**	**11.07**	**97.41**	**0.33**	**79.78**	**7.90**
De minimis Levels	100	100	100	N/A	N/A	100
Exceed Level?	No	No	No	No	No	No

Source: **Appendix G**
Notes: N/A = Not Applicable. *De minimis* levels are not applicable for projects in attainment areas (refer to **Appendix E**).

Hazardous Air Pollutants

Operation of Alternative A would generate DPM emissions from both mobile and stationary sources. Mobile sources include diesel-powered buses and trucks accessing the Project Site, while stationary sources include the periodic testing and use of emergency generators. The BMPs identified in **Table 2.1-4** include measures to control DPM during operation by requiring that vehicles and equipment be properly maintained and limiting truck and bus idling times. The proposed diesel generators would be operated approximately once per month for testing and otherwise limited to emergency use, thereby limiting emissions. The diesel generators would be located at least 1,000 feet from the nearest off-site residential area. This buffer would provide for the dispersal of DPM emissions. The proposed generators would comply with USEPA Tier 2 emission standards and would be operated under an NSR permit. With implementation of BMPs, potential impacts from DPM would be less than significant.

Odors

Odor related impacts from Alternative A during construction would primarily originate from the SO_2 generated from heavy construction equipment. SO_2 would be localized onsite when heavy equipment is operated. Odors would disperse rapidly with distance from the source and are not expected to be noticeable off-site. Therefore, odor related effects during construction are considered less than significant.

Under Alternative A, there are two wastewater treatment options, the second of which occurs on-site with the potential for operational odor-related impacts. Under Option 1, wastewater treatment would be provided by VFWD and would occur off-site, with no impacts occurring. Under Option 2, wastewater would be treated at an on-site WWTP located in the utility area in the southern portion of the Project Site. Anaerobic decomposition of organic matter containing sulfur and nitrogen accounts for the majority of odor-producing substances found in domestic wastewater. Additionally, the decomposition of domestic wastewater can produce inorganic gases, which commonly include hydrogen sulfide, ammonia, CO2, and CH4 (Jeon et al., 2009). These odors would not be detrimental to health but could cause annoyances or mild symptoms (e.g., headache) if exposure duration is long and concentrations are high enough. The on-site WWTP proposed under Option 2 would include filtration of exhaust air and would not cause significant adverse odor impacts with the implementation of the BMPs proposed in **Table 2.1-4**, including odor-reducing components and designs incorporated into the WWTP.

Additionally, common types of facilities known to produce odors, such as landfills, chemical manufacturing, auto body shops and coffee roasters, would not be developed as part of Alternative A. Under Alterative A, the proposed casino would include kitchens that would occasionally generate odors from cooking and baking, however these impacts would be less than significant. Therefore, odor related effects during operation are considered less-than- significant.

Alternative B – Reduced Intensity Alternative

Construction Emissions

The construction activities under Alternative B would be similar to those under Alternative A. The construction emission totals for Alternative B are shown in **Table 3.4-6**. Emissions estimates of Alternative B assume the implementation of construction BMPs described in **Table 2.1-4** that would reduce fugitive dust and emissions of CAP and DPM. As shown in **Table 3.4-6**, emissions would not exceed applicable *de minimus* levels. Construction of Alternative B would not result in significant adverse effects.

Table 3.4-6: Construction Emissions of Criteria Pollutants (ton per year) – Alternative B

Construction Year	NOx	VOC	CO	SO_2	PM_{10}	$PM_{2.5}$
2027	4.59	0.52	5.62	0.02	1.49	0.47
2028	1.29	3.95	2.47	0.01	0.57	0.16
Maximum Year Emissions	**4.59**	**3.95**	**5.62**	**0.02**	**1.49**	**0.47**
De minimis Level	100	100	100	N/A	N/A	100
Exceed Level?	No	No	No	No	No	No

Source: **Appendix G**
Notes: N/A = Not Applicable. *De minimis* levels are not applicable for projects in attainment areas (refer to **Appendix E**).

Operation Emissions

Estimated mobile-source and stationary-source emissions from operation of Alternative B are shown in **Table 3.4-7**, and assume the implementation of the BMPs described in **Table 2.1-4,**. As with Alternative A, the operation of the diesel backup generators would be operated in compliance with the NSR program. As shown in **Table 3.4-7**, the non-exempt emissions of all CAP for Alternative B are below *de minimis* levels and therefore are considered to be less than significant. Consequently, impacts to the regional air quality environment resulting from Alternative B would be less than significant.

Table 3.4-7: Operation Emissions of Criteria Pollutants (tons per year) – Alternative B

Source	NOx	VOC	CO	SO_2	PM_{10}	$PM_{2.5}$
Stationary	4.94	1.10	0.33	0.01	0.16	0.16
Total Exempt Emissions	*4.94*	*1.10*	*0.33*	*0.01*	*0.16*	*0.16*
Energy	3.67	0.20	3.09	0.02	0.28	0.28
Area	0.00	2.79	0.00	0.00	0.00	0.00
Mobile	10.70	7.21	84.1	0.27	26.1	6.74
Total Non-Exempt Emissions	**14.37**	**10.20**	**87.19**	**0.29**	**26.38**	**7.02**
De minimis Levels	100	100	100	N/A	N/A	N/A
Exceed Level?	No	No	No	No	No	No

Source: **Appendix G**
Notes: N/A = Not Applicable. *De minimis* levels are not applicable for projects in attainment areas (refer to **Appendix E**).

Hazardous Air Pollutants

Operation of Alternative B would generate DPM emissions from both mobile and stationary sources, similar to Alternative A. However, due to its smaller development size, Alternative B would emit less diesel exhaust overall. Consequently, Alternative B would have reduced adverse health implications from $PM_{2.5}$ concentrations. The project-related HAP emission impacts during the operation of Alternative B would therefore be less than significant.

Odors

Odor related impacts from the construction and operation of Alternative B would be similar to, but less than, Alternative A due to the smaller development size and reduced wastewater flows. Therefore, odor-related effects during construction and operation are considered a less-than-significant impact

Alternative C – Non-Gaming Alternative

Construction Emissions

The construction emission totals for Alternative C are shown in **Table 3.4-6**. Emissions estimates of Alternative C assume the implementation of construction BMPs described in **Table 2.1-4** that would reduce fugitive dust and emissions of CAP and DPM. As shown in **Table 3.4-8**, emissions would not exceed applicable *de minimis* levels. Construction of Alternative C would not result in significant adverse effects.

Table 3.4-8: Construction Emissions of Criteria Pollutants (tons per year) – Alternatives C

Construction Year	NOx	VOC	CO	SO_2	PM_{10}	$PM_{2.5}$
2027	2.11	0.24	2.64	0.01	0.39	0.17
2028	0.65	2.41	1.03	< 0.005	0.10	0.04
Maximum Year Emissions	**2.11**	**2.41**	**2.64**	**0.01**	**0.39**	**0.17**
De minimis Level	100	100	100	N/A	N/A	100
Exceed Level?	No	No	No	No	No	No

Source: **Appendix G**

Notes: N/A = Not Applicable. *De minimis* levels are not applicable for projects in attainment areas (refer to **Appendix E**).

Operation Emissions

Estimated mobile-source and stationary-source emissions from operation of Alternative C are shown in **Table 3.4-7**, and assume the implementation of the BMPs described in **Table 2.1-4**. As with Alternatives A and B, the operation the diesel backup generator would be operated in compliance with the NSR program. As shown in **Table 3.4-7**, the non-exempt emissions of all CAP for Alternative C are below *de minimis* levels and therefore are considered to be less than significant. Consequently, impacts to the regional air quality environment resulting from Alternative C would be less than significant.

Table 3.4-9: Operation Emissions of Criteria Pollutants (tons per year) – Alternative C

Source	NOx	VOC	CO	SO_2	PM_{10}	$PM_{2.5}$
Stationary	1.24	0.28	0.08	< 0.005	0.04	0.04
Total Exempt Emissions	*1.24*	*0.28*	*0.08*	*< 0.005*	*0.04*	*0.04*
Energy	0.38	0.02	0.29	< 0.005	0.03	0.03
Area	< 0.005	1.77	< 0.005	< 0.005	< 0.005	< 0.005
Mobile	2.43	3.57	19.2	0.04	4.17	1.08
Total Non-Exempt Emissions	**4.04**	**3.00**	**25.20**	**0.04**	**4.20**	**1.91**
De minimis Levels	100	100	100	N/A	N/A	100
Exceed Level?	No	No	No	No	No	No

Source: **Appendix G**

Notes: N/A = Not Applicable. *De minimis* levels are not applicable for projects in attainment areas (refer to **Appendix E**).

Hazardous Air Pollutants

Operation of Alternative C would generate DPM emissions, similar to Alternatives A and B. However, Alternative C would emit less diesel exhaust overall due to its smaller scale. Consequently, Alternative C would have reduced adverse health implications from $PM_{2.5}$ concentrations. Project-related HAP emission impacts during operation would be less than significant.

Odor

The odor impacts from the operation of Alternative C would be similar to Alternatives A and B during construction and operation, but on a smaller scale due to the smaller development size. Similar to Alternatives A and B, Alternative C will incorporate BMPs from **Table 2.1-4** to reduce the potential odor impacts from the on-site WWTP proposed in Option 2. Therefore, the impacts related to odor from the WWTP would be less than significant.

Alternative D – No Action Alternative

Under the No Action Alternative, the Project Site would remain undeveloped and none of the construction or operational air quality impacts identified for the development alternatives would occur.

3.5 BIOLOGICAL RESOURCES

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 E**.

Table 3.5-1: Regulatory Policies and Plans Related to Biological Resources

Regulation	Description
Federal	
Federal Endangered Species Act (FESA)	▪ Protects federally listed wildlife and their habitat from take. ▪ Requires consultation under Section 7 of the FESA for federal agencies and tribes 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.
Magnuson Stevens Act and Sustainable Fisheries Act	▪ Governs marine fisheries management in U.S. federal waters. ▪ Establishes requirements for fishery management councils to identify and describe Essential Fish Habitat (EFH) and Habitat Areas of Particular Concern to protect, conserve, and enhance habitat for the benefit of fisheries. ▪ Defines EFH as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. ▪ Establishes a federal EFH consultation process that advises federal agencies to avoid, minimize, mitigate, or otherwise offset adverse effects on EFH.
Migratory Bird Treaty Act (MBTA)	▪ Protects migratory birds and requires project-related disturbances to be reduced or eliminated during the nesting season (generally February 1 through August 31).
Bald and Golden Eagle Protection Act	▪ Prohibits take, possession, and commerce of bald and golden eagles and associated parts, feathers, nests, or eggs with limited exceptions.

Regulation	Description
Clean Water Act Sections 404 and 401	▪ Defines wetlands and waters of the U.S. subject to jurisdiction of the U.S. Army Corps of Engineers (USACE) and/or the State. ▪ Guides the permitting and mitigation 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)	▪ 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	▪ 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 CCR § 783.4(a), (b) and CDFW Code Section 2081(b) are met. ▪ Protects nesting birds and their nests.
Native Plant Protection Act of 1977	▪ Administered by the CDFW. ▪ Designates special-status plant species and provides protection measures for identified populations.
Local	
City of Vallejo General Plan	▪ Identifies goals and policies regarding biological resources.
City of Vallejo Municipal Code	▪ Identifies zoning areas for the protection of biological resources. ▪ Sets forth stormwater management and discharge standards. ▪ Identifies tree removal requirements, including tree inventories and replacement of significant trees removed by development.
Draft Solano Multispecies Habitat Conservation Plan	▪ Designed to streamline the permitting process and Section 7 consultation process for covered species and plan participants within the plan area.

3.5.2 Environmental Setting

Methodology

Preliminary Research and Data Gathering

This section summarizes findings from the following:

- A Biological Assessment (BA) prepared to facilitate consultation with the USFWS pursuant to the Section 7 of the FESA (**Appendix H-1**), including review of the USFWS Information for Planning and Conservation database and National Wetlands Inventory (NWI)(Figure 6 of **Appendix H-1**)

- An Aquatic Resources Delineation (ARD) Report which presents the results of the delineation of potential jurisdictional wetlands and waters of the U.S. (**Appendix H-2**), including USGS topographic maps and the NRCS Web Soil Survey.
- A Botanical Report summarizing the results of botanical surveys from the 2024 blooming season (**Appendix H-3**).
- A Technical Memorandum addressing the potential for species protected under California State law to be present on the Project Site (**Appendix H-4**), including review of the CDFW California Natural Diversity Database (CNDDB) and California Native Plant Society's (CNPS) database.

Site Assessments

Field visits have previously been conducted within the Project Site since October 2005, as summarized in **Appendix H-1**. Consulting biologist Dr. G.O. Graening performed an updated BA and ARD of the Project Site on April 3 and May 4, 2024. Consulting botanist Tim Nosal, M.S. performed a botanical survey of the Project Site on April 7 and June 1, 2024. A summary of the 2024 survey methodologies is provided in **Appendix H-1** and **H-4**.

Habitat Types

Habitats that occur within the Project Site consist of ruderal/developed, riparian scrub, freshwater marsh, pasture, and annual grassland/rock outcrop. These habitats are shown in **Figure 3.5-1** and discussed further in **Appendix H-1**. Representative site photographs are provided in Attachment B of **Appendix H-1**, and a list of plant and animal species observed during the 2024 site visits and previous site visits is included as Attachment C of **Appendix H-1**.

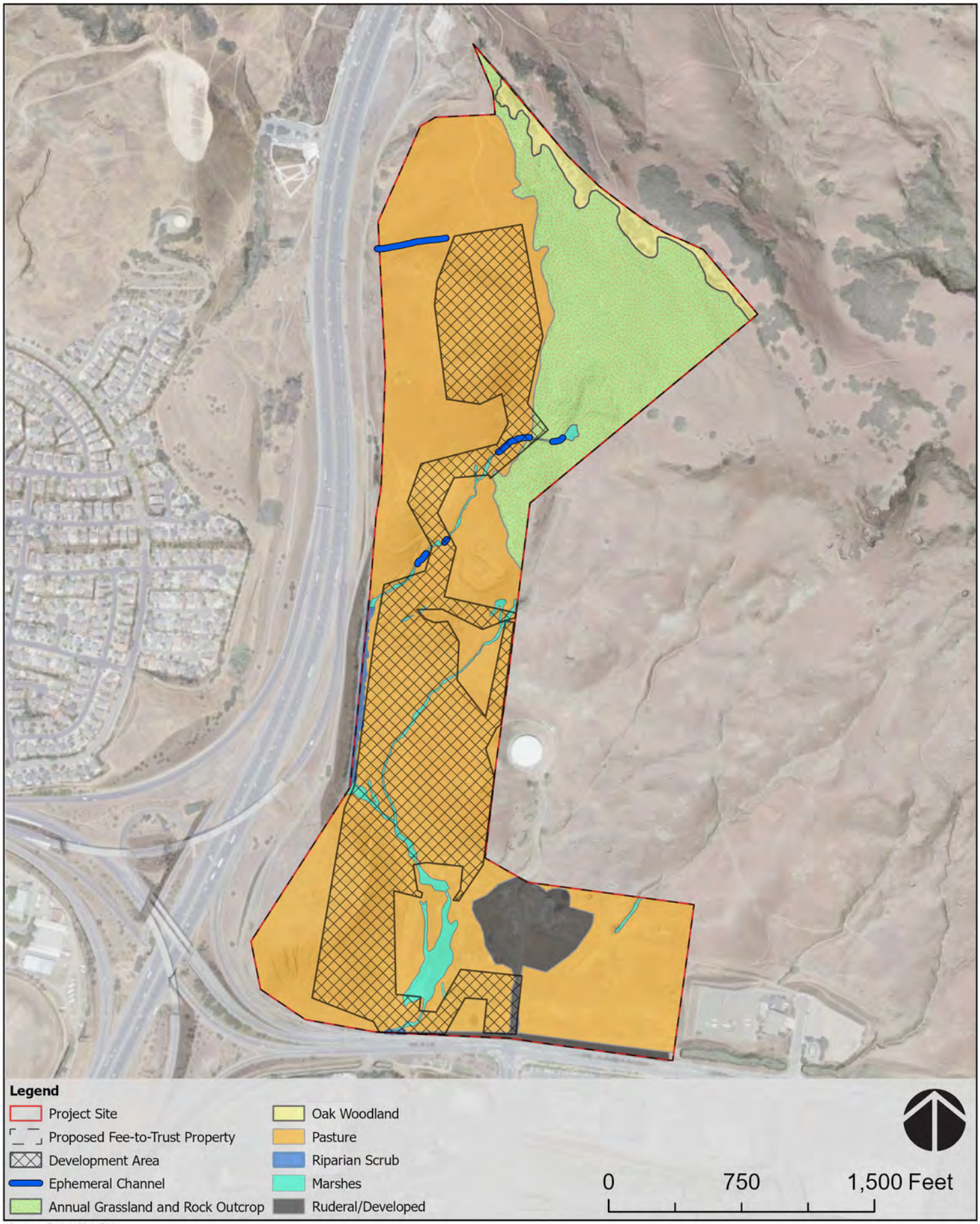
Aquatic Resources

The ARD Report identified 5 ephemeral channels, 12 wetlands (freshwater marsh), and 2 areas of riparian scrub (**Appendix H-2**). These features are shown on **Figure 3.5-1**. Based on the result of the ARD, all of these features have the potential to be considered waters of the U.S.

Federally Listed Species

The following federally listed species have the potential to occur within the Project Site (**Appendix H-1**):

- Northwestern pond turtle (NPT): May disperse across the totality of the Project Site.
- California red-legged frog (CRLF): May disperse across the totality of the Project Site. May aestivate within the freshwater marsh habitat.
- Callippe silverspot butterfly: Suitable larval host plants were observed within the northern portion of the Project Site (Figure 8 of **Appendix H-1**). Suitable adult foraging nectar resources are present within much of the Project Site.
- Monarch butterfly: larval host plants were not observed, and the Project Site does not contain overwinter roosting habitat. Habitat is limited to foraging habitat throughout the Project Site.



Source: Esri, USDA FSA, Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User

FIGURE 3.5-1
HABITAT TYPES

See Section 4.0 of **Appendix H-1** for a detailed discussion of the status of federally listed species with the potential to occur on the Project Site. The CDFW CNDDB does not report any listed species or special-status species within the Project Site. The CNDDB does have a historical occurrence of CRLF immediately southeast of the Project Site associated with Rindler Creek. CNDDB accuracy buffer of the occurrence overlaps with the Project Site, however, Rindler Creek does not cross the Project Site. Additionally, a prior biological survey of the Project Site identified Callippe silverspot butterfly within the Project Site (shown in Figure 8 of **Appendix H-1).**

Critical Habitat and Essential Fish Habitat

A small portion along the northern border of the Project Site is designated as critical habitat for CRLF (Figure 5 of **Appendix H-1**). This feature extends to the north and east of the Project Site and is described in Section 1.3 of **Appendix H-1**.

The totality of the Project Site is within EFH for Coho salmon and Chinook salmon (NMFS, 2024a). There is no NMFS designated critical habitat within the Project Site (NMFS, 2024b).

Migratory Birds and other Birds of Prey

Migratory birds and other birds of prey, protected under 50 CFR Part 10 of the MBTA, have the potential to nest on and near the Project Site. The nesting season for raptors and other migratory birds occurs generally between February 1 and August 31. One active killdeer nest was observed in the eastern portion of the Project Site during the April 2024 field survey. No other active bird nests have been observed in the Project Site; however, it is possible for nests to be established over time given the presence of suitable nesting habitat. Bald eagles and golden eagles do not have the potential to occur on the Project Site as trees are generally absent on the Project Site. Oak woodland is the only tree-dominated species on the site, and this area consists of small, scattered stands of oaks immediately adjacent to I-80.

State-Listed Special Status Species

State-listed animal species that have the potential to occur on the Project Site include (**Appendix H-4**):

- Numerous bat species that may forage over the Project Site, including pallid bat, Townsend's big-eared bat, hoary bat, and big free-tailed bat.
- Numerous bird species that may forage over the Project Site, including golden eagle, great blue heron, short-eared owl, burrowing owl, ferruginous hawk, Swainson's hawk, northern harrier, white-tailed kite, and American peregrine falcon. Though active burrowing owl burrows have not been observed on the Project Site, it is possible these could be established over time.
- Several bees that may forage over the Project Site, including obscure bumble bee, crotch bumble bee, and western bumble bee.

Botanical surveys did record numerous individual Jepson's leptosiphon (*Leptosiphon jepsonii*), which is ranked by the CNPS as 1B.2 (shown on Figure 6 of **Appendix H-3**). Rank 1B.2 indicates plants determined by the CNPS to be rare throughout their range with a moderate degree and immediacy of threat. No other state-listed plants have been observed during numerous surveys over many years.

3.5.3 Impacts

Assessment Criteria

A project would have a significant adverse impact if the development or operation would result in the loss of sensitive or critical habitat; have a substantial adverse effect on species with special status under the FESA; have a substantial adverse effect on habitat necessary for the future survival of such species, including areas designated as critical habitat by the USFWS and areas designated as EFH by NMFS; result in a take of migratory bird species as defined by the MBTA; and/or have a substantial adverse effect on wetlands and other waters of the U.S.. Consideration is also given to State-listed species.

Methodology

The evaluation of adverse effects to biological resources is based on a comprehensive examination of the Project Site and the extent of habitats, aquatic features, and the presence, absence, or potential occurrence of special status species that would be impacted by the project alternatives.

Alternative A – Proposed Project

Sensitive Habitats and Waters of the U.S.

Table 3.5-2 provides a breakdown of habitats within the Project Site as a whole, acres that fall within the development area (which is the limits of grading shown/orange drainage management areas shown in **Figure 2.1-6**), and acres that fall within the biological preserve.

Table 3.5-2: Habitat Types within the Project Site

Habitat Type	Total Acreage within Project Site	Acreage within Biological Preserve*	Acreage within Development Footprint
Riparian scrub	0.4	0.0	0.0
Freshwater marsh	3.4	0.3	1.1
Pasture	114.3	10.7	51.8
Oak woodland	3.7	3.7	0.0
Ruderal/developed	7.4	0.0	0.4
Annual grassland/ rock outcrop	30.8	30.5	0.3
Channels	767 lf	65 lf	307 lf
Totals	**160.0**	**45.1**	**53.6**

* Note: There are a total of approximately 45.1 acres within the Biological Preserve. The individual habitat types appear slightly higher due to rounding.

Riparian scrub and oak woodland would not be impacted by Alternative A. Pasture habitat is a degraded habitat that is not considered sensitive as it is modified from its natural condition, dominated by non-native species, and subject to regular human disturbance and grazing by cattle and horses. Similarly, ruderal/developed areas are not considered sensitive as they are heavily modified from their natural condition and contain little to no vegetation. Annual grasslands are similarly subject to grazing pressures and disturbance, but to a lesser extent as topography makes this area less accessible. This area is also dominated by non-native species and is not considered sensitive.

Freshwater marsh habitat and channels within the Project Site are considered sensitive habitat and are likely considered waters of the U.S. (**Appendix H-2**). A total of 1.1 acres of freshwater marsh and 307 lf of channels fall within the development area and thus could be impacted by Alternative A, which is considered a significant impact.

Mitigation in **Section 4** includes consultation with USACE and USEPA, obtaining a Section 404 permit/Section 401 water quality certification prior to disturbance of sensitive habitats/waters of the U.S., and adhering to all conditions of the permit. Mitigation for loss of waters of the U.S. is subject to USACE review but is likely to include a minimum 1:1 ratio through habitat creation, restoration, or purchase of USACE-approved credits. With implementation of mitigation, adverse impacts to sensitive habitats, including waters of the U.S., would be reduced to less-than-significant levels.

Federally Listed Species

Alternative A contains BMPs that would generally prevent indirect impacts such as spread of noxious species or attracting predators to the site by requiring equipment to be cleaned prior to use on site and implementing proper trash collection methods. These BMPs are outlined in **Table 2.1-4**. A discussion of impacts by species is provided below.

Northwestern Pond Turtle

As discussed in **Appendix H-1**, Alternative A would result in impacts to 53.6 acres of lower-quality dispersal habitat for NPT. Approximately 106.4 acres (66.5%) of dispersal habitat within the site would be avoided. Following implementation of Alternaitve A, this species would still be able to disperse across the Project Site. Therefore, loss of dispersal habitat would not adversely impact NPT.

However, take of NPT could occur during the construction phase should this species disperse through the Project Site during construction. This would be considered an adverse impact. Mitigation in **Section 4** includes a pre-construction survey, installation of wildlife exclusionary fencing around the development area, worker environmental awareness training, and regular inspections to ensure compliance with mitigation. These actions would ensure NPT is not present within the development area prior to or during construction. Additionally, construction personnel would be trained to halt work should personnel observe a suspected occurrence of this species, and all wildlife would be allowed to pass unharmed on their own. With mitigation in **Section 4**,impacts to NPT from construction activities would be less than significant.

During operation of Alternative A, dispersing NPT could be struck by vehicular traffic should this species attempt to disperse across the built environment. This would constitute an adverse effect. In order to minimize the potential for NPT to enter the built environment, mitigation in **Section 4** includes construction of a permanent exclusionary border such as a concrete curb around the built environment and the placement of wildlife undercrossings, such as freespan bridges or culverts over drainages, to allow for continued access to dispersal habitat. With mitigation in **Section 4**, adverse impacts to NPT resulting from operational activities would not occur.

California Red-Legged Frog

As discussed in **Appendix H-1**, Alternative A would result in impacts to 52.5 acres of lower quality upland dispersal habitat and 1.1 acres of aestivation habitat in the form of the freshwater marshes. As discussed above under NPT, the Project Site would still be useable as dispersal habitat following construction. However, loss of 1.1 acres of aestivation habitat would be considered an adverse effect to CRLF. **Section**

4 includes compensatory mitigation to offset the loss of 1.1 acres of aestivation habitat. A total of 0.3 acres of freshwater marsh habitat falls within the biological preserve area and establishment of the preserve would offset 0.1 acres of impacted aestivation habitat. Additional compensatory options are included in **Section 4**, such as inclusion of additional aestivation habitat within the biological preserve, purchase of habitat credits, or creation of habitat to offset the remaining 1.0 acres of impacts. Compensatory mitigation for loss of aestivation habitat would reduce this impact to a less-than-significant level.

Take of CRLF could occur during the construction phase should this species disperse through the Project Site during construction or should individuals be aestivating within impacted freshwater marsh. This would be considered an adverse impact. Mitigation in **Section 4** includes a pre-construction survey, installation of wildlife exclusionary fencing around the development area, worker environmental awareness training, and regular inspections to ensure compliance with mitigation. Timing of the preconstruction survey and installation of exclusionary fencing would occur during the wet season when CRLF are active. These actions would ensure CRLF is not present within the development area prior to construction and would ensure this species is excluded from the development area throughout construction. Additionally, construction personnel would be trained to halt work should personnel observe a suspected occurrence of this species, and all wildlife would be allowed to pass unharmed on their own. With mitigation in **Section 4**, impacts to CRLF from construction activities would be less than significant.

During operation of Alternative A, dispersing CRLF could be struck by vehicular traffic should this species attempt to disperse across the built environment. This would constitute an adverse effect. In order to minimize the potential for CRLF to enter the built environment, mitigation in **Section 4** includes placement of wildlife undercrossings such as freespan bridges or culverts over drainages to allow for continued access to dispersal habitat. Additionally, mitigation includes completion of Section 7 consultation with USFWS and the issuance of a Biological Opinion (BO) prior to construction. As a component of the BO, USFWS may require additional actions to ensure jeopardy of the species would not occur. Conditions required by USFWS in the BO would be adhered to. With mitigation in **Section 4**, adverse impacts to CRLF resulting from operational activities would be less than significant.

Callippe Silverspot Butterfly

Alternative A would result in the loss of 2.9 acres of host plant habitat and 50.3 acres of nectar resource habitat. Additionally, this species has previously been observed on the Project Site. As the majority of the lifecycle of this species is spent on its host plant or on the ground near its host plant, Alternative A is likely to result in unavoidable take of individuals of this species during grading activities within the 2.9 acres of host plant habitat. This would constitute an adverse impact. Mitigation in **Section 4** includes compensatory mitigation for loss of habitat as summarized in **Table 3.5-3**.

Additionally, mitigation includes completion of Section 7 consultation with USFWS and the issuance of a BO prior to construction. As a component of the BO, USFWS may require additional actions to ensure jeopardy of the species would not occur. Conditions required by USFWS in the BO would be adhered to. Finally, mitigation in **Section 4** includes land management practices developed in consultation with USFWS to improve overall quality of butterfly habitat and prevent degradation of unimpacted habitat. With implementation of mitigation, adverse effects to Callippe silverspot butterfly would be reduced to a less-than-significant level.

Table 3.5-3: Callippe Silverspot Impacts and Recommended Mitigation

Habitat	Impacts (acres)	Recommended Mitigation Ratio	Acres Covered by Biological Preserve	Remaining Impact Acres to Offset
High-quality host plant and foraging	2.9	3:1 in-kind	8.7 in-kind	0.0
Lower quality foraging only	50.3	1:1 through high-quality host plant and foraging, or 2:1 in-kind	30.4 high-quality host plant and foraging 6.0 acres in-kind	16.9

Monarch Butterfly

There are no larval host plants or roosting sites for Monarch butterfly within the Project Site. Therefore, impacts to Monarch butterfly would be limited to foraging habitat. Alternative A would result in impacts to 53.2 acres of foraging habitat (**Appendix H-1**). The balance of nectar resource habitat within the Project Site would be avoided and would provide ample foraging resources for this species should it pass through the Project Site. Although loss of nectar foraging habitat would not be considered a significant impact when compared against the totality of foraging habitat within the range of this species, it is noted that land management practices recommended for Callippe silverspot would benefit Monarch butterfly.

Critical Habitat and Essential Fish Habitat

Designated critical habitat occurs within the northern edge of the Project Site for CRLF as shown in Figure 5 of **Appendix H-1**. Alternative A does not involve habitat conversion or ground disturbance in, or near, this critical habitat. The biological preserve area identified in Figure 6 of **Appendix H-1** captures the totality of the CRLF critical habitat that overlaps with the Project Site. Implementation of Alternative A will therefore have no effect on designated critical habitat for any federally listed species.

While the totality of the Project Site is within EFH for Coho and Chinook salmon, habitat for these species is absent. The EFH covering the Project Site also covers the City of Vallejo and high-density developed areas. Alternative A would not result in the loss of fisheries resources, including individual fish or their habitat and therefore would not result in an adverse effect to EFH. Additionally, as discussed in **Section 3.3**, Alternative A would not result in adverse effects to surface waters on or off the Project Site and therefore would not impact off-site habitat that may be suitable for fishes.

Migratory Birds and Other Birds of Prey

The Project Site and vicinity provides potential nesting habitat for migratory birds and other birds of prey. If active nests are present in these areas, vegetation removal and other construction activities associated with development of Alternative A could adversely affect these species through sensory disturbance of nests. Implementation of mitigation identified in **Section 4**, which includes pre-construction surveys, potential adverse effects to nesting birds during construction would be reduced to less-than-significant.

Generally, increased lighting can lead to an increase in bird collisions with structures and also can cause disorientation effects for avian species. With the incorporation of design features in **Section 2.1.11**, potential adverse effects to migratory birds and other birds of prey would be less than significant.

State-Listed Special-Status Species

In general, state-listed species are not afforded specific protections once land is taken into federal trust. Construction activities would not occur until after land is taken into trust. However, state-listed species are still discussed herein. **Table 3.5-4** summarizes those state-listed species that may occur within the Project Site and impacts to these species as discussed in **Appendix H-4**.

Table 3.5-4: State-Listed Species with Potential to Occur in Project Site

Species	Potential to Occur	Impact Discussion
State-listed bats	Numerous bat species may forage over the Project Site, including state-listed pallid bat, Townsend's big-eared bat, hoary bat, and big free-tailed bat.	Alternative A includes BMPs that would avoid uplighting, excessive noise, or other actions that would impact ongoing foraging over the project footprint or foraging and roosting beyond the development area. Therefore, impacts to state-protected mammals would be less than significant.
State-listed birds	Although the land would be in trust prior to construction, state-protected birds would still be protected under the MBTA of 1918. Construction activities that commence within the general nesting season have the potential to impact nesting birds.	Mitigation in **Section 4** is recommended to ensure that potential impacts to nesting birds are fully avoided. As discussed above, Alternative A has been designed with BMPs to avoid operational sensory disturbances to migratory birds, including state-listed birds that may occur on or in the vicinity of the Project Site.
State-Listed Invertebrates	Three state-listed bumble bee species may forage within the Project Site.	The highest quality nectar resources within the Project Site are within the annual grassland/rock outcrop habitat where grazing pressures are minimal and the soils support a variety of flowering plants. Some nectar foraging resources are also available within the pasture habitat. Alternative A would avoid over half of the nectar resource habitat and would place within a biological preserve over 90% of the higher quality nectar resources. This would provide ample foraging opportunities for bumble bees

Species	Potential to Occur	Impact Discussion
		that may pass through the Project Site.
State-Listed Plants	There are several state-listed plants that have the potential to occur within the Project Site (**Appendix H-4**).	Biological surveys have been completed across the Project Site over numerous years, as far back as 2005 and more recently in 2020, 2022, 2023, and 2024. Throughout these surveys, only one state-listed plant has been observed: Jepson's leptosiphon (California Rare Plant Rank 1B.2). As other state-listed plants with the potential to occur on the Project Site have not been observed, they are assumed absent. The locations of Jepson's leptosiphon within the Project Site are shown in Figure 6 of **Appendix H-3**. All occurrences of this plant are within the biological preserve area, and over 90% of suitable habitat for this species falls within the biological preserve area. Therefore, impacts to state-listed plants would be less than significant.

Alternative B – Reduced Intensity Alternative

Development of Alternative B would result in the same impacts to biological resources as the gaming facility described for Alternative A above, with a reduction in overall impacts due to the removal of the Tribal housing and administration component. **Table 3.5-5** below summarizes impacts to habitats under Alternative B.

The primary reduction in impacts to biological resources under Alternative B compared to Alternative A is the avoidance of the totality of the Callippe silverspot host plant habitat. This avoidance would avoid potential take of eggs and larvae, which occur exclusively on and immediately adjacent to this host plant. Similar to Alternative A, implementation of BMPs in **Section 2**, adherence to the conditions of applicable permits, and mitigation measures in **Section 4**, would reduce impacts to biological resources to a less-than-significant level.

Table 3.5-5: Habitat Impacts under Alternative B

Habitat	Acres of Impact	Mitigation Summary
Ruderal/developed	0.3	None required as it is not a sensitive habitat.
Riparian scrub	0.0	None required as this habitat is avoided.
Oak woodland	0.0	None required as this habitat is avoided.
Freshwater marsh	0.9	Impacts would be reduced in comparison to Alternative A but would remain significant. Similar mitigation to Alternative A is included in **Section 4**.
Pasture	34.9	None required as it is not a sensitive habitat.
Annual grassland/rock outcrop	0.0	None required as it is avoided and is not a sensitive habitat.
Channel	0.0	None required as it is avoided.
High-quality Callippe host plant and butterfly foraging	0.0	None required as it is avoided, including the location of the 2023 observance of this species.
Lower quality butterfly habitat: foraging only	35.8	Impacts would be reduced in comparison to Alternative A but would remain significant. Similar mitigation to Alternative A is included in **Section 4**.

Alternative C – Non-Gaming Alternative

Development of Alternative C would result in a different overall development footprint when compared to Alternatives A and B. Additionally, Alternative C has a slightly different footprint for the biological preserve area (**Figure 2.3-1**), but the overall size would remain the same, and the general boundary would be largely the same. **Table 3.5-6** summarizes the impacts to habitats that would occur under Alternative C.

Alternative C includes more culverting and/or undergrounding of drainages as well as development adjacent to drainages compared to Alternative A. Both primary drainages would be re-routed under Alternative C. Retaining walls and the proposed modifications and alignments to drainages would present an additional dispersal barrier to wildlife compared to Alternative A, including CRLF and NPT. Alternative C would largely render the Project Site unsuitable for dispersal of CRLF and NPT, constituting an adverse impact. Mitigation in **Section 4** includes installation of additional wildlife roadway undercrossings in USFWS to ensure that sufficient dispersal pathways remain following construction to ensure that CRLF and NPT can continue to disperse across the Project Site following construction. With adherence to the conditions of applicable permits and implementation of BMPs in **Section 2** and mitigation in **Section 4**, impacts to biological resources under Alternative C would be reduced to less-than-significant levels.

Table 3.5-6: Habitat Impacts under Alternative C

Habitat	Acres of Impact	Mitigation Summary
Ruderal/developed	0.4	None required as it is not a sensitive habitat.
Riparian scrub	0.0	None required as this habitat is avoided.
Oak woodland	0.0	None required as this habitat is avoided.

Habitat	Acres of Impact	Mitigation Summary
Freshwater marsh	0.9	Impacts would be reduced in comparison to Alternative A, but would remain significant. Similar mitigation to Alternative A is included in **Section 4**.
Pasture	41.4	None required as it is not a sensitive habitat.
Annual grassland/rock outcrop	0.0	None required as it is not a sensitive habitat and is avoided.
Channel	101 lf	Impacts would be reduced in comparison to Alternative A, but would remain significant. Similar mitigation to Alternative A is included in **Section 4**.
High-quality Callippe host plant and butterfly foraging	0.0	None required as this habitat is avoided, including the location of the 2023 observance of this species.
Lower quality butterfly habitat: foraging only	42.3	Impacts would be reduced in comparison to Alternative A, but would remain significant. Similar mitigation to Alternative A is included in **Section 4**.

Alternative D – No-Action Alternative

Alternative D would not result in any construction on the Project Site and would, therefore, not result in any effects to biological resources.

3.6 CULTURAL AND PALEONTOLOGICAL RESOURCES

3.6.1 Regulatory Setting

The cultural resources regulatory setting information is summarized in **Table 3.6-1**, and additional information on the regulatory setting can be found in **Appendix E.**

Table 3.6-1: Regulatory Policies and Plans Related to Cultural and Paleontological Resources

Regulation	Description
Federal	
Section 106 of the National Historic Preservation Act (NHPA)	▪ 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 would be adversely affected, measures to avoid or reduce adverse effects must be taken.
Native American Graves Protection and Repatriation Act	▪ 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

Regulation	Description
	ownership or control of cultural items and human remains discovered on federal or tribal lands.
Archaeological Resources Protection Act	▪ Archaeological resources and sites on public and Indian lands are protected resources.
Paleontological Resources Preservation Act	▪ Paleontological resources on federal lands are protected resources.

3.6.2 Environmental Setting

This section summarizes findings from the following technical studies which are included in **Appendix I**:

- Cultural Resources Survey Report (**Appendix I-1;** AES-Montrose, 2023). This report assessed the western 129 acres of the Project Site, identified as APN 182-010-010.
- Cultural Resources Study for the Ted Lee Land Development Project, Vallejo, Solano County, California (**Appendix I-2;** Origer, 2020). This report assessed the southeastern portion of the Project Site, consisting of approximately 32.5 acres, identified as APNs 182-020-080, 182-020-010 and 182-020-020.

A summary of the prehistoric, ethnographic, historical, and paleontological setting of the Project Site is provided in **Appendix E**.

3.6.3 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 eligible for listing on the NRHP. A significant effect to paleontological resources would occur if a project alternative resulted in damage or destruction of fossils that provide significant nonrenewable taphonomic, taxonomic, phylogenic, ecologic, or stratigraphic information.

Methodology

Multiple cultural resources investigations have been conducted within of the Project Site, including archival research at the Northwest Information Center, Sonoma State University, Native American contact, and field inspections. A detailed description of prior survey methodologies and Nation American contact is provided in **Appendix I**, and summarized briefly in **Appendix E**.

Results

As a result of the records search and field studies, one resource has been identified within the Project Site, CA-SOL-275, originally identified in 1980, which includes a prehistoric chert quarry and a historic serpentine quarry with artifacts indicating use from around 1900-1930. The chert quarry is not extensive, with very few apparent tool blanks mixed in the eroding red chert lens. Unmodified blocks of chert may

have been removed prehistorically, but there is no evidence of actual mining or, if there was, it has been erased by subsequent serpentine mine excavations. While toolstone mining represents a broad pattern of prehistoric resource exploitation, there are no specific associations with important people or events (NRHP Criteria A and B), and the quarry does not exhibit specific mining techniques (NRHP Criterion C), nor does it possess significant data values as there is no evidence of direct mining or reduction patterns at this location (NRHP Criterion D). Therefore, the chert quarry was recommended not eligible for listing on the NRHP (**Appendix I-1**).

The historic era mining complex associated CA-SOL-275 includes three serpentine mine pits of varying sizes, a possible prospect pit, a stone fence line, one or two mine adit/tunnel exploratory excavations, a spring box, and a debris scatter including lumber with round nails and piping related to ore processing machinery that has broken down into component elements. The mining activities in the Project Site are well established, with a complex of surface mines, exploratory pits and tunnels, water sourced from a spring, and scattered debris representing processing machinery. However, serpentine is not a unique material. Its uses were common in the 20th century, the probable date of the mining activities. No reconstruction of associated machinery can be made due to the deterioration and scattering of the components. There are no associations with events or persons significant in the past (NRHP Criteria A and B), the site includes no architectural or artistic qualities that would make it eligible for listing on the NRHP (Criterion C), nor does there appear to be any significant data potential (NRHP Criterion D). Therefore, the serpentine mine complex was recommended as not eligible for listing on the NRHP (**Appendix I-1**).

Alternative A – Proposed Project

Archeological Resources

As a result of the records search and field studies, one resource has been identified within the Project Site, CA-SOL-275, originally identified in 1980, which includes a prehistoric chert quarry and a historic serpentine quarry with artifacts indicating use from around 1900-1930. This resource is located within the grading footprint of Alternative A and thus would be impacted by project activities. In the chert quarry area of the site, it is anticipated that fill will be placed, thus any prehistoric resources underlying the soil would remain in place. The chert quarry and the historic serpentine quarry were evaluated and recommended as not eligible for listing on the NRHP (**Appendix I-1**). Therefore, development of Alternative A would not result in direct adverse effects to known historic properties that met the criteria for inclusion on the NRHP.

The Project Site has a moderate potential for buried archaeological deposits, with drainages possibly exploited prehistorically and steep slopes likely to have generated colluvium covering such deposits, though exploitation is less likely due to steepness, except in the more level southern end of the property. As with any project, there is a possibility that unknown subsurface prehistoric or historic archaeological resources, including human remains, could be encountered and impacted during project related construction and excavation activities. This is a potentially significant impact.

Mitigation measures for the protection and treatment of unanticipated discoveries of archaeological resources and/or human remains are presented in **Section 4**, including the monitoring of grading activities in the vicinity of the prehistoric chert quarry component of CA-SOL-275. Implementation of these mitigation measures would reduce potential impacts to cultural resources to a less-than-significant level.

Paleontological Resources

As described above, indicators of paleontological resources within the Project Site are absent, however many resources have been identified within Solano County. Therefore, the potential for such resources to be uncovered is considered to be moderate, and therefore a potentially significant impact.

Mitigation measures are presented in **Section 4** for the protection and preservation of discoveries of paleontological resources. Implementation of these mitigation measures would reduce impacts to paleontological resources to a less-than-significant level.

Alternative B – Reduced Intensity Alternative

Alternative B would result in the same potential to impact cultural resources as Alternative A, although slightly reduced due to the smaller footprint of grading. Refer to the discussion for Alternative A.

Alternative C – Non-Gaming Alternative

Alternative C would result in the same potential to impact cultural resources as Alternative A, although slightly reduced due to the smaller footprint of grading. Refer to the discussion for Alternative A.

Alternative D – No Action Alternative

Under Alternative C, the Project Site would not be placed in trust for the benefit of the Tribe and no development would occur. Therefore, there would be no adverse impacts to any unknown archaeological or paleontological resources.

3.7 SOCIOECONOMIC CONDITIONS AND ENVIRONMENTAL JUSTICE

3.7.1 Regulatory Setting

The socioeconomic regulatory setting is summarized in **Table 3.7-1,** and additional information on the regulatory setting can be found in **Appendix E**.

Table 3.7-1: Regulatory Policies and Plans Related to Socioeconomics

Regulation	Description
Federal	
Executive Order 12898	▪ 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% 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, which varies depending on the number of persons in a household, or where other indications are present that indicate a low-income community is present within the census tract (e.g. the

Regulation	Description
	presence of households whose income is less than or equal to 200% of the poverty level).
Executive Order 14096	▪ Provides a broader definition of potentially disadvantaged communities. ▪ Explicitly expands definition of potentially disadvantaged communities to include persons with a Tribal affiliation and disabled persons. ▪ Requires federal agencies to fulfill environmental justice reporting requirements and prepare strategic plans. ▪ Describes additional reporting and notification requirements related to toxic spills.

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.

3.7.2 Environmental Setting

Economy, Employment, and Demographics

The Project Site is located in the City of Vallejo, Sonoma County, California. The 2023 City unemployment rate was 4.9% and the County unemployment rate was 5.2% (**Table 3.7-2**). The 2023 average annual household income in the City and County were approximately $65,000 and $74,000, respectively.

The U.S. Census Bureau estimates the 2023 population of the City and County were 96,305 and 320,213, respectively (**Table 3.7-2**). Between 2017 and 2023 the City and County experienced annual population growth / (decline) of 0.3% and (0.7%), respectively.

Housing

In 2023, the City was estimated to have approximately 47,000 housing units, of which approximately 4.5% were vacant (**Table 3.7-2**). There were approximately 154,000 housing units in Solano County, of which approximately 4.6% were vacant.

Table 3.7-2: Socioeconomic Data

	City of Vallejo	Solano County
Population		
Population 2017	94,512	320,213
Population 2023	96,305	333,514
Annualized growth (2017 to 2023)	0.3%	-0.7%
Employment		
Unemployment Rate, 2017	5.0%	5.4%
Unemployment Rate, 2023	4.9%	5.2%
Housing		
Housing Units, 2017	46,251	151,200
Housing Units, 2023	47,000	154,000
Vacancy Rate, 2017	5.1%	4.9%
Vacancy Rate, 2023	4.5%	4.6%

	City of Vallejo	Solano County
Estimated Housing Vacancy, 2023[1]	2,100	7,100
Income and Poverty		
Average Annual Household Income (AAHI), 2017	$65,000	$74,000
AAHI, 2023	78,243	$92,959

Source: **Appendix A**. 2023 unemployment rates are the average of the 12 monthly unemployment rates listed in **Appendix A**.
1. Estimated by Acorn. Housing Units multiplied by the Vacancy Rate

Property Taxes

A total of $86,948 in property taxes and special assessments were due for the four parcels comprising the Project Site during Fiscal Year 2023 (**Appendix A).** During Fiscal Year 2022, Solano County collected approximately $713 million in property taxes. Consequently, the property taxes collected on the Project Site parcels comprised less than 0.01% of annual Solano County property tax collections.

Gaming Market

Advantage Partners Consulting prepared a *Market Study, Economic Impacts Study and Community and Social Impacts Study* **(Appendix A)**. This report describes existing gaming facilities with market areas that overlap with the potential market area of the project alternatives. These facilities are described in **Appendix A** (page 42) and **Section 3.7.3**.

Environmental Justice

Census tracts are designed to be relatively homogeneous units with respect to population characteristics, economic status, and living conditions. Therefore, statistics of census tracts provide a more accurate representation of the racial and economic composition of a community than other geographic areas. Block groups are a further division of census tracts; however, at this scale less data is available, and data can have a very high margin of error (e.g., exceeding 50%). The census tracts that were analyzed include Census Tract 2501.06, which includes the Project Site, and all ten adjacent census tracts.

Minority Populations

Table 3.7-3 lists the population of each minority group by census tract. The State has a 64.8% minority population, the County has a 64.5% minority population, and the population in the census tract containing the Project Site has a 77.3% minority population. All ten adjacent census tracts have minority populations exceeding 50%, which is considered the threshold for minority populations. Members of the Tribe are also considered a minority population.

Environmental Justice Screening Tools

The Environmental Justice Screening and Mapping Tool (version 2.2) and the Climate and Economic Justice Screening Tool (version 1.0) were used to identify potentially disadvantaged communities, which are described in **Appendix E.**

Table 3.7-3: Race and Ethnicity Data

Geographic Boundary	Total Population	White*	Black or African American*	American Indian and Alaskan Native*	Asian*	Native Hawaiian and Other Pacific Islander*	Other Race*	Two or More Races*	Hispanic or Latino	Total Minority Population	Minority Percent (%)
State	39,356,104	13,848,294	2,102,510	114,271	5,861,649	135,460	176,652	1,499,338	15,617,930	25,507,810	64.8%
Solano County	450,995	160,034	58,379	1,592	69,009	3,746	3,253	28,784	126,198	290,961	64.5%
City of Vallejo	125,132	28,233	22,326	387	27,902	1,042	1,512	7,118	36,612	96,899	77.4%
Project Site											
Census Tract 2501.06 (06095250106)	3,668	833	289	10	1,680	46	51	317	442	2,835	77.3%
Surrounding											
Census Tract 2010.03	5,018	767	611	0	2,367	0	0	458	815	4,251	84.7%
Census Tract 2522.06	5,955	1,555	293	75	1,496	53	0	827	1,656	4,400	73.9%
Census Tract 2522.05	8,501	2,296	775	0	3,057	131	0	641	1,601	6,205	73.0%
Census Tract 2521.02	4,224	2,399	182	0	497	46	4	381	715	1,825	43.2%
Census Tract 2521.04	2,225	494	420	6	852	0	0	67	386	1,731	77.8%
Census Tract 2521.03	6,673	1,298	1,578	0	2,135	0	212	724	726	5,375	80.5%
Census Tract 2501.04	5,837	2,615	389	0	1,464	50	9	456	854	3,222	55.2%
Census Tract 2501.05	7,595	1,221	956	34	3,888	54	0	493	949	6,374	83.9%
Census Tract 2519.01	5,762	990	1,314	0	965	15	17	277	2,184	4,772	82.8%
Census Tract 2519.03	5,672	550	1,561	28	1,536	97	149	387	1,364	5,122	90.3%

* Not Hispanic or Latino
Source: U.S. Census Bureau, 2022

3.7.3 Impacts

Assessment Criteria

Potential socioeconomic effects include unemployment, insufficient housing supply, crime, problem gambling and substitution effects. An adverse economic, fiscal, or social impact would occur if the effect of the project 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 such that physical impacts to the physical environment would occur. An impact associated with environmental justice would be considered significant if development were to have an adverse disproportionate impact on minority, low-income or other disadvantaged populations.

Alternative A – Proposed Project

Economy and Employment

Alternative A would result in a variety of benefits to the regional economy, including residents of the City and Solano County. These effects include increases in overall economic output and employment opportunities. The IMPLAN model was used to estimate employment opportunities generated by the project alternatives. Construction of Alternative A would bring one-time (non-recurring) benefits. Impacts from operations are estimated during 2029, which is anticipated to be the second year of operations. Impacts to California employment, wages and local economic output are summarized below in **Table 3.7-4** and **3.7-5**. The vast majority of the listed employment and wages would accrue to Solano County residents and most of the economic output would occur in Solano County.

Overall, Alternative A would result in beneficial impacts to local employment and the economy.

Table 3.7-4: One-time Construction Economic Impacts – 2026 ($ in millions)

	Direct	Indirect	Induced	Total
Alternative A:				
Employment	6,704	875	1,401	8,980
Output	$1,406	$167	$239	$1,813
Labor Income	$509	$39	$69	$617
Alternative B:				
Employment	6,634	866	1,387	8,887
Output	$1,392	$166	$236	$1,794
Labor Income	$504	$38	$68	$611
Alternative C:				
Employment	827	108	173	1,107
Output	$173	$21	$29	$234
Labor Income	$63	$5	$8	$76

Source: **Appendix A**.

Table 3.7-5: Annual Operational Economic Impacts – 2029 ($ in millions)

	Direct	Indirect	Induced	Total
Alternatives A and B:				
Employment	3,640	1,685	636	5,960
Output	$937	$260	$108	$1,304
Labor Income	$197	$57	$31	$285
Alternative C:				
Employment	527	157	59	743
Output	$87	$24	$10	$121
Labor Income	$18	$5	$3	$27

Source: **Appendix A**.

Fiscal Impacts

Both construction and operation of Alternative A are expected to generate positive fiscal impacts. Tax revenues would be generated for federal, state, and local governments from direct economic activities and secondary activities (i.e., the indirect and induced effects of tribal gaming). Estimated local, state, and federal effects from the project alternatives are summarized below and shown in **Table 3.7-6** and **Table 3.7-7**.

Table 3.7-6: One-time Construction Tax Impacts – 2026 ($ in millions)

	Local	State	Federal	Total
Alternative A	$157	$65	$7	$229
Alternative B	$169	$65	$7	$240
Alternative C	$19	$8	$1	$28

Source: **Appendix A**.

Table 3.7-7: Annual Operational Tax Impacts – 2029 ($ in millions)

	Local	State	Federal	Total
Alternatives A and B	$79	$46	$16	$142
Alternative C	$7	$4	$0	$12

Source: **Appendix A**.

Because Tribal properties held in federal trust are exempt from state and local property taxes and sales taxes, the direct category of such taxes from Alternative A operations is less than would occur for a comparatively sized commercial project developed on land owned in fee. The Tribe would no longer pay approximately $87,000 in property taxes for the Project Site once it goes into federal trust. During Fiscal Year 2022, Solano County collected approximately $713 million in property taxes. Consequently, the property taxes collected on the Project Site parcels comprised less than 0.01% of annual Solano County property tax collections.

Alternative A would result in an increase in demand for public services that would result in additional costs incurred by public service providers, including law enforcement, fire protection, EMS, and related services (refer to **Section 3.10** for additional discussion). Advantage Partners Consulting estimated the direct fiscal costs that would be incurred for these public services. These estimated costs are described in **Appendix A** and summarized in **Table 3.7-8.**

Table 3.7-8: Annual Direct Fiscal Impacts – Alternative A 2029

Activity	Agency	Amount
Public Services		
Law Enforcement	Vallejo Police Department	$765,000
Public Protection[1]	Solano County	$243,000
Detention and Corrections	Solano County	$201,000
Fire and EMS	Vallejo Fire Department	$548,000
Subtotal		$1,757,000
Property Taxes (Forgone)		
	Solano County	$87,000
Total		**$1,844,000**

Source: **Appendix A**. Amounts rounded to the nearest thousand.

1. Includes the following County departments: District Attorney, Public Defender, Alternate Public Defender, Other Public Defense, CMF Cases.

Mitigation included in **Section 4** would require the Tribe to make good faith efforts to enter into a service agreement with the City and/or County to compensate for quantifiable direct and indirect costs incurred in conjunction with providing law enforcement, fire, and EMS services to the Project Site. Further, if the Tribe cannot enter into an agreement, the Tribe would be required to establish, equip, and staff its own law enforcement department, and fire department and station on the Project Site. After implementation of mitigation measures, fiscal impacts would be less than significant.

Housing

As described in **Appendix A**, the vast majority of Alternative A employees either currently reside in Solano County, or would commute to the Project Site. As a result, it is estimated that Alternative A would directly result in the in-migration of approximately 142 new households to Solano County. This would represent approximately 2.0% of vacant housing units in the County (142 / 7,100). In addition, as described in **Appendix A**, Alternative A would stimulate indirect and induced economic effects, including an estimated 2,321 employment positions for these two categories (**Table 3.7-4**). Under the conservative assumption that all of these employment positions would occur in the County, indirect and induced employees would represent about 64% of the direct operational employees listed in **Table 3.7-5** ([1,685 + 636] / 3,640). This would equate to an additional 91 employees who would in-immigrate to Solano County. Thus, total in-migration would represent approximately 3.3% of vacant housing units in the County (233 / 7,100). this level of demand is not anticipated to stimulate regional housing development. A significant impact would not occur.

Property Values

Impacts to surrounding commercial and industrial uses would probably be neutral to positive because a casino development would bring increased economic activity and because such a project may stimulate additional commercial development in the vicinity of the project. As described in **Section 3.9**, land uses in the immediate vicinity of the Project Site are predominantly commercial, residential, transportation (e.g., I-80) and undeveloped land. Advantage Partners Consulting performed an analysis of the effects of three casino projects on home prices. No significant differences were noted between trends in home prices in the cities where the casinos were developed, as compared to home prices within the entire counties (**Appendix A**). For these reasons, it is anticipated that Alternative A would have a less than significant effect on local property values.

Social Effects

Pathological and Problem Gambling

The American Psychiatric Association describes a pathological gambler as a person who features a continuous loss of control over gambling. Residents of the City and County are currently exposed to many forms of gambling, including from the existing casinos described in **Appendix A**. Prevention and treatment programs, including programs through the California Office of Problem Gambling, exist throughout the State. The project would contribute funding to these programs via fees established in a Tribal-State gaming compact, which would be entered into prior to the commencement of Class III gaming activities. Alternative A would not substantially increase the prevalence of problem gamblers as several existing gaming facilities are already established within relatively short driving distances from the Project Site; therefore, Alternative A would not be expected to increase costs to the surrounding community of treatment programs for compulsive gambling. Consequently, the potential impacts to problem gambling as a result of Alternative A would be less than significant. BMPs regarding problem gambling to be implemented during the operation of the casino resort described in **Table 2.1-4** would further reduce the likelihood of problem gambling.

Crime

As described in **Appendix A**, there is a general belief that the introduction of legalized gambling into a community would increase crime. However, this argument is based more on anecdotal evidence than empirical evidence. Whenever large volumes of people are introduced into an area, the volume of crime would also be expected to increase. This is true of any large-scale development. As described in **Appendix A**, given the availability of gaming in the region, the addition of Alternative A is not expected to lead to an increase in local crime rates.

Alternative A would result in an increased number of patrons and employees traveling/commuting into the area on a daily basis. As a result, under Alternative A, criminal incidents would increase in the vicinity of the Project Site. These effects are analyzed above and in **Section 3.10**.

Gaming Substitution Effects

Appendix A provides a detailed review of competitive gaming facilities based on identification of local and regional gaming facilities. This analysis includes a gravity model that assesses how those facilities are projected to be impacted as a result of Alternative A. Local market revenue for Alternative A is anticipated to accrue from two primary sources: new market growth and a substitution effect on regional competitors. Substitution effects were estimated for calendar year 2029, which is anticipated to be the second full year of operations of Alternative A.

Estimated substitution effects for casinos defined as Primary Competition and Secondary Competition are summarized below in **Table 3.7-9**. Estimated effects to Tertiary Competition casinos are not included in the table below, but are detailed in **Appendix A**.

Table 3.7-9: Estimated Gaming Substitution Effects – Alternatives A and B

Property	City	Percent Impact	Years to Recover[1]
Primary Competition			
Cache Creek Casino Resort	Brooks	(15.5%)	5.6
San Pablo Lytton Casino	San Pablo	(21.1%)	7.9
Graton Resort & Casino[2]	Rohnert Park	(12.1%)	4.3
Secondary Competition			
Hard Rock Sacramento	Wheatland	(7.9%)	2.7
Thunder Valley Casino Resort	Lincoln	(5.9%)	2.0
Red Hawk Resort Casino	Placerville	(6.9%)	2.3
Jackson Rancheria Casino Resort	Jackson	(8.8%)	3.0
Harrah's Northern California Casino	Ione	(8.9%)	3.1
Sky River Casino	Elk Grove	(6.2%)	2.1
River Rock Casino[2]	Geyserville	(11.6%)	4.1
Twin Pines Casino & Hotel	Middletown	(12.5%)	4.4

Source: **Appendix A**.

1. Calculated assuming continued annual growth at 3.1%.
2. Impacts calculated after all planned expansion/opening.

Substitution effects are anticipated to diminish after the second year of Alternative A operations because local residents would have experienced the casino and would gradually return to more typical and more diverse spending patterns. Substitution effects also tend to diminish over time as growth in the total population and economic growth tend to increase the dollar value of demand for particular goods and services. As upheld by the United States 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. United States Department of the Interior*, E.D. Cal., 2015). However, should competition effects be so severe as to cause closure of a facility, it could result in environmental effects associated with abandoned buildings and vacant lots, referred to as "urban blight". Additionally, in the case of tribal casinos, facility closure could result in socioeconomic effects to tribal communities from decreased availability and/or quality of governmental services.

As depicted in **Appendix A** and **Table 3.7-9**, five tribal gaming facilities are anticipated to experience a substitution effect on gaming revenue in excess of 10% of projected 2029 revenues. The greatest effects are estimated to occur to the San Pablo Casino Resort and the Cache Creek Casino Resort. Although financial results of these facilities are not publicly available, these two facilities are generally acknowledged to be financially stable and successful. Of the remaining three facilities that are estimated to experience substitution effects in excess of 10%, the River Rock Casino has not yet begun a planned casino expansion and hotel. However, this expansion project is factored into the baseline analysis, which forms the basis of the substitution estimate for this facility. Increased revenue from the River Rock Casino expansion would likely equal or exceed the estimated 11.6% substitution effect listed above. Additionally, in the absence of any additional market entrants or expansions, each of the competitors are estimated to return to baseline (i.e., operate as if there were no project) revenues in eight years or less (**Table 3.7-9**). Therefore, it is anticipated that under Alternative A, the above-listed tribal facilities would continue to operate and generate a sufficient level of cash flow that would be utilized by the tribal governments that own them to provide services to their respective memberships. It is anticipated that no significant physical environmental effects would occur.

Non-Gaming Substitution Effects

Alternative A does not have a hotel element, and therefore local hotels would not be impacted by substitution effects. Alternative A does have a food and beverage element. However, the vast majority of patrons would consist of customers who are drawn by the casino. Thus, only a small portion of these customers would typically patronize local restaurants. In addition, Alternative A would draw new customers to the local area, some of whom would patronize local businesses. This would be a positive effect. Overall, Alternative A would have either negligible substitution effects or less than significant substitution effects on local non-gaming businesses.

Environmental Justice for Minority, Low-Income, and Other Disadvantaged Populations

As depicted in **Table 3.7-3**, the Project Site and all adjacent census tracts contain minority populations that exceed 50%. As described above, Tribes are also considered minority populations. The Environmental Justice Screening and Mapping Tool (version 2.2) and the Climate and Economic Justice Screening Tool (version 1.0) were also used to identify potentially disadvantaged communities and other demographics near the Project Site (see **Appendix E**). No other issues were identified in this process.

There are no adverse project impacts that would disproportionately affect minority communities. After mitigation, all environmental impacts of Alternative A would be reduced to a less-than-significant level. Furthermore, Alternative A would not displace any residential populations in the vicinity of the Project Site. Effects to minority and low-income populations would include positive impacts from the Alternative A's beneficial impacts to the local economy (including the creation of permanent jobs) and the Tribe, which is considered a minority population. However, Alternative A would result in substitution effects to certain other tribes. These effects would occur outside of the immediate vicinity of the Project Site. See the *Gaming Substitution Effects* section where these effects are analyzed. For these reasons, Alternative A is not anticipated to result in disproportionately high and adverse effects to minority, low-income or other disadvantaged communities, including the Tribe.

Alternative B – Reduced Intensity Alternative

As described in **Section 2.2**, the gaming component of the Reduced Intensity Alternative is identical to Alternative A; refer to the analysis for Alternative A and **Appendix A** for socioeconomic impacts related to the Reduced Intensity Alternative gaming facility. However, because it does not include a housing element or administrative building. Therefore, Alternative B would result in beneficial socioeconomic effects that would be slightly less than those resulting from Alternative A.

The net fiscal impacts under the Reduced Intensity Alternative would be almost the same as those under Alternative A because the gaming components are identical. Impacts would be less than significant with the implementation of mitigation measures described in **Section 4**.

Alternative C – Non-Gaming Alternative

Compared with the gaming facility under Alternatives A and B, Alternative C would create less economic and employment benefits because of the lack of a gaming component. Socioeconomic effects would be less than those of Alternatives A and B. Fiscal effects associated with an increase in calls for law enforcement, fire protection and EMS would be less than under Alternatives A and B but would still be potentially significant. Fiscal effects would be reduced through the implementation of mitigation measures described in **Section 4**.

Substitution effects to local hotels and owners of commercial properties would occur under Alternative C. As described in **Appendix A**, both new hotel rooms and commercial space would be relatively small in context of existing supply, and therefore Alternative C would have a small effect on vacancy rates and rents. Substitution effects to local hotels and commercial space owners would be less than significant.

Alternative D – No Action Alternative

Under the No Action Alternative, the Tribe would not receive any of the benefits associated with development on the Project Site. The Project Site would not be brought into trust and would remain on the County's property tax rolls. No development would occur on the Project Site.

3.8 TRANSPORTATION AND CIRCULATION

3.8.1 Environmental Setting

Information in this section is summarized from the Traffic Impact Analysis (TIA) prepared by Abrams Associates Traffic Engineering, Inc. and is included as **Appendix K**.

Transportation Networks

Regional access to the Project Site is provided by I-80, which is oriented in a north-south direction within the City of Vallejo. Columbus Parkway and Redwood Parkway provide general access from I-80 to the Project Site. The Project Site is located adjacent to the intersection of Columbus Parkway[1] and Admiral Callaghan Lane. An extension of Admiral Callaghan Lane would provide primary access to the Project Site.

Study Intersections and Roadway Segments

Study intersections and roadway segments were selected based on their proximity to the Project Site and major thoroughfares in the area. The TIA included sixteen study intersections as shown in Figure 1 and Section 3.1 of **Appendix K.**

Table 3.8-1: Description of Main Roadways in Project Area

Main Roadway	Description
Interstate 80 (I-80)	An east-west freeway that extends from Chicago to San Francisco. Within Vallejo, I-80 is six lanes and is oriented in a north-south direction. I- 80 provides access to the Project Site from the north at Columbus Parkway and from the south at Redwood Parkway.
Columbus Parkway	An east-west four-lane arterial that begins at the terminus of State Route (SR) 37 and begins to extend south at St. John's Mine Road where it terminates at the I-780 westbound ramps. Columbus Parkway would provide access to the Project Site at its intersection with Admiral Callaghan Lane. The posted speed limit is 45 mph; on-street parking is prohibited on Columbus Parkway.
Admiral Callaghan Lane	A north-south four-lane arterial between Columbus Parkway and Turner Parkway and continues as a two-lane arterial between Turner Parkway and Rotary Way. South of Rotary Way, Admiral Callaghan Lane widens back out to a four-lane arterial before

[1] Certain segments of this roadway are named "Auto mall" Parkway, including the segment that begins at the terminus of SR 37 to the intersection with St. John's Mine Road. However, this EA uses the name "Columbus Parkway" throughout for simplicity.

Main Roadway	Description
	continuing as a residential street south of Redwood Parkway. An extension of Admiral Callaghan Lane would provide primary access to the Project Site. The posted speed limit is 35 mph; on-street parking is prohibited along most of its length.
Plaza Drive	A north-south four-lane roadway between Admiral Callaghan Lane to the north and Turner Parkway to the south. Although there is no posted speed limit, vehicles generally travel at approximately 30 mph. On-street parking is prohibited on Plaza Drive.
Redwood Parkway	An east-west four-lane arterial between I-80 and Columbus Parkway. Redwood Parkway provides access to the Project Site at its intersection with Admiral Callaghan Lane. The posted speed limit is 35 mph; on-street parking is prohibited in the project vicinity.
Turner Parkway	An east-west four-lane arterial that extends from Ascot Parkway to Admiral Callaghan Lane. The posted speed limit is 40 mph; on street parking is prohibited.
Sonoma Boulevard	A four and six-lane arterial route that extends north-south through the City of Vallejo and is the major thoroughfare in northwest Vallejo. All major intersections are signalized, and there are several bus routes on Sonoma Boulevard (Highway 29). The posted speed limit on Sonoma Boulevard north of SRA-37 is 50 mph.

Source: **Appendix K**.

Methodology

Level of Service

Level of Service (LOS) describes the traffic conditions in terms of such factors as speed, travel time, delays, freedom to maneuver, traffic interruptions, comfort, convenience, and safety. **Table 3.8-2** shows the corresponding average total delay per vehicle and a description of vehicular conditions at signalized and unsignalized intersections for each LOS category from A to F.

Table 3.8-2: LOS Descriptions

Level of Service	Average Control Delay (seconds/vehicle), Unsignalized Intersection	Average Control Delay (seconds/vehicle), Signalized Intersection	Description
A	≤10	≤10	Little to no traffic delays
B	>10 – 15	>10 – 20	Short traffic delays
C	>15 – 25	>20 – 35	Average traffic delays
D	>25 – 35	>35 – 55	Long traffic delays
E	>35 – 50	>55 – 80	Very long traffic delays
F	>50	>80	Extreme traffic delays

Source: **Appendix K**.

Existing Traffic Conditions

The TIA evaluated existing traffic conditions at study intersections during the a.m. (8:00 – 9:00a.m.) and p.m. (4:30 pm. - 5:30 p.m.) peak hours on a typical weekday (Tuesday and Thursday), and during the p.m. period (between 4 p.m. to 10 p.m.) on Friday under cumulative conditions. Intersection turning movement counts of vehicles, bicycles, and pedestrians were collected on June 7th, 2023 (Wednesday), when local

schools were still in session, and July 14th, 2023 (Friday[2]). Lane configurations for the project study intersections are depicted on Figure 3 of **Appendix K**. Existing intersection LOS conditions are summarized below in **Table 3.8-3**. All project study intersections currently operate at acceptable conditions (LOS E or better) during the weekday a.m. and p.m. peak hours.

Table 3.8-3: Existing Intersection LOS Conditions

Intersection		Control	Peak Hour	Existing Delay	Existing LOS
1	Columbus Parkway (also known as Auto Mall Parkway) & Admiral Callaghan Lane	Signalized	AM	12.5	B
			PM	21.5	C
2	Columbus Parkway (Auto Mall Parkway) & N Ascot Parkway	Signalized	AM	11.9	B
			PM	12.1	B
3	Columbus Parkway & Redwood Parkway	Signalized	AM	8.5	A
			PM	7.4	A
4	Auto Club Way & Admiral Callaghan Lane	Signalized	AM	8.3	A
			PM	17.0	B
5	Plaza Drive & Admiral Callaghan Lane	Signalized	AM	16.0	B
			PM	44.5	D
6	Turner Parkway & Admiral Callaghan Lane	Signalized	AM	7.6	A
			PM	11.5	B
7	Plaza Drive & Turner Parkway	Signalized	AM	10.1	B
			PM	14.4	B
8	Ascot Parkway & Turner Parkway	Signalized	AM	14.0	B
			PM	21.2	C
9	Ascot Parkway & Redwood Parkway	Signalized	AM	21.6	C
			PM	14.8	B
10	Redwood Parkway & Oakwood Avenue	Signalized	AM	21.8	C
			PM	11.2	B
11	Redwood Parkway & Admiral Callaghan Lane	Signalized	AM	9.0	A
			PM	11.8	B
12	Admiral Callaghan Lane / I-80 Offramp & Redwood Street	Signalized	AM	19.1	B
			PM	23.7	C
13	Fairgrounds Drive / I-80 Offramp & Redwood Street	Signalized	AM	40.8	D
			PM	36.6	D
14	Columbus Parkway & Lake Herman Road	Signalized	AM	8.5	A
			PM	10.2	B
15	Columbus Parkway & Rose Drive	Signalized	AM	18.0	B
			PM	21.4	C
16	Sonoma Boulevard (Sr-29) & Sr-37 WB Offramp	Signalized	AM	21.6	C
			PM	17.6	B

Source: **Appendix K**.

Existing Bicycle, Pedestrian, and Transit System

Bicycle and pedestrian facilities within the TIA study area are currently very limited, with no bicycle lanes or sidewalks provided in the vicinity of the Project Site. However, bicycle lanes are provided on Redwood Parkway, Turner Parkway, and Ascot Parkway. Additionally, Solano Bikeway, a Class I multi modal trail,

[2] Traffic counts were also collected on Saturday, July 15th, 2023; however the Friday conditions represented the period when background traffic was observed to be at its highest.

extends north from Admiral Callaghan Parkways and I-80 to McGary Road (**Appendix K).** With the exception of the north side of Columbus Parkway (Auto Mall Parkway), sidewalks are provided on most existing roadways in the study area.

The major public transportation facilities within or adjacent to the Project Site include the San Francisco Bay Ferry, Solano County Transit (SolTrans) and Bay Area Rapid Transit (BART)/Amtrak. The San Francisco Bay Ferry offers a daily ferry service between Vallejo and the San Francisco Ferry Building and San Francisco Pier 41. SolTrans provides local and express bus transit services to a bus stop that is located approximately 0.8 miles from the Project Site. SolTrans routes 7 and 38 operate near the Project Site and SolTrans Americans with Disabilities Act Paratransit bus service is available for certified persons. Regional BART and Amtrack connections can be made with the SolTrans express routes.

3.8.2 Impacts

Assessment Criteria

Impacts to the transportation system would be significant if the project alternative increases traffic volumes to the point where traffic exceeds the LOS standard of the applicable local jurisdiction. Consistent with Policy MTC 2.5 and Action MTC 2.5B in the Vallejo General Plan 2040, the advisory standard of the City is to maintain LOS E during peak hours. For signalized and unsignalized intersections, significant effects are defined as project-related effects resulting in a LOS F. Project-related operational effects on queuing at an intersection are considered to result in a significant effect if project generated traffic causes the forecast queues to result in a foreseeable safety issue. There is one study intersection outside of the City limits (Columbus Parkway at Rose Drive); at this intersection, the LOS E would be considered unacceptable because this intersection is governed by the Solano County/Caltrans standard of LOS D.

Methodology

A TIA was developed to assess the potential traffic impacts related to the development of the Project Site with each different alternative and is included as **Appendix K**. Existing operational conditions at sixteen study intersections were evaluated according to the requirements established in the Solano County and the City General Plans. Analysis of traffic operations was conducted using the 6th edition of the Highway Capacity Manual (HCM) LOS methodology with Synchro software. For details on the HCM methodology used to determine operating conditions for signalized intersections, unsignalized intersections, and queuing, see Section 3.6 of **Appendix K.**

Alternative A – Proposed Project

Trip Generation

The trip generation estimates for Alternative A were developed using a combination of published trip generation rates from the Institute of Transportation Engineers (ITE) publication Trip Generation (11th Edition) and prior traffic studies for similar tribal casino resorts in California. **Table 3.8-4** depicts the Average Daily Traffic (ADT) generation from Alternative A during weekday peak a.m. and p.m. hours. As a result of Alternative A, 472 a.m. peak hour trips and 778 p.m. peak hour trips are anticipated.

Table 3.8-4: Alternative A Trip Generation

Land Use	Size	ADT	Net AM Peak Hours			Net PM Peak Hours		
			Total	In	Out	Total	In	Out
Casino	238,266 sf	8,215	444	280	164	740	407	333
Tribal Housing	24 units	271	22	6	16	23	15	8
Tribal Offices	12,555 sf	95	6	6	0	15	2	13
Totals		**8,582**	**472**	**291**	**181**	**778**	**424**	**354**

Source: **Appendix K**, Table 4.

Trip Distribution

Trip distribution assumptions were developed based on the Project Site's proximity to freeway access and other key travel routes in Solano County, as well as the existing directional split at nearby intersections and consideration for the existing travel patterns, as depicted in Figure A1 of the Technical Appendix to **Appendix K**.

Study Intersections

As discussed in **Section 3.8.1**, under Existing No Project Conditions, all study intersections operate within applicable jurisdictional standards during peak periods. Under Opening Year 2028 No Project Conditions, all study intersections are anticipated to operate at an acceptable LOS, as discussed in Section 4.5 of **Appendix K**. The Opening Year plus Alternative A would continue to operate at acceptable LOS levels, as shown below in **Table 3.8-5**.

Table 3.8-5: Opening Year and Opening Year Plus Alternative A LOS Conditions

Intersection		Control	Peak Hour	2028 Opening Year Delay	2028 Opening Year LOS	2028 Plus Alternative A Delay	2028 Plus Alternative A LOS
1	Columbus Parkway (Auto Mall Parkway) & Admiral Callaghan Lane	Signalized	AM	12.7	B	20.0	B
			PM	22.5	C	54.2	D
2	Columbus Parkway (Auto Mall Parkway) & N Ascot Parkway	Signalized	AM	12.1	B	12.2	B
			PM	12.3	B	12.4	B
3	Columbus Parkway & Redwood Parkway	Signalized	AM	8.5	A	8.5	A
			PM	7.4	A	7.4	A
4	Auto Club Way & Admiral Callaghan Lane	Signalized	AM	8.3	A	8.3	A
			PM	17.3	B	18.1	B
5	Plaza Drive & Admiral Callaghan Lane	Signalized	AM	16.0	B	16.3	B
			PM	44.6	D	53.7	D
6	Turner Parkway & Admiral Callaghan Lane	Signalized	AM	7.7	A	7.7	A
			PM	11.9	B	12.2	B
7	Plaza Drive & Turner Parkway	Signalized	AM	10.2	B	10.4	B
			PM	14.9	B	15.4	B

Intersection		Control	Peak Hour	2028 Opening Year Delay	2028 Opening Year LOS	2028 Plus Alternative A Delay	2028 Plus Alternative A LOS
8	Ascot Parkway & Turner Parkway	Signalized	AM	14.1	B	14.1	B
			PM	22.0	C	22.4	C
9	Ascot Parkway & Redwood Parkway	Signalized	AM	22.4	C	22.4	C
			PM	15.0	B	15.2	B
10	Redwood Parkway & Oakwood Avenue	Signalized	AM	23.8	C	24.5	C
			PM	11.4	B	11.8	B
11	Redwood Parkway & Admiral Callaghan Lane	Signalized	AM	9.1	A	9.2	A
			PM	12.2	B	12.7	B
12	Admiral Callaghan Lane/I-80 Offramp & Redwood Street	Signalized	AM	19.8	B	20.7	C
			PM	25.1	C	27.2	C
13	Fairgrounds Drive / I-80 Offramp & Redwood Street	Signalized	AM	32.2	C	45.9	D
			PM	33.0	C	33.9	C
14	Columbus Parkway & Lake Herman Road	Signalized	AM	8.6	A	8.8	A
			PM	10.4	B	10.8	B
15	Columbus Parkway & Rose Drive	Signalized	AM	18.5	B	18.6	B
			PM	22.4	C	22.7	C
16	Sonoma Boulevard (Sr-29) & Sr-37 Wb Offramp	Signalized	AM	24.8	C	26.1	C
			PM	19.7	B	21.4	C

Source: **Appendix K**, Table 7.

Queue Lengths

A review of the 95th percentile queue lengths was conducted to determine if the storage provided at study intersections could accommodate queue lengths for Opening Year 2028 plus Alternative A. As shown in Table 8 of **Appendix K**, available storage is forecast to be exceeded at the following three intersections with the addition of traffic from Alternative A:

- #1 Columbus Parkway (Auto Mall Parkway) & Admiral Callaghan Lane
- #5 Admiral Callaghan Land & Plaza Drive
- #13 Redwood Street & Fairgrounds Drive/I-80 Southbound ramps

The 2028 forecasted peak hour queuing for Intersections #5 and #13 would already exceed existing storage regardless of implementation of Alternative A. The increase in queue lengths at intersections #5 and #13 as a result of Alternative A would not result in safety concerns and thus would not cause an adverse effect. However, Intersection #1 (storage capacities exceeded for eastbound and northbound traffic) has the potential to create safety problems if the queue lengths were to extend into the SR 37/I-80 interchange. This would be a potentially significant impact. A mitigation measure is included in **Section 4** to widen the Columbus Parkway (Auto Mall Parkway). With mitigation, the potential impact would be less than significant.

Site Access and Circulation

Based on the analysis of Alternative A with an event at the conference/event space, it was determined that excessive queuing could occur without improvements to the intersection of Columbus Parkway (Auto Mall Parkway) with Admiral Callaghan Lane and the entrance. This is a potentially significant impact.

Mitigation would require the installation of a dual eastbound left turn movement for project ingress and a right turn overlap phase (a green arrow for traffic exiting the site towards I-80) for egress to address the potential for significant on-site queuing after special events. The project would implement a Traffic Control Plan for any major special events at the theater. No other site circulation or access issues were identified that would cause a traffic safety problem or any unusual traffic congestion or delay.

Sufficient emergency access is determined by factors such as number of access points, roadway width, and proximity to fire stations. In addition to the main entrance at Intersection #1, a secondary emergency access would be established by a dirt road connection to the existing bike path. All lane widths would meet the minimum width that can accommodate an emergency vehicle; therefore, the width of the internal roadways would be adequate. In addition, with mitigation at Intersection #1, Alternative A would not result in any significant changes to emergency vehicle response times in the area. Therefore, Alternative A would have less-than-significant impacts regarding emergency vehicle access

Bicycle, Pedestrian, and Transit Networks

Implementation of Alternative A would not result in degradation of LOS on any roadway segments currently utilized by transit, therefore, no significant impacts to bus transit are anticipated as a result of Alternative A. SolTrans ridership was operating at 50% pre-pandemic ridership as of the date the TIA was prepared. Local SolTrans routes operate buses with approximately 40 seats, with none operating at greater than 50% capacity. As such, the implementation of Alternative A would not result in significant impacts to bus transit service in the area. While the City does not have LOS standards for pedestrian or bicycle facilities, implementation of Alternative A is not anticipated to overcrowd existing facilities or decrease their performance or safety. Impacts would be less than significant.

Alternative B – Reduced Intensity Alternative

The trip generation and distribution estimates for Alternative B are based on the same casino project as Alternative A but do not include Tribal Housing or Tribal Offices. **Table 3.8-6** summaries the projected trip generation as a result of implementation of Alternative B.

Table 3.8-6: Alternative B Total Trip Generation

Land Use	Size	ADT	AM Peak Hours			PM Peak Hours		
			Total	In	Out	Total	In	Out
Casino	238,266 sf	8,215	444	280	164	740	407	333

Source: **Appendix K**, Table 13.

The LOS at each study intersection under Opening Year 2028 plus Alternative B conditions was determined to be acceptable. Therefore effects to intersections would be less than significant. As discussed in Section 4 of **Appendix K**, analysis for queuing under Alternative B shows significant impacts would occur at Intersection #1 under Opening Year 2028. With the implementation of mitigation described in **Section 4** (widening Columbus Parkway) impacts associated with queueing and site access would be reduced to less than significant levels.

Impacts to bicycle, pedestrian, and transit networks would be similar to those described under Alternative A, and as a result impacts would be less than significant.

Alternative C – Non-Gaming Alternative

Alternative C consists of the development of 50 single family homes, three Tribal administration buildings, two commercial buildings, and two hotel buildings. Consistent with the methodology for Alternative A, the ITE Trip Generation Manual 11th Edition was used to calculate trip generation related to the housing, office, hotel, and shopping centers. **Table 3.8-7** summarizes the projected trip generation as a result of implementation of Alternative C and Alternative C trip distributions are shown in the Technical Appendix to **Appendix K**.

Table 3.8-7: Alternative C Trip Generation

Land Use	Size	ADT	Net AM Peak Hours			Net PM Peak Hours		
			Total	In	Out	Total	In	Out
Tribal Housing	50 units	396	39	9	30	42	26	16
Tribal Offices	23,353 sf	177	11	10	1	28	5	23
Commercial	129,702 sf	2,978	124	69	55	166	85	81
Hotel	264 rooms	2,439	124	69	55	166	85	81
Totals		**5,990**	**249**	**123**	**126**	**465**	**228**	**237**

Source: **Appendix K**, Table 14.

The LOS and queuing at each study intersection under Opening Year 2028 plus Alternative C conditions was determined to be acceptable. Therefore, effects to intersections would be less than significant.

Impacts to bicycle, pedestrian, and transit networks would be similar to those described for Alternative A, and as a result no significant impacts are expected.

Alternative D – No Action Alternative

Under the No Action Alternative, there would be no development constructed on the Project Site, and consequently no increase in vehicular traffic on roadways in the vicinity of the Project Site. There would be no change in pedestrian, bicycle, or transit circumstances.

3.9 LAND USE

3.9.1 Regulatory Setting

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

Table 3.9-1: Regulatory Policies and Plans Related to Land Use

Regulation	Description
Federal	
Farmland Protection Policy Act (FPPA)	▪ Intended to minimize the impact that federal programs have on unnecessary and irreversible conversion of farmland to non-agricultural uses.

Regulation	Description
	▪ 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.
Federal Aviation Regulation	▪ Provides requirements, standards, and processes for determining obstructions to air navigation.
Local	
Solano County General Plan	▪ The Solano County General Plan is a comprehensive document that guides land use, development, and conservation within the County. The land use chapter acts as a blueprint for future growth and development, aligning land use decisions with the county's long-term vision and goals. It establishes a framework for zoning, development regulations, and land use planning throughout the County.
City of Vallejo General Plan 2040	▪ The City of Vallejo General Plan 2040 is a comprehensive planning document that provides a long-term vision for the city's development and growth over the next two decades. It serves as the city's primary land use regulatory tool, guiding decisions on land use, housing, transportation, economic development, environmental conservation, and other critical areas.
City of Vallejo Zoning Ordinance	▪ The City of Vallejo Zoning Ordinance is a set of regulations that govern land use and development within the city. It is designed to implement the policies and goals of the city's General Plan by providing detailed rules for what can be built and how land can be used in different parts of Vallejo.
Solano 360 Specific Plan	▪ Designed to complement the destination entertainment success of the Six Flags/County Fairgrounds area. Adopted in 2013, the plan aims to revitalize the County Fairgrounds into the "Fair of the Future," creating an iconic, region-serving public entertainment destination. Additionally, it includes provisions for private mixed-use development to enhance the area's appeal and functionality.

3.9.2 Environmental Setting

Surrounding Land Uses and Zoning

The Project Site is located within and adjacent to the City of Vallejo boundaries in Solano County, California, and is currently undeveloped, except for several unpaved ranch roads. The Project Site is zoned and designated Regional Commercial (RC), and Parks, Recreation, and Open Space (PROS), by the City of Vallejo Zoning Ordinance, and. Business and Limited Residential (B/LR) and PROS by the General Plan (City of Vallejo, 2017a, 2017b, 2021a, and 2021b).

The Project Site is bordered by I-80 on the west, Columbus Parkway on the south, a combination of open space and public and semi-public on the east, and agricultural parcels in unincorporated Solano County to the north. Furthermore, the Project Site is located within the I-80/SR 37 Gateway Area and is adjacent to the county-owned fairgrounds designated as Solano360 (SP-5) and the former Northgate Specific Plan, a large-scale mixed-use commercial development project. Regional access to the Project Site is provided by

I-80 and Highway 37, while local access is provided by an existing driveway off Columbus Parkway on the neighboring property. Surrounding land use and zoning designations are illustrated in **Figure 3.9-1** and **Figure 3.9-2**., respectively. For complete descriptions of surrounding land uses and zoning, see **Appendix E**.

Agriculture

The State of California developed the Farmland Mapping and Monitoring Program (FMMP) to provide data to decision makers for use in planning for the present and future of California's agricultural land resources. According to the FMMP, the Project Site is identified as a combination of grazing land and other land by the California Department of Conservation (DOC, 2022), as shown in **Figure 3.9-3**. Since the Project Site does not contain any Prime, Statewide, or Unique Farmland, it is not subject to the provisions of the FPPA, as specified in section 523.10 of the FPPA Manual.

3.9.3 Impacts

Assessment Criteria

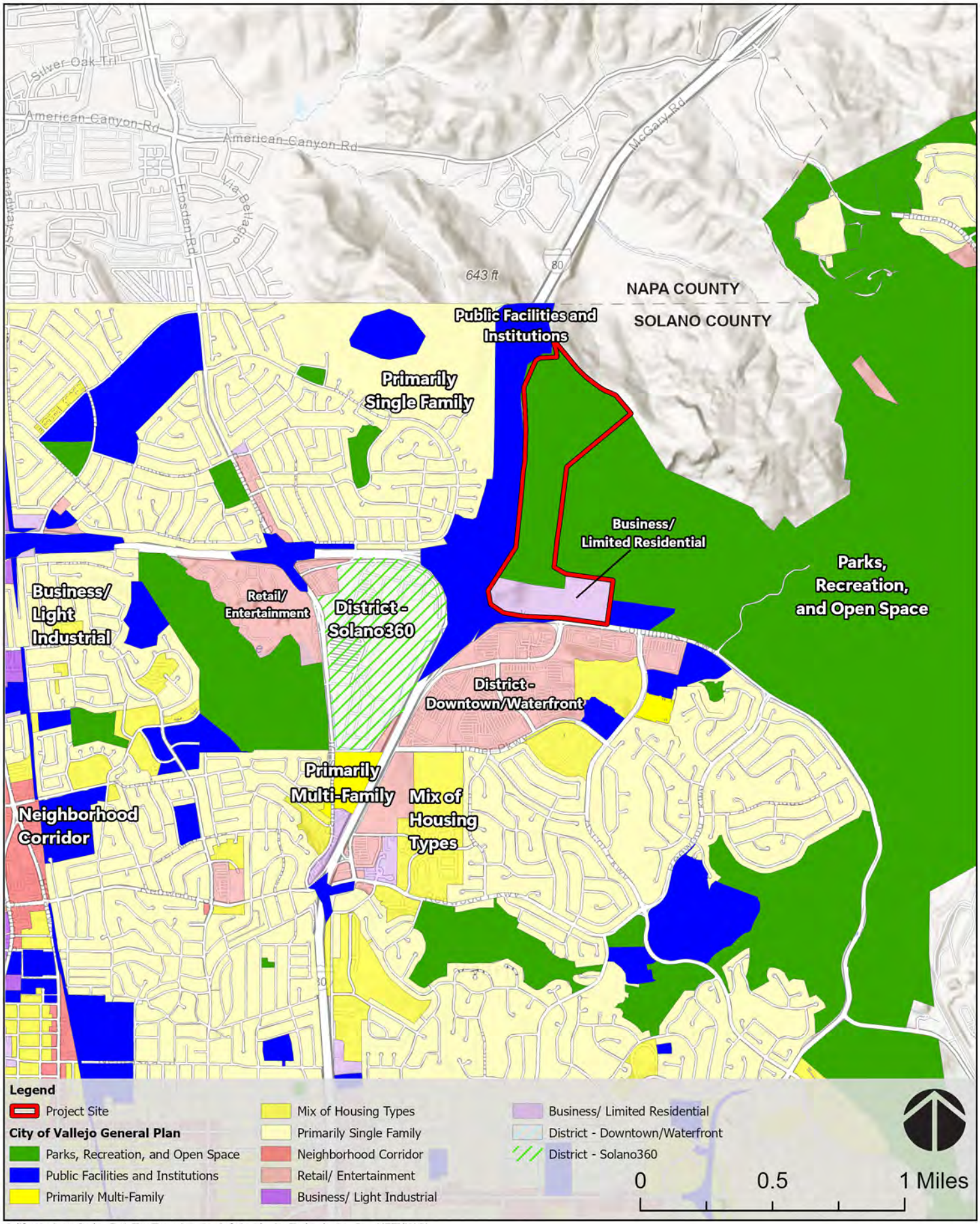
Land use impacts would be significant if the alternative results in conflicts with surrounding land uses or would inhibit the implementation of regional, State, and local land use plans for surrounding properties. Significant land use impacts may also occur if the alternative would convert a significant amount of Prime Farmland or Farmland of Statewide/Local/Unique Importance to other uses, as determined by FPPA.

Alternative A – Proposed Project

Land Use Conflicts

Alternative A would result in the conversion of open space and grazing land and the construction and operation of a casino and tribal housing and administration facilities that include a casino, restaurants, event/multipurpose space, tribal housing, tribal administration building, and associated parking and infrastructure on the Project Site. The Project Site is currently zoned RC and PROS. Alternative A is generally consistent with City's underlying land use and zoning designation of RC for the southern portion of the site, however it is not consistent with the underlying land use and zoning designation of PROS for the northern portions of Project Site. However, Alternative A would result in the transfer of the Project Site into federal trust status for the benefit of the Tribe, thereby removing the property from City land use jurisdiction. Only federal and tribal land use regulations would apply to the Project Site once the land is taken into trust.

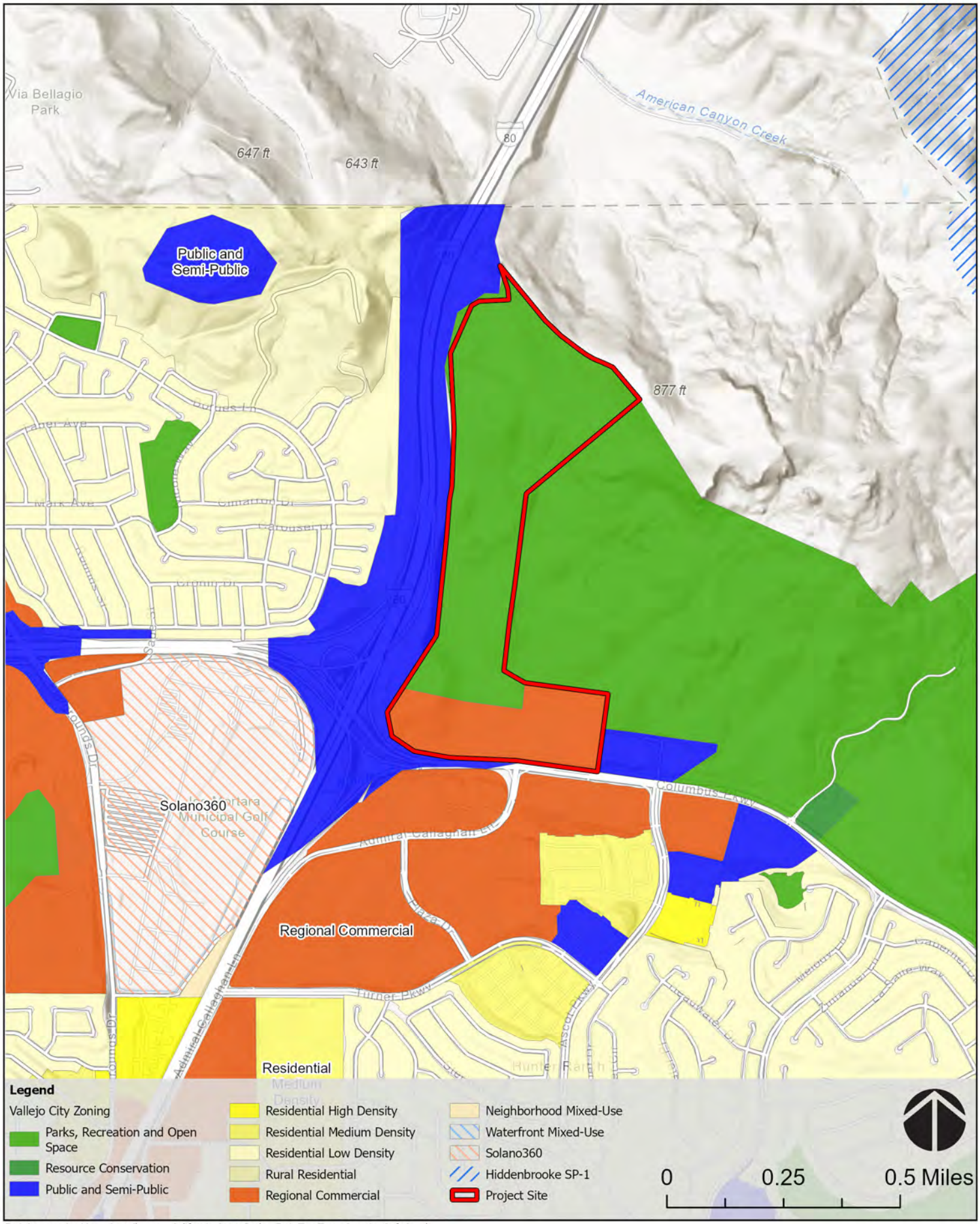
General land uses in the vicinity are a mix of open space and commercial. The Project Site is bordered by I-80 on the west and Columbus Parkway on the south, with dense commercial and residential development immediately beyond these borders. The nearest residential uses to the Project Site are located approximately 750 feet to the west, across from I-80, and consist primarily of single-family homes. The proposed casino would be similar in nature to the existing and proposed commercial uses in the City's North Gateway District and the existing and proposed public entertainment uses envisioned as part of the Solano360 Specific Plan immediately to the south and southwest of the Project Site. Furthermore, Alternative A is generally consistent with Policy NBE-2.4 of the Vallejo General Plan which aims to support a mix of regional retail and entertainment uses near I-80. Alternative A includes an approximately 45-acre biological preserve area, intended to protect high value habitat in the northeastern portion of the Project Site, that would serve as a buffer between the proposed casino and tribal housing and administration uses



California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Esri, NASA,

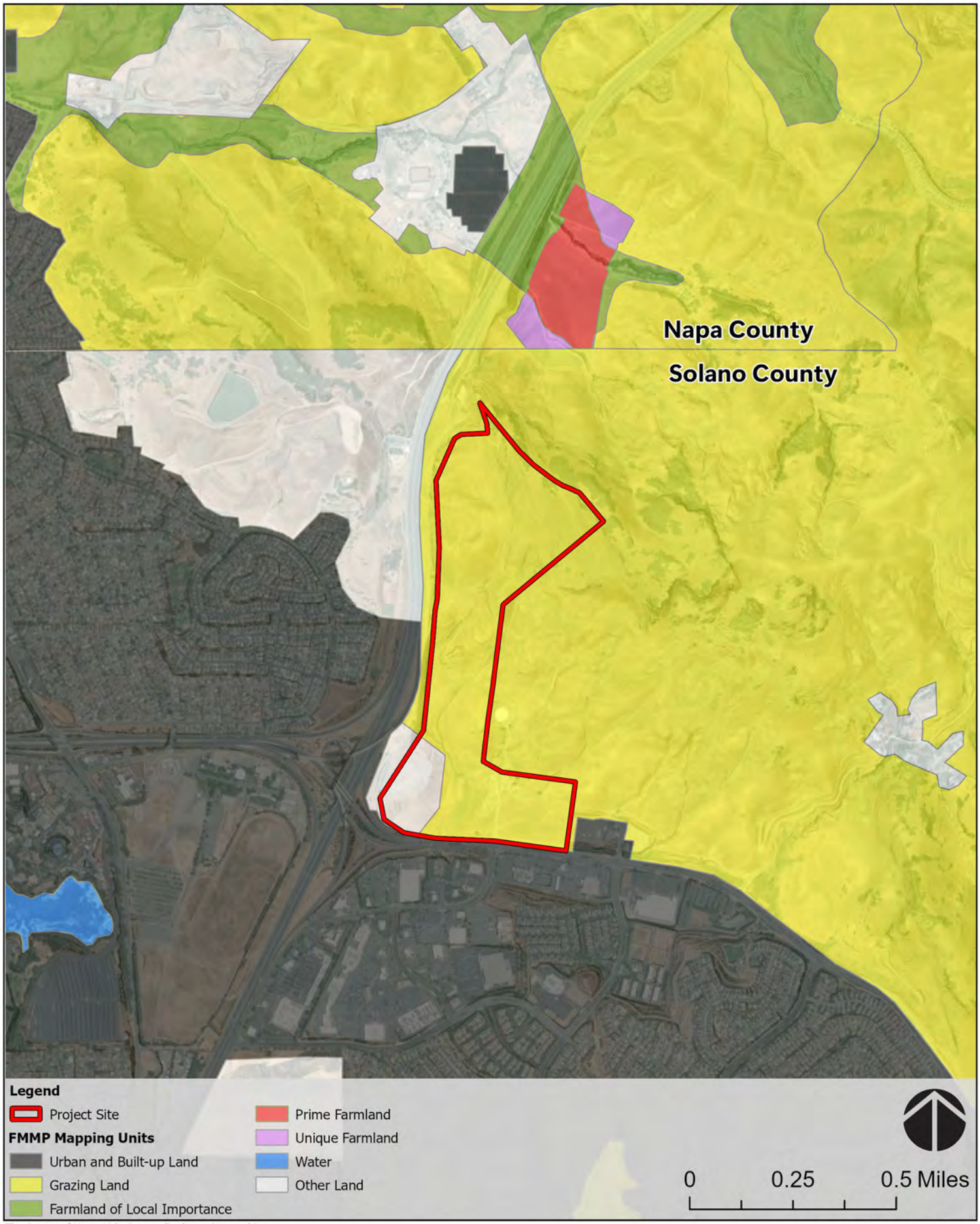
FIGURE 3.9-1

CITY OF VALLEJO GENERAL PLAN LAND USE



Esri Community Maps Contributors, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census

FIGURE 3.9-2
CITY OF VALLEJO ZONING



The County of Napa, Yolo County, Earthstar Geographics, Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User

FIGURE 3.9-3

FARMLAND MAPPING AND MONITORING PROGRAM

within the site and open space and grazing land to the north and east designated as PROS and agricultural land uses in Solano County. As such, Alternative A would not inhibit the implementation of local land use plans for surrounding properties, nor would it physically disrupt neighboring land uses or prohibit access to neighboring parcels.

The increase in intensity of development within the site as a result of Alternative A could result in impacts to nearby sensitive land uses. Potential conflicts may include air quality and noise impacts from construction activities (**Sections 3.4** and **3.11**, respectively), an increase in traffic (**Section 3.8**), visual effects and an increase in lighting (**Section 3.13**). Implementation of protective measures and BMPs identified in **Table 2.1-4** for air quality, noise, traffic, and visual resources, as well as mitigation measures identified in **Section 4,** would reduce potential adverse impacts from land use conflicts to less-than-significant levels.

The Project Site is located outside of the Airport Safety Zone for the Napa County Airport. According to the Federal Aviation Administration (FAA), the requirements for filing FAA Form 7460-1, Notice of Proposed Construction or Alteration, vary based on factors such as height, proximity to an airport, location, and emitted frequencies. Inputs into the FAA notice criteria tool conservatively assumed a 115-foot structure height at an elevation of 535 feet. According to the FAA, Alternative A does not exceed notice criteria (FAA, 2024). In summary, Alternative A would result in less-than-significant impacts associated with land use conflicts.

Agriculture

The California DOC has identified the Project Site as a combination of grazing land and other land, as shown in **Figure 3.9-3**.While Alternative A would involve the conversion of grazing land into hardscape, the Project Site does not contain any Prime, Statewide, or Unique Farmland. It is therefore not subject to the provisions of the FPPA, as specified in section 523.10 of the FPPA Manual. Additionally, the Project Site is not zoned for agricultural use, and the proposed 45-acre biological preserve areas along the eastern boundary would serve as a buffer with land designated for agricultural uses in Solano County. Consequently, Alternative A would not convert agricultural land or farmland into non-agricultural uses, and would thus have a less than significant impact.

Alternative B – Reduced Intensity Alternative

Alternative B includes the same proposed casino structure and associated access road improvements as Alternative A, but no tribal housing or administration land uses. With no residential component, more open space would be preserved consistent with the current City land use designated of PROS for the northern areas of the Project Site. This would provide a greater buffer between the proposed development and adjacent open space and grazing land uses. As described above for Alternative A, land use conflicts would be less than significant with the implementation of BMPs in **Table 2.1-4** and mitigation measures in **Section 4**.

Alternative C – Non-Gaming Alternative

Alternative C would involve the development by the tribe of two hotels, two commercial buildings, Tribal housing, and Tribal administration buildings. No casino would be developed. Development would be constrained to the southern portion of the Project Site, similar to Alternative B, resulting in greater consistency with existing City land use designations, and increased buffer with adjacent open space and agricultural land uses. The hotel and commercial uses would result in impacts similar in nature to those

that would occur with Alternatives A and B, but at a reduced scale. Because no casino is proposed, significantly less patronage would be expected, resulting in fewer vehicle trips and associated effects. As described above for Alternative A, land use conflicts under Alternative C would be less than significant with the implementation of BMPs in **Table 2.1-4** and mitigation measures in **Section 4**.

Alternative D – No Action Alternative

Under Alternative D, the Project Site would remain under City jurisdiction and no development would occur on the Project Site. Therefore, land use consistency or compatibility impacts would not occur under this alternative.

3.10 PUBLIC SERVICES AND UTILITIES

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 E**.

Table 3.10-1: Regulatory Policies and Plans Related to Public Services and Utilities

Regulation	Description
Federal	
Safe Drinking Water Act	▪ Establishes protective drinking water standards for protection of public health.
Clean Water Act	▪ Establishes environmental discharge requirements for wastewater treatment.
Public Law 280	▪ Changed criminal jurisdiction from the federal government to certain states, including California, for offenses involving tribal members in Indian Country.
State	
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. ▪ All local jurisdictions are required to divert 50% of their total waste stream from landfill disposal.
Local	
City of Vallejo 2020 Urban Water Management Plan (UWMP)	▪ Requires urban water suppliers serving over 3,000 customers or supplying at least 3,000 AF of water to prepare/adopt an UWMP every 5 years. ▪ Is the legal and technical water management foundation for urban water suppliers which gathers, characterizes, and synthesizes water-related information from sources.
City's Water Shortage Contingency Plan (WSCP)	▪ City's WSCP is incorporated into the UWMP. ▪ Allows the City to reduce water demands on the water system in times of shortage or catastrophic outage conditions.

Regulation	Description
City of Vallejo Water Master Plan	▪ Includes water demand projections by pressure zone for the City service area. ▪ The Plan also includes a hydraulic model, identifies infrastructure improvements, and produces a capital improvement program.
VFWD Sanitary Sewer Collection Plan	▪ Includes a rehabilitation and replacement program, identifies existing and future capacity deficiencies in the collection system, and develops and prioritize a capital improvement plan to address capacity deficiencies.

3.10.2 Environmental Setting

Water Supply

The Project Site is currently within the 292 Trans Vallejo pressure zone of the City's MWS (Vallejo MWS; City of Vallejo, 2015) and the horse boarding facility currently obtains water from the City. As described in **Section 1.4,** two 24-inch water transmission mains currently cross the Project Site.

Water supply for Vallejo MWS is derived from numerous surface water sources through water rights and contracts. The UWMP concluded that, through active management, the City has reliable annual water supplies available for its service area through 2045 during normal conditions, though it will need to actively manage these supplies to reliably meet month-by-month customer demands during multi-dry periods, in part through the implementation of the City's WSCP (City of Vallejo, 2021).

Although the City does not currently use recycled water supplies in its service area (City of Vallejo, 2021), the City has prepared a RWFP that identified numerous potential recycled water users within the City (see **Figure 2.1-5**) that have an estimated total recycled water demand of 2,408 AFY (AFY;VFWD, 2018). Please refer to **Appendix E** and **Appendix B** for additional information.,

Wastewater Treatment

The Project Site is within the service area of the VFWD. Wastewater generated within the VFWD is conveyed to the Vallejo WWTP, which has a dry weather capacity of 15.5 million gallons per day (mgd) and a wet weather capacity of 60 mgd (**Appendix B**). **Table 3.10-2** summarizes the existing and projected wastewater flows included in the VFWD Sanitary Sewer Collection System Master Plan (SSCSMP; VFWD, 2023). The SSCSMP identifies several improvements for rehabilitation, replacement, or capacity increases of infrastructure to accommodate peak wet weather flows (PWWF). The Sewer Master Plan acknowledges that while future flows do not create the need for additional improvements VFWD is working with developments to contribute to mitigation funding. Please refer to **Appendix E** and **Appendix B** for additional information.

Table 3.10-2: Projected Wastewater Flow at VFWD WWTP

Period	ADWF (mgd)[1]	PWWF (mgd)[2]
Existing City Flows	7.86	86.78
Future City Flows	8.46	90.91[3]

Notes: Average Dry Weather Flow (ADWF); PWWF; mgd= millions of gallons per day; Model simulated, system wide peak hourly flow for the entire system.
Source: VFWD, 2023

Law Enforcement, Fire Protection, and Emergency Medical Services

The Vallejo Police Department provides law enforcement services within the City, including to the Project Site, and the SCSO provides law enforcement services to unincorporated areas of the County directly to the east and north. In July 2023, Vallejo, California declared a state of emergency over police shortages. The Vallejo Police Department is now working with the SCSO and the California Highway Patrol to help supplement its staff (Police1, 2024). Please refer to **Appendix E** for additional information.

The City of Vallejo is served by the Vallejo Fire Department. The closest fire station is Station #27, which is immediately east of the Project Site (approximately 0.20 miles). The Vallejo Fire Department is a non-transport, advanced life support provider and staffs all of its departments with a minimum of one licensed paramedic. The BIA is responsible for wildland fire management on federal trust land and has an agreement for Cal Fire to provide wildland fire management to trust lands. The nearest hospital center to the Project Site is Kaiser Permanente Vallejo Medical Center, located approximately 1.8 miles southwest of the Project Site, which provides walk-in care, urgent care, and emergency services (City of Vallejo, 2024b). Please refer to **Appendix E** for additional information.

Electricity, Natural Gas, and Telecommunications

PG&E is the primary electric and natural gas provider in the vicinity of the Project Site. As discussed in **Section 1.4**, there are transmission lines and associated easements for PG&E that traverse the Project Site north to south. There are natural gas facilities in the vicinity of the Project Site. There are many private companies that provide telephone, internet, and cable services to properties within the vicinity of the Project Site. Please refer to **Appendix E** for additional information.

Other Public Services

The following is a discussion regarding solid waste, public schools, and parks and recreation. Please refer to **Appendix E** for additional information.

- Solid Waste - The City of Vallejo Public Works Department manages recycling and solid waste contract services for the City. Waste from the City is brought to the Devlin Road Recycling and Transfer Facility, then is sent to Potrero Hills Landfill in Suisun, Solano County, which is permitted to accept up to 4,330 tons per day on peak days (CalRecycle, 2019).
- Public Schools - The Project Site is located within the Vallejo City Unified School District (VCUSD), which had a total enrollment of 12,215 students in 2022-2023 (**Appendix A**).The nearest public school to the Project Site is approximately 1.45 miles northwest, Solano Widenmann Leadership

Academy, while the nearest schools are New Horizons Montessori School (0.21 miles west) and Solano Community College Vallejo (0.63 miles southeast).

- Parks and Recreation - The closest park area to the Project Site is City-operated Dan Foley Park, which is located approximately 0.83 miles to the southwest of the Project Site, followed by Blue Rock Springs, which is located approximately 1.30 miles to the southeast of the Project Site.

3.10.3 Impacts

Assessment Criteria

A significant 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.

Alternative A – Proposed Project

Water Supply

Before construction of the water supply connections, the Tribe shall contact the Utility Notification Center to notify the utility service providers of excavation at the work site to avoid unintentional disruption to existing utilities as specified in the BMPs described in **Section 2.1.12**. Construction of the casino facility would require approval from the City of Vallejo to either amend the water line easement to allow construction of a building over the 24-inch transmission main that crosses the southwestern portion of the Project Site or relocation of the waterline to a mutually agreed upon alignment elsewhere on the Project Site. If the latter occurs, the existing pipeline will not be abandoned until a new pipeline is developed to the City standards and operational; therefore, a less-than-significant impact to water supply service would occur as a result of development of Alternative A on the Project Site.

Estimated water demands for Alternative A are provided in **Appendix B** and summarized in **Section 2.1.1**. BMPs are included in **Section 2.1.7** to reduce water consumption through the installation of low-flow appliances, drought resistant landscaping, and the incorporation of "Save Water" signs near water faucets throughout the development.

Under Water Supply Option 1, potable water would be provided by the Vallejo MWS through connection to an existing 24-inch transition main that crosses the Project Site. As noted in **Appendix B**, initial communication with the City indicates that there is likely adequate storage and flow capacity to serve Alternative A; however, adequate pressure is not available to serve the higher elevations of the development and would be provided by on-site infrastructure described in **Section 2.1.1** and **Appendix B**. The City's water demand in 2020 (13,800 AF) was only 39% of the system's total water supply (35,700 AF). The additional water supply demand of approximately 287,700 gpd (322 AFY) under Alternative A Water Supply Option 1, conservatively assuming no recycled water use, would be less than 2.5% of the total 2020 demand and would constitute only 1.5% of the 2020 surplus within the City's water supply. If Wastewater Treatment Option 2 (On-Site Wastewater Treatment) is implemented, Alternative A would produce approximately 136 AFY of recycled water that would be used by potential recycled water users within the City thereby reducing the net impact on the City's water demands. Mitigation recommended in **Section 4** includes the negotiation of a service agreement with the City to provide payment for water service and for any distribution infrastructure improvements necessary to provide service to the Project Site. Impacts would be less than significant with mitigation.

Under Water Supply Option 2 there would be no connection to a public water system and thus no direct impact would occur. Impacts to water resources under Option 2 are addressed in **Section 3.3**.

Wastewater

Estimated wastewater generation for Alternative A is provided in **Appendix B** and summarized in **Section 2.1.2**.

Under Wastewater Option 1, wastewater treatment would be provided by the VFWD through connection to an existing 12-inch sewer collection pipeline in Columbus Parkway that would convey wastewater to the VFWD wastewater treatment plant (WWTP) for treatment and disposal. The Vallejo WWTP currently has 7.64 mgd ADWF capacity, which is sufficient to accommodate the 0.29 mgd peak weekend flow generated by Alternative A. The SSCSMP identifies several improvements to wastewater mains, pump stations, and storage tanks for rehabilitation, replacement, or capacity increases to accommodate future buildout. While there are no identified deficiencies at, or immediately downstream of, the point of connection to the 12-inch pipeline, it is noted that downstream in the collection system, there are capacity deficiencies in the existing system that can result in backwater effects in the 12-inch pipeline along Columbus Parkway during the 5-year, 24-hour design storm. Backwater in the pipeline is a result of deficiencies and bottlenecks downstream of the point of connection. The wastewater generated by Alternative A may exacerbate capacity issues identified downstream of the Project Site. Mitigation recommended in **Section 4** includes the negotiation of a service agreement with VFWD to provide payment for wastewater service and to have VFWD conduct the required studies to determine if any infrastructure improvements are needed to provide service to the Project Site; as well as provide fair-share payment for infrastructure upgrades identified in the study needed to accommodate the wastewater generated by the development, if requested by VFWD. Impacts would be less than significant with mitigation.

Under Wastewater Treatment Option 2 there would be no connection to a public wastewater system and thus no direct impact would occur. If Wastewater Treatment Option 2 is implemented, Alternative A would produce approximately 136 AFY of recycled water that would be used by potential recycled water users within the City thereby reducing the net impact on the City's water demands. This would be a beneficial effect.

Law Enforcement

As described in **Section 2.1.7,** per Public Law 280, the Project Site once taken into trust would fall under the criminal jurisdiction of the SCSO and/or City of Vallejo Police Department after tribal consent; however, the Tribe proposes to enter into a contract with either the Vallejo Police Department or SCSO for law enforcement services on the Project Site. An analysis of the impact of casino gambling on law enforcement services is included in **Appendix A.** As with any commercial development, it is anticipated that the increased concentration of people due to Alternative A would lead to an increase in the number of calls for service (CFS) to local law enforcement, as well as related prosecution, court, and detention services. Based on review of utilization at other tribal gaming facilities, operation of Alternative A is estimated to increase the number of CFS placed to law enforcement by approximately 664 calls per year (**Appendix A**). This increase is not anticipated to require either the Vallejo Police Department or SCSO to build new or expand facilities to continue to provide services; however, this increase is anticipated to have a potentially significant impact on police staffing. BMPs have been incorporated into the project design to enhance security on the Project Site during operation. Mitigation included in **Section 4** would require the Tribe to make good faith efforts to enter into a service agreement with the City and/or County to

compensate for quantifiable direct and indirect costs incurred in conjunction with providing law enforcement services to the Project Site, and for related services. Further, mitigation in **Section 4** states that if the Tribe cannot enter into an agreement for law enforcement services, the Tribe would be required to establish, equip, and staff its own law enforcement department and station on the Project Site. Impacts would be less than significant with mitigation.

Fire Protection and Emergency Medical Services

During construction, construction vehicles and equipment may unintentionally spark and ignite vegetation or building materials. Construction related BMPs in **Table 2.1-4** are provided to further minimize potential adverse effects related to fire risks. Thus, impacts to fire protection agencies during construction would be less than significant.

The Tribe proposes to enter into a contract with the City of Vallejo Fire Department to be the primary provider of fire protection and EMS. An indoor sprinkler system would be installed to provide fire protection. As described in **Section 2.1.3**, fire flow requirements for Alternative A are anticipated to be 4,000 gpm for 4 hours based on the use of automatic fire sprinklers consistent with applicable building code requirements and would be provided via a connection to the City of Vallejo's MWS or through on-site groundwater wells that would be designed to meet fire flow requirements. BMPs to maintain, inspect, and test fire protection devices including, but not limited to, fire sprinkler systems, alarm systems, commercial kitchens, and fire hydrants per National Fire Protection Association standards are included in **Table 2.1-4**. Regardless, operation of Alternative A would create additional demand for fire protection and EMS. Based on review of service rates at other tribal gaming facilities in the area, operation of Alternative A is estimated to increase the number of CFS placed by approximately 750 calls per year (**Appendix A**). This would constitute an approximate 5.8% increase in total CFS at the City of Vallejo Fire Department. While the increase in fire protection services is not anticipated to trigger the need to construct new facilities, this would nonetheless constitute a potentially significant impact. Mitigation is included in **Section 4** that would require the Tribe to make good faith efforts to enter into a service agreement with the Vallejo Fire Department to compensate for the increased utilization that would result from Alternative A. Further, mitigation in **Section 4** states that if the Tribe cannot enter into an agreement for fire protection services, the Tribe would be required to establish, equip, and staff a fire department and station on the Project Site. Impacts would be less than significant with mitigation.

Electricity, Natural Gas, and Telecommunications

Before construction of the water supply connections, the Tribe shall contact the Utility Notification Center to notify the utility service providers of excavation at the work site to avoid unintentional disruption to existing utilities as specified in the BMPs described in **Section 2.1.9**. Construction of Alternative A would be done in compliance with the conditions of the on-site PG&E easement. The Tribe will contract and coordinate with PG&E for connection for electrical and natural gas services, although it should be noted that any use of natural gas will be minimized through the BMPs described in **Table 2.1-4**. Local telecommunication utility companies of the Tribe's choosing would extend connections from adjacent infrastructure to provide telecommunication services. The Tribe would pay the cost associated with extending services to the Project Site per the telecommunication company's specifications. Therefore, Alternative A would result in a less-than-significant impact on electricity, natural gas, and telecommunication services.

Solid Waste Service

Solid waste from construction would include solid waste materials that are typical of construction sites and would most likely be collected by Recology Vallejo's service trucks after being contracted for services prior to construction. Potrero Hills Landfill is permitted to accept waste from construction and, therefore, the solid waste could be deposited there for processing. Solid waste generated from the construction of Alternative A would be temporary, and therefore would not impact Potrero Hills Landfill's long-term capacity to serve its current customers.

The estimated solid waste generated by the operation of Alternative A is shown in **Table 3.10-3**. This estimate is conservative as it assumes maximum occupancy of proposed facilities and does not include reductions for recycling. The total waste generation (11,842 pound (lb)/day) would equate to approximately 0.14% of the permitted daily quantity accepted at the Potrero Hills Landfill. This increase represents a negligible addition to the landfill. Furthermore, BMPs would be implemented to ensure that maximum recycling and compaction is done during construction and operation in addition to proper disposal to reduce littering (see **Table 2.1-4**). Therefore, construction and operation of Alternative A would not result in a significant adverse effect to the solid waste services.

Table 3.10-3: Solid Waste Generation from Alternative A

Waste Generation Source	Waste Generation Rate	Units	Alternative A Values	Alternative A Waste Generation (lb./day)*
Casino and Others (Lobby/cashier/club)	3.12	lb./100 sf/day	263,455	8,219.8
Food and Beverage	0.005	lb./sf/day	70,622	353.1
Ballroom	3.12	lb./100 sf/day	52,794	1,647.2
Circulation and Back of House	0.006	lb./sf/day	218,533	1,311.2
Tribal Housing (single Family)	11.4	lb./dwelling unit/day	24	273.6
Tribal Administration Building (offices)	1.24	lb./employee/day	30	37.2
			Total	**11,842.1**

Source: CalRecycle, 2022

* The solid waste numbers estimated predict the worst-case scenario because they assume maximum occupancy of the tribal housing and restaurants; events occurring in the ballrooms, and that maximum casino patronage is occurring.

Public Schools

According to the US Census Bureau data as described in **Appendix A**, there are 0.439 school age children per household. Therefore, there are estimated to be an increase of approximately 11 school age children from the proposed Tribal Housing and 62 school aged children from the potential relocation of employees and their families to the area, totaling 73 school age children that would be enrolled in the VCUSD due to Alternative A, which is 0.6% of the total enrollment (12,215 students) in VCUSD. VCUSD would collect additional tax revenue from the families that move to the area that are not in tribal housing and would use these taxes to hire additional teachers to meet additional demand if necessary. Although the tribal homes developed on federal trust land would not be subject to developer fees and annual property taxes,

due to the minimal anticipated increase in enrollment, which would be spread amongst various schools, this impact would be less than significant.

Parks and Recreation

Patrons to the casino facility and residents of the tribal housing may increase visitation to local and regional parks, but it is not expected to be significant enough to expand the parks and recreation facilities. Therefore, a less-than-significant impact would occur.

Alternative B – Reduced Intensity Alternative

Alternative B would result in similar impacts to public services as described for Alternative A; however, at a reduced scale due to the reduced intensity of Alternative B. BMPs in **Table 2.1-4** and mitigation measures in **Section 4** would ensure impacts to public services are less than significant.

Alternative C – Non-Gaming Alternative

Alternative C would result in similar impacts to water supply, wastewater treatment, solid waste, electrical, telecommunication, fire protection and law enforcement services and recreational facilities as described for Alternative A; however, at a reduced scale due to the reduced intensity of Alternative C. The estimated solid waste generation from operation of Alternative C are shown in **Table 3.10-4**.

With an average of 0.439 school age children per household, there is estimated to be an increase of approximately 22 school age children from the proposed Tribal Housing and 21 school aged children from the potential relocation of employees and their families to the area. Therefore, Alternative C would have an estimated increase of 43 school age children in Solano County, which 0.35% of the total enrollment in VCUSD. As with Alternative A, the minimal increase in enrolled students is not anticipated to trigger the need to construct new facilities. BMPs in **Table 2.1-4** and mitigation measures in **Section 4** would ensure impacts to public services are less than significant.

Table 3.10-4: Solid Waste Generation from Alternative C

Waste Generation Source	Waste Generation Rate	Units	Alternative A Values	Alternative A Waste Generation (lb./day)*
Hotel	2	lb./room/day	264	528
Commercial	13	lb./1,000 sf/day	129,702	1,686.1
Tribal Housing (single Family)	11.4	lb./dwelling unit/day	50	570
Tribal Administration Building (offices)	6	lb./1,000 sf/day	23,353	140.1
			Total	**2,924.2**

Source: CalRecycle, 2022

* The solid waste numbers estimated predict the worst-case scenario because they assume maximum occupancy of the tribal housing and hotel, and maximum patronage in commercial buildings and administration offices.

Alternative D – No Action Alternative

Alternative D would not increase demands on public services and no new utility extensions would be required.

3.11 NOISE

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 E**.

Table 3.11-1: Regulatory Policies and Plans Related to Noise

Regulation	Description
Federal	
Federal Interagency Committee on Noise (FICON)	▪ FICON provides guidance in the assessment of changes in ambient noise levels resulting from aircraft operations. However, it has been accepted that these guidelines apply to all sources of noise described in terms of cumulative noise exposure metrics.
Federal Transit Administration	▪ Provides thresholds for evaluating noise and vibration impacts in its "Transit Noise and Vibration Impact Assessment." It includes methodologies for measuring and predicting noise and vibration levels, criteria for assessing impacts on communities, and recommended mitigation measures to minimize adverse effects.
State	
California Department of Transportation	▪ Caltrans manages noise and vibration impacts from transportation projects in California. It sets construction standards to protect nearby residents and sensitive areas, ensuring transportation projects minimize adverse noise and vibration effects on the environment and local communities.
Local	
City of Vallejo General Plan 2040	▪ The City of Vallejo General Plan includes noise regulation policies designed to protect public health and maintain quality of life. It establishes noise standards for different land uses, sets guidelines for evaluating noise impacts from new developments, and outlines measures to mitigate noise pollution. ▪ Goal NBE-5 includes policies and actions that focus on managing and mitigating noise and vibration impacts to improve the quality of life for residents, including restricting the allowable hours to between 7 AM and 7 PM on weekdays for construction, demolition, maintenance, and loading/unloading activities that may impact noise-sensitive land uses.
City of Vallejo Zoning Ordinance	▪ The City of Vallejo Zoning Ordinance outlines specific noise standards and permissible noise levels for various zones and land uses within the city. ▪ Section 16.502.09 on Vibration and 16.502.09 on Noise include regulations and guidelines that aim to manage and mitigate noise and vibration impacts within the city.

3.11.2 Environmental Setting

For the fundamentals of sounds, effects of noise on people, and characteristics of vibrations, please refer to **Appendix E**.

Existing Noise Environment

The existing ambient noise environment in the immediate Project Site vicinity is primarily defined by traffic on I-80 to the west. Sensitive receptors for noise in the vicinity of the Project Site were determined to be existing single-family residential uses that are located approximately 1,300 feet from the center of the Project Site.

To quantify the existing ambient noise environment in the project vicinity, Saxelby Acoustics conducted continuous (24-hr.) noise level measurements at four locations on the Project Site over a three-day period, from April 5 to April 7, 2024. **Figure 3.11-1** shows the noise measurement site locations, and **Table 3.11-2** provides a summary of the noise level measurement survey results, with complete results shown in Appendix B of **Appendix L**. Data in **Table 3.11-2** indicates that measured day-night average noise levels (DNL) did not vary appreciably from day to day at each measurement site but did vary by location within the vicinity of the Project Site as expected. Site LT-4 represents existing single-family residences categorized as sensitive receptors.

Table 3.11-2: Summary of Existing Background Noise Measurement Data (dBA)

Location	Date	L_{dn}[1]	Daytime L_{eq}[2]	Daytime L_{50}[3]	Daytime L_{max}[4]	Nighttime L_{eq}	Nighttime L_{50}	Nighttime L_{max}
LT-1	4/5/24	74	70	70	77	67	66	74
	4/6/24	72	68	68	79	65	64	74
	4/7/24	69	67	67	79	62	61	73
LT-2	4/5/24	62	58	56	67	55	54	66
	4/6/24	62	59	57	70	56	55	68
	4/7/24	59	57	55	67	52	52	65
LT-3	4/5/24	73	71	70	83	66	59	80
	4/6/24	73	72	70	89	64	59	80
	4/6/24	71	70	68	88	62	56	79
LT-4	4/5/24	67	63	61	72	61	59	69
	4/6/24	63	57	56	71	57	55	69
	4/7/24	61	57	56	69	55	54	67

Source: **Appendix L**

Daytime hours: 7:00 a.m. to 10:00 p.m.

Nighttime hours: 10:00 p.m. to 7:00 a.m.

[1] L_{dn} = Day/Night Average Sound Level.

[2] L_{eq} = Equivalent or energy-averaged sound level.

[3] L_{50} = The sound level exceeded 50% of the time during the one-hour period.

[4] L_{max} = The highest root-mean-square sound level measured over a given period of time.

SAXELBY ACOUSTICTS 2024 Source: Esri, USDA FSA, Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User

FIGURE 3.11-1
NOISE MEASUREMENT SITES

3.11.3 Impacts

Assessment Criteria

There are no federal regulations applicable to Alternative A. Furthermore, Alternative A is not subject to the requirements of the California Environmental Quality Act (CEQA). However, the assessment of project effects considers CEQA guidance, noise standards of the City of Vallejo, and criteria from Caltrans and the FICON for context. Specifically, significant noise and vibration effects are identified at existing sensitive receptor locations if the following were to occur as a result of the project:

- Project-related traffic noise levels increase by +5 dB in areas where existing traffic noise levels are below 60 dB Ldn, according to FICON guidelines.
- Project-related traffic noise levels increase by +3 dB in areas where existing traffic noise levels are between 60 and 65 dB Ldn, according to FICON guidelines.
- Project-related traffic noise levels increase by +1.5 dB Ldn or more in areas where existing traffic noise levels exceed 65 dB Ldn, according to FICON guidelines.
- There is an increase in short term noise associated with Project construction of 12 dBA over existing ambient noise levels, as defined by Caltrans.
- Vibration levels exceed the threshold of 0.20 in/sec p.p.v for short term construction projects, as defined by Caltrans.
- A singular piece of equipment produces noise levels greater than 83 dBA at 25 feet, or if noise levels outside the property boundary exceed 86 dBA, as identified by the City of Vallejo General Plan.
- Project-related operational noise levels exceed the City of Vallejo's noise standard of 60 dBA, L_{eq} for non-transportation sources.
- Exterior and interior noise levels for specified land uses exceed the standards set forth in City of Vallejo Municipal Code 16.502.09 – Noise

Methodology

Project Construction Noise & Vibration

To evaluate noise levels stemming from construction activities, the data and methodology contained within the 2006 Federal Highway Administration (FHWA) Roadway Construction Noise Model User's Guide were used. To evaluate vibration generation during project construction, the data and methodology contained within the 2006 FTA Transit Noise and Vibration Impact Assessment Guidelines were used. The types of heavy equipment to be utilized during project construction along with the distances from that equipment to nearby residences were used to predict construction noise and vibration generation at existing sensitive receptors.

Off-Site Traffic Noise and Project Traffic Noise Increases

The FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108) was used to predict existing and baseline traffic noise levels, both with and without the Project, at the nearest sensitive receptors along each roadway segment in the Project Site. The FHWA Model predicts hourly L_{eq} values for free-flowing traffic conditions. Estimates of the hourly distribution of traffic for a typical 24-hour period were used to develop DNL values from L_{eq} values.

On-Site Operational Noise

To predict noise generated by on-site operations (on-site circulation, and casino and residential HVAC) at the nearest sensitive receptor locations, a combination of manufacturer-provided data and Saxelby Acoustics data from similar operations was utilized with the SoundPLAN noise prediction model. Inputs to the model included sound power levels for the proposed amenities, existing and proposed buildings, terrain type, and locations of sensitive receptors. These predictions adhere to International Organization for Standardization standard 9613-2:1996 (Acoustics – Attenuation of sound during propagation outdoors.

Alternative A – Proposed Project

Construction Noise - Equipment

During the construction of Alternative A, noise from construction activities would add to the noise environment in the immediate vicinity of the Project Site. As noted in **Table 2.1-4**, construction activities involving noise generating equipment will be limited to daytime hours between 7:00 a.m. and 7:00 p.m. As shown in **Table 3.11-3**, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dBA L_{max} at a distance of 50 feet.

Table 3.11-3: Construction Equipment Noise

Type of Equipment	Maximum Level, dBA at 50 feet
Auger Drill Rig	84
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	89
Jackhammer	85
Pneumatic Tools	85

Source: **Appendix L**

As shown in **Table 3.11-3**, construction equipment that may be used in the development of the project has the potential to exceed 83 dBA at 25 feet. However, the majority of project construction would occur away from the property boundary, therefore limiting noise levels at the property boundary to below 86 dBA. The maximum construction noise levels at nearest residential uses, located approximately 1,300 feet from the center of the Project Site, would be up to 62 dBA. The average daytime maximum noise levels in the vicinity of the closest sensitive receptors were measured to be 69-72 dBA L_{max}, as shown in **Table 3.11-2** for site LT-4. Therefore, project construction would not cause an increase of greater than 12 dBA over existing ambient noise levels. Noise would also be generated during the construction phase by increased truck traffic on area roadways due to the transport of heavy materials to and from the construction site. However, this noise increase would be short-term and occur during daytime. Implementation of the BMPs listed in **Table 2.1-4** would ensure that impacts resulting from construction noise generated by Alternative A would be less than significant and no mitigation is required.

Construction Vibration

During construction, heavy equipment would be used for grading, excavation, paving, and building construction, which would generate localized vibration in the immediate vicinity of the construction zone. **Table 3.11-4** includes the range of vibration levels for equipment commonly used in general construction projects at reference distances of 25, 50, and 100 feet from the equipment. **Table 3.11-4** data indicates that construction vibration levels anticipated for the project are less than the Caltrans threshold of 0.2 in/sec at distances of 26 feet. Sensitive receptors which could be impacted by construction related vibrations, especially vibratory compactors/rollers, are located further than 26 feet from typical construction activities. At distances greater than 26 feet construction vibrations are not predicted to exceed acceptable levels. Additionally, construction activities would be temporary in nature and would occur during normal daytime working hours. Therefore, impacts resulting from construction vibration would be considered less-than-significant and no mitigation is required.

Table 3.11-4: Vibration Levels for Various Construction Equipment

Type of Equipment	Peak Particle Velocity at 25 feet (inches/second)	Peak Particle Velocity at 50 feet (inches/second)	Peak Particle Velocity at 100 feet (inches/second)
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/Drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/Roller	0.210 (Less than 0.20 at 26 feet)	0.074	0.026

Source: **Appendix L**

Operation Noise

Off-Site Traffic Noise

Operation of Alternative A will lead to higher traffic volumes on the local roadway network. These increased ADT volumes will consequently raise noise levels at existing sensitive locations along these roadways. **Table 3.11-5** summarizes the FHWA Highway Traffic Noise Prediction Model (FHWA RD 77 108), detailing modeled traffic noise levels at the nearest sensitive receptors along each roadway segment within the project area. The table presents baseline traffic noise levels and the project's expected increase in traffic noise levels attributed to Alternative A, relative to conditions in the opening year (2029).

Table 3.11-5: Baseline Traffic Noise Level and Project-Related Traffic Noise Level Increases (L_{dn})

Roadway	Segment	Baseline no Project	Baseline + Project	Change
Auto Mall Parkway	East of Project Access	48.1	48.4	0.3
Auto Mall Parkway	West of Project Access	54.1	54.7	0.6
N Ascot Parkway	South of Auto Mall Parkway	54.1	54.3	0.2
Auto Mall Parkway	East of Ascot Court	45.2	45.5	0.3
Columbus Parkway	West of Redwood Parkway	56.4	56.7	0.3
Columbus Parkway	East of Redwood Parkway	57.2	57.6	0.4
Redwood Parkway	South of Columbus Parkway	51.7	51.7	0.0

Roadway	Segment	Baseline no Project	Baseline + Project	Change
Admiral Callaghan Lane	East of Autoclub Way	48.9	49.2	0.3
Plaza Drive	South of Admiral Callaghan Lane	50.8	51.0	0.2
Turner Parkway	East of Admiral Callaghan Lane	63.6	63.7	0.1
Admiral Callaghan Lane	South of Turner Parkway	58.3	58.6	0.3
Turner Parkway	East of Plaza Drive	56.3	56.4	0.1
Redwood Parkway	West of Ascot Parkway	60.0	60.1	0.1
Oakwood Avenue	South of Redwood Parkway	57.8	57.9	0.1

Source: **Appendix L**

According to **Tables 3.11-5**, the maximum increase in traffic noise at the nearest sensitive receptor is predicted to be 0.6 dBA, which is below the FICON guidelines threshold of a +1.5 dB L_{dn} increase where existing traffic noise levels are greater than 65 dB $L_{dn.}$ Therefore, impacts resulting from increased traffic noise would be considered less-than-significant and no mitigation is required.

On-site Operational Noise

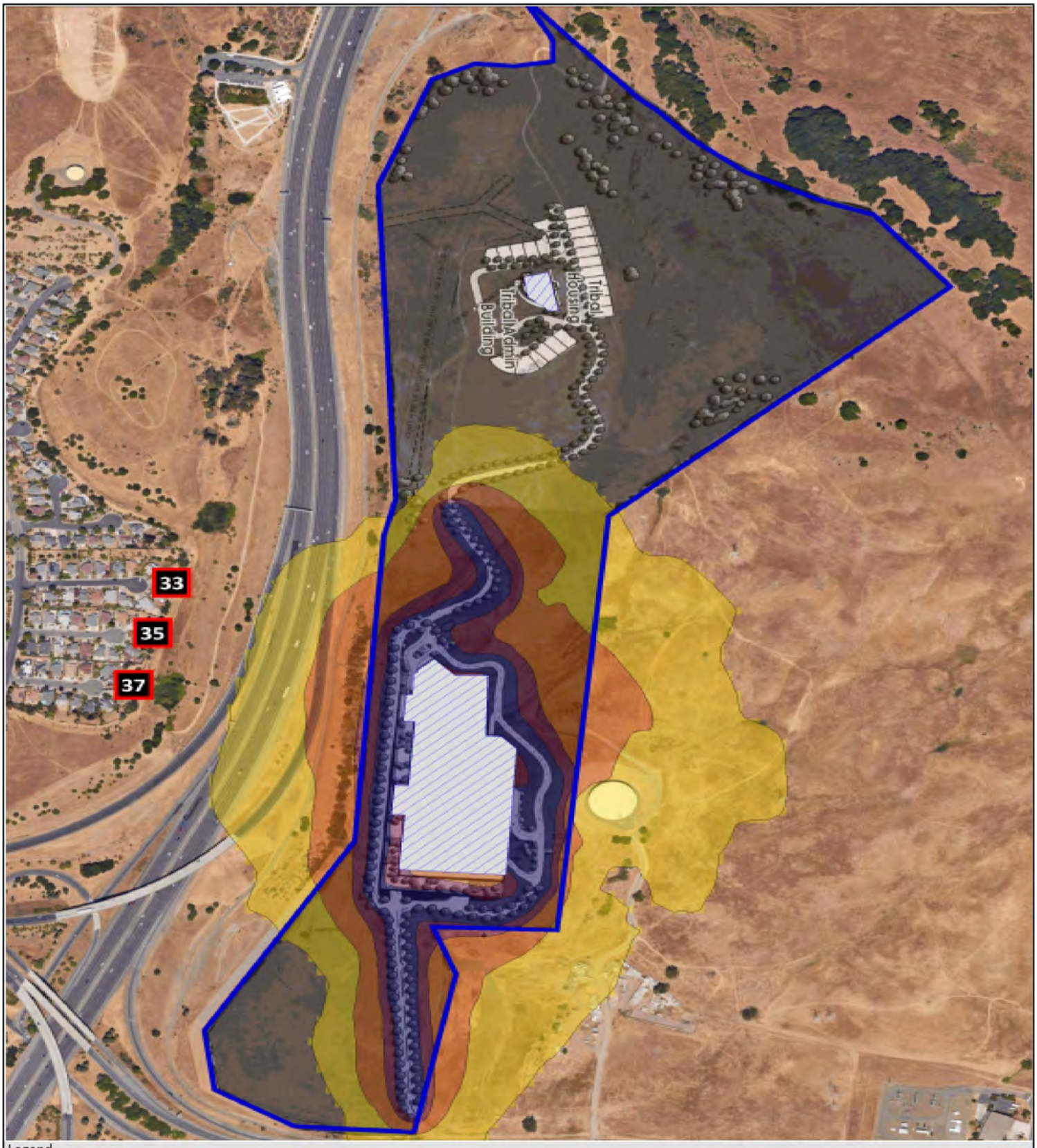
Project Site traffic circulation and HVAC noise are considered to be the primary noise sources for this project. SoundPLAN modeling results, illustrated in **Figure 3.11-2**, indicate that nearby residences could experience noise levels ranging from 33 to 37 dBA, L_{eq} during both daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) hours, under Alternative A. These predicted noise levels comply with the City of Vallejo's noise standard of 60 dBA, L_{eq} for non-transportation sources. Furthermore, the predicted levels are significantly lower than the measured nighttime noise levels of 54-59 dBA L_{eq} at site LT-4, as shown in **Table 3.11-2**. Therefore, the project is not predicted to cause a substantial increase in ambient noise levels at the sensitive receptors closest to the Project Site. This is a less-than-significant impact, and no mitigation is required.

Operation Vibration

According to the FTA Transit Noise and Vibration Impact Assessment Manual, commercial buildings and operations usually produce minimal ground-borne vibration, and the levels are often below thresholds that would cause disturbance or damage (FTA, 2018). Therefore, Alternative A would not result in vibration and noise levels at nearby sensitive receptors that could cause adverse effects. As a result, no significant impacts are expected to occur.

Alternative B – Reduced Intensity Alternative

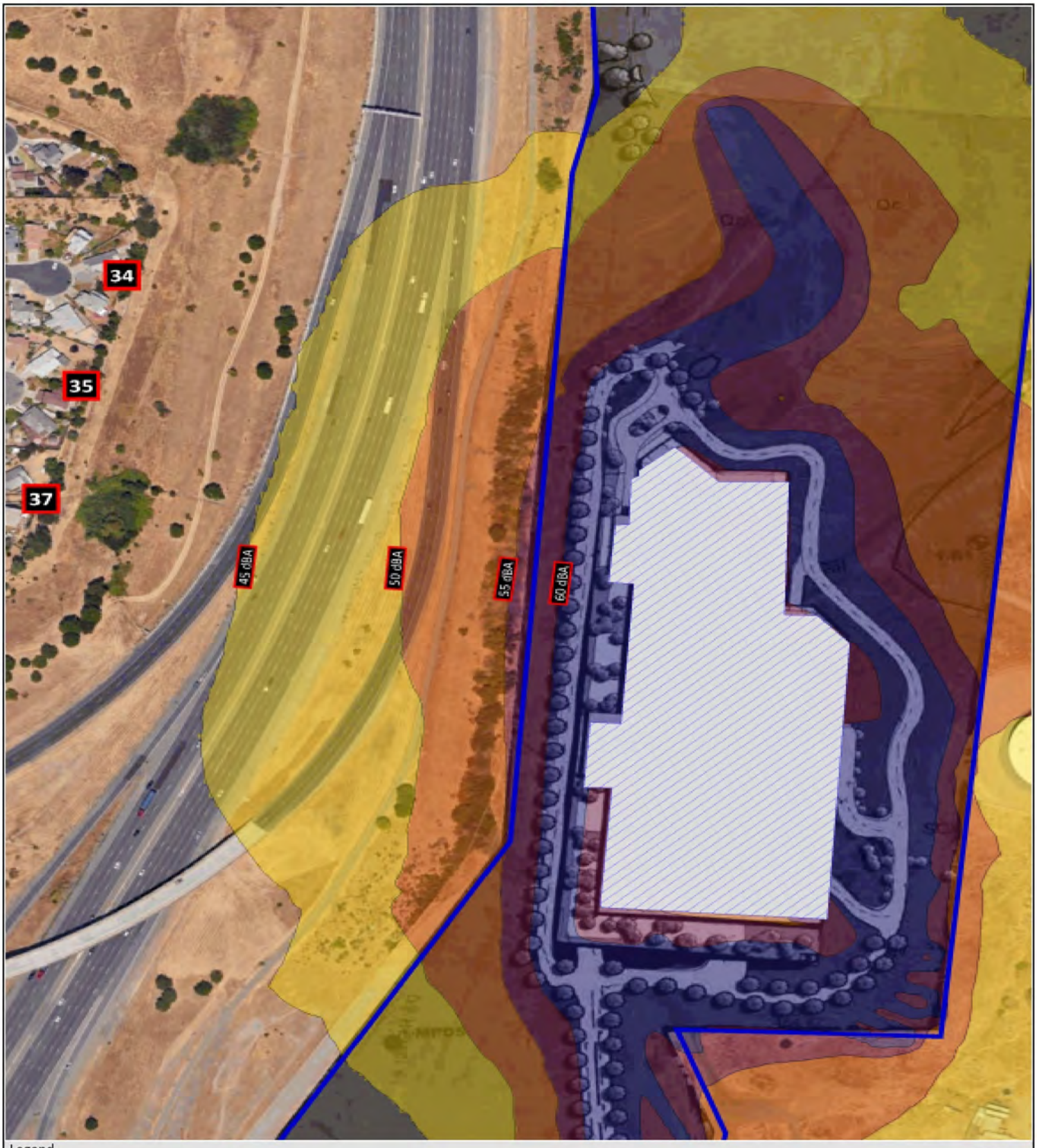
Alternative B would have similar construction and operational noise and vibration impacts as Alternative A, although at lower levels due to its smaller scale. The BMPs listed in **Table 2.1-4** would ensure construction noise impacts would be less than significant, requiring no mitigation.



SAXELBY ACOUSTICTS 2024 Source: Esri, USDA FSA, Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User

FIGURE 3.11-2

ALTERNATIVE A OPERATIONAL NOISE CONTOURS



SAXELBY ACOUSTICTS 2024 Source: Esri, USDA FSA, Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User

FIGURE 3.11-3

ALTERNATIVE B OPERATIONAL NOISE CONTOURS

SAXELBY ACOUSTICTS 2024 Source: Esri, USDA FSA, Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User

FIGURE 3.11-4

ALTERNATIVE C OPERATIONAL NOISE CONTOURS

Traffic volumes and on-site noise sources during the operation of Alternative B would be similar to Alternative A. **Figure 3.11-3** indicates that nearby residences could experience noise levels ranging from 34 to 37 dBA, L_{eq} during both daytime and nighttime hours, under Alternative B. These predicted noise levels comply with the City of Vallejo's noise standard of 60 dBA, L_{eq} for non-transportation sources. Furthermore, the predicted levels are significantly lower than the measured nighttime noise levels of 54-59 dBA L_{eq} at site LT-4, as shown in **Table 3.11-2**. Therefore, Alternative B would not substantially increase ambient noise levels at the nearest sensitive receptors, resulting in a less than significant impact with no mitigation required.

Alternative C – Non-Gaming Alternative

Alternative C would have similar construction and operational noise and vibration impacts as Alternative A, although at lower levels due to its smaller scale. The BMPs listed in **Table 2.1-4** would ensure construction noise impacts would be less than significant, requiring no mitigation.

Traffic volumes and on-site noise sources during the operation of Alternative C would be similar to Alternative's A and C, but at a reduced level due to the smaller scale of development. **Figure 3.11-4** indicates that nearby residences could experience noise levels ranging from 20 to 23 dBA, L_{eq} during both daytime and nighttime hours, under Alternative C. These predicted noise levels comply with the City of Vallejo's noise standard of 60 dBA, L_{eq} for non-transportation sources. Furthermore, the predicted levels are significantly lower than the measured nighttime noise levels of 54-59 dBA L_{eq} at site LT-4, as shown in **Table 3.11-2**. Therefore, Alternative C would not substantially increase ambient noise levels at the nearest sensitive receptors, resulting in a less than significant impact with no mitigation required.

Alternative D – No Action Alternative

Under the No-Action Alternative, the Project Site would remain undeveloped. Regarding noise, the Project Site would not generate construction noise. Operational noise would continue at levels similar to existing conditions, resulting in no noise impacts under the No-Action Alternative.

3.12 HAZARDOUS MATERIALS AND HAZARDS

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 E.**

Table 3.12-1: Regulatory Policies and Plans Related to Hazardous Materials and Hazards

Regulation	Description
Federal	
Resource Conservation and Recovery Act	▪ 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.

Regulation	Description
Comprehensive Environmental Response, Compensation, and Liability Act	▪ Emphasizes the cleanup of inactive hazardous waste sites and the liability for cleanup costs on arrangers and transporters of hazardous substances and on current and former owners of facilities where hazardous substances were disposed. ▪ These authorities complement those of the Resource Conservation and Recovery Act.
Federal Food, Drug, and Cosmetic Act	▪ 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.
Federal Insecticide, Fungicide, and Rodenticide Act	▪ 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.
Hazard Communication Standard	▪ 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.
Hazardous Substances Act	▪ 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 Hazardous Substances Act standards.
Toxic Substance Control Act	▪ 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	▪ 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.
National Fire Protection Association Codes and Standards	▪ Codes and Standards to minimize the possibility and effects of fire and other risks including, but not limited to sprinkler systems, fire alarms, parking structures, emergency response, and wildland fire protection
State	

Regulation	Description
California Air Resources Board (CARB)	▪ The CARB adopted the Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations in 2001. This ATCM mandates the use of the best available dust mitigation measures during road construction, maintenance activities, construction, grading, quarrying, and surface mining operations in areas where naturally occurring asbestos is present or likely to be found (CARB, 2001).
California Building Code	▪ The California Building Code (CBC) includes Fire Code Elements to reduce wildfire impacts including Chapter 7A regarding building materials, systems, and/or assemblies used in the exterior design and construction of new buildings located within a Wildland-Urban Interface Fire Area; as well as CBC Section 703A.7 that incorporates State Fire Marshal standards for exterior wildfire exposure protection.
California Department of Forestry and Fire Protection (Cal Fire)	▪ Public Resources Code (PRC) Sections 4201-4204 specify that lands within State Responsibility Areas (SRAs) be classified into fire hazard severity zones (FHSZ). These zones are classified based on fuel loading, slope, fire weather, wind, and other relevant factors. ▪ Cal Fire is responsible for protecting natural resources form fire on land designated as within the SRA.
Local	
Solano County General Plan	▪ The Public Safety Element contains goals, objectives, and policies to provide protection from wildland fire hazards.
Solano County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP)	▪ Includes measures to reduce risks from natural disasters, including wildfire, in the Solano County.
Solano County Community Wildfire Protection Plan (SCCWPP)	▪ Identifies wind-driven wildland fires can be problematic in Solano County due to the unique topography of the county.
Solano County Emergency Operations Plan (EOP)	▪ In accordance with California's Standardized Emergency Management System, this Plan provides the framework for a coordinated effort between partners and provides coordinated stability during a disaster. ▪ Includes Evacuation Annex that outlines the strategies, procedures, and organizational structures to be used in managing coordinated, large-scale evacuations in the Solano County Operational Area.
City of Vallejo General Plan 2040	▪ The City of Vallejo General Plan 2040 contains goals and policies to provide protection from fire hazards.

3.12.2 Environmental Setting

Hazardous Materials

A Phase I Environmental Site Assessment (ESA) was completed in May 2023 to determine if any Recognized Environmental Conditions (RECs) exist on the Project Site (**Appendix M-1**). As explained further in **Appendix E**, RECs are defined as the presence or probable presence of any petroleum products or hazardous substances in, on, or at a property. For additional information on the findings of the Phase I ESA and methodology, please see **Appendix M-1,** and summary in **Appendix E**. The Phase I ESA concluded that no RECs, Historical RECs, or Controlled RECs were connected with the Project Site and none were observed during the site visit. The Phase I ESA observation and recommendations are summarized in **Table 3.12-2** and described in more detail in **Appendix E**.

Table 3.12-2: Phase I ESA Results and Recommendations

Site and Database Observations	Recommendations
A serpentine mine existed in the central portion of the Project Site in the past	▪ Ground-disturbing activities occurring on the Project Site should follow a dust control plan ▪ Mine tailings piles should be tested to ensure that no toxic substances are contained therein
There is a monitoring well for Per- and Polyfluoroalkyl Substances on-site	▪ Monitoring well data should be reviewed as part of project planning
St. John's Mine, an inactive mercury mining operation approximately 1 mile northeast of the property, was active until 1923 (Bowen, 2004).	▪ No site-specific recommendations

Source: **Appendix M-1**

Based on the recommendations in the Phase I ESA, additional soil sampling was completed of historic mine tailings in the central portion of the Project Site; laboratory analyses of these areas were conducted in June 2023, May 2024, and July 2024 (**Appendices M-2**, **M-3**, and **M-4**). Refer to Figure 2 in **Appendix M-3** for the area where additional soil sampling was completed. The first testing conducted in 2023 identified a single elevated sample for lead and antimony reported within the Tailings C pile. Additional soil testing conducted in May 2024 revealed low lead and antimony concentrations that do not exceed residential or commercial screening criteria promulgated by both the San Francisco Bay RWQCB and the Department of Toxic Substances Control (DTSC), indicating the lead concentrations within the Tailing C pile are a de minimis concern. Additional testing in July 2024 identified elevated levels of arsenic (**Appendix M-4**). No elevated mercury levels were observed during any testing (**Appendices M-2** through **M-4).**

Silica Carbonate Bedrock and Naturally Occurring Asbestos (NOA) Hazards

The eastern portions of the Project Site are underlain by silica-carbonate bedrock, which is part of an ultramafic rock sequence that includes serpentinite (**Figure 2.1-7**; **Appendix D**). There are several potential issues related to public health and safety concerning serpentinite; most prominent are slope stability (discussed in **Section 3.2**) and the presence of naturally occurring asbestos (NOA), particularly the mineral chrysotile which is a carcinogen when asbestos fibers are released into the air (additional discussion in **Appendix E).**

Wildfire

Fire Hazard Severity Zones and Wildfire Risk Assessment

Local fire departments have the primary responsibility for firefighting within Local Responsibility Areas (LRA), while Cal Fire has jurisdiction over SRAs. The Project Site is within a high FHSZ within an LRA and areas surrounding the Project Site are high FHSZ within the SRA, as shown on **Figure 3.12-1**. The SCCWPP notes that FHSZ evaluates hazard rather than risk, which does not account for mitigations like fuel reduction efforts. The SCCWPP wildfire risk assessment includes a combination of fire behavior modeling with on-the-ground surveys to map risk across the County into low, moderate, high, and extreme categories. As shown in **Figure 3.12-2**, a substantial portion of western Solano County, including the Project Site, was identified as having high wildfire risk due to factors like topography, fuels, weather influences, and proximity to fire stations (Solano County, 2023). For further explanation of wildfire hazard versus risk refer to **Appendix E** .

Regional Wildfire History

Solano County has a history of wind-driven wildfires like the 2020 Sonoma-Lake-Napa Unit Lightning Complex that burned over 360,000 acres and destroyed 1,491 structures, including within Solano and Yolo counties. The County also regularly experiences smaller fires igniting in grasslands or fields, or from human causes like vehicles. The varied terrain in Solano County supports diverse vegetation types that have their own characteristic fire regimes and behavior. Invasive vegetation, drought, development patterns, and fire suppression policies have disrupted historical fire regimes, and climate change is exacerbating fire risk by bringing hotter, drier conditions (Solano County, 2023).

County Wildfire Hazard Mitigation Strategies and Regional Evacuation Planning

In Solano County, the responsibility for wildland fire prevention and suppression is divided between local fire agencies and the State of California depending on whether the area is designated as a LRA or SRA. As shown in **Figure 3.12-1**Figure 3.12-1, the Project Site is within the LRA, while areas to the north and east are within the SRA. Several key planning documents guide wildfire management and hazard mitigation efforts in the County. This includes the Solano County MJHMP (2022), the Solano County Emergency Operations Plan (EOP; 2024), and the SCCWPP (2023), discussed further in **Appendix E**.

The Project Site is within the evacuation zone VLJ-1138; refer to **Appendix E** for the evacuation zones surrounding the Project Site (Genasys, 2024). I-80 and SR-37 are identified as two major regional transportation corridors that may be used in an evacuation. Columbus Parkway provides access to I-80 in the vicinity of the Project Site, as discussed further in **Section 3.8**. Columbus Parkway has a daily capacity of 44,500 cars and the segment west of Admiral Callaghan Lane to the freeway onramps had 31,300 ADT during the June 7, 2023, traffic counts (City of Vallejo, 2016; **Appendix K-1**). These design capacity and ADT figures represent traffic across an entire day and not in the short span of an evacuation but demonstrate that volumes on this roadway are not exceeding its capacity.

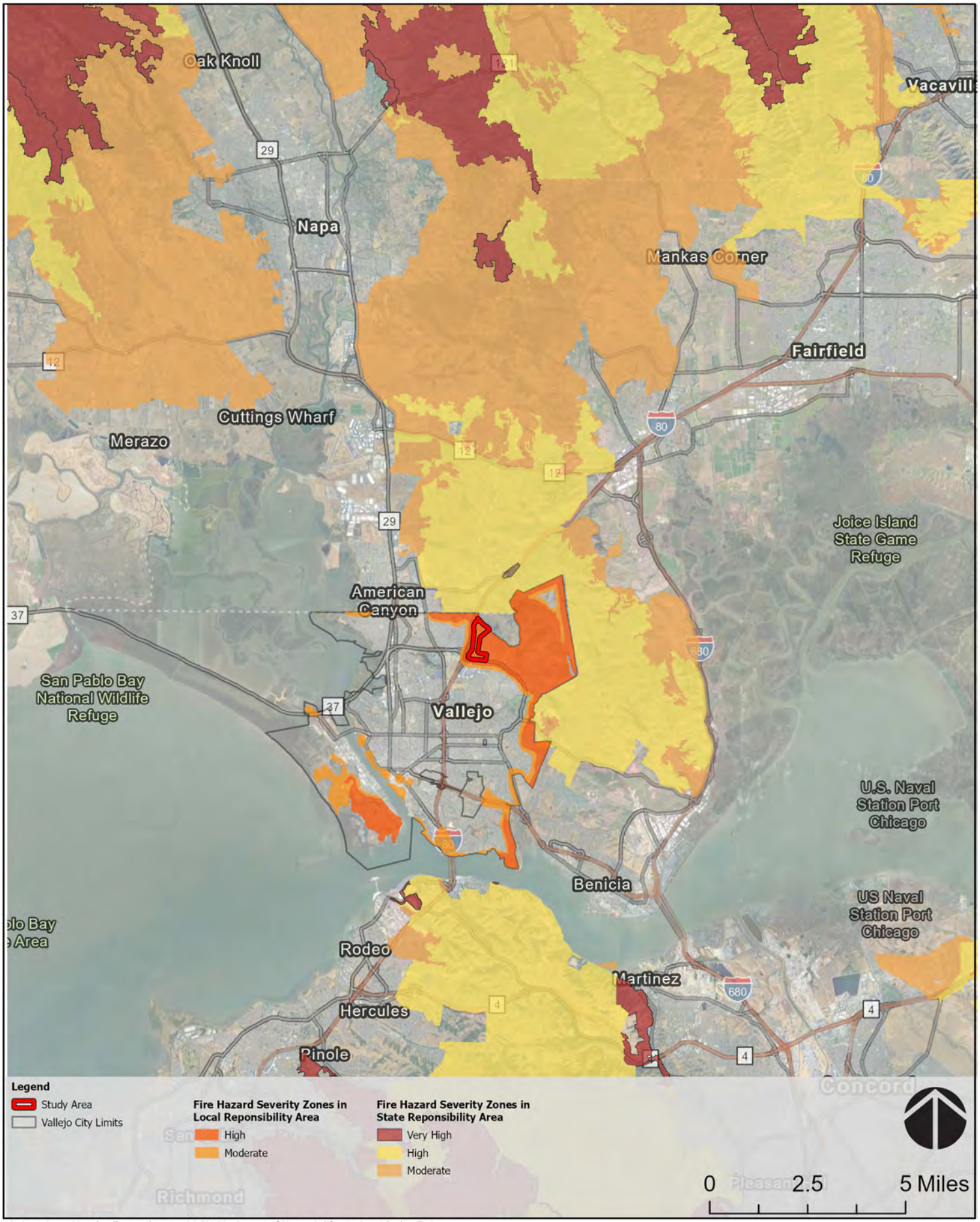
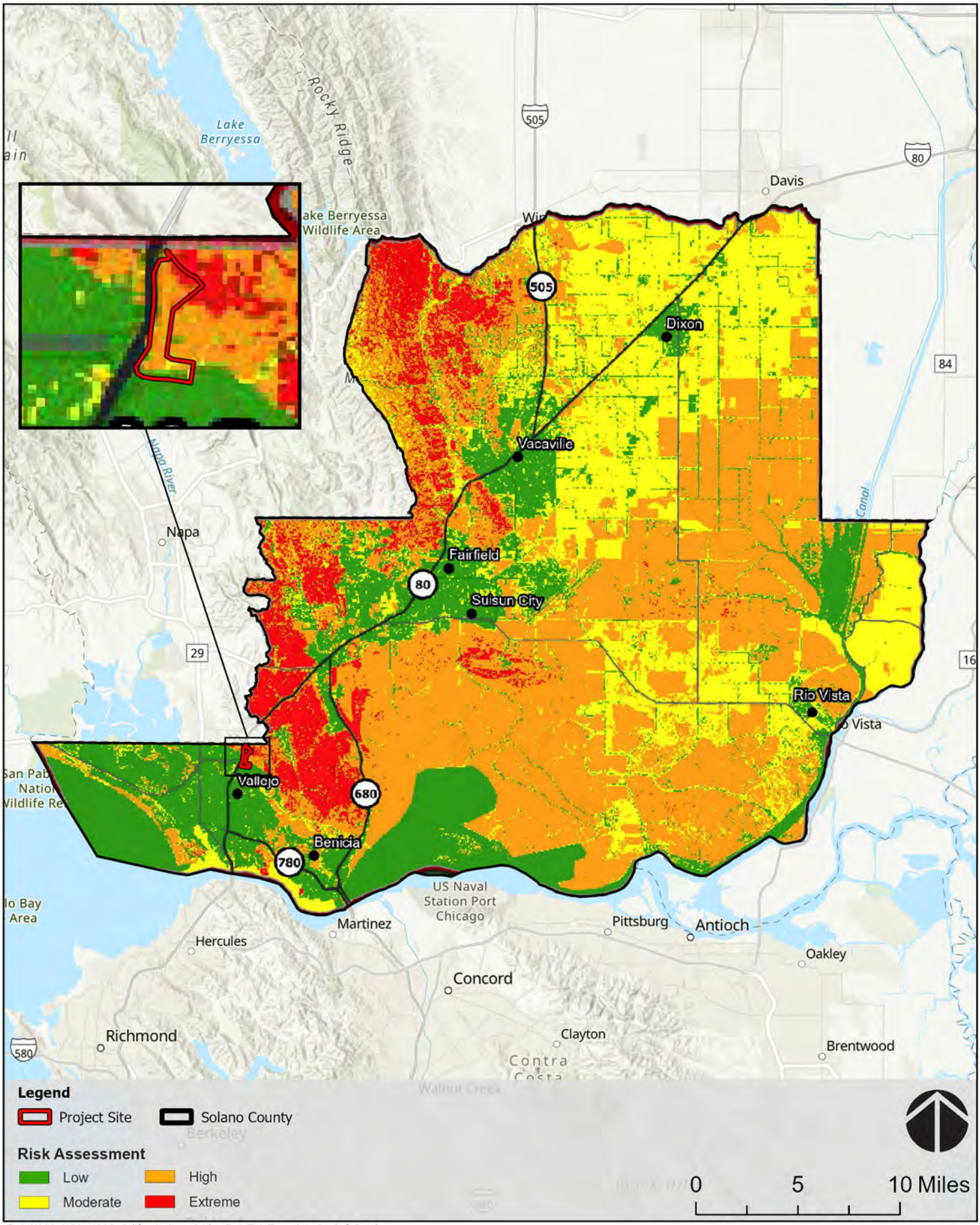


FIGURE 3.12-1
FIRE HAZARD SEVERITY ZONE



Esri, NASA, NGA, USGS, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS,

FIGURE 3.12-2
COUNTY WILDFIRE RISK INDEX

Onsite Wildfire Risk

The Project Site is mostly undeveloped except for several unpaved ranch roads and a horse boarding facility characterized by an assemblage of wooden structures that serve to corral the horses and other animals. The Project Site is hilly with some changes in slope and topography. There is some flammable vegetation on the Project Site in the form of grasses that dry out in the summer months. With the exception of a small area of oak woodland that occurs in the very northern portion of the Project Site, the site is largely free of any dense brush, hardwoods, or timber fuels that could intensify a wildfire.

3.12.3 Impacts

Assessment Criteria

Impacts associated with hazardous materials include a release of hazardous materials above a de minimis level and improper hazardous material management that could result in potential health risks to people or wildlife. 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 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.

Impacts associated with wildfire include the construction or operation of the proposed development increasing wildfire risk in the immediate area. A project would be considered to have a significant impact if it were to increase wildfire risk on-site or in the surrounding area. This includes, but is not limited to, substantially increasing fuel loads, exacerbating the steepness of the local topography, introducing uses that would increase the chance of igniting fires, reducing fire barriers, inhibiting local emergency response to or evacuation routes from wildfires, building in a high-risk fire zone without project design measure to reduce inherent wildfire risk, and conflicting with a local wildfire management plan.

Alternative A– Proposed Project

Heavy Metals and NOA

The presence of heavy metals within the soil and bedrock on the Project Site could pose health hazards to onsite workers during the construction phase or onsite residents or patrons during the operation of Alternative A if appropriate remediation steps are not taken. Soils testing revealed one small area (approximately 75 CY) within the Project Site near the Tailing C pile that contains elevated lead, antimony, and arsenic levels, although the levels were below State and federal screening levels for both commercial and residential land uses. Per BMPs provided in **Table 2.1-4**, the Tailings C material would be off-hauled and disposed of off-site and workers in the area will use personal protective equipment to avoid health concerns during the grading and off-hauling activities in this area. With the BMPs listed in **Table 2.1-4** possible hazards associated with existing lead contamination are reduced to less than significant levels.

The eastern portion of the Project Site contains silica-carbonate bedrock that includes serpentinite, which may potentially contain NOA that poses health risks when airborne. Site preparation activities during construction have the greatest potential to mobilize NOA, if it is present within the silica-carbonate bedrock or serpentine soils. Therefore, BMPs provided in **Table 2.1-4** will include careful handling of materials in potential asbestos-bearing zones consistent with CARB's Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations. These BMPs also include soil stabilization measures

after construction to ensure that activities during operation of the gaming facility and Tribal housing will not result in significant risks to onsite workers, residents, or patrons. These BMPs will include stringent dust control methods and the use of personal PPE for workers to ensure safety during construction operations. With implementation of BMPs listed in **Table 2.1-4**, potential risk of NOA during construction and operation of Alternative A is reduced to less than significant levels.

Hazardous Materials Handling During Construction

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. As with any liquid and solid, during handling and transfer from one container to another or general usage, the potential for an accidental release exists. Construction BMPs required within the NPDES General Construction Permit limit and often eliminate the impact of such accidental releases. Since contact with stormwater during construction is the primary means of transporting these contaminants offsite, appropriate BMPs for this impact are included in the construction stormwater BMPs in **Table 2.1-4**. With the implementation of these BMPs and compliance with federal laws relating to the handling of hazardous materials, no adverse effects associated with the accidental release would occur during construction.

Hazardous Materials Handling During Operation

Alternative A would utilize hazardous materials in varying quantities and capacities that would depend on the project component. The following describes the potential hazardous material risks from each major component of the Alternative A. Provisions included in the U.S. Department of Labor OSHA regulations require documentation of potential risks associated with the handling, use, and storage of flammable and toxic substances under the Hazard Communication Standard. OSHA regulations codified in 29 CFR Part 1910 are applicable to the Project Site.

For the on-site emergency generators for Alternative A, diesel fuel storage tanks would be required. BMPs incorporated into Alternative A include the following measures listed in **Table 2.1-4**: storage tanks would comply with the National Fire Protection Association standards for aboveground storage tanks and have secondary containment systems; and materials used for the emergency generators would be handled, stored, and disposed of according to federal and manufacturer's guidelines. They would not require uncommon storage, handling or disposal that would induce issues, and the transportation of the diesel would be infrequent and would not create a potential hazard to the public.

Hazardous materials used for Alternative A would be primarily for the operation and maintenance of the casino and other project facilities. These would include, but are not limited to, motor oil, hydraulic fluid, solvents, cleaners, lubricants, paint, and paint thinner. In addition, the maintenance of on-site landscaping would require the transportation, storage, and use of pesticides and fertilizers. Insecticides will not be used on the property, the timing of pesticide use is limited, and non-chemical weed and pest prevention practices will be maximized, as discussed further in **Section 3.5**. These biological measures will minimize the amount and types of landscaping chemicals used on the Project Site. All hazardous materials would be stored, handled, and disposed of according to federal and manufacturer's guidelines. Waste would also be produced as a result of operation, but this waste would be usual for commercial facilities. For all solid waste produced on the site, manufacturer's guidelines would be followed for the storage, handling, and off-site disposal in addition to adhering to applicable federal and State regulations. Therefore, Alternative A would not result in significant adverse effects related to waste produced or use of hazardous materials.

Wildfire Risk

Construction Fire Ignition Risk

During construction, the operation of equipment could create sparks that could ignite the vegetation on the Project Site. Examples of construction equipment that could ignite a fire and thus increase wildfire risk include power tools and acetylene torches. However, implementation of BMPs in **Table 2.1-4** would reduce the probability of igniting a fire during construction. These BMPs include the prevention of fuel being spilled and putting spark arresters on equipment having the potential to create sparks. Therefore, construction of Alternative A would not increase wildfire risk onsite or in the surrounding area.

Operational Fire Ignition Risk and Risk to Onsite Persons and Structures

Alternative A would convert grassland and pasture areas within the Project Site to urban uses and would increase the level of human activity in the project area. Wildfire structure losses are often caused by windborne embers igniting receptive fuel beds near building, and home hardening with fire-resistant materials, defensible space vegetation management within 100 feet of structures, and community-wide vegetation treatments are effective techniques to minimize risk. As described in **Section 2.1.10**, development must conform to applicable Tribal building codes generally consistent with the IBC, which includes fire-resistant building materials like specified roofing, exterior walls, windows, systems and assemblies. Indoor sprinkler systems must also be installed per fire protection requirements. Water supply and fire flow are critical components. As outlined in **Section 2.1.3**, anticipated fire flow needs of 4,000 gpm for 4 hours based on automatic sprinkler usage must be met via on-site wells, storage tanks, pumps and hydrant infrastructure designed to code standards. Rigorous inspection, testing and maintenance of all fire protection devices like sprinklers, alarms, commercial kitchen suppression systems and hydrants is required following National Fire Protection Association BMPs listed in **Table 2.1-4**. In addition, annual maintenance will be conducted to ensure fire resistive materials and construction details are maintained at their highest level to reduce ember impacts. With the implementation of project design features to reduce inherent wildfire risk described above and BMPs listed in **Table 2.1-4**, Alternative A would not increase fuel loads, introduce uses that would increase the chance of igniting fires, or eliminate fire barriers. Therefore, operation of Alternative A would not increase wildfire risk onsite or in the surrounding area.

Wildfire Evacuation/Community Evacuation

Alternative A does not include building components that would impede off-site emergency evacuation or emergency response plans, but it would attract additional patrons and increase the total number of persons onsite during operation that may need to be evacuated during a wildfire event or other regional emergency. There could be a maximum of approximately 4,116 vehicles on the Project Site at one time under Alternative A that may need to evacuate in the event of a regional emergency, such as wildfire. This conservatively includes an assumed two vehicles evacuating per each of the 24 proposed Tribal houses and assumes the parking lot of the casino is at maximum capacity of 4,068 vehicles (see **Table 2.1-1**). If a wildfire were to occur in the vicinity, the nature and timing of evacuation orders for a particular event are based on a number of considerations including, but not limited to, the nature and severity of impact, area affected and likely to be affected, expected duration of the incident, number of people to be evacuated, time available for evacuation, and impediments to and capacity of evacuation routes. Therefore, analysis of a future evacuation event is inherently speculative. Evacuation notices could occur with little to no warning in the event of a quick-spreading wildfire, or there could be ample notice to residents on and in the vicinity of the Project Site depending on the wildfire location and rate of spread. A significant impact could occur to the community if the additional residents and patrons to Alternative A impeded the ability of community members to evacuate in a timely and safe manner.

As shown in **Figure 3.12-1**, the Project Site and areas immediately north and east are a High FHSZ both inside Cal Fire's SRA and within the LRA. The Project Site and areas east and north are considered a high to extreme wildfire risk as designated by the County's Wildfire Risk Index (**Figure 3.12-2**). The areas west and south of the Project Site are low wildfire risk because they are urbanized and contain low fuels to transmit wildfire, are near the Napa River and its marshlands, and are protected by I-80 and SR-37 which provide significant unvegetated areas that act as fire breaks. Therefore, if a wildfire were to occur in the vicinity that triggered community-wide evacuation orders, this analysis assumes the wildfire would originate north and/or east of the Project Site where the areas are steeply sloped and primarily undeveloped. The Project Site has direct access to two major potential evacuation routes, I-80, and SR-37, which would be utilized by both patrons on the Project Site and community members under evacuation order. In the event of a wildfire from the north/east, it is likely that Evacuation Zone VLJ-1138 (which includes the Project Site) would face evacuation orders earlier than or at the same time as the mixed commercial-residential zones to the south (VLJ-1166, VLJ-1136, VLJ-1162, and VLJ-1134) or on the west side of I-80 (VLJ-1114, VLJ-1116, and VLJ-1118) (Genasys, 2024). In the event of an evacuation, the most direct route for vehicles leaving the Project Site and existing neighborhoods to the east of the Project Site would be to travel west on Columbus Parkway to I-80 and/or SR-37. Community members on the opposite side of I-80 and SR-37 would access these highways directly without needing to use these same roads and intersections.

I-80 West would be the most direct evacuation route away from a wildfire approaching from the north/east. I-80 is designed to handle a high volume of traffic, with multiple lanes flowing in each direction. According to Caltrans, certain segments of I-80 in Solano County, such as the area around Travis Blvd in Fairfield, can accommodate over 215,000 vehicles daily, indicating capacity to manage traffic loads during peak hours (Bay Link Blog, 2023). Nearer the Project Site, I-80 at American Canyon Road has 131,000 vehicles per day (Caltrans, 2022). Historical data from past evacuation events, such as during the Dutch Fire in Placer County, indicates that I-80 can handle increased traffic volume under emergency conditions. During the Dutch Fire, even with evacuation orders and fire impacts, I-80 maintained at least one lane of traffic flow, ensuring continuous movement (Morales, 2022). This demonstrates that I-80 has the necessary capacity and infrastructure to support a large-scale evacuation without causing significant congestion or delays.

The most direct route for vehicles leaving the Project Site to access I-80 would be immediately west on Columbus Parkway to I-80, which would have sufficient capacity to accommodate the 4,116 cars estimated under Alternative A. However, this is also the most direct route to I-80 for the community evacuation zones to the east of the Project Site. The short stretch of Columbus Parkway between the Project Site entrance intersection and the highway on-ramps is the roadway segment with the greatest potential for travel delays for evacuating community members with the addition of 4,116 cars under Alternative A. This would be a potentially significant impact.

There are numerous mitigation strategies available to minimize community evacuation delays due to Project-related vehicles. These include planning that can occur onsite, such as the Tribe providing shuttle buses so that more people can be evacuated from the Project Site with fewer vehicles on area roadways, providing real-time information to staff and guests about evacuation conditions, or requiring at least one trained staff person to coordinate evacuation procedures be onsite at all times when the casino is open. Off-site coordination should also occur to streamline evacuation procedures for community members. As shown in Figure 1 of **Appendix K-1**, there are several other arterial roadways including Redwood Parkway, Ascot Parkway, Admiral Callaghan Lane, and Turner Parkway that provide access to an additional I-80 onramp south of the Project Site that could be utilized by evacuating community members to avoid the

stretch of Columbus Parkway near the Project Site intersection. Mitigation recommended in **Section 4** requires that, prior to opening the casino facility, the Tribe shall coordinate with emergency evacuation and traffic experts to develop a project-specific evacuation plan that complements the emergency planning efforts of Sonoma County and the City of Vallejo. Further, traffic mitigation would increase the capacity of the Columbus Parkway/Project Entrance intersection, improving the ability of vehicles to efficiently evacuate the site. With mitigation, this impact would be less than significant.

Alternative B – Reduced Intensity Alternative

Heavy Metals and NOA

Alternative B would have similar risks due to the presence of lead and NOA as described in Alternative A, but the risks would be reduced due to the lesser grading extents and smaller scale of the project. Similar to Alternative A, BMPs in **Table 2.1-4** would reduce these potential risks due to removal and safe disposal of soils containing lead and the inclusion of Asbestos ACTM measures.

Hazardous Materials

Alternative B would have similar hazardous material risks as Alternative A during construction, but the risks would be reduced due to the smaller building scale of the project. Operation of Alternative B would have similar hazardous material usage, handling, storage, and disposal as Alternative A because the proposed building components would require similar chemicals for its facilities. As with Alternative A, all hazardous materials used during operation would be handled, stored, and disposed of according to federal and manufacturer's guidelines; therefore, no adverse effects regarding hazardous materials would occur during the operation of Alternative B.

Wildfire Risk

While the risk of wildfires under Alternative B would be similar to Alternative A, potential effects to community evacuation would be slightly reduced as the maximum number of potential persons on the Project Site would be reduced. With the implementation of project design features to reduce inherent wildfire risk described in **Section 2.2**, BMPs listed in **Table 2.1-4**, and mitigation in **Section 4**, construction and operation of Alternative B would not increase wildfire risk onsite or in the surrounding area or significantly inhibit local emergency response to or evacuation from wildfire.

Alternative C – Non-Gaming Alternative

Heavy Metals and NOA

Alternative C would have similar risks due to the presence of lead and NOA as described in Alternative A, but the risks due to NOA would be reduced due to the lesser grading extents and smaller scale of the project. Similar to Alternative A, BMPs in **Table 2.1-4** would reduce these potential risks to less than significant due to removal and safe disposal of soils containing lead and the inclusion of Asbestos ACTM measures.

Hazardous Materials

Alternative C would have similar hazardous material risks as Alternatives A and B during construction, but the risks would be reduced due to the smaller building scale of the project. BMPs in **Table 2.1-4** would reduce these potential risks to less than significant. Operation of Alternative C would have similar hazardous material usage, handling, storage, and disposal as Alternatives A and B because the proposed

building components would require similar chemicals for its facilities. Therefore, no adverse effects regarding hazardous materials would occur during the operation of Alternative C.

Wildfire Risk

The risk of wildfires under Alternative C would be similar to Alternative A, as well as the potential effects to community evacuation timelines. The project-specific evacuation plan required in Section 4 would require adjustments to account for overnight visitors in the proposed hotels, but impacts to community evacuation would be reduced with implementation of this same measure. With the implementation of project design features to reduce inherent wildfire risk described in **Section 0**, BMPs listed in **Table 2.1-4,** and mitigation measures in **Section 4**, construction or operation of Alternative C would not increase wildfire risk onsite or in the surrounding area or significantly inhibit local emergency response to or evacuation from wildfire.

Alternative D – No Action Alternative

No development would occur under Alternative D, and the Project Site would remain in its undeveloped state. No impacts associated with hazardous materials or hazards would occur under Alternative D.

3.13 VISUAL RESOURCES

3.13.1 Regulatory Setting

The visual resources regulatory setting is summarized in **Table 3.13-1**, and additional information on the regulatory setting can be found in **Appendix E.**

Table 3.13-1: Regulatory Policies and Plans Related to Visual Resources

Regulation	Description
Local	
City of Vallejo General Plan 2040	▪ The City of Vallejo General Plan 2040 is a description of how the City intends to develop. It establishes the goals and policies related to the Vallejo planning area. ▪ Goal NBE-1 aims to protect and enhance the city's natural beauty and environment. It focuses on preserving Vallejo's natural resources, scenic vistas, and open spaces to maintain the City's visual and environmental quality for current and future generations.
City of Vallejo Title 16: Zoning Code	▪ The City of Vallejo Zoning Ordinance is a set of regulations that govern land use and development within the city. These regulations are designed to promote orderly growth, protect public health and safety, and preserve the character and aesthetic appeal of the community. ▪ Section 16.506.04 of the City's Municipal Code includes lighting and glare development standards.
Dark-Sky Association's Model Lighting Ordinance	▪ The International Dark-Sky Association and the Illuminating Engineering Society of North America have developed a Model Lighting Ordinance to address the need for strong, consistent outdoor lighting regulation in North America.

3.13.2 Environmental Setting

The existing topography of the Project Site includes some relatively flat areas in the south along Columbus Parkway and undulating hillsides and valleys extending generally up to the north on the flank of Sulphur Springs Mountain. Elevations range between 130 feet above mean sea level (amsl) in the southeast corner of the Project Site to approximately 800 feet amsl in the northeast corner.

The Project Site is visible from I-80 to the west, Columbus Parkway to the south, and the I-80/Highway 37 junction to the southwest. The Project Site is also visible from the commercial development to the south, most notably from the parking lots that line Columbus Parkway, despite a consistent tree line. Existing views of the Project Site from nearby sensitive residential receptors, notably from the residential area west of I-80, are mostly obscured by the barriers along I-80. Representative viewpoints of the Project Site are shown in **Figure 3.13-1** and described as follows:

- Viewpoint 1: View from Admiral Callahan Lane/ Columbus Parkway Intersection. Gently sloping terrain and rolling green hills can be seen extending towards a water tower. A dirt path leads to the water tower. An assemblage of small structures and vehicles populate the foreground.
- Viewpoint 2: View from Northbound I-80. Hilly terrain with a more prominent incline dominates the foreground. Sporadic trees and transmission lines line the western project boundary.
- Viewpoint 3: View from Hunter Hill Rest Area. The same hilly terrain, transmission lines, and sporadic trees line the western project boundary. There are additional telephone lines, fences, and freeway signage. The skyline of Vallejo is visible in the background to the south.
- Viewpoint 4: View from nearest residential neighborhood. I-80, which is at a higher elevation than the residential neighborhood, and freeway signage blocks views of a significant portion of the Project Site. The tops of the hillsides and transmission lines with the Project Site are visible.

Designated scenic highways and roadways do not occur within viewing range of the Project Site (Caltrans, 2024b). However, the Vallejo General Plan identifies several scenic resources that can be viewed from the Project Site, including Sulphur Springs Mountain, approximately one mile north, and the City of Vallejo skyline, which can be seen from the Hunter Hill Rest Area. Views of the Project Site from the surrounding vicinity consist of hilly, sloping terrain, surrounded by dense commercial and residential developments, roadways, and open space.

The City of Vallejo aims to protect important views and encourage attractive development visible from the freeways. To achieve this, the City focuses on maintaining and enhancing views from I-80 and Highway 37. Furthermore, the City has established zoning regulations to preserve scenic views from residential neighborhoods on hills.

Due to the urban setting of the Project Site to the south and west, sources of light in the vicinity are numerous. These light sources include traffic on I-80, Highway 37, and Columbus Parkway, as well as surrounding commercial and residential developments.

3.13.3 Impacts

Assessment Criteria

Impacts related to visual resources would be considered significant if the alternative were to degrade or diminish the aesthetics of visual resources such as scenic vistas or designated scenic areas, introduce

Esri Community Maps Contributors, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census

FIGURE 3.13-1
AERIAL OVERVIEW

lighting that would substantially increase the nighttime lighting in the area, and/or cast a shadow on private residences or public areas for substantial portions of the day.

Alternative A – Proposed Project

Operational Impacts

The land uses proposed under Alternative A are described in **Section 2.1.2**, including architectural design, signage, lighting, and other visible features. Alternative A would substantially alter the visual character of the Project Site through grading activities and by converting open space into a casino, restaurants, tribal housing, a tribal administration building, and associated parking and infrastructure. The most visually dominant feature of Alternative A would be the main facility, which includes the casino, event center, and self-parking levels on the top floors with a maximum height elevation of 139 feet. As shown in **Figures 2.1-2** and **2.1-3**, the casino facility would be built onto and around the existing hillsides of the site with the western side of the building reaching a maximum height of approximately 108 feet above ground level and the eastern side of the building having a maximum height of approximately 51 feet above ground level.

The main facility is designed as a low, horizontal building with tan and brown earth-toned colors that blend into the surrounding landscape. Its textured façade faces the freeway, enhanced by vertical elements and glass features that break up the horizontal lines. This enhances the visual interest while reducing the building's perceived size. Rooftop parking facilities have been incorporated into the lower and upper floors of the building, avoiding the need for large surface parking areas and conversion of additional open space. Additionally, green roof elements further integrate the structure into its natural surroundings. The architecture of the facility would incorporate natural materials and colors to integrate the buildings with the natural characteristics of the site and surrounding areas.

Figure 3.13-1 includes a viewpoint map, and **Figure 3.13-2** through **Figure 3.13-5** include photos of the existing conditions at the Project Site compared to a simulation of proposed conditions with implementation of Alternative A. As shown therein, views of undeveloped open space areas in the central portion of the Project Site would change to modern commercial development. Views from I-80 and Columbus Parkway would be substantially altered, though the development would be compatible with existing commercial development south of the Project Site. Alternative A includes an approximately 45-acre preserve area in the northeastern areas of the site that would preserve views of open space habitat within the higher elevations of the Project Site in the northeast. Further, no development would occur along the western boundary of the site near I-80, and hillsides along I-80 would effectively block most views the proposed tribal housing and administration areas and the casino. Development proposed under Alternative A would not block long range views of Sulphur Springs Mountain, nor would it impede existing views of the Vallejo skyline. Grading activities would alter existing grades within the Project Site. Alterations to topography associated with proposed tribal housing and administration structures would be visible from viewsheds located along I-80, although would be mostly screened by intervening hillsides between the freeway and the proposed development. Grading activities in the southwestern corner of the Project Site associated with the fill borrow area (see “excavation area” on **Figure 2.1-6**) would substantially alter the appearance

SCOTTS VALLEY RESORT | View from Admiral Callahan Lane/Automall Parkway Intersection - BEFORE

Steelman Partners℠

SCOTTS VALLEY RESORT | View from Admiral Callahan Lane/Automall Parkway Intersection - AFTER

Steelman Partners℠

Source: STEELMAN PARTNERS 2014

FIGURE 3.13-2

VISUAL SIMULATION OF ALTERNATIVE A - VIEWPOINT 1

Source: STEELMAN PARTNERS 2024

FIGURE 3.13-3

VISUAL SIMULATION OF ALTERNATIVE A - VIEWPOINT 2

SCOTTS VALLEY RESORT | View from Hunter Hill Rest Area - BEFORE

Steelman Partners℠

SCOTTS VALLEY RESORT | View from Hunter Hill Rest Area - AFTER

Steelman Partners℠

Source: STEELMAN PARTNERS 2024

FIGURE 3.13-4

VISUAL SIMULATION OF ALTERNATIVE A - VIEWPOINT 3

SCOTTS VALLEY RESORT | View from Neighborhood - BEFORE

Steelman Partners℠

SCOTTS VALLEY RESORT | View from Neighborhood - AFTER

Steelman Partners℠

Source: STEELMAN PARTNERS 2024

FIGURE 3.13-5

VISUAL SIMULATION OF ALTERNATIVE A - VIEWPOINT 4

of landforms in this area, but the existing hills that would be altered are not in their natural configuration and are not considered scenic visual resources.

The implementation of design features described in **Section 2.1**, including the 45-acre preserve and development buffer around the perimeter of the site, would ensure that Alternative A does not diminish scenic vistas or designated scenic areas in the vicinity of the Project Site. Visual impacts resulting from Alternative A would be less than significant.

Lighting, Shadow, and Glare

Given the distance and development buffers around the perimeters of the Project Site, the buildings on the Project Site would not be close enough to cast shadows on any private residences or public areas. Therefore, impacts associated with shadows would be less than significant.

Alternative A would introduce new sources of light and glare into the existing setting. While the Project Site itself does not contain sources of nighttime lighting, existing sources of nighttime lighting in the project area are numerous. Exterior lighting would be integrated into components of the architecture and would be strategically positioned to minimize off-site lighting and any direct sight lines to the public. The lighting associated with Alternative A would constitute an increase over the existing ambient light levels on the Project Site; however, the lighting would be consistent with the surroundings, and Alternative A would include exterior lighting that will be designed in accordance with the International Dark-Sky Association's Model Ordinance as described in the BMPs listed in **Table 2.1-4**. Alternative A would be generally consistent with the development standards related to lighting in Section 16.506.04 of the City's Municipal Code, although once the property is taken into federal trust, City regulations and zoning would no longer apply. The FHWA provides best practices regarding the design of structures built near highways, including the use of low-sheen and non-reflective surface materials. These practices have been incorporated into the project BMPs listed in **Table 2.1-4** for all structures visible from I-80, ensuring that the new light sources introduced by Alternative A would not substantially alter the existing setting. Therefore, impacts from lighting and glare would be less than significant.

Alternative B – Reduced Intensity Alternative

Effects on viewsheds surrounding the Project Site under Alternative B would be similar to those discussed under Alternative A but reduced due to the elimination of the tribal housing and administration buildings in the northern portion of the Project Site. Therefore, Alternative B would result in decreased impacts to visual resources as compared to Alternative A. With the implementation of the BMPs in **Table 2.1-4**, Alternative B would not interrupt or substantially alter local views or create sources of glare or excessive nighttime illumination. Visual impacts would be less than significant.

Alternative C – Non-Gaming Alternative

Effects on viewsheds surrounding the Project Site under Alternative C would be reduced as compared with Alternatives A and B. As discussed in **Section 2.2**, Alternative C would include a commercial center, two hotels, tribal housing, and tribal administration building, but no casino would be developed. As discussed in **Section 0**, architecture, signage, lighting, and landscaping design under the Alternative C would be similar to Alternatives A and B except the overall scale of the proposed development would be less. With the implementation of the BMPs in **Table 2.1-4**, Alternative C would not interrupt or substantially alter local views or create sources of glare or excessive nighttime illumination. Visual impacts would be less than significant.

Alternative D – No Action Alternative

Under Alternative D, the Project Site would remain under the jurisdiction of the City and no development would occur on the Project Site. Therefore, visual resource impacts would not occur under this alternative.

3.14 INDIRECT AND GROWTH-INDUCING EFFECTS

Under NEPA, indirect and growth-inducing effects of the Proposed Project must be analyzed (40 CFR § 1508.8[b]). The CEQ Regulations define indirect effects as effects that are caused by the action and are later in time or further removed in distance but are still reasonably foreseeable.

3.14.1 Indirect Effects

Off-Site Improvements

Alternatives A, B, and C would result in the following off-site improvements:

- **Traffic Mitigation:** As described in **Section 4**, traffic mitigation for Alternatives A and B under Opening Year 2028 conditions and Alternative C under Cumulative 2045 conditions consists of widening Columbus Parkway at the Columbus Parkway/Admiral Calahan Lane/Project Site entrance intersection to provide for a dual eastbound left turn movement and signal phasing adjustments.
- **Off-Site Water, Wastewater and Recycled Water Improvements:** As described in **Section 2.1.6**, Under Wastewater Option 1, wastewater treatment would be provided by the VFWD through connection to an existing 12-inch sewer collection pipeline in Columbus Parkway. The pipelines are assumed to be in areas currently within developed right-of-way. Downstream sewer improvements may be needed to accommodate the increase in flows from the project alternatives. Additionally, Under Wastewater Option 2, approximately 136 AFY would be available for off-site irrigation subject to federal, State, and local regulations. Recycled water users could include one or more of those identified in the WRFP shown on **Figure 2.1-5**. Recycled water irrigation would involve the construction of a buried pipeline connecting the on-site WWTP to the off-site use area.

Off-site traffic mitigation and pipelines would require obtaining approvals and permits from the City of Vallejo and the State Water Resources Control Board (SWRCB) and may be subject to the CEQA, which requires additional environmental review prior to approval. Implementation of permitting and CEQA requirements would further reduce the potential for significant adverse impacts from off-site construction projects.

On-site Improvements

As described in **Section 4**, if the Tribe does not enter into a service agreement with the Vallejo Police Department, Solano County, or the Vallejo Fire Department or another fire district/department to provide service to Alternative A, B, or C, the Tribe will establish, equip, and staff a police station/fire department on the Project Site. They will follow the certification and standards of the BIA and will be staffed at all times. The police station/fire department will be located by the access area to the Project Site, in an area devoid of sensitive environmental resources such as wetlands. The police station/fire department will be built to IBC standard and follow the BMPs listed in **Section 2.1.7**.

Indirect Effects

Indirect Effects from the implementation of off-site and on-site improvements are discussed in **Table 3.14-1**

Growth-Inducing Effects

The growth-inducing analysis below conservatively focuses on Alternative A because Alternative A would result in the highest generation of employment and utility demands. Growth-inducing effects of Alternative B would be very similar to Alternative A. Alternative C effects would be less than under Alternative A.

Alternative A would employ an estimated 3,640 individuals (**Table 3.7-5**), with the vast majority of these workers currently residing within Solano County and those portions of adjacent counties that are within commuting distance. As separately analyzed in the *Housing* section above, direct employment positions at Alternative A would result in the in-migration of approximately 142 new households to Solano County. Total employment positions stimulated by Alternative A operations (including indirect and induced jobs) would result in in-migration of an estimated 233 households, which would absorb approximately 3.3% of vacant housing units in the County.

Direct, indirect, and induced economic output from the operations of Alternative A is estimated at approximately $1.3 billion during the second full year of operations (**Table 3.7-6**). Most of this economic output would accrue to residents and businesses located in Solano County. The indirect and induced output resulting from operations emanate from economic activities of suppliers, vendors and employees and have a ripple effect in the regional economy. These categories are estimated at approximately $368 million during 2029, some of which would accrue to residents and businesses located in Solano County. This indirect and induced output could stimulate further commercial growth; however, such demand would be relatively small in the context of the County economy and would be diffused and distributed among a variety of different sectors and businesses in the County and State. In addition, because employees would be drawn from the entirety of Solano County and adjacent counties, induced growth caused by employment effects would be broadly diffused in the region. Induced growth in the immediate vicinity of the Project Site is anticipated to be minor because there is not a substantial residential element. Most of the adjacent land uses are commercial, undeveloped land and transportation (I-80).

For the reasons described above, significant RC growth inducing impacts would not be anticipated to occur under Alternatives A, B and C. **1**

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Table 3.14-1: Indirect Effects of Off-Site and On-Site Improvements

Issue Area	Off-Site Improvements	On-Site Improvements
Land Resources	Off-site roadway improvements and pipelines may require grading and/or the introduction of fill material. Potential impacts include geological hazards and increased potential for soil erosion due to the increase of impervious surfaces and additional earthwork needed to construct the improvements. Stable fill material, engineered embankments, and erosion control features would be used to reduce the potential for slope instability and erosion in accordance with requirements imposed by the City. In accordance with the federal CWA, any construction over one acre in area would be required to comply with the National Pollutant Discharge Elimination System (NPDES) permit program. A SWPPP would be developed, including 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. Under the CWA, sites less than one acre would still be prohibited from discharging sediments and other pollutants to off-site waterways. With compliance with the CWA, standard construction practices and specifications required by the jurisdictional agencies, and the NPDES General Construction Permit for activities over one acre in size, indirect effects would be less than significant.	The police/fire department would be developed on-site by the Project Site entrance outside of existing landslide areas and would be included in the SWPPP prepared for the rest of the project development. With adherence to regulatory requirements and BMPs described in **Table 2.1-4**, impacts associated with Land Resources would be less than significant.
Water Resources	As discussed above, adherence to the CWA, NPDES General Construction Permit for activities over one acre in size, California Title 22 standards and standards for drainage facilities, indirect effects would be less than significant. Off-site irrigation water would be treated to California Title 22 standards and thus would not result in a reduction in the quality of surface or groundwater. The use of recycled water for irrigation of off-site areas would result in an overall decrease in the amount of water demand in the City. Indirect effects to water resources from off-site irrigation with recycled water would be less than significant.	The police station/fire department will be located on-site by the Project Site entrance, in an area devoid of sensitive environmental resources such as wetlands and would be included in the SWPPP prepared for the rest of the project development. With adherence to regulatory requirements and BMPs described in **Table 2.1-4**, impacts associated with Land Resources would be less than significant.
Air Quality	Off-site improvements would result in short term, construction-related air pollutant emissions. Construction would produce two types of air contaminants: exhaust emissions from construction	Construction of the police station/fire department would slightly increase the construction emissions described in **Section 3.4.3**; however, as shown in **Table 3.4-4** the construction emissions are

Issue Area	Off-Site Improvements	On-Site Improvements
	equipment and fugitive dust generated as a result of demolition and soil movement. Construction of improvements would be limited in scope and duration. The limited nature of roadway improvement and pipeline construction activities, combined with adherence to applicable BAAQMD rules and regulations, would result in less-than-significant indirect effects to air quality. Construction of off-site improvements would be much less extensive than that of the alternatives; correspondingly, GHG emissions would be less extensive as well. Given the limited and temporary nature of off-site improvement construction activities, GHG emissions would be less than significant. It is expected that the roadway improvements described in **Section 4** would reduce congestion and improve traffic flow. With the improved circulation resulting from traffic mitigation, LOS would be improved, thereby reducing idling time and associated vehicle emissions. Therefore, operational effects to air quality from roadway improvements would be less than significant.	well under de minimis levels. Therefore, the additional construction emissions from the police station/fire department would not result in significant adverse effects associated with the regional air quality environment. Operational emissions from the police station/fire department slightly increase the operation emissions described in **Section 3.4.3** as the facility would be primarily addressing issues on the Project Site. However, as shown in **Table 3.4-5** the construction emissions are well under de minimis levels. Therefore, the additional operational emissions from the police station/fire department would not result in significant adverse effects associated with the regional air quality environment
Biological Resources	Off-site improvements are anticipated to primarily impact previously disturbed areas. Due to the degraded condition of the roadside areas, habitat quality is generally low, and it is unlikely that construction of the roadway improvements would result in any indirect effects to sensitive plant or animal species. The off-site pipelines are anticipated to be constructed in areas within existing rights-of-way and thus generally not considered sensitive habitat. Adherence to State and federal requirements that protect special status species, nesting birds, and waters of the U.S., would ensure that impacts to biological resources from construction of off-site improvements would be less than significant.	The police station/fire department will be located on-site by the Project Site entrance in an area devoid of sensitive environmental resources such as wetlands. This area currently contains pasture and ruderal/developed areas. Sensitive biological resources are discussed in **Section 3.5**. Similar to the project alternatives, with the implementation of BMPs described in **Table 2.1-4** and mitigation in **Section 4**, impacts to biological resources would be less than significant.
Cultural Resources	As discussed for biological resources, off-site improvements would primarily impact previously disturbed areas. It is likely that any cultural resources remaining in these areas would be highly disturbed and lack integrity, thus diminishing their significance. Potential off-site improvement projects would be subject to the protection of cultural resources afforded by CEQA Guidelines	Cultural resources on the Project Site are discussed in **Section 3.6**. Similar to the project alternatives, with the implementation of BMPs described in **Table 2.1-4** and mitigation in **Section 4**, impacts to cultural resources would be less than significant.

Issue Area	Off-Site Improvements	On-Site Improvements
	§15064.5 and related provisions of the Public Resources Code. Therefore, a less-than-significant indirect effect to cultural resources would result.	
Socioeconomic Conditions	Traffic mitigation and the installation of pipelines within roadways, could 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 significant adverse socioeconomic effects. The improvements would not result in the long-term disruption of access to the surrounding land uses or to minority or low-income populations. Therefore, no significant indirect effects related to socioeconomic conditions would occur as a result of off-site improvements.	Construction and operation of the police station/fire department would not have socioeconomic effects on the surrounding communities as it would be developed on trust land and operated by the Tribe.
Transportation/ Circulation	Traffic mitigation and the installation of utilities within roadways could result in short term inconveniences and minor delays due to constricted traffic movements, but these are not expected to result in long term disruptions of access to the surrounding land uses. If construction activities would require temporary lane closures to accommodate construction equipment, a traffic management plan would be prepared in accordance with the jurisdictional agency requirements, thus avoiding potentially significant impacts from construction. Roadway widening would improve operational conditions/LOS along Columbus Parkway (Auto Mall Parkway) and thus there would be no significant impacts following construction.	Operational traffic from the police station/fire department would slightly increase the operation traffic described in **Section 3.8.2** as the facility would be primarily addressing issues on the Project Site. Similar to the project alternatives, with the implementation of mitigation in **Section 4**, impacts to roadways would be less than significant.
Land Use	Construction of roadway improvements is not anticipated to conflict with the surrounding land uses. Right-of-way acquisition for the improvements may be required. Adjacent property owners would be compensated at fair market values for land needed for rights-of-way. The improvements would not result in land use changes inconsistent with the General Plans or other guiding documents. For these reasons, roadway improvements would not result in significant effects to land use. Construction of the off-site pipelines and subsequent operation is not anticipated to have land use effects.	Development of the police station/fire department would be consistent with surrounding land uses as there is an existing fire station (Station #27) located immediately east of the Project Site.

Issue Area	Off-Site Improvements	On-Site Improvements
Public Services	Construction of off-site improvements may require relocation of utilities, including overhead electricity lines and telecommunication lines. Relocation of these lines could result in a temporary break in service to some homes and businesses in the area. However, because these effects are common when upgrading and maintaining utility services, and because potential service breaks would be temporary, these effects are considered less than significant.	Development of the police station/fire department would slightly increase the water demand, wastewater generation rates, and energy and natural gas demands described in **Section 3.10.2**. Similar to the project alternatives, with the implementation of BMPs described in **Table 2.1-4** and mitigation in **Section 4**, to these public services would be less than significant. No impact would occur to law enforcement and fire protection services.
Noise	Construction of off-site improvements would result in short-term increases in local ambient noise levels. Construction would be required to adhere to City noise requirements, which generally limit activities to daytime hours. As such, noise impacts would be less than significant.	Sensitive receptors near the Project Site and potential noise effects from construction are discussed in **Section 3.11**. Similar to the project alternatives, with the implementation of BMPs described in **Table 2.1-4**, impacts relating to noise would be less than significant.
Hazardous Materials	The accidental release of hazardous materials used during grading and construction activities could pose a hazard to construction employees, surrounding residents, and the environment. Additionally, equipment used during grading and construction activities could ignite dry grasses and weeds along the roadside. These hazards, which are common to construction activities, would be minimized with adherence to State and federal statutes overseeing hazardous materials transportation. For construction improvements that exceed one acre of land, the NPDES General Construction Permit Program would be applicable, including the development of a SWPPP. The SWPPP would include measures to reduce the potential for hazardous releases and protocol for handling hazardous materials releases. As such, potential indirect impacts from the construction of off-site improvements would be less than significant.	Hazardous Materials on the Project Site are discussed in **Section 3.12**. Similar to the project alternatives, with the implementation of BMPs described in **Table 2.1-4** and mitigation in **Section 4**, impacts relating to hazardous materials would be less than significant.
Aesthetics	Visual effects from the off-site traffic improvements would be minimal as they would occur on existing roadways and would conform to applicable City design standards; therefore, indirect impacts related to aesthetics would be less than significant. The off-site pipelines would be underground and would not result in visual effects.	Development of the police station/fire department would be consistent with surrounding development as there is an existing fire station (Station #27) located immediately east of the Project Site. Similar to the project alternatives, with the implementation of BMPs described in **Table 2.1-4**, impacts relating to aesthetics would be less than significant.

3.15 CUMULATIVE EFFECTS

This section assesses the potential for the project alternatives to contribute to "cumulative" environmental impacts. Cumulative impacts are defined by the CEQ as effects "on the environment which result from the incremental effect of the action when added to other past, present, and reasonably foreseeable future actions". For the purposes of this analysis, the cumulative setting includes growth and development envisioned in the City of Vallejo General Plan 2040, Solano County General Plan. A cumulative year horizon of 2045 was used consistent with the Solano Napa Activity Based Model (SNABM), which is used to predict traffic patterns in the region. The cumulative setting also includes major development projects in the City. Key major development projects within a one-mile radius include but are not limited to those listed in **Table 3.15-1.** In addition, the cumulative analysis considered major gaming related developments in northern California, including those described in **Appendix A**. Cumulative impacts for each environmental issue area are discussed below. Unless otherwise specified, the following analysis applies to Alternatives A, B and C, referred to collectively as project alternatives or the development alternatives.

Table 3.15-1: Cumulative Projects

Project Name	Distance from the Project Site (miles)	Project Location	Project Description	Project Status
Costco Fairview	0.67 miles to south	East of Admiral Callaghan Lane south of Turner Parkway and north of Rotary Way	Relocation and expansion of the Costco center, new residential, open space, and new commercial	Approved. Draft Building Permits and Public Improvements in Review.
Solano 360	0.25 miles to southwest	County Fairgrounds, west of I-80 and south of Highway 37	Redevelop the site to include a mixture of uses, including reconfiguration and redesign of the County fairgrounds, creation of new commercial development and open space, and creation of new housing	County in negotiations with development partner; review of revised proposal is currently on hold

Source: City of Vallejo, 2024d

3.15.1 Land Resources

Approved developments would be required to follow applicable permitting procedures and development codes. Local permitting requirements for construction would address regional geotechnical and topographic conflicts, seismic hazards, and resource extraction availability. In addition, the project alternatives and all other developments that disturb one acre or more must comply with the requirements of the NPDES Construction General Permit. Adherence to this permit would lessen the probability of significant erosion occurring regionally. The project would develop a project-specific SWPPP with BMPs for stormwater and erosion to lessen its potential impacts with regards to these environmental issue areas. Therefore, implementation of the project alternatives would not result in significant cumulative impacts to land resources.

3.15.2 Water Resources

Stormwater discharges from developed sites could increase the chance of downstream pollution and flooding, and runoff characteristics of a watershed are altered when impervious surfaces replace natural vegetation. However, the majority of the surrounding landscape is already developed, and other development projects would be required to meet applicable City and/or federal standards, including site-specific SWPPPs for projects greater than once acre in size. Further, the project alternatives include treatment and detention to limit off-site stormwater flows to pre-development levels. Therefore, implementation of the project alternatives in combination with other cumulative development would not result in significant cumulative effects to surface water and flooding. As discussed in **Section 3.3**, the City has evaluated their surface water resources and found out to a cumulative year horizon of 2045 that sufficient water sources remain within permitted water diversions. Therefore, cumulatively adverse impacts to surface water supplies would not occur.

3.15.3 Air Quality

Operation Emissions

By its very nature, air pollution is largely a cumulative impact. Other cumulative projects identified in **Table 3.15-1** have the potential to result in significant emissions of CAPs. The Environmental Impact Report for the Costco Fairview project identified significant and unavoidable mobile NOx emissions during operation with all other emissions being less than significant (City of Vallejo, 2020). As described in **Section 3.4.3**, emissions of all CAPs are below de minimis levels and therefore would not contribute to exceedances of NAAQS or alter the existing trend of improving air quality. In the cumulative year 2045, operational emissions are expected to decrease due to improved vehicle fuel efficiency technology and stricter federal and State regulations. Likewise, the transition to EVs is further reinforcing the trend of improving air quality. As identified in **Table 2.1-4**, the project alternatives include measures to reduce emissions of CAPs in support of improving regional air quality. Cumulative air quality effects from operation of the project alternatives would be less than significant.

Hazardous Air Pollutants

As described in **Section 0**, construction and operational sources of DPM emission would be less than significant and would be further reduced by implementation of BMPs identified in **Table 2.1-4**. Additionally, as identified in **Section 3.4.2**, based on a review of BAAQMD's Stationary Source Screening Map (BAAQMD, 2022a), there are no significant industrial or other stationary sources in the vicinity of the Project Site that could significantly combine with on-site and mobile emissions. Cumulative HAP emission impacts would be less than significant.

Climate Change

Development of Alternatives A, B, and C would result in an increase in GHG emissions from construction, mobile sources (trips generated), stationary and area sources (components that directly emit GHG), and indirect sources related to water usage and energy production. **Table 3.15-2** estimates total GHG emissions for Alternatives A, B, and C. Operational GHG emissions per year are estimated to be approximately 36,528, 33,121, and 5,223 metric tons (MT) CO2e for Alternatives A, B, and C, respectively.

Table 3.15-2: Greenhouse Gas Emissions

Emission Source	Alternative A MT of CO2e	Alternative B MT of CO2e	Alternative C MT of CO2e
Construction (Total)			
Construction	3,422	3,951	969
Operation (Annual)			
Mobile	28,676	25,386	4,211
Area	0.4	0.0	0.9
Energy	6,947	6,847	685
Water/Wastewater	206	199	56.4
Solid Waste	183	175	105
Refrigerant	0.1	0.0	36.7
Stationary	514	514	129
Operation Total	36,528	33,121	5,223

Notes: CO2e = carbon dioxide equivalent; MT = metric tons. Operation totals may not equal sum of sources due to rounding. Source: **Appendix G**

The cost estimates for carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) used in this analysis are based on the 3% discount rates provided by IWG (2021). **Table 3.15-3** presents the social cost of the GHG emissions from construction, annual operations, and the lifetime of the project alternatives (lifetime costs include construction and 30 years of operation) (refer to **Appendix E** for a discussion of the social cost of carbon).

As shown in **Table 3.15-2**, approximately 79% of the operational GHG emissions would come from indirect mobile emissions from delivery, patron, and employee vehicles. The federal government and the State of California have enacted measures that would reduce GHG emissions from mobile sources. These include increasing fuel efficiency of vehicles and providing incentives for transitioning to EVs. As shown in **Table 3.15-3**, operational CO_2emissions of the alternatives would be reduced by approximately 15% by 2045.

To lessen project-related GHG emissions, BMPs have been provided in **Table 2.1-4**. Construction BMPs include minimization of equipment idling, use of environmentally preferable materials, and use of Tier 3 or greater engines in construction equipment. Operational BMPs would reduce indirect GHG emissions from electricity use, water and wastewater transport, and waste transport during operation. These BMPs include installation of energy efficient lighting, use of electric boilers and appliances, 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, installation of EV charging stations, and preferential parking for vanpools and carpools to reduce project-related trips. Therefore, with the implementation of BMPs, implementation of the project alternatives would not result in a significant adverse cumulative impact associated with climate change.

Table 3.15-3: Social Cost of GHG Emissions

GHG/Cost per metric ton	Alternative A		Alternative B		Alternative C	
	Tons	Cost	Tons	Cost	Tons	Cost
Construction (2027-2028)						
CO_2 / $60	3,319	$199,140	3,823	$229,380	952	$57,120
CH_4 / $1,880	0.11	$207	0.13	$244	0.04	$75
N_2O / $22,200	0.33	$7,326	0.41	$9,102	0.05	$1,110
Total Cost		$173,027		$153,173		$58,727
Operation (2029)						
CO_2 / $61	35,837	$2,186,057	32,515	$1,983,415	5,001	$305,061
CH_4 / $1,940	10.4	$20,176	9.9	$19,206	4.2	$8,148
N_2O / $22,600	1.32	$29,832	1.19	$26,894	0.25	$5,650
Total Cost		$2,236,065		$2,029,515		$318,859
Operation (2045)						
CO_2 / $79	30,632	$2,419,928	27,878	$2,202,362	4,243	$335,197
CH_4 / $2,800	10.0	$28,000	9.6	$26,908	4.1	$11,480
N_2O / $30,000	0.97	$29,100	0.87	$26,100	0.19	$5,700
Total Cost		$2,477,028		$2,255,370		$352,377
Lifetime						
CO_2	922,279.00	$72,796,980	840,163.00	$66,300,240	128,242.00	$10,113,030
CH_4	300.11	$840,207	288.43	$807,484	123.04	$344,475
N_2O	29.43	$880,326	26.51	$792,102	5.75	$172,110
Total Cost		**$74,517,513**		**$67,899,826**		**$10,629,615**

Notes: Social Cost of GHG emissions from IWG, 2021. Construction costs based on linear interpolated values for 2028. Operation costs (2029) based on linear interpolated values for 2029. Lifetime GHG emissions include construction emissions and 30 years of 2040 operational emissions. GHG emissions quantities are from **Appendix G**.

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 per AB 32. In the approximately 126 measures and strategies identified that would achieve a State-wide reduction in GHG emissions, only three would apply to the project alternatives: diesel anti-idling, achieve 50% State-wide recycling goal, and water use efficiency (refer to **Appendix E** for details). The other policies do not apply to the project alternatives because they either apply to particular industries, State entities, or are planning-level measures. The project alternatives would comply with applicable emission reduction strategies of the State through the BMPs described in **Table 2.1-4**.

The effect of climate change on the alternatives is also considered in this EA. As described above in **Appendix E**, the average temperatures in the State will increase. On the local levels, the region has already experienced severe weather events caused by climate change that includes droughts, wildfires, and flooding. The project alternatives include components that would lessen their vulnerability to the impacts from climate change. On-site heating and air conditioning will lessen the effects of increasing temperatures and frequency of extreme heat days or extreme weather conditions. The Project Site is not

located near the sea and is therefore not susceptible to sea level rise risks. Emergency services sufficiently service the Project Site and surrounding area due to being in a primarily developed region with paved areas. While wildfire risk exists and would be exacerbated by climate change, the project alternatives have incorporated BMPs and mitigation measures to reduce their susceptibility to this risk (refer to **Section 3.12** for further discussion of wildfire risks.

3.15.4 Biological Resources

Although the project alternatives have the potential to impact protected aquatic habitats, wetlands and waters of the U.S., federally-listed species, and migratory birds, potential impacts would be reduced to a less-than-significant level with adherence to the conditions of applicable permits and implementation of BMPs in **Table 2.1-4** and mitigation measures in **Section 4**. Other development projects in the City of Vallejo consist of infill development and/or are separated from the Project Site by heavy development and major roadways. As these projects are largely infill, they occur in areas of poor-quality habitat that are either developed or ruderal in nature. Additionally, other development projects in the region would be required to implement similar mitigation measures to protect sensitive biological resources in accordance with federal, State, and local regulations. Therefore, with the implementation of mitigation measures specified in **Section 4**, development of the project alternatives would not contribute to significant adverse cumulative effects to biological resources.

3.15.5 Cultural Resources

Cumulative effects to cultural resources typically occur when sites that contain cultural features or artifacts or paleontological resources are disturbed by development. No known known historic properties that met the criteria for inclusion on the NRHP or paleontological resources were identified within the Project Site. Implementation of mitigation measures in **Section 4** would reduce potential impacts to unknown subsurface cultural resources on the Project Site to a less-than-significant level and other development projects in the region would be required to implement similar mitigation measures. Therefore development of the project alternatives would not contribute to significant adverse cumulative effects to cultural resources.

3.15.6 Socioeconomic Conditions and Environmental Justice

Project alternatives, in combination with the projects outlined in **Table 3.15-1** would result in generally beneficial socioeconomic effects associated with economic output, job creation, and fiscal effects. Any future non-tribal development in the vicinity would be subject to City or County review and approval, payment of state and local taxes, and development impact fees as appropriate to offset fiscal effects. Cumulative effects related to problem gambling would be less than significant due to the substantial number of casinos that already exist in the region. These existing facilities provide multiple gaming opportunities to people at risk of problem gambling. With mitigation, the project alternatives, when considered in combination with other projects, would not lead to significant adverse cumulative impacts associated with the economy and employment, property values, social effects, or environmental justice.

Direct substitution effects related to the operations of Alternatives A and B are analyzed in **Section 3.7**. The overall reduction in revenue from Alternatives A and B, in combination with cumulative gaming related projects, including but not limited to the proposed expansions at the Graton Casino, River Rock Casino, and Sky River Casino, as well as the development of new tribal gaming facilities, including the Koi Nation Casino and Cloverdale Casino, will generally result in more competition in the market, and greater

effects to revenues at existing gaming facilities than would otherwise occur under circumstances where no expansion of gaming facilities would occur. The combined cumulative effect of future gaming expansion projects to existing facilities will be greater than the direct effects of Alternatives A and B shown in **Table 3.7-9** but will also be influenced by other factors such as population and economic growth. Financial information for these facilities would be necessary to estimate the ability of each one to remain open or to expand under cumulative circumstances. Such financial information is not publicly available. While the combined cumulative effects to certain gaming facilities may be adverse and result in facility closure, the contribution of Alternative A and B to these effects is not considered to be significant based on the projected declines described in **Section 3.7**.

3.15.7 Transportation and Circulation

Study Intersections

The TIA assessed the cumulative roadway operations in the Year 2045 Conditions scenario or the study intersections discussed in **Section 3.8**. This scenario expands traffic volumes in Existing Conditions using an annual growth rate of 1% derived from the SNABM and recent traffic studies, and it accounts for foreseeable planned and approved projects.

The study intersections would continue to operate under acceptable LOS conditions during a.m. and p.m. peak weekday (Tuesday and Thursday) hours for the Year 2045 Conditions and Year 2045 plus Project conditions for Alternatives A, B, and C (Tables 9, 14 and 15 of **Appendix K**, respectfully).

Friday evening concert/special event traffic capacity conditions were analyzed based on full event capacity of 2,500 guests, with an average of 2.21 persons per vehicle (**Appendix K**). The TIA assumed that 80% of pre-event traffic would occur during the Friday p.m. peak hour. Additionally, trip generation from the casino was increased by 9% to account for Friday conditions based on trip generation data from another recent casino study. A table presenting the Friday trip generation can be seen in a technical appendix to **Appendix K**. As shown in Tables 11 and 12 of **Appendix K**, Friday p.m. peak intersection conditions for Year 2045 Conditions and Year 2045 plus Project for Alternatives A, B and C would operate within acceptable LOS with the exception of Columbus Parkway (Auto Mall Parkway) at Admiral Callaghan Lane and the Project entrance (Intersection #1). A mitigation measure has been included in **Section 5** for Alternative C for the widening of Columbus Parkway (Auto Mall Parkway) in the year 2045 to reduce this cumulative impact. For Alternatives A and B, this same measure has already been included as mitigation for a similar impact identified during the Opening Year 2028 plus Project scenarios (see **Section 3.8** for additional details). With mitigation, this impact would be reduced to less than significant.

Under cumulative conditions, the storage capacities at Intersection #1 for eastbound, westbound, and northbound traffic would be exceeded under Alternatives A, B, and C. This could create safety problems if the queue lengths were to extend back into the SR 37/I-80 interchange, resulting in a potentially significant impact for Alternatives A, B, and C (see Section 4 of **Appendix K** for additional details). Storage capacities would also be exceeded at two other study intersections near the Redwood Road/I-80 Interchange (Intersection #5 and #13), but these exceedances would occur with or without the alternatives and the queue length increases would not be significant enough to cause unsafe conditions. Mitigation has been included in **Section 5** for the payment of regional traffic impact fees used to fund regional capital transit and roadway improvement projects, such as the ramp improvements to the Redwood Parkway/I-80 interchange. This mitigation measure in combination with the measure to widen Columbus Parkway would reduce the impact to less than significant for Alternatives A, B, and C.

The project alternatives are not anticipated to affect the development of bicycle, pedestrian, and transit networks or create significant demands on these networks. Thus, cumulative impacts would be less than significant.

3.15.8 Land Use

If taken into federal trust, the Project Site would generally not be subject to local jurisdiction regarding land uses. Planned development in the vicinity, including several projects to the west of the Project Site noted in **Table 3.15-1,** would be subject to City or County land use regulations and approval. Therefore, cumulatively significant impacts to land use and agricultural uses would not occur.

3.15.9 Public Services

The City and County's respective General Plan has evaluated projected growth and public service needs, and future projects would be subject to approval by local governments. The project alternatives may rely on public services related to water supply and wastewater. As discussed in **Section 3.10**, the City has evaluated their surface water resources and found out to a cumulative year horizon of 2045 that sufficient water sources remain within permitted water diversions. Additionally, the Vallejo WWTP has capacity to serve future buildout and VFWD SSCSMP identifies several improvements to wastewater mains, pump stations, and storage tanks for rehabilitation, replacement, or capacity increases to accommodate future buildout. Any improvements to water and wastewater infrastructure from cumulative buildout would be funded in part through connection and service fees. The project alternatives would not significantly increase the population in the City, and therefore they would not impact schools and parks. Increased demand for law enforcement and fire protection services resulting from cumulative developments may require additional facilities, equipment, or employees. Mitigation measures in **Section 4** would require that project-related fiscal effects resulting from increased demands on law enforcement and fire protection providers would be offset through compensation payments. New development, including the cumulative projects listed in **Table 3.15-1**, would fund in part public services, including law enforcement, through development fees and property tax. The State has adopted a Climate Change Scoping Plan that identifies the goal of achieving a 50% State-wide recycling rate, which would cumulatively reduce landfill demands. Therefore, development on the Project Site in combination with other cumulative development would not result in significant cumulative effects to public services.

3.15.10 Noise

To assess the operational impacts of Alternative A and the other alternatives in the planning horizon of 2045, similar methodology for the noise analysis in **Section 3.11.3** was utilized. Since Alternative A would result in the worst-scenario cumulative impacts compared to the other alternatives, which would each result in less adverse effects, Alternative A is analyzed in this cumulative analysis in detail. However, for a full analysis of each alternative, including Alternative A, refer to **Appendix L**. **Table 3.15-4** summarizes the modeled traffic noise levels under Alternative A at the nearest sensitive receptors along each roadway segment in the Project area for the cumulative year 2045.

Table 3.15-4: 2045 Traffic Noise Increases - Cumulative and Project-Related (L_{dn})

Roadway	Segment	Existing no Project	Existing + Project	Change
Auto Mall Parkway	East of Project Access	48.8	48.6	-0.2
Auto Mall Parkway	West of Project Access	54.8	55.0	0.2
N Ascot Parkway	South of Auto Mall Parkway	54.8	55.0	0.2
Auto Mall Parkway	East of Ascot Court	45.9	46.2	0.3
Columbus Parkway	West of Redwood Parkway	57.1	57.4	0.3
Columbus Parkway	East of Redwood Parkway	57.9	58.2	0.3
Redwood Parkway	South of Columbus Parkway	52.5	52.5	0.0
Admiral Callaghan Lane	East of Autoclub Way	49.5	49.7	0.2
Plaza Drive	South of Admiral Callaghan Lane	50.8	51.0	0.2
Turner Parkway	East of Admiral Callaghan Lane	64.3	64.4	0.1
Admiral Callaghan Lane	South of Turner Parkway	59.0	59.3	0.3
Turner Parkway	East of Plaza Drive	57.1	57.1	0.0
Redwood Parkway	West of Ascot Parkway	60.7	60.8	0.1
Oakwood Avenue	South of Redwood Parkway	58.5	59.4	0.9

The roadway segment with the highest existing traffic noise level is Turner Parkway east of Admiral Callaghan Lane, with an L_{dn} of 64.4. According to Table 13 and FICON guidance, an increase in traffic noise level of 3 dB or more is considered significant when pre-project noise levels are between 60 to 65 dB L_{dn}. Based on **Table 3.15-4**, the maximum predicted increase in traffic noise at the nearest sensitive receptor is 0.9 dBA. Therefore, impacts from increased traffic noise in the cumulative year 2045 are considered less-than-significant, and no mitigation is required.

3.15.11 Hazardous Materials and Hazards

There are no significant cumulative hazardous materials impacts associated with the project alternatives. There is the potential for impacts related to wildfire hazards in combination with other projects. New developments would be required to adhere to federal, State, and local building codes and fire protection codes and standards. As described in **Section 3.12.3**, with the implementation of project design features to reduce inherent wildfire risk **Table 2.1-4**, and mitigation measures in **Section 4**, construction or operation of the project alternatives would not increase wildfire risk onsite or in the surrounding area or inhibit local emergency response to or evacuation from wildfire. Therefore, the project alternatives would not contribute to cumulative impacts associated with wildfire.

3.15.12 Visual Resources

The project alternatives would be compatible with existing and planned commercial and residential development adjacent to the Project Site, as well as the Solano 360 specific plan that supports the development of the region as a regional entertainment destination. Any future non-tribal development in the vicinity would be subject to City or County review and approval. Therefore, development of the project alternatives in combination with other cumulative development would not result in significant cumulative effects to visual resources.

Section 4 | Mitigation Measures

NEPA requires that, if a project would have significant adverse effects on the environment, mitigation for those impacts must be identified. Mitigation measures to be implemented during construction and operation of the alternatives are summarized in table below. All mitigation is enforceable because it is (1) inherent to the project design; and/or (2) or required by federal or tribal regulations.

Resource Area	Proposed Mitigation	Alternative
Biological Resources	The following measures shall be implemented to minimize or avoid impacts to waters of the U.S.: A. Potential waters of the U.S. shall be avoided to the extent feasible. Where roadways cross waters of the U.S., such designs shall be through free-spanning or similar methods where possible. B. If impacts to waters of the U.S. and wetland habitat are unavoidable, a 404 permit and 401 Certification under the CWA shall be obtained from the USACE and USEPA. Mitigation for loss of waters of the U.S. shall occur at a minimum 1:1 ratio through habitat creation, restoration, or purchase of USACE-approved credits. This may occur along the alignment of the re-routed drainage or within bioretention areas. All permit terms and conditions shall be adhered to. The following measures shall be implemented to avoid construction-phase take of northwestern pond turtle and CRLF: C. To ensure that CRLF and northwestern pond turtle are not present in construction areas, a qualified biologist shall conduct pre-construction clearance surveys. A qualified biologist is defined as a person who has the educational background, training, and work experience (handling experience and/or permits) required to perform a specific biological task and has been approved by the USFWS. If either of these species are discovered during the survey, project construction activities shall not begin until the species have voluntarily vacated the construction area or USFWS has been consulted and avoidance and minimization measures established and then implemented. D. As CRLF is not detectable during aestivation, the pre-construction survey shall occur during the wet season, after fall rains have commenced and before the conclusion of spring rains. Once the pre-construction surveys confirm that CRLF and northwestern pond turtle are not present, the construction crew shall immediately install animal exclusion fencing to separate construction areas from marshes and channels proposed for avoidance. The fencing shall be constructed out of plastic weed cloth or construction fabric, shall be keyed into the ground, and shall be supported by stakes and wire mesh, as needed. Fencing shall also be opaque, a minimum of three feet in height, and installed with a smooth material such that it cannot be climbed. A	A, B, C

Resource Area	Proposed Mitigation	Alternative
	qualified biologist shall oversee the installation of the exclusionary fencing to ensure its suitability. A qualified biologist shall also make regular inspections during the preconstruction period and during the construction periods when grading and other ground disturbance activities are occurring to ensure the integrity of the fence. E. All construction personnel shall receive worker environmental awareness training before they enter the construction site. The training program shall include, at a minimum, descriptions of the focal species (Callippe silverspot and monarch butterflies, CRLF, and northwestern pond turtle), and how to identify and avoid these focal species. Personnel shall be trained to halt work in the event that one of these focal species is observed within the work area and allow the individual to leave the work site on their own. Personnel shall be instructed to limit work activities to the designated construction areas and to properly store equipment and materials in the designated laydown area. A qualified biologist shall make regular inspections during the construction periods when grading and other ground disturbance activities are occurring to ensure BMPs are being adequately followed. The following measures shall be implemented to minimize impacts to CRLF and northwestern pond turtle: F. The development shall be designed such that culverts, free-span bridges, or similar will be installed where roadways cross drainages occur. Road crossings of drainages shall be designed such that CRLF and northwestern pond turtle can freely pass underneath proposed roadways. Additionally, a permanent barrier such as a curb shall be installed around the perimeter of paved areas, with the exception of points of access, to discourage CRLF and northwestern pond turtle from entering the built environment. Designs of the barrier shall be submitted to USFWS for coordination and approval. The following measure shall be implemented to provide compensatory mitigation for loss of CRLF aestivation habitat: G. Mitigation for the balance of impacted aestivation habitat shall be achieved through implementation of one or more of the options listed below. Anticipated mitigation ratios are provided below, and final mitigation ratios shall be determined in consultation with USFWS. <u>Option 1: Additional on-site preservation.</u> Additional suitable CRLF aestivation habitat is available within unimpacted lands within the Project Site. A portion or the totality of these areas could be added to the biological preserve. Mitigation achieved through the addition of lands into the biological preserve would be at a 3:1 ratio. Under this option, the Tribe shall protect the additional preserve lands via Tribal ordinance and a MOU with USFWS and the BIA. A	

Resource Area	Proposed Mitigation	Alternative
	management plan shall be adopted by the Tribe in consultation with, and approval by, the USFWS and BIA. Option 2: Purchase of mitigation credits. Credits shall be purchased at a USFWS-approved conservation bank such as North Bay Highlands Conservation Bank, Ohlone West Conservation Bank, Oursan Ridge Conservation Bank, or Ridge Top Ranch Wildlife Conservation Bank. Mitigation achieved through this method would be at a 3:1 ratio. Option 3: On-site habitat creation. Bioretention areas and areas of terrestrial habitat are available and could be utilized to make new pond habitat. The bioretention ponds or another artificial reservoir shall be created outside of waters of the U.S. The created habitat shall have a bottom drain or similar so that the created habitat can be dewatered for predator elimination in the event that bullfrogs colonize the new habitat. If the bioretention areas are utilized for CRLF, they shall be designed such that the water quality is not degraded and compromises amphibian population viability. A management plan shall be prepared for created habitat to ensure long-term funding and suitability of habitat. The management plan shall be approved by USFWS. Mitigation achieved through this method would be at a 2:1 ratio. Option 4: Establishment of an off-site biological preserve. Off-site lands with suitable habitat for CRLF shall be purchased. These lands shall be deed-restricted by a conservation easement or other enforceable protection instrument. Land may be transferred to a third party, such as a land conservancy. Funds shall be set aside for management of the preserve. A management plan shall be adopted by the Tribe in consultation with, and approval by, the USFWS and BIA. Mitigation achieved through this method would be at a 3:1 ratio. The following measure shall be implemented to provide compensatory mitigation for loss of Callippe silverspot habitat. H. Mitigation for the balance of impacted Callippe silverspot habitat shall be achieved through implementation of one or more of the options listed below. Compensatory mitigation for loss of host plant habitat shall be at a 3:1 ratio and shall only be through similar quality host plant habitat. Compensatory mitigation for loss of foraging habitat shall be at a 2:1 ratio for similar-quality foraging habitat and 1:1 for host plant habitat. Final mitigation ratios shall be determined in consultation with USFWS. Option 1: Additional on-site preservation. Additional suitable Callippe silverspot habitat is available within unimpacted lands within the Project Site. A portion or the totality of these areas could be added to the biological preserve. Under this option, the Tribe shall protect the additional preserve lands via Tribal ordinance and a MOU with USFWS and the	

Resource Area	Proposed Mitigation	Alternative
	BIA. A management plan shall be adopted by the Tribe in consultation with, and approval by, the USFWS and BIA. <u>Option 2: Purchase of mitigation credits</u>. Credits shall be purchased at a USFWS-approved conservation bank such as Ohlone West Conservation Bank or Ridge Top Ranch Wildlife Conservation Bank. <u>Option 3: Establishment of an off-site biological preserve.</u> Off-site lands with suitable habitat for Callippe silverspot shall be purchased. These lands shall be deed-restricted by a conservation easement or other enforceable protection instrument. Land may be transferred to a third party such as a land conservancy. Funds shall be set aside for management of the preserve. A management plan shall be adopted by the Tribe in consultation with, and approval by, the USFWS and BIA. The following measures shall be implemented to minimize or avoid operational impacts to Callippe silverspot and Monarch butterflies: I. Use of insecticides shall be prohibited; use of herbicides shall follow USFWS-approved BMPs. J. The development shall utilize only native species in landscaping, erosion control, and habitat restoration. K. The Tribe shall time vegetation management activities (such as trimming, mowing, and brush-clearing) to periods when the Callippe silverspot host plants are not blooming and when the butterfly is not active (generally August 15 – January 31 near callippe host plant habitat). L. A qualified biologist shall survey the Project Site for California golden violet in the appropriate identification window prior to impacts. The qualified biologist shall demarcate a 25-foot buffer around host plants. To the maximum extent feasible, the 25-foot buffer shall be maintained around all host plants outside of the project footprint. M. The development shall use only native, locally sourced, insecticide-free plants for habitat restoration and enhancement actions. If plants are grown via contract grow specifications that limit pesticide residues shall be used. N. Monarchs, other pollinators, and their habitats shall be protected from pesticides, including insecticides, fungicides, and herbicides. The Tribe shall avoid applying herbicides to blooming flowers when monarch butterflies are likely around (October 1 – February 28) and when Callippe silverspot butterflies are in flight (May 1-August 15). O. To assist in maintaining normal migration behavior, milkweed shall not be planted. P. Landscaping activities shall maximize use of non-chemical weed and pest prevention. Q. Landscaping plans shall select a mosaic plant palate of native species that bloom throughout the year.	

Resource Area	Proposed Mitigation	Alternative
	The following measures shall be implemented to avoid impacts to nesting birds: R. If construction activities commence during the general nesting season (February 1 to August 31), a preconstruction nest survey shall be conducted by a qualified biologist on and within 100 feet of proposed construction, as accessible within 7 days of initiating ground disturbance. If active nests are identified, the qualified biologist shall determine a suitable avoidance buffer based on the needs of the species observed. S. Avoidance measures include establishment of a buffer zone using construction fencing or similar, or the postponement of construction until after the nesting season, or until after a qualified biologist has determined the nest is no longer active. Avoidance buffers may vary in size depending on habitat characteristics, project-related activities, and disturbance levels. T. Should work activity cease for 14 days or more during the nesting season, surveys shall be repeated to ensure birds have not established nests during inactivity.	
	The following measures shall be implemented to minimize impacts to CRLF and northwestern pond turtle dispersal habitat: U. Least cost dispersal pathways for CRLF and northwestern pond turtle shall be identified in consultation with USFWS. In addition to wildlife crossings at drainage roadway crossings, additional wildlife crossing points shall be identified. Wildlife crossing elements shall be designed in consultation with USFWS.	C
Cultural Resources	The following measures shall be implemented to avoid or reduce potential impacts to previously unknown archaeological and historical resources that may exist on the Project Site: A. Ground-disturbing activities shall be monitored by a qualified archaeologist and Native American Tribal Monitor, particularly any activities that occur within 150 feet of the prehistoric chert quarry component of CA-SOL-275 (refer to **Appendix I-1** for location). An archaeological monitoring program shall be established that includes consultation between the consulting archaeologist, BIA, and the project proponent. The program shall clearly define a monitoring schedule (e.g., continuous monitoring of project activity across the site or daily/weekly spot monitoring of project activity); the need, if any, for monitoring in areas consisting of fill material; the need, if any, for monitoring at the location of deep excavations (e.g., beyond a depth of ten feet); the authority to temporarily halt/redirect construction should resources be encountered; and the protocols (e.g., stopping work and individuals to contact) monitors and/or construction personnel should implement in case of an inadvertent discovery of cultural resources regarding the discovery). The monitoring program shall be prepared by a qualified archaeologist and approved by BIA prior to project construction activities.	A, B, C

Resource Area	Proposed Mitigation	Alternative
	B. In the event of any inadvertent discovery of prehistoric or historic archaeological resources during construction-related earth-moving activities, all such finds shall be subject to Section 106 of the NHPA as amended (36 CFR Part 800). Specifically, procedures for post-review discoveries without prior planning pursuant to 36 CFR § 800.13 shall be followed. All work within 50 feet of the find shall be halted until a professional archaeologist meeting the Secretary of the Interior's qualifications (36 CFR Part 61), or paleontologist if the find is of a paleontological nature, can assess the significance of the find in consultation with the BIA and other appropriate agencies. If any find is determined to be significant by the archaeologist or paleontologist and project proponent, a BIA representative shall meet with the archaeologist or paleontologist and project proponent to determine the appropriate course of action, including the development of a Treatment Plan and implementation of appropriate avoidance measures or other mitigation. C. If human remains are discovered during ground-disturbing activities the designated BIA representative for the project shall be contacted immediately. No further disturbance shall occur until the BIA representative has made the necessary findings as to the origin and disposition of the discovery. If the remains are determined to be of Native American origin, the appropriate provisions of the Native American Graves Protection and Repatriation Act (NAGPRA) shall apply. Construction shall not resume in the vicinity until a plan for avoidance, removal or other disposition of the remains has been developed and implemented. D. If human remains are encountered during off-site improvements construction, work within 100 feet of the find shall halt immediately and the stipulations of the California Health and Safety Code Section 7050.5 shall be implemented. The California Health and Safety Code Section 7050.5 requires that the County Coroner be notified if human remains are discovered. . In addition, the designated BIA representative for the project should be immediately contacted regarding the discovery. If the County Corner determines that the remains are of Native American origin, the Coroner must, in accordance with PRC Section 5097, notify the Native American Heritage Commission (NAHC) within 24 hours of the identification. In turn, the NAHC will identify a Most Likely Descendent, who will work with the Tribe, BIA, and the construction contractor to develop a plan for avoidance, removal or other disposition of the remains.	
Public Services and Utilities	The following measure is recommended for Water Supply Option 1 (Off-Site Water Supply): A. The Tribe shall negotiate a service agreement with the City of Vallejo that will provide payment for the water connection service and for any distribution infrastructure upgrades or	A, B, C

Resource Area	Proposed Mitigation	Alternative
	renovations necessary to provide water service to the Project Site, if applicable. The following mitigation measure is recommended for Wastewater Treatment Option 1 (Off-Site Wastewater Treatment): B. The Tribe shall negotiate a service agreement with the VFWD that will provide payment for wastewater connection and service. C. The Tribe shall enter into a contract with VFWD to complete a study to demonstrate that it is possible to provide sewer service to a project and prove that the system has capacity to handle the increase in flows. If requested by VFWD, the Tribe shall pay fair-share payments to the District for infrastructure upgrades identified in the study needed to accommodate the wastewater generated by the development. The following measures shall be implemented to reduce impacts to police and fire services: D. Prior to operation, the Tribe shall make good faith efforts to enter into a service agreement with the Vallejo Police Department and/or SCSO to compensate for quantifiable direct and indirect costs incurred in conjunction with providing law enforcement services to the Project Site. The agreement shall include a provision requiring the Tribe to meet with the Vallejo Police Department and/or SCSO at least once a year, if requested, to discuss ways to improve police services and prosecution of crimes associated with the project. E. Prior to operation, the Tribe shall make good faith efforts to enter into a service agreement with the Vallejo Fire Department to compensate for quantifiable direct and indirect costs incurred in conjunction with providing fire protection and EMS to the Project Site. The agreement shall address any required conditions and standards for emergency access and fire protection systems. F. If the Tribe does not enter into a service agreement with the Vallejo Police Department, SCSO, or the Vallejo Fire Department or another fire district/department, the Tribe shall establish, equip, and staff a police station/fire department on the Project Site. They shall follow the certification and standards of the BIA and shall be staffed at all times. The police station/fire department shall be located by the Project Site entrance, in an area devoid of sensitive environmental resources such as wetlands. The police station/fire department shall be built to comply with the IBC and follow the BMPs listed in **Section 2.1.12**.	
Transportation and Circulation	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 construct or fully fund the following improvements. Funding shall be for design standards consistent with those required for similar facilities in the region. The following measures shall be implemented to reduce traffic impacts:	

Resource Area	Proposed Mitigation	Alternative
	Opening Year 2028: A. For intersection 1) Columbus Parkway (also known as Auto Mall Parkway) & Admiral Callaghan Lane and the Project Site entrance – Widen Columbus Parkway to provide for a dual eastbound left turn movement. At this intersection, a right turn overlap phase (i.e., a green arrow for southbound traffic turning right out of the Project Site towards I-80).	A, B
	Cumulative Year 2045: B. For intersection 1) Columbus Parkway (Auto Mall Parkway) & Admiral Callaghan Lane and the Project Site entrance – Widen Columbus Parkway to provide for a dual eastbound left turn movement. At this intersection, a right turn overlap phase (i.e., a green arrow for southbound traffic turning right out of the Project Site towards I-80).	C
	Cumulative Year 2045: C. Pay the Solano County Regional Transportation Impact Fee consistent with fees for other commercial development projects in the City prior to operation of the project. The fees collected are transferred to Solano County and the funds are managed by the Solano Transportation Authority. These fees are used to fund regional capital transit and roadway improvement projects, including ramp improvements to the Redwood Parkway/I-80 interchange for both for eastbound and westbound directions.	A, B, C
Hazardous Materials and Hazards – Wildfire	The following measures shall be implemented for all alternatives: A. Prior to occupancy, the Tribe shall coordinate with emergency evacuation and traffic experts to develop a project-specific evacuation plan that includes, but is not limited to, the following procedures and BMPs: ▪ The evacuation plan shall complement the County of Solano's EOP, Community Wildfire Protection Plan, MJHMP, supporting documents, and the standard operating procedures of fire, law, and emergency management agencies of the County and City. ▪ Designated staff shall coordinate evacuation procedures with the lead agency for evacuations and other participating agencies during an evacuation event. ▪ Staff shall post critical emergency evacuation information (e.g., Red Flag Warnings and Fire Weather Watches) and handouts shall be made available to all visitors, guests, and staff. Staff shall incorporate the latest technology available, such as QR codes that contain links to webs sites for mobile devices, or better technology as it evolves. ▪ Using the emergency evacuation information provided, guests shall be encouraged to make themselves familiar with available routes, stay informed and connected to all available emergency alert tools, and follow directions provided by	A, B, C

Resource Area	Proposed Mitigation	Alternative
	staff, law enforcement, fire agencies, news media, and other credible sources. ▪ Staff and guests shall be provided with information on the local AM and FM radio stations to monitor for disaster information and all emergency alert tools like Emergency Alert System (EAS), Alert Solano, and Nixle. ▪ Guests, through the emergency evacuation information, shall also be advised to not rely just on navigation apps that may inadvertently lead them toward an approaching wildfire, flooding, hazardous materials, or other hazards. ▪ Staff shall be trained in how to connect to the available emergency alert notification tools such as EAS, Alert Solano, and Nixle. Staff shall monitor those services while at the facility. ▪ Designated staff shall be provided with Community Emergency Response Training. This training provides information on how to be prepared for disasters and emergencies and reorganize life-threatening conditions and apply life-saving techniques. ▪ A public address system shall be installed inside all occupied public buildings so that emergency notifications can be provided by staff to visitors and guests. Additionally, designated staff shall be issued handheld portable radios for communication during an emergency. ▪ Guests without cars or those who are uncomfortable driving themselves in an emergency shall be offered off-site transportation by staff in a casino vehicle, ride share, public transportation, and/or on-site shuttles. These options shall be directed to pre-established County Emergency Management approved community shelters. B. Management and staff at the casino shall be trained on evacuation procedures for visitors as part of their new hire orientation and receive updated evacuation procedures training annually. C. The Tribe shall coordinate with Solano County and the City of Vallejo on their respective EOPs and implement or contribute to the implementation of measures intended to improve early detection of wildfire events, and evacuation times for the Project Site and vicinity. These measures could include, but would not be limited to: ▪ Installation of a wildfire detection camera within the Project Site and/or vicinity that would expand the coverage of the wildfire camera system. The wildfire camera(s) would be connected to the existing early detection system and be accessible to emergency officials. ▪ Installation of variable message signs for the outbound lanes at the project egress point. The variable message signs shall be connected to on-site staff and the County Emergency	

Resource Area	Proposed Mitigation	Alternative
	Operations Center so that evacuation-related messages can be controlled by fire personnel managing the evacuation.	

Section 5 | Consultation and Coordination

This section lists agencies and organizations consulted during the preparation of this EA.

Agencies, Organizations, and Individuals Consulted	Summary of Consultation and Coordination
Bay Area Air Quality Management District (BAAQMD)	The BAAQMD website was reviewed to obtain information related to air quality and climate conditions in Solano County. Furthermore, BAAQMD was consulted for information about permitted stationary sources, emission estimates, and significance criteria assessment for air quality impacts (see **Section 3.4**; BAAQMD, 2017).
Cachil Dehe Band of Wintun Indians of the Colusa Indian Community	Cachil Dehe Band of Wintun Indians of the Colusa Indian Community was contacted with a request for information regarding tribal cultural resources within the Project Site (**Appendix I-3**).
California Department of Conservation (DOC)	The DOC was consulted to determine California Important Farmland in proximity to the Project Site (see **Section 3.9**; DOC, 2022).
California Department of Forestry and Fire Protection (Cal Fire)	The Cal Fire website was reviewed to obtain information related to fire hazard severity designations in the area surrounding the Project Site (see **Section 3.10**; Cal Fire, 2024).
California Department of Resources Recycling and Recovery (CalRecycle)	The CalRecycle website was reviewed to obtain information about solid waste generation numbers, and capacity and permit information about Potrero Hills Landfill in Solano County (see **Section 3.10**; CalRecycle, 2019).
California Department of Toxic Substances Control (DTSC)	DTSC's online tools were utilized to obtain information about hazardous materials near the Project Site including researching potentially abandoned mines and following up on soil contamination issues (see **Section 3.12**; **Appendix M-2**).
California Native American Heritage Commission (NAHC)	The NAHC was consulted to conduct a review of the Sacred Lands File. The NAHC also supplied a list of Native American individuals who may have information regarding the sacred lands or other cultural resources in the vicinity of the Project Site (see **Section 3.6**; **Appendix I-3**).
Caltrans	Caltrans data was utilized to understand traffic volume and capacity data of I-80 near the Project Site for wildfire evacuations (see **Section 3.12**; Caltrans, 2022).
City of Vallejo Water Department	Staff at the City of Vallejo Water Department were consulted regarding capacity of the City's water infrastructure and water supply availability (see **Section 3.10**; **Appendix B**).

Agencies, Organizations, and Individuals Consulted	Summary of Consultation and Coordination
Confederated Villages of Lisjan Nation	Confederated Villages of Lisjan Nation was contacted with a request for information regarding tribal cultural resources within the Project Site (**Appendix I-3**).
Cortina Rancheria - Kletsel Dehe Band of Wintun Indians	Cortina Rancheria - Kletsel Dehe Band of Wintun Indians was contacted with a request for information regarding tribal cultural resources within the Project Site (**Appendix I-3**).
Federal Aviation Administration (FAA)	The FAA website was reviewed to determine if the Project needed to complete FAA Form 7460-1, Notice of Proposed Construction or Alteration, due to its proximity to an airport (see **Section 3.9**; FAA, 2024).
Guidiville Rancheria of California	Guidiville Rancheria of California was contacted with a request for information regarding tribal cultural resources within the Project Site (**Appendix I-3**).
San Francisco Bay Regional Water Quality Control Board (RWQCB)	The RWQCB website was reviews to obtain information related to water quality and maximum allowable quantities of soil contaminants in regional soils (see **Section 3.12**; **Appendix M-2**).
Solano County Sheriff's Office (SCSO)	The SCSO website was reviewed to obtain law enforcement services information (see **Section 3.10**; Police1, 2024).
Solano County (County)	The Office of Emergency Services Website was reviewed for relevant disaster and emergency preparedness planning documents (see **Section 3.12**; Solano County,2022).
Pacific Gas and Electric (PG&E)	The PG&E website was reviewed to obtain information about PG&E's services and electrical sources (see **Section 3.10**; PG&E, 2024c, 2024d).
University of California Museum of Paleontology	University of California Museum of Paleontology Database was accessed and reviewed for any paleontological resources within Solano County (see **Section 3.6**; UCMP, 2024).
U.S. Census Bureau	The U.S. Census Bureau website was reviewed for information concerning demographic data (see **Section 3.7**; US Census 2023, 2023b, and 2023c).
U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS)	The USDA NRCS was consulted for data concerning farmland and soil characteristics information (see **Sections 3.2** and **3.9**; NRCS, 2024, and USDA, 2022).
U.S. Environmental Protection Agency (USEPA)	The USEPA website was reviewed for information regarding NAAQS Attainment status. Furthermore, the USEPA's Environmental Justice Screening and Mapping Tool was used to obtain demographic data (see **Sections 3.4** and **3.7**; USEPA, 2024c, and **Appendix J**)
U.S. Fish & Wildlife Service (USFWS)	The USFWS IPaC database was accessed to obtain a list of federally listed special-status species with the potential to occur in the vicinity of the Project Site. Additionally, the USFWS NWI was

Agencies, Organizations, and Individuals Consulted	Summary of Consultation and Coordination
	accessed to identify potential wetlands and waters in the vicinity of the Project Site. The BA was prepared in consultation with USFWS and the BIA in order to assess impacts to federally-listed species in accordance with the FESA. A site visit meeting was held with a representative of the USFWS and BIA (see **Section 3.5**; **Appendix H-1**).
U.S. Geological Survey (USGS)	The USGS website was reviewed for information concerning geological information and hazards, such as landslides and mineral data (see **Section 3.2**; USGS, 2024).
Vallejo City Unified School District (VCUSD)	The VCUSD website was reviewed to obtain information on enrollment statistics and the provision of educational services within the City of Vallejo (see **Section 3.10**; VCUSD, 2024).
Vallejo Fire Department	The Vallejo Fire Department website was reviewed to obtain fire and emergency services information for the department, and to obtain information regarding average CFS at similar facilities (see **Section 3.10**; City of Vallejo, 2024).
Vallejo Flood and Wastewater District (VFWD)	Staff at the VFWD were contacted and the VFWD SSCSMP was reviewed regarding capacity of the City's sewer system (see **Section 3.10**; VFWD, 2018).
Vallejo Police Department	The Vallejo Police Department website was reviewed to obtain law enforcement services information (see **Section 3.10**; Vallejo Police, 2023).
Yocha Dehe Wintun Nation	Yocha Dehe Nation was contacted with a request for information regarding tribal cultural resources within the Project Site (Appendix I-3).

Section 6 | References

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Section 7 | Preparers

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Annalee Sanborn	BS, 12 years of experience	Senior Environmental Analyst
Kimberly Fuchs	BS, 19 years of experience	Senior Environmental Analyst
G.O. Graening	BS, MS, Ph.D., 25 years of experience	Senior Biologist
Brian Ludwig	Ph.D., RPA, +40 years of experience	Senior Archeologist
John Fox	BS, MBA, 35 years of experience	Technical Director
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Daniel Schack	BS, M.Ed., 14 years of experience	Environmental Analyst
Kelli Raymond	BS, 10 years of experience	Environmental Analyst
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