

**Final Environmental Impact Statement  
for Expansion and Reconfiguration of the  
Land Port of Entry in Downtown Calexico, California**

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**General Services Administration  
450 Golden Gate Ave  
San Francisco, California 94102**

# COVER SHEET

## RESPONSIBLE AGENCY: GENERAL SERVICES ADMINISTRATION

**TITLE:** Final Environmental Impact Statement for Expansion and Reconfiguration of the Land Port of Entry in Downtown Calexico, California

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**Abstract:** The General Services Administration (GSA) proposes expanding and reconfiguring the Land Port of Entry in downtown Calexico, California to improve its safety, security, and operations. All existing port structures would be demolished. GSA has identified and assessed a Preferred Alternative, a larger expansion alternative, and the No Action Alternative. The Preferred Alternative includes building new inspection facilities for southbound privately owned vehicles (POVs) and buses on the site of the former commercial vehicle inspection facility and building new facilities at the site of the existing port for inspection of northbound POVs, buses, and pedestrians.

**Public Comments:** The Draft Environmental Impact Statement was issued on July 10, 2010. Public hearings were held June 22 and July 14, 2010, at the Calexico City Hall. The comment period closed on August 18, 2011.

Comments received were considered in the preparation of this Final Environmental Impact Statement.

# SUMMARY

## Purpose and Need for Agency Action

### *Introduction*

The General Services Administration (GSA), through its Border Station Program, assists the Customs and Border Patrol (CBP), a part of the Department of Homeland Security (DHS), by planning, designing, building, owning and leasing Land Ports of Entry (LPOE) to CBP, responsive to its mission requirements. By developing solutions to meet CBP's needs, GSA enhances the security and safety of the United States' (U.S.) borders.

Congressional mandates regarding the tracking of the entry and exit from the U.S. of vehicles and travelers at all LPOEs require DHS to develop and implement the addition of new inspection technologies and the inspection and tracking of inbound and outbound vehicles and pedestrians. GSA and CBP have identified the following basic deficiencies at the downtown Calexico LPOE border crossing:

- The existing facilities will not accommodate the installation of technologically-advanced inspection devices such as license plate readers, radiation detectors and x-ray equipment;
- The existing facilities are inadequate for maintaining employee and public security;
- The existing facilities are inadequate for the proper conduct of inspection and other services;
- The existing facilities do not comply with modern seismic design requirements, posing a threat to the safety of the employees and the public in the event of an earthquake;
- Bottlenecks at the existing facilities cause heavy vehicle traffic congestion in the city streets of Calexico, California, and Mexicali, Baja California; and
- The existing facilities exacerbate the delay experienced by the public crossing the International Border.

Increasing cross-border commerce and traffic will compound these problems.

### *Purpose of and Need for Agency Action*

The action to be evaluated by this Environmental Impact Statement (EIS) is the proposed expansion and reconfiguration of the downtown Calexico LPOE. It would improve the safety, security, and operations of the LPOE; reduce vehicle and pedestrian queues; and enable the installation of technologically-advanced inspection devices.

The downtown Calexico LPOE serves privately-owned vehicle (POV), bus, and pedestrian traffic into and out of the Baja California city of Mexicali. The existing LPOE does not meet the Federal inspection services' minimum standards for processing time and overall efficiency. GSA's need is to correct these operational deficiencies, provide for more thorough inspections, improve safety for employees and the public, and reduce the delays experienced by the public.

### **Location**

The downtown Calexico LPOE is located in the border city of Calexico, approximately 120 miles east of San Diego in the Imperial Valley of California (Figure S-1). Directly adjacent to the LPOE on the Mexican side of the border is the city of Mexicali, Baja California. The site of the current LPOE facilities covers 102,040 ft<sup>2</sup> on the southern edge of the Calexico downtown area, and is bounded on the east by Heffernan Avenue, on the north by First Street, on the west by the Imperial Highway (SR-111), and on the south by the U.S.-Mexico border (Figure S-2).

### **Current Configuration of Facility**

The downtown Calexico LPOE is dedicated to POV, bicycle, and pedestrian inspections. Buses are processed only between 3 a.m. and 6 a.m. At other hours, buses are processed through the new Calexico East LPOE approximately six miles east of downtown Calexico. Commercial vehicles were diverted to the new Calexico East LPOE beginning in 1996. On an average day in 2004, approximately 17,000 POVs, 5 buses, and 18,000 pedestrians entered the U.S. through the downtown Calexico LPOE. This traffic was comprised mostly of day-trippers, including workers, students, and shoppers. The Main Building houses the functions related to pedestrian and vehicle inspection and processing. A canopy structure over the secondary vehicle inspection area extends from the west end of the building. There are four (4) pedestrian processing booths and ten (10) vehicle primary inspection lanes.

Southbound POVs must cross a Union Pacific railroad track within the LPOE site, causing congestion in downtown Calexico when trains block the crossing. Two freight trains cross the border each day. Each requires approximately 15-30 minutes to be inspected before being allowed to cross the border. Union Pacific officials believe that traffic on the track is likely to increase but concede that they do not know when or how much.

### **Decisions to be Supported**

In this EIS, GSA is examining the environmental impacts of the alternatives for expansion, reconfiguration, replacement, and continued operation of the downtown Calexico LPOE, as well as the environmental impacts associated with taking “No Action”. No sooner than 30 days after the Final EIS is issued, GSA will prepare a Record of Decision (ROD). In the ROD, GSA will explain all the factors that were considered in reaching its final decision, including the environmental factors. GSA will identify the environmentally preferable alternative or alternatives and may select one of the alternatives or a combination of alternatives analyzed in the EIS. This project is the culmination of several years of bi-national planning and coordination. A Presidential Permit will be required. An application has been prepared. This EIS and the associated Presidential Permit application have been coordinated with the Department of State.

### **Public Participation**

Scoping for the EIS began with mailing of the Notice of Intent (71 *Federal Register* [FR] 38) to 52 recipients on February 20, 2006, and continued until the end of the comment period on April 13, 2006. A Spanish-language translation of the Notice of Intent was sent to Mexican government authorities. A scoping meeting was held for the general public on March 8, 2006, at the Calexico City Hall in Calexico, California. During the public scoping process, a total of 34 individuals or organizations either submitted requests for continued notification about the project or made oral or written comments at the scoping meeting. Since that meeting, input from local officials and other agencies have also been considered in the preparation of this EIS.



**Figure S-1. Calexico Land Port of Entry and Surrounding Region**



**Figure S-2. Current Downtown Calexico LPOE and Site Boundaries**

The Draft EIS for the Expansion and Reconfiguration was issued on June 24, 2010 (75 FR 121). Public meetings were held on June 22 and July 14, 2010, between 3 and 7 p.m., at the Calexico City Hall, 608 Heber Avenue, Calexico, California. The meetings were conducted as open houses with personnel present to answer any questions. No formal comments were submitted. The comment period ended on August 18, 2010. Eight comment letters were received. All comments on the Draft EIS were considered in the preparation of this Final EIS. Comments on the Traffic Impact Study, issued at the same time, were also evaluated for relevance to the impacts assessed in this Final EIS and were also taken into consideration in the Final EIS as appropriate.

## **Alternatives**

GSA considered alternatives based on the purpose and need for the project. With subsequent public input, GSA developed two action alternatives that would meet the purpose and need for the project, and one no action alternative.

### ***No Action Alternative***

Under the No Action Alternative, operation of the downtown Calexico LPOE would continue at the present facility. This alternative would not require the acquisition of any new land.

No construction or demolition would take place. Operations would continue with a staff of approximately 165 employees. Under the No Action Alternative, the LPOE would still undergo maintenance and minor improvements and upgrades within its current footprint and configuration. The improvements and upgrades could include repaving, some new inspection technology, improved utility systems, and other replacement-in-kind actions.

This alternative would not meet GSA's purpose and need. The size and configuration of the facility would result in continued deficiencies in operational efficiency and safety. Northbound queuing times would remain the same or increase. Access and egress routes would not be aligned with planned future Mexican facilities.

The evaluation of the No Action Alternative is required by NEPA and the associated implementing regulations.

### ***Alternative A***

Alternative A would expand the downtown Calexico LPOE by replacing the current LPOE facilities for pedestrian and northbound bus traffic and by building a new vehicular and bus inspection facility on the unused area to the west where the old commercial vehicle entry was located. Three parcels of land would be acquired to accommodate the new vehicular inspection facilities (Figure S-3). One (~0.6 acres) is at the southwest corner of Second Street and Imperial Avenue (currently a Duty Free store). The second (~1.8 acres) is on the west side of the New River channel southwest of the vacated commercial inspection compound. The third parcel of land (~5.0 acres) is located immediately south of Second Street and west of the vacated commercial inspection compound and the second parcel.

Alternative A consists of a set of construction, and/or demolition activities, as well as operations. It features a new headhouse, 16 northbound primary inspection lanes and space for up to 32 cars in the secondary inspection areas. The southbound vehicle primary inspection area would include 8 lanes. To accommodate southbound POV traffic, GSA would construct a platform atop a new culvert containing the channel of the New River.

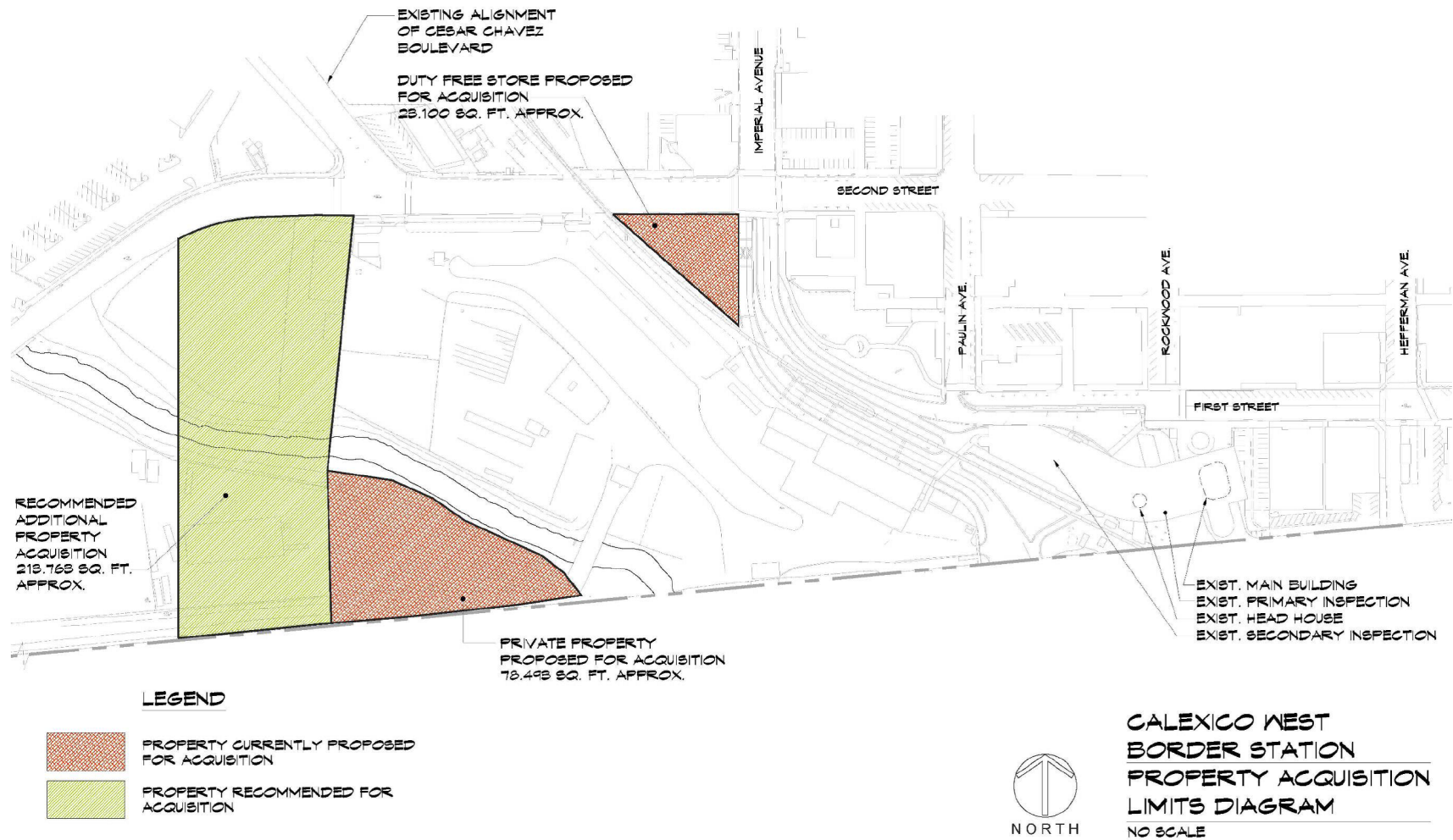


Figure S-3. Alternative A Property Acquisition Plan



The new pedestrian inspection facilities would be located on the east side of the railroad track in the location of the current main building. The flow pattern of northbound and southbound pedestrians would be the same as the current pattern. A new administration building would be located west of the railroad tracks just east of the northbound primary vehicle inspection lanes. Bus passengers would be processed through the new pedestrian processing building.

The New River channel runs through the area required for the new vehicle inspection lanes under Alternative A. Under this alternative, the New River would either be enclosed in a culvert along its current channel, or routed into a culvert between the new vehicle inspection facility and the western site boundary. The Mexican government plans a northward extension of the underground culvert in which the New River flows through much of Mexicali. The Mexican Government is planning to develop their new port of entry over the extended culvert.

The design of the culvert under either scenario would involve enclosure of approximately 700 feet of channel. The design would be coordinated with the U.S. Army Corps. of Engineers to ensure that issues associated with flooding and erosion at the culvert outlet are sufficiently addressed. The work in the old channel would require approvals related to removal/remediation of contaminated soils and worker health and safety plans.

In order for the LPOE to remain open and operational during the proposed expansion, the construction is planned to be performed in phases. GSA continues to coordinate with the Mexican government on the design of the U.S. LPOE and the connections to the Mexican LPOE. Currently, the Mexican government is waiting for the U.S LPOE design to be selected and then will design their LPOE accordingly.

### ***Alternative B; Proposed Action (Preferred Alternative)***

The Preferred Alternative would also expand the capacity of the downtown Calexico LPOE by constructing new facilities for pedestrian and northbound bus traffic similar to Alternative A. Under the Preferred Alternative, however, the New River would not be covered; all of the LPOE facilities would be located northeast of the New River; and there would be only five (5) southbound vehicle inspection lanes. Access to the LPOE would be the same as under Alternative A. Southbound access would be from Second Street and Cesar Chavez Boulevard. Northbound access would be from west of the railroad tracks. Northbound traffic leaving the LPOE would exit to either Imperial Avenue or Cesar Chavez Boulevard at Second Street.

Under the Preferred Alternative there would be less employee parking and fewer southbound vehicle lanes than under Alternative A.

The same two parcels of Federal government property at the downtown LPOE would be utilized under the Preferred Alternative (Figure S-4) as under Alternative A. However, less land would be acquired than for Alternative A. The parcel at the southwest corner of Second Street and Imperial Avenue would not be acquired. A portion of the land on the other side of the New River channel southwest of the vacated commercial inspection compound would be acquired, and the land immediately south of Second Street and west of the vacated commercial inspection compound would be acquired, but the parcels acquired would not be as large as for Alternative A.

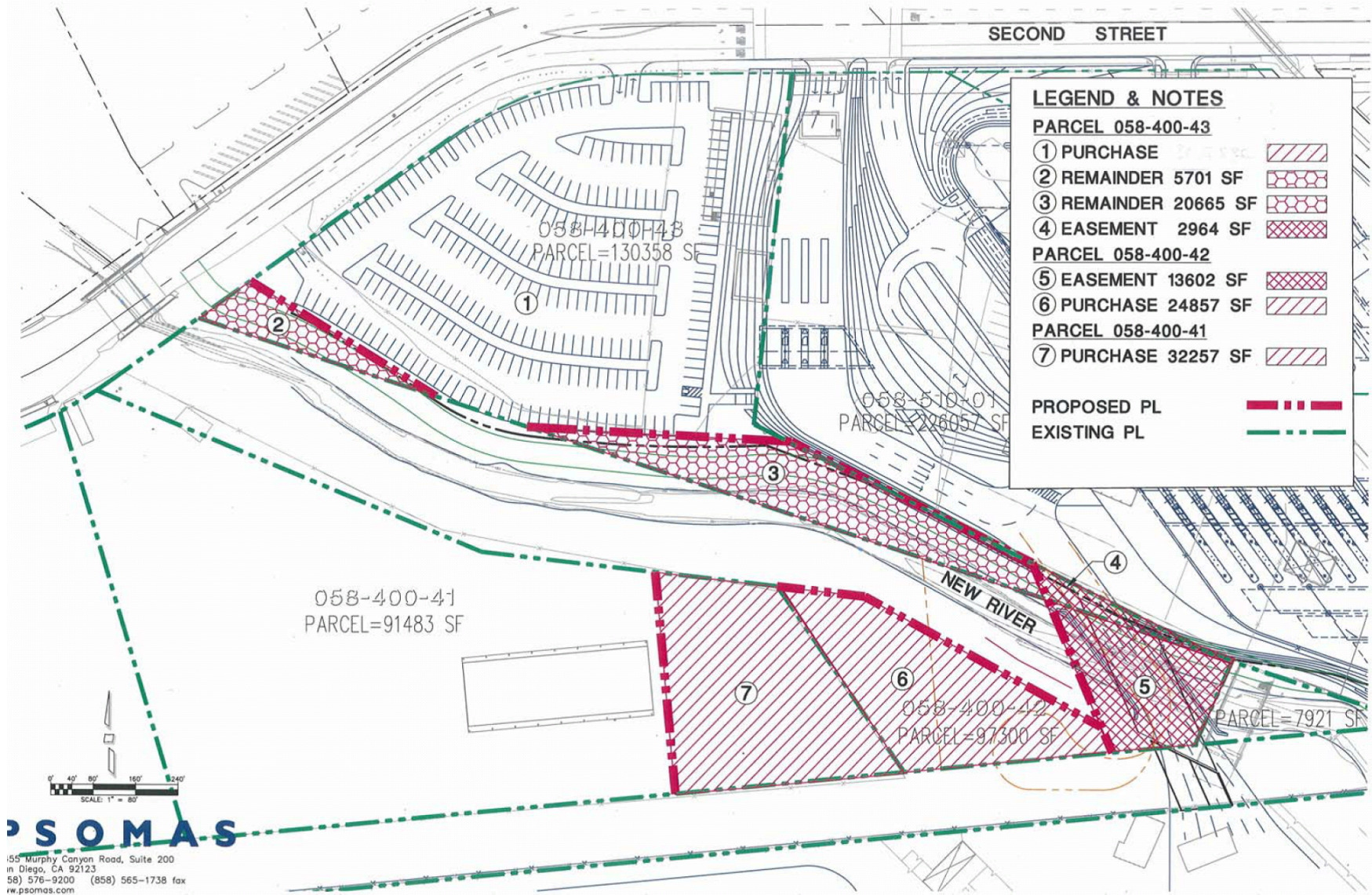


Figure S-4. Alternative B Property Acquisition Plan

The land on the other side of the New River channel southwest of the old commercial LPOE would be developed as part of the bridge and roadway across the New River for southbound traffic and as an impound area for seized vehicles. The 5.0 acre parcel of land immediately south of Second Street and west of the vacated commercial inspection compound would be developed for employee parking.

In order for the LPOE to remain open and operational during the proposed expansion, the construction is planned to be performed in phases.

## **Affected Environment**

The project area comprises the existing downtown Calexico LPOE area that would be used for construction and operation of Alternative A or Alternative B. A region of influence (ROI) is defined for each resource area, which includes the project area at a minimum. Some resource areas have regions of influence that extend beyond the project area.

**Geology and Soils.** In the immediate region of the LPOE, sand and gravel resources are present but are not mined. The project area lies in Seismic Zone 4. Zone 4 represents the greatest ground-shaking potential.

The Salton Trough is a seismically active rift valley formed by the gradual uplift of the surrounding mountains along the San Andreas Fault system to the east and the San Jacinto fault system to the west. There are no identified fault zones within the city of Calexico; however, the city has been damaged within the last 35 years from earthquakes originating on major faults in the region. On April 4, 2010, an earthquake with a Richter Magnitude of 7.2 occurred in Mexico, 32 miles southeast of Calexico. Previously, the largest recorded earthquake in the Imperial Valley occurred in May of 1940 and registered 7.1 on the Richter Scale. Its epicenter was located near the U.S.-Mexico border, just east of the City of Calexico, along the Imperial Fault. In October of 1979, a magnitude 6.6 earthquake occurred on this same fault, with the epicenter placed approximately 7 miles east of Calexico. The soils within the city of Calexico have properties that could facilitate liquefaction during earthquakes resulting in ground settlement, ground lurching, and ground displacement along fault lines. The project area is generally too flat to be affected by mass movements such as rockfalls and landslides. Ground subsidence related to seismic activity naturally occurs throughout the Salton Trough, ranging from approximately two inches per year at the Salton Sea to near zero (little to no ground subsidence) at the U.S.-Mexico border.

**Water Resources.** All watersheds within the Imperial Valley drain into the Salton Sea. The main sources of inflows into the Salton Sea are from the New River (Rio Nuevo) and Alamo River that flow north from the Colorado River delta. The New River enters the United States from Mexicali at the west end of the downtown Calexico LPOE's abandoned commercial inspection compound. The New River runs along the western edge of the vacated commercial LPOE on the U.S. side of the International Border. The vacated U.S. commercial port site generally slopes from the northeast to southwest and eventually the entire site drains into the New River at the southwest boundary. The downtown Calexico LPOE is designated as Zone C, an area of minimal flooding (less than 1 foot) during a 100-year storm event.

The New River is an unlined, natural river channel. While a new wastewater treatment plant located in the south of Mexicali has substantially reduced the contamination flowing in the New

River, concentrations of phosphate, ammonia, nitrate, arsenic, and selenium all exceeded the EPA reporting limits in 2010.

The Mexican government plans a northward extension of the underground culvert in which the New River flows through much of Mexicali. The Mexican Government is planning to develop their new port of entry over the extended culvert.

Imperial Valley groundwater is too saline for domestic use or irrigation. Irrigation water is transported into the area through canals. A number of irrigation canals are present in the Calexico area. There are no irrigation canals within or adjacent to the project area. A biological survey determined that there are no jurisdictional wetlands within the region of influence. Water for the LPOE is supplied by the City of Calexico.

**Land Use.** The Calexico Zoning Ordinance ensures compliance with the City, County and State General Plans. The city of Calexico uses its five-year implementation plan as a tool to implement policies found in the Land Use Element of its General Plan for all development projects.

The downtown Calexico LPOE lies along the southern edge of the City of Calexico, which constitutes the northern edge of the Calexico-Mexicali binational metropolis along the U.S.-Mexico border. The downtown Calexico LPOE is currently dedicated to POV and pedestrian inspections. Buses are processed only between 3 a.m. and 6 a.m. At other hours, buses are processed through the new LPOE approximately six miles east of downtown Calexico.

Prominent land developments to date related to the Calexico LPOE include plans by the Mexican Federal Government for a new port of entry on the site directly south of the vacated commercial inspection compound. The Mexicali government has expressed its preference to retain Avenida Cristobal Colon, which runs along the border, as the main vehicular approach to the downtown Calexico LPOE from the east. New roads are being built to bring traffic to the port from the west and south.

The Union Pacific Company owns railroad tracks running northwest to southeast along Imperial Avenue bisecting the LPOE site. The downtown Calexico LPOE is bounded by the border with Mexico to the south, on the north by First Street (east of Imperial Avenue) and Second Street (west of Imperial Avenue), and a triangular parcel (site of a Duty Free store) at the southeast corner of Imperial Avenue and Second Street. To the west is public and private property including a piece of land on the southwest side of the New River, between the river and the International Border. On the east, the site is bounded by Heffernan Avenue.

**Biological Resources.** The LPOE is located in an urban part of the Sonoran Desert on previously disturbed, predominantly flat terrain with much of the area consisting of compacted soil. The entire project area consists of approximately 20 acres with developed area occupying approximately 12.9 acres and the adjacent parcels of public and private land occupying approximately 7.4 acres. The vacated commercial LPOE site west of Imperial Avenue has been bladed periodically to remove plants that might conceal individuals illegally entering the United States.

Vegetation in the region of influence is very limited, and found primarily along the New River, or in areas that have been previously landscaped. Total acreage covered by plants is approximately 1 acre. A few eucalyptus (*Eucalyptus* sp.) and California fan palms

(*Washingtonia filifera*) are next to a security fence near Second Street and the Duty Free store. Oleander (*Nerium oleander*) was seen on a steep bank. Patches of various grasses were observed along the banks of the New River. A few cattails (*Typha angustifolia*) were noted in a small artificially created drainage area in May 2008.

There is minimal wildlife habitat in the region of influence. Wildlife species observed included domestic pigeon, mourning dove, English sparrow, Brewer's blackbird, snowy egret, cattle egret, and black-necked stilt. There are no managed fisheries in the region of influence, although fish occur in the New River.

Based on existing habitat features and specific habitat affinities, special-status species with the potential to occupy suitable habitat in the ROI are the Colorado River toad, flat-tailed horned lizard, burrowing owl, yellow warbler, Yuma clapper rail, American badger, and big free-tailed bat. No Federally or California listed plant species occur in the ROI.

A single adult burrowing owl was observed at the Calexico LPOE. Burrowing owls frequently use abandoned ground squirrel or prairie dog burrows as nests, although neither these, nor any other, rodent species were observed during the survey. The Yuma clapper rail is the Federally endangered and California-threatened species that has been reported in closest proximity to the downtown Calexico LPOE.

**Cultural Resources.** A cultural resources survey was conducted in the project area. No evidence of archaeological materials or deposits was located during the survey. Two historic buildings were identified outside of the project footprint but within a 1 to 2 block radius of the LPOE. These two buildings are considered potentially eligible for listing on the National Register of Historic Places (NRHP). Ongoing consultation with the State Historic Preservation Officer is being conducted for the project.

**Visual Resources.** The general area is characterized by a flat, alluvial valley gently sloping downwards to the north between the course of the Colorado River and the Salton Sea. The project area consists of two flat areas separated by an approximately 30 foot high slope located at the vacated commercial LPOE. The New River crosses the lower area of the site in a northwesterly direction on the western side of the LPOE. The Coyote Mountains across the Yuha Desert to the northwest and the Sand Dune Hills to the east are the nearest topographical features in the U.S.

East of the New River, the project area consists of the asphalt areas used for the vacated commercial LPOE; the existing LPOE buildings; and associated parking lots, roadways, and railroad tracks. West of the New River, the area contains disturbed vegetation and equipment storage. At the project area, the New River itself is a sparsely vegetated, incised channel. Its water is discolored. The foreground view to the south of the project area is of the border fence. Except where the railroad and roadway cross the International Border allowing for a view of the Mexicali LPOE and commercial properties in Mexicali, the border fence blocks views to the south.

There are no eligible or officially designated California Scenic Highways near Calexico. There are no Wild and Scenic Rivers in the surrounding area. The City of Calexico has no parks near the project area, and there are no bike lanes or trails in the area.

**Infrastructure.** The project site is comprised of the LPOE site and three adjacent parcels of land that could be acquired. The LPOE expansion site includes the site of the vacated commercial inspection compound. The parcels that have been considered for acquisition contain a Duty Free store and parking lot, and two cleared pieces of land used for vehicle and equipment storage. There is some limited employee parking east of the Main Building. The vacated commercial compound is also used by employees for parking.

Water for the LPOE is supplied by the City of Calexico via a 6-inch water supply pipeline from Imperial Avenue (SR-111). Sanitary sewer service is provided by the City via a 6-inch sewer line from Imperial Avenue.

Electricity is provided by the Imperial Irrigation District from overhead electrical lines along the east portion of the project site. Natural gas is provided by Southern California Gas Company from a 2-inch gas service line from Imperial Avenue.

**Traffic.** The major east-west transportation route in Imperial County is Interstate Highway-8 (I-8). In Calexico, the major routes are Imperial Highway (SR-111, north-south) and SR-98 (east-west). The southbound access for vehicles to reach the downtown Calexico LPOE is via Imperial Highway (SR-111), called Imperial Avenue near the downtown Calexico LPOE. It is a four-lane roadway with dedicated left turn lanes at most signalized intersections. The average daily traffic volume along Imperial Avenue (SR-111) from the International Border to SR-98 ranged from 26,000 to 34,000 in 2008. The average daily volume along SR-98 between Ollie Avenue and Imperial Avenue (SR-111), was 29,000 and east of Imperial Avenue (SR-111), was 25,000 for the same year. Northbound traffic from Mexico approaches the LPOE from the east via Avenida Cristobal Colón in Mexicali. Northbound vehicles exit from primary inspection onto First Street heading west, then immediately onto Imperial Avenue traveling north. Northbound vehicles exit from secondary inspection immediately onto Imperial Avenue.

**Air Quality.** The city of Calexico lies within the Salton Sea Air Basin (SSAB), which is under the jurisdiction of the Imperial County Air Pollution Control District (ICAPCD). The SSAB consists of Imperial County and the southeast portion of Riverside County. The SSAB, within which the city of Calexico is located, is designated as a non-attainment area for ozone and PM-10 under state standards. Three monitoring stations are located within the City of Calexico. The most recent published data for the Calexico-Ethel Street Monitoring Station indicate that the baseline air quality conditions in the project area include occasional events of very unhealthy air. However, the frequency of smog alerts has dropped significantly in the last decade. At the LPOE, long lines of idling vehicles contribute to the air pollution in the region.

The climate of the Imperial Valley is arid, with hot summers and mild winters. Temperatures exceed 100 degrees for more than 110 days out of the year. The topographic barriers and atmospheric conditions limit precipitation in the area. The area usually receives its average 2.8 inches of yearly precipitation in the winter. The average wind speed is 8 miles per hour with calm conditions occurring 17 percent of the time. Wind in the project area blows predominantly from west to east. Regional air quality within the SSAB is affected by topography and atmospheric inversions.

Imperial County is designated as a non-attainment area for ozone, and PM-10, and the city of Calexico is designated as a non-attainment area for PM-2.5 under the NAAQS.

Traffic associated with the downtown Calexico LPOE contributes carbon dioxide to the atmosphere. A large number of experts in the scientific community believe that increased carbon dioxide emissions are contributing to a global temperature increase and could have an adverse effect on our environment.

**Noise.** Vehicular traffic along Imperial Avenue and the surrounding streets, trains traveling on the tracks between the Main Building and the vacated commercial LPOE, and the aircraft using the airport two miles to the west all contribute to the level of noise in the area.

**Human Health and Safety.** Hazards faced by workers at the downtown Calexico LPOE include injuries that could be sustained from collisions with moving vehicles, lifting and moving equipment, and contact with hazardous substances during inspections.

The water in the New River, which crosses the LPOE, is known to have a fecal coliform count far exceeding applicable standards. Foam formed by the chemical contaminants in the water blows out of the river channel onto the LPOE project area, spreading both the chemical and biological contaminants.

**Socioeconomics.** The population growth in Imperial County between 1990 and 2000 was 30.2 percent compared to 13.6 percent for the State of California. Growth from 2000 to 2005 was 9.5 percent compared to 6.7 percent for the state. For the City of Calexico, the population increased at a higher rate of 40.4 percent between 1990 and 2000.

The Imperial County population is 49.4 percent white, with 72.2 percent of persons reporting themselves as being of Hispanic (including Latino) origin. In the City of Calexico, 95.3 percent reported themselves as being of Hispanic (including Latino) origin. The populations that reported themselves as American Indian and Alaska Native constituted 1.9 percent of the Imperial County population in 2000. Thirty-two percent of the county's population is foreign born, almost 25 percent higher than for California residents as a whole. Over 67 percent of county residents speak a language other than English at home.

The City of Calexico provides the full range of community services to its residents including water, sanitary sewer, and solid waste utilities, law enforcement and fire protection, and recreation and library services. Imperial County provides social services, solid waste disposal sites, roads, and sheriff's office services. The major supplier of electrical services in Imperial County is the Imperial Irrigation District. Natural gas is supplied by the Southern California Gas Company. SBC Pacific Bell is the major provider of telephone services.

Imperial County's major employment sectors are government, agriculture, and retail trade. These sectors make up 70 percent of the total county employment. The high level of government employment is partially a result of the number of prison facilities located in the Imperial Valley. The unemployment rate of Imperial County is significantly higher than the state unemployment rate, hitting a high of over 15 percent in 2005. The State of California unemployment rate for the year 2005 was 5.4 percent. There is a great deal of seasonality in tourism-related and commodity packing and processing businesses in the Imperial Valley as well. Since the economic downturn in 2008 and 2009, unemployment has risen in Imperial County to a high of over 24 percent (BLS 2010).

Per capita personal income in 2004 in Imperial County was \$21,794, an increase of 14.4 percent over the 2001 income of \$19,048 (BEA 2006). Per capita income for the State of California in 2004 was \$35,219. The 2000 Census reports that 18.0 percent of Imperial County families and 21.5 percent of individuals were classified as living in poverty, based on the national poverty threshold.

**Environmental Justice.** “Minority” refers to people who classified themselves as Black or African American, Asian or Pacific Islander, American Indian or Alaskan Native, Hispanic of any race or origin, or other non-White races. Calexico has a minority population of 97.6 percent and Imperial County has a total minority population of 20.2 percent.

In 2005, the poverty-weighted average threshold for an individual was \$10,160. In Imperial County, 21.5 percent of individuals are below the poverty level, in Calexico the number is 25.7 percent. These percentages are both substantially greater than the state as a whole (13.3 percent).

Both the City of Calexico and Imperial County meet the criteria for identification as low-income populations.

## Environmental Consequences

This section summarizes the environmental effects (both positive and negative) of Alternative A, Alternative B, and the No Action Alternative. Alternative A would involve a larger scope of construction and operations than those that would be implemented under Alternative B, the Preferred Alternative. The activities under Alternative B are similar to those in Alternative A, but involve a slightly smaller footprint and a smaller scope of construction and operations. Therefore, the impacts resulting from Alternative B would be a subset of those resulting from Alternative A. The impacts for Alternative B are discussed below in comparison with those of the larger scope Alternative A. The impacts of the No Action Alternative are also presented. Table S-1 presents a summary matrix of the potential impacts from the alternatives.

**Geology and Soils.** There are no unique geological features in the vicinity of the downtown Calexico LPOE. Sand and gravel are the only known mineral resources near the site. However, no sand or gravel mining occurs on or near the site. Under both Alternative A and Alternative B, the proposed facility design would take local seismic risk into consideration to avoid/mitigate potential damage to project components. The regional building codes for the Imperial Valley area include measures to mitigate seismic risk. Soil disturbance impacts during the construction of the project would be minimized through placement of erosion control measures.

**Alternative A:** Impacts to soils within the project site under Alternative A, would be low to moderate, transitory, and overall positive for long-term stabilization. Remediation and or removal of any contaminated soil along the New River channel is likely. Clean engineering fill would be used to replace any removed soil and for any required changes in foundation levels.

**Alternative B:** Impacts to soils would be slightly less than under Alternative A, as less land would be disturbed.

**No Action Alternative:** The LPOE would not be expanded, private property would not be acquired, and no new disturbance of the soils would take place.



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### ***Water Resources.***

**Alternatives A and B:** Stormwater runoff generated on the project site be directed to catch basins onsite to promote retention and desiltation before discharge to the New River under both Alternative A and Alternative B. No impacts would be expected offsite from stormwater runoff at the project site as no runoff would cause any adverse affects to adjacent properties. No groundwater would be used for the project under either alternative. All domestic water is supplied by the City of Calexico. There would be no impact to the quantity of groundwater from the project. As with the current facility, the facilities under either Alternative A or Alternative B would connect to the City of Calexico sewer system. No significant impacts to groundwater quality are anticipated.

**Alternative A:** The total amount of impervious surface area would increase from 13 acres to 20 acres. The New River would be rechanneled into a covered culvert either in its present path or to the west along the LPOE western boundary. The New River is a U.S. waterway. Changes to the New River could result in significant impacts. The U.S. Army Corps of Engineers (ACOE) would review the proposed changes once detailed design plans are available. The designs would be revised in coordination with the ACOE to incorporate required mitigations. With these mitigations, the changes to the New River would not result in significant impacts. With channelization of the New River, impacts to flooding would be negligible under Alternative A.

**Alternative B:** The impervious surface area would increase from approximately 13 acres to 16 acres. The channel of the New River would not be changed or covered.

**No Action Alternative:** The project would not be implemented and the environmental conditions and impacts would be similar to current conditions.

### ***Land Use.***

**Alternative A:** The main facility at the current downtown Calexico LPOE would be replaced with structures and facilities that would continue its current land use. Alternative A includes new structures and facilities on the currently unused vacated commercial inspection compound. The operations of these new facilities and ancillary structures would be consistent with the past use of the site.

Under Alternative A, three parcels of land would be acquired and would be used for realigning access to and egress from the LPOE. The land use for the new parcels would not change. The new ingress and egress patterns for the Calexico LPOE are being designed to mitigate impact to the current traffic patterns in the City of Calexico

The growth pattern in the local area would not likely change as a result of construction and operation of the project, as the businesses located in the vicinity already profit from traffic using the LPOE. There could be some movement of businesses from current locations as more southbound traffic begins to use Cesar Chavez Boulevard to access the International Border.

The reconfiguration, construction, and operation of the Calexico LPOE under Alternative A would not result in significant impact to land use.

**Alternative B:** The impacts to land use would be the same or less under Alternative B as under Alternative A. Only two parcels of land would be acquired and the amount of development on

these parcels of land would be less than under Alternative A. There would not be any change to land use. The new ingress and egress patterns for the LPOE would be the same under both alternatives.

**No Action Alternative:** No additional land would be acquired for the project. The current downtown Calexico LPOE facility would continue operations at the present site. No conflict with land use plans would occur.

***Biological Resources.***

**Alternative A:** Construction of the project would disturb up to 20 acres of previously disturbed land, and permanently remove approximately 1 acre of plant communities, lawns, and shrubbery. This vegetation would be replaced with structures and ancillary facilities.

The project would result in short-term effects on wildlife due to displacement or direct mortality associated with construction and maintenance of project facilities, and long-term effects from loss of habitat from permanent project facilities. The potential small losses of wildlife caused by construction activities would be insignificant in a regional context.

The project would have little, if any, adverse impact on fish or aquatic habitat in the New River. There are no managed fisheries in the polluted New River. Sediment from construction activities should not affect water quality in the river as construction-related runoff would be controlled by berms or other structures. The proposed changes to the New River for either pathway would not adversely affect hatcheries or fish stocking in southern California.

No special-status plants were identified or are expected to occur in the region of influence. The project would not result in significant impacts to special-status plants. A single, adult burrowing owl was observed onsite. Burrowing owls could be adversely impacted if still present at the downtown Calexico LPOE at the time the proposed construction begins. Mitigative actions could include passive relocation or construction of artificial owl nests either at the LPOE or another site.

**Alternative B:** Construction of the project under Alternative B would involve essentially the same impacts as discussed under Alternative A. Although there would be fewer acres disturbed (approximately 16 acres) and the channel of the New River would not be changed, these actions would not involve much impact. The impacts that are discussed under Alternative A above would occur under Alternative B.

**No Action Alternative:** Existing conditions of biological resources in the area would continue to degrade as in any urban environment. Commercial and governmental activities would continue in the region of influence with few expected impacts to biological resources.

***Cultural Resources.*** No resources were found that were considered eligible to the NRHP. Currently, no ethnographic resources are known; however, consultation is ongoing. If additional sites are determined eligible, mitigation measures would be applied to the sites that could be impacted by project activities, as determined in consultation with interested Tribes and the California State Historic Preservation Offices (SHPOs).

**Alternatives A and B:** Construction would take place in areas that have already been developed and disturbed. Therefore there would be no additional visual effect or impact to cultural

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resources within or outside the inventoried areas from either Alternative A or Alternative B. Measures would be implemented to prevent impacts to cultural resources outside the approved work areas.

**No Action Alternative:** There would be no adverse effect on the property.

***Visual Resources.***

**Alternative A:** The residual visual impact of construction of the project would be small and insignificant because the existing visual resources are already altered from their natural state, and the visual changes introduced would not substantially modify the overall urban visual character of the area.

**Alternative B:** The impacts to the existing scenic integrity (degree of intactness or wholeness of the natural landscape) would be slightly greater than those of Alternative A due to the construction of some of the facilities at an angle to the general trend of other buildings in the vicinity of the LPOE. Although, the impact would be slightly greater, the overall impact would still be low.

**No Action Alternative:** The project would not be constructed. There would be no impacts to the existing visual resources in the area.

***Infrastructure.***

**Alternative A:** Existing utilities at the Calexico LPOE would need to be extended and undergo minor relocations to serve the new facility design. The primary water source for the facility would be provided by the City of Calexico. The projected water usage is expected to increase over 200 percent. The availability of water supply is sufficient. No impacts to water supply infrastructure would be anticipated.

The electrical use and natural gas use would increase by 16 percent under Alternative A. This projection does not take into account the lighting for the vehicle inspection canopy. The increase in electrical usage and natural gas usage from the new facility would not impact capacity in the region. The new facility would be designed for greater energy conservation than the current facility.

The new facilities would connect to the existing sewer service lines outside the LPOE. No new pumping facilities would be needed. The amount of sewer service is estimated to double. The overall availability of the City of Calexico wastewater treatment capacity would not be impacted.

**Alternative B:** Existing utilities at the Calexico LPOE would need to be extended and undergo minor relocations to serve the new facility design under Alternative B in the same manner as under Alternative A. The water usage is also expected to be similar. Under Alternative B, the electrical use and gas use would increase by 60 percent when the canopy is factored correctly.

**No Action Alternative:** Water and electricity use would continue at current levels. No new impacts to water or electric infrastructure would occur.

**Traffic.** The project will be phased in such a way that the LPOE will remain operational throughout the construction period. Effects to existing traffic would be minimal during construction using this phased approach.

**Alternative A:** Most border traffic would be rerouted from the existing crossing facility to the new one at the vacated commercial LPOE to the west of SR-111. This rerouting is expected to increase traffic on Cesar Chavez Boulevard and Second Street. The inspection times, queuing, and delays associated with southbound traffic are related to inspection of outbound vehicles by the United States, inbound inspections by the Mexican government and blockage of the railroad crossing by freight trains undergoing inspection. While Alternative A would allow for improvement of traffic due to expansion of the U.S. southbound traffic inspection capacity, it would not affect the Mexican government's inspection process.

During operation under Alternative A, the number of northbound primary inspection lanes would be increased from 10 to 16, providing for increased vehicle inspection efficiency and shorter queues and waiting times. Increasing the number of lanes to 16 would increase the peak inspection rate up to 1,216 cars per hour. This inspection rate would reduce inspection times for current rates of traffic to a few minutes. The actual clustering of arrivals within each hour would result in slightly higher waiting times. For weekly averaged hourly peak traffic rates projected for 2015, the 16 lane inspection capacity would be adequate for all projected hourly traffic volumes including the projected peak of 1,178 cars per hour.

**Alternative B:** The operation of the LPOE under Alternative B would be the same with regards to onsite northbound traffic flow as discussed for Alternative A above. Under Alternative B, the southbound entrance to the LPOE also has been aligned with Cesar Chavez to help mitigate the existing afternoon traffic problems. However, there would be fewer southbound lanes on the U.S. side of the International Border than under Alternative A. While the inspection times, queuing and delays associated with southbound traffic are related to outbound U.S. inspections and inbound inspections by the Mexican government, there would be less room for queuing on the LPOE site. Southbound traffic queues would back up onto the streets of Calexico to a greater extent under Alternative B than under Alternative A. All other impacts to local traffic would be the same as discussed under Alternative A above.

**No Action Alternative:** The 2006 weekly averaged peak hourly traffic volume of 636 vehicles per hour would exceed the maximum hourly inspection rate of 760 vehicles in 2014. While the weekly average averaged peak hourly traffic rate would not exceed the maximum hourly inspection rate until 2014, the number of hours that the hourly traffic volume exceeds the maximum hourly inspection rate would grow resulting in queues stacking up until the excess cannot be processed within a 24 period. This would significantly impact the transportation infrastructure within Calexico and Mexicali.

### ***Air Quality.***

**Alternatives A and B:** The proposed expansion under either action alternative would provide for improved northbound inspection efficiency and pedestrian safety at the LPOE, and decreased queuing time with corresponding decreases in idling vehicle emissions. Under Alternative B, the northbound traffic configuration and number of lanes would be the same as under Alternative A. Therefore the air emissions would be the same for each alternative. The emission rates would decrease compared to current projected rates by 2015 and even further for 2035 despite projected increases in traffic. Almost all of the decrease can be attributed to lower queue times. The projected emissions would also improve over time due to anticipated improvements in vehicle pollution-control systems. The southbound traffic is roughly equivalent to the northbound in

terms of numbers and types of vehicles; however, the wait time is less. The emissions numbers would be less than those for northbound traffic. Both action alternatives would help to mitigate the current emissions of pollutants from idling cars at the LPOE.

The Project is included in the Imperial County 2007 Transportation Plan. The Project is also included in the Southern California Association of Governments (SCAG) adopted the 2008 Regional Transportation Plan. The predicted CO concentrations for the action alternatives would be below the 1-hour and 8-hour NAAQS and CAAQS for CO. Therefore, no exceedances of the CO standard are predicted and thus, the Preferred Alternative would not cause a violation of this air quality standard. The Preferred Alternative would be in conformance for federal PM10 and PM2.5 standards. No associated adverse air quality impacts would occur.

**No Action Alternative:** Peak-hour emissions of carbon monoxide, NO<sub>x</sub>, and total hydrocarbons would increase with increasing queue times. The calculations indicate that, the number of hours with queues longer than one hour would increase to 15 hours out of 24 by 2015. The LPOE would not be able to process the queues that would build up. In practice, as queues became longer, some traffic would divert to the Calexico East LPOE.

### *Noise.*

**Alternatives A and B:** Although noise would be produced during construction activities for the project under Alternative A or Alternative B, this is expected to be short term (i.e., limited to the months during active construction). The noise created during the construction activities would exceed the EPA guidelines for short periods of time. However, this is not considered a significant impact due to the limited period of noise generation during each day combined with the limited period of the construction activity overall. The noise from the construction activity under either action alternative would not create significant or long-term effects.

Operation of the project would result in noise from vehicles starting, stopping, running at low speeds, and idling. Inspection activities generate a relatively small amount of noise including speaking, opening and closing of building doors, and closing of car doors and trunks.

**No Action Alternative:** The No Action Alternative would result to possible long-term noise level increases due to congestion.

**Human Health and Safety.** Under either Alternative A or Alternative B, the level of risk to construction workers increases in relation to the amount of new construction required. All applicable Occupational Safety and Health Administration (OSHA) and California Division of Occupational Safety and Health codes for health and safety would be implemented for all identified and anticipated hazards to worker health and safety, providing for basic standards of worker health and safety. The residual health and safety impacts of construction to workers would be small and insignificant because there would be no worker hazards beyond limits set by health and safety regulatory agencies and no threat to human life and/or property.

**Alternative A:** The earthmoving and construction related to realignment of the New River channel would involve unique potential impacts to worker health. Any clean up would be undertaken in accordance with procedures and practices designed to restrict the potential for releases of contaminated materials (e.g. stabilizing the soil before removal). Remediation work

plans and worker health and safety plans would have to be approved before any work in the New River could begin. Ongoing monitoring would likely be required during construction.

Potential health impacts to the public from construction of the project include fugitive dust typical of construction sites and noise. Dust control measures would be implemented to reduce the health risk. Public health impacts from construction activities would be short term and minimal due to low population density surrounding the components of the project.

Worker health and safety issues during operation of the proposed facility would primarily be typical industrial work-related injuries such as bruises, cuts, falls, and repetitive stress injuries. The overall design, layout, and operational protocols of the project would minimize occupational hazards and injuries. The residual health and safety impacts of operation of the proposed facility would be small and insignificant because there would be no worker hazards beyond limits set by health and safety regulatory agencies and no threat to human life and/or property.

After the New River is rerouted into a covered culvert under Alternative A, the potential for contamination to site workers would be minimal. There would be no blowing foam or dust from the section of the river contained within the culvert. In addition, the Mexicali II sewage treatment facility completed in 2008 has reduced the flow in the New River as well as the fecal coliform count.

**Alternative B:** The impacts to worker health and safety from construction activities under Alternative B would be that same as under Alternative A, except those associated with the New River. Under Alternative B, the New River Channel would not be rerouted or covered. Therefore, there would be no fugitive dust from working in the New River channel and no associated potential impacts from any pathogens and chemical contaminants. Since the New River channel would not be rerouted or converted into a covered culvert, the current potential for contamination to site workers would remain. Since the vehicle inspectors and other workers would be closer to the unchanged New River under Alternative B than currently, the risk will increase. Workers would be closer to the source of blowing foam or dust from the nearby section of the river. The Mexicali II sewage treatment facility completed in 2008 has reduced the flow in the New River as well as the fecal coliform count, reducing the risk to some degree depending on the amounts and nature of the remaining flows. Workers and members of the public would be closer to the New River under Alternative B than they are under the No Action Alternative. Public exposure would be a fraction of worker exposure due to less frequent and shorter times near the River.

**No Action Alternative:** The project would not be built or operated. The potential for construction accidents or worker or public exposure to additional amounts of fugitive dust and noise associated with the project would not occur. There would be no changes to the New River. The present potential for contamination to site workers from blowing foam or dust from the river would continue but would be less than those impacts associated with Alternative B.

### ***Socioeconomics.***

**Alternative A:** The project would not cause any noticeable change in existing demographic characteristics within Imperial County. Construction of the project is anticipated to span a period of 24 months requiring a range of 40 to 60 employees, depending on the construction phase. The current permanent workforce is 165 employees. Up to 352 new, permanent employees are

foreseen to be required to operate the expanded facility. To be conservative, these workers are assumed to relocate to the area from outside Imperial County. The project would not create a noticeable change in population or employment, or create significant strains on housing availability or community services within the ROI.

**Alternative B:** The impacts of the project would be the same or slightly less than those associated with Alternative A. The number of construction workers would be the same within the accuracy of the estimate for Alternative A, given uncertainties in exact work schedules. The number of permanent and relocating workers is also within the error of the original estimates. Therefore the associated impacts to population, employment, housing, and community services would be essentially the same as those discussed for Alternative A.

**No Action Alternative:** The project would not be built and operated. As a result, increasing pressure would be put on the downtown Calexico LPOE commensurate with population growth in Imperial County and the City of Mexicali. Border-crossing congestion would reach a critical state in the near future. This would cause a great inconvenience to many City of Calexico area residents. Growth in population, the economy, and housing would likely continue at historical rates under the No Action Alternative.

### ***Environmental Justice.***

**Alternatives A and B:** The siting of the Calexico LPOE would not change under either action alternative; therefore, the populations remain the same between the No Action and the action alternatives. Three resource areas, traffic, air quality, and socioeconomics, are particularly relevant in discussion of environmental justice. Though the project would generate traffic and resultant effects to air quality, construction of the project is anticipated to improve traffic flow and air quality from the present conditions. No environmental justice impacts to minorities are anticipated. For purposes of the environmental justice analysis, both the City of Calexico and Imperial County meet the criteria for identification as low-income populations. The discussion of environmental justice impacts presented for minority populations above is applicable to low-income populations in this case. Likewise, no environmental justice impacts are anticipated under either action alternative.

**No Action Alternative:** The project would not be built and operated. Operations would continue at the current downtown Calexico LPOE. There would be continuing impacts due to traffic and the queue waiting times resulting in higher emissions and therefore may have adverse impacts on Environmental Justice populations that are heavy users of the facility.

***Cumulative Impacts.*** Actions by others in the region include the road construction improvements within the City of Calexico, construction and operation of an expanded LPOE on the Mexican side of the International Border, a proposed New River Improvement Project, and the overall continued population growth in the City of Calexico and City of Mexicali areas.

The proposed New River Improvement Project could result in the enclosure of the New River from the International Border to State Highway 98. There would be no cumulative impacts from the New River Improvement Project within the LPOE project footprint under Alternative A as the New River would be enclosed from the International Border to the edge of the LPOE as part of the LPOE improvements. Under Alternative B, there would be additional disturbance to the soils along the New River from the New River Improvement Project. The amount of disturbance

would be that same as described under Alternative A. The areas that would be disturbed by the project are mostly previously disturbed and of relatively low habitat value. However, the presence of the burrowing owl on the vacated commercial LPOE indicates there is always potential for impact to sensitive species. Consideration of planned and future developments on historical resources is an ongoing concern. These future activities could have impacts to historic resources similar to those from past projects.

Continued population growth in the Imperial County and Mexicali area has the potential to cause strain to water, wastewater, and electrical generation and transmission systems. The project is dependent on the utilities provided in the area. The change in utility usage due to the project is a small contributor to the overall significance of the cumulative impacts of population growth to infrastructure.

Continued growth in the Imperial County area has increased congestion on the road network. Additional traffic from this growth, combined with increases in traffic expected to travel through the Calexico LPOE, would likely reduce levels of service on some streets within Calexico, particularly along Imperial Avenue and Cesar Chavez Boulevard, a predominantly minority and low-income area. Significant cumulative impacts could result from this additional traffic regardless of the decision being made in this EIS. This congestion could result in decreased property values and inconvenience for residents accessing their homes and apartments. This is potentially a significant cumulative impact. Under either action alternative, the realignment of ingress and egress at the LPOE is a potential mitigation for these expected impacts.



**Table S-1. Summary of Potential Environmental Impacts**

<b>Impact Issues</b>	<b>No Action Alternative</b>	<b>Alternative A</b>	<b>Alternative B (Proposed Action)</b>
Geology and Soils	○	⊙	⊙
Water Resources	○	⊗	⊙
Land Use	○	⊙	⊙
Biological Resources	○	⊗	⊗
Cultural Resources	○	○	○
Visual Resources	⊙	⊙	⊙
Infrastructure	⊙	⊙	⊙
Traffic	⊗	+⊙	+⊙
Air Quality	⊗	+⊙	+⊙
Noise	⊙	⊙	⊙
Human Health and Safety	⊙	⊗	⊙
Socio-economics	⊙	+⊙	+⊙
Environmental Justice	⊙	+⊙	+⊙

In cases when there would be both beneficial and adverse impacts, both are shown on this table. Mitigation measures would apply only to adverse impacts.

**LEGEND:**

- ⊗ = Significant impact
- ⊗ = Significant but mitigable to less than significant impact
- ⊙ = Less than significant impact
- = No impact
- + = Beneficial impact
- N/A = Not applicable



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## ACRONYMS

ACOE	Army Corps of Engineers
AGFD	Arizona Game and Fish Department
AST	Above Ground Storage Tank
BEA	United States Bureau of Economic Analysis
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
CBP	Customs and Border Protection
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
cfs	cubic feet per second
CILA	Comision Internacional de Limites y Aguas
CNDDB	California Natural Diversity Data Base
CRBRWQCB	Colorado River Basin Regional Water Quality Control Board
CRWCB	California Regional Water Control Board
dBA	A-weighted sound level
DHS	Department of Homeland Security
EIS	Environmental Impact Statement
EPA	United States Environmental Protection Agency
ESA	<i>Endangered Species Act</i> of 1973
FEMA	Federal Emergency Management Agency
FR	Federal Register
GSA	General Services Administration
IBWC	International Boundary and Water Commission
ICAPCD	Imperial County Air Pollution Control District
IID	Imperial Irrigation District
KGRA	Known Geothermal Resource Areas
L <sub>dn</sub>	day-night average noise level
L <sub>eq</sub>	equivalent sound level
LPOE	Land Port of Entry
NAAQS	National Ambient Air Quality Standards

NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO <sub>x</sub>	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OSHA	Occupational Safety and Health Administration
PM <sub>10</sub>	particulate matter smaller than 10 microns in diameter
POE	Port of Entry
POV	privately-owned vehicle
RIMS	Regional Input-Output Modeling System
SHPO	State Historic Preservation Officer
SR	State Route
SSAB	Salton Sea Air Basin
SWPPP	Storm Water Pollution Prevention Plan
TCP	traditional cultural property
TDS	Total Dissolved Solids
U.S.	United States
U.S.C.	United States Code
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground Storage Tank



# 1 PURPOSE OF AND NEED FOR ACTION

## 1.1 Introduction

The General Services Administration (GSA), through its Border Station Program, assists the Bureau of Customs and Border Protection (CBP), a part of the Department of Homeland Security (DHS), by planning, designing, building, owning and leasing Land Ports of Entry (LPOEs) responsive to CBP's mission requirements. By developing solutions to meet CBP's needs, GSA enhances the security and safety of the United States' (U.S.) borders.

Congressional mandates pertaining to all LPOEs require DHS to develop and implement new inspection technologies for the inspection and tracking of inbound and outbound vehicles and pedestrians at the U.S./Mexico border.

## 1.2 Purpose of Agency Action

The purpose of the proposed action is to reduce congestion at the downtown Calexico LPOE and to provide state-of-the-art inspection systems and a safe environment for inspection officers and the traveling public.

## 1.3 Need for the Proposed Action

The existing LPOE does not meet the Federal inspection services' minimum standards for processing time and overall efficiency. GSA's need is to correct these operational deficiencies, provide for more thorough inspections, improve safety for employees and the public, and reduce the delays experienced by the public. GSA and CBP have identified basic deficiencies at the downtown Calexico LPOE border crossing that would require the following corrective conditions:

- Provide a comfortable, secure, and safe environment for travelers and CBP staff.
- Accommodate the installation of technologically-advanced devices such as license readers, radiation detectors and x-ray equipment.
- Increase the space and functional area required for proper operation of inspection services and other services.
- Incorporate seismic design requirements.
- Remove traffic and pedestrian conflicts, reduce northbound wait times, and limit walking distances.
- Alleviate current vehicle traffic congestion in the city streets of Calexico, California and Mexicali, Baja California.
- Align vehicular and pedestrian access and egress with existing and future Mexican LPOE facilities.
- Remain operational during construction.
- Accommodate bus passengers.

- Maximize flexibility to accommodate future inspection needs including the ability to inspect southbound vehicles.

A general trend of increasing cross-border commerce and traffic suggests that current problems would become worse in the future without corrective action.

## **1.4 Proposed Action**

GSA proposes to develop new and substantially larger facilities for inspection of privately-owned vehicle (POVs) on land immediately west of the existing LPOE and demolish the existing LPOE building to permit construction of a new pedestrian processing building. Buses would continue to be inspected at the Calexico East LPOE approximately six miles east of downtown Calexico, except when that facility is closed. At such times, bus passengers would be processed through the new downtown pedestrian building and the buses would be processed through the oversized vehicle lanes within the new POV inspection compound. The proposed action would realign vehicle traffic to increase the space available for inspections, thereby reducing vehicle and pedestrian queues. The increased space would also enable the installation of technologically-advanced inspection devices and enhance public safety through compliance with current seismic design requirements.

## **1.5 Location and Description of Facility**

The downtown Calexico LPOE is located in the border city of Calexico, approximately 120 miles east of San Diego in the Imperial Valley of California (Figure 1-1). Directly south of the LPOE on the Mexican side of the border is the city of Mexicali, Baja California. The two border cities are situated in an international agricultural, business, and cultural region. The combined population of this region is approximately 1,000,000, with 27,000 in Calexico.

The downtown Calexico LPOE is currently dedicated to privately-owned vehicle (POV), bus, bicycle, and pedestrian inspections. All commercial vehicles were diverted to the new Calexico East Border Station in 1996. On an average day in 2010, approximately 17,000 POVs, five buses, and 18,000 pedestrians entered the U.S. through the downtown Calexico LPOE. This traffic was comprised mostly of day-trippers, including workers, students, and shoppers.

### **1.5.1 Site Boundaries**

The site of the current LPOE facilities covers 102,040 ft<sup>2</sup> in downtown Calexico, and is bounded on the east by Heffernan Avenue, on the north by First Street, on the west by the Imperial Highway (SR-111), and on the south by the U.S.-Mexico border (Figure 1-2). GSA also owns the 460,760 ft<sup>2</sup> vacated commercial inspection compound, immediately west of the current LPOE site. This parcel is bordered on the east by Imperial Highway and the Union Pacific railroad right of way, on the north by Second Street, and on the south by the U.S.-Mexico border. The western edge of this area abuts private property.

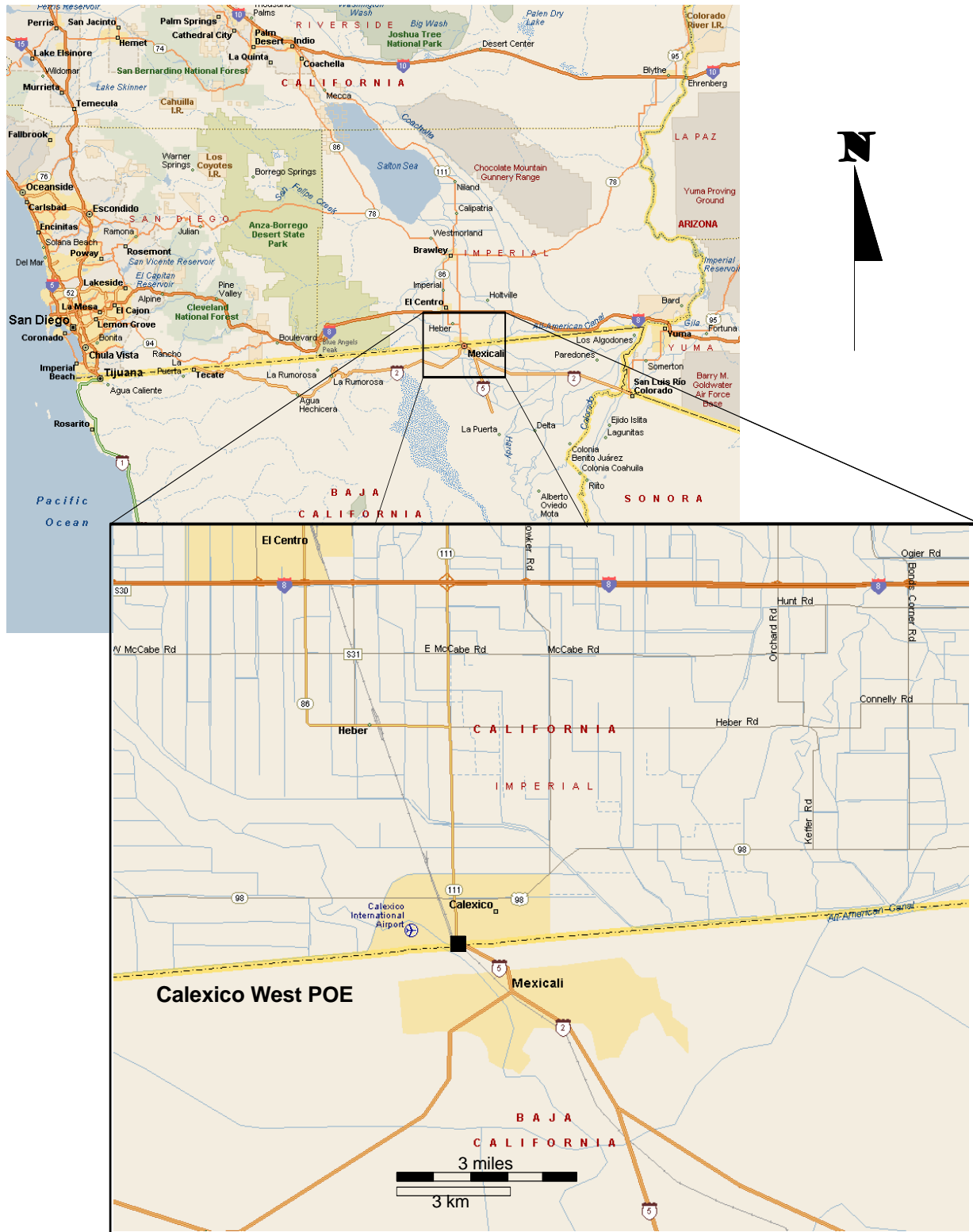


Figure 1-1. Downtown Calexico Land Port of Entry and Surrounding Region



**Figure 1-2. Current downtown Calexico LPOE Configuration and Site Boundaries**



### 1.5.2 Adjacent Land Use and Development

The downtown Calexico LPOE is on the edge of the downtown area, with buildings containing a variety of small retail establishments to the east and north (Figure 1-3). To the west of the current facility is the vacated commercial inspection compound that has several structures including a truck inspection building. This lot is transected by the New River. The land west of the vacated commercial inspection compound is largely undeveloped.



**Figure 1-3. Retail Establishments along First Street immediately East of the Current LPOE Facility**

### 1.5.3 Access to the LPOE

Northbound vehicular access from Mexico begins with Avenida Cristobal Colón (Avenida de Colón) in Mexicali. Avenida Cristobal Colón is a three-lane, one-way street heading west along the south side of the border wall. Approximately 450 feet from the downtown Calexico LPOE, the road widens to five lanes. After primary inspection at the LPOE, vehicles exit the facility onto First Street heading west, then immediately onto Imperial Avenue traveling north (Figure 1-4). Vehicles exiting the secondary inspection area travel immediately onto Imperial Avenue north.

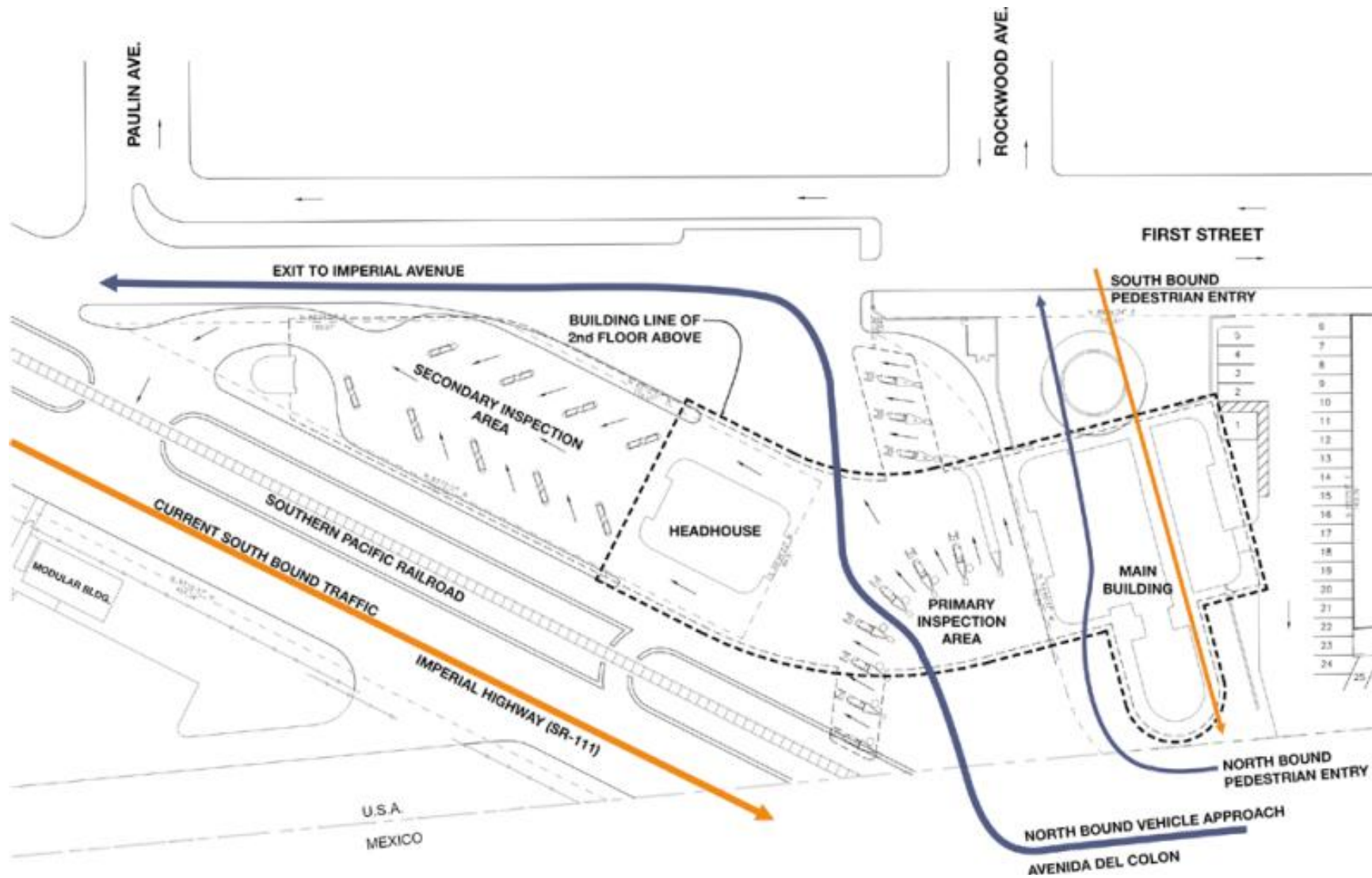


Figure 1-4. Vehicular and Pedestrian Access Routes to the downtown Calexico LPOE

Vehicles entering Mexico travel southbound on Imperial Avenue, bypassing U.S. inspection facilities.

Pedestrians entering the U.S. cross Avenida Cristobal Colón through an underpass, and then enter the downtown Calexico LPOE for processing. Northbound pedestrians exit the inspection facility along First Street, east of the vehicular exit. Pedestrians entering Mexico follow a similar route in reverse.

#### **1.5.4 Current Configuration and Condition of the Facility**

The two-story Main Building structure with a mezzanine was constructed in 1972 and has had no major modifications or additions. The Main Building houses the administrative and support functions of the LPOE and the enforcement and benefits functions related to both pedestrian and vehicle inspection and processing. Approximately 45,000 GSF is primary and secondary vehicle inspection areas covered by canopies and 46,000 GSF is building area. A canopy structure over the secondary vehicle inspection area extends from the west end of the building. There are a total of four northbound pedestrian processing stations, ten northbound POV inspection lanes and two southbound inspection lanes.

A range of deficiencies has been noted during building inspections including problems related to the condition of the heating/ventilation and air conditioning system, plumbing, electrical system, structural components, exterior enclosure, interior finishes, fire/life safety issues, and security/access control. The structure is not in compliance with the *Architectural Barriers Act*.

### **1.6 Objective of the Environmental Impact Statement and Decisions to be Supported**

In this EIS, GSA is examining the environmental impacts of the alternatives for expansion, reconfiguration, replacement, and continued operation of the downtown Calexico LPOE in Alternatives A and B, as well as the environmental impacts associated with taking “No Action”. The EIS provides the government and the public with descriptions of the affected environment, the current operation of the port, and the potential impacts associated with the expansion, reconfiguration, replacement, and continued operation of the LPOE under each alternative, including the No Action alternative.

No sooner than 30 days after the Final EIS is issued, GSA will prepare a Record of Decision (ROD). In the ROD, GSA will explain all the factors that were considered in reaching its final decision, including the environmental factors. GSA will identify the environmentally preferable alternative or alternatives and may select either one of the alternatives or a combination of alternatives analyzed in the EIS.

This project is the culmination of several years of bi-national planning and coordination. A Presidential Permit will be required. An application has been prepared. This EIS and the Presidential Permit application have been coordinated with the Department of State.

## 1.7 Public Participation

### 1.7.1 Scoping

Public participation is integral to the preparation of an EIS. This section summarizes the issues and concerns that were identified during the public scoping process and the results of the public review of the Draft EIS.

Scoping is a process for determining the range of issues to be addressed in an EIS and for identifying significant issues associated with the alternatives (40 *Code of Federal Regulations* [CFR] §1501.7). The objectives of the scoping process are to notify interested persons, Federal, state, local, and tribal agencies, and other groups about the alternatives being considered; solicit comments about environmental issues, alternatives, and other items of interest; and consider those comments in the preparation of the EIS.

Scoping for the EIS began with mailing of the Notice of Intent (71 *Federal Register* [FR] 38) to 52 recipients on February 20, 2006, and continued until the end of the comment period on April 13, 2006. A Spanish-language translation of the Notice of Intent was sent to Mexican government authorities. The Notice of Intent was prepared to alert the public that GSA intended to prepare an EIS on the future of downtown Calexico LPOE operations and to invite other Federal agencies, Native American tribes, state and local governments, and the general public to participate in the scoping process. The Notice of Intent also presented background information on the downtown Calexico LPOE and the preliminary alternatives.

A scoping meeting was held for the general public on March 8, 2006, at the Calexico City Hall in Calexico, California. In a poster session at this meeting, GSA presented information on its proposal to prepare the EIS and the alternatives planned for analysis. Handouts were available in English and Spanish. The public was invited to present oral and/or written comments at the scoping meeting. Written comments could also be submitted by regular mail, facsimile, and electronic mail.

During the public scoping process, a total of 34 individuals or organizations either submitted requests for continued notification about the project or made oral or written comments at the scoping meeting. All of these comments have been reviewed and considered at various stages during the preparation of the EIS. Many are explicitly addressed in the pertinent sections of the document. Major comments are summarized below.

- **Alternatives.** Ensure that the new facility does not conflict with expansion of the wastewater treatment plant north of Second Street and a future walkway along the New River. Consider construction of a new LPOE in the western portion of the Imperial Valley to reduce traffic congestion.
- **Cultural Resources.** Turn over or sell at a low price to the City of Calexico the old customs house at First Street and Heffernan Avenue. Preserve or relocate the public art mural painted on the north side of the border fence west of the current inspection facility.
- **Air Quality.** Evaluate project effects on air quality as well as cumulative impacts.
- **Traffic.** Perform a Traffic Impact Study showing impacts to all State highway facilities and intersections. Cumulative traffic impacts also need to be evaluated.

- **Socioeconomics.** Converting Imperial Avenue into a one-way street carrying traffic northbound would hurt businesses along that street, especially those such as Mexican insurance sales that sell almost exclusively to southbound traffic.

Since the Scoping Meeting, ongoing interaction with local government officials, Caltrans, and other agencies has also provided comments and input that has been taken into consideration in the preparation of this EIS.

### **1.7.2 Issuance and Review of the Draft EIS**

The Draft EIS for the Expansion and Reconfiguration was issued on June 24, 2010. Public meetings were held on June 22 and July 14, 2010, between 3 and 7 p.m., at the Calexico City Hall, 608 Heber Avenue, Calexico, California. The meetings were conducted as open houses with personnel present to answer any questions. No formal comments were submitted at either meeting. The comment period ended on August 18, 2010. Eight comment letters were received. All comments on the Draft EIS were considered in the preparation of this Final EIS.

A Traffic Impact Study was issued at the same time. Comments on the Traffic Study were also evaluated for relevance to the impacts assessed in this Final EIS and were also taken into consideration in the Final EIS as appropriate.

The comment letters and individual responses to the comments on the Draft EIS are presented in Appendix G.



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## 2 ALTERNATIVES

### 2.1 Introduction

The CEQ regulations (40 CFR 1500-1508) require that Federal agencies use the review process established by the *National Environmental Policy Act* (NEPA) of 1969 to identify and review reasonable alternatives to meet the need for agency action, as well as a “no action” alternative. This comprehensive review ensures that environmental information is available to public officials and citizens before decisions are made and actions are taken. These alternatives are central to an EIS.

GSA established the following purpose and goal criteria to assist in developing the alternatives. They include:

- Provide a comfortable, secure, and safe environment for travelers and CBP staff.
- Accommodate the installation of technologically-advanced devices such as license readers, radiation detectors and x-ray equipment.
- Increase the space and functional area required for proper operation of inspection services and other services.
- Incorporate seismic design requirements.
- Remove traffic and pedestrian conflicts, reduce northbound wait times, and limit walking distances.
- Alleviate current vehicle traffic congestion in the city streets of Calexico, California, and Mexicali, Baja California, Mexico.
- Align vehicular and pedestrian access and egress with existing and future Mexican POE facilities.
- Remain operational during construction.
- Accommodate bus passengers.
- Maximize flexibility to accommodate future inspection needs.

Alternatives were considered based on these criteria. With subsequent input, GSA developed two action alternatives that would meet the purpose and need for the project and provide context and a means of comparison of impacts for the public and decision-maker. Alternative A involves a larger scope than the other action alternative analyzed. It represents maximal expansion of the downtown Calexico LPOE. The No Action Alternative involves no expansion. Alternative B (the Preferred Alternative) consists of the planned set of reconfiguration, construction and demolition activities, together with related operational changes. The activities associated with these alternatives are described in the following sections.

#### 2.1.1 No Action Alternative

Under the No Action Alternative, operation of the downtown Calexico LPOE would continue at the present facility, described in Section 1.4. This alternative would not require the acquisition of

any new land. No construction or demolition would take place. Operations would continue with a staff of approximately 165 employees.

This alternative would not meet GSA's purpose and need. The size and configuration of the facility would result in continued deficiencies in operational efficiency and safety. Queuing times would remain the same or increase, as no new inspection lanes would be built. Operations of the LPOE have resulted in northbound queuing times of up to 90 minutes. With queues of over an hour, the peak hour arrivals add to the amount of traffic remaining in the queue, extending delay times. CBP staff would continue with inadequate space for operations. Access and egress routes would not be aligned with the planned future Mexican POE facilities.

Under the No Action Alternative, the LPOE would still undergo maintenance and minor improvements and upgrades within its current footprint and configuration. The improvements and upgrades could include repaving, new inspection technology, improved utility systems, and other replacement-in-kind actions.

## **2.2 Alternative A**

Alternative A would expand and upgrade the downtown Calexico LPOE to accommodate new equipment, increase safety, reduce wait times and traffic congestion, and align the facilities with the existing and future Mexican POE facilities.

The downtown Calexico LPOE has two separate parcels of Federal government-owned properties available for development: the Main Building site currently used to process all POV and pedestrian traffic and the vacated commercial inspection compound that was used prior to the opening of the new Calexico East LPOE in 1996 (Figure 1-2). Three parcels of privately owned land are located adjacent to the LPOE. One (~0.6 acres) is at the southwest corner of Second Street and Imperial Avenue (currently a Duty Free store) (Figure 2-1). The second (~1.8 acres) is on the other side of the New River channel southwest of the vacated commercial inspection compound. The third parcel of land (~5.0 acres) is located west of the vacated commercial inspection compound and north of the second parcel.

Alternative A would expand the capacity of the downtown Calexico LPOE by constructing new facilities for pedestrian traffic at the site of the existing LPOE and by building a new vehicular inspection facility on the unused area to the west where the old commercial inspection compound was located (Figure 2-2).

### **2.2.1 New Vehicle Inspection Facility**

The inspection of southbound (outbound) POV traffic occurs on an ad hoc basis now, often causing congestion of the downtown area. GSA and CBP have agreed these ad hoc southbound inspections should be treated as if they were permanent for the purposes of this analysis. Currently there are two southbound lanes in which southbound inspections happen. Alternative A would include eight primary inspection lanes for the southbound POV traffic.



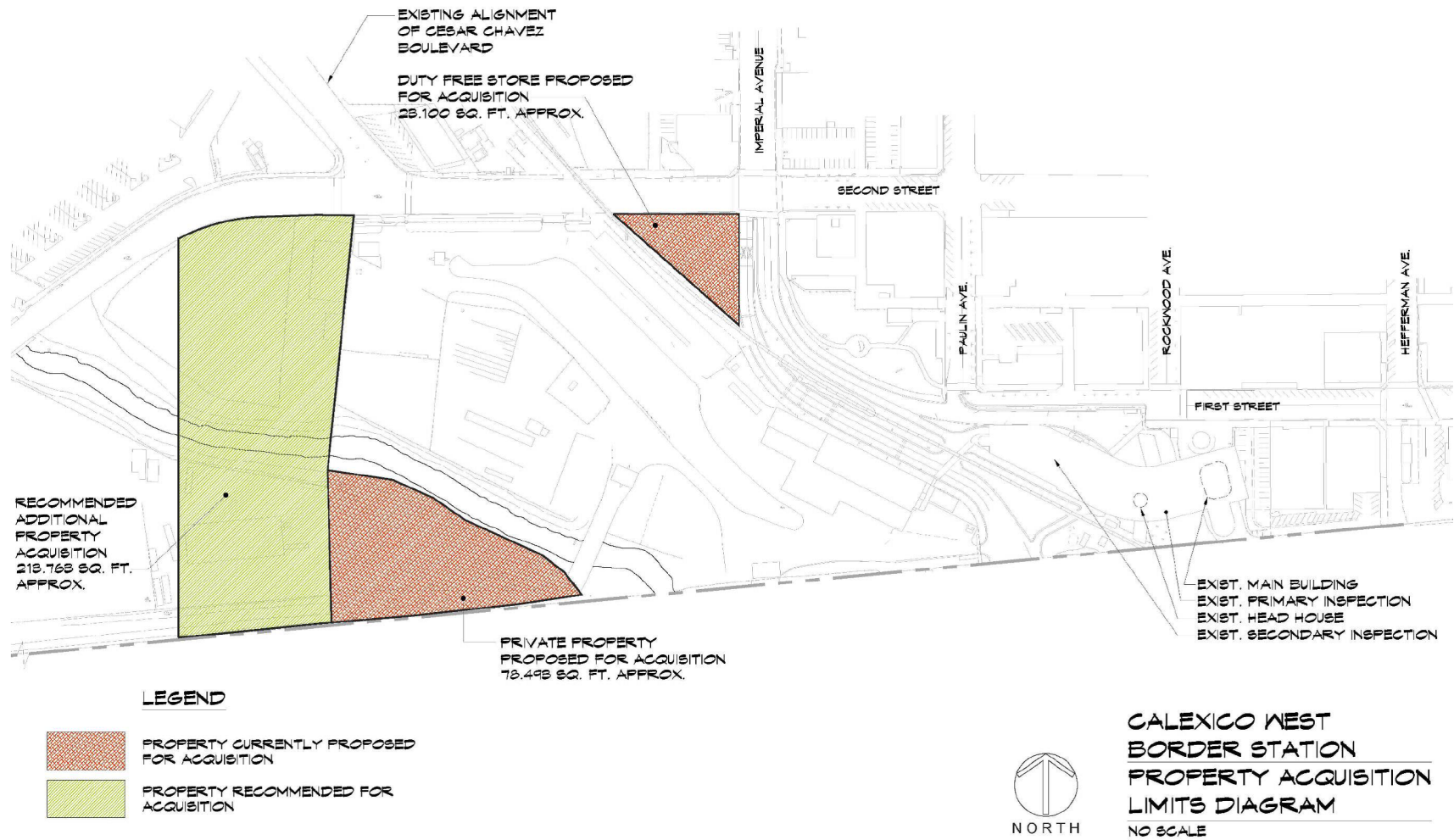


Figure 2-1. Alternative A Property Acquisition Plan

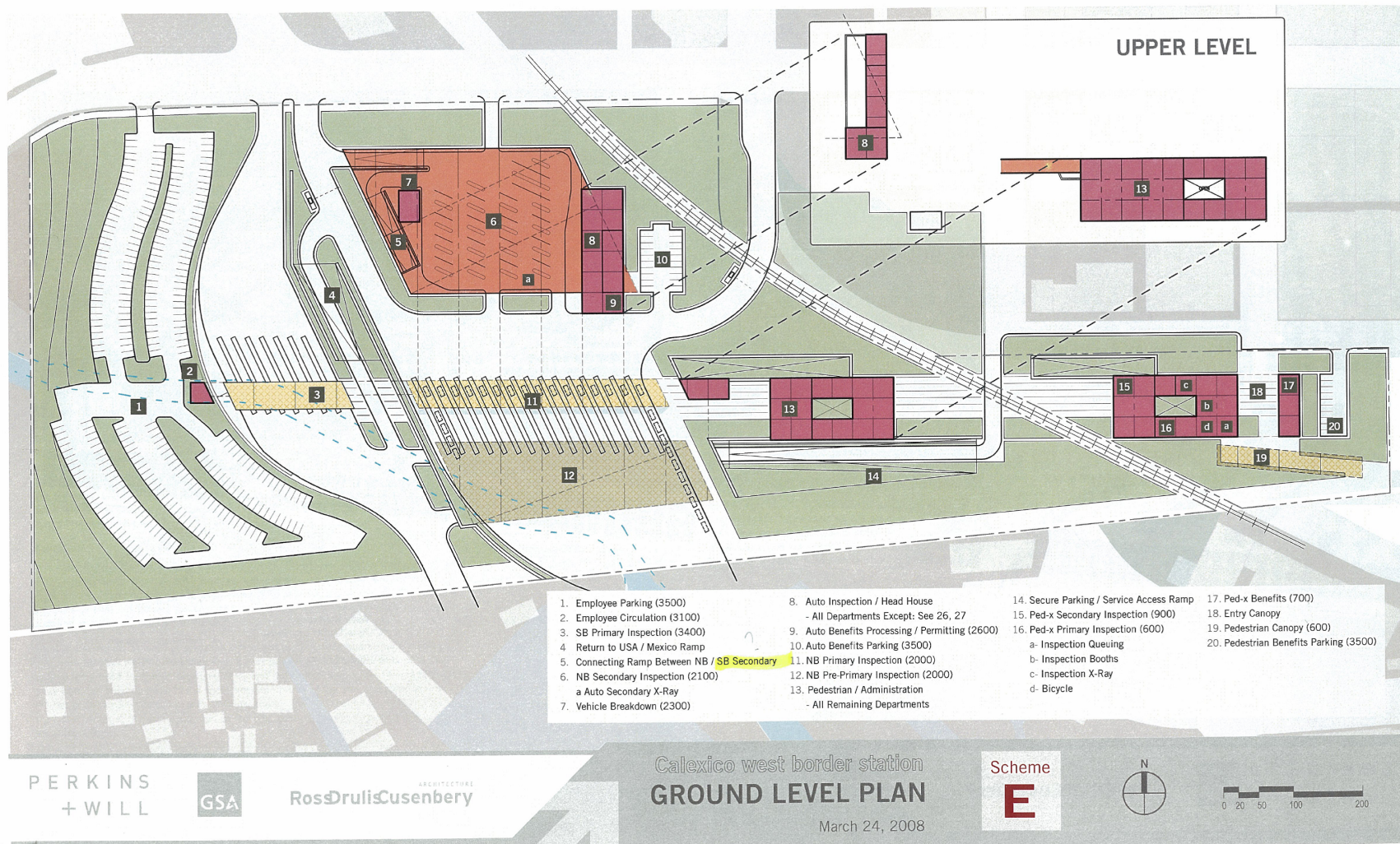


Figure 2-2. Alternative A Site Plan

The land at the southwest corner of Second Street and Imperial Avenue (currently a Duty Free store), the privately owned land triangle shaped parcel on the other side of the New River channel southwest of the old commercial LPOE would be acquired to accommodate the new vehicle inspection facility. The 5.0 acres parcel of land west of the vacated commercial inspection compound would be developed as secured employee parking for up to 350 vehicles.

Southbound access to the LPOE would be from Second Street and Cesar Chavez Boulevard. Northbound access would be from west of the railroad tracks. Northbound traffic leaving the LPOE would exit to either Imperial Avenue or Cesar Chavez Boulevard at Second Street.

The New River channel runs through the area required for the new vehicle inspection lanes under Alternative A. Under this alternative, the New River would either be enclosed in a culvert along its current channel, or routed into a culvert between the new vehicle inspection facility and the western site boundary. The Mexican government plans a northward extension of the underground culvert in which the New River flows through much of Mexicali. The Mexican Government is planning to develop their new port of entry over the extended culvert.

One likely scenario for enclosing the New River would include construction of a temporary lined diversion channel to the west of the current channel within the footprint of the LPOE and acquired lands. The flow of the New River would be diverted into the new temporary lined channel. The contaminated soils in and along the natural channel of the New River would have to be removed or remediated, and a new concrete covered culvert constructed along the New River's former path. The flow of the New River would then be diverted from the temporary channel back into the concrete culvert and the temporary channel removed and filled in to accommodate the construction of the new traffic lanes and parking.

Under another scenario, a new culvert channel could be constructed first along the western edge of the LPOE and acquired lands, then the New River diverted into the new channel. The soils in the old channel would still require removal/remediation before the channel was filled in to accommodate the new traffic lanes and parking.

Under either scenario, work within the waters and soils of the New River would require additional sampling, approved work plans for handling potentially hazardous/toxic materials, approved health and safety plans, and monitoring during construction. The disposal and or remediation of the soils would require appropriate permits. The design of the culvert under either scenario would involve enclosure of approximately 700 feet of channel. The design would be coordinated with the U.S. Army Corps of Engineers to ensure that issues associated with flooding and erosion at the culvert outlet are sufficiently addressed.

The exact location and type of culvert would be determined by GSA in consultation with City of Calexico officials and appropriate Federal and state agencies.

The storm drain system will consist of surface drainage to catch basins and piping to a BMP (Best Management Practices) retention/desiltation basin before discharge into the New River. The onsite storm drain system will be designed for 100-year storm events. The collection system and erosion control plans will include BMP for SWPPP (Storm Water Pollution Prevention Plan) and SWMP (Storm Water Management Plan), per the State Regional Water Quality Control Board, District 7 (RWQCB). The proposed site storm drain system will consist of numerous drainage swales terraced and shallow small and large storm water retention/desiltation

basis distributed throughout the site when feasible. The objective will be to maximize storm water infiltration and desiltation.

In addition, water-harvesting terraces will be used to collect the infrequent rainwater and to produce managed, native vegetation along the terrace lines. The intervening zones between the terrace walls will be covered with local stone mulch to prevent erosion.

The major features of the new vehicle inspection facility include new headhouse facilities, primary inspection booths, secondary inspection areas, impound lot, secured parking spaces, paved roadways and walkways, security fences, and barriers. A headhouse would be located on the east side of the railroad track southwest of the intersection of Second Street and Imperial Avenue. The headhouse would be a two story facility overlooking the vehicle inspection areas and housing several CBP functions.

The northbound primary POV inspection area would have 16 lanes. The secondary inspection areas would have space for up to 32 cars at one time. The southbound vehicle inspection, including the inspection of buses, would take place to the west of the northbound inspection lanes. The primary southbound inspection area would include eight lanes.

The northbound and southbound inspection areas would be connected by a controlled access ramp to allow for circulation of official use vehicles and for supervised vehicle movements, such as the diversion of vehicles rejected for entry to, or exit from, the U.S.

### **2.2.2 New Pedestrian Processing Facility**

The new pedestrian inspection facilities would be located on the east side of the railroad in the location of the current main building. Bus passengers would be inspected in this building as pedestrians. The flow pattern of northbound and southbound pedestrians would be the same as the current pattern. An administration building would be located west of the railroad tracks just east of the northbound primary vehicle inspection lanes.

### **2.2.3 Construction in Phases**

In order to for the LPOE to remain open and operational during the proposed expansion, the construction is planned to be performed in phases. Planning for the phased construction has only been done in detail for the Alternative B, the Preferred Alternative (see Section 2.4.3 below). The phased construction under Alternative A would be roughly similar but would have to include accommodation of changes to the New River channel.

## **2.3 Alternative B, Proposed Action (Preferred Alternative)**

The Preferred Alternative would expand the capacity of the downtown Calexico LPOE by constructing new facilities for pedestrian and POV traffic as under Alternative A. However, there would be fewer southbound inspection lanes. Access to the LPOE would be the same as under Alternative A. Southbound access would be from Second Street and Cesar Chavez Boulevard. Northbound access would be west of the railroad tracks. Northbound traffic leaving the LPOE would exit to either Imperial Avenue or Cesar Chavez Boulevard at Second Street (Figure 2-3).

As under Alternative A, the Preferred Alternative would expand and upgrade the downtown Calexico LPOE to accommodate new equipment, increase safety, reduce wait times and traffic congestion, and align the facilities with the existing and future Mexican POE facilities. However, under the Preferred Alternative, the New River would not be covered or moved. Except for a new bridge across the New River for southbound vehicular traffic and a seized vehicle impound lot, all of the LPOE facilities would be located northeast of the New River. There would be five southbound vehicle inspection booths rather than eight. And there would be 340 parking stalls rather than 389.

The same two Federal government-owned properties at the downtown LPOE would be utilized under the Preferred Alternative as under Alternative A. However, only two parcels adjacent to the LPOE would be acquired. Under the Preferred Alternative, the privately owned land at the southwest corner of Second Street and Imperial Avenue (currently a Duty Free store), would not be acquired (Figure 2-4).

A portion of the privately owned, triangular parcel on the other side of the New River channel southwest of the old commercial LPOE would be acquired for development as an impound area for seized vehicles. A nonexclusive easement of approximately 33 acres would be sought on the south side of the New River between this land and 2<sup>nd</sup> Street. The 5.0 acre parcel of land west of the vacated commercial inspection compound would be developed for employee parking.

### **2.3.1 New Vehicle Inspection Facility**

As under Alternative A, the new vehicle inspection facility to be constructed would include new headhouse facilities, primary inspection booths, secondary inspection areas, impound lot, secured parking spaces, paved roadways and walkways, security fences and barriers. Under the Preferred Alternative, the new Headhouse building would be located just west of and parallel to the railroad tracks.

The northbound primary POV inspection area would have 16 lanes. The secondary inspection areas would have space for up to 32 cars. The inspection of southbound (outbound) traffic would utilize five lanes and booths. An additional lane would be provided for emergency bypass.

The two levels of the secondary inspection structure would be connected by controlled access ramps to allow for circulation of official vehicles and supervised vehicle movements, such as the diversion of vehicles rejected for entry to, or exit from, the U.S.

### **2.3.2 New Pedestrian Processing Facility**

A new Pedestrian Processing Building would be built on the site of the existing main building. The new building would house all of the pedestrian inspection, certain employee support and port response programs as well as prosecutions and detention facilities at the lower level. Buses will be processed through the Calexico East LPOE approximately six miles east of downtown Calexico except when the inspection facilities there are closed. Northbound bus passengers being processed through the downtown LPOE would leave their buses on the Mexican side of the border and be processed through the building as pedestrians. The empty buses would be inspected in the easternmost of the northbound vehicular lanes.

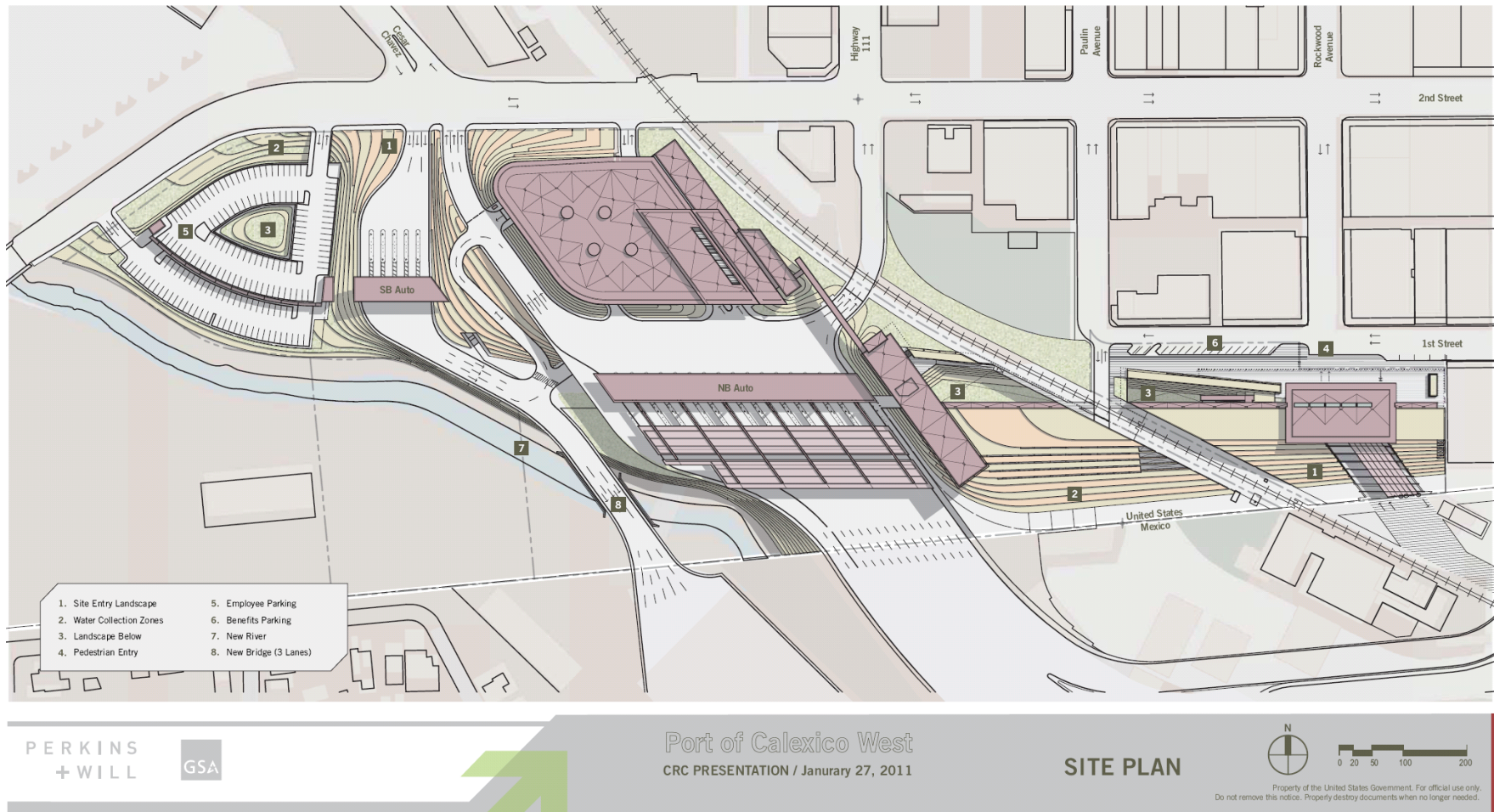


Figure 2-3. Alternative B (Preferred Alternative) Site Plan

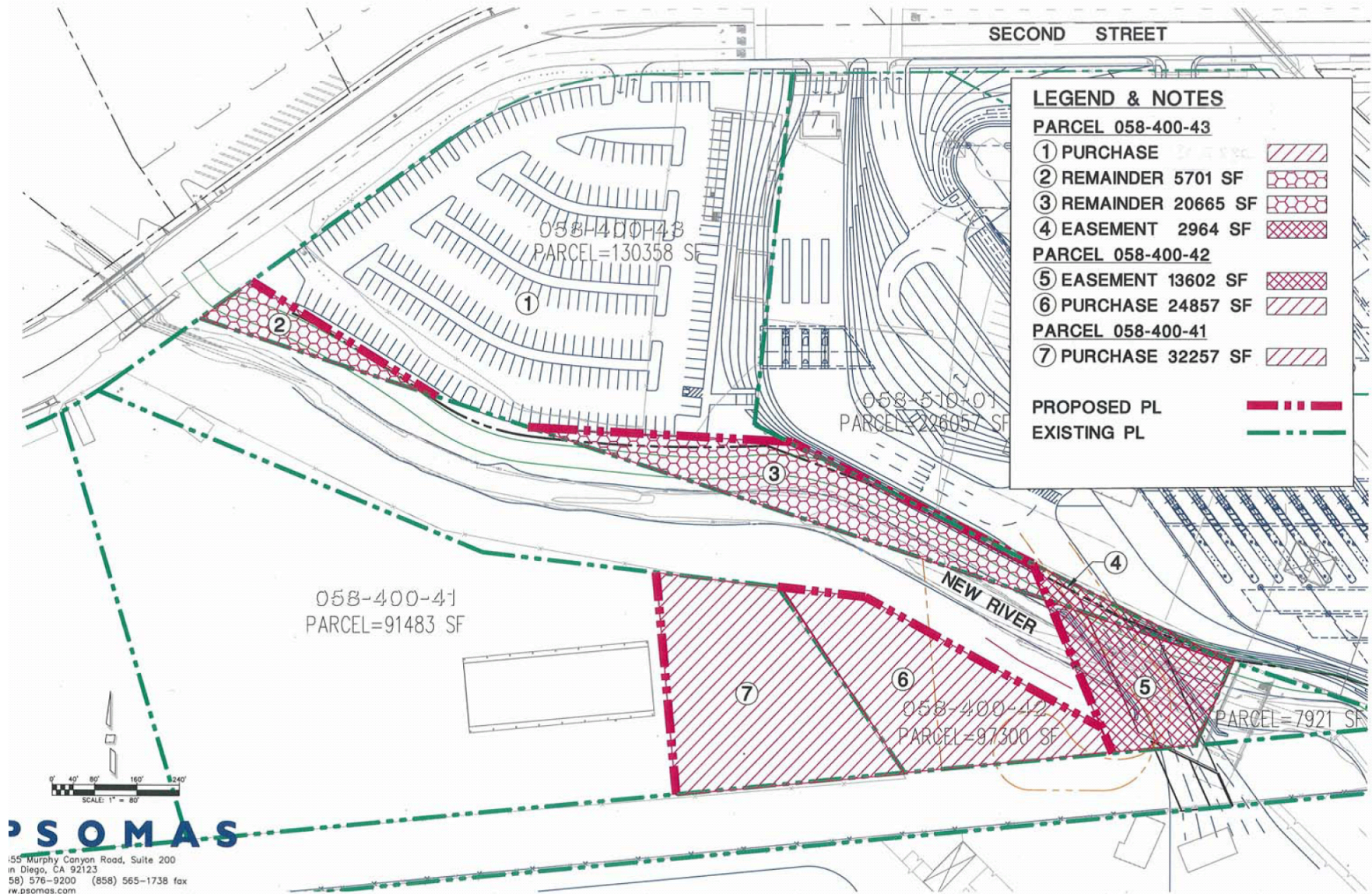


Figure 2-4. Alternative A Property Acquisition Plan

The project is designed to integrate sustainable concepts throughout as well as to exemplify opportunities inherent in southern ports of entry. The project will be benchmarked against the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) rating system with a minimum target rating of silver.

### **2.3.3 Construction in Phases**

The construction will be funded in two phases. During Phase I construction, the vehicle and pedestrian inspections would continue in the existing facilities while the old commercial LPOE would be cleared and graded. Only part of the auto facility would be built in Phase I (Figure 2-5). Phase I plans include 10 lanes of northbound primary auto inspection, 12 secondary inspection stalls, and full build-out of the Headhouse facility. Temporary surface parking for employees and a secure prisoner transport sally-port would be located at the lower level along with employee circulation. Temporary paving for five southbound inspection lanes and one emergency bypass lane will be built in Phase I, as will a bridge across the New River. The Mexican government has assured GSA that it will maintain access to the existing northbound vehicle inspection lanes until completion of the Phase I construction. Thereafter, access to the old northbound vehicle inspection lanes would be eliminated as Mexico would begin construction of roadway and a tunnel giving access to the new northbound vehicle inspection lanes for traffic approaching along the border from the east. There may or may not be a period of time subsequent to the completion of Phase I when some of the old northbound vehicle inspection lanes would remain accessible. The Cesar Chavez intersection with Second Street would be signalized to accommodate the traffic flows created in Phase I.

During Phase II, the remainder of the auto inspection facilities and site development to the western edge of the site would be built (Figure 2-6). The remaining northbound and all the permanent southbound vehicle inspection facilities would be constructed in this Phase along with permanent employee parking, secure circulation, prisoner transport area, a new Administration Building and a new Pedestrian Processing Building.

Signalization of the two Second Street intersections would be revised during Phase II to accommodate the final traffic flows.

The GSA continues to coordinate with the Mexican government regarding the design of the U.S. LPOE and the connections to the Mexican LPOE. Currently, the Mexican government is waiting for the U.S LPOE design to be selected and then will design their LPOE accordingly. The design of the Mexican LPOE will adapt to the U.S LPOE. Figure 2-6 shows the current conceptual design for the Mexican LPOE.



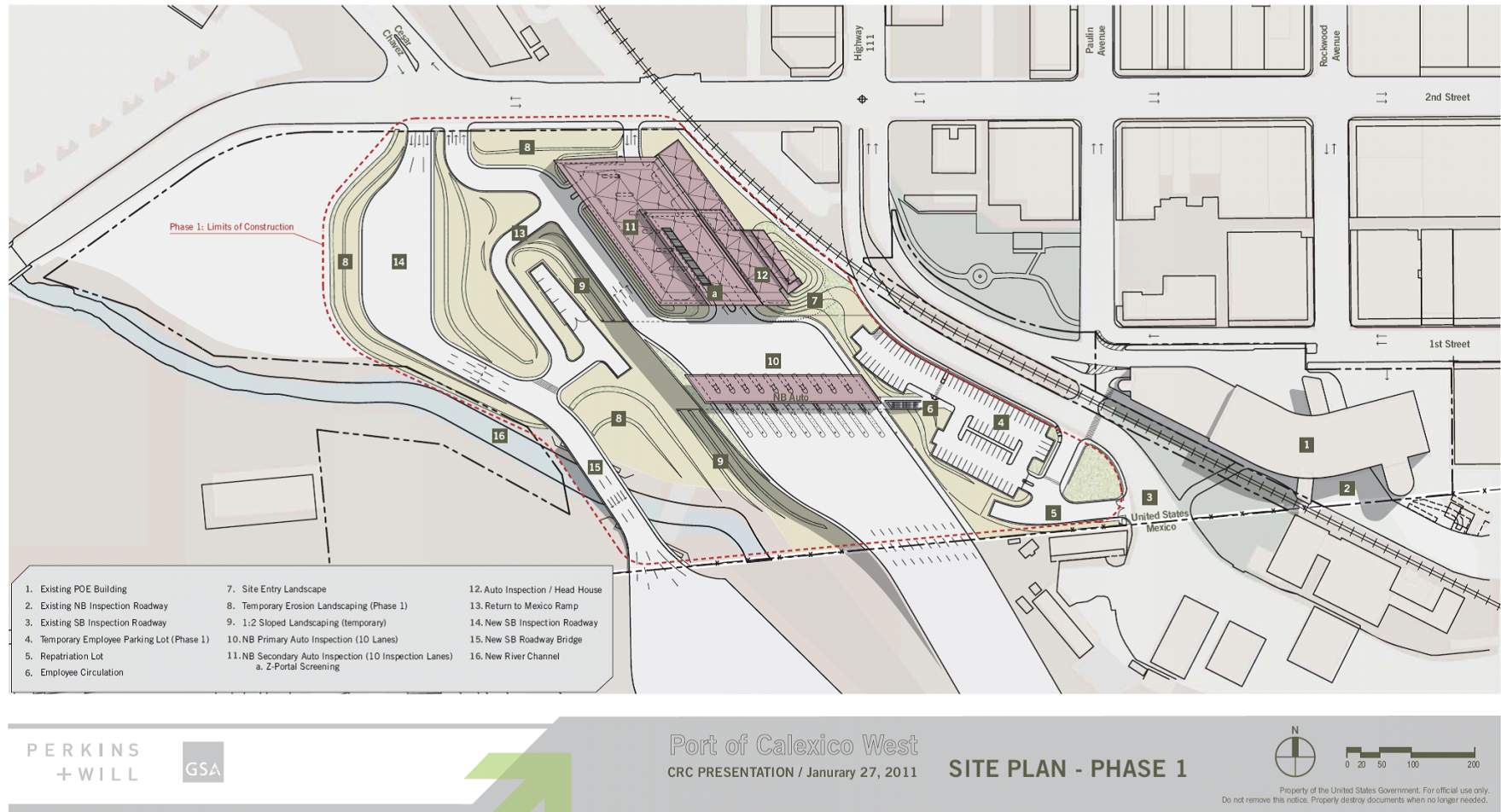


Figure 2-5. Phase I Site Plan

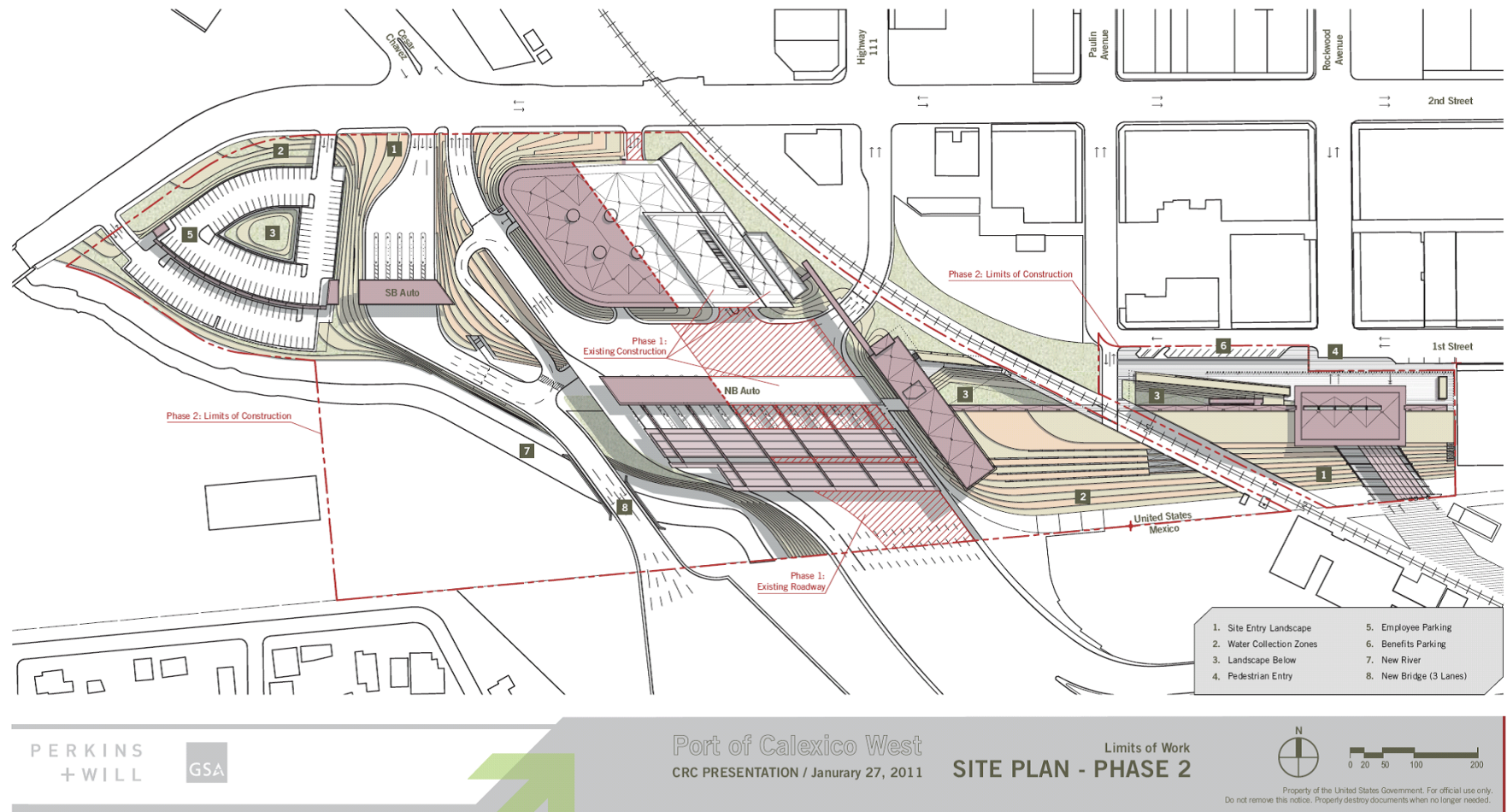


Figure 2-6. Phase II Site Plan

## **2.4 Alternatives Considered but Eliminated from Detailed Evaluation**

The following alternatives were considered by GSA but were eliminated from detailed evaluation in this EIS. They were eliminated because they do not meet GSA's purpose of, and need for, the agency action (see Section 1.2).

### **2.4.1 Expansion within Current Footprint**

Redesign of the current LPOE facility within its existing footprint was considered. This alternative would improve security by addition of a new security perimeter wall and access controls, fire protection, and life safety systems. It would be designed to meet modern seismic safety standards. However, the current footprint of the existing LPOE would not allow GSA to meet the need for an increase in inspection capacity and decrease in waiting times. In addition, it would not meet CBP's need for a southbound vehicle inspection facility. The existing traffic flows entering and exiting the LPOE would remain in their current locations, with no resulting alleviation of traffic congestion.

### **2.4.2 Expansion without Acquiring New Property**

Without the acquisition of some of the adjacent properties, the footprint of the project area cannot be expanded to improve the flow of traffic. Without the acquisition of property along the border, there would not be enough room to accommodate southbound vehicle inspection while still fulfilling GSA's need to align the U.S. LPOE with the future Mexican POE.

### **2.4.3 Construction of New Facility at Calexico East or Other Location**

Construction of a new facility at a different location would not meet GSA's need to reduce downtown traffic congestion and align traffic with the future Mexico POE. Because a LPOE must be located on the International Border at a location mutually acceptable to both the United States and Mexico, it is not practicable to consider other locations.

There were several proposals to relocate the entire Port or selected Port functions to different locations. The common thread in these proposals was the wish to improve traffic flow around and/or through the community. The proposals generally would benefit the community inhabitants and businesses by providing more direct, less congested routes beyond the City limits. While these proposals seem to merit additional study, they were considered outside the scope of this project, whose purpose is to expand the inspection capacity of the downtown LPOE.

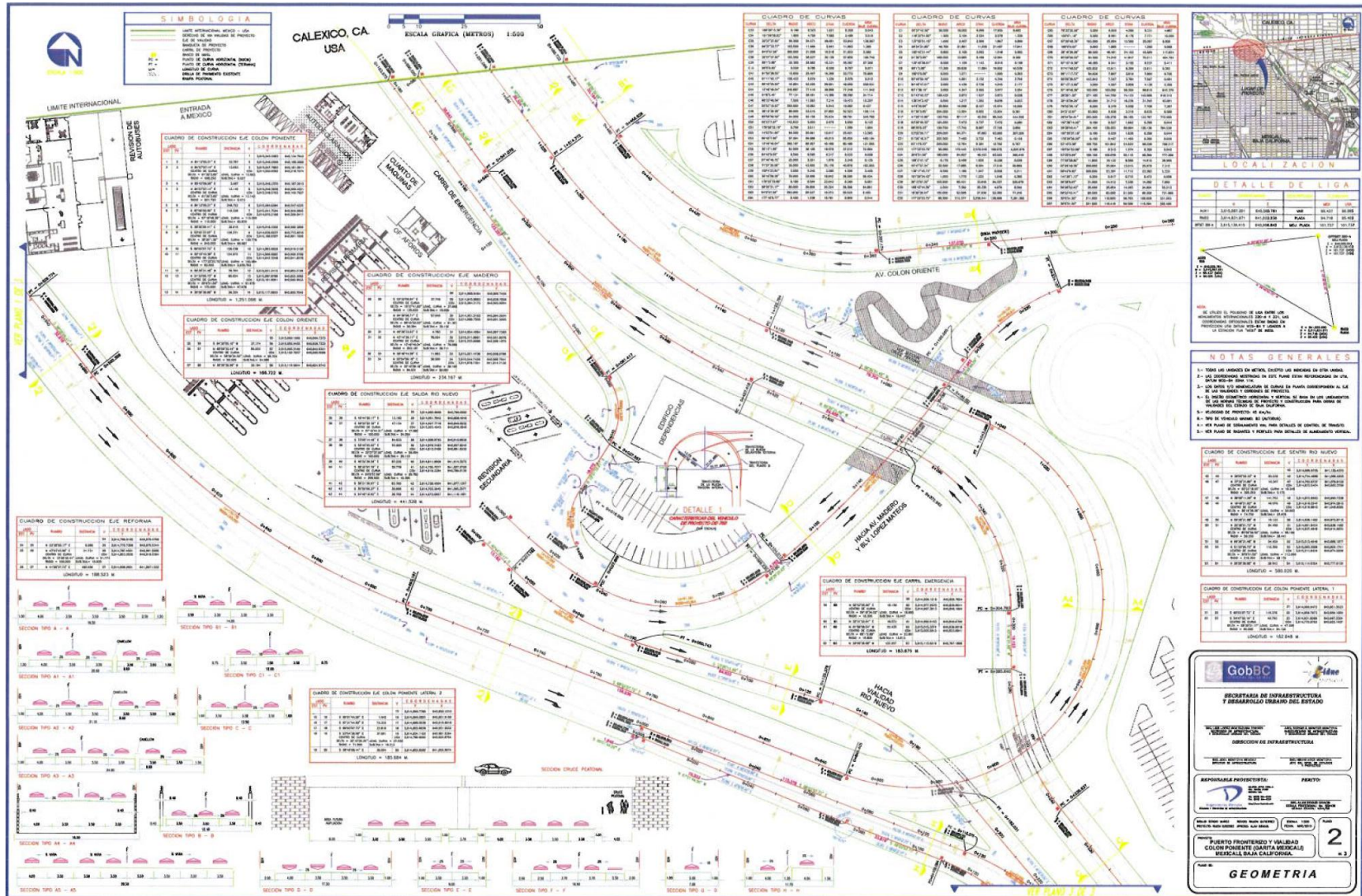


Figure 2-7. Conceptual Design for Mexican LPOE Site Plan

## 2.5 Summary Matrix of Environmental Impacts

**Table 2.5-1. Summary Matrix of Potential Environmental Impacts**

Impact Issues	No Action Alternative	Alternative A	Alternative B (Proposed Action)
Geology and Soils	○	⊙	⊙
Water Resources	○	⊗	⊙
Land Use	○	⊙	⊙
Biological Resources	○	⊗	⊗
Cultural Resources	○	○	○
Visual Resources	⊙	⊙	⊙
Infrastructure	⊙	⊙	⊙
Traffic	⊗	+⊗	+⊗
Air Quality	⊗	+⊗	+⊗
Noise	⊙	⊙	⊙
Human Health and Safety	⊙	+⊗	+⊙
Socio-economics	⊙	+⊙	+⊙
Environmental Justice	⊙	⊙	⊙

In cases when there would be both beneficial and adverse impacts, both are shown on this table. Mitigation measures would apply only to adverse impacts.

**LEGEND:**

- ⊗ = Significant impact
- ⊗ = Significant but mitigable to less than significant impact
- ⊙ = Less than significant impact
- = No impact
- + = Beneficial impact
- N/A = Not applicable



## **3 AFFECTED ENVIRONMENT**

### **3.1 Introduction**

Understanding the affected environment is necessary for understanding potential impacts from construction and operations at the downtown Calexico LPOE. This chapter describes the existing conditions that comprise the physical and natural environment within and near the downtown Calexico LPOE and the relationship of people with that environment. Descriptions of the affected environment provide a framework for understanding the direct, indirect, and cumulative effects of Alternative A, Alternative B (Preferred Alternative), and the No Action Alternative. The project area, as discussed in this chapter, comprises the existing downtown Calexico LPOE area that would be used for construction and operation of Alternative A or Alternative B. The discussion is categorized by resource area to ensure that all relevant issues are included. A region of influence is defined for each resource area, which includes the project area at a minimum. Some resource areas have regions of influence that extend beyond the project area. This chapter is divided into the following 13 resource areas, and also includes other topic areas that support the impact assessment discussed in Chapter 4:

- Geology and Soils
- Water Resources
- Land Use
- Biological Resources
- Cultural Resources
- Visual Resources
- Infrastructure
- Traffic
- Air Quality
- Noise
- Human Health and Safety
- Socioeconomics
- Environmental Justice

The information in this chapter comes primarily from two biological surveys conducted on October 18, 2006 and May, 7, 2008, a cultural resource survey conducted on October 18, 2006, a search of historical aerial photographs, interviews with various officials, site visits, data collected by local agencies, and other publications. The most recent available data are used where possible. Data from other years may be used where necessary to present trends.

## **3.2 Geology and Soils**

### **3.2.1 Geology**

The region of influence for geology is defined as the area that could be affected by the construction and operation of the project structures. The region of influence for the project consists of the geologic features and mineral resources within the immediate vicinity of project structures including associated roads. For large-scale geological conditions such as earthquakes and geological resources, regional information is presented as these conditions tend to affect broad expanses of land and are not typically restricted to smaller discrete areas of land.

#### **3.2.1.1 Physical Setting**

The physical setting for the project is the Imperial Valley in the south central part of Imperial County, California. The Imperial Valley lies within the Salton Trough, a 3,100-square-mile structural depression underlying the majority of Imperial County. The Salton Trough, part of the Basin and Range Physiographic Province, was formed from large-scale regional faulting and is the northward extension of the Gulf of California. The trough extends north-northwest from the Gulf to the Salton Sea. The Salton Trough, approximately 130 miles long and 70 miles wide, is bounded on the northeast and east by the Chocolate and Cargo Muchacho mountains and on the southwest and the west by the Jacumba, Coyote, Fish Creek and Santa Rosa mountains.

Imperial Valley is bounded to the east by the Algodones Dunes and Sand Hills, and to the west by Superstition Mountain, Superstition Hills, Fish Creek Mountains, and the Coyote Mountains. From the Salton Sea in the north, the valley runs south to Mexico. The land in the Imperial Valley slopes from sea level in the south to below sea level at the Salton Sea. The Imperial Valley is separated from the Gulf of California by the accumulated sediments of the Colorado River Delta. The city of Calexico encompasses approximately 7.8 square miles and is located in the southernmost portion of Imperial County, situated on the U.S.-Mexico International Border.

#### **3.2.1.2 Mineral Resources**

In Imperial County, industrial minerals such as sand, gravel, lime, gypsum, clay, stone, limestone, mica, tuff, salt, potash, calcium chloride, and kyanite are mined. Other minerals mined in the county include gold and manganese. In the immediate region of the LPOE, sand and gravel resources are present but none are mined.

The Salton Trough contains areas that have thermal water at shallow depths. Most of these thermal waters have a temperature high enough for direct heat applications. Some areas have waters that are hot enough to be suitable for electrical power generation. The U.S. Geological Survey has identified nine Known Geothermal Resource Areas (KGRAs) in Imperial County. A KGRA is an area in which the prospects for extraction of geothermal steam or associated geothermal resources are good enough to warrant expenditures of money for that purpose.

The northwestern portion and western edge of Calexico are within the Heber KGRA. The downtown LPOE is not within the Heber KGRA (Calexico 2007). There are no geothermal plants within the city of Calexico (OIT 2007).



### 3.2.1.3 Geologic Hazards

Geologic hazards consist of the geologic conditions that could affect the stability of the ground and engineered structures associated with the alternatives, including earthquakes, surface faulting, soil liquefaction, slope stability, and surface subsidence.

#### **Earthquakes and Faults**

The Salton Trough is a seismically active rift valley formed by the gradual uplift of the surrounding mountains along the San Andreas fault system to the east and the San Jacinto fault system to the west. This uplift occurred between 24 million years ago and 10,000 years ago.

The Imperial fault zone approximately 10 miles to the northeast of the LPOE is the closest of the nine fault zones within Imperial County. There are no identified fault zones within Calexico; therefore, the area of the LPOE is compliant with the Alquist-Priolo Earthquake Fault Zoning Act.

The project area lies in Seismic Zone 4. Zone 4 represents the greatest ground-shaking potential. The city of Calexico has been damaged within the last 35 years from the movements of major faults in the San Jacinto Fault Zone (i.e., the Imperial and Superstition Hills Faults). On April 4, 2010, an earthquake with a Richter Magnitude of 7.2 occurred in Mexico, 32 miles southeast of Calexico. Previously, the largest recorded earthquake in the Imperial Valley occurred in May of 1940 and registered 7.1 on the Richter Scale. Its epicenter was located near the U.S.-Mexico border, just east of the City of Calexico, along the Imperial Fault. In October of 1979, a magnitude 6.6 earthquake occurred on this same fault, with the epicenter placed approximately 7 miles east of Calexico (Calexico 2007).

#### **Liquefaction**

Liquefaction occurs when the ground shakes and causes shallow, unconsolidated, water saturated deposits of silt and sand to temporarily lose strength and flow. Structures built on those deposits commonly experience major damage when liquefaction takes place. Liquefaction damage resulting from ground shaking is a serious threat in the region.

The soils in the Salton Trough, including those within the city of Calexico, have properties that could facilitate liquefaction. These properties include a combination of unconsolidated (loose) soils, high groundwater, or saturated soils. These same properties can facilitate ground settlement, ground lurching, and ground displacement along fault lines (Calexico 2007).

#### **Slope Stability**

The project area is generally too flat to be affected by mass movements such as rockfalls and landslides. Landslides are not expected to occur in the area (Calexico 2007).

#### **Subsidence**

Surface subsidence is caused by the collapse of subsurface voids or by the withdrawal of large amounts of groundwater over larger areas. Ground subsidence related to seismic activity naturally occurs throughout the Salton Trough, ranging from approximately 2 inches per year at the Salton Sea to near zero (little to no ground subsidence) at the U.S.-Mexico border (Calexico 2007).

### 3.2.2 Soils

The mountains bordering the Salton Trough are primarily volcanic, granitic, metamorphic and igneous rocks of pre-Cambrian to Tertiary age. The intervening valley is filled with weakly consolidated to unconsolidated sediments of late Cenozoic age. Since the elevation of much of the valley floor of the Trough is below sea level, deposition of both marine and non-marine sediments has been ongoing since its formation in the Miocene epoch.

The region of influence consists of soils within 200 feet of the project area. Figure 3.2-1 and Table 3.2-1 provide details concerning the type and distribution of soils in the ROI.

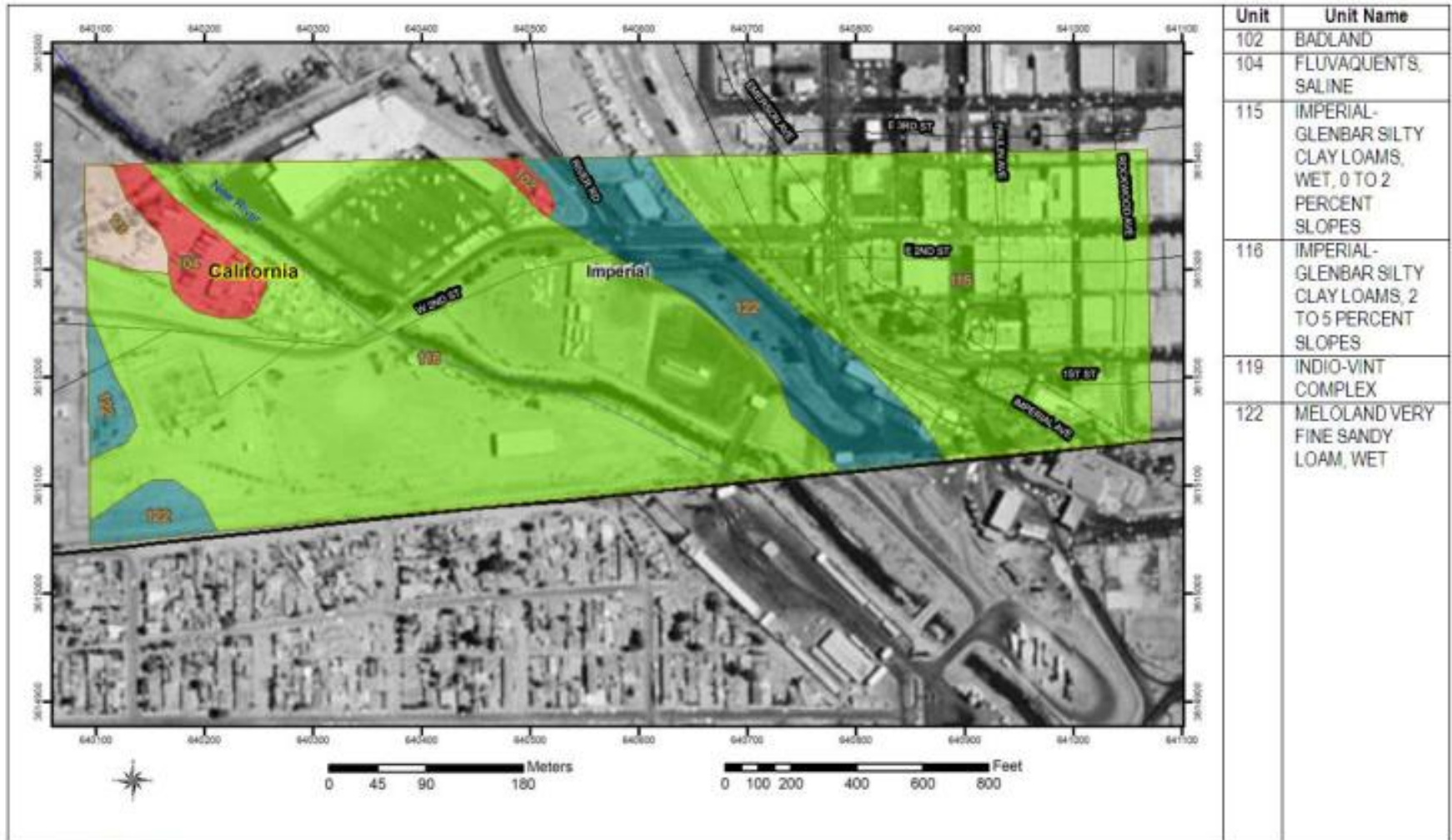
Typically, Imperial soils are pinkish gray and light brown, calcareous, silty clay to depths of 60 inches or more. The Imperial-Glenbar silty clay loams are well drained with medium to slow runoff and moderately slow permeability. The soils are found on flood plains and alluvial fans on slopes of 0 to 5 percent at elevations ranging from 230 feet below sea level to 300 feet above sea level. The soils formed in stratified stream alluvium from mixed sources. The Imperial-Glenbar silty clay loams are designated “Farmland of statewide importance” and are used for livestock grazing, and, where irrigated, for cultivated crops and pastures. Alfalfa, cotton, grain, and vegetables are common irrigated crops. Vegetation is creosote bush, mesquite, paloverde, ironwood, salt cedar, cacti, and annual grasses and weeds (USDA 2006b).

The Meloland soils are naturally well drained, but commonly have perched water tables under irrigation. Surface runoff is low or medium and permeability is slow. The soils are found in nearly level lacustrine basins and flood plains in the deserts at elevations of about 230 feet below sea level to 700 feet above sea level with slopes of 0 to 1 percent. The Meloland soils are designated “Prime farmland if irrigated.” Tile drains have been used extensively to improve drainage and remove salts in irrigated soils. Major crops are cotton, sugar beets, alfalfa, barley, carrots, and lettuce. Native vegetation is sparse desert shrubs; principally creosote bush, bursage, jointfir, and mesquite (USDA 2006b).

**Table 3.2-1. Soils Summary by Map Unit – Imperial County, California**

Soil Survey Area Map Unit Symbol	Map Unit Name	Rating	Total Acres in Area of Interest	Percent of Area of Interest
102	BADLAND	Not prime farmland	0.3	0.3
104	FLUVAQUENTS, SALINE	Not prime farmland	2.1	2.0
115	IMPERIAL-GLENBAR SILTY CLAY LOAMS, WET, 0 TO 2 PERCENT SLOPES	Farmland of statewide importance	22.4	21.9
116	IMPERIAL-GLENBAR SILTY CLAY LOAMS, 2 TO 5 PERCENT SLOPES	Farmland of statewide importance	39.8	38.9
119	INDIO-VINT COMPLEX	Prime farmland if irrigated	1.2	1.2
122	MELOLAND VERY FINE SANDY LOAM, WET	Prime farmland if irrigated and drained	9.4	9.1

Source: USDA 2006a



Source: USDA 2006a

**Figure 3.2-1. Soils in the vicinity of the Downtown Calexico LPOE**

The Indio-Vint series consists of very deep, moderately well to somewhat excessively drained soils with very slow runoff and moderately rapid permeability. The soils are formed in stratified stream alluvium derived from mixed rock sources. Indio-Vint soils are found on flood plains with slopes of 0 to 3 percent at elevations of 230 feet below sea level to 2,500 feet above sea level. The Indio-Vint soils are designated “Prime farmland if irrigated.” Rangeland areas provide limited livestock grazing, but with low carrying capacities, following seasonal rains. Vegetation is mesquite, catclaw, and annual grasses and weeds. Irrigated areas are cropped to alfalfa, cotton, small grains, and to a lesser extent, fruits and vegetables such as citrus, nuts, and Irish potatoes (USDA 2006b).

According to the Imperial County General Plan and the Imperial Valley Area Soil Survey, soils in the City of Calexico General Plan Update area are on near-level terrain, with slopes generally less than 2 percent. Natural rates of erosion are, therefore, very low (Calexico 2007).

### **3.2.3 Prime or Unique Farmlands**

Prime farmland is defined as land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, and other agricultural crops. Unique farmland is defined as land other than prime farmland that is used for the production of specific high value food and fiber crops. Designation of prime or unique farmland is made by the US Department of Agriculture.

Farmland of statewide or local importance is defined as land in addition to prime and unique farmlands that is of statewide or local importance for the production of food, feed, fiber, forage, and oilseed crops. Designation of this farmland is determined by the appropriate state or local agency.

The land adjacent to the project limits is not used for farming; therefore, there will be no impact to any prime or unique farmland or other farmland of statewide or local importance as a result of this project.

## **3.3 Water Resources**

### **3.3.1 Surface Water**

#### **3.3.1.1 Salton Sea**

All watersheds within the Imperial Valley drain into the Salton Sea, a closed water body located at an elevation of about 270 feet below sea level. The main sources of inflows into the Salton Sea are from the New River and Alamo River that flow north from the Colorado River delta through the irrigated agricultural fields of the Imperial Valley and into the Salton Sea. Drainages within alluvial fans of the Chocolate Mountains, and intermittent streams associated with mountains to the west, all ultimately flow into the Salton Sea. The total watershed area draining into the Salton Sea covers 8,360 square miles. Water bodies in the region are considered to be Waters of the State (Calexico 2007).

The Salton Sea currently has a salinity exceeding 4.0% w/v (saltier than seawater) and many species of fish are no longer able to survive in the Salton Sea. It is believed that once the salinity surpasses 4.4% weight by volume, only the tilapia will survive. Fertilizer runoff combined with the increasing salinity have resulted in large algal blooms and elevated bacteria levels.

Until the operation of the new wastewater treatment plant (Mexicali II) south of Mexicali to treat the sewage from Mexicali, raw sewage and industrial waste flowed into the U.S. from Mexico and on to the Salton Sea. In 2007, a new wastewater treatment plant located in the south of Mexicali was completed. The estimated 15 million gallons per day of sewage that once flowed untreated into the New River is now treated, disinfected and discharged into a series of irrigation canals that flow southward into the Rio Hardy, which is a tributary to the Colorado River Delta in Mexico.

The removal of this untreated sewage from the New River has resulted in significant drops in bacteria levels as well as increased dissolved oxygen. Phosphates in the New River, which contribute to water quality impairments in the Salton Sea, have dropped by 25 percent.

High levels of selenium have also been found in the Sea and are thought to contribute to mortality and birth defects in the bird populations. In 1997, investigators researching the death of fish discovered a parasite dinoflagellate known as *Amyloodinium ocellatum* in 22 of 23 dead fish. Algal blooms also lead to massive die-offs of the fish population due to oxygen starvation.

### 3.3.1.2 New River

The New River (Rio Nuevo) enters the United States from Mexicali, at the downtown Calexico LPOE. The New River (like the Alamo River) was formed in the early 1900s when an irrigation control structure on the Colorado River failed, causing an unregulated flow of water into the Salton Basin. The river's headwaters originate about 15 miles south of Mexicali, Mexico. The region of influence for surface water is limited to the New River. The New River flows north 15 miles through Baja California and another 66 miles through California into the Salton Sea.

The New River is an unlined natural river channel. Historically, the New River channel has been used as a drainage system for the settlements along its banks. The New River has been recognized as having a significant pollution problem since the late 1940s. With population growth and an inadequate sewer infrastructure, Mexicali contributed an increasing amount of raw sewage into the New River, and in the mid 1980s, the extent of the problem was officially recognized. For decades the New River was considered one of the most polluted waterways in the United States.

New wastewater treatment system improvements have reduced the amount of sewage discharged to the New River by 15 to 18 million gallons per day. Water quality has improved accordingly.

- Bacteria levels have been reduced 10 to 100 times less than before; however, they are still out of compliance with standards.
- Volatile organic compounds were reduced to below detection limits,

The annual average dissolved oxygen is now achieving the standard of 5 mg/l. During summer months, the dissolved oxygen (DO) levels sometimes drop below the standard, but are still about ten times better than they were before the new treatment plant went on-line.

The Federal Occupational Health determined in 2007 that the New River "doesn't pose a threat unless river is entered or water is consumed". Further, the improvements and new wastewater treatment system have reduced the nutrient loading into the Salton Sea by about 20%.

The Mexican government plans a northward extension of the underground culvert in which the New River flows through much of Mexicali. The Mexican Government would develop their new port of entry over the extended culvert.

The U.S. International Boundary and Water Commission (IBWC), under 22 USC Sec. 277a, works with its Mexican counterpart, CILA (Comision Internacional de Limites y Aguas), and other local, State, and federal Mexican agencies to coordinate sanitation, water quality, flood control, and border demarcation for any proposed project along the border.

### **Site Drainage**

The New River runs along the western edge of the vacated commercial LPOE on the U.S. side of the International Border. In Mexico, the New River cuts through the planned site of the new Mexican POE. The vacated U.S. commercial port site generally slopes from the northeast to southwest and eventually the entire site drains into the New River at the west boundary.

### **Supply**

Since 1942, water diversions from the Colorado River have occurred via the All American Canal at the Imperial Dam. Owned by the Bureau of Reclamation, this canal is 82-miles long. Its flow is managed by the Imperial Irrigation District (IID). Ninety-eight percent of the IID transported water is used for agriculture; about 2 percent is delivered to Imperial Valley cities, including Calexico, that then treat the water and sell it to their residents. Over 3-million acre feet of water flowed into the IID system in 2002 (Calexico 2007). Water for the LPOE is supplied by the City of Calexico.

### **Quality**

The New River's flow contains waste from agricultural and chemical runoff from the area's farm industry, urban runoff, and some partially treated sewage from Mexicali, and manufacturing plants operating in Mexico. While the operation of the new waste water treatment plant in Mexicali has substantially reduced the amount of contamination in the New River, sampling by the California Regional Water Control Board (CRWCB) shows that concentrations of phosphate, ammonia, nitrate, arsenic, and selenium all exceeded the EPA reporting limits in the first three months of 2010. Flow at the U.S.-Mexico border is about 200 cubic feet per second (cfs), increasing to about 600 cfs when it reaches the Salton Sea.

Surface water quality within the Imperial Valley is regulated by the Colorado River Basin Regional Water Quality Control Board (CRBRWQCB), Region 7. Water quality standards for all waters in the region are discussed in the region's Basin Plan. The CRBRWQCB's jurisdiction is divided into six different planning areas. The project area lies within the Imperial Valley Planning Area and covers 2,500 square miles (Calexico 2007).

### **3.3.1.3 Floodplains**

The downtown Calexico LPOE has been designated by FEMA as Zone C, an area of minimal flooding (less than 1 foot) during a 100-year storm event.

### **3.3.1.4 Irrigation Canals**

A number of irrigation canals are present in the Calexico area. There are no irrigation canals within or adjacent to the project area.

### **3.3.1.5 Wetlands**

A biological survey determined that there are no jurisdictional wetlands within the region of influence.

## **3.3.2 Groundwater**

The region of influence for groundwater is the southern Imperial Valley near the downtown Calexico LPOE. Ground water quality in the Imperial Valley is regulated by the CRBRWQCB, Region 7.

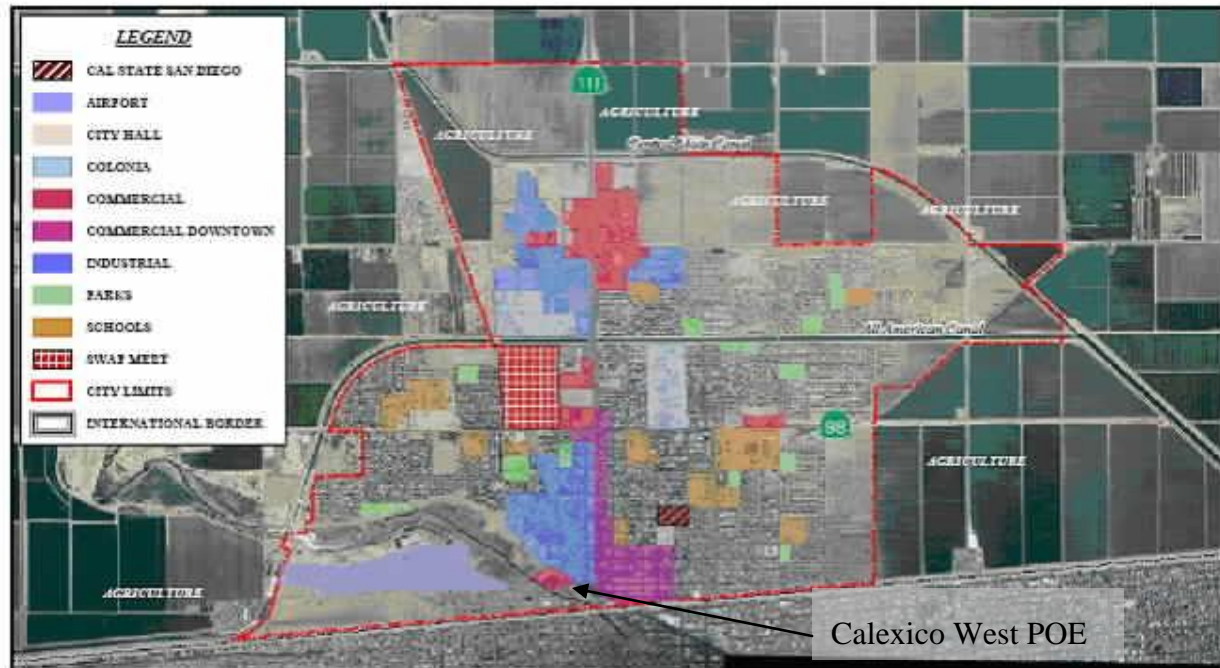
Imperial Valley sediments contain as much as 3 billion acre-feet of groundwater (Calexico 2007). This water is too saline for domestic use including irrigation. Irrigation water is transported into the area through the canals. The use of this imported irrigation water combined with the presence of fine-textured soils that do not drain well, has caused the groundwater level to rise in many areas. Tile drain systems have been installed below the crop root zone to remove standing saline groundwater that is detrimental to plant growth (Calexico 2007).

## **3.4 Land Use**

This section describes the general land use and ownership of areas at and near the LPOE site. Existing approved land uses within the city of Calexico are shown in Figure 3.4-1. The Calexico Zoning Ordinance ensures compliance with the City, County and State General Plans. In concurrence with the Zoning Map, the Zoning Ordinance governs future land uses, intensities/densities, developments, and performance standards. California state law requires that all zoning ordinances be consistent with the General Plan. The city of Calexico uses its five-year implementation plan as a tool to implement policies found in the Land Use Element of its General Plan for all development projects. Land development decisions by the City of Calexico are based on compatibility with existing land uses.

According to an Albert A. Webb & Associates windshield survey (March 2004), land use within the city of Calexico was broken into the following categories:

- 2,060 acres of residential property
- 290 acres of commercial property
- 255 acres of industrial property



Source: Calexico 2007

**Figure 3.4-1. City of Calexico Existing Land Use Map**

The remaining acreage within the city was comprised of vacant, parks, schools and agricultural or open space use. The area outside the city limits is predominantly agricultural.

Industrial uses are located along the Union Pacific Railroad and the northern portion of the city between Jasper Road and the All American Canal west of SR-111. The majority of the existing residential areas are located east of SR-111 from the International Border north to Cole Road, and west of the railroad tracks to the All American Canal. There are commercial areas along SR-111 from the International Border north to the Central Main Canal, and the downtown commercial area is located just north of the International Border, east of SR-111.

The downtown Calexico LPOE lies along the southern edge of the city of Calexico, which is in the heart of the Calexico-Mexicali binational metropolis along the U.S.-Mexico border. The downtown Calexico LPOE is currently dedicated to passenger occupied vehicle and pedestrian inspections.

Prominent land developments to date related to the Calexico LPOE include plans by the Mexican Federal Government for a new port of entry on the site directly south of the vacated commercial inspection compound. The local Mexicali government has expressed its preference to retain Avenida Cristobal Colon, which runs along the border, as the main vehicular approach to the downtown Calexico LPOE from the east. However, new roads bringing northbound traffic from the south and west will also be developed.

As discussed in Section 3.8.1, the downtown Calexico LPOE facilities consist of two separate parcels of federal government owned properties: 1) the Main Building site, and 2) the vacated commercial inspection compound. In addition, there is a privately owned, triangular parcel of land (Duty Free parcel) at the southeast corner of Imperial Avenue and Second Street, and



another privately owned piece of land (New River Parcel) located adjacent to the western edge of the vacated commercial LPOE, on the southwest side of the New River, between the river and the International Border.

The site is bounded on the north by First Street, which is occupied by numerous retail and commercial buildings (Figure 3.4-2), including Greyhound Lines Incorporated, a major intercity transportation service.

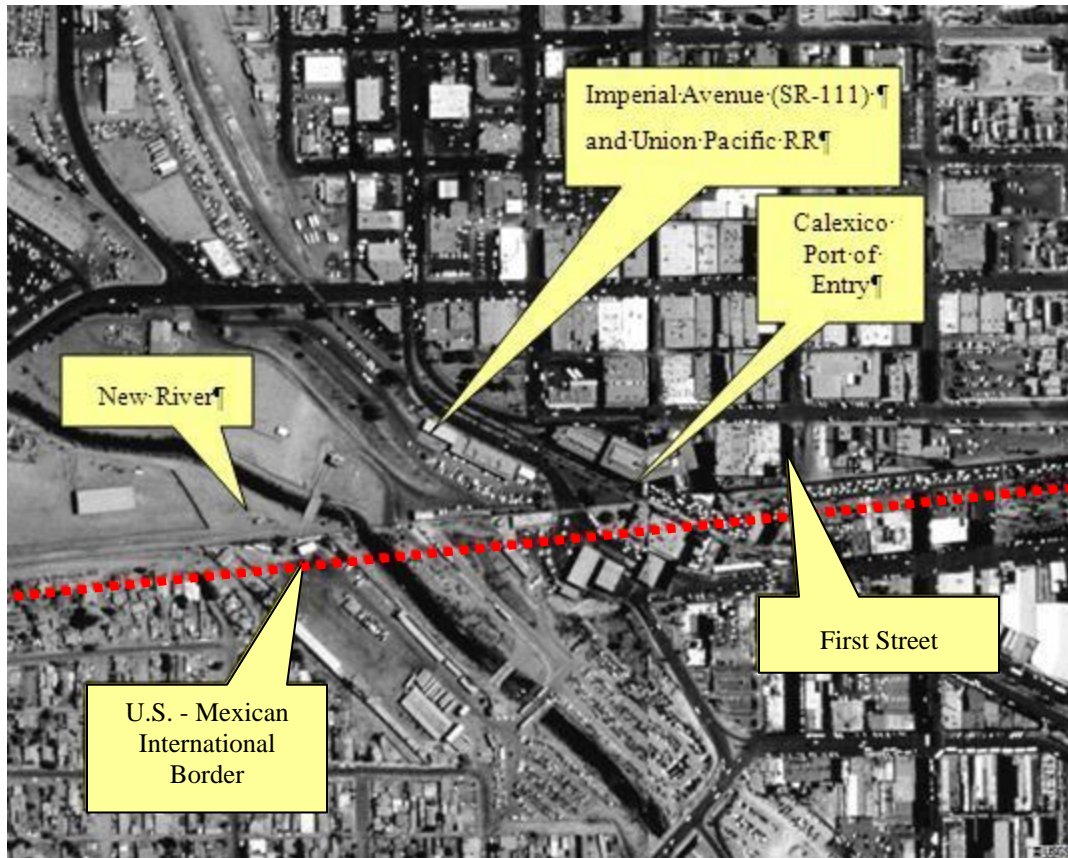
The Union Pacific Railroad owns tracks running northwest to southeast along Imperial Avenue (Figures 3.4-3 and 3.4-4). The rail lines serve a cross-border freight train that runs twice per day.

To the west of the Main Building and Primary Inspection Area lies the vacated commercial inspection compound, which is situated on an irregular piece of property comprising approximately 9 acres. The vacated site was used previously as a processing point for commercial traffic crossing the International Border. The vacated site is bounded by the International Border on the south, private property on the west, Second Street on the north, and the Union Pacific Railroad and Imperial Avenue (SR-111) on the east (Figure 3.4-5).

The 2007 Calexico General Plan does not identify specific plans for the areas immediately adjacent to the LPOE. The plan designates the land to the west as industrial use.



**Figure 3.4-2. View looking northeast along First Street from the Main LPOE Building.**



**Figure 3.4-3. Aerial photograph of the downtown Calexico LPOE and surrounding area.**



**Figure 3.4-4. View looking northwest at Imperial Avenue and the Union Pacific Railroad line. Traffic in view is traveling south toward the International Border.**



**Figure 3.4-5. View looking west at the vacated commercial inspection compound.**

### **3.5 Biological Resources**

Biological resources considered in this section consist of the following components: vegetation, wildlife, fisheries, and special-status species. The region of influence for assessing direct and indirect impacts for each component is the area that would be directly disturbed by construction and operation of the alternatives out to the existing downtown Calexico LPOE property line and additional parcels of land being considered for acquisition.

#### **3.5.1 Vegetation**

Pedestrian biological surveys were conducted at the downtown Calexico LPOE on October 18, 2006 and on May 7, 2008, with an adjacent 5-acre parcel of land to the west also surveyed on the latter date. During the May 2008 survey, land beyond the adjacent parcel was surveyed approximately 175 feet further west to the point where the New River passes under a bridge on Second Street. The surveys recorded the vegetation types, fauna, and habitats present in the region of influence. The LPOE and adjacent parcels are located in an urban part of the Sonoran Desert on previously disturbed, predominantly flat terrain with much of the area consisting of compacted soil. Prior to urban development, this general area probably contained a Sonoran desert scrub community (Brown 1982).

The Calexico LPOE is located at the southern end of the City of Calexico at the International Border (Figure 1-1). The entire project area consists of approximately 20.2 acres. Existing inspection and administrative facilities, and much of the area for the proposed construction upgrades occupy approximately 12.9 acres. Two adjacent parcels of privately-owned land

(approximately 2.4 acres), which are being considered for acquisition for the proposed project, were also surveyed in October 2006. A third parcel of privately-owned land (approximately 5 acres) was surveyed in May 2008. The surveys focused primarily on the vacated commercial LPOE and adjacent parcels, consisting of previously disturbed land, where native plants and wildlife were more likely to be found. The 5-acre adjacent parcel on the west side of the LPOE has also been previously graded, with much of the portion north of the New River surfaced with asphalt at one time, though the surface is degrading and has a light layer of sand or gravel in places.

The vacated commercial LPOE site has been bladed periodically for the security purpose of physically removing weeds and other plants that might conceal individuals illegally entering the United States at this location.

Vegetation in the region of influence is very limited, and found primarily along the New River, or in areas that have been previously landscaped. Total acreage covered by plants is approximately 1 acre. A few eucalyptus (*Eucalyptus* sp.) and California fan palms (*Washingtonia filifera*) are near a security fence near Second Street and the Duty Free store. Oleander (*Nerium oleander*) was seen on a steep bank.

Patches of grass were observed along the banks of the New River on the 5-acre parcel of privately-owned land west of the GSA compound. Grasses observed include Bermuda grass (*Cynodon* sp.), rabbitfoot grass (*Polypogon monspeliensis*), common reed (*Phragmites australis*), and a sedge (*Scirpus* sp.). Bermuda grass was also observed near the Hazardous Materials Office within the old GSA compound. A patch of the sedge was also found near the south end of the bridge over the New River in GSA compound. However, much of the vegetation on the banks of the old GSA compound appears to have been removed for security reasons. A few cattails (*Typha angustifolia*) were noted in a small artificially created drainage area on a bank north of the former Hazardous Materials Storage Building in the GSA compound in May 2008, although cattails were not seen there in October 2006.

A single mesquite (*Prosopis* sp.) was observed near the LPOE bridge over the New River in October 2006, but was not present in May 2008. Mexican paloverde (*Parkinsonia aculeata*) was seen at several locations in both GSA and privately owned parcels near the New River. A few golden crownbeard (*Verbesina encelioides*) and sunflower (*Helianthus* sp.) plants were observed near the old LPOE bridge crossing the New River within GSA compound. A few weed species were observed along the New River, including tansymustard (*Descurainia pinnata*) and prickly lettuce (*Lactuca serriola*). A few salt cedar (*Tamarix* sp.) plants were noted on a bank near Second Street as noted in October 2006.

Two small, isolated patches of sedge (*Scirpus* sp.) were observed. One was near the LPOE bridge over the New River and another in the 5-acre privately-owned parcel.

Executive Order 13112 describes duties of Federal agencies regarding invasive species, including detection, control, monitoring, and habitat restoration procedures. Although a formal invasive species management program does not exist at the downtown Calexico LPOE, blading and other mechanical measures have resulted in the lack of invasive species at this facility with the exception of salt cedar, common reed, and some isolated patches of Bermuda grass. The

California Invasive Plant Council lists salt cedar, common reed, and Bermuda grass as invasive species (CAL-IPC 2006).

### 3.5.2 Wildlife

There is minimal wildlife habitat in the region of influence. Wildlife species observed during pedestrian surveys at the downtown Calexico LPOE and adjacent privately-owned parcels included domestic pigeon (*Columba livia*), mourning dove (*Zenaidura macroura*), English sparrow (*Passer domesticus*), Brewer's blackbird (*Euphagus cyanocephalus*), snowy egret (*Leucophoyx thula*), cattle egret (*Bubulcus ibis*), and black-necked stilt (*Himantopus mexicanus*).

Special status species observed are discussed below in Section 3.5.4.

### 3.5.3 Fisheries

Approximately 700 feet of the New River run from the International Border through the Calexico West LPOE and adjacent parcels being evaluated in this EIS. There are no managed fisheries in the region of influence, although fish occur in the New River. An Agency for Toxic Substances and Disease Registry report recommended against consumption of wildlife from the New River. The Imperial County Health Department has posted warnings along the New River for people to avoid physical contact with waters of this river and to avoid eating any fish taken from the river (OEHHA 2008). Fish in the New River are contaminated with metals, pesticides, PCBs, VOCs, and pathogenic microbes present in the river water. This contamination has resulted from municipal, commercial, and industrial discharge, as well as agricultural runoff from the Mexicali and Imperial valleys (CH2M Hill 2003). The City of Mexicali has been the largest contributor of nitrogen- and phosphorus-based nutrients, selenium, pesticides, and municipal waste discharged into the New River. However, the new waste treatment project initiative in Mexicali has reduced the amount of contaminants being discharged into the New River and may make this river more conducive for fish populations in the future (CH2M Hill 2003).

### 3.5.4 Special-Status Species

The *Endangered Species Act* (16 U.S.C. §§1531-1544) provides Federal protection for threatened and endangered species. Section 3 of the *Endangered Species Act* defines endangered species as any animal or plant species in danger of extinction throughout all or a significant portion of its range. This Act further defines threatened species as any species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. Under NEPA, both candidate and proposed species require analysis to the same level of detail as listed species. However, species that are Federal candidates for listing as threatened or endangered do not receive legal protection under the *Endangered Species Act*. The United States Fish and Wildlife Service (USFWS) species of concern category includes a broad realm of plants and animals whose conservation status may be of concern to the USFWS, but do not have official status.

The *California Endangered Species Act* (California Fish and Game Code §§2050-2098) includes provisions intended to protect threatened and endangered species that may be affected by development projects subject to the *California Environmental Quality Act* (CEQA 1984). California species of special concern identify species that the California Department of Fish and Game (CDFG) have identified in three risk categories ranging from small size, to declining population size, to immediate extirpation of at least the entire California breeding population or even the entire California population. Information on California Species of Special Concern is intended for use as a management tool and for information, since species of special concern have no special legal status (CDFG 2008a).

A number of the bird species known to occur in the Calexico area also receive protection under the *Migratory Bird Treaty Act* (16 U.S.C. §§703-711) and Executive Order 13186 (Responsibilities of Federal Agencies to Protect Migratory Birds) (Table 3.5-1). This law governs the taking, killing, possessing, transporting, and importing of migratory birds, their eggs, parts, and nests.

Federally listed endangered, threatened, and candidate species in Imperial County with the potential to occur in the region of influence were obtained from the Carlsbad Fish and Wildlife Office website (Carlsbad FWSO 2008). State listed threatened and endangered species, as well as species of concern that may occur in the region of influence, were obtained online from the California Natural Diversity Data Base (CNDDDB) for Imperial County and the Calexico Quadrangle in which the downtown Calexico LPOE is located (CNDDDB 2008).

Table 3.5-1 presents a list of Federally and California endangered, threatened and other special status animal species known to occur in the Calexico Quadrangle and its contiguous neighbors, which include Heber, El Centro, Holtville West, Holtville East, and Bonds Corner Quadrangles.

A biological assessment (provided as Appendix E) evaluates the potential for Federally and state listed species to be present in the region of influence. No Federally or California listed plant species occur in the Calexico Quadrangle and its contiguous neighbors.

The burrowing owl (*Athene cunicularia*), a Federal species of concern and California species of special concern, was the only special-status species that was observed during the biological surveys conducted at the Calexico LPOE on October 18, 2006 and on May 7, 2008 (CDFG 2008d). Burrowing owls are typically found in grasslands, or agricultural and range lands, although they can also be found in vacant lots in urban areas (Brown 2006). A single adult burrowing owl was observed near an abandoned small mammal burrow located between metal pylons in a curbed gravel area near the former Hazardous Materials Office in October 2006 and again in May 2008. Burrowing owls frequently use abandoned ground squirrel or prairie dog burrows as nests, although neither these nor other rodent species were observed during the surveys.

**Table 3.5-1. Special-Status Animal Species Previously Reported From the Calexico and Adjacent Quadrangles (Imperial County, California)**

Common Name	Scientific Name	Status	Habitat
<b>Amphibians</b>			
Colorado River toad	<i>Bufo alvarius</i>	SOC, CSSC	Breeds in temporary pools and irrigation ditches from southeastern CA to southwestern NM
<b>Reptiles</b>			
Flat-tailed horned lizard	<i>Phrynosoma mcalli</i>	PFT(WD), CSSS	Sandy areas in desert scrub of southern CA and southwestern AZ into northwestern Mexico
<b>Birds</b>			
Burrowing owl	<i>Athene cunicularia</i>	SOC, CSSS	Grasslands, agricultural fields, vacant urban areas
Yellow warbler	<i>Dendroica petechia brewsteri</i>	CSSS	Bushes, swamp edges, streams, and gardens
Yuma clapper rail <sup>1</sup>	<i>Rallus longirostris yumanensis</i>	E, CT	Marshes with dense vegetation; requires mudflats, sandbars, and woody vegetation for nesting
<b>Mammals</b>			
American badger	<i>Taxidea taxus</i>	CSSS	Non-cultivated land, particular grasslands, savannahs, & mountain meadows
Big free-tailed bat	<i>Nyctinomops macrotis</i>	CSSS	Relatively rocky areas in arid SW U.S.; prefers to roost in cliff crevices

<sup>1</sup>Reported from Bonds Corner Quadrangle to the East of Calexico Quadrangle. E—endangered under *Endangered Species Act*; CT—California endangered species; CSSS—California species of special concern; PT(WD)—proposed threatened (Withdrawn); SOC—Federal species of concern. Sources: Carlsbad FWSO (USFWS) 2008; California Natural Diversity Data Base (CNDDB) 2008; CDFG 2008a,b,c.

The following section summarizes the potential presence within the region of influence of endangered, threatened, and/or candidate species listed for Imperial County by either the USFWS or CDFG, with a more detailed discussion provided in the biological assessment in Appendix E.

#### 3.5.4.1 Federally Endangered Species

The biological assessment for the downtown Calexico LPOE and three adjacent privately-owned parcels considered 11 Federally endangered species whose presence in Imperial County has been reported by the USFWS, or whose potential presence is being monitored. These endangered species include:

- brown pelican (*Pelecanus occidentalis*),
- California least tern (*Sterna antillarum browni*),
- Least Bell’s vireo (*Vireo bellii pusillus*),
- Yuma clapper rail (*Rallus longirostris yumanensis*),
- southwestern willow flycatcher (*Empidonax traillii extimus*),
- jaguar (*Panthera onca*),
- peninsular bighorn sheep (*Ovis canadensis*),
- razorback sucker (*Xyrauchen texanus*),
- Colorado squawfish (*Ptychocheilichthys lucius*),
- bonytail (*Gila elegans*), and
- desert pupfish (*Cyprinodon macularius*).

Appendix E notes that some of these species have been observed along the lower Colorado River and others near the outlet of the New River at the Salton Sea and parts of its shoreline. None of these endangered species was observed during the biological surveys at the downtown Calexico LPOE on October 18, 2006 or May 7, 2008. Additionally, foraging and nest habitat is lacking for these species at the downtown Calexico LPOE, with adjacent terrain remaining in a disturbed state. None of these species is likely to occur at the downtown Calexico LPOE. Finally, no critical habitat for any of these species is present at the downtown Calexico LPOE.

The Yuma clapper rail is the Federally endangered and California-threatened species that has been reported in closest proximity to the downtown Calexico LPOE. The California Natural Diversity Data Base reports it in Bond’s Corner Quadrangle to the east of Calexico, although the exact location was not disclosed (CNDDDB 2008). Yuma clapper rail habitat includes both freshwater and brackish marshes with dense vegetation. Nesting is typically from March through early July. Nests are constructed in marsh vegetation at the edge of the water. Crayfish are their primary prey. No Yuma clapper rails or nests were identified during the biological surveys, and marshes with dense vegetation are not present at the downtown Calexico LPOE.

### 3.5.4.2 Federally Threatened Species

Two Federally threatened species, whose presence in Imperial County has been reported by the USFWS, are desert tortoise (*Gopherus agassizii*), and Peirson’s milk-vetch (*Astragalus magdalenae* var. *peirsonii*) (Carlsbad FWSO 2008). The closest report of the desert tortoise is in the Chocolate Mountains east of Calexico (CH2M Hill 2003). Peirson’s milk-vetch is restricted in the United States to the Algodones Dunes. The California Natural Diversity Data Base does not have any records of these three species from the Calexico Quadrangle and these species were not observed during the biological surveys at the downtown Calexico LPOE on October 18, 2006, or May 2008. The bald eagle (*Haliaeetus leucocephalus*) was removed from Federally threatened status and delisted in 2007, has been reported at the Salton Sea (CH2M Hill 2003; Tetra Tech 2005). Although Federally delisted, the Post-delisting Monitoring Plan will monitor the status of the bald eagle over a 20 year period with sampling events taken once every 5 years (CDFG 2008a). None of these species is likely to occur at the downtown Calexico LPOE.



### 3.5.4.3 California Endangered Species

Twelve California endangered species have been reported by the California Department of Fish and Game from Imperial County (CNDDDB 2008):

- brown pelican (*Pelecanus occidentalis*),
- bald eagle (*Haliaeetus leucocephalus*),
- elf owl (*Micrathene whitney*),
- western yellow-billed cuckoo (*Coccyzus americanus occidentalis*),
- Arizona Bell's vireo (*Vireo bellii arizonae*),
- Gila woodpecker (*Melanerpes uropygialis*),
- gilded northern flicker (*Colaptes auratus chrysoides*),
- southwestern willow flycatcher (*Empidonax traillii extimus*),
- razorback sucker (*Xyrauchen texanus*),
- Colorado squawfish (*Ptychocheilus lucius*),
- bonytail (*Gila elegans*), and
- desert pupfish (*Cyprinodon macularius*).

The lack of suitable habitat at the downtown Calexico LPOE is discussed in Federally listed species above and the biological assessment for this site (Appendix E). No occurrence of these species has been recorded in the California Natural Diversity Data Base for the Calexico Quadrangle or four adjacent quadrangles.

### 3.5.4.4 California Threatened Species

Four California-threatened species have been reported by the California Department of Fish and Game from Imperial County: California black rail (*Laterallus jamaicensis coturniculus*), Yuma clapper rail (*Rallus longirostris yumanensis*), greater sandhill crane (*Grus canadensis tabida*) and Swainson's hawk (*Buteo swainsoni*) (CNDDDB 2008). Suitable nesting and foraging habitat is not present at the downtown Calexico LPOE, nor were any of these species observed during the biological surveys (Tetra Tech 2008).

The lack of Federal and California-endangered, threatened, and candidate species at the downtown Calexico LPOE can be partially explained by its location in a highly disturbed, and commercially developed, urban area that is isolated from less disturbed areas of the Sonoran Desert where greater biodiversity occurs. Further, the Imperial County General Plan designates the area around Calexico LPOE as urban or agricultural where land use practices are unfavorable for many special status species (Imperial County 1993).

## **3.6 Cultural Resources**

### **3.6.1 Introduction**

Cultural resources are those aspects of the physical environment that relate to human culture, society, and cultural institutions that hold communities together and link them to their surroundings. Cultural resources include past and present expressions of human culture and history in the physical environment, such as prehistoric and historic sites, buildings, structures, objects, districts, natural features, and biota, which are considered important to a culture, subculture, or community. Cultural resources also include aspects of the physical environment that are a part of traditional lifeways and practices, and are associated with community values and institutions.

#### **3.6.1.1 Cultural Resource Types**

Cultural resources include prehistoric and historic resources and ethnographic resources. Prehistoric and historic resources are the tangible remains of past activities that show use or modification by people. They are distinct geographic areas that can include artifacts, features such as hearths, rock alignments, trails, rock art, railroad grades, canals, and roads, landscape alterations, or architecture. In general, prehistoric and historic resources are the loci of purposeful human activity that have resulted in the deposition of cultural materials beyond the level of a few accidentally lost artifacts. Deposits that do not meet this criterion are still cultural in nature, but are described as isolated occurrences. Prehistoric resources show use or modification by people before the establishment of a European presence in the Lower Colorado River valley in the late 17th century. Historic resources show use or modification since the arrival of Europeans in the region.

The National Register of Historic Places (NRHP) is a listing of buildings, structures, sites, districts, and objects that are considered significant at a national, state, or community level. Cultural resources that are listed on the NRHP or have been determined eligible for listing have been documented and evaluated according to uniform standards, and have been found to meet criteria of significance and other requirements for listing. Cultural resources that meet the criteria and requirements for listing on the NRHP are called historic properties.

Cultural resources that have a direct association with a living culture may be considered ethnographic resources. Ethnographic resources are associated with the cultural practices, beliefs, and traditional history of a community. They are used within social, spiritual, political, and economic contexts, and are important to the preservation and viability of a culture. Examples of ethnographic resources include places that play an important role in oral histories or myths, such as a particular rock formation, the confluence of two rivers, or a rock cairn; large areas, such as landscapes and viewsapes; sacred sites and places important for religious practices; natural resources traditionally used by people such as plant communities or clay deposits; and places such as trails or camping locations. The components of an ethnographic resource can be man-made or natural. If an ethnographic resource is found to meet the criteria and requirements for listing on the NRHP, it is called a traditional cultural property (TCP). A TCP is generally defined as a property “that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that

community’s history, and (b) are important in maintaining the continuing cultural identity of the community” (Parker and King 1990).

### 3.6.1.2 Cultural Resources and the Law

A number of Federal statutes address cultural resources and Federal responsibilities regarding them. The long history of legal jurisdiction over cultural resources, dating back to 1906 with the passage of the Antiquities Act (16 U.S.C. 431-433), demonstrates a continuing concern on the part of Americans for their cultural resources. Foremost among these statutes is the *National Historic Preservation Act* (NHPA) of 1966, as amended (16 U.S.C. 470). Section 106 of this statute requires Federal agencies to take into account the effect of Federal undertakings on historic properties that are included in or eligible for inclusion in the NRHP. The regulations that implement Section 106 (36 CFR 800) describe the process for identification and evaluation of cultural resources, assessment of effects of Federal actions on historic properties or TCPs, and consultation to avoid, reduce, or mitigate adverse effects. The NHPA does not require preservation of cultural resources, but does ensure that Federal agency decisions concerning the treatment of these resources result from meaningful consideration of cultural and historic values, and identification of options available to protect the resources. Another important law, the *Archaeological Resources Protection Act* of 1979 (16 U.S.C. 470aa - 470mm) is the principal Federal statute protecting archaeological resources located on Federal and Reservation lands.

### 3.6.1.3 Tribal Consultation

The Federal government recognizes its unique relationship with Native American tribal governments and respects tribal sovereignty and self-government. Various Federal statutes have been enacted that establish and define a trust relationship with tribes. GSA acknowledges their responsibility to conduct government-to-government consultation with tribes for proposed Federal government actions. They understand that meaningful consultation and coordination with Native American tribes are not only good practice, but also lead to better government decisions. Specific statutes, regulations, and executive orders guide consultation with Native Americans to identify cultural resources important to tribes and to address tribal concerns about potential impacts to these resources. These include the NHPA, *American Indian Religious Freedom Act* of 1978 (42 U.S.C. 1996), *Native American Graves Protection and Repatriation Act* of 1990 (25 U.S.C. 3001), Executive Order 13007 Indian Sacred Sites (61 FR 26771), and Executive Order 13175 Consultation and Coordination with Indian Tribal Governments (65 FR 67249). They call on agencies to consult with Native American tribal leaders and others knowledgeable about cultural resources important to them. Consultation is conducted for Federal actions, such as the decisions to be made with regard to the proposed alternatives, with the potential to affect locations of traditional concern, religious practices and areas where they are carried out, areas of traditional cultural uses, archaeological sites, and other modern and ancestral tribal resources. GSA takes government-to-government consultation very seriously.

## 3.6.2 Definition of the Region of Influence

Information on cultural resources that could be impacted by the proposed alternatives was collected through a systematic cultural resource inventory of the Area of Potential Effect. For

cultural resource discussions in this EIS, the region of influence is equivalent to the Area of Potential Effect.

### **3.6.3 Prehistoric and Historic Resources Identified in the Affected Area**

The systematic inventory included an archaeological survey (Tetra Tech 2008) and a historic structures inventory (Sawyer 2008).

The Area of Potential Effect for the archaeological survey included all of the area proposed for construction use in either of the alternatives. The survey included review of information on the area's prehistory and history, documentation of previously recorded resources with a half-mile of the APE, and visual inspection of the ground surface. Only the areas that were not paved were visually inspected during the survey – this meant that the survey efforts were concentrated in the project area located west of the railroad tracks. No evidence of archaeological materials or deposits was located during the survey.

The Area of Potential Effect for the historic structures inventory included the existing Port of Entry, the remaining building on the proposed project area west of the railroad tracks, and a roughly 1-to-2-block radius of the proposed port. The inventory included checking the records of the County Assessor to identify building dates and histories, and conducting a field visit to record visual observations of the buildings. Two buildings in the APE were determined potentially eligible for listing on the National Register of Historic Places, the Zapateria Dane shoe store at 101 East First Street and the Kids Supercenter at 102 East Second Street.

### **3.6.4 Ethnographic Resources Identified in the Proposed Alternatives**

Consultation with interested Tribes will be conducted for the project. The purposes of the consultation are to elicit from Native American representatives concerns for potential impacts from the proposed alternatives on resources that are significant to the Tribes and to identify possible mitigation measures to address any potential impacts. Consultation will continue as the EIS study progresses, and information will be included in the Section 106 consultation with the California SHPO and in the Final EIS.

#### **3.6.4.1 Consultation Efforts Conducted**

GSA submitted the archaeological survey and historic structures inventory to the California State Historic Preservation Officer for consultation per Section 106 of the National Historic Preservation Act.

## **3.7 Visual Resources**

This section discusses the existing visual resources in the vicinity of the project area. The discussion includes evaluation of the quality of the existing landscape and the sensitivity of the existing visual resources to changes associated with the proposed alternatives.

In evaluating the visual quality of, and modifications to, the existing landscape, the following aesthetic values are considered:

- Form—topographical variation, mountains, valleys

- Line/Pattern—canals, roads, and transmission line corridors
- Color/Contrast—brightness, diversity
- Texture—vegetation, buildings, disturbed areas

The sensitivity of the existing visual resources to changes associated with the proposed alternatives is based upon a number of factors:

- The extent to which the existing landscape is already altered from its natural condition
- The number of people within visual range of the area, including residents, highway travelers, and those involved in recreational activities
- The degree of public concern or agency management directives for the quality of the landscape

The project area is in central Calexico, California along the New River. The area is characterized by a flat alluvial valley gently sloping downwards to the north between the course of the Colorado River and the Salton Sea. The project area consists of two flat areas separated by an approximately 30 foot high slope located at the vacated commercial LPOE. The upper area, including SR-111 and the current processing area, is approximately five feet above sea level. The lower area is approximately 27 feet below sea level. The New River crosses the lower area of the site in a northwesterly direction and separates the Federal and private pieces of the project. Both areas slope gently downhill to the southwest (Figure 3.7-1).

The Coyote Mountains across the Yuha Desert to the northwest and the Sand Dune Hills to the east are the nearest topographical features in the U.S. The City of Calexico is visually characterized as urbanized landscape bounded by open areas of agricultural fields that are traversed by irrigation canals. Arid mountains are seen in the background. No significant visual features exist in the Calexico area with the exception of the New River, which contains areas of riparian vegetation in its wide drainage. In the past, the level of pollution in the New River, which included trash, odors, and high levels of coliform and total dissolved solids (TDS), prevented the river from being considered a significant scenic or recreational feature for the city. As the amount of contamination in the New River is reduced, the visual character of the river is improved.

East of the New River, the project area consists of the asphalt areas used for the vacated commercial LPOE, the existing LPOE buildings and associated parking lots, roadways, and railroad tracks. West of the New River the area is disturbed vegetation and equipment storage. At the project area, the New River itself is a sparsely vegetated incised channel with discolored water with foam often floating in it (Figure 3.7-2).



**Figure 3.7-1. View looking west at the New River and vacated commercial inspection compound within the lower area of the site. Note the elevation difference from left to right.**



**Figure 3.7-2. View looking southeast at the New River towards Mexicali, Mexico.**

The foreground view to the south of the project area is of the border fence. Except where the railroad and roadway cross the International Border, allowing for a view of the Mexicali LPOE and commercial properties in Mexicali, the border fence blocks views to the south. Where the New River channel crosses the International Border, the view to the south is of the sewage outfall from Mexicali to the New River. The midground view across the fence is of the vacated Mexicali commercial LPOE.

To the east and north of the project area the foreground view is of commercial properties in Calexico. Due to the flat topography there are no mid or background views to the east or north.

The western view from the project site is of the equipment storage area across the New River and, in the far midground, residences of Mexicali and commercial/industrial properties in Calexico.

There are no eligible or officially designated California Scenic Highways near Calexico. Parts of SR-111 north of the Salton Sea and Interstate 8 west of Coyote Wells are eligible. There are no Wild and Scenic Rivers in the surrounding area. The City of Calexico contains several small public parks, none of which are situated west of the All American Canal and south of the New River, nor near the New River crossing of the International Border. Also, bike lanes or trails do not exist in either of these areas (EPA 2003).

### 3.8 Infrastructure

Infrastructure consists of buildings, utilities, and transportation corridors that support the operations of a facility. The region of influence for infrastructure mainly consists of the above-listed aspects of infrastructure near the downtown Calexico LPOE, although some aspects (e.g., water usage) cover a broader area of potential influence.

Under 22 USC Sec. 277a, the US IBWC works with the Mexican IBWC and other Mexican agencies (local, state and federal) to coordinate issues regarding sanitation, water quality, flood control and boundary demarcation for any proposed project along the border.

#### 3.8.1 Buildings

The downtown Calexico LPOE facilities consist of two separate parcels of Federal government-owned properties 1) the Main Building site, and 2) the vacated commercial LPOE site. In addition, there is a privately owned triangular shaped parcel of land (Duty Free parcel) at the southeast corner of Imperial Avenue and Second Street, and another privately owned piece of land (New River Parcel) located adjacent to the western edge of the vacated commercial LPOE, on the south side of the New River, between the river and the International Border (Table 3.8-1).

**Table 3.8-1. LPOE Parcels and Approximate Size**

Main Building Site	102,040 SF
Vacated Commercial Port Site	460,760 SF
Duty Free Private Parcel	21,171 SF
New River Private Parcel	81,604 SF

### **3.8.1.1 Main Building**

The Main Building is currently the central operational facility of the downtown Calexico LPOE. The Main Building is a two-story structure with a mezzanine. A canopy structure over the secondary vehicle inspection area extends from the west end of the building. There are a total of four (4) pedestrian processing booths and ten (10) vehicle primary inspection lanes. The Main Building houses the administrative and support functions of the LPOE, and the enforcement and benefits functions related to both pedestrian and vehicle inspection and processing.

### **3.8.1.2 Vacated Commercial LPOE**

The unused structures at the vacated commercial inspection compound to the west of the Main Building include the Truck Inspection Building and a Modular Trailer. The federal employees currently use the grounds for parking.

### **3.8.1.3 Private Property at Imperial Avenue and Second Street**

The privately owned Duty Free store located on the southeast corner of Imperial Avenue and Second Street is a single story building.

### **3.8.1.4 Private Property South of New River**

The New River private parcel has no buildings or structures.

## **3.8.2 Access**

Information on vehicular and pedestrian access to the facility is described below. Parking availability is also described. Additional information on transportation infrastructure is provided in Section 3.9.

### **3.8.2.1 Vehicular Access**

Vehicular access to the LPOE from the U.S. side of the International Border primarily consists of southbound Imperial Avenue for access to the Mexican POE. The Main Building can also be accessed from First Street. Paulin, Rockwood, and Heffernan Avenues terminate at First Street.

The vacated commercial LPOE can be accessed from Second Street as well as Imperial Avenue. Cesar Chavez Boulevard, a main road for the City of Calexico west of Imperial Avenue, terminates at Second Street. The Cesar Chavez Boulevard/Second Street intersection was previously the access point for commercial traffic processed through the vacated commercial inspection compound.

Currently, the Mexican-Mexicali Port of Entry is located approximately 100 yards south of the border connecting at the end of Imperial Avenue (SR-111). From the Mexican side of the border, vehicular access is from Avenida Cristobal Colon. After processing, vehicles are discharged onto westbound First Street which delivers the traffic onto northbound Imperial Avenue.



### **3.8.2.2 Pedestrian Access**

Pedestrians entering Mexico leave the U.S. by passing through the east end of the Main Building through an open air corridor across the border.

Pedestrians entering the U.S. from Mexico cross under Avenida del Colon through an underground retail mall. Once across the Avenida, the pedestrians enter the processing area of the Main Building. The processed pedestrians exit the Main Building onto First Street. Local taxis and other modes of transportation are available along First Street.

### **3.8.2.3 Parking**

There is some limited employee parking east of the Main Building. The vacated commercial LPOE is also used by employees for parking.

## **3.8.3 Utilities**

### **3.8.3.1 Water and Wastewater**

Water for the LPOE is supplied by the City of Calexico via a 6-inch water supply pipeline from Imperial Avenue (SR-111). Sanitary sewer service is provided by the City via a 6-inch sewer line from Imperial Avenue.

### **3.8.3.2 Electricity and Natural Gas**

Electricity is provided by the Imperial Irrigation District from overhead electrical lines along the east portion of the project site. Natural gas is provided by Southern California Gas Company from a 2-inch gas service line from Imperial Avenue.

## **3.9 Traffic**

The region of influence for transportation is defined as the roads in the vicinity of the project area that would be used for traffic bound for the LPOE, either cross-border vehicles or those bound for parking lots or disembarkation points where passengers would cross into Mexico on foot. Also considered are roads used for delivery of construction equipment, construction worker access, and delivery and employee access during operation of the LPOE. The roads within the region of influence include: Imperial Avenue (SR-111) through central Calexico, which intersects with SR-98 to the north and I-8 further to the north; SR-98, Cesar Chavez Boulevard; First Street; Second Street, Third Street; Grant Street; and Paulin Avenue.

Other LPOE in the region include the Calexico East LPOE, 6 miles east of downtown Calexico, the Andrade LPOE, 55 miles east of Calexico, and the Tecate LPOE, 70 miles west of Calexico. Northbound trucks cross the border mainly at the Tecate and Calexico East LPOEs with some crossing at the Andrade LPOE. The main east west highway for all of the LPOEs in the region is I-8 with SR-94 and SR-98 used to a lesser degree. The Calexico East LPOE was opened in 1997 to reroute truck traffic from the Calexico West LOPE and downtown Calexico. It also serves pedestrians and POV. It connects to SR-98 and I-8 via SR-7.

The major transportation route in Imperial County is I-8. In Calexico the major routes are north-south Imperial Highway (SR-111) and east-west SR-98. The Imperial Highway, called Imperial Avenue near the downtown Calexico LPOE, is a four-lane roadway with dedicated left turn lanes at most signalized intersections. The average daily traffic volume along Imperial Avenue (SR-111) from the International Border to SR-98 ranged from 26,000 to 34,000 in 2008. The average daily volume along SR-98 between Ollie Avenue and Imperial Avenue (SR-111), was 32,500, and east of Imperial Avenue (SR-111) was 25,000 for the same year (Appendix B).

The southbound access for vehicles to reach the downtown Calexico LPOE is via Imperial Avenue (SR-111). Northbound traffic from Mexico is via Avenida Cristobal Colón in Mexicali. Vehicles exit from primary inspection onto First Street heading west, then immediately on to Imperial Avenue traveling north. Vehicles exit from secondary inspection immediately onto Imperial Avenue north. The first major intersection on Imperial Avenue north of the International Border is with Second Street. Second Street runs east-west just north of the LPOE. Second Street has four lanes west of SR-111. West of the intersection with SR-111, Second Street intersects with Cesar Chavez Boulevard. Daily traffic volume on Second Street is estimated at 8,700 between Cesar Chavez Boulevard and SR-111 (Appendix B).

### 3.10 Air Quality

#### Clean Air Act

The *Clean Air Act* of 1970 (42 U.S.C. §7401) established ambient air quality standards to protect public health and welfare. These standards are referred to as the National Ambient Air Quality Standards (NAAQS). Areas with air quality cleaner than these standards are referred to as attainment areas. Areas with air quality not meeting the NAAQS are referred to as nonattainment areas. Areas where the air quality is not clearly defined as either attainment or nonattainment are designated unclassified. In 1977, the *Clean Air Act* was amended, and provisions intended to prevent deterioration of air quality in relatively pristine areas of the country were established. These provisions, referred to as the Prevention of Significant Deterioration rule, established Class I and Class II areas. This regulation establishes stringent increments to limit the deterioration of air quality. The increments are more stringent in Class I areas.

In 1990, additional amendments to the *Clean Air Act* set forth additional emphasis on the protection of visibility in Class I areas, and encouraged the EPA to establish new standards for ozone and particulate matter with an aerodynamic diameter smaller than 2.5 microns or PM<sub>2.5</sub>. At this time new standards for ozone and PM<sub>2.5</sub> are not in effect, and are therefore not addressed in this analysis.

This section describes the affected environment relative to air resources. The primary factors that determine the air quality of a region are the location of air pollution sources, the type and magnitude of pollutant emissions, and the local meteorological conditions.

#### 3.10.1 Region of Influence

The air quality region of influence assumed for this project is a circle with a radius of approximately 10 miles centered on the project area.

The city of Calexico lies within the Salton Sea Air Basin (SSAB), which is under the jurisdiction of the Imperial County Air Pollution Control District (ICAPCD). The SSAB consists of all of Imperial County and the southeast portion of Riverside County. Regional air quality within the SSAB is affected by topography and atmospheric inversions. The area is generally very flat and bordered to the west by the Peninsular Mountain range and to the east by the Chocolate, Orocopia, and Cargo Muchacho Mountains. The prevailing winds tend to come from the west-north-west through southwest. The mountains to the east act as physical barriers to the dispersion of airborne contaminants. The SSAB also experiences surface inversions almost every day of the year (Calexico 2007).

### **3.10.2 Climate and Meteorology**

The climate of the Imperial Valley is arid, with hot summers and mild winters. Temperatures exceed 100 degrees for more than 110 days out of the year. The relative humidity in summer is very low, averaging 30 to 50 percent in the early morning and 10 to 20 percent during the late afternoon. Relative humidities below 10 percent are common during the hottest part of the day. The topographic barriers and atmospheric conditions limit precipitation in the area. The area usually receives its average 2.8 inches of yearly precipitation in the winter. Wind in the project area blows predominantly from west to east. The average wind speed is 8 miles per hour with calm conditions occurring 17 percent of the time (Calexico 2007).

### **3.10.3 Regulatory Setting**

The Federal Clean Air Act (CAA) (42 USC § 7401) requires the adoption of National Ambient Air Quality Standards (NAAQS) to protect the public health, safety, and welfare from known or anticipated effects of air pollution. Current standards are set for sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter equal to or less than 10 microns in size (PM<sub>10</sub>), and fine particulate matter equal to or less than 2.5 microns in size (PM<sub>2.5</sub>). These pollutants are collectively referred to as criteria pollutants. The State of California Air Resources Board (CARB) has established additional standards, which are generally more restrictive than the NAAQS. Federal and state standards are shown in Table 3.10-1 below.

The 1990 Amendments to CAA Section 176 require the EPA to promulgate rules to ensure that federal actions conform to the appropriate State Implementation Plan (SIP). These rules, known together as the General Conformity Rule (40 CFR §§ 51.850-.860 and 40 CFR §§ 93.150-.160), require any federal agency responsible for an action in a nonattainment area to determine that the action conforms to the applicable SIP or that the action is exempt from the General Conformity Rule requirements. This means that federally supported or funded activities will not (1) cause or contribute to any new air quality standard violation, (2) increase the frequency or severity of any existing standard violation, or (3) delay the timely attainment of any standard, interim emission reduction, or other milestone. Conformity with the CAA takes place on two levels—first, at the regional level and second, at the project level. A project must conform at both levels to be approved.

**Table 3.10-1. Ambient Air Quality Standards for Criteria Pollutants**

Pollutant	Average Time	California Standards: Concentration	California Standards: Method	National Standards: Primary	National Standards: Secondary	National Standards: Method
Ozone	1 hour	0.09 ppm (180 µg/m <sup>3</sup> )	Ultraviolet Photometry	0.12 ppm (235 µg/m <sup>3</sup> )	0.12 ppm (235 µg/m <sup>3</sup> )	Ethylene Chemiluminescence
	8 hours	0.070 ppm (137 µg/m <sup>3</sup> )		0.075 ppm (147 µg/m <sup>3</sup> )	0.075 ppm (147 µg/m <sup>3</sup> )	
Carbon Monoxide	8 hours	9.0 ppm (10 mg/m <sup>3</sup> )	Non-Dispersive Infrared Spectroscopy (NDIR)	9 ppm (10 mg/m <sup>3</sup> )	None	Non-Dispersive Infrared Spectroscopy (NDIR)
	1 hour	20 ppm (23 mg/m <sup>3</sup> )		35 ppm (147 mg/m <sup>3</sup> )	--	
Nitrogen Dioxide (NO <sub>2</sub> )	Annual Average	0.030 ppm (56 µg/m <sup>3</sup> )	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m <sup>3</sup> )	0.053 ppm (100 µg/m <sup>3</sup> )	Gas Phase Chemiluminescence
	1 hour	0.18 ppm (338 µg/m <sup>3</sup> )		--	--	
Sulfur Dioxide (SO <sub>2</sub> )	Annual Average	--	Ultraviolet Fluorescence	0.03 ppm (80 µg/m <sup>3</sup> )	--	Pararosaniline
	24 hours	0.04 ppm (105 µg/m <sup>3</sup> )		0.14 ppm (365 µg/m <sup>3</sup> )	--	
	3 hours	--		--	0.5 ppm (1300 µg/m <sup>3</sup> )	
	1 hour	0.25 ppm (655 µg/m <sup>3</sup> )		--	--	
Respirable Particulate Matter (PM <sub>2</sub> )	24 hours	50 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	150 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>		--	--	
Fine Particulate Matter (PM <sub>2.5</sub> )	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	15 µg/m <sup>3</sup>	--	Inertial Separation and Gravimetric Analysis
	24 hours	--		35 µg/m <sup>3</sup>	--	
	Calendar Quarter	--		1.5 µg/m <sup>3</sup>	1.5 µg/m <sup>3</sup>	
	3-month Rolling Average	--		0.15 µg/m <sup>3</sup>	0.15 µg/m <sup>3</sup>	

ppm = parts per million

µg/m<sup>3</sup> = micrograms per cubic metermg/m<sup>3</sup> = milligrams per cubic meter

Source: CARB 2009

Regional level conformity in California is concerned with how well the region is meeting the standards set for CO, NO<sub>2</sub>, O<sub>3</sub>, and PM. California is in attainment for lead and SO<sub>2</sub>. At the regional level, Regional Transportation Plans (RTPs) are developed that include all of the

transportation projects planned for a region over a period of years (usually at least 20 years). Based on the projects included in the RTP, an air quality model is run to determine whether the implementation of those projects would conform to emission budgets or other tests showing that attainment requirements of the CAA are met. If the conformity analysis is successful, the regional planning organization and the appropriate federal agencies make the determination that the RTP is in conformity with the SIP for achieving the goals of the CAA. Otherwise, the projects in the RTP must be modified until conformity is attained. If the design and scope of a proposed project are the same as described in the RTP, then it meets regional conformity requirements for purposes of project-level analysis.

Conformity at the project-level also requires “hot spot” analysis if an area is “nonattainment” or “maintenance” for CO and/or particulate matter. “Hot spot” analysis is essentially the same, for technical purposes, as CO or particulate matter analysis performed for NEPA purposes. Conformity does include some specific standards for projects that require a hot spot analysis. In general, projects must not cause the CO standard to be violated, and in “nonattainment” areas a project must not cause any increase in the number and severity of violations. If a known CO or particulate matter violation is located in the project vicinity, the project must include measures to reduce or eliminate the existing violation(s) as well.

In 1977, the CAA was amended, and provisions intended to prevent deterioration of air quality in relatively pristine areas of the country were established. These provisions, referred to as the Prevention of Significant Deterioration rule, established Class I and Class II areas. This regulation establishes stringent increments to limit the deterioration of air quality. The increments are more stringent in Class I areas. In 1990, additional amendments to the CAA set forth additional emphasis on the protection of visibility in Class I areas. There are no Class I areas within the air quality region of influence. The closest Class I area is the Joshua Tree National Park, approximately 70 miles north of the Calexico LPOE.

#### **3.10.4 Compliance with Air Quality Standards and Local Air Quality**

Air quality conditions are monitored by ICAPCD at seven locations throughout Imperial County. The nearest monitoring station to the project site is the Calexico-Ethel Street Monitoring Station, located approximately 1.1 miles northeast of the Calexico LPOE. Table 3.10-2 provides a summary for Imperial County of the attainment status for each criteria pollutant.

As shown in Table 3.10-2, Imperial County is designated as a non-attainment area for ozone, and PM-10, and the city of Calexico is designated as a non-attainment area for PM-2.5 under the NAAQS. Non-attainment status means that the ambient concentration of a criteria pollutant is exceeded in the region relative to the applicable air quality standard. A region is a “nonattainment” area if one or more monitoring stations in the region fail to attain the relevant standard. Areas that were previously designated as nonattainment areas but have recently met the standard are called “maintenance” areas.

**Table 3.10-2. Attainment Classification and Number of Air Quality Exceedances at the Calexico-Ethel Street Monitoring Station**

Pollutant	Attainment Status: Federal	Attainment Status: State
Ozone (O3)	Nonattainment	Nonattainment
Respirable Particulate Matter (PM10)	Nonattainment	Nonattainment
Fine Particulate Matter (PM2.5)	Nonattainment	Nonattainment
Carbon Monoxide (CO)	Attainment	Attainment
Nitrogen Dioxide (NO2)	Attainment	Attainment
Sulfur Dioxide (SO2)	Attainment	Attainment

Source: EPA 2011 and CARB 2011.

Ambient concentrations of pollutants from the Calexico-Ethel Street Monitoring Station for the 3-year period of 2006 through 2008 are presented in Table 3.10-3. These data indicate that the baseline air quality conditions in the project area include occasional events of very unhealthy air. However, the City of Calexico reports that the frequency of smog alerts has dropped significantly in the last decade. Ozone and particulates are the two most significant air quality concerns in the project area. Since 1995, the level of inhalable particulates has remained consistently high. However, the number of days that exceeded the state standard has dropped significantly (Calexico 2007).

At the LPOE, long lines of idling vehicles contribute to the air pollution in the region.

**Table 3.10-3. Ambient Background Concentrations at the Calexico-Ethel Street Monitoring Station**

Pollutant	Averaging Period	Units	NAAQS	CAAQS	2006 Max	2007 Max	2008 Max
Ozone (O3)	1-hour	ppm	None	0.09	0.111	0.112	0.128
	8-hour	ppm	0.075	0.070	0.087	0.094	0.093
Respirable Particulate Matter (PM10)	24-hour	µg/m3	150	50	164	282	111
	Annual	µg/m3	None	20	56	66	56
Fine Particulate Matter (PM2.5)	24-hour	µg/m3	35	None	46	29.5	24
	Annual	µg/m3	15	12	12.47	12.25	10.48
Carbon Monoxide (CO)	1-hour	ppm	35	20	12.4	10.4	8.2
	8-hour	ppm	9	9.0	9.8	7.5	5.3
Nitrogen Dioxide (NO2)	1-hour	ppm	None	0.18	0.101	0.107	0.103
	Annual	ppm	0.053	0.030	0.014	0.015	0.013
Sulfur Dioxide (SO2)	1-hour	ppm	None	0.25	0.192	0.014	0.018
	3-hour	ppm	0.5	None	0.166	0.010	0.011
	24-hour	ppm	0.14	0.04	0.038	0.004	0.007
	Annual	ppm	0.03	None	0.002	0.001	0.001

<sup>a</sup> Values in parentheses () are exceedances of state standards.<sup>b</sup> Insufficient data.

Source: EPA 2011 and CARB 2011.

### **3.10.5 Sensitive Receptors**

Sensitive receptors are typically defined as schools (Preschool-12th Grade), hospitals, resident care facilities, or day-care centers, or other facilities that may house individuals with health conditions that would be adversely impacted by changes in air quality. The following sensitive receptors are located within one mile of the project study area:

- Auroro High School
- Calexico Adventist Missionary School
- Calexico High School
- Calexico Hospital
- Calexico Mission Academy
- Campesinos Unidos Head Start
- De Anza Jr. High School
- De Anza Senior Apartments
- Dool Elementary
- Jefferson Elementary
- Kennedy Garden Elementary
- Mains Elementary
- Moreno William Jr. High School
- Our Lady of Guadalupe Academy
- Rockwood Elementary
- Vincent Memorial High School

### **3.10.6 Global Warming (Greenhouse Gas Emissions)**

The combustion of fossil fuels results in the emission of carbon dioxide to the atmosphere. The scientific community generally believes that increased carbon dioxide emissions are contributing to a global temperature increase and could have an adverse effect on our environment. Traffic associated with the downtown Calexico LPOE contributes carbon dioxide to the atmosphere.

## **3.11 Noise**

Noise-sensitive areas are land use areas associated with indoor and outdoor activities that may be subject to stress or significant interference from ambient noise. These areas include residential dwellings, mobile homes, hotels, motels, hospitals, nursing homes, educational facilities, and libraries. Industrial, commercial, and agricultural land uses, and undeveloped land generally are not considered sensitive to ambient noise. The region of influence relative to a noise source can be viewed as two separate areas: (1) nearby, or areas directly impacted by the noise resulting from the construction and operation of the LPOE; and (2) regional, or sensitive areas in the region that may be impacted directly or indirectly by project construction and operation.

### 3.11.1 Fundamentals of Acoustics

In March of 1974, the EPA Office of Noise Abatement and Control published a document entitled *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety* (EPA 1974). Much of the information below is adapted from this document, and from the publication *Protective Noise Levels*, which was produced to compliment the material in the above reference (EPA 1979).

Noise is generally defined as loud, unpleasant, unexpected, or undesired sound that disrupts or interferes with normal human activities. Although exposure to high noise levels has been demonstrated to cause hearing loss, the principal human response to environmental noise is annoyance. The response of individuals to similar noise events is diverse and influenced by the type of noise, the perceived importance of the noise, its appropriateness in the setting, the time of day, the type of activity during which the noise occurs, and the sensitivity of the individual.

Sound is a physical phenomenon consisting of minute vibrations, which travel through a medium, such as air, and are sensed by the human ear. Sound is generally characterized by a number of variables including frequency and intensity. When the source stops vibrating, the sound waves are no longer created, and the sound ceases. The ear is extremely sensitive to these pressure fluctuations. Sound is generally characterized by a number of variables including amplitude (perceived as loudness) and frequency (perceived as pitch).

#### 3.11.1.1 Amplitude

Sound pressure is the amplitude or measure of the difference between atmospheric pressure (with no sound present) and the total pressure (with sound present). Although there are other measures of sound amplitude, sound pressure is the fundamental measure and the basic ingredient of the various measurement descriptors.

The unit of sound pressure is the decibel (dB). A sound level of 0 dB is approximately the threshold of human hearing and is barely audible under extremely quiet listening conditions. Normal speech has a sound level of approximately 60 dB. Sound levels above approximately 120 dB begin to be felt inside the human ear as discomfort and eventually pain at still higher levels. The minimum change in the sound level of individual events that an average human ear can detect is approximately 3 dB. An increase, or decrease, in sound level of about 10 dB is usually perceived by the average person as a doubling, or halving, of the sound's loudness, and this relation holds true for loud sounds or for quieter sounds.

#### 3.11.1.2 Frequency

Frequency describes the sound's pitch and is the rate, or number of times per second, that a sound source vibrates. The frequency is typically measured as cycles per second, or Hertz (Hz). Hertz is the number of times each second that the crest of a sound pressure wave passes a fixed point. For example, when a drummer beats a drum, the skin of the drum vibrates a number of times per second. A particular tone that makes the drum skin vibrate 100 times per second generates a sound pressure wave that is oscillating at 100 Hz. The human ear has a wide range of response and most humans can identify sounds with frequencies from about 16 Hz to 20,000 Hz.



### 3.11.2 Environmental Noise

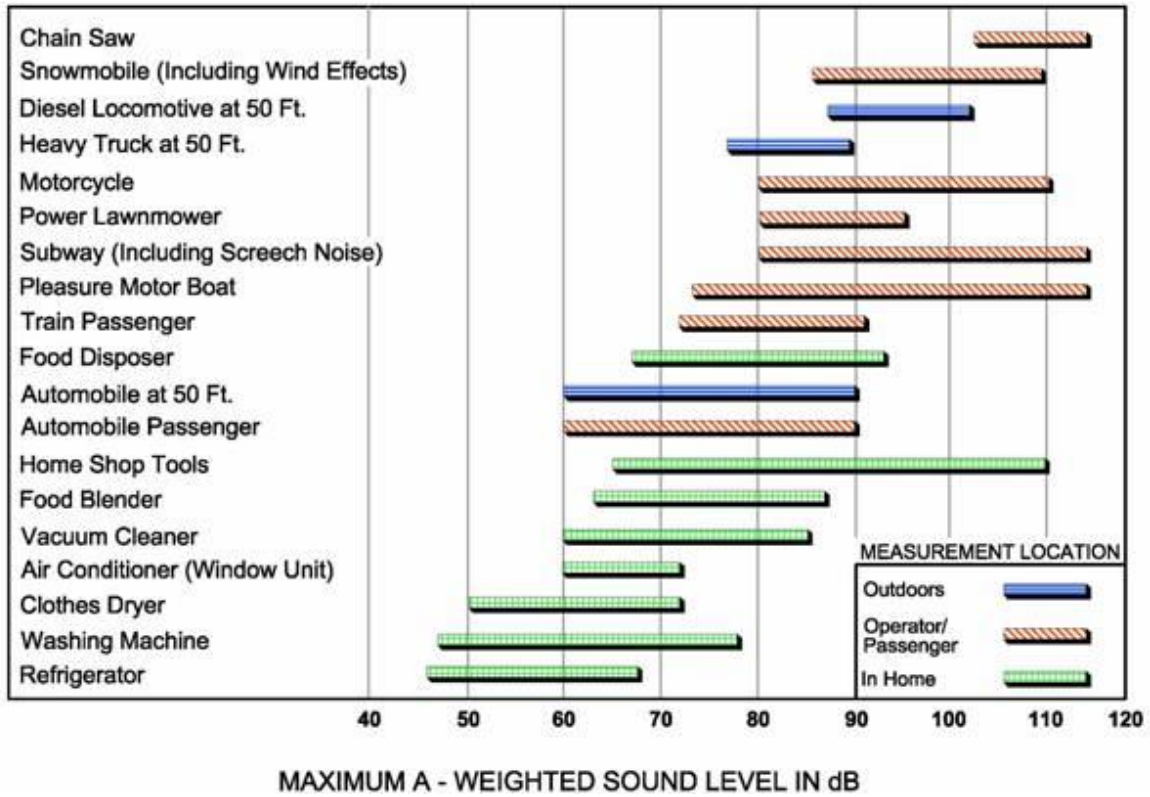
Sound from a tuning fork (a pure tone) contains a single frequency. In contrast, most sounds one hears in the environment do not consist of a single frequency, but rather a broad band of frequencies differing in sound level. People hear sounds most readily when the predominant sound energy occurs at frequencies between 1,000 and 6,000 Hz. Sounds at frequencies above 10,000 Hz (such as high-pitched hissing) are much more difficult to hear, as are sounds at frequencies below about 100 Hz (such as a low rumble). To measure sound on a scale that approximates the way it is heard by people, more weight must be given to the frequencies that people hear more easily. This is called “A” weighting, and the resulting decibel level is called the A-weighted sound level (dBA). Typical ranges of common sounds are presented in Figure 3.11-1.

There is a difference in sudden or startling sound and continuous levels of sound. This temporal nature of sound may be described in terms of its pattern over time and change in sound pressure level. To describe the time varying characteristics of environmental noise, the statistical noise descriptors  $L_{10}$ ,  $L_{50}$ , and  $L_{90}$  are commonly used. They are the noise levels equaled or exceeded during 10 percent, 50 percent, and 90 percent of the stated time. Sound levels associated with the  $L_{10}$  typically describe transient or short-term events, while levels associated with the  $L_{90}$  describe the steady-state (or most relevant) noise conditions.

Most environmental noise includes a conglomeration of noise from distant sources that creates a relatively steady background noise in which no particular source is identifiable. To account for this, a single descriptor called the equivalent sound level ( $L_{eq}$ ) is used.  $L_{eq}$  is the energy-mean A-weighted sound level during a measured time interval. It is the “equivalent” constant sound level that would have to be produced by a given source to equal the fluctuating level that was measured. In addition to the  $L_{eq}$ , it is often desirable to know the acoustic range of the noise that occurred during the same time. This is accomplished through the  $L_{max}$  and  $L_{min}$  indicators. These represent the root-mean-square maximum and minimum noise levels which occurred during the monitoring interval. The  $L_{min}$  value obtained for a particular monitoring location is often called the acoustic floor for that location.

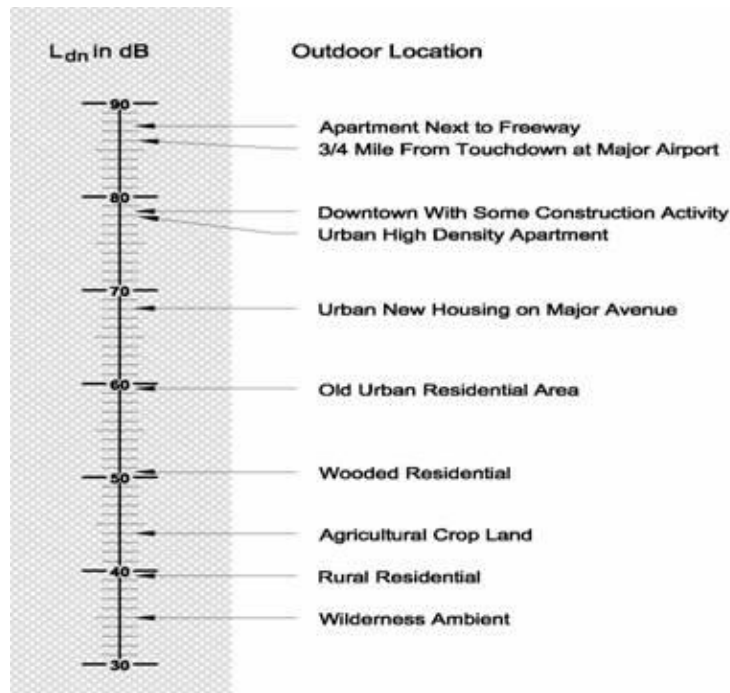
The major virtue of the equivalent sound level is that it correlates reasonably well with the effects of noise on people, even for wide variations in environmental sound levels and time patterns. It is used when only the durations and levels of sound, and not their times of occurrence (day or night), are relevant.

The day-night average noise level ( $L_{dn}$ ) is defined as the A-weighted average sound level for a 24-hour day. It is calculated by adding a 10-dB “penalty” to sound levels in the night (10 p.m. to 7 a.m.) to compensate for the increased sensitivity to noise during the quieter evening and nighttime hours. Sound levels typical of outdoor areas are provided in Figure 3.11-2 using the  $L_{dn}$ .



Source: EPA 1979.

Figure 3.11-1. Typical Ranges of Common Sounds.



Source: EPA 1979.

Figure 3.11-2. Typical Sound Levels.

In residential areas of the U.S., major contributions to outdoor noise come from transportation, industrial, construction, human, and animal sources. Inside homes, appliances, radio, and television, as well as people and animals, are predominant noise sources. On the job, workplace equipment can create moderate to extremely high levels of noise. The daily noise exposure of people depends on how much time they spend in different outdoor and indoor locations and on the noise environments in these places.

The noise environment outside residences in the U.S. can be highly variable. Outdoor day-night sound levels in different areas vary over a range of 50 dB. Levels occur as low as  $L_{dn}$  equal to 30 to 40 dB in wilderness areas and as high as  $L_{dn}$  equal to 85 to 90 dB in urban areas.

Most Americans live in areas with a much smaller ranges of outdoor noise levels. For urban dwellers (roughly 135 million people, more than half the U.S. population), 87 percent live in areas of  $L_{dn}$  equal to 48 and higher from traffic noise alone. Rural populations enjoy average outdoor sound levels generally lower than  $L_{dn}$  equal to 50 dB.

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### **3.11.3 Noise within the Region of Influence**

Vehicular traffic along Imperial Avenue and the surrounding streets, trains traveling on the tracks between the Main Building and the vacated commercial LPOE, and the aircraft using the airport 2 miles to the west all contribute to the level of noise in the area.

The City of Calexico's noise ordinances regulate noise emitted from construction activities through the placement of time restrictions. The City noise ordinances also address long-term interior and exterior noise impacts caused by traffic and other sources. The City plans to regulate noise levels by compatibility with land uses.

## **3.12 Human Health and Safety**

This section discusses the regulation of worker and public health and safety, and the existing hazards at the downtown Calexico LPOE. Existing conditions related to air quality, water quality, noise, geologic conditions, and traffic are discussed in their respective resource sections in this chapter.

No aboveground storage tanks (ASTs), underground storage tanks (USTs), or hazardous materials and/or waste storage areas were observed on the Site. No potable water supply or monitoring wells are reportedly located on the site. No bulk storage containers or drums were observed during the site walk-through. No evidence of any type of hydrocarbon releases was noted on the ground surface within the entire area surveyed.

Occupational health and safety issues are primarily the responsibility of Occupational Safety and Health Administration (OSHA). OSHA regulations applicable to the proposed construction and operation activities include 29 CFR 1910 (general industry standards) and 29 CFR 1926 (construction industry standards). As a federal facility, the downtown Calexico LPOE is not subject to supplemental worker safety requirements for the State of California.

Hazards faced by workers at the downtown Calexico LPOE include injuries that could be sustained from collisions with moving vehicles, lifting and moving equipment, and contact with hazardous substances during inspections.

The water in the New River, which crosses the LPOE, has been found to contain bacteria and viruses known to cause human disease including streptococcus, tuberculosis, encephalitis, arbovirus, polio, cholera, hepatitis, and typhoid (CRWQCB 1998). Foam formed by the chemical contaminants in the water blows out of the river channel onto the LPOE project area spreading both the chemical and biological contaminants. The New River is a pathway for illegal immigrants seeking to enter the U.S. Border patrol agents who enter the water in pursuit fear contagion and toxic exposure.

### **3.13 Socioeconomics**

Imperial County was originally part of San Diego County. It was founded out of the eastern half of San Diego County in 1907. The area was settled as early as 1858 along the Butterfield Stage Route. Further development was made possible after water was brought into the area in 1901. Calexico, which began as a tent city for the Imperial Land Company, was founded in 1900 and incorporated in 1908.

For the purposes of this EIS, the region of influence is Imperial County. The current downtown Calexico LPOE and alternatives are located within this area, and the majority of workers at the LPOE would be expected to reside in this area.

#### **3.13.1 Population Trends and Demographic Characteristics**

Imperial County is the youngest county, by median age, in California. The population growth between 1990 and 2000 was 30.2 percent compared to 13.6 percent for the State of California (Table 3.13-1). Recent growth, from 2000 to 2005 has been 9.5 percent compared to 6.7 percent for the state. For the City of Calexico, the population has been increasing at a higher rate, 40.4 percent between 1990 and 2000.

As shown in Table 3.13-2, in Imperial County the population is 49.4 percent white, with 72.2 percent of persons reporting themselves as being of Hispanic (including Latino) origin. In the City of Calexico, 95.3 percent reported themselves as being of Hispanic (including Latino) origin. The populations that reported themselves as American Indian and Alaska Native comprised 1.9 percent of the Imperial County population in 2000. Thirty-two percent of the county's population is foreign born, almost 25 percent higher than for California residents as a whole. Over 67 percent of county residents speak a language other than English at home.

**Table 3.13-1. Historical Population Trends**

Area	2005 Estimate <sup>a</sup>	2000 Census <sup>b</sup>	1990 Census <sup>c</sup>	Growth % 1990-2000	Growth % 2000-2005
California	36,132,147	33,871,648	29,760,021	13.6	6.7
Imperial County	155,823	142,361	109,303	30.2	9.5
Calexico	NA	27,109	18,633	40.4	NA

NA: Not available

<sup>a</sup> Source: Census 1990<sup>b</sup> Source: Census 2000a, 2000b, 2000c<sup>c</sup> Source: Census 2005a, 2000b**Table 3.13-2. State, County, and Local Demographic Characteristics, 2000**

Demographic Characteristic	California	Imperial County	City of Calexico
<b>Gender</b>			
Male	49.8%	52.2%	46.6%
Female	50.2%	47.8%	53.4%
<b>Age</b>			
0-14	22.9%	26.0%	28.7%
15-24	14.2%	15.5%	16.4%
25-44	31.6%	30.4%	27.2%
45-64	20.5%	18.1%	17.6%
65 and over	10.7%	10.1%	10.4%
Median age	33.3 years	31.0 years	29.2 years
<b>Race</b>			
White – alone	59.5%	49.4%	46.6%
Hispanic - of any race <sup>a</sup>	32.4%	72.2%	95.3%
Black – alone	6.7%	4.0%	0.5%
Native American – alone	1.0%	1.9%	0.7%

<sup>a</sup> The U.S. Census Bureau complies with the Office of Management and Budget's standards for maintaining, collecting, and presenting data on race, which were revised in October 1997. They generally reflect a social definition of race recognized in this country. They do not conform to any biological, anthropological or genetic criteria. In accordance with the Office of Management and Budget definition of ethnicity, the Census Bureau provides data for the basic categories in the Office of Management and Budget standards: Hispanic or Latino and Not Hispanic or Latino. In general, the Census Bureau defines ethnicity or origin as the heritage, nationality group, lineage, or country of birth of the person or the person's parents or ancestors before their arrival in the U.S. People who identify their origin as Spanish, Hispanic, or Latino may be of any race. According to the revised Office of Management and Budget standards noted above, race is considered a separate concept from Hispanic origin (ethnicity).

Source: Census 2002

Imperial County and the City of Calexico have almost equal numbers of men and women in the population. However, the county has slightly more men and the city slightly more women. The county's population is relatively young with a median age of 31.0 years. Over 10 percent of the county's population is 65 or older. Approximately 47 percent of the Calexico population, and 59 percent of the Imperial County population over 25 years old has graduated from high school, compared with over 76 percent of all California residents, indicating a less educated labor force than in other parts of the state.

### **3.13.2 Housing**

#### **3.13.2.1 Imperial County**

According to the 2000 Census, there were 47,775 housing units in Imperial County, 20.8 percent of which were multiple family units. Just over 58 percent of the housing units are owner occupied with an average of 3.33 persons residing in each household. The vacancy rate at the time of the survey was 10.3 percent with 4.7 percent designated as seasonal or occasional use. The median value of an owner-occupied housing unit in Imperial County in 2000 was \$100,000, compared to \$211,500 for the state as a whole.

#### **3.13.2.2 City of Calexico**

The 2000 Census reports that there were 6,983 housing units in the City of Calexico. Of the 6,815 occupied housing units, over 55 percent were owner-occupied with almost 45 percent being renter-occupied. On average, 3.96 persons live in each household. The vacancy rate was 1 percent for owner-occupied units and 1.1 percent for rentals.

### **3.13.3 Education**

Imperial County has 62 schools in 16 school districts: 8 high schools, 7 continuation high schools, 9 middle schools, 8 kindergarten through eighth grade (K-8) schools, and 24 K-6 schools. In 2005, the total enrollment was 35,720 students. Calexico has three high schools, one public and two private, and one continuing education high school.

There is a two-year upper division campus of San Diego State University in Calexico that serves the desert area of southeastern California. The next closest higher education facility is Imperial Valley College in Imperial, with a full time enrollment of approximately 4,000.

### **3.13.4 Community Services and Public Safety**

The City of Calexico provides the full range of community services to its residents including water, sanitary sewer, and solid waste utilities, law enforcement and fire protection, and recreation and library services. Imperial County provides social services, solid waste disposal sites, roads, and sheriff's office services.

#### **3.13.4.1 Utilities**

The City of Calexico provides water, sewer, and solid waste services. The major supplier of electrical services in Imperial County is the Imperial Irrigation District. Natural gas is supplied

by the Southern California Gas Company. SBC Pacific Bell is the major provider of telephone services.

#### **3.13.4.2 Healthcare**

There are five medical clinics in Calexico, including the Calexico Health Center, which provides full service medical care as well as Urgent Care. It is affiliated with the Pioneers Memorial Healthcare District, 22 miles away in Brawley. The Pioneers Memorial Hospital is a 107-bed acute care facility with 24-hour emergency medical care. The nearest full medical facility is the El Centro Regional Medical Center in El Centro, approximately 10 miles to the north. This 165-bed acute care facility offers 24-hour emergency service.

#### **3.13.5 Economic Resources**

Imperial County is primarily a rural area with a large proportion of its economy based on agricultural industries and a growing international trade stimulated by the opening of a new commercial port-of-entry (the county's third) east of Calexico. Imperial County's major employment sectors are government, agriculture, and retail trade. These sectors make up 70 percent of the total county employment. The high level of government employment is partially a result of the number of prison facilities located in the Valley. Agriculture accounts for almost one quarter of the jobs in the County. The major crops are alfalfa, lettuce, sugar beets, and carrots. The increase in population in the Imperial and Mexicali Valleys has stimulated growth in the retail sector (FHWA 2003). In 2005, the Imperial Valley Mall opened, attracting shoppers from surrounding areas, including cross border consumers from Mexicali, Mexico, greatly contributing to the county's retail sales.

The military also contributes substantially to the local economy. The El Centro Naval Air Facility serves as a base for air operations training. The 2,289 acre base near Imperial has control over several bombing ranges totaling an additional 54,000 acres of land in the valley. The base has around 800 permanent personnel and hosts 1,200 trainees per month.

#### **3.13.6 Employment**

Government, including all military, prison, and educational facilities, is the major employment sector in Imperial County, accounting for 31 percent of all jobs. Imperial County's top private sector employers are the agribusinesses Jack Brothers & McBurney in Brawley and FLC L&S Harvesting in El Centro (UC Davis 2001).

Table 3.13-3 shows 2000 employment by industry in Imperial County.

Government employment is especially important to Imperial County because it is a steady source of "outside" income for the county, contributing substantially to the County's economic base. Employment at the military base comprises a large part of this "outside" income.

**Table 3.13-3. Employment by Industry, Imperial County, 2000**

Industry	Average Annual Employment	Total Percent
<b>Agriculture</b>	11,300	22.6
<b>Construction and Mining</b>	2,100	4.2
<b>Finance, Insurance, and Real Estate</b>	1,100	2.2
<b>Government</b>	15,500	31.0
<b>Manufacturing</b>	1,900	3.8
<b>Services</b>	5,700	11.4
<b>Trade</b>	10,400	20.8
- Retail	8,300	-
- Wholesale	2,100	-
<b>Transportation and Public Utilities</b>	1,900	3.8
<b>Total all industries</b>	<b>51,800</b>	<b>100.0</b>

Note: Totals may not add due to nondisclosure of confidential industry data or to rounding  
Source: FHWA 2003

Counties with a significant agricultural sector tend to have greater seasonal variations in employment, and as a result, tend to have higher seasonal unemployment rates. Unemployment is a more significant problem in Imperial County than in most California agricultural counties. It has historically experienced some of the highest unemployment rates in California. Local officials attribute the decline in unemployment between 2000 and 2002 largely to the opening of a major new employer, the Brawley Beef plant.

As shown in Table 3.13-4, the unemployment rate of Imperial County is significantly higher than the state unemployment rate, hitting a high of over 15 percent in 2005. The State of California unemployment rate for the year 2005 was 5.4 percent. There is a great deal of seasonality in non-farm businesses in the Imperial Valley as well. Tourist related and commodity packing and processing jobs are seasonal, and many non-farm employers are also quick to lay-off workers when work slows (UC Davis 2003). Since the economic downturn in 2008 and 2009, unemployment in Imperial County has risen. In December 2009, the not seasonally adjusted unemployment rate for Imperial County was 24.5 percent.

**Table 3.13-4. Unemployment Rates in 2005**

Community	Civilian Labor Force	Unemployment Rate
California	1,769,567	5.4%
Imperial County	65,133	15.8%
City of Calexico	12,134	17.9%

Sources: BLS 2006



### 3.13.7 Income and Earnings by Industry

Personal income is defined as all income received by individuals from all sources including income from work (labor income or earnings), income from savings and investments (investment income), and income from outside sources such as Social Security or Medicare (transfer payment income). Personal income for Imperial County was \$2.74 billion dollars in the year 2001 and \$3.32 billion in 2004.

Per capita income is calculated by dividing all personal income received by all permanent county residents by the total county population. Per capita personal income in 2004 in Imperial County was \$21,794, an increase of 14.4 percent over the 2001 income of \$19,048 (BEA 2006). Per-capita income for the State of California in 2004 was \$35,219.

Earnings by persons employed in Imperial County rose by 23.6 percent from 2001 to 2004. In terms of earnings, the Imperial County largest industry by far in 2004 was government, with approximately \$908 million dollars (Table 3.13-5). Trade, agriculture, and services were also substantial in terms of earnings with \$316.1 million, \$297.4 million, and \$287.7 million, respectively. (BEA 2006). The largest increases in earnings from 2001 to 2004 were in manufacturing and agriculture.

**Table 3.13-5. Earnings by Industry in Imperial County**

-	Agriculture	Construction and Mining	Manufacturing	Transportation and Utilities	Wholesale and Retail Trade	Finance/ Insurance/ Real Estate	Services including Medical	Government
2001	218,976	84,140	70,374	113,327	256,238	65,678	261,723	731,806
2004	297,382	97,900	98,339	130,879	316,144	76,511	287,696	907,976
% Change	35.8	16.4	39.7	15.5	23.4	16.5	9.9	24.1

Source: BEA 2006

Poverty levels indicate what percentage of the population has income below what is required for basic necessities (i.e., adequate housing, food, transportation, energy, and health care). The 2000 Census reports that 18.0 percent of Imperial County families and 21.5 percent of individuals were classified as living in poverty, based on the national poverty threshold. The poverty threshold varies depending on a set of factors such as number of parents and children within a family, and age of individuals. Table 3.13-6 shows the poverty level in the region of influence for the year 2005. The federal poverty thresholds for an individual and a family of four in 2005 were \$9,973 and \$19,971, respectively.

**Table 3.13-6. Poverty Level in the Region of Influence, 2005**

Area	Percent of Families Below the Poverty Level	Percent of Individuals Below the Poverty Level
City of Calexico	22.6	25.7
Imperial County	18.0	21.5
State of California	10.3	13.3

Source: Census 2005a, Census 2005b

### **3.13.8 Government and Public Finance**

The State of California relies on income, property, and sales taxes to meet expenditures. Personal income taxes are patterned after the Federal code and are collected via withholding for state payroll taxes. The property tax is generally the most important local tax, providing the money necessary to fund community services, and is constrained in Imperial County by the amount of land being taxed.

California has many special taxing jurisdictions (districts), which are funded by a transactions (sales) and use tax rate that is added to the standard statewide rate of 7.25 percent. The tax rate for Calexico is an additional 0.50 percent.

### **3.14 Environmental Justice**

Environmental justice has been defined as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies (EPA 2005). Concern that minority and low-income populations might be bearing a disproportionate share of adverse health and environmental impacts led President Clinton to issue an Executive Order in 1994 to address these issues. Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, directs Federal agencies to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations. The Order makes clear that its provisions apply fully to programs involving Native Americans. When conducting NEPA evaluations, GSA incorporates environmental justice considerations into both its technical analyses and its public involvement program in accordance with EPA guidelines and the CEQ regulations (CEQ 1997).

This section examines the racial/ethnic and income characteristics of geographic areas in which the LPOE is sited to determine if they qualify as minority and/or low-income areas. These geographic areas are examined because they capture any potential impacts to the major resource areas/disciplines of the project including geology and soils, water, air quality, biological, cultural, land use and recreation, traffic, visual, noise, health and safety, and socioeconomics during both the construction and operation phases of the project.

The environmental justice analysis focuses on Imperial County and the City of Calexico. Due to the large Hispanic population (which, for purposes of this report, includes Latinos) in southeastern California, Imperial County was chosen as the geographic area of comparison for determining minority populations in this analysis.

#### **3.14.1 Minority Populations**

For the purpose of this EIS, minority refers to people who classified themselves as Black or African American, Asian or Pacific Islander, American Indian or Alaskan Native, Hispanic of any race or origin, or other non-White races (CEQ 1997) in the 2000 Census. Because the Hispanic population can be recorded in the census as either white or non-white, it is not possible to calculate minority population, as defined by the Census, by adding racial minorities to the

Hispanic population (an ethnic classification). Therefore, this EIS includes as minority all racial and ethnic groups other than non-Hispanic whites, as required by Executive Order 12898.

Demographic information from the U.S. Census Bureau was used to identify minority populations in the areas occupied or affected by the project, and also within the region of influence (Imperial County). Information on locations and numbers of minority populations was obtained from the 2000 Census. Census data are reported on the level of census tracts, a geographical area that varies with size depending largely on population density (low-population density census tracts generally cover larger geographical areas).

As shown in Table 3.14-1, Calexico has a minority population of 97.6 percent, and Imperial County has a total minority population of 20.2 percent.

**Table 3.14-1. Census 2000 Racial and Ethnic Characteristics**

Race	Imperial County	City of Calexico	California
<b>Total Population, 2000</b>	<b>144,523</b>	<b>27,109</b>	<b>32,278,768</b>
Race			
White - alone	67.8%	46.6%	60.9%
Black or African American – alone	1.9%	0.5%	6.1%
American Indian or Alaska Native - alone	1.7%	0.7%	0.7%
Asian - alone	2.2%	1.8%	12.4%
Native Hawaiian or Other Pacific Islander - alone	0.0%	0.0%	0.4%
Some other race alone	24.7%	47.0%	16.4%
Two or more races	1.7%	3.5%	3.1%
Aggregate of non-white races	32.2%	53.5%	39.1%
Ethnicity			
Hispanic – of any race <sup>a</sup>	77.3%	95.3%	35.5%
Total Minority <sup>b</sup>	20.2%	97.6%	53.3%

<sup>a</sup> The Census Bureau complies with the Office of Management and Budget's standards for maintaining, collecting, and presenting data on race, which were revised in October 1997. They generally reflect a social definition of race recognized in this country. They do not conform to any biological, anthropological or genetic criteria. In accordance with the Office of Management and Budget definition of ethnicity, the Census Bureau provides data for the basic categories in the Office of Management and Budget standards: Hispanic or Latino and Not Hispanic or Latino. In general, the Census Bureau defines ethnicity or origin as the heritage, nationality group, lineage, or country of birth of the person or the person's parents or ancestors before their arrival in the U.S. People who identify their origin as Spanish, Hispanic, or Latino may be of any race. According to the revised Office of Management and Budget standards noted above, race is considered a separate concept from Hispanic origin (ethnicity).

<sup>b</sup> Derived from reported percentage of population other than white (alone), not-Hispanic or Latino as reported in Profile of General Demographic Characteristics.

Source: Census 2002

### **3.14.2 Low-Income Populations**

Environmental justice guidance defines low-income using statistical poverty thresholds used by the U.S. Census Bureau. Information on low-income populations was developed from incomes reported in the 2005 American Community Survey. In 2005, the poverty-weighted average threshold for an individual was \$10,160. As shown in Table 3.13-6, 21.5 percent of individuals are below the poverty level in Imperial County, with 25.7 percent in Calexico. These percentages are both substantially greater than the state as a whole (13.3 percent).

Both the City of Calexico and Imperial County meet the criteria for identification as low-income populations.

## 4 ENVIRONMENTAL CONSEQUENCES

This chapter describes the potential environmental effects or impacts of the project, consisting of construction and operation of the downtown Calexico LPOE and associated structures. CEQ regulations require that an EIS contain a description of the environmental effects (both positive and negative) of the alternatives. CEQ regulations (40 CFR 1508) distinguish between direct and indirect effects. Direct effects are caused by an action and occur at the same time and place as the action. Indirect effects are reasonably foreseeable effects caused by the action that occur later in time or farther in distance. Both direct and indirect effects are addressed in this chapter.

CEQ regulations also require that an EIS contain a description of the cumulative impacts (40 CFR 1508) of the proposed alternatives. CEQ regulations define cumulative impacts as those that result from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative impacts are addressed in Section 4.14 of this chapter.

This chapter presents information on the potential environmental effects of the two action alternatives (Alternatives A and B) on geology and soils, water resources, land use, biological resources, cultural resources, visual resources, infrastructure, traffic, air quality, noise, human health and safety, socioeconomics, and minority and low-income populations. Alternative A would involve a slightly larger scope of construction and operations than those that would be implemented under Alternative B, the Preferred Alternative. The activities under Alternative B are similar to those in Alternative A, but involve a slightly smaller footprint and a smaller scope of construction and operations. Therefore, the impacts resulting from Alternative B would be a subset of those resulting from Alternative A. The impacts for Alternative B are discussed below in comparison with those of the larger scope Alternative A. The impacts of the No Action Alternative are also presented.

### 4.1 *Geology and Soils*

#### 4.1.1 **Methodology and Significance Criteria**

##### 4.1.1.1 **Geology**

The geology resource impact analysis consists of an evaluation of the effects generated by the project on specific geologic resources. This section analyzes potential effects to geologic formation features and access to mineral and energy resources as a result of construction of facilities associated with the project. The principal measure of the effect on the geologic resource is the presence of geological features that would be impacted by construction activities.

While not impacted by the project, geological hazards could damage components of the project if they are not addressed during the project design. Geological hazards include vibratory ground motion induced by seismic activity, local subsidence or sinkholes, and mass movement or ground shifting by large-scale geological conditions such as earthquakes.

To determine if an action could cause a significant impact, both the context of the action and the intensity of the impact were considered. For the project, the context is the locally affected area

and significance depends on the geologic effects in the local area. The intensity of the impact is primarily considered in terms of any unique geologic formation or resource characteristics of the resources in the area and the degree to which the project may adversely affect such unique characteristics.

For geologic resources, permanent denial of access to mineral resources would be a significant impact. Temporary denial of access or changes of access to mineral resources are not considered significant impacts. Geologic hazards would be potentially significant without proper project design to mitigate their effects.

#### **4.1.1.2 Soils**

The soil resource impact analysis consists of an evaluation of the effects generated by the project on soil resources. The principal measure of the effect on the soil resource is the amount and location of soils disturbed during construction and operation activities of the project.

The soil resource impact analysis of the project involves the evaluation of potential effects to specific soil attributes such as increasing the potential loss of topsoil due to erosion, disturbance of farmlands, removal of topsoil, compaction and/or mixing of soils, erosion and increased sedimentation, and disturbance of soil structures. Soil resource effects would be on small, discrete areas of land.

To determine if an action could cause a significant impact, both the context of the action and the intensity of the impact were considered. For the project, the context is the locally affected area and significance depends on the effects in the local area. The intensity of the impact is primarily considered in terms of any unique characteristics of the resources in the area and the degree to which the project may adversely affect such unique characteristics.

Permanent disturbance of prime and unique farmlands would be considered significant. Temporary disturbance of prime and unique farmlands is not considered significant. Unmitigated soil erosion and subsequent loss, compaction and/or mixing of soils would be considered significant.

### **4.1.2 Assessment of Impacts: Alternative A**

#### **4.1.2.1 Geology**

There are no unique geological features in the vicinity of the downtown Calexico LPOE. The reconfiguration and construction activities being proposed under Alternative A would not result in the disturbance of any unique geological features. The operation of the expanded downtown Calexico LPOE would have no impacts to the geological features of the area.

Sand and gravel are the only known mineral resources near the site. However, no sand or gravel mining occurs on or near the site. No impact to sand and gravel availability would be expected from construction of the facility. Sand and gravel would be utilized for construction of the proposed facility for concrete mixtures. Existing borrow areas for sand and gravel in Imperial County would be used with sand and gravel trucked to the construction site. The LPOE is not within the boundaries of any Known Geothermal Resource Area and there are no geothermal facilities within the city of Calexico (Imperial County 1993). No other mineral resources are

expected to be encountered in the site. There would be no impact to mineral resources from the construction or operation of the proposed downtown Calexico LPOE.

Because of the low relief of the area around the downtown Calexico LPOE site, the potential for slope failure would be negligible. The seismic risk in the area is moderate and there have been earthquakes close enough to the site to cause damage to buildings in Calexico. The soils in the vicinity of the site are susceptible to liquefaction. Subsidence is not considered a concern at any of the sites.

The proposed facility under Alternative A would not impact geologic hazards, but known geologic hazards would influence the design and construction of the facility. The proposed facility design would take local seismic risk into consideration to avoid/mitigate potential damage to project components. The regional building codes for the Imperial Valley area include measures to mitigate seismic risk. These measures include design specifications for foundations, use of steel reinforcement, and bracing for equipment.

#### 4.1.2.2 Soils

Under Alternative A, construction of the project would result in the disturbance of approximately 20 acres of previously disturbed land within the boundaries of the current LPOE, including the vacated commercial LPOE. The disturbance includes areas that would be part of the completed facility as well as equipment staging areas used only during construction. Almost all of the site would be disturbed during construction that would include: moving the New River channel, moving roads, demolition, grading; pouring of concrete for building foundations, inspection facilities, and walkways; and asphalt paving of roads, parking areas and driveways.

#### Prime Farmland

The downtown Calexico LPOE, including the vacated commercial inspection compound, contains soil types that have been classified as prime farmland and farmland of statewide importance. The *Farmland Protection Policy Act* (FPPA) (7 U.S.C. 4201) and the regulations promulgated as a result of FPPA (7 CFR 658) require agencies to make FPPA evaluations part of the NEPA process. The purpose of FPPA is to reduce the conversion of farmland to nonagricultural uses by Federal projects and programs. The Act requires that Federal agencies comply to the fullest extent possible with State and local government policies to preserve farmland. Specifically, FPPA advises that evaluations and analyses of prospective farmland conversion impacts be made early in the planning process before a site or design is selected. The downtown Calexico LPOE is exempt from FPPA under section 1540(c)(4) (7 U.S.C. 4201) since the acquisition of the LPOE property occurred prior to FPPA's effective date of June 22, 1982.

However, under Alternative A, additional land would be acquired and disturbed. This disturbance, of an additional 0.6 acres on the piece of land at the southwest corner of Second Street and Imperial Avenue, 1.8 acres on the piece of land on the other side of the New River channel southwest of the vacated commercial inspection compound, and 5.0 acres of land west of the vacated commercial inspection compound is subject to the FPPA. While these properties do not contain soil types that have been classified as prime and unique farmlands, they do contain soils that have been classified as farmland of statewide importance. None of these parcels are currently used for agriculture. The smallest parcel is occupied by a Duty Free shop

with a parking lot. The southwest parcel is bladed and barren and is used for occasional vehicle and large equipment storage. The western parcel is developed and used for light industrial activities and storage.

Soil disturbance during the construction of the project has the potential to result in temporary erosion, increased sedimentation into the New River, compaction, and mixing. Heavy equipment such as brush-hogs, bulldozers, and excavators would be used during project construction activities. Since there are slopes and surface water features in the area, soil erosion impacts could occur during rain events. Under Alternative A, the enclosure of the New River would require the construction of either a temporary channel or a new one. The soils in and along the New River channel would have to be sampled for contamination. Remediation and or removal of any contaminated soil is likely. Clean engineering fill would be used to replace any removed soil and for any required changes in foundation levels.

The project would require mitigation measures to lessen the impacts associated with soil disturbance of the site. The EPA's National Pollutant Discharge Elimination System (NPDES) program regulates stormwater runoff from construction sites. The NPDES Construction General Permit would apply to runoff control after preparation of a Storm Water Pollution Prevention Plan (SWPPP) and submittal of a notice of intent (NOI) to EPA prior to construction. Typical elements of the SWPPP include placement of erosion control measures such as earthen catchment basins, culverts, terracing (if needed), grading, erosion control fencing or screening, and straw bales or waddles. Following construction activities, erosion and sedimentation impacts to the development of the project would be low to moderate. The entire site and acquired areas would be utilized for the project and associated landscaping. Impacts to soils within the project site would be low to moderate, transitory, and overall positive for long-term stabilization. No additional mitigation measures would be needed.

### **4.1.3 Assessment of Impacts: Alternative B (Preferred Alternative)**

#### **4.1.3.1 Geology**

The reconfiguration and construction activities being proposed under Alternative B would not result in the disturbance of any unique geological features. The operation of the expanded downtown Calexico LPOE would have no impacts to the geological features of the area. No impact to sand and gravel availability would be expected from construction of the facility. There would be no impact to mineral resources from the construction or operation of the proposed downtown Calexico LPOE under Alternative B.

The risk from earthquakes, liquefaction, and subsidence are the same under Alternative B as under Alternative A.

#### **4.1.3.2 Soils**

Under Alternative B, construction of the project would result in the disturbance of approximately 4 to 7 acres less land than under Alternative A. Alternative B would involve the disturbance of up to 13 acres of previously disturbed land within the boundaries of the current LPOE, including the vacated commercial LPOE. The area of disturbance would not include the land west of the New River.



As under Alternative A, the additional land that would be acquired and disturbed is subject to the FPPA. Neither of these two parcels is currently used for agriculture.

As under Alternative A, the soil disturbance during the construction of the project has the potential to result in erosion, increased sedimentation into the New River, compaction, and mixing. The project would require mitigation measures to lessen the impacts associated with soil disturbance of the site including NPDES Construction General Permit, Storm Water Pollution Prevention Plan (SWPPP), and submittal of an NOI to EPA prior to construction. The entire site and part of the acquired areas would be utilized for the project and associated landscaping. Impacts to soils within the project site would be low to moderate, transitory, and overall positive for long-term stabilization. No additional mitigation measures would be needed.

### **Prime Farmland**

Under Alternative B, land adjacent to the existing LPOE would be acquired and disturbed. This disturbance, of an additional 0.6 acres on the piece of land at the southwest corner of Second Street and Imperial Avenue, 0.1 acres on the piece of land on the other side of the New River channel southwest of the vacated commercial inspection compound, and 5.0 acres of land west of the vacated commercial inspection compound is subject to the FPPA. While these properties do not contain soil types that have been classified as prime and unique farmlands, they do contain soils that have been classified as farmland of statewide importance. None of these parcels are currently used for agriculture. The corner parcel is occupied by a Duty Free shop with a parking lot. The southwest parcel is bladed and barren and is used for occasional vehicle and large equipment storage. The western parcel is developed and used for light industrial activities and storage.

### **4.1.4 No Action Alternative**

Under the No Action Alternative, the LPOE would not be expanded, private property would not be acquired, and no new disturbance of the soils would take place. Operation would continue at the current facility with minor upgrades and maintenance. If the project is not built, there would be no new impacts to geologic resources identified. There may be impact to soils. “The existing impacted area may face further degradation increased by wear and tear and lack of maintenance and cohesive land use” (Orlando 2010). However, the purpose and need for the project would not be met.

## **4.2 Water Resources**

### **4.2.1 Methodology and Significance Criteria**

#### **4.2.1.1 Surface Water**

Using available mapping resources, along with applicable Federal, state, and county regulations, an evaluation of the project was performed with respect to onsite drainage, flooding, erosion, and jurisdictional watercourses. Maps of the project site were compared to the FEMA Flood Insurance Rate Map, USGS topographic maps, and evaluated along with field inspection.

Federal jurisdictional waters include both wetlands and waters of the U.S. Maps of the project area were evaluated for wetlands and waters of the U.S.

Impacts to onsite drainage would be considered significant if any element of the project increases the amount of stormwater runoff, or changes or redirects the stormwater runoff to cause any adverse effects to adjacent properties on either side of the International Border.

Impacts to flooding would be considered significant if any element of the project increases the depth or duration of flooding on either side of the International Border.

Impacts to erosion can be considered significant if any element of the project increases the severity of erosion on either side of the International Border.

Impacts to jurisdictional watercourses can be considered significant if any element of the project disturbs the watercourses on either side of the International Border. Disturbed jurisdictional watercourses require mitigation by the U.S. Army Corps of Engineers.

#### **4.2.1.2 Groundwater**

Because groundwater depth is a function of surface elevation changes and subsurface hydraulic conditions at a given point in time, it can only be estimated generally without a network of specially-designed monitoring wells. The lack of a detailed surface elevation profile, and limited available water level information for the area, imply that the depth to water can only be estimated for the project area to approximately 10 feet.

Impacts to groundwater quantity can be considered significant if the project results in a lowered water table beyond the project boundary, or to the extent that wells in the project vicinity either have to be deepened, the screened depth increased, or have pumps repositioned due to lowered groundwater elevations.

Impacts to groundwater quality can be considered significant if discharges from activities at the project would cause adverse changes in current water quality. These adverse changes would primarily involve rises in inorganic ion concentrations above relevant water quality standards or significant increases in dissolved solids content.

### **4.2.2 Assessment of Impacts: Alternative A**

#### **4.2.2.1 Surface Water**

##### **Onsite Drainage**

The impervious surface area at the current LPOE (2.3 acres), the vacated commercial inspection compound (10.6 acres), and the parcel at the southwest corner of Second Street and Imperial Avenue (0.6 acres), would not change. Approximately 1.8 acres of land on the other side of the New River channel southwest of the vacated commercial inspection compound would become impervious under Alternative A as would a large portion of the five acre parcel west of the current LPOE. The total amount of impervious surface area would increase from 13 acres up to 20 acres.

No impacts would be expected offsite from stormwater runoff at the project site as no runoff would cause any adverse affects to adjacent properties on either side of the International Border. The storm drain system will consist of surface drainage to catch basins and piping to a BMP (Best Management Practices) retention/desiltation basin before discharge into the New River. The onsite storm drain system will be designed for 100-year storm events. The collection system and erosion control plans will include BMP for SWPPP (Storm Water Pollution Prevention Plan) and SWMP (Storm Water Management Plan), per the State Regional Water Quality Control Board, District 7 (RWQCB). The proposed site storm drain system will consist of numerous drainage swales terraced and shallow small and large storm water retention/desiltation basis distributed throughout the site when feasible. The objective will be to maximize storm water infiltration and desiltation.

The design of the Mexican LPOE would be coordinated with the drainage features of the Calexico LPOE to ensure appropriate handling of stormwater. In addition, water-harvesting terraces will be used to collect the infrequent rainwater, and produce managed native vegetation along the terrace lines. The intervening zones between the terrace walls will be covered with local stone mulch to prevent erosion.

### **Flooding**

The downtown Calexico LPOE has been designated by FEMA as Zone C, an area of minimal flooding (less than 1 foot) during a 100-year storm event. According to the FEMA 1982 Flood Insurance Study and comparison with USGS topographic maps of the area, Zones A and B associated with the New River are confined to its channel. The FEMA floodplains, published as Flood Insurance Rate Maps, are valuable primarily for evaluating flood insurance needs. Onsite engineering and plan preparation for the project site would require detailed hydraulic modeling to determine the extent, if any, of the 100-year floodplain and corresponding water surface elevations. Under Alternative A, the New River would be rechanneled into a covered culvert either in its present path or to the west along the LPOE western boundary. The final alignment would depend on detailed engineering plans, coordination with the Mexican government, and approval by the U.S. Army Corps of Engineers. Further, GSA would have to comply with Executive Order 11988 (Floodplain Management). Pursuant to Executive Order 11988, each federal agency is required, when conducting activities in a floodplain, to take actions to reduce the risk of flood damage; minimize the impact of floods on human safety, health, and welfare; and restore and preserve the natural and beneficial values served by floodplains.

The New River currently flows through a closed culvert through much of Mexicali. The Mexican Government is planning to extend the current culvert north to the International Border and develop their new port of entry over the extended culvert. Under Alternative A, the New River would be enclosed in a culvert under the Mexican LPOE and from the International Border north to the edge of the LPOE. Through coordination with the U.S. Army Corps. of Engineers on the design of the culvert, issues associated with flooding on both sides of the border will be addressed to the extent practicable. There would be minimal changes in area flooding associated with the changes to the New River. Area flooding would still occur during 100 yr flood events due to the low flat topography.

### **Erosion**

Construction of the project would have little or no impact on erosion rates because:

- Other than the New River channel, the site is outside the floodplain
- The proposed changes to the New River channel would reduce erosion in the vicinity of both LPOEs
- Impervious surfaces and engineered drainage systems at the facility would reduce erosion potential slightly as compared with the existing conditions
- Landscaping of non-impervious surfaces would be sloped to minimize uncontrolled runoff

Through coordination with the U.S. Army Corps. of Engineers on the design of the culvert, issues associated with erosion at the outlet will be addressed to mitigate any potential for washing out the natural channel north of the LPOE.

### **Jurisdictional Watercourse**

Under Alternative A, the New River would be rechanneled into a culvert on both sides of the International Border and the course of the river could potentially be moved to the western border of the LPOE. Either scenario for enclosing the New River channel would result in changes to the banks and bed of the New River within the footprint of the LPOE and acquired lands. The New River is a water of the U.S. These changes to the New River could result in significant impacts. The U.S. Army Corps of Engineers would review the proposed changes once detailed design plans are available. A determination would have to be made in accordance with 33 CFR Parts 325 and 332, “Compensatory Mitigation for Losses of Aquatic Resources.” The designs would be revised in coordination with the U.S. Army Corps of Engineers to incorporate required mitigations. With these mitigations, the changes to the New River would not result in significant impacts. Consultation with the U.S. Corps of Engineers will be conducted as soon as detailed plans are available.

Coordination with the International Boundary and Water Commission (IBWC) is necessary in matters pertaining to sanitation, water quality, and flood control in the border region per 22 USC 277a. GSA would consult with IBWC regarding proposed changes to the New River.

### **Wetlands**

A biological survey determined that there are no jurisdictional wetlands within the region of influence. The construction associated with the enclosure of the New River channel would not impact any wetlands.

#### **4.2.2.2 Groundwater**

The project water supply source is from the City of Calexico. The assessment of the potential impacts to groundwater resources involves the evaluation of potential changes to the elevation of the water table and the quality of the water in the area from discharges.

### **Quantity**

Under Alternative A, no groundwater would be used for the project. All domestic water is supplied by the City of Calexico (see Section 4.7 “Infrastructure”). There would be no impact to the quantity of groundwater from the project.

## **Quality**

As with the current facility, the facilities under Alternative A would connect to the City of Calexico sewer system. No significant impacts to groundwater quality are anticipated.

### **4.2.3 Assessment of Impacts: Alternative B (Preferred Alternative)**

#### **4.2.3.1 Surface Water**

##### **Onsite Drainage**

Under Alternative A, the impervious surface area would increase from approximately 13.5 acres to 16 acres. This number would be reduced with the planned addition of landscaping. The 1.8 acres parcel of land on the other side of the New River channel southwest of the vacated commercial inspection compound and the southern 2.5 acres of the 5.0 acres parcel west of the current LPOE would not be developed even if they are acquired. No impacts would be expected from stormwater runoff at the project site under Alternative B. The storm drain system will consist of surface drainage to catch basins and piping to a BMP (Best Management Practices) retention/desiltation basin before discharge into the New River. The onsite storm drain system will be designed for 100-year storm events. The collection system and erosion control plans will include BMP for SWPPP (Storm Water Pollution Prevention Plan) and SWMP (Storm Water Management Plan), per the State Regional Water Quality Control Board, District 7 (RWQCB). The proposed site storm drain system will consist of numerous drainage swales terraced and shallow small and large storm water retention/desiltation basis distributed throughout the site when feasible. The objective will be to maximize storm water infiltration and desiltation. NPDES permitting requirements would also be addressed during final design.

The design of the Mexican LPOE would be coordinated with the drainage features of the Calexico LPOE to ensure appropriate handling of stormwater. In addition, water-harvesting terraces will be used to collect the infrequent rainwater, and produce managed native vegetation along the terrace lines. The intervening zones between the terrace walls will be covered with local stone mulch to prevent erosion.

##### **Flooding**

Onsite engineering and plan preparation for the project site under Alternative B would require detailed hydraulic modeling regarding floodplains as under Alternative A. Under Alternative B, the channel of the New River on the US side of the International Border would not be changed or covered. On the Mexican side, the New River would be covered.

##### **Erosion**

As under Alternative A, the construction of the project under Alternative B would have little or no impact on erosion rates on either side of the International Border due to engineered drainages and landscaping plans. The potential impacts to erosion during construction are discussed in Sections 4.1.2.2 and 4.1.3.2.

##### **Jurisdictional Watercourses**

Under Alternative B, the New River channel would not be changed or covered on the US side of the International Border. Therefore there would be no substantial changes to jurisdictional

waters. A bridge spanning the New River would be built across the New River to accommodate southbound traffic. Consultation with the U.S. Corps of Engineers has determined that the proposed bridge would span the New River and no construction would take place within the regulated area of the river (WHP 2011). The bridge abutments will be emplaced 20 feet from the Ordinary High Water Mark and the spans put in place by crane.

#### **4.2.3.2 Groundwater**

The impacts to groundwater under Alternative B would be the same as under Alternative A.

#### **4.2.4 No Action Alternative**

Under the No Action Alternative, the project would not be implemented and the current environmental conditions and impacts would be similar to those discussed for the Affected Environment in Chapter 3 of this EIS. Under this alternative, the purpose and need for the project would not be met.

### **4.3 Land Use**

#### **4.3.1 Methodology and Significance Criteria**

The methodology used for assessing land use and recreation impacts is comparative in nature. The construction and operation of the project, as well as their predicted effects, were compared against existing land use categories for the areas that could be influenced by such actions. Impacts were identified based on determinations of compatibility among land use reasonably anticipated to occur as a result of the project and existing adjacent land uses, in addition to management plans, policies, and practices.

Consistency and compatibility of future land use plans, current land use plans, policies, regulations, and practices were assessed. These plans and policies include the Calexico Zoning Ordinance, Calexico Redevelopment Plan, Imperial County General Plan, and the Imperial County Airport Land Use Plan. The 2007 Calexico General Plan does not identify specific plans for the areas immediately adjacent to the LPOE. The plan designates the land to the west as industrial use.

To determine if an action may cause a significant impact, both the context of the project and the intensity of the impact were considered. For actions such as those proposed in this EIS, the context is the locally affected area and significance depends on the effects in the local area. A project is considered to have significant adverse land use impact if it:

- Conflicts with adopted environmental plans and goals
- Displaces a large number of people
- Disrupts or divides the physical arrangement of an established community
- Conflicts with established recreational, educational, religious, or scientific uses
- Permanently converts prime agricultural land to nonagricultural use or permanently impairs agricultural productivity of prime agricultural land

- Conflicts with Federal, regional, state, or local land use plans, policies, and controls
- Conflicts with existing or proposed uses at the periphery of the facility or with local land use plans
- Results in nuisance impacts attributable to incompatible land uses

For the purposes of this land use and recreation analysis, construction and operations were assumed to have similar impacts.

### **4.3.2 Assessment of Impacts: Alternative A**

Under Alternative A, the main facility at the current downtown Calexico LPOE would be replaced with structures and facilities that would continue its current land use. Alternative A includes new structures and facilities on the currently unused vacated commercial inspection compound. The operations of these new facilities ancillary structures would be consistent with the past use of the site.

The current land use of the privately owned parcels of land including the triangular shaped parcel of land (Duty Free parcel) at the southeast corner of Imperial Avenue and Second Street, the parcel located on the southwest side of the New River, and the parcel adjacent to the western edge of the vacated commercial LPOE, are all commercial. Under Alternative A, the three privately owned parcels of land would be acquired and would be used for realigning access and egress from the LPOE and for employee parking. The land use for the new parcels would not change. The new ingress and egress patterns for the Calexico LPOE are being designed to mitigate impact to the current traffic patterns in the City of Calexico (see Section 4.8).

The growth pattern in the local area would not likely change as a result of construction and operation of the project, as the businesses located in the vicinity already profit from traffic using the LPOE. There could be some shifting of some businesses as more southbound traffic begins to use Cesar Chavez to access the International Border. These businesses would most likely include those who sell insurance for travel in Mexico.

There are no Wild and Scenic Rivers, BLM areas of critical environmental concern, or national or state parks on or adjacent to the project site. The contiguous lands in close proximity to the project site have little recreational use. Therefore, there would be no impacts to recreation.

While, the City of Calexico has stated its desire to develop parks or greenbelts along the New River, no detailed plans have been developed. The development of a park or green belt along the New River within the boundaries of the LPOE would not be compatible with its mission.

The downtown Calexico LPOE is located within the jurisdiction of the Imperial County Land Use Commission and is subject to that agency's Airport Land Use Compatibility Plan (ALUCP). The ALUCP is divided into four zones. Each zone is based on distances, types of aircraft, and types of runways. The downtown Calexico LPOE straddles the border between ALUCP Zones B and C. Since the existing facility's height and location have not been incompatible with the ALUCP, the new facility with the same heights and locations are not likely to be incompatible. Detailed designs, once completed, will be coordinated with the Imperial County Land Use Commission.

The reconfiguration, construction, and operation of the Calexico LPOE under Alternative A would not result in significant impact to land use according to the significance criteria listed above.

### **4.3.3 Assessment of Impacts: Alternative B (Preferred Alternative)**

The impacts to land use would be the same under Alternative B as under Alternative A. The main facility at the current downtown Calexico LPOE would be replaced with structures and facilities that would continue its current land use. The amount of development on the three privately owned parcels of land would be acquired in whole or in part, would be different under Alternative B, but would also not result in a change to land use. The new ingress and egress patterns for the LPOE would be the same under both alternatives (see Section 4.8).

While, the City of Calexico has stated its desire to develop parks or greenbelts along the New River, no detailed plans have been developed. The development of a park or green belt along the New River within the boundaries of the LPOE would not be compatible with its mission. Under Alternative B, part of the western side of the New River might be available for development as a park or greenbelt. That development would be a change in land use.

The reconfiguration, construction, and operation of the Calexico LPOE under Alternative A would not result in significant impact to land use according to the significance criteria listed above.

### **4.3.4 No Action Alternative**

Under the No Action Alternative, no additional land would be acquired for the project. The current downtown Calexico LPOE facility would continue operations at the present site. No conflict with land use plans would occur. Under the No Action Alternative, there would be no significant impact to land use; however, the purpose and need for the project would not be met.

## **4.4 Biological Resources**

### **4.4.1 Methodology and Significance Criteria**

#### **4.4.1.1 Vegetation**

Information used in this analysis of potential impacts from the project was obtained from field surveys, database records maintained by the California Department of Fish and Game (CDFG), published and unpublished documents, and personal communications with resource specialists.

To determine if the project may cause significant impacts, the context and intensity of the expected effects are considered. For the actions addressed in this EIS, context is the locally affected project area, with significance being assessed depending on intensity and duration of predicted effects in the project area. Intensity of predicted impacts is dependent on the characteristics of vegetation in the region of influence and the degree to which the project may adversely affect vegetation. Impacts would be considered significant if the project were to adversely affect federally listed or proposed species, threaten viability of local populations of any species, or contribute to listing of sensitive species under the *Endangered Species Act* (16



U.S.C. §§1531-1544). Significance also is assessed relative to the amounts of various plant communities in the region. For example, removal of portions of abundant, widespread plant communities (e.g., tamarisk) would not be significant because the project would represent a small incremental loss both locally and regionally. Significance is also based on the degree of protection plants receive under the *California Endangered Species Act* (CFGC 1984).

#### **4.4.1.2 Wildlife**

Information used in this analysis of potential impacts from the project was obtained from field surveys, database records maintained by the U.S. Fish and Wildlife Services (USFWS) and the CDFG, published and unpublished documents reports, and personal communications with resource specialists, all of which are in the reference section.

To determine if the project may cause significant impacts, the context and intensity of the expected effects are considered. For the actions addressed in this EIS, context is the locally affected project area, with significance being assessed depending on intensity and duration of predicted effects in the project area. Intensity of predicted impacts is dependent on the characteristics of wildlife and wildlife habitat in the region of influence and the degree to which the project may adversely affect these biological resources.

#### **4.4.1.3 Fisheries**

Information on fisheries was obtained from the CDFG. Impacts to fish and their habitat would be significant if the project were to affect fish populations through reductions in water quality or reduced spawning success.

#### **4.4.1.4 Special Status Species**

Special-status species include plants and animals listed as threatened, endangered, or proposed for listing under the *Endangered Species Act*, the *Migratory Bird Species Act*, and species listed as endangered or threatened under the *California Endangered Species Act* (California Fish and Game Code §§2050-2068). GSA commissioned a Biological Assessment for the project, which is attached as Appendix E to this EIS. The Biological Assessment addresses species listed or proposed for listing under the *Endangered Species Act* and assesses effects of the project on listed and candidate species. Section 7 consultation not yet has been initiated with the USFWS.

Information used in this analysis of potential impacts from the project was obtained from field surveys, database records maintained by the USFWS and CDFG, published and unpublished documents, and personal communications with resource specialists.

To determine if the project may cause significant impacts, the context and intensity of the expected effects are considered. For the actions addressed in this EIS, context is the locally affected project area, with significance being assessed depending on intensity and duration of predicted effects in the project area. Intensity of predicted impacts is dependent on the characteristics of sensitive biological resources in the region of influence (e.g., special-status species and their habitats) and the degree to which the project may adversely affect sensitive biological resources. Impacts would be considered significant if the project were to adversely

affect federally listed or proposed species, reduce viability of populations of special-status species, or contribute to listing of sensitive species under the *Endangered Species Act*.

## **4.4.2 Assessment of Impacts: Alternative A**

### **4.4.2.1 Vegetation**

Construction of the project under Alternative A would disturb up to 20 acres of previously disturbed land, and permanently remove approximately 1 acre of plant communities, lawns, and shrubbery. This vegetation would be replaced with structures and ancillary facilities. Species that would be removed include tamarisk, sedge, mesquite, and Bermuda grass, cattail, sunflower, Mexican palo verde, and golden crownbeard. Loss of 1 acre of vegetation, with nearly all of it degraded by past disturbance, would not be a significant impact because similar habitat covers extensive areas of southeastern California.

Under Alternative A, GSA would prevent the introduction of invasive species by ensuring that all earthmoving and hauling equipment would be washed at the contractor's storage facility prior to entering the construction site. In addition, all disturbed soils that would not be landscaped or otherwise permanently stabilized by construction would be seeded using species native to the project vicinity where practicable.

Construction of the proposed project would require installation of a culvert either along the New River's current path through the Calexico Site or along a new path on the western border of the LPOE. Either scenario would involve the complete removal of all existing vegetation along the New River channel.

The location, design, and construction of the culvert would be coordinated with the U. S. Army Corps of Engineers. There may be additional environmental compliance requirements depending on the final design and U. S. Army Corps of Engineers procedures.

### **4.4.2.2 Wildlife**

Impacts would result in short-term effects (i.e., lasting during the period of construction or maintenance) on wildlife due to displacement associated with construction and maintenance of project facilities, and long-term effects (i.e., lasting the life of the project or longer) from loss of habitat from permanent project facilities. Direct mortality to individual species could also result from excavations and habitat removal during construction of the project. Burrowing animals such as reptiles, small mammals, and insects would be lost if their burrows were destroyed by construction activities and they were present in the burrows. Birds could also experience increased mortality risk especially if construction were to take place during the nesting season. However, timing construction to avoid the nesting season would eliminate this impact. Eggs and nestlings would be vulnerable to mortality from removal of vegetation and from operation of construction and maintenance equipment. Abandonment of nests due to disturbance would also increase mortality to nestlings.

Wildlife such as small mammals and birds would also be displaced during construction from noise, vehicles, and high levels of human activity. Displaced animals can be stressed due to displacement because adjacent habitats are usually fully occupied and cannot readily

accommodate increased population densities. Following construction, most displaced wildlife species would return to remaining suitable habitats.

The potential small losses of wildlife that would be killed directly from construction activities or displaced would be insignificant in a regional context. The viability of no populations would be threatened and there would be no measurable long-term effect on population numbers or distribution over a species' range of occurrence.

#### 4.4.2.3 Fisheries

The project would have little, if any, adverse impact on fish or habitat in the New River. There are no managed fisheries in the polluted New River, which suffers from trash, high levels of coliform and total dissolved solids, and chemical contamination (CH2M Hill 2003). In 2004, the California Office of Health Hazard Assessment advised humans to avoid physical contact with the waters of the New River and also advised against human consumption of fish from this river (OEHHA 2008). The New River flows into the Salton Sea, where the CDFG has endeavored to improve sports fishing opportunities since the 1950s, resulting in the establishment of large populations of orangemouth corvina (*Cynoscion xanthulus*) and sargo (*Anisotremus davidsoni*) (CDFG 1961). However, the Salton Sea receives contaminated water from the New and Alamo Rivers and advisories have been issued restricting the amount of fish consumed by humans from the Salton Sea due to elevated levels of selenium (OEHHA 2008).

Sediment from construction activities should not affect water quality in the river as construction-related runoff would be controlled by berms or other structures in accordance with the downtown Calexico LPOE Stormwater Pollution Prevention Plan (SWPPP). The techniques and timing of construction activities would be coordinated with the USFWS, the USACE, and the CDFG to minimize impacts to fish in the New River. Runoff from the completed facility would comply with the downtown Calexico LPOE SWPPP.

The proposed changes to the New River for either pathway would not adversely affect hatcheries or CDFG fish stocking in southern California. The closest state fish hatchery is at Victorville on the Mojave River, and would not be affected by the proposed project. The proposed changes would not adversely affect Sunbeam Lake (near Seeley) and Weist Lake (on the Alamo River), the closest bodies of water in Imperial County stocked by the CDFG (CDFG 2008a, 2008b).

#### 4.4.2.4 Special Status Species

##### Special-Status Plants

No special-status plants were identified or are expected to occur in the region of influence. The project would not result in significant impacts to special-status plants.

##### Special-Status Animals

**Southwestern Willow Flycatcher (Endangered).** The southwestern willow flycatcher occurs in riparian areas along the lower Colorado River, over 40 miles from the project area. Although a few isolated tamarisks were noted on a graded hillside over 100 feet from the New River, it is unlikely that this endangered bird species would be present based on the almost complete lack of riparian habitat, minimal presence of other vegetation, and poor water quality. Another

environmental assessment also concluded that it was unlikely that the southwestern willow flycatcher would nest at the downtown Calexico LPOE (CH2M Hill 2003). Further, this species has not been reported in the Calexico Quadrangle and adjacent quadrangles according to the California Natural Diversity Database.

**Yuma Clapper Rail (Federally Endangered, California threatened).** The Yuma clapper rail is a marsh species that is known to occur in wetlands and managed duck clubs near the outlet of the New River at the Salton Sea and has been reported by the CNDD from Bonds Corner Quadrangle east of Calexico (CH2M Hill 2003, CNDDDB 2006). Clapper rails utilize freshwater marsh habitat, and are strongly associated with cattail stands for nesting. A few cattails were observed about a 100 feet north of the New River in a small artificially created drainage area. The Yuma clapper rail was not observed, and large marshes and extensive shallow water characteristic of Yuma clapper rail nesting sites are lacking along the New River at the downtown Calexico LPOE.

**California Black Rail (California threatened).** The California black rail prefers wetlands with shallow water and dense stands of marsh vegetation such as cattail. A few cattails were observed about a 100 feet north of the New River in a small artificially created drainage area. The California black rail was not observed, and large marshes and extensive shallow water characteristic of California black rail nesting sites are lacking along the New River at the Calexico West LPOE. The closest populations to Calexico are on the Salton Sea and Lower Colorado River (CH2M Hill 2002). It is unlikely the California black rail would be found at the downtown Calexico LPOE due to the lack of suitable habitat.

**Burrowing Owl (Federal species of concern, California species of special concern).**

Burrowing owls are typically found in grasslands, or agricultural and range lands, although they can also be found in vacant lots in urban areas (Brown 2006). A single adult burrowing owl was observed on October 18, 2006 and May 7, 2008 near an abandoned small mammal burrow located between metal pylons in a curbed gravel area near the former Hazardous Materials Office. Burrowing owls frequently use abandoned ground squirrel or prairie dog burrows as nests, although neither of these, nor other, rodent species were observed during the surveys.

The burrowing owl does not currently receive Federal protection from *Endangered Species Act* (ESA) or the *California Endangered Species Act* (CESA) as a listed species. However, it has been designated as Federal species of concern by the ESA and a California species of special concern by the CESA. The Federal species of concern category includes a broad realm of plants and animals whose conservation status may be of concern to the USFWS, but do not have official status. Data on California species of special concern are intended for use as a management tool and for information, since species of special concern have no special legal status (CDFG 2006a).

Should burrowing owl populations in California decline further, it is possible that this species may be listed by either the USFWS or the CDFG. GSA may wish to apply for a permit for incidental take of the burrowing owl should it become listed as threatened or endangered under the *ESA* any time prior to construction for Alternative A being completed.

The *Migratory Bird Treaty Act* governs the taking, killing, possessing, transporting, and importing of migratory birds (such as the burrowing owl), their eggs, parts, and nests. Burrowing

owls could be adversely impacted; if still present at the downtown Calexico LPOE at the time the proposed construction begins, if certain mitigative actions are not taken.

Prior to construction, a qualified biologist should conduct a survey at the downtown Calexico LPOE to determine if the burrowing owl noted is still present, or if others have subsequently nested at the site. If any burrowing owls are determined to still be present at the downtown Calexico LPOE, then passive relocation would be scheduled to avoid the burrowing owl nesting breeding season (February 1 through August 31) and the winter residency period (December 1 through January 31). The Calexico site is located in an area of the United States where burrowing owls are considered year round residents (Lewis 2005). Since the burrowing owl is protected from take by the *Migratory Bird Treaty Act*, a USFWS permit would be required for disturbance of any active nests. The burrowing owl is also protected from take by Section 3503.5 of the California Fish and Game Code (CDFG 1995).

The USFWS may determine that artificial owl nests should be constructed as a mitigation measure to minimize the impact to burrowing owls from Alternative A. If artificial nests are required, then selecting another location with an established artificial burrowing owl nesting program might result in a more effective mitigation measure, due to the heavily disturbed nature of the existing downtown Calexico LPOE and the projected increase in site activity from Alternative A (Mission College 2006, Clark 2001).

#### **4.4.3 Assessment of Impacts: Alternative B (Preferred Alternative)**

Construction of the project under Alternative B would involve essentially the same impacts as discussed under Alternative A. Although there would be less acres disturbed (Approximately 16 acres) and the channel of the New River would not be changed, these actions did not involve much impact. The impacts that are discussed under Alternative A above would occur under Alternative B.

#### **4.4.4 No Action Alternative**

If the project were not implemented, existing conditions of biological resources in the area would continue to degrade as in any urban environment (Orlando 2010). Commercial and governmental activities would continue in the region of influence with few expected impacts to biological resources. However, the purpose and need for the project would not be met.

### **4.5 Cultural Resources**

#### **4.5.1 Methodology and Significance Criteria**

Potential impacts to cultural resources were assessed for the proposed alternatives. Descriptions of activities that would occur under Alternative A were used to analyze potential direct and indirect impacts to cultural resources.

#### 4.5.1.1 Types of Impacts

The locations of cultural resources identified in the region of influence were compared to the activities under the proposed alternatives. The potential for impacts, both direct and indirect, of project activities was then assessed.

Potential direct impacts can include physical destruction resulting from surface disturbing activities, access to construction areas by large machinery, demolition activities, construction activities, use of staging areas for storage of equipment and supplies, and future maintenance activities. These physical impacts can occur to both known resources and subsurface sites that could be discovered and disturbed during surface-disturbing activities.

Indirect impacts to cultural resources are often not quantifiable. Potential indirect impacts can include physical harm resulting from unintentional damage to resources outside of approved construction zones. Other potential indirect impacts can be the introduction of visual or auditory elements out of character with a resource or disruption of the setting of a resource. These can result from introducing modern structures into an otherwise natural setting.

#### 4.5.1.2 Significance Criteria

Potential impacts to cultural resources were assessed using the “criteria of adverse effect” (36 CFR 800.5[a][1]), as defined in the implementing regulations for the NHPA. An adverse effect occurs when an undertaking may alter the characteristics of an historic property or Traditional Cultural Property (TCP) that make it eligible to the NRHP. Therefore, the analysis of impacts using these criteria is limited to those resources determined as eligible. There are five broad categories of effect: (1) physical destruction or alteration; (2) isolation and restriction of access; (3) introduction of visible, audible, or atmospheric elements out of character with the resource; (4) neglect leading to deterioration or vandalism; and (5) transfer, sale, or lease from federal to non-federal control without adequate restrictions to ensure preservation. For this EIS, a significant impact is equivalent to an adverse effect.

The potential for significant impacts to ethnographic resources that are not recommended as eligible for listing on the NRHP, but are identified as important to tribes, and for impacts to TCPs, would be based on tribal concerns identified during tribal consultation. Potential impacts to religious and sacred sites would be addressed in the context of the *American Indian Religious Freedom Act* (42 U.S.C. 1996) and Executive Order 13007, which provide for federal protection and consideration of religious practices that might be impacted under the alternatives. Potential significant impacts could include physical impacts to religious or sacred sites, loss of access to sites, and burdens on the practice of religion by traditional practitioners.

#### 4.5.2 Assessment of Impacts: Alternative A

The discussions of potential impacts to cultural resources are limited to resources that have been recommended as eligible or potentially eligible for the NRHP or have unknown eligibility, and to ethnographic resources that the Tribes have identified. No archaeological resources were found in the APE (Tetra Tech 2008). Currently, no ethnographic resources are known. If such resources are identified later and are determined eligible, mitigation measures would be applied to the resources that could be impacted by project activities, determined in consultation with

interested Tribes and the California SHPOs. Two historic buildings were identified within the APE and are considered potentially eligible for listing on the NRHP.

Alternative A construction would take place in areas that have already been developed and disturbed. The resulting new buildings and structures would be located in areas that previously or currently contain similar buildings and structures: the existing downtown Calexico LPOE facility, the vacated commercial LPOE, the border fence, the Duty Free shop, and the storage area across the New River to the southwest. The activity surrounding the operation of the new port would be the same as currently exists. As such, there would be no adverse effect to the identified historic properties from Alternative A.

#### **4.5.2.1 Consultation**

GSA submitted the archaeological survey and historic structures inventory, along with a determination of “no historic properties affected” for the proposed project, to the California State Historic Preservation Officer for consultation per Section 106 of the National Historic Preservation Act.

Unintentional physical damage to nearby cultural resources can occur when construction activities occur outside of approved areas. Under all of the alternatives, the construction areas would be fenced during all construction activities to prevent any activities from proceeding outside of the approved construction area. Also, construction management and staff would be educated as to the requirement that all activities must take place within approved areas. These measures would prevent impacts to cultural resources outside the approved work areas.

#### **4.5.3 Assessment of Impacts: Alternative B (Preferred Alternative)**

Construction of the project under Alternative B would involve essentially the same areas and result in the same type and scale of development as under Alternative A, although 16 acres less would be disturbed by construction. As such, Alternative B would also result in no adverse effects to historic properties.

#### **4.5.4 No Action Alternative**

Under the No Action Alternative, there would be no adverse effect on historic properties; however, this alternative would not meet the purpose and need for the project.

### **4.6 Visual Resources**

#### **4.6.1 Methodology and Significance Criteria**

The visual quality of the existing landscape in the vicinity of the project is discussed in Section 3.7. The existing visual quality is based on the evaluation of the natural landscape and existing modifications for form, line, pattern, color, contrast, and texture. The sensitivity of the existing visual resources to change associated with the project depends on whether an area already contains modifications and the degree of public concern or agency management directives for changes to the visual landscape.

In assessing the potential effects of the project, the visual features that would be associated with the project during construction and operation are evaluated. The discussion includes the physical or visual relationships that influence the visibility of the proposed landscape changes such as whether the project would be in the background or foreground for potential viewers.

The significance of impacts to visual resources is dependent upon the existing character of the resource and the amount of change to that resource. For visual resources that are unaltered from their natural state or for resources of high public value such as rare or special landscapes, any visual changes beyond minor changes would be a significant impact. The most significant visual impacts would occur in existing high-quality landscapes that have a high sensitivity to change such as areas of particular public concern or specially protected areas. For areas where the existing visual resources are already altered from their natural state, visual changes that substantially modify the overall visual character of an area would be a significant impact.

#### **4.6.2 Assessment of Impacts: Alternative A**

Under Alternative A, the project would be built on the site that currently contains the downtown Calexico LPOE, the vacated commercial LPOE, the parcel of land currently occupied by the Duty Free store, the parcel of land to the southwest on the other side of the New River from the LPOE, and the parcel directly west of the current LPOE. As described in Section 3.7, the existing scenic integrity (degree of intactness or wholeness of the natural landscape) is low, as the area is highly altered from its natural state. The largest number of viewers of the project would be people heading to or from Mexico through the LPOE and those traveling along Second Street between Cesar Chavez and Imperial Avenue (SR-111) or along First Street between Imperial Avenue (SR-111) and Hefferman Avenue. These viewers' duration of viewing would range from a couple of minutes to over an hour depending on the length of inspection lines. The occupants of the businesses along the aforementioned segments of First and Second Streets would have longer periods of viewing. No other locations readily accessible by viewers are in the vicinity of the site.

The visual impact of the project would be primarily of the above-ground structures: one- to two-story buildings, the inspection areas, and support buildings. The project's color palette would harmonize with colors already used in the area. Landscaping would also be installed to improve the quality of view from the surrounding area. Under Alternative A, the buildings would be aligned with the general pattern of building in the immediate vicinity of the LPOE.

The residual visual impact of construction of the project would be small and insignificant because the existing visual resources are already altered from their natural state, and the visual changes introduced would not substantially modify the overall urban visual character of the area. No additional visual mitigation measures are recommended.

#### **4.6.3 Assessment of Impacts: Alternative B (Preferred Alternative)**

Under Alternative B, the project would be built in the same location as under Alternative B. The impacts to the existing scenic integrity (degree of intactness or wholeness of the natural landscape) would be slightly greater than that of Alternative A due to the construction of some of the facilities at an angle to the general trend within the vicinity of the LPOE. Although the impact would be slightly greater, the overall impact would still be low due to the existing visual



resources already altered from their natural state. The visual changes introduced would not substantially modify the overall urban character of the area. Landscaping would improve the foreground views. No additional visual mitigation measures are recommended.

#### **4.6.4 No Action Alternative**

Under the No Action Alternative, the project would not be constructed. There would be no impact to the existing visual resources in the area; however, the purpose and need for the project would not be met.

### **4.7 Infrastructure**

#### **4.7.1 Methodology and Significance Criteria**

Impacts of the project to infrastructure were assessed by comparing the support requirements of the alternatives to current site infrastructure utility demands (water and electricity) based on projected facility square footage requirements and available capacities. Impacts would be considered significant if the project would cause the need for substantial improvements or upgrades to the existing service area or utility infrastructure or cause demand to exceed the capacity of existing public utility systems.

The alternatives assessed in the EIS represent the smallest and largest potential designs. The exact changes to utilities are being coordinated with the county as the design is being finalized. However, given the ongoing assessment of damage due to the earthquake some of these systems may require additional repair, relocation or upgrade. GSA is coordinating with the County on any required changes to the utility systems.

Under 22 USC Sec. 277a, the US IBWC works with the Mexican CILA (Comision Internacional de Limites y Aguas) and other Mexican agencies (Local, State, Federal) to ensure that any proposed project along the border does not have any adverse effects on either side of the border with respect to sanitation, water quality, flood control and boundary demarcation. Both Alternative A and Alternative B would require coordination through the IWBC.

#### **4.7.2 Assessment of Impacts: Alternative A**

Existing utilities at the Calexico LPOE would need to be extended and undergo relocations to serve the new facility design under Alternative A. GSA as part of the project is including infrastructure to allow for installation of stacked inspection booths if needed in the mid- to long-term future. In a “stacked configuration, another inspection booth would be further up the lane from the first booth to allow the simultaneous inspection of more than one car per lane. The primary water source for the facility would be provided by the City of Calexico. The projected water usage is calculated on a per capita basis. The number of employees is expected to increase from 165 to 517 (GSA 2007). This 213 percent increase in personnel would result in a similar increase in the current water usage.

The availability of water supply is sufficient. No impacts to water supply infrastructure would be anticipated.

Electricity at the facility would be supplied by the Imperial Irrigation District. Summer peaks in electrical usage are the result of the air conditioning systems. The analysis calculated electrical use at the proposed facility by comparing rentable square footage and electrical use at the currently occupied buildings at the downtown Calexico LPOE with rentable square footage of the proposed new design. Given the current 90,848 usable square-foot area of the current facility, and the projected total of approximately 105,100 square feet (GSA 2007), the electrical use would increase by approximately 16 percent. This projection does not take into account the lighting for the vehicle inspection canopy. The projected electrical usage should be considered a maximum number as the newly constructed buildings would be designed for greater energy conservation than those at the existing facility. The Imperial Irrigation District had a peak demand reserve of 16.3 percent or 145 MW, in 2005. The increase in electrical usage from the new facility would not impact power capacity in the region.

The increase in natural gas usage can be conservatively estimated based on square footage (as for electricity above), and could increase by up to 16 percent. Again the new facility would be designed for greater energy conservation than the current facility.

The new facilities would connect to the existing sewer service lines outside the LPOE. No new pumping facilities would be needed. The amount of sewer service increase is estimated on a per capita basis. As the number of employees is expected to almost double, the amount of wastewater would essentially double as well. The overall availability of City of Calexico wastewater treatment capacity would not be impacted.

The GSA has and continues to coordinate with the Mexican government on the design of the U.S. LPOE and the connections to the Mexican LPOE. Currently, the timing of these upgrades is that the Mexican government is waiting for the U.S LPOE design to be selected and then will design their LPOE accordingly. The design of the Mexican LPOE will adapt to the U.S LPOE.

### **4.7.3 Assessment of Impacts: Alternative B (Preferred Alternative)**

Existing utilities at the Calexico LPOE would need to be extended and undergo minor relocations to serve the new facility design under Alternative B in the same manner as under Alternative A. The primary water source for the facility would be provided by the City of Calexico. The projected water usage is calculated on a per capita basis. The number of employees is expected to increase from 165 to 517 (GSA 2011). This 213 percent increase in personnel would result in a similar increase in the current water usage.

The availability of water supply is sufficient. No impacts to water supply infrastructure would be anticipated.

The current usable area of the current facility is 79,656 square-feet. The projected total under Alternative B is listed as approximately 232,279 square feet (GSA 2011). However, this includes the vehicle inspection canopy area of 153,805 square-feet. While the canopy would use electrical lighting, it would not involve heating or air conditioning the open space. So while the calculated increase in electrical use based on the usable square footage would be 190 percent, the projection is more likely to be a 60 percent increase when the canopy is factored correctly. The projected electrical usage should be considered a maximum number as the newly constructed buildings would be designed for greater energy conservation than those at the existing facility. The

Imperial Irrigation District had a peak demand reserve of 16.3 percent or 145 MW, in 2005. The increase in electrical usage from the new facility would not impact power capacity in the region.

The increase in natural gas usage can be conservatively estimated based on square footage (as for electricity above), and could increase by up to 60 percent. Again the new vehicle inspection canopy would not require heating and the facility would be designed for greater energy conservation than the current facility.

The new facilities would connect to the existing sewer service lines outside the LPOE. No new pumping facilities would be needed. The amount of sewer service increase is estimated on a per capita basis. As the number of employees is expected to triple, the amount of wastewater would essentially triple as well. The overall availability of City of Calexico wastewater treatment capacity would not be impacted.

#### **4.7.4 No Action Alternative**

Under the No Action Alternative, water and electricity use would continue at current levels. No impacts to water or electric infrastructure would occur; however, the purpose and need for the project would not be met.

### **4.8 Traffic**

#### **4.8.1 Methodology and Significance Criteria**

The transportation impact analysis includes the potential effects on traffic in the project area from the construction and operation of the project. The analysis is based on the review of existing traffic in the project area and project access requirements during construction and operation. A detailed study of traffic is included in Appendix B. The City of Calexico and Caltrans have ongoing studies regarding streets and intersections farther away from the LPOE. Construction activities represent the principal means by which a temporary impact on transportation could occur. Impacts to transportation are determined relative to the affected environment described in Section 3.9 and current traffic levels.

To determine if an action may cause a significant impact, both the context of the project and the intensity of the impact are considered. The context considers the impact of the project on traffic and transportation in and around the project area. The intensity of a transportation impact would primarily consider any unique characteristics of the area (e.g., high use traffic areas), and the degree to which the project may adversely affect such unique characteristics. Impacts would be significant if the project would permanently change the transportation system or would have extensive short-term effects during construction.

Future traffic queues were calculated based on inspection performance statistics and historical border crossing volumes provided by GSA (GSA 2006). Vehicle crossing volumes for the years 2015 and 2035 were derived from the *Imperial County Transportation Model (Calexico GP +)* and the Caltrans *California-Baja California Border Master Plan, September 2008* report and interpolated to produce year 2035 volumes (Appendix B). A linear model for projecting vehicle queuing was constructed to simulate conditions at the peak crossing hour. This model was

calibrated against GSA data on the common maximum delay time of 70 to 90 minutes. Linear modeling assumes the arrival rate of cars at the LPOE is steady during each hour.

## 4.8.2 Assessment of Impacts: Alternative A

### 4.8.2.1 Current Operations

Operations of the LPOE have resulted in northbound queuing times of up to 90 minutes. With queues of over an hour, the peak hour arrivals add to the amount of traffic remaining in the queue extending delay times. For example, from a sample on August 1, 2006, the arriving traffic counts show a peak hour between 8 am and 9 am (Table 4.8-1). However, with an observed peak inspection rate of 755 cars per hour for ten lanes (~76 cars per hour per lane), the number of cars left in the queue grows along with the delay time. The hour with the longest queue and therefore, the longest delay, is between 2 pm and 3 pm. The calculated delay time from this sample is just over 51 minutes. The queue is spread over the five waiting lanes (450 ft) and the three lanes of Avenida Cristobal Colon. The queue for this hour is 647 cars. Assuming 20 feet per car the queue length is just over approximately 0.75 miles.

**Table 4.8-1. Sample Arrival Traffic Counts at Calexico LPOE, August 1, 2006**

Hour	Arrivals	Amount over Maximum	Additional Queue Length
12 to 1 AM	481	-	-
1 to 2 AM	499	-	-
2 to 3 AM	446	-	-
3 to 4 AM	447	-	-
4 to 5 AM	503	-	-
5 to 6 AM	493	-	-
6 to 7 AM	505	-	-
7 to 8 AM	920	160	160
8 to 9 AM	924	164	324
9 to 10 AM	801	41	365
10 to 11 AM	902	142	507
11 AM to 12 PM	756	-	503
12 to 1 PM	824	64	567
1 to 2 PM	809	49	616
2 to 3 PM	791	31	647
3 to 4 PM	439	-	326
4 to 5 PM	537	-	103
5 to 6 PM	683	-	26
6 to 7 PM	650	-	-
7 to 8 PM	611	-	-
8 to 9 PM	724	-	-
9 to 10 PM	832	72	72
10 to 11 PM	811	51	123
11 PM to 12 AM	541	-	-

While the current average daily northbound traffic rate (13,000) is less than the 16,000 that was counted on August 1, 2006, the example shows that numbers of arrivals in excess of the peak inspection rate results in increasing queues.

The traffic study (Appendix B) shows that currently, there are 30,000 average daily vehicle crossings at the Calexico West LPOE. There are 13,000 in the northbound direction and 17,000 in the southbound direction. Since there is a long wait for the northbound crossing, a number of vehicles divert to the Calexico East LPOE. However, since the southbound wait times are not as long, there is less diversion to the Calexico East for southbound traffic.

#### **4.8.2.2 Projected Operations**

##### **On-site Traffic**

During operation under Alternative A, the number of northbound primary inspection lanes would be increased from 10 to 16, providing for increased vehicle inspection efficiency and shorter queues and waiting times.

Increasing the number of lanes to sixteen would increase the peak inspection rate to 1,216 cars per hour. This inspection rate would reduce delays for current rates of traffic to a few minutes in the linear model. The actual clumping of arrivals within each hour would result in slightly higher waiting times.

##### *Calexico East*

The proposed project will alleviate the northbound vehicle wait times at the Calexico West LPOE from up to 90 minutes to less than ten minutes. It is assumed that drivers will no longer divert to the Calexico East LPOE. Therefore, the numbers of northbound and southbound traffic is assumed to be approximately equal for the Calexico West LPOE. The traffic study (Appendix B) estimates average daily traffic rates for northbound traffic of 19,631 in 2015 and 21,985 by 2035.

For weekly averaged hourly peak traffic rates projected for 2015, and 2035 the sixteen lane inspection capacity would be adequate for all projected hourly traffic volumes including the projected peak of 1,050 cars per hour for 2015 and 1178 for 2035. In practice, it is planned to have one to two lanes used by busses.

##### **Offsite Traffic**

Imperial Avenue (SR-111) serves as the main north-south thoroughfare along the western end of downtown Calexico as well as the main route for the southbound vehicles entering Mexico. The community concerns raised include excessive queuing of vehicles along SR-111 during peak afternoon hours, associated traffic congestion, and pollution. Currently, there is ad hoc outbound inspection of southbound vehicles by the United States. The inspection times, queuing and delays associated with southbound traffic are related to inbound inspections by the Mexican government as well as the southbound U.S. inspections.

Under Alternative A, the southbound entrance to the LPOE has been aligned with Cesar Chavez to help mitigate the existing afternoon traffic problems. While Alternative A would allow for realignment of the southbound traffic, and increase the efficiency of the U.S. southbound

inspections by the additions of more inspection lanes, it would not affect the Mexican government's inspection process. The increase in southbound traffic on Cesar Chavez would mitigate some of the traffic issues associated with the current southbound traffic on SR-111. The northbound traffic would exit onto 2<sup>nd</sup> Street at either Cesar Chavez or SR-111.

Street system operating conditions are typically described in terms of "level of service." Level of service is a report-card scale used to indicate the quality of traffic flow on roadway. Level of service (LOS) ranges from LOS A (free flow, little congestion) to LOS F (forced flow, extreme congestion). Current average daily traffic estimates (ADT), ratio of traffic volume to road capacity (V/C), and LOS on the road segments near the LPOE, as well as forecasted traffic data for the years 2015 and 2035 are presented in Table 4.8-2. Also presented are the forecasted traffic data for the proposed expansion of the Downtown Calexico LPOE. This table shows that traffic near the LPOE is currently heaviest on Imperial Avenue from 3<sup>rd</sup> Street to 2<sup>nd</sup> Street with a LOS of C and a V/C ration of 0.743. Other data (See Appendix B) shows that current traffic in the overall area exceeds the road design capacity on Imperial Avenue between Birch Street (SR-98) and 5<sup>th</sup> Street. Traffic on Birch Street (SR-98) also exceeds design capacity between Williams avenue and Ollie Avenue. These road segments have a LOS of F.

The projections show that the traffic along most road segments would increase by 20 to 30 percent by 2015 and by 60 to 70 percent on almost all the road segments by 2035. However, some road segments would experience increases of 200 to 500 percent. With the proposed expansion, the traffic on Cesar Chavez would be greatly increased, while traffic on Imperial Avenue would be reduced. Under Alternative A, the traffic on Imperial Avenue would be reduced approximately 10 percent from current levels. By 2035, under Alternative A, the traffic on Cesar Chavez and 2<sup>nd</sup> Street would have increased an additional 20 to 50 percent over traffic without the expansion. Traffic on Imperial would have increased by 60 percent over current conditions. Table 4.8-3 presents the existing and project delays at intersections near the LPOE and the associated LOS. More data on more intersections is presented in Appendix B.

The intersection at Paulin and 2<sup>nd</sup> Street would experience more traffic delay (lower LOS) during peak hours under Alternative A than if no expansion was implemented. The other intersections near the LPOE would experience less traffic delay (better LOS) during peak hours under Alternative A than with no expansion of the LPOE. Of the intersections along Birch Street (SR-98) that already experience large delays at peak hours, the intersection with Cesar Chavez would experience significantly greater traffic delay during peak hours under Alternative A.

These projections do not take into account any improvements or changes to the streets or intersections which could mitigate these impacts. Additional mitigations such as changes to signalized intersections, turn lanes or pedestrian crossings may further reduce the traffic impacts. The Traffic Impact Study includes signalization of the intersection at Cesar Chavez Boulevard and 2nd Street, and the intersection at Imperial Avenue (SR-111) and 2nd Street. GSA has committed to continue to work with Caltrans and the City of Calexico to further mitigate the traffic impacts associated with the LPOE.

### **4.8.2.3 Construction**

Under Alternative A, with a phased construction approach, the Main Building would continue to be utilized while the new primary and secondary vehicle inspection areas are built and the LPOE

could continue operation. The demolition of the existing LPOE building and construction of the new main building would also be completed in phases to minimize interruptions to processing of pedestrians and busses. Brief periods of closure may be necessary during transitions between construction phases. Effects to existing traffic flows through the LPOE would be minimal during construction using this phased approach. The addition of construction worker traffic would be a small percentage of cross-border traffic.

### **4.8.3 Assessment of Impacts: Alternative B (Preferred Alternative)**

#### **4.8.3.1 Projected Operations**

The operation of the LPOE under Alternative B would be the same with regards to onsite northbound traffic flow as discussed for Alternative A above. The northbound traffic would exit onto 2<sup>nd</sup> Street at either Cesar Chavez or SR-111. The traffic projections are bounding. The modeling was done based on higher traffic flow than currently exists. The alternatives were designed in part as mitigations for current and projected traffic. Minor changes to the traffic projections will not change the designs discussed in the alternatives.

Under Alternative B, the southbound entrance to the LPOE also has been aligned with Cesar Chavez to help mitigate the existing afternoon traffic problems. However, there would be fewer southbound lanes on the U.S. side of the International Border than under Alternative A. There would be some delay due to U.S. and Mexican inspection of southbound traffic. There would be less room for queuing on the LPOE site. Southbound traffic queues would back up onto the streets of Calexico to a greater extent under Alternative B than under Alternative A. All other impacts to local traffic would be the same as discussed under Alternative A above.

As under Alternative A, these projections do not take into account any improvements or changes to the streets or intersections which could mitigate these impacts. Additional mitigations such as changes to signalized intersections, turn lanes or pedestrian crossings are subject to the decision authority of Caltrans and the City of Calexico. GSA has committed to work with these agencies to further mitigate the traffic impacts associated with the LPOE.

#### **4.8.3.2 Construction**

The traffic flow under Alternative B is the same as under Alternative A. Under Alternative B, the phasing of the construction would be the same as with Alternative A with similar impacts. Effects to existing traffic would be minimal during construction using this phased approach. The addition of construction worker traffic would be a small percentage of cross-border traffic.

### **4.8.4 No Action Alternative**

The current level of operations is presented in Section 4.8.2.1 above. Under the No Action Alternative, the weekly averaged peak hourly traffic volume hour would exceed the maximum hourly inspection rate of 760 vehicles in 2014. While the weekly average averaged peak hourly traffic rate would not exceed the maximum hourly inspection rate until 2014, the models indicate that number of hours that the hourly traffic volume exceeds the maximum hourly inspection rate would grow from the 9 hours shown for August 1, 2006 above, resulting in queues stacking up

until the excess cannot be processed within a 24 period. As discussed in the traffic study (Appendix B), as the queues get longer, traffic will begin to divert to the Calexico East LPOE as waiting times increase, which would alleviate some of the queuing at the Calexico West LOPE. However, the increased queuing expected without any improvements to the Calexico West LPOE would still significantly impact the transportation infrastructure within Calexico and Mexicali even with this diversion. This alternative would not meet the project purpose and need.

Under the No Action, the current traffic patterns at the LPOE would continue. The traffic near the LPOE is currently heaviest on Imperial Avenue from 3<sup>rd</sup> Street to 2<sup>nd</sup> Street with a LOS of C and a V/C ration of 0.743. Data (see Appendix B) shows that current traffic in the overall area exceeds the road design capacity on Imperial Avenue between Birch Street (SR-98) and 5<sup>th</sup> Street. Traffic on Birch Street (SR-98) also exceeds design capacity between Williams avenue and Ollie Avenue. These road segments have a LOS of F.

The projections show that the traffic along most road segments would increase by 20 to 30 percent by 2015 and by 60 to 70 percent on almost all the road segments by 2035. Tables 4.8-2 and 4.8-3 present the existing and projected delays at intersections near the LPOE and the associated LOS with and without expansion. More data on more intersections is presented in Appendix B.



**Table 4.8-2. Current and Projected Traffic Volumes near Calexico LPOE under Alternative A**

Roadway Segment	Existing (2008)			2015			2015 With Expansion			2035			2035 with Expansion		
	ADT	V/C	LOS	ADT	V/C	LOS	ADT	V/C	LOS	ADT	V/C	LOS	ADT	V/C	LOS
<b>Cesar Chavez Blvd</b>															
Birch St (SR-98) to Grant St	5,546	0.222	A	21,155	0.846	D	32,775	1.311	F	33,653	1.346	F	46,644	1.866	F
Grant St to 2nd St	6,498	0.260	A	20,604	0.824	D	36,077	1.443	F	32,035	1.281	F	49,330	1.973	F
<b>Imperial Avenue (SR-111)</b>															
4th St to 3rd St	26,089	0.696	B	32,437	0.865	D	23,152	0.617	B	42,331	1.129	F	31,918	0.851	D
3rd St to 2nd St	27,873	0.743	C	34,257	0.914	E	24,782	0.661	B	46,023	1.227	F	35,394	0.944	E
<b>2nd St</b>															
West of Cesar Chavez Blvd	3,714	0.212	A	22,496	1.285	F	23,374	1.336	F	36,397	2.080	F	37,395	2.137	F
Cesar Chavez Blvd to Imperial	7,694	0.308	A	22,400	0.896	D	25,715	1.029	F	32,678	1.307	F	33,781	1.351	F
Imperial Ave to Paulin Ave	8,732	0.539	A	11,591	0.662	B	17,022	0.973	E	19,763	1.129	F	25,832	1.476	F

Source: Appendix B

**Table 4.8-3. Current and Projected Traffic Delays at Intersections near Calexico LPOE under Alternative A**

Intersection	Existing (2008)		2015		2015 With Expansion		2035		2035 with Port Expansion	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
<b>Intersections Near Calexico POE</b>										
<b>AM Peak Hour</b>										
Cesar Chavez Blvd / Grant St*	17.7	C	9,999.9	F	9,999.9	F	9,999.9	F	9,999.9	F
Imperial Ave (SR-111) / 4th St*	11.1	B	12.4	B	11.3	B	14.8	B	14.1	B
Imperial Ave (SR-111) / 3rd S*t	10.3	B	11.8	B	11.1	B	16.0	C	15.7	C
Cesar Chavez Blvd / 2nd St**	10.19	B	126.8	F	35.0	C	7,164	F	41.5	D
Imperial Ave (SR-111) / 2nd St	24.5	C	38.3	D	23.3	C	39.8	D	26.9	C
Paulin Ave / 2nd St*	9.6	A	11.6	B	34.9	D	31.9	D	143.9	F
<b>PM Peak Hour</b>										
Cesar Chavez Blvd / Grant St*	17.9	C	9,999.9	F	9,999.9	F	9,999.9	F	9,999.9	F
Imperial Ave (SR-111) / 4th St*	13.4	B	16.4	C	14.7	B	27.8	D	23.1	C
Imperial Ave (SR-111) / 3rd S*t	14.8	B	19.8	C	17.9	C	190.1	F	161.2	F
Cesar Chavez Blvd / 2nd St**	14.0	B	7,315	F	43.5	D	6,935.6	F	79.2	E
Imperial Ave (SR-111) / 2nd St	18.0	B	118.9	F	18.0	B	362.8	F	33.8	C
Paulin Ave / 2nd St*	11.1	B	18.4	C	84.2	F	110.3	F	238.9	F
<b>Intersections with Lowest Level of Service (LOS)</b>										
<b>AM Peak Hour</b>										
Birch St (SR-98) / V.V. Williams Ave*	120.1	F	818.3	F	1,002.8	F	9,999.9	F	9,999.9	F
Birch St (SR-98) / Cesar Chavez Blvd*	194.5	F	4,281.8	F	9,999.9	F	9,999.9	F	9,999.9	F
Birch St (SR-98) / Ollie Ave	38.2	D	45.9	D	52.0	D	80.5	F	90.7	F
Birch St (SR-98) / Imperial Ave (SR-111)	34.9	C	48.2	D	55.1	E	121.4	F	127.9	F
<b>PM Peak Hour</b>										
Birch St (SR-98) / V.V. Williams Ave*	46.7	E	447.2	F	601.9	F	9,999.9	F	9,999.9	F
Birch St (SR-98) / Cesar Chavez Blvd*	88.9	F	3,873.9	F	9,999.9	F	9,999.9	F	9,999.9	F
Birch St (SR-98) / Ollie Ave	50.7	D	60.7	E	65.5	E	86.0	F	107.1	F
Birch St (SR-98) / Imperial Ave (SR-111)	34.5	C	61.8	E	56.8	E	179.1	F	170.7	F

\* Unsignalized Intersection \*\* Unsignalized without expansion, signalized with expansion

Source: Appendix B

## 4.9 Air Quality

This section presents the results of an assessment of potential air quality impacts associated with the Project alternatives. The evaluation is based on analysis and calculations in the referenced air quality report and addresses the potential for emissions associated with the short-term construction and long-term operation of the Project.

### 4.9.1 Methodology and Significance Criteria

**Air Quality.** The potential impacts of the project on ambient air quality were assessed by first quantifying vehicle emission factors for sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter equal to or less than 10 microns in size (PM<sub>10</sub>), and fine particulate matter equal to or less than 2.5 microns in size (PM<sub>2.5</sub>). All are criteria air pollutants regulated under the *Clean Air Act* of 1970 (42 U.S.C. §7401).

These emission factors were determined using the California Emission FACtor model (EMFAC2007) and meteorological data sets from a station within the City of Calexico. EMFAC2007 (CARB 2006) is a U.S. Environmental Protection Agency (EPA) approved air model for determining emissions factors within California for a variety of vehicles under a wide range of operating conditions. In modeling future emissions, EMFAC2007 accounts for projected improvements in vehicle emission control technology and continual replacement of older, higher-polluting vehicles with newer, cleaner vehicles. Total emissions were determined by applying emissions factors to vehicles queued at peak hours in the years 2015 and 2035, as described in Section 4.8. Detail of these calculations is shown in Appendix H.

Air pollutant emissions related to traffic have the potential to impact local air quality. A CO impact analysis was performed to assess the localized CO impacts on sensitive receptors that are situated adjacent to congested roadways and intersections. Localized CO impacts were evaluated at 12 intersections and 14 sensitive receptor locations within the city of Calexico using the CALINE4 model and the California Department of Transportation protocol for determining localized CO concentrations (hot-spot analysis) (CaDOT 1997). Detail of these calculations is shown in Appendix H.

An air quality impact would be significant with respect to criteria air pollutant concentrations if project emissions would increase in excess of threshold values or contribute measurably to an existing or projected air quality violation.

Under both of the action alternatives, construction would take place with a potential to generate tailpipe emissions from construction related vehicles, such as backhoes, bulldozers, loaders, and construction worker's vehicles. Particulate emissions as a result of soil disturbance would also occur. Air quality impacts related to construction were calculated using the California Emissions Estimator Model (CalEEMod). CalEEMod incorporates emission factors from the EMFAC2007 model for on-road vehicle emissions and the OFFROAD2007 model for off-road vehicle emissions. CalEEMod incorporates AP-42 emission factors for fugitive dust emissions. Detail of these calculations is shown in Appendix H. These emissions would be both temporary and incremental in comparison to vehicle traffic through the LPOE and in the area. They would not have a significant impact on air quality.

**Mobile Source Air Toxics.** Mobile source air toxic (MSAT) impacts were assessed using the protocol outlined in the American Association of State Highway and Transportation Officials (AASHTO) report entitled *Analyzing, Documenting, and Communicating the Impacts of Mobile Source Air Toxic Emissions in the NEPA Process* (AASHTO 2007). The protocol uses both policy and technical considerations to determine the need and appropriateness for conducting a MSAT analysis. A set of policy and technical questions has been developed to help determine an appropriate level of analysis under NEPA. Because large diesel trucks would not be processed at the Calexico West LPOE and the project's average daily traffic volume in the design year (2035) would be below the screening threshold level of 40,000 vehicles, a qualitative Level 2 Assessment was conducted for the Preferred Alternative.

#### **4.9.2 Assessment of Impacts: Alternative A**

Alternative A would result in the expansion of northbound inspection capacity from the existing 10 lanes to 16. This expansion would provide for improved inspection efficiency and pedestrian safety at the LPOE, and decreases in queuing time with corresponding decreases in idling vehicle emissions. A comparison of modeled existing peak-hour emissions with projected peak hour emissions in the years 2015 and 2035 using 16 vehicle inspection lanes is provided in Appendix H. The comparison of emission rates shows a decrease compared to current rates by 2015 and even further for 2035 despite projected increases in traffic. Almost all of the decrease can be attributed to lower queue times. The projected emissions would also improve over time due to anticipated improvements in vehicle pollution-control systems.

#### **4.9.3 Assessment of Impacts: Alternative B (Preferred Alternative)**

Under Alternative B, the northbound traffic configuration and number of lanes would be the same as under Alternative A. Therefore the air emissions would be the same for the northbound traffic queues as discussed above. The emissions from the southbound traffic are roughly equivalent to that from the northbound. While, there is a greater amount of southbound traffic, the wait time is less. As the improvements to the Calexico West LPOE are implemented, the southbound traffic would equalize with the amount of northbound traffic. The emissions from southbound traffic under Alternative B would be slightly greater than for Alternative A. With slightly fewer southbound lanes under Alternative B, the wait time would be slightly greater.

#### **4.9.4 No Action Alternative**

Under the No Action Alternative, peak-hour emissions would increase with increasing queue times. The number of hours with queues longer than one hour would increase to over 15 hours out of 24 by 2015. The LPOE would not be able to process the queues that would build up. This alternative would not meet the project purpose and need.

Under the No Action Alternative, no construction would take place, and no construction related impacts would occur.

### 4.9.5 Air Quality Conformity

To determine whether the Preferred Alternative is consistent with local air quality plans and programs, an affirmative regional conformity determination must be made to demonstrate that the Preferred Alternative would not cause or contribute to a violation of an ambient air quality standard. Imperial County, which is in the Salton Sea Air Basin, is designated as a non-attainment area for ozone and PM-10, and the city of Calexico is designated as a non-attainment area for PM-2.5.

The Transportation Project-Level Carbon Monoxide Protocol (Protocol) is applicable for the assessment of potential impacts of project alternatives and provides a means of evaluating the Preferred Alternative's conformity with the SIP and potential impacts to the ambient air quality. The Protocol is designed to ensure that projects conform to an approved or promulgated air quality implementation plan and to all applicable federal and state ambient air quality standards.

In addition, all projects except those that are exempt from analysis are subject to a local CO impact review. This involves an evaluation of the potential for CO "hot spots" that result due to traffic congestion. CO "hot spots" are typically evaluated when (1) the LOS of an intersection or roadway decreases to a LOS E or worse; and (2) sensitive receptors such as residences, commercial developments, schools, hospitals, etc. are located in the vicinity of the affected intersection or roadway segment.

**Regional Conformity.** The Protocol contains a conformity requirement decision flow chart for new projects that is designed to assist in the evaluation of the requirements that apply to the Preferred Alternative. The flow chart contained in the Protocol was followed to determine the level of analysis required for the Preferred Alternative. Based on the evaluation, a further regional analysis or regional conformity determination is not required for the Preferred Alternative.

The Project is included in the Imperial County 2007 Transportation Plan. The Project is also included in the Southern California Association of Governments (SCAG) adopted the 2008 Regional Transportation Plan. Conformity determinations for both the 2030 RTP and the 2008 RTIP was made by DOT in 2010. The design concept and scope of the Preferred Alternative is consistent with the project descriptions in these documents. Therefore, the Preferred Alternative would conform to the SIP and no adverse regional air quality impacts would occur.

**Project Level Conformity – Local CO Impacts.** The Protocol provides guidance for determining whether a project would have the potential to cause or contribute to a violation of an air quality standard on a localized basis. The Protocol provides for various levels for the local CO analysis to make the determination of the potential for air quality impacts.

As discussed above, all non-exempt projects are subject to a local CO impact review by evaluating the potential for formation of CO "hot spots" due to traffic congestion. The traffic study prepared for the Project evaluated whether there would be a decrease in the LOS at the intersections affected by the Preferred Alternative. The traffic study evaluated intersection operations for existing, near-term (2015), and horizon year (2035) conditions. Twelve intersections that would operate at LOS E or F in the PM peak period under near-term and horizon year conditions were identified. In addition, fourteen sensitive areas such as schools, parks, and hospitals were determined to be within scope of analysis. Modeling was conducted

based on the Protocol to calculate maximum predicted 1-hour CO concentrations. Predicted 1-hour CO concentrations were then scaled to estimate maximum predicted 8-hour CO concentrations, using the recommended scaling factor of 0.7 for urban locations.

To evaluate the potential for CO “hot spots,” CALINE4 modeling was conducted for the intersections and sensitive areas for near-term and horizon year conditions, without (No Build Alternative) and with the Preferred Alternative.

Inputs to the CALINE4 model were obtained from the referenced traffic study and local meteorology data. As recommended in the Protocol, receptors were located at locations that were approximately 10 feet from the edge of the roadway and at a height of six feet. Average approach and departure speeds were assumed to be worst case (i.e., 5 mph), and emission factors for that speed were estimated from the CT-EMFAC emissions model.

In accordance with the Protocol, it is also necessary to estimate future background CO concentrations in the Project vicinity to determine the potential impact plus background, and evaluate the potential for CO “hot spots” due to the Preferred Alternative. As a conservative estimate of background CO concentrations, the existing maximum concentrations of CO measured at the Calexico Ethel Street monitoring station for the period from 2006 – 2008 was used to represent future maximum CO concentrations. CO concentrations in the future may be lower as inspection and maintenance programs and more stringent emission controls are placed on vehicles. Detail of these calculations is shown in Appendix H.

The predicted CO concentrations would be below the 1-hour and 8-hour NAAQS and CAAQS for CO. Therefore, no exceedances of the CO standard are predicted and thus, the Preferred Alternative would not cause a violation of this air quality standard. No associated adverse air quality impacts would occur.

**Project Level Conformity – Local Particulate Impacts.** Emissions of particulate matter (PM<sub>2.5</sub> and PM<sub>10</sub>) are attributable to traffic sources. The potential for air quality impacts associated with particulate emissions from traffic generated by the Preferred Alternative was evaluated using EPA’s Transportation Conformity Guidance for Qualitative Hot-Spot Analysis in PM<sub>2.5</sub> and PM<sub>10</sub> Nonattainment and Maintenance Areas. The EPA’s Transportation Conformity Rule (40 CFR 93.123(b)(1)) identifies projects for which PM<sub>2.5</sub> and PM<sub>10</sub> would be of concern. Based on the criteria under this rule, the Preferred Alternative would not be a project of air quality concern for PM<sub>2.5</sub> and PM<sub>10</sub> emissions because it would not result in increases in the number of diesel vehicles utilizing the border crossing. The Calexico West LPOE is not the border crossing that is used for truck traffic; therefore, the main emissions associated with the border crossing are generated from passenger vehicles such as light-duty autos and light-duty trucks. The Preferred Alternative would therefore be in conformance for federal PM<sub>10</sub> and PM<sub>2.5</sub> standards. No associated adverse air quality impacts would occur.

#### **4.9.6 Mobile Air Source Toxics**

The amount of Mobile Source Air Toxics (MSATs) emitted would be proportional to the vehicle miles traveled (VMT), assuming that other variables such as fleet mix are the same for each alternative. The VMT estimated for the Preferred Alternative is slightly higher than that for the No Build Alternative, because the additional capacity increases the efficiency of the LPOE and

adjoining roadways. This increase in VMT would lead to higher MSAT emissions for the Preferred Alternative along Cesar Chavez Boulevard and Second Street due to roadway realignments and the increased capacity of the LPOE to handle vehicles crossing the border. This emissions increase is offset, however, by the decrease in idling emissions anticipated by the proposed improvements to the LPOE under the Preferred Alternative.

## 4.9.7 Global Climate Change

CO<sub>2</sub> emissions resulting from the construction and operational phases of the project were estimated utilizing the CalEEMod emissions inventory model. Trip lengths were obtained using the assumptions built into the CalEEMod model for Imperial County, which conservatively assumes that trip lengths will remain the same for all projects. Area source emissions associated with the project were also calculated using the assumptions built into the CalEEMod model for Imperial County. A summary of the project's GHG emissions are presented Appendix H.

## 4.10 Noise

### 4.10.1 Methodology and Significance Criteria

The assessment of noise impacts involved the identification of project noise sources and the location of noise-sensitive receptors. Noise monitoring was not performed at the downtown Calexico LPOE and noise modeling was not performed for this analysis because of the following:

- Industrial-commercial land use of surrounding area - lack of noise-sensitive receptors next to the site and no plans for changes in land use that would introduce noise-sensitive receptors
- The greatest noise sources in area (trains and nearby airport) are not associated with the operation of the LPOE
- Lack of noise-generating activities associated with operation of the LPOE - temporary construction noise is addressed separately.

Significance criteria were based on City of Calexico noise standards and EPA noise compatibility guidelines. The City of Calexico's Noise Ordinance (Ord. 979) regulates noise emitted from construction activities through the placement of time restrictions. The City Noise Ordinance also addresses long-term interior and exterior noise impacts caused by traffic and other sources. The City plans to regulate noise levels by compatibility with land uses. Noise levels would be significant if they were not compatible with the established land uses.

EPA-published acoustical guidelines are designed to protect the public health and welfare with an adequate margin of safety. The guidelines classify the various areas according to the primary activities that are most likely to occur in each area. Indoor noise environment of 45 dBA  $L_{dn}$  would permit speech communication in homes, while an outdoor  $L_{dn}$  not exceeding 55 dBA would permit normal speech communication. An  $L_{eq}(24)$  of 70 dB is identified as protective against hearing loss. Therefore, impacts related to noise would be considered significant if the EPA guidelines of 55 dBA  $L_{eq}(24)$  at the nearest residence would be exceeded, or if the county standard of 65 dBA  $L_{dn}$  would be exceeded in areas planned for residential development.

#### **4.10.2 Assessment of Impacts: Alternative A**

The land use associated with the Calexico LPOE and adjoining parcels would not change under Alternative A. Although noise would be produced during construction activities for the project, this is expected to be short term (i.e., limited to the months during active construction). Construction activities would occur only during the daytime. The noise created during the construction activities would exceed the EPA guidelines for short periods of time. However, this is not considered a significant impact due to the limited period of noise generation during each day combined with the limited period of the construction activity overall. The noise from the construction activity would not create significant or long-term effects.

Operation of the project would result in noise from vehicles starting, stopping, running at low speeds, and idling. Inspection activities generate a relatively small amount of noise including speaking, opening and closing of building doors, and closing of car doors and trunks.

There are a number of mitigating circumstances that reduce the overall impact of noise generated from the project. The area historically is subject to heavy traffic and therefore is already impacted by noise emanating from the street traffic as well as the traffic traveling through the Calexico LPOE. With the traffic, trains, and overhead flights from the nearby airport, this area already experiences episodes of noise levels in excess of 65 dBA.

The noise levels from facility operation could exceed 65 dBA at the property line. This would only have an effect on land immediately adjacent to the facility boundary and future residential development in this area would be restricted. This property is planned for continued commercial and industrial use. For the construction workers, the noise from the facility would be the same levels or less than the noise from the construction activities, depending on the construction equipment being used at any particular moment.

#### **4.10.3 Assessment of Impacts: Alternative B (Preferred Alternative)**

The noise impacts under Alternative B would be the same as under Alternative A. Although noise would be produced during construction activities for the project, this is expected to be short term (i.e., limited to the months during active construction). The noise from the construction activity would not create significant or long-term effects.

Operation of the project would result in noise from vehicles. With the traffic, trains, and overhead flights from the nearby airport, this area already experiences episodes of noise levels in excess of 65 dBA.

The noise levels from facility operation could exceed 65 dBA at the property line. This would only have an effect on land immediately adjacent to the facility boundary and future residential development in this area would be restricted. This property is planned for continued commercial and industrial use. For the construction workers, the noise from the facility would be the same levels or less than the noise from the construction activities, depending on the construction equipment being used at any particular moment.



#### **4.10.4 No Action Alternative**

The No Action Alternative would result in no change to the possible long-term noise level increases in the area due to congestion; however, the purpose and need for the project would not be met.

### **4.11 Human Health and Safety**

#### **4.11.1 Methodology and Significance Criteria**

##### **4.11.1.1 Worker Health and Safety**

Health and safety issues have been evaluated in the context of general air quality, noise, hazardous materials, and accidents. Analysis of the impacts to worker health and safety consists of an evaluation of the effects caused by the construction and operation of the project.

The project would have a significant adverse effect on worker health and safety if the project would create a worker health hazard beyond limits set by health and safety regulatory agencies or would present a worker health and safety hazard that endangers human life and/or property.

##### **4.11.1.2 Public Health and Safety**

Health and safety issues have been evaluated in the context of general air quality, noise, hazardous materials, and accidents. Analysis of the impacts to public health and safety consists of an evaluation of the effects caused by the construction and operation of the project.

The project would have a significant adverse effect on public health and safety if the project would create a public health hazard beyond limits set by health and safety regulatory agencies or would present a public health and safety hazard that endangers human life and/or property.

#### **4.11.2 Assessment of Impacts: Alternative A**

##### **4.11.2.1 Worker Health and Safety**

###### **Construction**

The level of risk to construction workers increases in relation to the amount of new construction required. Construction accident risks increase based on the length of the construction period and the number of construction workers for each component of the project. Applicable OSHA and California Division of Occupational Safety and Health codes for health and safety would be implemented for all identified and anticipated hazards to worker health and safety, providing for basic standards of worker health and safety. Implementation and compliance with these codes and standards would be the responsibility of the party performing construction.

Potential health impacts to construction workers from the project would include fugitive dust and noise typical of construction sites, although dust control measures would be implemented. Construction workers could be exposed to airborne emissions from routine activities, such as welding, soldering, grinding, painting, and cleaning operations. Demolition of the existing facility could result in exposure to asbestos, polychlorinated biphenyls, or lead-based paint. The

potential noise impact to workers from heavy equipment operation and activities such as cutting metal or grinding operations would likely pose higher noise levels to workers than noise during facility operations. These exposures would be intermittent, but may be intense and would be evaluated at the time of construction. Workers would also be at risk for typical construction site injuries such as trips and falls. Health and safety programs would be designed and implemented by the contractor performing construction to ensure compliance with OSHA codes, including requirements for personal protection equipment, chemical exposure limits, and safe work practices, such that the potential adverse impacts to worker health and safety during construction would be minimized.

Under Alternative A, the New River channel would be rerouted to the western edge of the LPOE or would be covered with a culvert. The earthmoving and construction related to realignment of the New River channel would involve unique potential impacts to worker health. The fugitive dust from the New River banks and bed could contain residual pathogens and chemical contaminants. The old channel would have to undergo testing and clean-up to ensure minimal risk to onsite workers. Any clean up would be undertaken in accordance with procedures and practices designed to restrict the potential for releases of contaminated materials (e.g. stabilizing the soil before removal). Remediation work plans and worker health and safety plans would have to be approved before any work in the New River could begin. Ongoing monitoring would likely be required during construction.

The residual health and safety impacts of construction to workers, as reduced through the mitigation measures described in this section that are included as part of the project, would be small and insignificant because there would be no worker hazards beyond limits set by health and safety regulatory agencies and no threat to human life and/or property.

### **Operation**

Worker health and safety issues during operation of the proposed facility would primarily be typical industrial work-related injuries such as bruises, cuts, falls, and repetitive stress injuries. Good housekeeping and work-related practices would mitigate hazards that could result in slips, trips, falls, and other injuries. All applicable OSHA codes for health and safety, including electrical design standards, would be implemented for all identified and anticipated hazards to worker health and safety, providing for basic standards of worker health and safety during facility operations. As a mitigation measure, the project would comply with OSHA Worker Safety Noise Standards during facility operation. The overall design, layout, and operational protocols of the project would minimize occupational hazards and injuries.

After the New River is rerouted into a covered culvert, the potential for contamination to site workers would be minimal, under Alternative A. There would be no blowing foam or dust from the section of the river contained within the culvert.

The residual health and safety impacts of operation of the proposed facility, as mitigated through the mitigation measures described in this section that are included as part of the project, would be small and insignificant because there would be no worker hazards beyond limits set by health and safety regulatory agencies and no threat to human life and/or property.

## **Mitigations**

Because the residual health and safety impacts of construction and operation of the proposed facility with the mitigation measures included as part of the project are not significant, no additional health and safety mitigation measures are recommended.

### **4.11.2.2 Public Health and Safety**

#### **Construction**

Potential health impacts to the public from construction of the project include fugitive dust typical of construction sites and noise. Dust control measures would be implemented to reduce the health risk. Dust and noise generated by construction activities would be short term and not result in a public health impact.

For construction of the facility and support structures, the boundaries of the work area would be surveyed and staked with fences, flags, or signs. Temporary fences would be erected wherever feasible to control public access to construction areas. In addition, construction equipment would be secured at night except within fenced areas.

The residual health and safety impacts of construction to the public, as mitigated through the mitigation measures described in this section that are included as part of the project, would be small and insignificant because there would be no public hazards beyond limits set by health and safety regulatory agencies and no threat to human life and/or property.

#### **Operation**

The separation of pedestrian and vehicle traffic, common to both of the action alternatives, would reduce the risk of pedestrian injury. Because all of the predicted air quality impacts are below both the NAAQS established by EPA to protect public health and safety (including the health and safety of the sick and elderly), no significant impact is expected as a result of facility operations.

The residual health and safety impacts of operation of the project would be small and insignificant because there would be no public hazards beyond limits set by health and safety regulatory agencies and no threat to human life and/or property.

## **Mitigations**

Because the residual health and safety impacts of construction and operation of the proposed facility with the mitigation measures included as part of the project are not significant, no additional health and safety mitigation measures are recommended.

### **4.11.3 Assessment of Impacts: Alternative B (Preferred Alternative)**

#### **4.11.3.1 Worker Health and Safety**

##### **Construction**

The impacts to worker health and safety from construction activities under Alternative B would be that same as under Alternative A, except those associated with the New River. Under

Alternative B, the New River Channel would not be rerouted or covered. Therefore, there would be no fugitive dust from working in the New River channel and no associated potential impacts from any pathogens and chemical contaminants.

### **Operation**

The impacts to worker health and safety from construction activities under Alternative B would be that same as under Alternative A, except those associated with the New River. Since the New River channel would not be rerouted or converted into a covered culvert, the current potential for contamination to site workers would remain. Since the vehicle inspectors and other workers would be closer to the unchanged New River under Alternative B than currently, the risk would increase. Workers would be closer to the source of blowing foam or dust from the nearby section of the river.

### **Mitigations**

Because the residual health and safety impacts of construction and operation of the proposed facility (other than those associated with the New River) with the mitigation measures included as part of the project are not significant, no additional health and safety mitigation measures are recommended.

#### **4.11.3.2 Public Health and Safety**

### **Construction**

The impacts to public health and safety from construction activities under Alternative B would be that same as under Alternative A, except those associated with the New River. Under Alternative B, the New River Channel would not be rerouted or covered. Therefore, there would be no fugitive dust from working in the New River channel and no associated potential impacts from any pathogens and chemical contaminants.

### **Operation**

The impacts to public health and safety from construction activities under Alternative B would be the same as under Alternative A, except those associated with the New River as described for workers health above. Workers and members of the public would be closer to the New River under Alternative B than currently. Public exposure would be a fraction of worker exposure due to less frequent and shorter times near the River.

### **Mitigations**

Because the residual health and safety impacts of construction and operation of the proposed facility with the mitigation measures included as part of the project are not significant, no additional health and safety mitigation measures are recommended.

#### **4.11.4 No Action Alternative**

Under the No Action Alternative, the project would not be built or operated. The potential for construction accidents or worker or public exposure to additional amounts of fugitive dust and noise associated with the project would not occur; however, the purpose and need for the project would not be met. There would be no changes to the New River. The present potential for

contamination to site workers from blowing foam or dust from the river would continue but would be less than those impacts associated with Alternative B.

## **4.12 Socioeconomics**

### **4.12.1 Methodology and Significance Criteria**

The analysis of socioeconomics impacts considered effects on economic activity as measured by changes in employment and earnings and on the community as measured by changes in population and the demand for housing and community services. The socioeconomic impacts estimated in this analysis were generated by expenditures and employment allocated to the project and its associated components. The analysis measured incremental effects and their overall impact on the region of influence from changes in expenditures, income, and employment associated with the project. The region of influence is the City of Calexico and Imperial County, the areas surrounding the project location where it is estimated that the majority of project construction and operation employees and their families would reside, spend their wages and salaries, and use their benefits.

The analysis addressed both direct and indirect socioeconomic impacts. Direct impacts are changes in project construction and operations employment and expenditures expected to take place under the project. Spending by project would directly affect the region of influence in terms of dollars of expenditures gained or lost for individuals and businesses, dollars of income gained or lost to households, and the number of project jobs created or lost. Project employment and expenditures would directly affect the overall economic and social activities of the communities and people living in the region of influence. Additionally, businesses and households in the region of influence would respond project-generated money, which would in turn create indirect and induced socioeconomic effects. Every subsequent respending of money by businesses and households in the region of influence is another tier of indirect and induced socioeconomic effects originating from project construction and operations. The total economic impact to the region of influence is the sum of direct and indirect impacts.

To analyze socioeconomic effects, GSA used total employment and earnings multipliers for the region of influence obtained from the Regional Input-Output Modeling System II (RIMS II) (BEA 2007). The RIMS II model's multipliers are derived from the Bureau of Economic Analysis' (BEA) national input-output table adjusted using the BEA's most recent region-specific information describing the relationship of the regional economy to the national economy.

Indirect impacts were determined by applying the region-specific multipliers to direct job and project expenditure estimates to determine the comparable change in the regional economy. Multipliers can vary by project phase. For example, the multiplier used to estimate indirect employment during the operational phase differs from the multiplier used for the construction phase.

The importance of the project and its impacts was determined relative to the context of the affected environment. The regional baseline conditions as presented in Section 3.13 provide the framework for analyzing the importance of potential socioeconomic impacts that could result from implementation of the project. Impacts would be considered significant if the change

resulting from the project would exceed historical or estimated fluctuations in the regional economy. The selected socioeconomic impact areas are demographics, economic base, and housing/community services.

#### **4.12.2 Assessment of Impacts: Alternative A**

Under Alternative A, the project would not cause any noticeable change in existing demographic characteristics within the socioeconomic region of influence. With respect to the region's economic base, the project-related employment would occur in two stages. The first stage would include the temporary employment of a workforce for construction of the project. The second stage would involve an increase in the level of permanent employment for operation and management of the project. Construction of the project is anticipated to span a period of 24 months requiring a range of 40 to 60 employees, depending on the construction phase. The workforce would include both skilled and nonskilled workers.

The current permanent workforce is 165 employees. Up to 352 new, permanent employees are foreseen to be required to operate the expanded facility. To be conservative, these workers are assumed to come from outside Imperial County.

##### **4.12.2.1 Population**

The project would not create a noticeable change in population within the region of influence (see Section 3.13.1). To be conservative, it is assumed that the project would result in an in-migration of a maximum of 60 workers to Imperial County for an estimated 24 months and a maximum increase of 200 permanent workers for the project operation. Assuming the Census 2000 figure of 3.33 persons per household for the county, the population associated with the additional workforce migrating into the county is estimated to be 200 persons during the construction phase and 666 during the operation phase. The construction estimate, a bounding scenario, would represent a 0.73-percent increase from the Census 2000 Calexico County population. This increase is within historical population fluctuations. Therefore, impacts to area populations would be small.

##### **4.12.2.2 Employment**

The project would result in a direct increase in employment in addition to an indirect increase in employment through nonpayroll expenditures. Additional goods and services would be required to support the additional activities, facilities, and workers generated by the project. The additional expenditures of new personnel would generate additional income and employment opportunities within the region as the expenditures filter throughout the economy.

For construction employment, the combined direct and indirect effects of employment would result in an increase of approximately 77 jobs within the region. For operations at the LPOE, the combined direct and indirect effects would result in an increase of approximately 255 jobs within the region. These represent employment increases of approximately 0.64 percent in Imperial County. These increases are within historic employment fluctuations. Therefore, impacts to area employment would be small.

### **4.12.2.3 Housing**

The project would create a very small change in existing housing within the region of influence (see Section 3.13.2). Assuming 1 housing unit per additional employee, a maximum of 60 temporary housing units would be required for the construction phase of the project and a maximum of 200 housing units would be required for the operations phase. The bounding scenario, 260 housing units, represents 5.4 percent of the housing stock available in the region of influence, and is substantially less than the available vacant housing. Therefore, region-of-influence housing capacity would exceed project-related demand. There would be no impact by the project on housing.

### **Community Services**

The project would not create a noticeable change in community services within the region of influence (see Section 3.13.4). The construction workforce would be temporary and relatively small. Because community services have been constructed and operated to meet current demand, the temporary increase in population and subsequent use of community services would be immeasurable. The operations workforce and resultant population increase would be less than 0.7 percent of the 2000 City of Calexico population. Therefore, the operations-related use of community services would also be immeasurable.

### **4.12.3 Assessment of Impacts: Alternative B (Preferred Alternative)**

Under Alternative B, the impacts of the project would be the same or slightly less than those associated with Alternative A. The number of construction workers would be the same within the accuracy of the estimate for Alternative A, given uncertainties in exact work schedules. The number of permanent and relocating workers is also within the error of the original estimates. Therefore, the associated impacts to population, employment, housing, and community services would be essentially the same as those discussed for Alternative A above.

### **4.12.4 No Action Alternative**

Under the No Action Alternative, the project would not be built and operated. As a result, increasing pressure would be put on the downtown Calexico LPOE commensurate with population growth in Imperial County and the City of Mexicali. Though border-crossing congestion would be an increasing inconvenience to many City of Calexico area residents, it would be unlikely to affect population growth trends, the economy, housing, and community services in the region of influence. Growth in population, the economy, and housing would likely continue at historical rates under the No Action Alternative; however, the purpose and need for the project would not be met.

## **4.13 Environmental Justice**

### **4.13.1 Methodology and Significance Criteria**

In compliance with Executive Order 12898, GSA considered whether there were any means for minority or low-income populations to be disproportionately affected by the construction and operation of the project. GSA's basis for making this determination is a comparison of areas

predicted to experience human health or environmental impacts with areas in the region of influence known to contain high percentages of minority or low-income populations, as reported by the U.S. Census Bureau, and defined by the CEQ. Information on locations and numbers of minority and low-income populations was obtained and derived from 2000 Census data.

Impacts on minority or low-income populations that could result from the project were analyzed for the geographic areas in which the project would be located to determine if they would have disproportionately high and adverse impacts. Impacts related to the project were analyzed within the census tracts containing the components of the project (see Section 3.14). These census tracts were selected because they encompass any potential impacts caused by the project, as depicted in the Chapter 4 resource area analyses, which include: geology and soils, water resources, land use, biological resources, cultural resources, visual resources, infrastructure, traffic, air resources, noise, human health and safety, and socioeconomics, during both the construction and operation phases of the project.

As stated in Section 3.14.1, “minority” refers to people who classified themselves in the 2000 Census as Black or African American, Asian or Pacific Islander, American Indian or Alaskan Native, Hispanic of any race or origin, or other non-White races (CEQ 1997). As stated in Section 3.14.2, environmental justice guidance defines low-income using statistical poverty thresholds used by the U.S. Census Bureau. Information on low-income populations was developed from incomes reported in the 2005 American Community Survey. In 2005, the poverty-weighted average threshold for an individual was \$10,160.

Impacts associated with environmental justice are significant if the impacts of construction or operation of the project would have disproportionately high and adverse impacts on minority or low-income populations as defined by EPA criteria.

## **4.13.2 Assessment of Impacts: Alternative A**

### **4.13.2.1 Minority Populations**

The siting of the Calexico LPOE would not change; therefore, the populations remain the same between the No Action and Proposed Action Alternatives. Three resource areas, traffic, air quality, and socioeconomics, are particularly relevant in discussion of environmental justice. Though the project would generate traffic and resultant effects to air quality, construction of the project is anticipated to improve traffic flow and air quality from the present conditions. No environmental justice impacts are anticipated.

### **4.13.2.2 Low-Income Populations**

For purposes of the environmental justice analysis, both the City of Calexico and Imperial County meet the criteria for identification as low-income populations. The discussion of environmental justice impacts presented for minority populations above is applicable to low-income populations in this case. Likewise, no environmental justice impacts are anticipated.



### **4.13.3 Assessment of Impacts: Alternative B (Preferred Alternative)**

#### **4.13.3.1 Minority Populations**

As under Alternative A, the siting of the Calexico LPOE would not change under Alternative B. The impacts would be the same as those discussed under Alternative A. No environmental justice impacts are anticipated.

#### **4.13.3.2 Low-Income Populations**

Likewise, no environmental justice impacts are anticipated under Alternative B.

### **4.13.4 No Action Alternative**

Under the No Action Alternative, the project would not be built and operated. Operations would continue at the current downtown Calexico LPOE. There would be continuing impacts due to traffic and the queue waiting times resulting in higher emissions and therefore may have adverse impacts on Environmental Justice populations that are heavy users of the facility. There would be no improvement under the No Action Alternative.

## **4.14 Cumulative Impacts**

CEQ regulations implementing the procedural provisions of NEPA define cumulative effects as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions” (40 CFR 1508). The regulations further explain that “cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.” The cumulative effects analysis presented in this EIS is based on the potential effects (direct and indirect) of construction and operation of the downtown Calexico LPOE combined with other past, present, and reasonably foreseeable future actions that could have effects in the project area.

The following resource areas have been evaluated for cumulative effects: geology and soils, water resources, land use, biological resources, cultural resources, visual resources, infrastructure, traffic, air quality, noise, human health and safety, socioeconomics, and environmental justice.

### **4.14.1 Methodology**

The cumulative effects were assessed by combining two categories of actions: anticipated project activities and other reasonably foreseeable future projects and activities. Anticipated project activities and impacts associated are discussed in detail in Chapters 1 through 4 of this EIS. Actions by others in the region include construction road improvements within the City of Calexico, construction and operation of an expanded LPOE on the Mexican side of the International Border, the operation of the new Mexicali II sewage treatment plant south of Mexicali, the proposed New River Improvement Project, and the overall continued population growth in the City of Calexico and City of Mexicali areas.

## **4.14.2 Cumulative Impacts by Resource Area**

### **4.14.2.1 Geology and Soils**

Disturbance related impacts to geology and soils are mostly site specific. In order for the impacts related to disturbance to be considered cumulative they have to occur on or close to the site evaluated for the project. The disturbance associated with the potentially acquired area, road improvements, and the Mexican POE is close to the Calexico LPOE. However, these disturbances would take place within areas already disturbed by prior activities (vacated Mexican commercial LPOE); therefore, there are no cumulative impacts. The proposed New River Improvement Project could result in the enclosure of the New River from the International Border to State Highway 98. There would be no cumulative impacts from the New River Improvement Project within the LPOE project footprint under Alternative A as the New River would be enclosed from the International Border to the edge of the LPOE as part of the LPOE improvements. Under Alternative B, there would be additional disturbance to the soils along the New River from the New River Improvement Project. The amount of disturbance would be the same as described under Alternative A.

### **4.14.2.2 Water Resources**

The project would use water from the City of Calexico. There is ample water supply for the needs of the project. Alternative A would not use surface water. Water usage by the project would have no significant cumulative impact on any other water consumers in the area. The operation of the Mexicali II sewage treatment plant would route sewage from the current outfall into the New River to the plant south of Mexicali. The treated water would be reused or routed south of the city. The amount of water in the New River would be reduced.

### **4.14.2.3 Land Use**

No significant cumulative impacts would occur to land use under Alternative A given that land is either already developed, or already disturbed through anthropogenic (human) activities. The other projects also would be implemented in areas with similar current or past land use.

### **4.14.2.4 Biological Resources**

Potential cumulative impacts on biological resources in the project area are due to commercial and/or industrial developments. All of these have the potential to remove habitat, increase displacement of wildlife, increase mortality to plants and animals, and fragment habitat, potentially reducing biological diversity. The areas that would be disturbed by the project are mostly previously disturbed and of relatively low habitat value. However, the presence of the burrowing owl on the vacated commercial LPOE indicates there is always potential for impact to sensitive species. Proper surveys and implementation of species-appropriate mitigations would ensure that no significant cumulative impacts would result from actions in the area.

### **4.14.2.5 Cultural Resources**

In the project area, no archaeological resources were identified. Previous developments would have disturbed any cultural resources that were present. Continued future development in the

region of influence is likely. Consideration of planned and future developments on historical resources is an ongoing concern. These future activities could have impacts to historic resources similar to those from past projects.

#### **4.14.2.6 Visual Resources**

Impacts to the viewsheds in the area of the project are already altered from a natural, scenic state by existing man-made structures including the current LPOE, the Mexican POE, the vacated commercial LPOEs, and the urban areas of Calexico and Mexicali. Cumulative visual impacts of the project would be negligible.

#### **4.14.2.7 Infrastructure**

Continued population growth in the Imperial County and Mexicali area has the potential to cause strain to water, wastewater, and electrical generation and transmission systems. The project is dependent on the utilities provided in the area. The change in utility usage due to the project is a small contributor to the overall significance of the cumulative impacts of population growth to infrastructure.

#### **4.14.2.8 Traffic**

It is foreseeable that the GSA may decide to utilize “stacked” configuration in one or more of the inspection lanes. In a “stacked configuration, another inspection booth would be further up the lane from the first booth to allow the simultaneous inspection of more than one car per lane. This would allow for a higher rate of inspection. The impacts to traffic queuing would be beneficial as the wait time would be reduced.

Continued growth in the Imperial County area has increased congestion on the road network. Additional traffic from this growth, combined with increases in traffic expected to travel through the Calexico LPOE, would likely reduce levels of service on some streets within Calexico, particularly along Imperial Avenue and Cesar Chavez. Significant cumulative impacts could result from this additional traffic regardless of the decision being made in this EIS. The changes to the ingress and egress points at the downtown Calexico LPOE are designed to be mitigations to the current and projected future traffic problems.

There are new roads being built to bring traffic to the Mexican port of entry from the west and south. While these roads may change the traffic patterns in Mexicali, there would be no resulting changes in Calexico.

#### **4.14.2.9 Air Quality**

No significant impacts are expected to air quality from the project. Overall reductions in air emissions are expected with implementation of the project, and the project would not be a significant contributor to hazardous air pollutants in the area. Project construction would result in fugitive dust emissions that may have a temporary adverse impact on local air quality. These impacts would be comparable to the current agricultural activity ongoing in the area. No significant cumulative impacts are anticipated.

#### **4.14.2.10 Noise**

Relatively high and continuous levels of noise would be produced by heavy equipment operations during project construction. There are no other significant noise sources or other facilities known or planned in the immediate project area that would contribute to a significant cumulative effect. Likewise, operation of the facility combined with other noise sources in the area (traffic, trains, and nearby airport activities) would not raise cumulative noise to levels of significance.

#### **4.14.2.11 Health and Safety**

Worker and public health impacts from construction of the project would be due to work-related injuries, fugitive dust emissions, and increased noise levels. Construction and operation activities would have little to no impact because risks to worker and public health and safety would be minimized through facility design, safe work practices, and routine maintenance. No other projects would cause additive effects to these risks. Therefore, no significant cumulative impacts are anticipated.

#### **4.14.2.12 Socioeconomics**

The project would be expected to have a positive influence on the local economy due to payroll earnings and construction expenditures. However, given the large size of the regional economy in comparison to increases in the LPOE workforce, cumulative impacts would be insignificant.

#### **4.14.2.13 Environmental Justice**

The continued area population growth would likely result in traffic congestion on Imperial Avenue, Cesar Chavez, and Second Street in the City of Calexico, a predominantly minority and low-income area. This congestion could result in decreased property values and inconvenience for residents accessing their homes and apartments. This is potentially a significant cumulative impact. Under Alternative A, the realignment of ingress and egress at the LPOE is a potential mitigation for this expected impact.

## **5 Unavoidable Adverse Impacts and Commitments of Resources**

### **5.1 Unavoidable Adverse Impacts**

Based on the analysis of the environmental consequences, the proposed action (Alternative B) discussed in detail in Chapter 4, would not result in any new avoidable adverse impacts. Most of the environmental consequences are either low to negligible or include avoidance and mitigations that reduce the level of potential impacts. Some adverse impacts are associated with current conditions, (e.g., traffic delays, exposure to vehicle emissions, and inadequate facilities in regard to employee and public security). The purpose of the proposed action is to correct or mitigate these existing adverse conditions.

### **5.2 Short-Term Use of the Environment versus Long-Term Productivity**

The proposed action under consideration in this EIS, expansion of the Downtown Calexico LPOE in its current location, would balance the short-term use of the environment with long-term traffic, security, and economic and community benefits for the City of Calexico, Imperial County, and the United States.

The environment encompassing the Downtown Calexico LPOE is urban and does not include any sensitive resources that cannot be relocated (i.e., single burrowing owl). The area is already disturbed, and is no longer feasibly used for natural resource management or agriculture. The long-term productivity of the site is therefore defined by its potential to serve human economic or cultural needs, including redevelopment of the site for use by the federal government or for the private parcels of land continued private-sector use.

During the construction of the proposed facilities, localized environmental and social disruption would likely occur in excess of current operations but would be within the range of conditions that occur in the vicinity. During construction, environmental disruption could include localized noise, dust, and traffic impacts, although these impacts should be short term in nature.

Operation-oriented disruption to the natural environment could include the introduction of impervious surfaces, the removal of a small amount of vegetation, and the loss of some vacant land.

Disruption to the human environment could likely include a slightly changed visual environment and increased congestion on some road segments and intersections with decreased traffic on others. The disruptions primarily would affect the residents and businesses in the immediate neighborhoods adjacent to the Downtown Calexico LPOE. The proposed phasing of construction, however, would serve to mitigate the impacts.

The short-term impacts on the environment would be offset by the numerous benefits that either action alternative would generate in the long term. The expansion of the Downtown Calexico LOPE under either action alternative would fulfill security goals and provide mitigation of current adverse traffic conditions.

Under the No Action Alternative, the relationship of short-term uses of the environment and long-term productivity would be unbalanced. Although the alternative would not generate incremental adverse impacts on the environment, it would also not allow for mitigation of current adverse conditions associated with the current facility and current traffic problems.

### **5.3 Irreversible and Irretrievable Commitments of Resources**

Irreversible and irretrievable impacts are those that result in the consumption of resources that cannot be restored or returned to their original condition, even with mitigation.

Implementation of the expansion of the Downtown Calexico LPOE, which is the subject of consideration in this EIS, would involve the use of natural, physical, human, economic, and fiscal resources. The use of these resources includes adverse and beneficial impacts, some of which involve irreversible and irretrievable commitments.

Implementation of either of the action alternatives would require the utilization of substantial quantities of building materials and energy resources to construct the buildings and necessary infrastructure. While the use of these natural and manmade resources would be considered irreversible, none of the above resources is of such a limited availability or precious value that its use would adversely affect the completion of the action alternative or other regional projects. (In addition, many of the natural and manmade materials used in the project are irreversible only for the lifetime of the Downtown LPOE itself. When the LPOE reaches the end of its useful life, a substantial portion of the natural and manmade products could be recycled for future use in other projects as the products of the demolition portions of the proposed action will be recycled to the extent practicable). Although the energy consumption associated with the action alternatives would be both an irreversible and irretrievable commitment of a resource, the consumption would be for a limited duration and would not require system cutbacks during the phases of development.

The use of labor resources during project construction would also result in an irreversible and irretrievable commitment, although the existing labor supply would be able to accommodate project demands. In fact, the demand for labor resources would slightly lower unemployment rates in the construction industry in Imperial County and reintroduce labor resources into the local economy.

The commitment of the new parcels of land to be acquired under either of the action alternatives would be a major, long-term commitment of resources. While either action alternative would convert some undeveloped open space to impervious area, the commitment would not necessarily be irreversible or irretrievable, because the development parcels consist of current or former building sites or parking lots. Whereas the impervious area would necessitate stormwater management measures and practices to reduce the adverse environmental impacts, these measures and practices are anticipated consequences of development. In addition, the development is generally consistent with the land use plans or policies of the local jurisdictions.

The No Action Alternative would involve no additional commitment of irreversible and irretrievable resources.

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## 7 LIST OF AGENCIES, ORGANIZATIONS, AND PERSONS TO WHOM COPIES OF THE DRAFT STATEMENT WERE SENT

### U.S. Federal Government

Environmental Protection Agency, Region 9  
San Francisco, CA

Natural Resources Conservation Service  
El Centro, CA

U.S. Department of State,  
Washington, D.C.

U.S. Fish and Wildlife Service  
Carlsbad, CA

U.S. Senator Dianne Feinstein  
Washington, D.C.

U.S. Senator Barbara Boxer  
Washington, D.C.

U.S. Representative Robert Filner  
Washington, D.C.

### Mexican Government

State of Baja California  
Mexicali, Mexico

City of Mexicali  
Mexicali, Mexico

### California State Government

Governor Arnold Schwarzenegger  
Sacramento, CA

Native American Heritage Commission  
Sacramento, CA

Caltrans District 11  
San Diego, CA

State Clearinghouse  
Sacramento, CA

### Local Government

Mayor Lewis Pacheco  
Calexico, CA

Calexico City Council  
Calexico, CA

Imperial County Board of Supervisors  
El Centro, CA

Imperial Irrigation District  
Imperial, CA

County of Imperial, Planning/Building  
Department  
El Centro, CA

County of Imperial, Public Works  
Department  
El Centro, CA

### Other Organizations

Calexico New River Committee, Calexico,  
CA

Imperial Valley Association of  
Governments, El Centro, CA

Sierra Club, San Diego, CA

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