

EXHIBIT 7

**UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
OAKLAND DIVISION**

STATE OF CALIFORNIA, *et al.*,

Plaintiffs,

v.

DONALD J. TRUMP, *et al.*,

Defendants.

No. 4:19-cv-00872-HSG

SIERRA CLUB, *et al.*,

Plaintiffs,

v.

DONALD J. TRUMP, *et al.*,

Defendants.

No. 4:19-cv-00892-HSG

SECOND DECLARATION OF PAUL ENRIQUEZ

I, Paul Enriquez, declare as follows:

1. I am the Acquisitions, Real Estate and Environmental Director for the Border Wall Program Management Office (“Wall PMO”), U.S. Border Patrol Program Management

Office Directorate, U.S. Customs and Border Protection (“CBP”), an agency of the Department of Homeland Security (“DHS”). I have held this position since August 6, 2018. From 2013 to August 2018, I was the Real Estate and Environmental Branch Chief for the Border Patrol and Air and Marine Program Management Office (“BPAM”), Facilities Management and Engineering, Office of Facilities and Asset Management (“OFAM”). From 2011 to 2013, I was employed as an Environmental Protection Specialist in the BPAM office. In that role, I performed environmental analyses for various border infrastructure projects. From 2008 to 2011, I was a contractor assigned to the BPAM office and provided environmental support on various border infrastructure projects. Based upon my current and past job duties, I am familiar with past and planned border infrastructure projects that have been executed in support of border security.

2. In my position I am personally aware of the border barrier projects that have been identified as “El Centro Project 1” and “Tucson Projects 1, 2, and 3” (collectively the “El Centro and Tucson Projects”), which will be executed with the assistance of the Department of Defense (“DoD”). This declaration is based on my own personal knowledge and information made available to me in the course of my official duties.

BACKGROUND

3. The Secretary of DHS has determined that United States Border Patrol El Centro Sector (the “El Centro Sector”) and the United States Border Patrol Tucson Sector (the “Tucson Sector”) are areas of high illegal entry. Consequently, Section 102 of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, as amended (“IIRIRA”), requires DHS to construct physical barriers and roads to deter and prevent illegal entry of people and drugs into the United States.

4. To support DHS's action under Section 102 of IIRIRA, the Secretary of DHS requested that the Secretary of Defense, pursuant to 10 U.S.C. § 284(b)(7), assist by constructing fences, roads, and lighting within the El Centro and Tucson Sectors. The Acting Secretary of Defense has concluded that the support requested satisfies the statutory requirements of 10 U.S.C. § 284(b)(7) and that DoD will provide such support for the El Centro and Tucson Projects.
5. CBP is the DHS component with primary responsibility for border security. Therefore, CBP constructs, operates, and maintains border infrastructure necessary to deter and prevent illegal entry on the southern border.
6. Within CBP, the Wall PMO has expertise in managing and executing border infrastructure projects. The Wall PMO is directly tasked with managing the schedule, finances, real estate acquisition, environmental planning—including compliance with the National Environmental Policy Act ("NEPA") and the Endangered Species Act ("ESA")—and construction of the border infrastructure system along the U.S. border. Given its expertise in managing border infrastructure projects, the Wall PMO, on behalf of CBP, is working in close coordination with DoD on the El Centro and Tucson Projects.
7. For the El Centro and Tucson Projects, the Wall PMO, on behalf of CBP will, among other things, review and approve technical specifications, review and approve barrier alignments and locations, and provide feedback and input on other aspects of project planning and execution. In addition, the Wall PMO, on behalf of CBP, is responsible for all environmental planning, including stakeholder outreach and consultation, for the El Centro and Tucson Projects.

8. In my capacity as the Acquisitions, Real Estate and Environmental Director, I am responsible for overseeing all environmental planning and compliance activities as well as the real estate acquisition process for projects executed or overseen by the Border Wall PMO, including the El Centro and Tucson Projects.
9. DoD made contract awards for the El Centro and Tucson Projects on May 15, 2019. Environmental planning and consultation for the El Centro and Tucson Projects was initiated on May 6, 2019. The environmental planning and consultation that CBP has and will engage in for the El Centro and Tucson Projects are described in more detail in Paragraphs 19 through 31 below. Construction is scheduled to begin on the El Centro and Tucson Projects in early-July.
10. The El Centro and Tucson Projects will be executed on federally-owned land that is directly adjacent to the border. In general, the construction activity and project footprints will occur within a 60-foot strip of land that parallels the international border that is previously-disturbed, includes existing barriers and roads, and functions primarily as a law enforcement zone

A. El Centro Project 1

11. El Centro Project 1 will be carried out under a waiver issued by the Secretary of DHS pursuant to Section 102(c) of IIRIRA that was published in the Federal Register on May 15, 2019, 84 Fed. Reg. 21800 (May 15, 2019) (the “El Centro Waiver”).
12. The project area for El Centro Project 1 is a segment of the international border in Imperial County, California. It is generally located to the west of the Calexico West Port of Entry, and is described in the El Centro Waiver as starting at Border Monument 229 and extending east to approximately one and one-half (1.5) miles west of Border

Monument 223 (the “El Centro 1 Project Area”). Attached hereto as Exhibit A is a map depicting the El Centro 1 Project Area.

13. Within the El Centro 1 Project Area approximately 15 miles of existing vehicle barrier will be replaced with new bollard wall that includes a linear ground detection system. The existing vehicle barrier no longer meets the United States Border Patrol’s operational needs. The new bollard wall will be 30-feet tall. The bollards are steel-filled concrete that are approximately six inches in diameter and spaced approximately four inches apart. El Centro Project 1 will also include road improvement or construction and the installation of lighting that will be supported by grid power and may include imbedded cameras. All of the construction activity will occur on land that is owned and controlled by the United States.

B. Tucson Projects 1, 2, and 3

14. Tucson Projects 1, 2, and 3 (collectively the “Tucson Projects”) will be carried out under a waiver issued by the Secretary of DHS pursuant to Section 102(c) of IIRIRA that was published in the Federal Register on May 15, 2019, 84 Fed. Reg. 21798 (April 24, 2019) (the “Tucson Waiver”).
15. The project area for the Tucson Projects includes four segments of the international border in Pima County and Cochise County, Arizona. The project area for Tucson Projects 1 and 2 is in Pima County. The project area starts near the Cabeza Prieta National Wildlife Refuge (“CPNWR”) on the Pima and Yuma County line, extends to the eastern boundary of the Organ Pipe Cactus National Monument (“OPCNM”), and is described in the Tucson Waiver as starting approximately one-half (.5) mile west of Border Monument 178 and extending east to Border Monument 162 (the “Tucson 1 and 2

Project Area”). The project area for Tucson Project 3 includes three segments of the international border in Cochise County. The first segment is near the Coronado National Memorial and is described in the Tucson Waiver as starting at Border Monument 100 and extending east for approximately one (1) mile. The second is near the San Pedro Riparian National Conservation Area and is described in the Tucson Waiver as starting at Border Monument 98 and extending east to Border Monument 97. The third segment is situated west of the Douglas Port of Entry and is described in the Tucson Waiver as starting approximately one-half (.5) mile west of Border Monument 83 and extending east to Border Monument 74. The three segments in Cochise County described above are referred to herein as the “Tucson 3 Project Area.” The Tucson 1 and 2 Project Area and Tucson 3 Project Area are collectively referred to herein as the “Tucson Project Area.” Attached hereto as Exhibit B are maps depicting the Tucson Project Area.

16. Within the Tucson Project Area up to 63 miles of existing vehicle barrier and outmoded pedestrian barrier will be replaced with new bollard wall that includes a linear ground detection system. The existing barriers within the Tucson Project Area no longer meet Border Patrol’s operational needs. The new bollard wall will be 30-feet tall. The bollards are steel-filled concrete that are approximately six inches in diameter and spaced approximately four inches apart. The Tucson Projects will also include road improvement or construction and the installation of lighting that will be supported by grid power and may include imbedded cameras. All of the construction activity will occur on land that is owned and controlled by the United States.

ENVIRONMENTAL PLANNING AND CONSULTATION FOR THE ELCENTRO AND TUCSON PROJECTS

17. CBP has long had a border security presence in the El Centro 1 Project Area and the Tucson Project Area (collectively, the “Project Areas”) and their surrounding areas.

Through the planning and development of past projects and activities, CBP has developed a deep understanding and awareness of the natural, biological, historic, and cultural resources in the Projects Areas.

18. To cite just a few examples of CBP’s prior environmental analyses covering actions in and near the Project Areas, in 2008 CBP completed an Environmental Stewardship Plan (“ESP”) covering the construction of approximately 44 miles of border infrastructure within the El Centro 1 Project Area and its surrounding area. In 2014, CBP completed an Environmental Assessment (“EA”) concerning the improvement, construction, operation and maintenance of an all-weather road that is situated within El Centro 1 Project Area. In 2008 CBP completed an EA concerning the installation, operation, and maintenance of approximately five miles of pedestrian barrier near the Lukeville Port of Entry, which is situated within the Tucson 1 and 2 Project Area. In 2008, CBP also completed an ESP concerning the construction, operation, and maintenance of approximately six miles of pedestrian and vehicle barrier in the Tucson 3 Project Area and its surrounding area. In 2013, CBP completed an EA for the maintenance and repair of border infrastructure throughout the State of Arizona. The 2013 EA was the culmination of years of analysis and consultation with stakeholders concerning the potential environmental impacts from CBP’s repair and maintenance of existing and proposed border infrastructure in Arizona, including infrastructure in the Tucson Project Areas.

19. More recently, in 2018, CBP undertook a project to replace approximately two miles of existing pedestrian barrier with new bollard wall in a project area that is situated between the Calexico West Port of Entry and the El Centro 1 Project Area (the “Calexico Project”). As part of the Calexico Project, CBP prepared a Memo for the Record (“MFR”) that examined the potential impacts of the Calexico Project (the “Calexico MFR”). A copy of the Calexico MFR is attached hereto as Exhibit C.
20. CBP is drawing on its prior experience in the Project Areas as it assesses the potential environmental impacts for the El Centro and Tucson Projects.
21. In addition, CBP is presently engaged in new environmental planning and consultation that is specifically targeted to the El Centro and Tucson Projects. As a part of its environmental planning process, CBP conducts biological, cultural, and other natural resource surveys, coordinates with stakeholders, and uses that information to assess environmental impacts.
22. On May 6, 2019, before the El Centro and Tucson Waivers were issued, to better understand the potential impacts of the El Centro and Tucson Projects, CBP sent consultation letters to a number of stakeholders and potentially interested parties. The consultation letters include information about the El Centro and Tucson Projects and invite input from stakeholders regarding potential impacts. They also inform stakeholders that CBP would be accepting comments and input through June 6, 2019 regarding El Centro Project 1 and will be accepting comments and input through July 5, 2019 regarding the Tucson Projects.
23. For El Centro Project 1, CBP sent 161 separate consultation letters to a range of stakeholders and potentially interested parties, including, among others, the Department

of Interior (“DOI”), the United States Fish and Wildlife Service (“USFWS”), the Bureau of Land Management (“BLM”), the United States Environmental Protection Agency (“USEPA”), the California State Historic Preservation Officer, the California Department of Fish and Game, the California Environmental Protection Agency, State and local officials, Native American Tribes, and numerous non-governmental organizations.

24. For the Tucson Projects, CBP sent 100 separate consultation letters to a range of stakeholders and potentially interested parties, including, among others, USFWS, BLM, USEPA, the Arizona State Historic Preservation Officer, the Arizona Department of Environmental Quality, the Arizona Game and Fish Department, State and local officials, Native American Tribes, and numerous non-governmental organizations.
25. Also on May 6, 2019, CBP posted notices on its website, CBP.gov, notifying the public of the El Centro and Tucson Projects and soliciting the public’s input regarding potential impacts. The notices posted on CBP’s website can be found at <https://www.cbp.gov/document/environmental-assessments/imperial-county-border-infrastructure-project-may-2019> and <https://www.cbp.gov/document/environmental-assessments/pima-and-cochise-counties-border-infrastructure-projects-may-2019>. The notices included a link to the same consultation letters, which include information about the El Centro and Tucson Projects that were sent to every individual stakeholder or potentially interested party.
26. On May 14, 2019, May 15, 2019, and May 16, 2019, CBP conducted on-site meetings with representatives from DOI, USFWS, USEPA, BLM, the United States International Boundary and Water Commission, the United States Forest Service, and the Tohono

- O’odham Nation. At the on-site meetings, the parties toured the Project Areas and discussed the El Centro and Tucson Projects and their potential impacts.
27. On May 25, 2019, the Public Lands Liaison for the Tucson Sector met with members of certain non-government organizations, including the Sierra Club, the Center for Biological Diversity, the Nature Conservancy, and the Friends of the Sonoran Desert to discuss a number of topics related to the intersection of border security and conservation of lands on the southwest border. Among the topics discussed were the Tucson Projects.
28. On May 30, 2019, CBP participated in a regular meeting of the Border Management Task Force (“BMTF”). The BMTF meets every month to discuss issues related to border security and federal land management. Its members include federal land managers, CBP representatives, and Congressional staff. At the May 30th BMTF meeting, the attendees discussed the El Centro and Tucson Projects.
29. Consistent with its past practice for prior border infrastructure projects, CBP will survey the Project Areas for biological, historical, and cultural resources, and jurisdictional “Waters of the United States.” CBP will use the data and information obtained through those surveys, along with data and information drawn from past environmental surveys and planning that CBP has done in the Project Areas, to prepare biological and cultural resources reports.
30. All of the information and input CBP obtains through stakeholder consultations, the biological and cultural resources reports, and prior environmental planning will inform the project planning and execution of the El Centro and Tucson Projects.¹

¹ As outlined in my declaration dated April 25, 2019 concerning the Yuma and El Paso Projects (“1st Enriquez Decl.”), CBP is engaging in a similar consultation and environmental planning process for the Yuma and El Paso Projects. (1st Enriquez Decl. ¶¶ 19 -30.) CBP is assessing the comments it received from stakeholders concerning

31. Using the information it has compiled and feedback it has received, CBP will prepare an analysis of the potential environmental impacts of the El Centro and Tucson Projects. CBP will use that analysis to identify construction Best Management Practices (“BMPs”) or design modifications that can be presented to DoD for incorporation into project planning and execution in order to minimize or avoid potential impacts to the extent practicable.² In addition, input from stakeholders and CBP’s own analysis will be used to develop mitigation measures, which may be implemented after construction to offset or minimize unavoidable impacts. For example, for past border barrier projects, CBP has worked directly with DOI to implement mitigation measures such revegetation of project areas and the creation of new habitat for endangered fairy shrimp.

ALLEGED HARMS FROM THE EL CENTRO AND TUCSON PROJECTS

32. As detailed in the Paragraphs 19 through 31 CBP has not yet completed the environmental planning and consultation processes for the El Centro and Tucson Projects. Those processes are on-going. Nevertheless, based on these ongoing consultations, CBP’s prior experience in the Project Areas, meetings with various resource experts, and my understanding of the El Centro and Tucson Projects, I find many of plaintiffs’ claims concerning the alleged environmental harms that will result from the El Centro and Tucson Projects to be overstated or misplaced.

the Yuma and El Paso Projects and is currently preparing responses to comments, including the comments received from the New Mexico State Land Office.

² As outlined in my prior declaration, CBP is taking a similar approach for the Yuma and El Paso Projects. The information CBP compiles through consultation and its own data collection will be used to identify BMPs that could be implemented as a part of the Yuma and El Paso Projects. (*E.g.*, 1st Enriquez Decl. ¶ 33.) BMPs for past projects have included implementation of a Storm Water Pollution Prevention Plans, Construction Mitigation and Restoration Plans, Spill Prevention Control and Countermeasures Plans, Dust Control Plans, Fire Prevention and Suppression Plans, and Unanticipated Discovery Plans to protect natural and cultural resources. (1st Enriquez Decl. Ex. C. Santa Teresa ESP pg. ES-3.)

A. Alleged Procedural Injuries

33. Plaintiffs have put forth concerns about possible procedural injuries. For instance, plaintiffs allege that construction of the El Centro and Tucson Projects will occur without a review of impacts or opportunity for public comment. (Broyles Decl. ¶ 11.) Plaintiffs allege that there will be irreparable harm to endangered species without a NEPA review and ESA consultation. (Nagano Decl. ¶ 18.)
34. Plaintiffs' allegations that the El Centro and Tucson Projects will proceed without an environmental review or opportunity for public comment is not correct. As detailed above, CBP will perform an environmental review of the El Centro and Tucson Projects which will consider CBP's own data and information, new resource survey data, as well as the input provided by federal and state resource agencies. Also as detailed above, through its consultation letters and other outreach, CBP has specifically sought input from numerous parties, including USFWS, State and local officials, the Sierra Club, the Southwest Environmental Center, and the ACLU. Therefore, a wide range of stakeholders and interested parties, including plaintiffs, will have the opportunity to raise concerns and provide input about the potential environmental impacts of the El Centro and Tucson Projects. CBP will consider that input as it plans for implementation of the El Centro and Tucson Projects.
35. CBP has a proven track record of responding to concerns or input provided to CBP as a part of its consultation processes. For example, as part of its planning process for border barrier construction in the Rio Grande Valley, Texas ("RGV"), CBP conferred with USFWS. Among other things, USFWS provided CBP with data related to wildlife migration corridors. CBP used that information to modify barrier design and alignment

to minimize impacts to wildlife. For barrier construction in RGV, CBP is planning to include gates or gaps in the barrier in known migration corridors. CBP will also use a modified design for levee access ramps that will form a safe island for wildlife in the event of flooding.

36. To the extent that specific recommendations are made for barrier design, alignment modifications, or other measures that will minimize impacts to wildlife, wildlife migration, or other resources for the El Centro and Tucson Projects, CBP will similarly consider and, if feasible, recommend to DoD that those measures be incorporated into project planning and execution.
37. CBP has consistently implemented conservation measures and BMPs as part of the construction of border infrastructure in order minimize or avoid potential impacts. For example, for the recent Calexico Project in the El Centro Sector, the BMPs included, among other things: (a) providing an environmental briefing for all construction crew members; (b) having an environmental monitor present during project activities; (c) clearly demarcating the construction area perimeters to limit disturbance to the construction areas; (d) implementing construction speed limits; (e) implementing measures designed to limit the spread or establishment of non-native invasive plant species; (f) implementing measures designed to prevent entrapment of wildlife; and (g) development, implementation, monitoring of a storm water pollution prevention plan (“SWPPP”). (Calexico MFR at 10-15.) As noted in above, CBP will use all of the information that it compiles through consultation and its own data collection to identify BMPs that could be implemented as a part of the El Centro and Tucson Projects.

38. Plaintiffs also allege that they are harmed because, as a result of the El Centro Waiver, CBP will not have to apply for a National Pollutant Discharge Elimination System Construction General Permit, which would require preparation of a SWPPP that would be enforced by Colorado River Basin Water Board (“CRBWB”). (Dunn Decl. ¶ 19.)
39. Despite the El Centro Waiver, CBP expects that it will recommend to DoD that a SWPPP is prepared for both the El Centro and Tucson Projects.³ CBP welcomes input and consultation from the CRBWB regarding El Centro Project 1. That is precisely what occurred with the Calexico Project. Like El Centro Project 1, the Calexico Project was constructed pursuant to a waiver issued by the Secretary of Homeland Security. 82 Fed. Reg. 42829 (Sept. 12, 2017). Also like El Centro Project 1, despite the waiver, CBP sought input from affected stakeholders, including the CRBWB. In response to CBP’s outreach to stakeholders, CRBWB sent CBP a letter dated February 21, 2018, which is attached hereto as Exhibit D, that outlined CRBWB’s comments and concerns regarding the Calexico Project. In response to CRBWB’s February 21st letter, CBP held a teleconference with CRBWB on February 28, 2019 where CBP staff, the CRBWB Executive Director, and CRBWB counsel discussed, among other things, the SWPPP that had been developed for the Calexico Project and the BMPs CBP would be implementing that would address some of CRBWB’s concerns. The parties also discussed opportunities for future collaboration. The following day, on March 1, 2018, CBP sent CRBWB a copy of the SWPPP that had been developed for the Calexico Project and offered additional follow-up if CRBWB had more questions or concerns regarding the

³ The same is true regarding the Yuma and El Paso Projects.

SWPPP. A copy of CBP's March 1, 2018 correspondence is attached hereto as Exhibit E.

40. Notably, for both the Calexico Project and the West Desert All-Weather Road Project, which is cited in plaintiffs' declaration (e.g., Dunn Decl. ¶ 5), CBP concluded that there would be no significant impacts to water quality. Calexico MFR at 9; *U.S. Customs and Border Protection, Environmental Assessment for the Improvement, Construction, Operation, and Maintenance of a Proposed All-Weather Road in the El Centro Station Area of Responsibility, El Centro Sector* (February 2013) at 3-17 (attached hereto as Exhibit F). Given the nature of El Centro Project 1, it is likely that CBP will be able to reach a similar conclusion when it assesses its potential impacts.

41. Plaintiffs also allege that without a NEPA review of El Centro Project 1, 13 separate California Species of Special Concern that are allegedly found within the El Centro 1 Project Area and will be "harmed or killed" by "extensive trenching, construction of roads, and staging of materials necessary to construct" El Centro Project 1.⁴ (Clark Decl. ¶ 15.) Plaintiffs assert that the alleged harms to these California Species of Special Concern could be remedied had NEPA not been waived for El Centro Project 1 because "USFWS would consider and address potential impacts to these state listed species." (*Id.*)

42. But NEPA, even if it had not been waived, is a procedural statute that does not prohibit particular environmental harms. More importantly, as detailed above, CBP has engaged stakeholders and will assess the potential impacts of El Centro Project 1. To the extent

⁴ This statement is unsupported and appears to be unfounded. For example, plaintiffs do not explain how the seven bat species that are included in the list will be harmed or killed by trenching, road construction, or staging of materials.

that legitimate concerns are raised or revealed concerning impacts to the California Species of Special Concern cited in plaintiffs' declarations, CBP will have the opportunity to address those impacts through BMPs that are recommended to DoD or possible mitigation measures that are implemented during or after project execution.

B. Alleged Environmental Harms

43. In addition to alleged procedural injuries, plaintiffs make a number of allegations regarding purported environmental harms that they claim will result from the El Centro and Tucson Projects, including impacts to federally-listed species, wildlife, other natural resources, and plaintiffs' recreational or aesthetic interests. As detailed below, I find many of plaintiffs' claims to be overstated or misplaced.

1. Federally-Listed Species

44. Plaintiffs state that they are concerned that the Tucson Projects will harm the endangered Sonoran pronghorn. (Tuell Decl. ¶ 12.) Plaintiffs allege that the Tucson Projects will harm Sonoran pronghorn because this species relies on access to lands on both sides of the border to survive. (Hartmann Decl. ¶ 7; Broyles Decl. ¶ 7.)

45. Evidence does not support plaintiffs' suggestion that the Tucson Projects will threaten the survival of Sonoran pronghorn. According to the 2016 Recovery Plan for Sonoran pronghorn, recovery of the Sonoran pronghorn does not depend on natural cross-border migration of the species. Although the Recovery Plan considers the Sonoran pronghorn throughout its range, it specifically designates two conservation units containing two separate populations of the species: one in the United States and one in Mexico. *United States Fish and Wildlife Service, Recovery Plan for the Sonoran Pronghorn, Second Revision* (November 2016) at 91, available at

https://www.fws.gov/southwest/es/arizona/Documents/SpeciesDocs/SonoranPronghorn/FINAL_Sonoran_Pronghorn_Recovery%20Plan_2nd%20Revision_11-16-16.pdf.

USFWS has noted that the species would likely benefit from habitat connectivity between Sonoran pronghorn populations. *Id* at 30. However, the Recovery Plan makes clear that recovery of Sonoran pronghorn does not depend on such natural cross-border migration, as Sonoran pronghorn in the United States are already “effectively geographically separated from Sonoran pronghorn populations in Mexico due to the physical barriers of Mexican Highway 2 and associated fencing.” *Id.* at 2. In addition, the Recovery Plan states that having viable populations in both the United States and Mexico serves the aims of “representation, redundancy, and resiliency across its range,” which decreases the changes that a “single stochastic event would cause the entire subspecies to go extinct.” *Id.* at 99.

46. Although the recovery of Sonoran pronghorn does not depend on natural cross-border migration of the species, the Recovery Plan states that within population habitat connectivity is critical to recovery. Importantly, then, the Tucson Projects will not affect vast areas of habitat that are currently available to the Sonoran pronghorn in Arizona. As noted above, in general the construction activity and project footprints of the Tucson Projects will be within a 60-foot strip of land that parallels the border. By contrast, the areas that surround the Tucson Project Areas include vast swaths of federally-protected lands, including the OPCNM and the CPNWR. The OPCNM is 330,689 square acres or 516 square miles. The CPNWR is 803,418 acres or over 1200 square miles. The majority of these areas and the habitat Sonoran pronghorn occupy or utilize therein will not be significantly impacted by the Tucson Projects.

47. In fact, since 2001, despite an increased presence of cross-border violators and the corresponding Border Patrol response (including the construction of border infrastructure), the population of endangered Sonoran pronghorn in Arizona has increased significantly, from approximately 21 in 2001 to over 200 by 2014. *Id.* 14. In my discussions with USFWS concerning the Tucson Projects, USFWS has informed me that the population continues to increase. According to USFWS, the 2018 estimate for endangered Sonoran pronghorn in Arizona rose to 215. In addition, USFWS has established and manages a non-essential experimental population of Sonoran pronghorn in Arizona pursuant to section 10j of ESA. USFWS has informed me that the 2018 population estimate for the non-essential experimental population of Sonoran pronghorn in Arizona is approximately 121.

48. Plaintiffs also allege that El Centro Project 1 will harm the endangered Peninsular bighorn sheep. (Nagano Decl. ¶ 13.) More specifically, plaintiffs allege that construction activities will “alter the normal behavior of peninsular big horn sheep” (Nagano Decl. ¶ 13), possibly causing pregnant ewes to abandon quality lamb rearing habitat (Clark Decl. ¶ 14), and that construction or maintenance vehicles may collide with peninsular bighorn sheep. Beyond construction impacts, plaintiffs allege that the improved border barrier will prevent movement of the species across the United States-Mexico border. (Clark Decl. ¶ 14; Nagano Decl. ¶ 13.)

49. As a part of CBP’s coordination with USFWS, I have been informed by USFWS that Peninsular bighorn sheep that would be found in or near the El Centro 1 Project Area are part of the Carrizo Canyon Recovery Region identified in the Recovery Plan and Critical Habitat Unit 3. *United States Fish and Wildlife Service, Recovery Plan for Bighorn*

Sheep in the Peninsular Ranges, California (October 2000), available at https://ecos.fws.gov/docs/recovery_plan/001025.pdf; *Final Rule, Designation of Critical Habitat for Peninsular Bighorn Sheep and Determination of a Distinct Population Segment of Desert Bighorn Sheep*, 74 Fed. Reg. 17288 (April 14, 2009), available at <https://www.govinfo.gov/content/pkg/FR-2009-04-14/pdf/E9-7767.pdf#page=2>.

Regarding the purported construction impacts cited by plaintiffs, as noted above CBP has BMPs that may be implemented, including construction speed limits, that will minimize the risk of vehicles colliding with Peninsular bighorn sheep. In addition, even if construction activities associated with El Centro Project 1 were to cause Peninsular bighorn sheep to alter their normal behavior patterns and abandon habitat in or near the El Centro 1 Project Area, such impacts would be temporary. Further, there is abundant available habitat in the areas that surround the El Centro 1 Project Area. There are, for example, approximately 11,000 acres of designated critical habitat for Peninsular bighorn sheep within the Jacumba Mountains, which abut the western terminus of the El Paso 1 Project Area. *Final Rule, Designation of Critical Habitat for Peninsular Bighorn Sheep and Determination of a Distinct Population Segment of Desert Bighorn Sheep*, 74 Fed. Reg. 17288, 17318. As to the alleged impacts regarding migration of Peninsular bighorn sheep into Mexico, because the western terminus of El Centro Project 1 ends at the base of the Jacumba Mountains, there will still be large areas to the west of the El Centro 1 Project Area where Peninsular bighorn sheep will continue to be able to cross into Mexico. Accordingly, in my coordination with USFWS, USFWS has informed me that it does not believe that El Centro Project 1 will result in population-level impacts to

Peninsular bighorn sheep within the Carrizo Canyon Recovery Region and Critical Habitat Unit 3.

2. Sensitive Wildlife Species

50. In addition to federally-listed species, plaintiffs allege harms to sensitive species such as the Flat-tailed horned lizard, which is not currently listed under ESA but is considered a California Species of Special Concern. (Clark Decl. ¶ 16.) Plaintiffs express concerns about construction impacts, claiming construction activities may result in death or injury to individual animals because they could “fall into trenches or holes” or be run over by vehicles.” (Nagano Decl. ¶ 23) Further, plaintiffs allege that the improved barrier will prevent Flat-tailed horned lizards from crossing the border, resulting in a “new genetic break in the species range.” (Clark Decl. ¶ 17.)
51. Plaintiffs have overstated the potential harms to Flat-tailed horned lizard. CBP has construction BMPs, which will be presented to DoD for consideration and incorporation into project execution, to address the alleged construction impacts cited by plaintiffs, including the presence of environmental monitors, construction speed limits, and measures designed to prevent the entrapment of wildlife. Further, because the bollard wall has four-inch gaps between the bollards, smaller species such as Flat-tailed horned lizard will continue to be able to migrate across the border into Mexico.
52. Plaintiffs also express concerns about potential impacts to burrowing owl, another California Species of Special Concern. (Nagano Decl. ¶ 19.) Plaintiffs allege that burrowing owls could be injured or harmed because they could be buried alive in their burrows by vehicular traffic associated with El Centro Project 1. (Nagano Decl. ¶ 25.)

53. Here again, plaintiffs overstate the potential harms. CBP's BMPs, which will be presented to DoD for consideration and incorporation into project execution, can address potential construction impacts to burrowing owl. For the Calexico Project, for example, CBP not only undertook burrowing owl surveys in advance of project execution, it implemented a BMP that was specifically designed to protect burrowing owls. (Calexico MFR at 12.) CBP required a 50-meter buffer around observed burrowing owl burrows. (*Id.*) Where the 50-meter buffer was not compatible with project needs, CBP required one-way exclusionary doors on burrowing owl burrows and that its contractors wait until the burrows were vacated before collapsing them to ensure there was no direct mortality to burrowing owls. (*Id.*)

3. Sensitive Plant Species

54. In addition to sensitive wildlife species, plaintiffs allege that El Centro Project 1 will harm sensitive plant species in and around the El Centro 1 Project Area. (*E.g.*, Evans Decl. ¶ 6.) Plaintiffs go so far to say that El Centro Project 1 will "undoubtedly have irreparable or irreversible impacts" on sensitive plants. (Vanderplank Decl. ¶ 25.) Plaintiffs' assertions are based in part on their having purportedly surveyed the "El Centro Project 1 project area twice in 2019," although plaintiffs provide no information as to how they actually defined the El Centro 1 project area. (Vanderplank Decl. ¶ 21.)

55. I believe plaintiffs' allegations concerning impacts to sensitive plant species are exaggerated. As discussed, in general the construction activities and project footprint for El Centro Project 1 will be within a strip of land along the international border that is already disturbed and functions as a law enforcement zone. Moreover, as plaintiffs rightly point out, in the areas that surround the El Centro 1 Project Area there is an

“absence of development, construction, and human impacts” (Vanderplank Decl. ¶ 21), meaning there is abundant habitat for such plant species in and around the El Centro 1 Project Area. For these reasons, I find plaintiffs’ assertion that there will “undoubtedly” be irreparable harms to sensitive plants to be overstated.

4. Other Wildlife

56. Plaintiffs put forth generalized fears that the El Centro and Tucson Projects will harm other wildlife. They claim, for example, that the El Centro and Tucson Project will fragment habitat of desert animals (Hudson Decl. ¶ 9; Evans Decl. ¶ 8) and stop the movement of both larger mammals and smaller species such as lizards, frogs, snakes, and some birds (Tuell Decl. ¶ 8). Plaintiffs also cite generalized fears that the Tucson Projects could impact “animal species living along and migrating through the San Pedro River ecosystem” (Gerrodette Decl. ¶ 9) or have lasting impacts on an ecosystem that is home to species such as javelina, deer, kangaroo rats, and coyotes. (Dahl Decl. ¶ 9; Hudson Decl. ¶ 9).
57. Plaintiffs do not provide much in the way of support for these generalized fears. In addition, these assertions are at odds with CBP’s prior analysis of similar projects. For example, as noted above, in 2013 CBP completed an EA concerning the construction of approximately 5 miles of pedestrian fencing in Lukeville, Arizona (the “Lukeville Project”), which is within the Tucson 1 and 2 Project Area adjacent to the OPCNM. Like the Tucson and El Centro Projects, the majority of the construction activities for the Lukeville Project were to occur in a 60-foot strip of federally-owned property immediately adjacent to the border that was already functioning as a law enforcement zone. The area was heavily disturbed and contained existing border infrastructure,

including permanent vehicle barriers that were constructed by the National Park Service in 2003. *U.S. Customs and Border Protection, Final Environmental Assessment for the Proposed Installation, Operation, and Maintenance of Primary Pedestrian Fence Near Lukeville, Arizona, U.S. Border Patrol, Tucson Sector* (February 2008) at 1-3, 2-1 – 2-2 (attached hereto as Exhibit G). In its analysis of potential impacts to wildlife, CBP concluded that, because the project area was already disturbed, the amount of land permanently impacted by the project would be negligible. *Id.* at 4-5. CBP also concluded that construction activities would only result in minor adverse impacts to species. *Id.* In reaching that conclusion, CBP noted that mobile animals would escape to other areas of similar habitat, and while slow or sedentary species could be injured or lost, this would not result in a substantial reduction on a regional scale due to the tens of thousands of acres of suitable, similar habitat adjacent to the project corridor. Finally, while CBP acknowledged that the pedestrian fence could affect transboundary migration patterns of animals, including larger animals, the impacts were considered minimal because habitat fragmentation typically affects species with small population size that are dependent on migration to obtain spatially or temporally limited resources. *Id.*

5. Other Resources or Alleged Harms

58. In addition to the allegations detailed above, plaintiffs have set forth a number of generalized “concerns” regarding a range of issues, including impacts from lighting, the spread of non-native plant species, and impacts to air quality and hydrology. The majority of these alleged harms are unsupported by specific allegations or supporting facts. Rather, plaintiffs merely cite generalized fears regarding the alleged environmental harms that may result from the El Centro and Tucson Projects. Plaintiffs’ generalized

fears concerning the potential impacts to the cited resources are exaggerated or unfounded.

59. For example, plaintiffs allege that pollution from construction activities, including vehicles, machinery, and desert dust storms, will “exacerbate” existing air pollution in and around the El Centro 1 Project Area. This allegation is unsupported by specific facts and at odds with CBP’s previous analysis of a similar project. As a part of Calexico MFR, CBP performed a detailed assessment of potential impacts to air quality from the Calexico Project, which like El Centro 1 Project, was located in Imperial County, California within the Imperial County Air Pollution Control District. After a detailed analysis, CBP concluded that the construction activities associated with the Calexico Project would not exceed Federal de minimis thresholds for air pollution emissions and, as such, a conformity determination would not have been required under the Clean Air Act. (MFR at 9-10.) Given my experience with the Calexico Project and other border infrastructure projects, I expect a similar determination concerning El Centro Project 1.
60. Plaintiffs claim that lighting from the El Centro and Tucson Projects will “drastically impact” or be detrimental to their ability to stargaze in the areas surrounding the Project Areas (Hudson Decl. ¶ 9; Evans Decl. ¶ 8) and degrade their camping experiences (Hudson Decl. ¶ 10). However, as a part of project design and execution of the El Centro and Tucson Projects, CBP will take steps, including the installation of light shields, to minimize or control any light spillage beyond the approximately 60-foot area along the border that contains the primary project footprint and currently functions as a law

enforcement zone. With such measures in place, the El Centro and Tucson Projects are unlikely to result in the “drastic impacts” claimed by plaintiffs.⁵

61. Plaintiffs also cite concerns as to how additional lighting from the El Centro Project and Tucson Projects may affect wildlife. (*E.g.*, Evans Decl. ¶ 8). Plaintiffs claim, for example, that lighting associated with El Centro Project 1 “can have a myriad negative effects on animals and plants” (Clark Decl. ¶ 19). However, as noted above, the 60-foot area along the border that contains the primary project footprints, where the lighting will be directed, is already heavily disturbed and is unlikely to provide quality habitat for animals and plants. Moreover, there is an abundance of available habitat for animal and plant species in the areas that surround the Project Areas. Therefore, it is not at all clear that the “myriad” of negative impacts claimed by plaintiffs will come to pass.⁶

62. Plaintiffs claim that the El Centro and Tucson Projects will lead to a loss of native vegetation and the spread of invasive, non-native species. (Dahl ¶ 9). For example, plaintiffs allege that disturbance from border wall construction will create habitat for exotic plants and weeds and that seeds from exotic weeds may be “transported by DHS and CBP cars, trucks, horse trailers, quads, and the hooves and fur of their patrol horses.” (Nagano Decl. 20.) These fears are exaggerated or misplaced.

63. The El Centro and Tucson Projects are construction projects. Thus, to the extent that plaintiffs’ are expressing concerns about potential impacts from normal patrol or law

⁵ Plaintiffs cite similar concerns regarding lighting associated with the El Paso Project. (Stewart Decl. ¶ 2, Ex. A, pg. 5.) As a part of El Paso Project 1, CBP will implement the same kinds of measures to control light spillage, thereby minimizing the impacts of lighting from the project, either as a part of project design or through potential BMPs.

⁶ Plaintiffs also express concerns as to how lighting from El Paso Project 1 may affect wildlife. (Stewart Decl. ¶ 2, Ex. A, pg. 5.) As stated in my prior declaration, the El Paso 1 Project Area is already heavily disturbed, largely devoid of vegetation, include existing barriers and roads, and functions primarily as a law enforcement zone. (1st Enriquez Decl. ¶¶ 50, 63.) Therefore, El Paso 1 Project area is also unlikely to contain quality habitat for wildlife.

enforcement activity within the Project Areas, i.e., the purported spread of invasive species via “CBP cars, trucks, horse trailers, quads, and the hooves and fur of their patrol horses,” such allegations are not germane to a discussion of potential impacts related to the El Centro and Tucson Projects. Regarding the actual construction activities related to the El Centro and Tucson Projects, very little new land will be disturbed by El Centro and Tucson Projects. As noted throughout, the El Centro and Tucson Projects will occur in areas that are already disturbed, already contain border infrastructure, i.e., existing barriers and roads, and already function primarily as a law enforcement zone. Further, for past projects CBP has implemented BMPs that are specifically designed to limit the loss of vegetation and the spread of invasive species. As a part the Calexico Project, for example, CBP implemented BMPs restricting vegetation removal to the smallest possible footprint and requiring the cleaning of equipment to limit the spread of non-native species. (MFR at 11.) CBP expects to recommend to DoD that these same BMPs are implemented as a part of the El Centro and Tucson Projects.

64. Plaintiffs have also expressed generalized, non-specific concerns regarding potential impacts on hydrology. Plaintiffs state that construction of the Tucson Projects 1 and 2 “could” impact the hydrology of Quitobaquito Springs. (Dahl Decl. ¶ 7) Similarly, plaintiffs state that they are “concerned” that Tucson Project 3 may affect the flow of the San Pedro River (Gerrodette Decl. ¶ 7).
65. In fact, Quitobaquito Springs is located north of the Tucson 1 and 2 Project Area, meaning it is outside the project footprint and will not be directly impacted by any construction activities. Therefore, I do not expect that Tucson Projects 1 and 2 will result in significant hydrological impacts to Quitobaquito Springs. For the portion of Tucson

Project 3 that is near the San Pedro River, initial designs indicate that a bridge will be constructed across the San Pedro River and the barrier will be constructed on top of the bridge. For the portion that spans the river under the bridge, gates will be installed that will stop illegal traffic but also allow for the continued flow of water through the San Pedro River.

6. Recreational and Aesthetic Injuries

66. Finally, plaintiffs put forth a number of claims concerning purported recreational or aesthetic injuries. Plaintiffs express concerns about the potential for “immense aesthetic impacts” (Evans Decl. ¶ 5), asserting for example, that the El Centro and Tucson Projects will detract from their ability to enjoy hiking, camping, and photography in the areas surrounding the Project Areas (Hudson Decl. ¶ 11), will destroy the beauty of the desert (Armenta Decl. ¶ 6), and harm wilderness character (Tuell Decl. ¶ 11).⁷
67. The evidence does not support plaintiffs’ suggestions or assertions the El Centro and Tucson Projects will significantly harm plaintiffs’ recreational activities or aesthetic interests. The El Centro and Tucson Projects will not effect any change to the existing land use within the Project Areas. These areas are already disturbed, include existing barriers and roads, and function primarily as a law enforcement zone.

⁷ Plaintiffs have made similar claims concerning aesthetic and recreational impacts related to the Yuma and El Paso Projects. Plaintiffs allege, for example, that they visit the Morelos Dam near the Yuma 1 Project Area or drive Highway 95, which is situated west of the Yuma 1 Project Area, and that Yuma Project 1 may “disrupt the desert views” or inhibit plaintiffs’ appreciation of the areas that surround the Yuma 1 Project Area. (Bevins Decl. ¶ 7.) Similarly, plaintiffs allege that CBP’s presence in the Yuma 1 Project Area diminishes the enjoyment of these areas due to fears of being questioned or detained. However, as discussed in my prior declaration, the evidence does not support Plaintiffs’ claims of significant harms to recreational or aesthetic interests. (1st Enriquez Decl. ¶¶ 63 – 64.) As I have previously noted, the Yuma 1 Project Area already functions primarily as a law enforcement zone (1st Enriquez Decl. ¶ 63); thus, CBP already has had and will continue to have a presence in the Yuma 1 Project Area. In addition, Yuma and El Paso Projects will not effect any change to existing land uses in the areas surrounding the Project Areas (1st Enriquez Decl. ¶ 64). To this end, Yuma Project 1 will not affected public access to the Morelos Dam.

68. Further, the El Centro and Tucson Projects will not effect any significant change to the existing land uses in the areas that surround the Project Areas, which include vast tracts of federally-protected lands. The Tucson 1 and 2 Project Area is surrounded by the OPCNM, which is 330,689 square acres or 516 square miles, and the CPNWR, which is 803,418 acres or over 1200 square miles. Areas that surround the Tucson 3 Project Area include the San Pedro Riparian National Conservation Area, which is 57,000 acres or 89 square miles, and the Coronado National Memorial, which is 4,750 acres or over seven square miles. Plaintiffs may continue to recreate in and enjoy these natural and undeveloped areas that surround the Project Areas. Given their size relative the small project footprint of the Tucson Projects, the evidence does not support plaintiffs' assertion that the Tucson Projects will irreparably harm plaintiffs' ability to hike, camp, and recreate in these areas, destroy beauty of the desert, or significantly harm or alter the wilderness characteristics of these areas.
69. Similarly, regarding El Centro Project 1, Plaintiffs will continue to be able to access, use, and enjoy the vast desert or mountains areas that surround the El Centro 1 Project Area, including the Jacumba Mountain Wilderness, which is 31,357 square acres or approximately 49 square miles of federally-protected wilderness.
70. In fact, enhanced border security may enhance plaintiffs' ability to recreate in and enjoy the areas surrounding the El Centro and Tucson Projects Areas. There are historical examples where CBP's construction of border barriers has resulted in increased public access and use in areas surrounding the border because barrier construction has reduced illegal traffic and, in turn, made such areas safer for access and use by the public.

This declaration is made pursuant to 28 U.S.C. § 1746. I declare under penalty of perjury that the foregoing is true and correct to the best of my current knowledge.

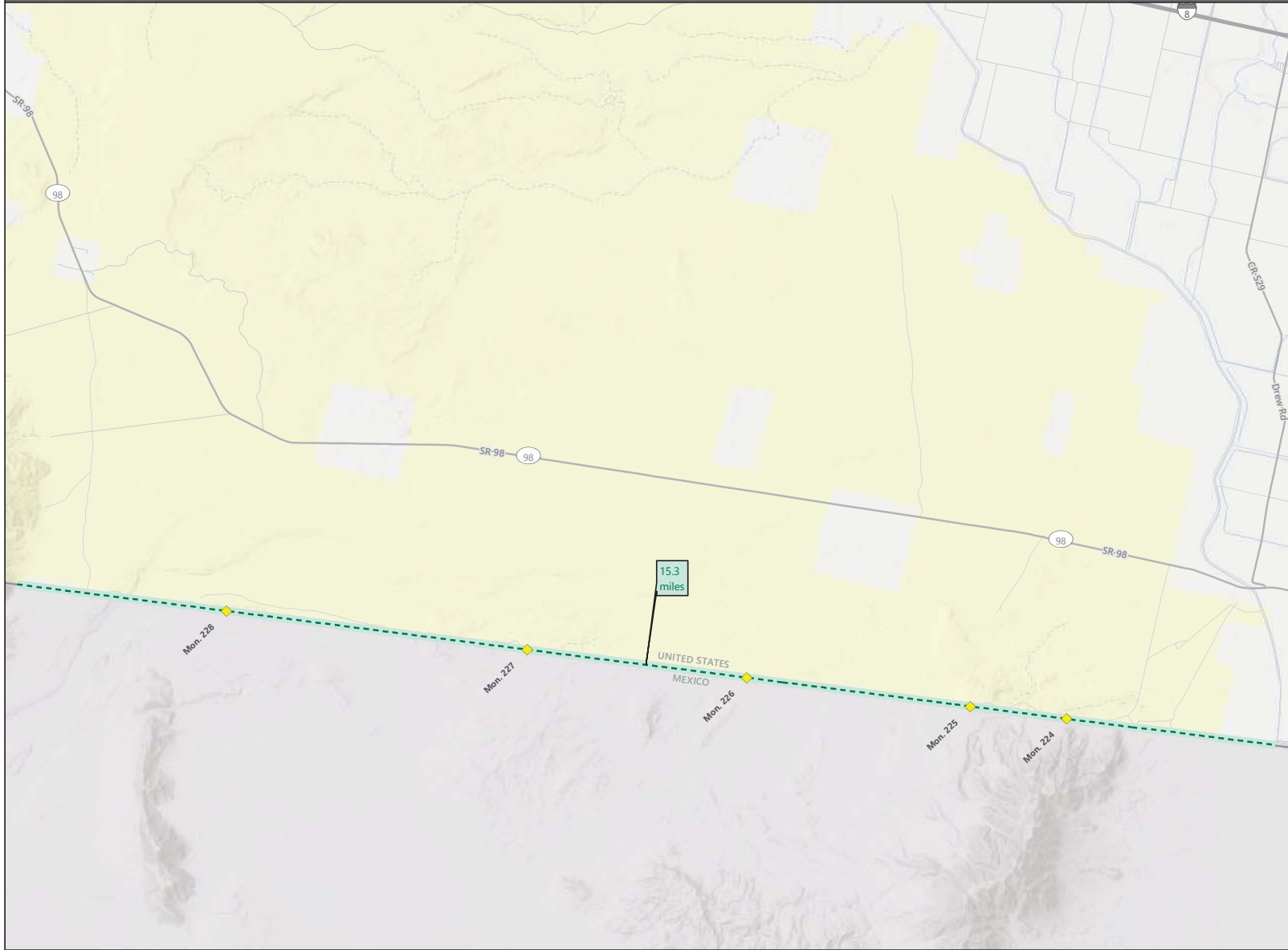
Executed on this 19 day of June, 2019.

A handwritten signature in black ink, appearing to read "Paul Enriquez". The signature is fluid and cursive, with a large initial "P" and "E".

Paul Enriquez
Acquisitions, Real Estate and Environmental Director
Border Wall Program Management Office
U.S. Border Patrol

Exhibit A

El Centro 1 Project Area



LEGEND

Proposed Barrier Replacement

**If sheet measures less than 11x17" it is a reduced print.
Reduce scale accordingly.*

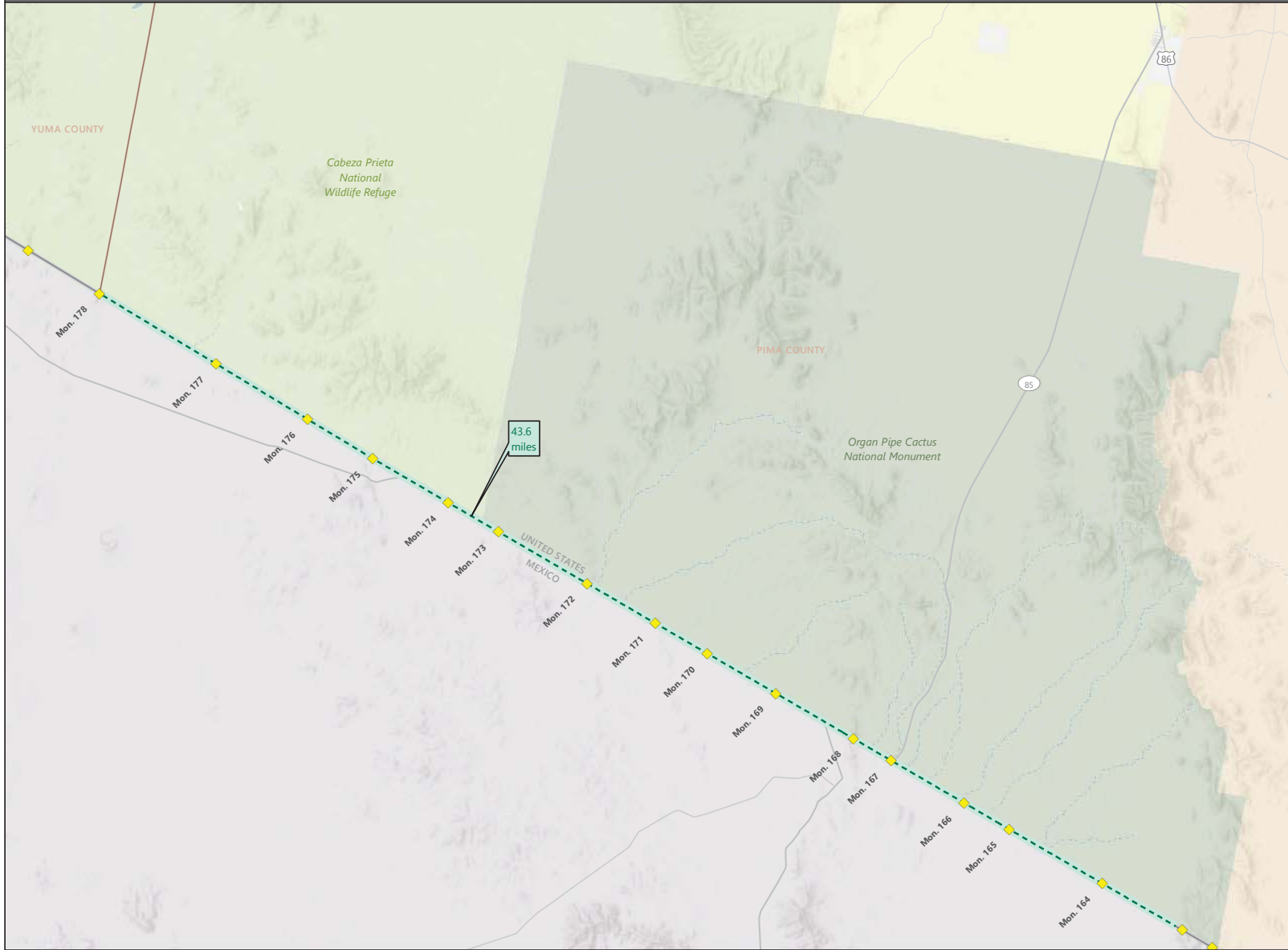
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Exhibit B

Tucson Project Area



LEGEND

 Proposed Barrier Replacement

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1 in = 3.5 mi

1:221,585



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Tucson Project Area



LEGEND

 Proposed Barrier Replacement

*"If sheet measures less than 11x17" it is a reduced print.
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1 in = 1 mi

1:63,425



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Tucson Project Area

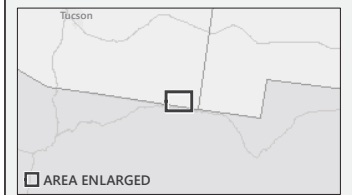


LEGEND

Proposed Barrier Replacement

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1 in = 1.55 mi 1:98,080



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Exhibit C

MEMORANDUM FOR: Loren Flossman
Director
Border Patrol and Air and Marine
Program Management Office

FROM: Paul Enriquez
Environmental Branch Chief
Real Estate, Environmental, and Leasing Division
Border Patrol and Air and Marine
Program Management Office

SUBJECT: Replacement of Primary Border Wall in Calexico, El Centro
Sector, California

Purpose:

In September of 2017, the Secretary of the Department of Homeland Security (DHS) issued a waiver pursuant to Section 102(c) of the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA) (the Waiver) for the replacement of primary border wall in the U.S. Border Patrol (USBP) El Centro Sector (ELC) at and west of the Calexico West Land Port of Entry (LPOE) in Imperial County, California (Project). This memorandum provides a description of Project activities, summarizes the results of recent natural and cultural resource surveys performed within areas to be affected by the Project, and analyzes the potential effects of the Project on the resources present within the Project Area (hereinafter defined). Furthermore, the memorandum provides best management practices (BMPs) to be implemented during the Project to minimize or avoid potential Project impacts on the environment.

Background and History:

The Secretary issued the Waiver on September 12, 2017. The geographic area covered by the Waiver begins at or adjacent to the Calexico West LPOE and extends approximately three miles west. Within that area, Customs and Border Protection (CBP) will replace approximately 2.25 miles of primary pedestrian barrier within the Project Area, which is situated in the USBP ELC. Although the Secretary's waiver means that CBP no longer has any specific legal obligations under the laws that were included in the waiver, DHS and CBP, as was the case with past projects covered by a waiver, are committed to responsible environmental stewardship of our valuable natural and cultural resources.

To collect information about the Project Area and solicit recommendations for BMPs and conservation measures to avoid major impacts to the environment, CBP sent coordination letters to Federal, state, and local agencies, and Native American tribes. CBP received responses from

the Imperial Irrigation District, Colorado River Basin Regional Water Quality Control Board, and the Army Corps of Engineers – Regulatory Division. Information contained in the responses has been incorporated into this memorandum

Project Description:

The Project consists of the replacement of approximately 2.25 miles of primary pedestrian border wall, improvement of an adjacent border road, installation of a precast concrete bridge over the New River, and installation of immediately attendant technology that works in conjunction with the new bollard wall. The existing primary wall is constructed from old landing mats. It was installed in the 1990s and has since deteriorated. This deterioration, along with the limited visibility afforded by the landing mat, renders the current wall inadequate for the purpose of fulfilling CBP's mission. The existing landing mat along with all foundations will be removed and replaced with a new bollard wall, which will be 30 feet in height. The new steel bollard wall is critical to prevent illegal entries into the United States and to achieve operational control of the U.S.-Mexico international border.

The adjacent border road will be a 20-foot wide, Type FC-2 all-weather road. The road will cross the existing New River channel where a new pre-cast concrete bridge will be placed that will have a span of 60 feet. The border wall road is designed following the Tactical Infrastructure Design standards for a Type FC-2 road. This is an all-weather, non-paved road with a cross section of 7 ¾" base course over 10" of prepared subgrade. The road profile will generally follow the existing terrain to match the new bollard wall placement. The existing road is already approximately 20 feet wide so only limited widening will be required to meet the 20-foot width specification. However, it will be necessary to smooth the terrain to provide a smoother drive along the border wall. Minor adjustments in profile grade will be made. The bridge over the New River will be a precast girder bridge with a cast-in-place topping on a shallow footing foundation. Sheet piles will be driven into the banks of the New River.

Access to the wall replacement construction area will be along a north-south road from West 2nd Street on the east side of the Project Area along a General Services Administration (GSA) easement and a north-south road from West 2nd Street on the west side of the Project Area adjacent to the All American Canal; these access roads will be repaired or improved to support the movement of heavy trucks and equipment to the construction area. Access road repair and improvement will consist of filling potholes, leveling and grading, and stabilizing the road with aggregate or other stabilized road surface course. Construction laydown and staging will be done at two staging areas: one approximately five-acre staging area at the west end of the Project Area near the All American Canal and another approximately 0.73 acre staging area at the east end of the Project Area southeast of the eastern access road. The staging areas will include concrete washout stations, sanitary stations, and equipment refueling stations.

An approximately eight-acre media and First Amendment area will be established north of the Project Area on an asphalt-paved lot north of the Gran Plaza Outlets and adjacent to the Calexico International Airport on city of Calexico property. This area will be fenced with temporary chain link fence. Additional chain link fence with privacy screening will be installed along the northern edge of the Project Area. All Project activities and potential environmental effects will be confined to the Project Area, which consists of the wall replacement and border road

improvement area, the bridge construction area, the two north-south access roads, the two staging areas, and the media and First Amendment area. Figure 1 provides an overview of the locations of the Project elements within the Project Area.

Existing Environment:

The Project Area is located on the southernmost edge of Imperial County, in the city of Calexico, California. Figure 2 shows the location of the Project Area. The site is bordered to the south by the U.S.-Mexico international border and to all other sides by dirt lots, dirt roads, and paved commercial parking lots. The west side of the Project Area is just south of the All American Canal and the east side extends just beyond the New River. The Project Area is located primarily on Federal land owned or managed by CBP or the GSA and currently contains several border tactical infrastructure elements including primary fencing, patrol roads, and lighting and surveillance systems. The Media and First Amendment area is located on land owned by the city of Calexico. The other major developments in the vicinity of the Project Area are the Calexico International Airport, the Gran Plaza Outlets outdoor shopping mall, and the POE. The nearest sensitive receptors, such as schools, hospitals, and daycare facilities are located a mile or more away from the Project Area.

Resource surveys of the Project Area were completed on behalf of CBP by Northland and WRA Environmental Consultants in November and December of 2017 and January of 2018. The Project Area consists almost exclusively of disturbed bare ground, which is constantly maintained such that little to no vegetation is present. CBP maintains these areas free of vegetation, debris, and other obstructions for security and access purposes. The only native vegetation that was observed within the Project Area was located along the floodplain of the New River. Sparsely distributed small weeds were found at the foot of the landing mat in some locations.

Biological Resources

A total of 14 species of plants were documented within the Project Area during surveys, including seven native species and seven species of non-native plants. On the west bank of the New River, vegetation consists of patches of saltgrass (*Distichlis spicata*) and Bermuda grass (*Cynodon dactylon*). Common reed (*Phragmites australis*) is present on the east bank of the New River in the Project Area. Mexican palo verde (*Parkinsonia aculeata*), screwbean mesquite (*Prosopis pubescens*), and tamarisk are also present on the east bank.

Seventeen wildlife species were observed during the surveys, including 15 species of birds, one species of fish, and one species of mammal. The birds were mostly common aquatic and wading species observed along the New River. The fish and mammal observed were both introduced species: grass carp (*Ctenopharyngodon idella*) and feral dog (*Canus familiaris*). Active nests of the American cliff swallow (*Petrochelidon pyrrhonota*) were observed on the underside of the existing GSA bridge that crosses the New River.

No Federal or State-listed plant species are known or expected to occur within the vicinity of the Project Area, and none were observed during surveys. Eight special-status plant species are known or expected to occur in the vicinity of the Project Area: chaparral sand-verbena (*Abronia*

villosa var. aurita), Watson's amaranth (*Amaranthus watsonii*), gravel milk-vetch (*Astragalus sabulonum*), Abrams' spurge (*Euphorbia abramsiana*), California satintail (*Imperata brevifolia*), ribbed cryptantha (*Johnstonella costata*), winged cryptantha (*Johnstonella holoptera*), and hairy stickleaf (*Mentzelia hirsutissima*). None of these special-status plant species were observed during surveys; however, surveys of the Project Area were conducted outside of the blooming periods for chaparral sand-verbena, Watson's amaranth, California satintail, ribbed cryptantha, winged cryptantha, and hairy stickleaf.

Three of the special-status plant species, Watson's amaranth, gravel milk-vetch, and Abrams' spurge, have a moderate potential to occur in the Project Area because they can persist in disturbed areas. California satintail and ribbed cryptantha have some potential to occur within the Project Area but are unlikely to be present due to the level of disturbance and the absence of suitable substrate in the Project Area. Chaparral sand-verbena, winged cryptantha and hairy stickleaf have no potential to occur due to the absence of required substrates within the Project Area.

One Federal and State-listed animal species, the Yuma Ridgway's rail (*Rallus obsoletus yumanensis*) is known or expected to occur within the vicinity of the Project Area. It has been documented approximately eight miles from the Project Area. However, this species requires freshwater marshes with mature stands of vegetation, which are absent from the Project Area. Therefore, there is no potential for this species to occur within the Project Area. No designated critical habitat for the Yuma Ridgway's rail or any other Federal-listed species is present within or near the Project Area.

Fourteen additional special-status animal species have been documented within the vicinity of the Project Area, five of which are bird species, five of which are mammal species, and four of which are reptile or amphibian species. No special-status fish species have been documented near the Project Area, nor were any observed during surveys. No special-status invertebrate species have been documented near the Project Area, nor were any observed during surveys.

The five bird species of special-status that have been documented near the Project Area are the burrowing owl (*Athene cunicularia*), mountain plover (*Charadrius montanus*), merlin (*Falco columbarius*), vermilion flycatcher (*Pyrocephalus rubinus*), and yellow warbler (*Setophaga petechia*). The burrowing owl, merlin, and vermilion flycatcher have a moderate potential to occur within the Project Area. Burrowing owls inhabit open areas with sparse or non-existent tree or shrub canopies and rely on burrowing mammals to provide shelter and nesting habitat. Burrowing owls frequently reside in human modified areas, including agricultural areas which are adjacent to the Project Area. This species has highly visible burrows, none of which were observed in the Project Area during the surveys, but they could use the Project Area for foraging because of the potential for them to reside in neighboring areas. One burrowing owl was observed in a fenced-in area near the GSA lot, approximately 250 feet from the border. It is unknown whether burrows are present within the fenced-in area as access to the area was not available. Similarly, merlin and vermilion flycatcher nesting habitat is not present in the Project Area but these species could potentially forage within the Project Area. No merlin or vermilion flycatcher individuals were observed during surveys of the Project Area.

The five mammal species of special-status that are known or expected to occur in the vicinity of the Project Area are the pocketed free-tailed bat (*Nyctinomops femorosaccus*), the Western mastiff bat (*Eumops perotis californicus*), the Western yellow bat (*Eumops perotis californicus*), Colorado Valley woodrat (*Neotoma albigula venusta*), and the American badger (*Taxidea taxus*). The western yellow bat, which roosts under trees but forages within riparian habitats such as the New River, is the only special-status mammal species with a moderate potential to occur within the Project Area. No special-status mammals were observed during the survey.

The four reptile or amphibian species of special-status that are known or expected to occur in the vicinity of the Project Area are the lowland leopard frog (*Lithobates yavapaiensis*), Sonoran mud turtle (*Kinosternon sonoriense*), flat-tailed horned lizard (*Phrynosoma mcallii*), and Colorado Desert fringe-toed lizard (*Uma notata*). Suitable habitat for these species is absent from the Project Area and therefore the species have no potential to occur in the Project Area. No special status reptiles or amphibians were observed during surveys.

Water Resources

Waters of the United States (WUS) are those waters used in interstate or foreign commerce, subject to ebb and flow of tide, and all interstate waters including interstate wetlands. Jurisdictional boundaries for WUS are defined in the field as the ordinary high water mark (OHWM), which is that line on the shore or bank established by the fluctuations of water and indicated by physical characteristics such as clear, natural lines impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. Wetlands are those areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Surface waters in the Project Area include the New River and the All American Canal.

A total of approximately 3,980 square feet (less than 0.1 acre) of wetland and non-wetland WUS associated with the New River occur within the Project Area. Approximately 3,100 square feet of the total 3,980 square feet is open water of the New River. The New River originates in Mexico and receives from irrigation drainage, sewage runoff, and untreated and partially untreated industrial and municipal waste. The New River crosses a national boundary and flows year round into a traditionally navigable water, the Salton Sea. The WUS measurement here extends to the OHWM on the banks of the river.

The other approximately 880 square feet of the total 3,980 square feet of WUS within the Project Area is stream fringe wetland that occurs along the banks of the New River. Three indicators must be present for an area to qualify as a wetland: hydrophytic vegetation, hydrology, and hydric soils. The banks of the New River have been heavily altered by human activity and the existing vegetation is managed as part of regular channel maintenance activities, but the banks in the Project Area still possess at least two of the three indicators required to qualify as a wetland. Hydrophytic vegetation and hydrology wetland indicators were both confirmed to be present. While a soil sample was not taken because of the possibility of high levels of soil contamination in the New River, hydric soil is assumed to be present based on hydrophytic vegetation and hydrology occurring at the location.

The New River is one of the most contaminated rivers in the United States. It receives mercury, arsenic, lead and pesticides from Mexican farms and discharges of poorly treated municipal sewage before flowing across the border. The river is listed on the 2006 Clean Water Act Section 303(d) List of Impaired Waters for 1,2,4-Trimethylbenzene, Chlordane, Chloroform, Chlorpyrifos, Copper, DDT, Diazinon, Dieldrin, Mercury, meta-para xylenes, Nutrients, Organic Enrichment/Low Dissolved Oxygen, o-Xylenes, PCBs, p-Cymene, p-Dichlorobenzene, Pesticides, Selenium, Toluene, Toxaphene, Toxicity, and Trash. Clean Water Act Section 303(d) requires states to identify impaired surface waters that do not meet water quality standards and to establish total maximum daily loads (TMDL) for pollutants causing impairments.

The Colorado River is the primary water source for the region, with water transported via the All-American Canal, which is located immediately northwest of the west end of the Project Area. Approximately 3.1 million acre-feet of Colorado River water is diverted through the All-American Canal annually. Water from the canal is predominantly used for irrigation, industrial, and domestic purposes

Cultural Resources

No new archaeological sites or historic properties were identified during the archaeological survey of the Project Area. Only one cultural site—P-13-014745—had been previously recorded within the Project Area. Recorded and evaluated in 2009, P-13-014745 was documented as a concrete vehicular bridge built in 1955 spanning the New River and evaluated as ineligible for inclusion in the National Register of Historic Places (NRHP). The bridge was demolished as part of the current POE upgrades and no remaining evidence of P-13-014745 was observed within the current APE.

Northland also conducted a viewshed analysis for all NRHP listed historical structures within one-half mile of the Project Area. Two NRHP-listed historical structures were located within the one-half mile visual APE: the Carnegie Library and the U.S. Inspection Station-Calexico. Additionally, a plaque marking the former location of Camp Salvation, which is registered as a California Historical Landmark, is also located in the vicinity.

The Carnegie Library, built in 1918 and listed in the NRHP in 2005, is significant for its association with the establishment of the Carnegie community libraries. Historic and modern development in the City of Calexico has permanently altered the viewshed of this property and does not allow the U.S.-Mexico international border to be viewed from this location.

The U.S. Inspection Station-Calexico, built in 1933 and listed in the NRHP in 1992, is significant for its association with the establishment of the U.S.-Mexico international border and its role as a custom house. Historic and modern development in the City of Calexico and along the border has permanently altered the viewshed of this property and does not allow the U.S.-Mexico international border to be viewed from this location.

A plaque from 1965 that marks the location of what was once Camp Salvation is a registered California Historic Landmark but not eligible for listing in the NRHP. Camp Salvation was created in 1849 to aid people attempting to get to the California gold fields. Historic and modern

development in the City of Calexico and along the border has permanently altered the viewshed of this property and does not allow the U.S.-Mexico international border to be viewed from this location.

In addition to the listed properties, the All-American Canal— site P-13-007130— is considered to be eligible for listing in the NRHP. Constructed by Bureau of Reclamation between 1934 and 1940, the canal is associated with the agricultural development of the region. Previous construction of border infrastructure has altered the viewshed of the canal.

Air Quality

The U.S. Environmental Protection Agency (USEPA) established National Ambient Air Quality Standards (NAAQS) for specific pollutants determined to be of concern with respect to the health and welfare of the general public. The major pollutants of concern, or criteria pollutants, are carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), ozone (O₃), particulate matter less than 10 microns (PM-10), particulate matter less than 2.5 microns (PM-2.5), and lead (Pb). NAAQS represent the maximum levels of background pollution that are considered safe, with an adequate margin of safety, to protect the public health and welfare. Areas that do not meet these NAAQS standards are called nonattainment areas; areas that meet both primary and secondary standards are known as attainment areas. The Project Area is located within Imperial County, California within the Imperial County Air Pollution Control District (ICAPCD). Imperial County is within a Federal nonattainment area for 8-hour ozone (Moderate), PM-10 (Serious), and PM-2.5 (Moderate).

A conformity determination is typically required under the Clean Air Act for each pollutant where the total of direct and indirect emissions in a nonattainment or maintenance area caused by the Federal action will equal or exceed specified emissions rates.

The ICAPCD also developed and adopted Rule 800 to reduce the amount of PM-10 emissions by requiring actions to prevent, reduce, or mitigate PM-10 emissions pursuant to USEPA guidance for Serious PM-10 Nonattainment Areas. The requirements of Rule 800 apply to construction projects capable of generating fugitive dust.

Environmental Analysis:

Based on the results of the field surveys and knowledge of the Project Area, CBP identified sensitive species, surface water quality, cultural resources, and air quality as the environmental resource categories with the greatest potential to be affected by the Project. A review was conducted to ensure that the impacts from the Project will not adversely affect these resources. Other environmental impacts are expected to be negligible or not expected to result from the Project.

Sensitive Species

One Federal and State-listed animal species, the Yuma Ridgway's rail (*Rallus obsoletus yumanensis*) is known or expected to occur within the vicinity of the Project Area. However, this species requires freshwater marshes with mature stands of vegetation, which are absent from

the Project Area. There is also significant ongoing human activity and disturbance at the site. Therefore, this species has no potential to occur in the Project Area. No designated critical habitat for the Yuma Ridgway's rail or any other Federal-listed species is present within or near the Project Area. The Project will result in no impact to Federal and State-listed species or designated critical habitat.

Four CDFW Species of Special Concern, the burrowing owl, merlin, vermilion flycatcher, and western yellow bat have moderate potential to occur within the Project Area. All three bird species are extremely unlikely to nest in the Project Area due to poor nesting conditions and the absence of burrows, trees, and other nesting structures, but there is a potential that the Project Area could be used for foraging. Similarly, roosting sites for the western yellow bat are absent from the Project Area, but the area could be used for foraging, especially around the New River and adjacent canals. Temporary loss of foraging area will occur throughout the Project Area during construction. Permanent loss of up to 0.05 acre of foraging area along the banks of the New River will occur as the result of the Project.

During construction, most wildlife, including burrowing owl, merlin, vermilion flycatcher, and western yellow bat individuals, would presumably avoid direct harm by escaping into surrounding habitat. Implementation of conservation measures, including pre-construction surveys for nesting birds and establishment of avoidance buffers, would further reduce direct impacts from construction. However, disturbance from construction noise and presence of equipment and people could affect wildlife. The effects of these disturbances on wildlife, including special-status species, could include temporary avoidance of work areas and increased competition for unaffected resources. Due to the limited extent and duration of construction activities, these effects are expected to be temporary and minimal. Therefore, the Project will result in negligible to minor adverse impacts to special-status species.

Surface Water

Wetland and non-wetland WUS will be affected by the installation of a bridge and support structures near and over the New River. The expected total impact on those WUS is less than 0.1 acre. Therefore, the crossing would fall under the 0.5-acre threshold for authorization under Section 404 Nationwide Permit 14 for Linear Transportation Projects. Additionally, since total impacts do not exceed 0.1 acre, the crossing would fall under the 0.1-acre threshold for needing to submit a preconstruction notice and being responsible for mitigation.

All storm water discharges from the Project will be contained and treated within the Project Area through the implementation of a Storm Water Pollution Prevention Plan (SWPPP) and Spill Prevention, Countermeasure, and Control (SPCC) Plan. The SWPPP measures will be monitored during construction. Proper maintenance of construction equipment and the use of BMPs during construction activities would minimize the possibility of accidental spills of petroleum, oil, and lubricants (POL) that, if they occurred, could affect surface water and groundwater quality. The Project will not generate many of the pollutants for which TMDLs have been established; the pollutants that will be generated will be controlled through the implementation of the SPCC Plan and other BMPs such that discharge to the New River does not occur. Therefore, the Project will have a negligible to minor adverse impact on surface water quality.

It is estimated that 11.25 acre-feet of water (5 acre-feet per mile) would be needed for construction purposes. The water would either be provided from the All-American Canal or through a privately permitted water supplier. The one-time use of water from the All-American Canal could result in a temporary reduction of available water in the region; however, this reduction is minor in comparison to the volume of water flowing through the canal. This minor extraction would have no measurable impact on the water quantity of the region.

Cultural and Historical Resources

The archaeological survey of the APE for direct effects did not record any new cultural resources within the Calexico Border Fence Replacement APE. The only previously recorded site in the APE for direct effects—site P-13-014745—was demolished prior to the survey. No direct impacts to cultural resources will occur as a result of the Project.

In addition to the APE for direct effects, two historical properties that are listed in the NRHP, one property eligible for listing, and a California Historic Landmark are located within the one-half-mile diameter APE for indirect effects. The Carnegie Library, the U.S. Inspection Station-Calexico, the All American Canal, and the Camp Salvation Plaque are within the visual APE of the Project; however, these properties are located in built environments that have permanently altered their viewsheds. Therefore, no adverse visual impacts to cultural resources will occur as a result of the Project. No further archaeological work is necessary to mitigate any potential impacts from the proposed Project.

Air Quality

Several sources of air pollutants will contribute to the overall air impacts of the Project, including: combustion engines of construction equipment; construction workers commuting to and from work; supply trucks delivering materials to the construction site; and fugitive dust from job-site ground disturbances. Emissions for the Project were estimated based on assumptions about equipment to be used, size of the Project Area, and construction duration. The total air quality emissions from the construction activities were estimated and compared to the *de minimis* thresholds of the General Conformity Rule.

The following paragraphs describe the methodologies used to estimate air emissions produced by the construction activities. Fugitive dust emissions were calculated using USEPA's preferred emission factor of 0.19 ton per acre per month. The NONROAD2008a model calculations were used to estimate air emissions from construction equipment. Conservative assumptions were made regarding the total number of days and hours each piece of equipment would be used. Construction workers would temporarily increase combustion emissions during their commute to and from the Project Area. Emissions from trucks delivering materials such as cement, fill, and supplies would also contribute to the overall air emission budget. Emissions from delivery trucks and construction worker commuters traveling to the job site were calculated using USEPA's preferred on-road vehicle emission model MOVES2010a. Summaries of the total emissions for construction activities are presented below.

Total Air Emissions (tons/year) estimated from the Project versus the *de minimis* threshold levels for Imperial County

<i>Pollutant</i>	<i>Total (tons/year)</i>	<i>de minimis Thresholds (tons/year)</i>
CO	29	100
Volatile Organic Compounds (VOC)	6	50
Nitrous Oxides (NOx)	59	100
PM-10	33	70
PM-2.5	7	100
SO2	8	100
CO2 and CO2 equivalents	5445	27,557

The construction activities associated with the Project do not exceed Federal *de minimis* thresholds for air pollution emissions and a conformity determination would not be required. A dust control plan will be prepared to suppress the generation of fugitive dust. As there are emissions of criteria pollutants expected but no exceedances of air quality standards and no conflicts with requirements to control fugitive dust, the Project will have a minor adverse impact on air quality.

Conservation Measures and Best Management Practices:**GENERAL**

CBP will provide an environmental briefing to all construction crew members working on the Project, informing them of sensitive resources present within the Project Area and BMPs to be implemented.

A designated environmental monitor will be present once a week to monitor Project activities to minimize environmental impacts. Duties of the designated monitor will include ensuring that activities stay within designated Project Area, evaluating the response of sensitive or listed species that come near the project site, and implementing the appropriate BMPs. The designated monitor will notify the construction manager of any activities that may harm a protected resource.

CBP will clearly demarcate Project construction area perimeters. No disturbance outside that perimeter will be authorized without prior coordination and approval.

Within the designated disturbance area, CBP will minimize the area to be disturbed by limiting deliveries of materials and equipment to only those needed for effective project implementation.

Materials such as gravel or topsoil will be obtained from existing developed or previously used sources, not from undisturbed areas adjacent to the Project Area. Sources will be reviewed and approved as weed free prior to material being brought on site.

Nonhazardous waste materials and other discarded materials, such as construction waste, will be contained until removed from the construction site. This will assist in keeping the Project Area and surroundings free of litter and reduce the amount of disturbed area needed for waste storage.

Replacement of Calexico Primary Border Wall

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To eliminate attracting predators of protected animals, all food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in closed containers and removed daily from the project site.

Equipment will be cleaned of vegetation and contaminants before and after contact with the New River in order to limit construction related contamination.

Waste management may be of special concern at staging areas. Provision will be made for proper waste disposal at these sites, and implementation of waste management protocols will be the responsibility of the appropriate project officers.

Construction speed limits will not exceed 35 mph on major unpaved roads (graded with ditches on both sides) and 25 mph on all other unpaved roads. Night time travel speeds will not exceed 25 mph, and may be less based on visibility and other safety considerations.

Access will be limited to designated roads. Parking will be in designated areas. This will limit the development of multiple trails.

CBP will coordinate with the IID for temporary construction electrical services, temporary construction water, or encroachment permits and agreements if needed.

Canal or drain banks will not be used to access the Project Area.

Appropriate techniques to restore the original grade, replace soils, and restore proper drainage will be implemented.

VEGETATION

CBP will minimize habitat disturbance by restricting vegetation removal to the smallest possible project footprint.

Construction equipment will be cleaned at temporary staging areas, in accordance with BMPs, prior to entering and departing the Project Area to minimize the spread and establishment of non-native invasive plant species.

WILDLIFE RESOURCES

To prevent impacts to avian species covered under the MBTA, clearing and grubbing will take place in winter. In addition, one week prior to starting work, a biologist will survey for nesting birds and identify any nests. An appropriate buffer for avoidance will be established around any nesting birds until the young have fledged or the nest is no longer being used. If construction activities are scheduled during nesting season (February 15 through September 1), monitors will perform surveys in advance of construction activity to identify active nests. If the monitor observes a nest with eggs or chicks, he will work with the construction crew to do one of the following: 1) avoid the nest, so long as it does not impact the scope of work for road improvement activities; 2) if appropriate, take it to a rehabilitation center; or 3) if neither 1 nor 2 is practicable, document the loss and include that information in the monitoring report.

CBP will not, for any length of time, permit any pets inside the Project Area or adjacent native habitats. This BMP does not pertain to law enforcement animals.

To prevent entrapment of wildlife species, all vertical fence posts/bollards that are hollow (e.g., those that will be filled with a reinforcing material such as concrete), shall be covered to prevent wildlife from entrapment. Covers will be deployed from the time the posts or hollow bollards are erected to the time they are filled with reinforcing material.

Excavations more than 18 inches deep will be covered when not in use or a means of escape (e.g., earthen ramp) will be provided to prevent animal entrapment.

PROTECTED SPECIES

A 50-meter buffer around observed BUOW burrows will be enforced by CBP for Project activities. Where observing a 50-meter buffer is not compatible with Project needs, CBP will install one-way exclusionary doors on BUOW burrows and wait until the burrows are vacated before collapsing them to ensure no direct mortality to BUOW individuals occurs.

To prevent impacts to special-status species, one week prior to starting work a biologist will survey for nesting birds and roosting bats. An appropriate buffer for avoidance will be established around any nesting or roosts and the monitor will work with the construction crew to do one of the following: 1) avoid them, so long as it does not impact the scope of work for road improvement activities; 2) if appropriate, take them to a rehabilitation center; or 3) if neither 1 nor 2 is practicable, document the loss and include that information in the monitoring report.

WATER RESOURCES

Standard construction procedures will be implemented to minimize the potential for erosion and sedimentation during construction. All work will cease during heavy rains and will not resume until conditions are suitable for the movement of equipment and material. No refueling or storage will take place within 100 feet of drainages. CBP will avoid contaminating natural aquatic systems with runoff by limiting all equipment maintenance, staging, laydown, and dispensing of fuel, oil, etc., to designated upland areas.

CBP will avoid contamination of ground and surface waters by storing any water that has been contaminated with construction materials, oils, equipment residue, etc., in closed containers on site until removed for disposal. Storage tanks must have proper air space (to avoid rainfall-induced overtopping), be on-ground containers, and be located in upland areas instead of washes.

In the event that CBP contaminates soil or water resources as a result of the Project, the contaminated soil or water will be remediated.

A SWPPP will be prepared, implemented, and monitored.

A SPCC Plan will be developed and implemented to ensure that any toxic substances are properly handled and to prevent discharges. Measures will include placing drip pans underneath equipment and refueling containment zones.

Wastewater that is contaminated with construction materials or from cleaning equipment and thus carries oils, toxic materials, or other contaminants will be stored in closed containers on site until removed for disposal. Concrete wash water will not be dumped on the ground, but is to be collected and moved offsite for disposal. This wash water is toxic to aquatic life. Wastewater will be kept at least 200 feet from the New River and the All American Canal.

Final grading plans and the Project SWPPP will be shared with the IID.

CULTURAL RESOURCES

If any archaeological artifacts are found during Project activities, all project activity in the immediate area will immediately cease until an evaluation of the discovery is made to determine appropriate actions to prevent the loss of significant cultural or scientific value.

In the event that human remains or indications that human remains may be present, such as headstones, are observed or encountered, all project activity in the immediate area will immediately cease and the site will be secured. Securing the site requires that the discovery not be disturbed and that others are prevented from disturbing it. The CBP project manager will be immediately notified of the observations or discoveries. A map showing the location will be provided if possible. No photographs of human remains will be taken.

AIR QUALITY

In order to minimize the amount of project-related dust emissions, construction crews will implement the following practices: minimizing land disturbance; ensuring saturation of exposed areas; and controlling fugitive dust caused by hauling activities and vehicular travel on unpaved road surfaces.

Construction will be phased to reduce the amount of disturbed area at any one time.

The Project Area will be pre-watered. Water will be applied during all earth-moving activities, to unpaved haul and access roads, and to vehicle, material, and equipment storage areas. Water will be applied at least once per day or once per hour when wind speeds exceed 15mph. Dust generating activities will cease when wind speeds exceed 25mph.

Vehicle access will be restricted by posted signage and fencing around staging areas and construction areas.

Water will be applied to storage piles and when handling bulk materials. All haul trucks will be loaded such that the freeboard is not less than six inches or covered by a tarp when transported across any paved public access road. Cargo compartments will be maintained so that no spillage and loss of bulk material will occur.

Track out prevention devices will be used to dislodge dirt and debris off of vehicles before exiting the construction site. Adjacent paved public access roads will be cleaned at the end of each workday.

All construction equipment will be maintained and operated in a manner that produces the least amount of emissions. All construction equipment and vehicles must be maintained in good operating condition, free from leaks.

NOISE

All applicable Occupational Safety and Health Administration regulations and requirements will be followed.

On-site activities will be restricted to daylight hours, to the greatest extent practicable.

All equipment will possess properly working mufflers and will be kept properly tuned to reduce backfires.

All generators will be in baffle boxes (a sound-resistant box that is placed over or around a generator), have an attached muffler, or use other equivalent noise-abatement methods in accordance with industry standards.

HAZARDOUS MATERIALS

To minimize potential impacts from hazardous and regulated materials, all fuels, waste oils, and solvents will be collected and stored in tanks or drums within a secondary containment system that consists of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein. The refueling of machinery will be completed in accordance with accepted industry and regulatory guidelines, and all vehicles will have drip pans during storage to contain minor spills and drips. Although it is unlikely that a major spill will occur, any spill of reportable quantities will be contained immediately within an earthen dike, and the application of an absorbent (e.g., granular, pillow, sock) will be used to absorb and contain the spill.

CBP will contain non-hazardous waste materials and other discarded materials, such as construction waste, until removed from the construction and maintenance sites. This will assist in keeping the Project Area and surroundings free of litter and reduce the amount of disturbed area needed for waste storage.

CBP will minimize site disturbance and avoid attracting predators by promptly removing waste materials, wrappers, and debris from the site. Any waste that must remain more than 12 hours should be properly stored until disposal.

All waste oil and solvents will be recycled. All non-recyclable hazardous and regulated wastes will be collected, characterized, labeled, stored, transported, and disposed of in accordance with all applicable Federal, state, and local regulations, including proper waste manifesting procedures.

Solid waste receptacles will be maintained at the construction staging area. Non-hazardous solid waste (trash and waste construction materials) will be collected and deposited in on-site receptacles. Solid waste will be collected and disposed of by a local waste disposal contractor.

Conclusion:

Based on a review of the information provided for the Project, the results of natural and cultural resources surveys, and an analysis of potential effects from the Project, no major impacts to the environment are likely to result from the Project. Therefore, an additional Environmental Stewardship Plan is not warranted or required.

Date: 12 Feb 18

Approve: 

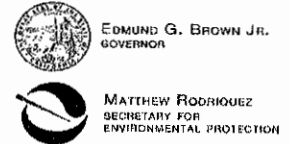
Disapprove: _____

Modify: _____

Needs More Discussion: _____



Exhibit C



EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Colorado River Basin Regional Water Quality Control Board

February 21, 2018

CERTIFIED MAIL: 7017 1000 0000 6798 6954

Paul Enriquez, Branch Chief
Real Estate and Environmental Branch
Border Patrol and Air and Marine
Program Management Office
U.S. Customs and Border Protection
1300 Pennsylvania Avenue NW
Washington, DC 20229

RE: ELC Calexico Primary Wall Replacement - Calexico, Imperial County, California

Dear Mr. Enriquez,

This letter responds to your correspondence dated January 18, 2018 concerning imminent construction by U.S. Customs and Border Protection (CBP) on a project along the U.S.-Mexico border in Calexico, California. Your letter requests input from the California Regional Water Quality Control Board, Colorado River Basin Region (Colorado River Basin Water Board) regarding the likely or anticipated construction-related impacts to water quality caused by the project and solicits recommendations for mitigation measures to address those impacts. This letter responds to your request. However, as explained more fully below, more information is needed for the Colorado River Basin Water Board to provide a complete response. Additionally, post-construction impacts to surface waters should be considered and addressed by CBP.

Project Description and Materials Reviewed

Your letter dated January 18, 2018, indicates that CBP and the U.S. Department of Homeland Security (DHS) plan to implement a project consisting of: (1) the removal and replacement of approximately two miles of primary pedestrian border wall in Calexico with a new bollard wall ranging in height from 18 to 30 feet; (2) the construction of a 20-foot-wide, all-weather road that will cross the New River and be located adjacent to the bollard wall; and (3) the installation of a new, pre-cast concrete bridge, with a span of 60 feet, across the New River (collectively, the "Project").

My analysis and recommendations below are based on your January 18, 2018 letter, as well as on the Wetland Delineation Report dated January 2018 included with the letter. I also reviewed the Biological Survey Report dated January 2018 prepared for CBP concerning the Project and sent to the California Department of Fish and Wildlife (DFW) in a letter dated January 18, 2018.

NANCY WRIGHT, CHAIR | JOSE L. ANGEL, EXECUTIVE OFFICER

73-720 Fred Waring Drive, Suite 100, Palm Desert, CA 92260 | www.waterboards.ca.gov/coloradoriver

Impacted Surface Waters

Based on my review of the information provided to me, my understanding is that the Project site begins at the Calexico West Land Port of Entry and extends westward for approximately three miles. The east side of the Project site extends beyond the area where the New River crosses into the United States, and the west side of the Project area is just south of the All-American Canal and prime agricultural land.

The New River originates in Mexico's Mexicali Valley, flows north through the Mexicali metropolitan area, and crosses into the United States in Calexico, California, approximately 300 yards west from the Calexico West Land Port of Entry. The river then generally continues flowing north for approximately 60 miles, where it discharges into the Salton Sea. Several agricultural drains, including the AA-1A, AA-9, AA-14, and Brockman Drains, are also located within the Project area. These agricultural drains service the agricultural land nearest to the Project and are tributaries of the Greason Drain, which is a tributary to the New River.

The All-American Canal originates in Imperial Dam, California, and carries Colorado River water for domestic use by Imperial Valley communities as well as for irrigation of agricultural land in Imperial Valley. As it makes its way to the Imperial Valley, the canal generally runs near and along the border. In the Calexico area, at a point near Anza and Barbara Worth Roads, the Canal changes direction and runs northwesterly for approximately 1.6 miles, then westward again for approximately 3.7 miles through Calexico, then southwesterly for approximately 1.8 miles, and regains its westerly course near and along the border approximately 2 miles west from the Calexico West Land Port of Entry.

Based on the foregoing, the New River, its tributary drains, and the west side of the All-American Canal near the Project are all potentially impacted by the Project.

Construction-Related Impacts to Water Quality

The implementation of each of the three components of the Project (i.e., the replacement fence, road, and bridge) will result in land disturbances and generate pollutants which pose a significant threat to water quality unless effective best management practices are utilized during construction.

The removal and replacement of the primary pedestrian fence poses a threat to water quality for several reasons. First, vehicles driving on the unpaved road near the current fence during construction will expose those soils to erosion and sedimentation and generate particular matter (e.g., PM 10) that can be discharged to surface waters if not controlled. Second, the vehicles themselves used for this activity are also potential sources of pollutants, including oil, grease, and gasoline and diesel and their byproducts, which could be carried by storm water runoff to surface waters. Third, the removal of the current fence will require digging/excavating soil and concrete that are anchoring the fence, which will also potentially cause erosion and sediment discharges to surface water. Additionally, because the current fence is corrugated steel that will have to be removed in sections, this will require cutting the steel and generate metal shavings and other related debris in and around the fence area. Fourth, installation of the bollard wall will also require digging/excavating and likely trenching the area where it will be placed, exposing soils to erosion and sedimentation. Cutting and welding the new fence onsite will also generate metal shavings in and around the fence area that may make their way to surface waters.

Construction of the new paved road will also result in land disturbances and generate pollutants, because it entails excavating and moving significant amounts of dirt/soil (cut and fill) from one place to another, land leveling/grading, laying a road base, paving the road, and building its drainage facilities. Additionally, the construction of the new road will likely alter the current drainage pattern of the Project's area, because it will change the road from a surface area that is currently unpaved and somewhat pervious (i.e., provides for some storm water runoff to infiltrate into the soil and evapotranspire) into a paved and impervious surface area that has significant potential to generate more storm water runoff.

Similarly, installation of the new pre-cast bridge for the New River will also have potential impacts to water quality. The installation will entail work in and around the river because the bridge requires building associated infrastructure to support and anchor it (e.g., bridge abutments, embankment walls, footings for the walls, etc.). This work will take place in and around the New River and likely result in discharges of dredged and fill material into the river's water column. The equipment used for the installation of the bridge are, as explained above, also potential sources of pollutants that can impact water quality.

In short, during construction, sediment, the above-mentioned metal shavings, Total Petroleum Hydrocarbons (TPHs) and Polycyclic Aromatic Hydrocarbons (PAHs) from vehicle emissions, used oil that leaks from vehicles, as well as trash and construction debris threaten water quality, particularly during precipitation events.

Post-Construction Impacts to Water Quality

The Project also poses a significant threat to water quality post-construction, particularly through polluted storm water runoff, unless effective best management practices are implemented. Namely, storm water runoff from the new road will pose a significant threat to the water quality of areal surface waters because it typically contains pathogens, metals (e.g., copper, lead, and zinc), oil and grease, TPHs, PAHs, and trash. As explained further below, the New River has very little assimilative capacity for such pollutants.

Even though located in an arid area, the Project site nonetheless receives significant precipitation at times, which will likely result in storm water runoff transporting pollutants to areal surface waters both during and post-construction of the Project. Currently, storm water runoff in the Project area which does not infiltrate the soil and/or is not evapotranspirated generally drains directly and indirectly into the New River. Even a 24-hour precipitation event with a 5-year return frequency can generate almost 26,000 cubic feet of storm water runoff from a two-mile paved road.¹ The following table shows the projected runoff from the Project's proposed new road:

¹ Additionally, the drainage area exposed to precipitation during construction is likely greater than the exposed surface area of the road, and consequently, the drainage area would generate more runoff than the paved road (i.e., the drainage area during construction can be twice as big as the surface area of the road: 9.7 acres vs 4.8 on a two-mile stretch).

Projected Storm Water Runoff from Paved Road ² (Cubic feet)					
Road Length (miles)	Scenario 1 ³	Scenario 2	Scenario 3	Scenario 4	Scenario 5
	5-Yr, 24-hr Precipitation Event (1.47 inches)	10-Yr, 24-hr Precipitation Event (1.9 inches)	25-Yr, 24-hr Precipitation Event (2.55 inches)	50-Yr, 24-hr Precipitation Event (3.10 inches)	100-Yr, 24-hr Precipitation Event (3.71 inches)
1	12,936	16,720	22,440	27,280	32,648
2	25,872	33,440	44,880	54,560	65,296
3	38,808	50,160	67,320	81,840	97,944

Additionally, polluted storm water runoff will likely be generated from the other improvements, i.e., the replacement fence and concrete bridge. If the bridge drains to the New River, it will be a constant source of pollutants that could cause long-term water quality impairments. However, the Colorado River Basin Water Board does not have sufficient information from CBP from which to make projections concerning this runoff.

Water Quality Considerations for BMPs

The New River is already significantly polluted and is listed as an impaired water body under Section 303(d) of the Clean Water Act for numerous pollutants, including pathogens, trash, sediment, and other contaminants. In fact, the Wetland Delineation Report itself notes on Page 9 that the New River "is considered one of the most contaminated streams for its size in North America."

Consistent with requirements under the Clean Water Act for impaired water bodies on the Section 303(d) list, the Colorado River Basin Water Board has established total maximum daily loads (TMDLs) for certain pollutants that impact the New River, including TMDLs for pathogens, trash, sediment/siltation, and dissolved oxygen. TMDLs identify the maximum amount of a pollutant that a body of water can receive while still meeting its water quality standards. Because the New River already exceeds permissible thresholds for certain pollutants, any additional contribution of pollutants such as pathogens and trash would harm water quality. Of particular concern here are pathogens, trash, metals, TPHs, PAHs, oil and grease, and sediment. Trash and sediment can also transport pathogens. The River has no assimilative capacity for pathogens and trash. Further, the discharge of storm water runoff with TPHs, PAHs, and oil and grease could result in additional water quality impairments.

There are three generic best management practices (BMPs) proposed by CBP on Page 13 of the Wetlands Delineation Report that are directed towards potential construction-related impacts from the construction of pedestrian fence. However, these proposed BMPs only address wastewater potentially generated by the construction activities themselves, and do not address storm water runoff. Additionally, they do not include measures to address construction and post-construction impacts from the Project's road and bridge, nor do they provide sufficient detail about how

² Assumes paved road is 20 feet wide. Precipitation data obtained from https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmark=ca (Calexico 2 NE Weather Station).

³ Scenario 1 shows that there is a 1 in 5 chance (20% chance) in any given year that the projected amount of runoff will be at least the amount shown in the table for that scenario. Scenario 2 depicts that there is a 1 in 10 chance (10% chance) in any given year that the projected amount of runoff will be at least the amount shown in the table for that scenario. And so on.

construction will be completed to ensure that the BMPs proposed are correct for the work involved.⁴ We respectfully bring to your attention that the Project will cause irreparable harm to water quality in the New River unless DHS and CBP implement BMPs and related controls specifically tailored to address the above-cited pollutants during construction activities.

Additionally, the Project could also cause long-term harm to water quality post-construction due to its ongoing operation and maintenance, unless best management practices specifically tailored to address the above-cited pollutants are implemented to deal with the projected storm water runoff and the pollutants it will carry. Further, because the information from DHS and CBP that I have reviewed does not reference or mention specific BMPs (e.g., onsite storm water runoff retention, storage, or infiltration facilities), it stands to reason that the road is being designed so its runoff would be discharged to areal surface waters—most likely, into the New River. Consequently, if not properly managed, this runoff will transport sediment, trash, pathogens, TPHs, PAHs, and metals into the River.

Construction-Related Mitigation Recommendations

We recommend that CBP develop and implement a *site-specific* Stormwater Pollution Prevention Plan (SWPPP) consistent with the statewide General Construction Permit issued by the California State Water Resources Control Board (State Water Board), whether or not CBP is required to obtain coverage under that permit. Listing generic mitigation measures, such as the three proposed in the Wetland Delineation Report, provides no site-specific information about how, when or where such measures will be implemented, and thus no assurance that the measures will be sufficiently protective of water quality. It is also vital that CBP conduct ongoing monitoring and reporting during construction to ensure the protection of water quality.

Typically, a proponent of a project such as the one being proposed by CBP and DHS is required to obtain coverage under the statewide General Construction Permit (NPDES General Permit No. CAS000002, Waste Discharge Requirements, Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ & 2012-0006-DWQ) issued by the State Water Board.⁵ The General Construction Permit requires the proponent to:

1. Assess the risk that the project poses to water quality;
2. Prepare and implement a site-specific Stormwater Pollution Prevention Plan (SWPPP). The SWPPP must include best management practices specifically developed and tailored for the project (e.g., silt fencing, fiber rolls and sandbags, retention basins, etc.), in addition to standard housekeeping measures that are appropriate for the project (e.g., times and dates for construction to minimize the potential to generate storm water runoff; vehicle and equipment staging and inspection to identify and prevent potential discharges of pollutants from the vehicles; etc.); and

⁴ Similarly, the Biological Survey Report does not evaluate potential impacts from the road and bridge aspects of the Project, and includes only generic best management practices for reducing harm to water quality. The proposed best management practices are not specifically tailored to the Project, and the Biological Survey Report does not include sufficient information about the construction work to ensure that the proposed best management practices will be effective or that storm water runoff from the Project site would be consistent with the New River TMDLs for pathogens, trash, and sediment/siltation.

⁵ Additional related information on California's storm water program for construction activities, including resources (e.g., list of BMPs), is available at:
https://www.waterboards.ca.gov/coloradoriver/water_issues/programs/stormwater/#constr_permit_docs

3. Conduct monitoring and reporting to ensure water quality is being protected, including monitoring of storm water runoff should precipitation occur during construction.

Post-Construction Mitigation Measures

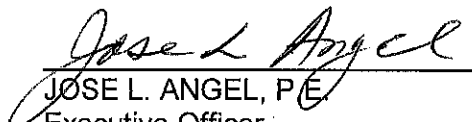
The General Construction Permit requires measures designed to address post-construction impacts to water quality. However, there do not appear to be any post-construction measures contemplated by CBP to address continuing storm water runoff. To the extent that the newly-constructed road and bridge drain into the New River and/or its tributary areal drains, additional measures will be necessary to address those discharges as well. Notably, the bridge and the road will be continuous sources of pollutants that can adversely impact New River water quality.

Conclusion

We appreciate the opportunity to provide input. We also respectfully bring to your attention the September 2017 report that the Good Neighbor Environmental Board (GNEB) prepared and submitted to the President and Congress regarding environmental quality and border security.⁶ GNEB is an independent, federal committee that advises the President and Congress on good neighbor practices along the United States border with Mexico, with a focus on environmental issues that impact the border region. The report includes discussions on lessons learned about border security infrastructure during the past 10 years and on the water quality issues present in the New River and other surface waters along the border. Perhaps more importantly in this case, the report includes a series of recommendations to protect the border-area environment and at the same time protect homeland security.

Please call me at (760) 776-8932 should you wish to discuss this matter further or need additional information from the Colorado River Basin Water Board.

Sincerely,



JOSE L. ANGEL, P.E.
Executive Officer
Colorado River Basin Water Board

cc: Mr. John Petrilla, U.S. DHS (via email)
Ms. Katharine Buddingh, OCC, Sacramento
Ms. Leslie MacNair, CDFW, Ontario

⁶ A copy of GNEB report is available at:
<https://www.epa.gov/faca/good-neighbor-environmental-board-18th-report-environmental-quality-and-border-security-10-year>

Exhibit E

From: [PETRILLA, JOHN](#)
To: [Angel, Jose@Waterboards](#); [ENRIQUEZ, PAUL](#)
Cc: [Buddingh, Katharine@Waterboards](#); [SAAR, DIRK J.](#)
Subject: RE: ELC Calexico Primary Wall Replacement - Regional Water Board Comments
Date: Thursday, March 1, 2018 8:30:00 PM
Attachments: [SWPPP Report Calexico - 02-09-2018.pdf](#)
[17300101 USACE SWF TRN 01 57 23 - 1.1 20180221.pdf](#)

Hi Jose,

Thank you again for providing input on the Calexico wall replacement project and talking with us yesterday. Attached is the SWPPP for the project. If you have any questions or comments, please let me or Paul know.

Regards,
John

John Petrilla
Environmental Protection Specialist
Real Estate, Environmental, and Leasing Division
Border Patrol and Air and Marine Program Management Office
U.S. Customs and Border Protection
Office: (949) 643-6385
Mobile: (949) 278-0353
john.petrilla@dhs.gov

From: [Angel, Jose@Waterboards \[mailto:Jose.Angel@waterboards.ca.gov\]](mailto:Jose.Angel@waterboards.ca.gov)
Sent: Wednesday, February 21, 2018 12:40 PM
To: [PETRILLA, JOHN <JOHN.P.PETRILLA@cbp.dhs.gov>](mailto:JOHN.P.PETRILLA@cbp.dhs.gov)
Cc: [Buddingh, Katharine@Waterboards <Katharine.Buddingh@Waterboards.ca.gov>](mailto:Katharine.Buddingh@Waterboards.ca.gov); [SAAR, DIRK J. <dirk.j.saar@cbp.dhs.gov>](mailto:dirk.j.saar@cbp.dhs.gov)
Subject: ELC Calexico Primary Wall Replacement - Regional Water Board Comments
Importance: High

Dear Mr. Petrilla,

Attached is a copy of our letter which provide comments on the proposed DHS Project for Calexico. Thanks for the opportunity to provide input and please call me if you have questions regarding the letter.

From: Angel_Jose@Waterboards
To: [PETRILLA, JOHN](#); [ENRIQUEZ, PAUL](#)
Cc: [Buddingh, Katharine@Waterboards](#); [SAAR, DIRK J.](#)
Subject: RE: ELC Calexico Primary Wall Replacement - Regional Water Board Comments
Date: Friday, March 2, 2018 12:05:59 PM

Thanks Mr. Petrilla. We are reviewing the Plan and be providing feedback for your consideration at the earliest practicable time. Much obliged.

From: PETRILLA, JOHN [mailto:JOHN.P.PETRILLA@cbp.dhs.gov]
Sent: Thursday, March 1, 2018 5:33 PM
To: Angel, Jose@Waterboards <Jose.Angel@waterboards.ca.gov>; ENRIQUEZ, PAUL <paul.enriquez@cbp.dhs.gov>
Cc: Buddingh, Katharine@Waterboards <Katharine.Buddingh@Waterboards.ca.gov>; SAAR, DIRK J. <dirk.j.saar@cbp.dhs.gov>
Subject: RE: ELC Calexico Primary Wall Replacement - Regional Water Board Comments

Hi Jose,

Thank you again for providing input on the Calexico wall replacement project and talking with us yesterday. Attached is the SWPPP for the project. If you have any questions or comments, please let me or Paul know.

Regards,
John

John Petrilla
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Mobile: (949) 278-0353
john.petrilla@dhs.gov

From: Angel, Jose@Waterboards [mailto:Jose.Angel@waterboards.ca.gov]
Sent: Wednesday, February 21, 2018 12:40 PM
To: PETRILLA, JOHN <JOHN.P.PETRILLA@cbp.dhs.gov>
Cc: Buddingh, Katharine@Waterboards <Katharine.Buddingh@Waterboards.ca.gov>; SAAR, DIRK J. <dirk.j.saar@cbp.dhs.gov>
Subject: ELC Calexico Primary Wall Replacement - Regional Water Board Comments
Importance: High

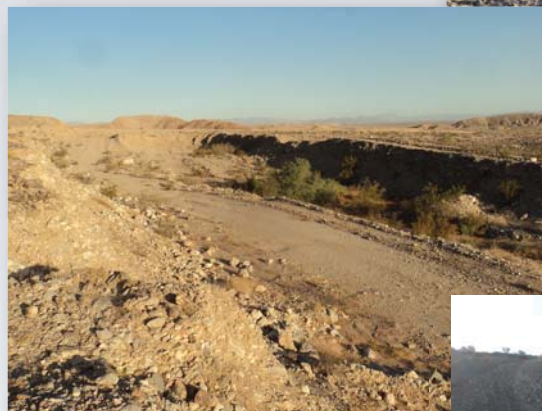
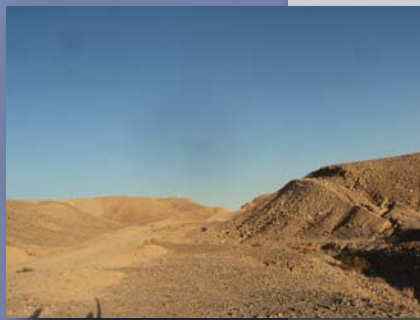
Dear Mr. Petrilla,

Attached is a copy of our letter which provide comments on the proposed DHS Project for Calexico. Thanks for the opportunity to provide input and please call me if you have questions regarding the



**ENVIRONMENTAL ASSESSMENT
FOR THE IMPROVEMENT AND CONSTRUCTION, OPERATION, AND
MAINTENANCE OF PROPOSED ALL-WEATHER ROAD
IN THE EL CENTRO STATION AREA OF RESPONSIBILITY
U.S. CUSTOMS AND BORDER PROTECTION, EL CENTRO SECTOR**

**U.S. Customs and Border Protection
Department of Homeland Security
Washington, DC**



00003731

FINAL
FINDING OF NO SIGNIFICANT IMPACT
FOR THE IMPROVEMENT AND CONSTRUCTION, OPERATION, AND
MAINTENANCE OF PROPOSED ALL-WEATHER ROAD
IN THE EL CENTRO STATION AREA OF RESPONSIBILITY
U.S. CUSTOMS AND BORDER PROTECTION, EL CENTRO SECTOR

PROJECT HISTORY: U.S. Border Patrol (USBP) is a law enforcement entity of U.S. Customs and Border Protection (CBP) within Department of Homeland Security (DHS). USBP's priority mission is to prevent the entry of terrorists and their weapons of terrorism and to enforce the laws that protect the U.S. homeland. This is accomplished by the detection, interdiction, and apprehension of those who attempt to illegally enter or smuggle any person or contraband across the sovereign borders of the United States.

CBP prepared an Environmental Assessment (EA), which is incorporated herein by reference, to address the potential effects, beneficial and adverse, resulting from the proposed improvement, construction, operation, and maintenance of approximately 1.6 miles of all-weather road near the U.S./Mexico border within USBP El Centro Station's Area of Responsibility (AOR). The proposed all-weather roads are located west of the All-American Canal adjacent to and within U.S. Bureau of Land Management (BLM) lands, near the U.S./Mexico border in Imperial County, California.

This EA was prepared in accordance with the National Environmental Policy Act (NEPA) and analyzes the project alternatives and potential impacts on the human and natural environment from two action alternatives and a No Action Alternative.

PURPOSE AND NEED: The purpose of the Proposed Action is to increase border security within the USBP El Centro Sector with an ultimate objective of reducing illegal cross-border activity by providing safer and more efficient access for USBP agents along the U.S./Mexico border in the west desert area of the USBP El Centro Station's AOR and to BP Hill. The primary need for the Proposed Action is because of the remoteness of the west desert area and the impassability of the existing road, which creates long drive times for agents to reach patrol areas and limits their ability to assist with interdictions and apprehensions. An additional need for the Proposed Action is to provide agents with the infrastructure necessary to carry out USBP's mission

PROPOSED ACTION: The Proposed Action would include improvement and construction, operation, and maintenance of approximately 1.6 miles of all-weather roads. The Proposed Action would involve improvement of an existing border road and construction of a new access road to the top of BP Hill, where CBP operates a RVSS tower. The border road improvements would occur from near Border Monument 224 (approximately N 32° 38.96544, W 115° 42.1974), to near Border Monument 225 (approximately N32° 38.89518, W115° 43.52994). The border road would be improved to an all-weather surface road (1.4 miles long) approximately 20 feet wide with 2-foot shoulders and would include any necessary drainage structures (i.e., culverts, low-water crossing, or bridge). A drag road would also be constructed along the north side of the all-weather surface. Staging areas would be located approximately every 0.3 mile

within the construction corridor. In addition to the 1.4 miles of road improvement, a new access road (approximately 0.2 mile) leading to the BP Hill RVSS tower from the improved border road would be constructed. This road would be a 16-foot-wide road with necessary drainage structures an include all-weather surfacing.

ALTERNATIVES CONSIDERED: In addition to the No Action Alternative, two action alternatives were identified and considered during the planning stages of the proposed project and all are carried forward for analysis in this EA: the Proposed Action Alternative (Preferred Alternative) and the BP Hill Improvement Alternative. Under the BP Hill Improvement Alternative, the improvements to the existing border road, staging areas, and maintenance activities as presented in the Proposed Action Alternative would occur. However, rather than construct a new access road to the BP Hill RVSS tower site, CBP would improve the existing access road, which is approximately 0.3 mile long, by widening it to 16 feet, installing ancillary structures, all-weather surfacing, and reducing the grade through cut and fill activities. The No Action Alternative has also been evaluated, as required by NEPA. The No Action Alternative would require the USBP agents to continue to have long drive times to reach patrol areas, agent safety issues while trying to maintain and access the BP Hill RVSS tower, and would be restricted in their abilities to assist with interdictions and apprehensions. This alternative will serve as the baseline to which the two action alternatives are compared.

ENVIRONMENTAL CONSEQUENCES: The Proposed Action would potentially result in minimal to moderate impacts, including temporary increased air pollution from soil disturbance and minor increases in water use and ambient noise. No adverse impacts on historic or cultural resources would occur. No residences or children are found near the project corridor; thus, the road improvements and construction would have no effect relative to environmental justice or protection of children issues. Up to 7.5 acres of vegetation and wildlife habitat would be permanently impacted by the Proposed Action. However, due to the vegetation and wildlife habitat being locally and regionally common, these impacts are not considered major.

Up to 7.5 acres of BLM lands, specifically within the Yuha Area of Critical Environmental Concern and flat-tailed horned lizard (*Phrynosoma mcallii*) (FTHL) Yuha Desert Management Area (YDMA), would be permanently impacted. This permanent residual disturbance would not cause the BLM to exceed its cumulative residual disturbance cap of not more than one percent of the management area (i.e., 572 acres) as mandated by the FTHL Rangeland Management Strategy, to which BLM is a signatory. Impacts on land use are not considered major.

It is highly unlikely that Federally-listed or state-listed threatened or endangered species or their habitats would be impacted, as no known habitat exists within the project corridor. However, the Proposed Action could potentially impact four BLM sensitive species: the western burrowing owl (*Athene cunicularia*), kit fox (*Vulpes macrotis*), badger (*Taxidea taxus*), and FTHL. Although potential habitat for the western burrowing owl, kit fox, and badger would be impacted, these species or their burrows were not observed in the project corridor during recent biological surveys, and the habitat for these species is both locally and regionally common. Therefore, no direct impacts on occupied burrows are expected. Impacts from the improvements to the existing roadway would not constitute major impacts or cause additional fragmentation of habitat. FTHL habitat would be impacted by the construction activities, and there is the potential

FONSI-3

for taking individuals. Best Management Practices (BMP) such as preconstruction surveys and monitoring for the presence of FTHL during construction, as well as compensation for loss of habitat would reduce impacts on FTHL. Impacts from the Proposed Action can be mitigated in accordance with the FTHL Rangewide Management Strategy; therefore, no major impacts would occur.

The potential impacts resulting from the Proposed Action (Preferred Alternative), in combination with impacts resulting from other development in the project region, would have minimal permanent cumulative effects on air quality, noise, aesthetics, and biological resources. No major impacts on any resources would occur regardless of the alternative chosen.

BEST MANAGEMENT PRACTICES: The following BMPs will be implemented to minimize impacts on the human and natural environment:

Project Planning/Design – General Construction

The all-weather road will be sited, designed, and improved/constructed to avoid or minimize habitat loss within or adjacent to the footprint. The amount of aboveground obstacles associated with the site will be minimized.

CBP will ensure that all construction will follow DHS *Directive 025-01* for Sustainable Practices for Environmental, Energy, and Transportation Management.

CBP will incorporate BMPs relating to project area delineation, water sources, waste management, and site restoration into project planning and implementation for construction and maintenance.

General Construction Activities

CBP will clearly demarcate project construction area perimeters with a representative from the land management agency. No disturbance outside that perimeter will be authorized.

Within the designated disturbance area, CBP will minimize the area to be disturbed by limiting deliveries of materials and equipment to only those needed for effective project implementation.

CBP will avoid contamination of ground and surface waters by storing any water that has been contaminated with construction materials, oils, equipment residue, etc., in closed containers on-site until removed for disposal. This wash water is toxic to wildlife. Storage tanks must have proper air space (to avoid rainfall-induced overtopping), be on-ground containers, and be located in upland areas instead of washes.

In the event that CBP contaminates soil or water resources as a result of the proposed project, the contaminated soil or water will be remediated as per BLM requirements.

CBP will avoid transmitting disease vectors, introducing invasive non-native species, and depleting natural aquatic systems by using wells, irrigation water sources, or treated municipal sources for construction or irrigation purposes instead of natural sources.

FONSI-4

CBP will place drip pans under parked equipment and establish containment zones when refueling vehicles or equipment.

Vegetation

CBP will minimize habitat disturbance by restricting vegetation removal to the smallest possible project footprint. Native seeds or plants, which are compatible with the enhancement of protected species will be used to the greatest extent practicable to rehabilitate staging areas and other temporarily disturbed areas.

Construction equipment will be cleaned at temporary at a central wash station, in accordance with BMPs, prior to entering and departing project areas to minimize the spread and establishment of non-native invasive plant species.

Wildlife Resources

The Migratory Bird Treaty Act (16 USC 703-712, [1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989]) requires that Federal agencies coordinate with the USFWS if a construction activity would result in the take of a migratory bird. If construction or clearing activities are scheduled during nesting season (February 15 through September 1) surveys will be performed to identify active nests. If impacts on migratory birds are unavoidable and construction activities will result in the disturbance or take of a migratory bird, then coordination with the USFWS and California Department of Fish and Game will be required and applicable permits would be obtained prior to construction or clearing activities. Another mitigation measure that would be considered is to schedule all construction activities outside nesting season, negating the requirement for nesting bird surveys.

CBP will not, for any length of time, permit any pets inside the project area or adjacent native habitats. This BMP does not pertain to law enforcement animals.

Protected Species

Construction equipment will be cleaned prior to entering and departing the project corridor area to minimize the spread and establishment of non-native invasive plant species. Soil disturbances in temporary impact areas will be rehabilitated. To minimize critical habitat impacts, designated travel corridors will be marked with easily observed removable or biodegradable markers, and travel will be restricted to the established tower site construction areas.

A qualified monitor will be present during the improvement, construction and maintenance of the proposed roads in FTHL habitat. Duties of the monitor(s) will include surveying the roadways prior to and during improvement/construction and removing and relocating lizards outside the project area. The FTHL Rangewide Management Strategy contains a comprehensive list of avoidance and minimization measures to limit adverse effects on the lizard. In addition, CBP will compensate for loss of habitat using the compensation formulas outlined in the FTHL Rangewide Management Strategy. Based upon field visits, aerial photography, and discussions with BLM, CBP has determined that of the potential 7.5 acres of habitat permanently impacted only 3.5 of those acres are considered undisturbed native habitat. The remaining 4 acres consists of previously disturbed habitat in the form of the existing roadway and the extant Imperial Irrigation District gravel/sand quarry area (the eastern 2,300 feet of the project corridor). CBP

FONSI-5

proposes to mitigate up to 3.6 acres at a 5:1 ratio (18 acres) and will mitigate the remaining 3.9 acres at a 4:1 ratio (15.6 acres). The total mitigation acreage is up to 33.6 acres.

Water Resources

Standard construction procedures will be implemented to minimize the potential for erosion and sedimentation during construction. All work will cease during heavy rains and would not resume until conditions are suitable for the movement of equipment and material. No refueling or storage will take place within 100 feet of drainages.

CBP will avoid contaminating natural aquatic systems with runoff by limiting all equipment maintenance, staging, laydown, and dispensing of fuel, oil, etc., to designated upland areas.

A Storm Water Pollution Prevention Plan will be prepared. A Spill Prevention Control and Countermeasures Plan will be maintained to ensure that all are aware of its implementation requirements in the event of a spill.

Air Quality

In order to minimize the amount of project-related dust emissions, all construction activities will comply with Imperial County Air Pollution Control District's requirements (Rule 800) for control of particulate matter (PM-10). Rule 800 provides guidance for contractors that: (1) minimize land disturbance; and (2) ensure saturation of exposed areas and control of fugitive dust caused by hauling activities and vehicular travel on unpaved road surfaces. In addition, all construction equipment shall be maintained and operated in a manner that produces the least amount of emissions. All construction equipment and vehicles must be maintained in good operating condition, free from leaks.

Cultural Resources

Should any archaeological artifacts be found during staging or installation activities, the appropriate BLM archaeologist or cultural resources specialist will be notified immediately. All work will cease until an evaluation of the discovery is made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values.

Noise

During the construction and improvement and maintenance of the proposed roadways, short-term noise impacts are anticipated. All applicable Occupational Safety and Health Administration regulations and requirements will be followed. On-site activities will be restricted to daylight hours, to the greatest extent practicable. All equipment will possess properly working mufflers and would be kept properly tuned to reduce backfires.

Hazardous Materials

BMPs will be implemented as standard operating procedures during all construction activities, and will include proper handling, storage, and/or disposal of hazardous and/or regulated materials. To minimize potential impacts from hazardous and regulated materials, all fuels, waste oils, and solvents will be collected and stored in tanks or drums within a secondary containment system that consists of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein. The refueling of machinery will be completed in accordance with accepted industry and regulatory guidelines, and all vehicles will

FONSI-6

have drip pans during storage to contain minor spills and drips. Although it is unlikely that a major spill would occur, any spill of reportable quantities will be contained immediately within an earthen dike, and the application of an absorbent (e.g., granular, pillow, sock) will be used to absorb and contain the spill.

CBP will contain non-hazardous waste materials and other discarded materials, such as construction waste, until removed from the construction and maintenance sites. This will assist in keeping the project area and surroundings free of litter and reduce the amount of disturbed area needed for waste storage.

CBP will minimize site disturbance and avoid attracting predators by promptly removing waste materials, wrappers, and debris from the site. Any waste onsite will be properly stored and tightly covered with a wildlife-proof material until disposal.

All waste oil and solvents will be recycled. All non-recyclable hazardous and regulated wastes will be collected, characterized, labeled, stored, transported, and disposed of in accordance with all applicable Federal, state, and local regulations, including proper waste manifesting procedures.

Solid waste receptacles will be maintained at the construction staging area. Non-hazardous solid waste (trash and waste construction materials) will be collected and deposited in on-site receptacles. Solid waste will be collected and disposed of by a local waste disposal contractor.

FINDINGS AND CONCLUSIONS: No significant adverse impacts are anticipated for any resource analyzed within this document. Therefore, no further analysis or documentation (i.e., Environmental Impact Statement) is warranted. CBP, in implementing this decision, would employ all practical means to minimize and mitigate the potential adverse impacts on the human and biological environment.

Project Proponent:

 2/15/13
Date

Arturo G. Guajardo
Deputy Division Chief
Strategic Planning, Policy and Analysis Division
Office of Border Patrol

Approved:

 2/28/13
Date

Karl Calvo
Executive Director
Facilities Management and Engineering
U.S. Customs and Border Protection

FINAL

**ENVIRONMENTAL ASSESSMENT
FOR THE IMPROVEMENT AND CONSTRUCTION, OPERATION, AND
MAINTENANCE OF PROPOSED ALL-WEATHER ROAD
IN THE EL CENTRO STATION AREA OF RESPONSIBILITY
U.S. CUSTOMS AND BORDER PROTECTION, EL CENTRO SECTOR**

February 2013

Lead Agency: Department of Homeland Security
U.S. Customs and Border Protection
Office of Facilities Management and Engineering
EPA West Building
1301 Constitution Ave., NW
Suite B-155
Washington, DC 20004

Cooperating Agency: U.S. Bureau of Land Management
El Centro Field Office
1661 S. 4th Street
El Centro, CA 92243

Point of Contact: Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Road, Room 5020
Laguna Niguel, CA 92677-3400

00003739

EXECUTIVE SUMMARY

INTRODUCTION: The U.S. Border Patrol (USBP) is a law enforcement entity of U.S. Customs and Border Protection (CBP) within the Department of Homeland Security (DHS). USBP's priority mission is to prevent the entry of terrorists and their weapons of terrorism and to enforce the laws that protect the U.S. homeland. This is accomplished by the detection, interdiction, and apprehension of those who attempt to illegally enter or smuggle any person or contraband across the sovereign borders of the United States between the land Ports of Entry. The addition of new agents, personnel, and resources will enhance the operational capabilities of USBP.

The existing U.S./Mexico border road in the USBP El Centro's Station's Area of Responsibility (AOR) is impassable. This creates long drive times for agents to reach patrol areas and limits their abilities to assist with interdictions and apprehensions. This Environmental Assessment (EA) was prepared in accordance with the National Environmental Policy Act (NEPA) and analyzes the project alternatives and potential impacts on the human and natural environment from road corridor improvements and construction.

PURPOSE AND NEED: The purpose of the Proposed Action is to increase border security within the USBP El Centro Sector with an ultimate objective of reducing illegal cross-border activity by providing safer and more efficient access for USBP agents along the U.S./Mexico border in the west desert area of the USBP El Centro Station's AOR and to BP Hill. The primary need for the Proposed Action is because of the remoteness of the west desert area and the impassability of the existing road, which creates long drive times for agents to reach patrol areas and limits their abilities to assist with interdictions and apprehensions. An additional need for the Proposed Action is to provide agents with the infrastructure necessary to carry out USBP's mission.

DESCRIPTION OF PROPOSED ACTION: The Proposed Action would improve and construct, operate, and maintain approximately 1.6 miles of all-weather road near the U.S./Mexico border within USBP El Centro Station's AOR. The existing 1.4-mile road that would be improved is west of the All-American Canal and adjacent to and within U.S. Bureau of Land Management's (BLM) Yuha Desert Area of Critical Environmental Concern. The Proposed Action includes improvements to the existing border road, construction of a new access road to the top of BP Hill, and required maintenance

activities upon completion of the proposed project. The Proposed Action also includes the construction of a new access road to the top of BP Hill (0.2 mile in length).

**PROPOSED ACTION
AND ALTERNATIVES
CONSIDERED:**

One other viable action alternative was identified and considered during the planning stages of the proposed project. This alternative would consist of the Proposed Action but with no new road construction to BP Hill. Instead, only road improvements to the existing BP Hill access road would be implemented. The No Action Alternative, which would preclude the construction, operation, and maintenance of border road, was also evaluated.

Two alternatives were considered but eliminated from further consideration. The first alternative was to construct a new road parallel to the U.S./Mexico border within the 60-foot Roosevelt Reservation. Extensive earth moving and engineering would be required for this alternative due to the impassability of the entire road. The other alternative considered but eliminated was to improve limited areas within the existing border road and BP Hill. Only improving segments of the road, as proposed in the second eliminated alternative, would not meet the purpose and need of the proposed project.

**AFFECTED
ENVIRONMENT AND
CONSEQUENCES:**

The improvement, construction, operation, and maintenance of 1.6 miles of all-weather road would potentially result in minimal to moderate impacts, including temporary increased air pollution from soil disturbance, permanent loss of up to 7.5 acres of vegetation and wildlife habitat, and minor increases in water use and ambient noise. No adverse impacts on historic properties or threatened or endangered species would occur. No residences or children are found near the project corridor; thus, the road improvements and construction would have no effect relative to environmental justice or protection of children issues.

**FINDINGS AND
CONCLUSIONS:**

No major adverse impacts are anticipated for any resource analyzed within this document. Therefore, no further analysis or documentation (i.e., Environmental Impact Statement or Environmental Impact Report) is warranted. CBP, in implementing this decision, would employ all practical means to minimize and mitigate the potential adverse impacts on the human and biological environment.

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**SECTION 1.0
INTRODUCTION**



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1.0 INTRODUCTION

U.S. Customs and Border Protection (CBP) has prepared this Environmental Assessment (EA) to address the potential effects, beneficial and adverse, resulting from the proposed improvement and construction, operation, and maintenance of approximately 1.6 miles of all-weather road near the U.S./Mexico border within U.S. Border Patrol (USBP) El Centro Station's Area of Responsibility (AOR). The existing border road is impassable and creates long drive times for agents to reach patrol areas, limiting their ability to assist with interdictions and apprehensions. The border road improvements would occur from near Border Monument 224 (approximately N 32° 38.96544, W 115° 42.1974), to near Border Monument 225 (approximately N32° 38.89518, W115° 43.52994). The border road would be improved to an all-weather surface road (1.4 miles long) approximately 20 feet wide with 2-foot shoulders and include any necessary drainage structures. A drag road would also be constructed along the north side of the all-weather surface. Staging areas would be located approximately every 0.3 mile within the construction corridor. In addition to the 1.4 miles of road improvement, a new access road (approximately 0.2 mile) would be constructed leading to the BP Hill Remote Video Surveillance System (RVSS) tower from the improved border road. This road would be a 16-foot-wide road with necessary drainage structures and all-weather surfacing.

On April 1, 2008, the Secretary of the U.S. Department of Homeland Security (DHS), pursuant to his authority under Section 102(c) of Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA), exercised his authority to waive certain environmental and other laws in order to ensure the expeditious construction of tactical infrastructure (TI) along the U.S./Mexico border. The proposed improvement and construction, operation, and maintenance of approximately 1.6 miles of all-weather road addressed in this EA is part of a larger TI project, portions of which are waived from National Environmental Policy Act (NEPA) and other Federal regulatory compliance by the Secretary of DHS. The other elements of the larger TI project include the improvement, operation, and maintenance of two staging areas, two access roads, and border road to the east and west of the proposed project area. As part of the Secretary of the DHS's commitment to environmental stewardship under the waiver, CBP published the May 2008 Environmental Stewardship Plan (ESP) for the Construction, Operation, and Maintenance of Tactical Infrastructure, U.S. Border Patrol, El Centro Sector, California, which describes the proposed TI and any potential environmental impacts.

USBP El Centro Station is one of four stations composing the El Centro Sector, along with the Calexico, Indio, and Riverside stations in California. USBP El Centro Station's AOR includes 37.1 linear miles of the U.S./Mexico border. The remoteness of, and travel time to, the west desert area of USBP El Centro Station's AOR limits the capability of law enforcement agents to rapidly respond to illegal activity. By providing an all-weather road near the border, agent response time to illegal cross-border activities would be greatly enhanced, and agents could be more efficiently and safely deployed to patrol the more remote sections of USBP El Centro Station's AOR.

1.1 STUDY LOCATION

The proposed all-weather roads are located west of the All-American Canal adjacent to and within U.S. Bureau of Land Management (BLM) lands, near the U.S./Mexico border within USBP El Centro Station's AOR. Specifically, the project is located adjacent to and within the BLM's Yuha Desert Area of Critical Environmental Concern (ACEC). The City of Calexico, California, is located approximately 10 miles east of the project area, while the City of El Centro, California, is located approximately 11.5 miles northeast of the project area (Figure 1-1). Access to the project area is limited to primitive roads with ingress and egress locations along State Route (SR) 98.

1.2 CBP HISTORY

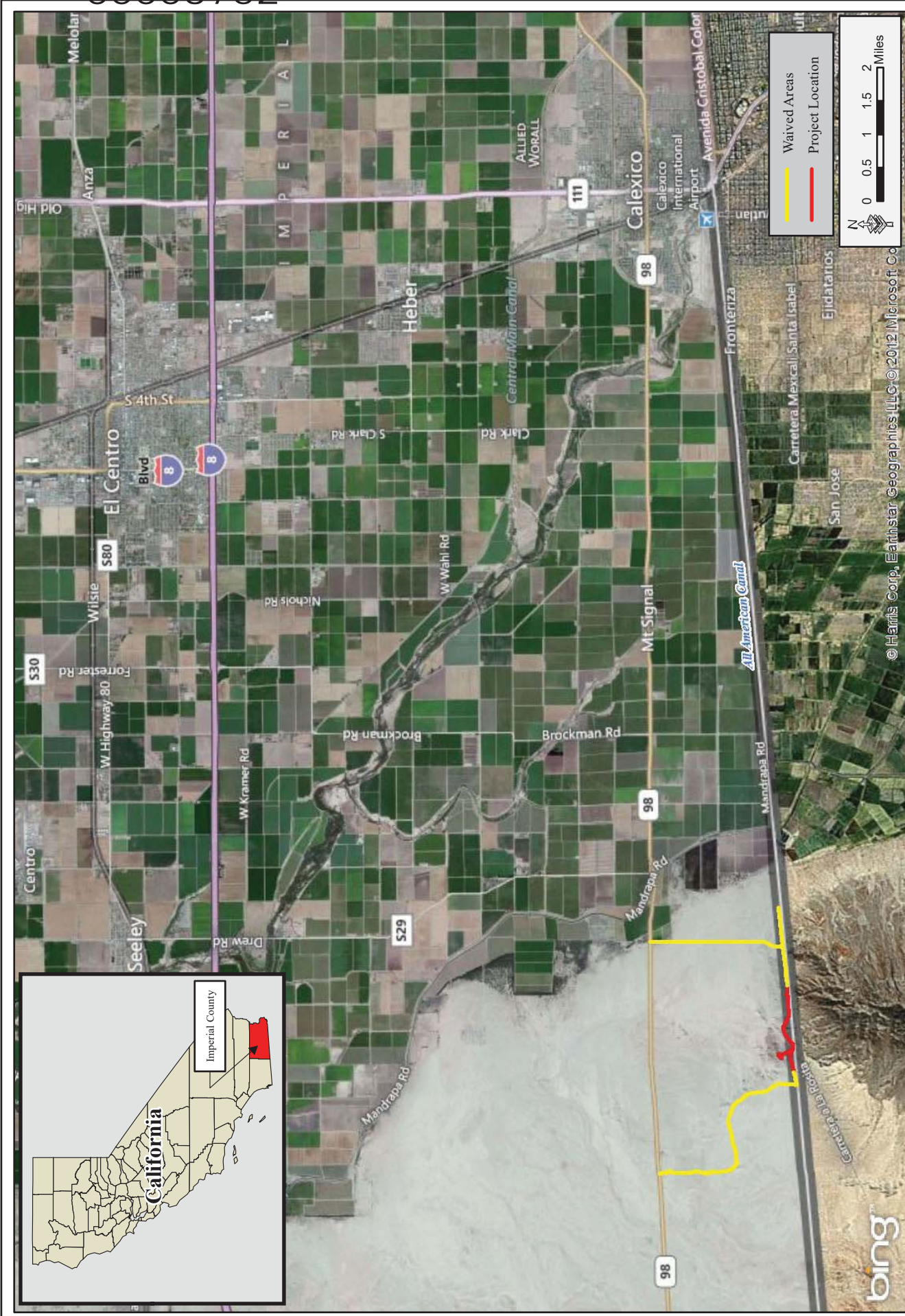
In 1924, Congress created the USBP to serve as the law enforcement entity of the Immigration and Naturalization Service (INS), and it did so until November 25, 2002, when Congress transferred all INS responsibilities to the newly created DHS with the passage of the Homeland Security Act of 2002 (Public Law [PL] 107-296). USBP was officially transferred to DHS/CBP on March 1, 2003.

1.3 CBP INTENT AND STRATEGIES

In the aftermath of the September 11, 2001 terrorist attacks on the United States and the subsequent formation of DHS, CBP was created by unifying all frontline personnel and functions with law enforcement responsibilities at our Nation's borders. The mission of CBP is to secure the borders of the United States and to prevent terrorists and terrorist weapons from entering the United States (CBP 2012). As an important component of CBP, USBP's mission is to detect and prevent terrorists and terrorist weapons from entering the country between official Ports of Entry (POE). USBP will continue to advance its mission to detect, interdict, and apprehend those who attempt to illegally enter or smuggle any person or contraband across the sovereign borders of the United States. While previous years' strategies have applied an appropriate mix of infrastructure, technology, and personnel to effectively manage land borders in a resource-based approach to border security, the new USBP National Strategy (2012-2016) extends a risk-based approach to countering the threat environment through information, integration, and rapid response. Assets are used to execute the mission functions of predicting illicit activity, detecting and tracking border crossings, identifying and classifying the detections, and responding to and resolving suspect border crossings as threats are identified through intelligence efforts and prioritized for response and targeted enforcement.

1.4 REGULATORY AUTHORITY

The primary sources of authority granted to USBP agents are the Immigration and Nationality Act (INA) of 1952 (PL 82-414) contained in Title 8 of the United States Code (USC) "Aliens and Nationality" and other statutes relating to the immigration and naturalization of aliens. The secondary sources of authority are administrative regulations implementing those statutes, judicial decisions, and administrative decisions of the Board of Immigration Appeals. In addition, the IIRIRA of 1996 (PL 104-208) and, subsequently, the Homeland Security Act



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Figure 1-1: Vicinity Map

mandate that DHS acquire and improve equipment and technology along the border, hire and train new agents for the border region, and develop effective border enforcement strategies.

1.5 PURPOSE AND NEED

The purpose of the Proposed Action is to increase border security within the USBP El Centro Sector with an ultimate objective of reducing illegal cross-border activity by providing safer and more efficient access for USBP agents along the U.S./Mexico border in the west desert area of the USBP El Centro Station's AOR and to BP Hill. The primary need for the Proposed Action is because of the remoteness of the west desert area and the impassability of the existing road, which creates long drive times for agents to reach patrol areas and limits their ability to assist with interdictions and apprehensions. An additional need for the Proposed Action is to provide agents with the infrastructure necessary to carry out USBP's mission.

1.6 SCOPE OF THE ANALYSIS

The EA will include the analysis of effects resulting from the improvement, operation, and maintenance of an all-weather road and construction, operation, and maintenance of a new access road to BP Hill. The proposed road improvements and construction would include development of lands within El Centro Station's AOR in the Yuha Desert ACEC/Yuha Desert flat-tailed horned lizard (FTHL) Management Area, both of which are managed by the BLM. The potentially affected biological and human environment would include resources associated with the undeveloped land located in south-central Imperial County; however, most potential effects would be limited to the construction site and immediately adjacent resources.

1.7 APPLICABLE ENVIRONMENTAL GUIDANCE, STATUTES, AND REGULATIONS

The EA will be prepared by CBP in accordance with the National Environmental Policy Act (NEPA) of 1969 (42 USC 4321-4347) and the Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508), BLM planning guide (BLM NEPA Handbook H-1790-1), as well as the DHS "Environmental Planning Directive" (Directive 023-01). Other pertinent environmental statutes, regulations, and compliance requirements that will guide the preparation of the EA are summarized in Table 1-1. This list, however, is not intended to be an all-inclusive list of applicable Federal laws and regulations.

1.8 PUBLIC INVOLVEMENT

Consultation and coordination with Federal and state agencies would occur during preparation of the document. The list below includes contacts that were made during the development of the action alternatives and writing of the EA. Copies of correspondence are provided in Appendix A. Formal and informal coordination will be conducted with the following agencies:

- U.S. Fish and Wildlife Service (USFWS)
- U.S. Army Corps of Engineers, Los Angeles District (USACE)
- U.S. Section, International Boundary and Water Commission (USIBWC)

Table 1-1. Relevant Policy Documents, Invoking Actions, Regulatory Requirements, and Status of Compliance*

Policy Document	Administrative Authority	Invoking Action	Requirements for Compliance	Status of Compliance
Archaeological Resources Protection Act of 1979 16 United States Code (USC) § 470 et seq.	Department of Interior	Excavation, removal, damage, or other alteration or defacing; or attempt to excavate, remove, damage, or otherwise alter or deface any archaeological resource located on public lands 43 Code Federal Regulations (CFR) 7.4	Because activities are exclusively for purposes other than the excavation and/or removal of archaeological resources, even though those activities might incidentally result in the disturbance of archaeological resources, no permit shall be required	No adverse impact on historic properties. Section 106 consultation is ongoing
Bureau of Indian Affairs (BIA) Policy, Requirements, and Responsibilities for NEPA Compliance 59 AIM 3	BIA	Any undertaking by Federal agencies on lands administered by a sovereign Native American tribe 40 CFR Parts 1500-1508	Adherence to guidelines set forth by the Council on Environmental Quality (CEQ) for implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508) on lands administered by a sovereign Native American on tribal property	Project is not located on tribal lands
Clean Air Act of 1963 16 USC § 470 et seq.	Environmental Protection Agency (USEPA)	Any Federal action where the total of direct and indirect emissions in a non-attainment area would equal or exceed the provided rates 40 CFR 51	Project emission levels were determined to be less than <i>de minimis</i> thresholds; therefore, a determination of conformity with applicable implementation plan is not required	Only minor emissions would occur during construction
Comprehensive Environmental Response, Compensation and Liability Act of 1980 42 USC § 9601 et seq.	USEPA	Release or threatened release of a hazardous substance 40 CFR 302	Development of emergency response plans, notification, and cleanup	To be completed by U.S. Customs and Border Protection (CBP) during design and operation
Endangered Species Act (ESA) of 1973 16 USC § 1531 et seq.	U.S. Fish and Wildlife Service (USFWS)	All actions in which there is discretionary Federal involvement or control and potential to affect protected species. 50 CFR 402.03	Determination of no jeopardy to listed species and no destruction or adverse modification of critical habitat through consultation with the USFWS	No effect on any Federally protected species
Farmland Protection Policy Act of 1981 7 USC § 9601 et seq.	Natural Resources Conservation Service	Any Federal action 7 CFR 658	Identify and take into account the adverse effects on the protection of farmland	No prime farmland soils would be impacted

Table 1-1, continued

Policy Document	Administrative Authority	Invoking Action	Requirements for Compliance	Status of Compliance
Federal Water Pollution Control Act of 1977 (also known as Clean Water Act or CWA) 33 USC § 1251 et seq. CWA	USEPA	Storage, use, or consumption of oil and oil products, which could discharge oil in quantities that could affect water quality standards, into or upon the navigable Waters of the U.S. 40 CFR 112 Discharge of pollutants 40 CFR 122	Preparation of a Spill Prevention, Control, and Countermeasures Plan Obtain a general National Pollutant Discharge Elimination System Permit	To be completed by CBP or contractor To be completed by CBP or contractor. Minor impacts on Waters of the United States, a USACE Nationwide Permit 14 would be used
IIM Land Use Agreement Direct Payment Arrangement 25 CFR Part 162	BIA	Any Federal action resulting in a trust land use agreement for use of tribal property between a Federal agency and a sovereign Native American tribe 25 CFR Part 169	Agreement between CBP and the respective Native American tribe for payment of trust land use	Project is not located on tribal lands
Migratory Bird Treaty Act of 1918 16 USC § 703	USFWS	Any Federal action resulting in the potential take of any migratory bird, or the parts, nests, or eggs of such bird 50 CFR 21.11	Avoidance of take or application for permit	Proposed surveys prior to any construction beginning during nesting season
National Historic Preservation Act of 1966 16 USC § 470 et seq.	Advisory Council on Historic Preservation	Any undertaking by Federal 36 CFR 800.3	Assessment of effects through consultation with the Advisory Council on Historic Preservation	No adverse impact on historic properties Section 106 consultation is ongoing

Table 1-1, continued

Policy Document	Administrative Authority	Invoking Action	Requirements for Compliance	Status of Compliance
Occupational Health and Safety Act of 1970 29 USC § 651 et seq.	Occupational Safety and Health Administration, Department of Labor	Employees performing in a workplace 29 CFR 1910.5(a)	Adherence to occupational health and safety standards	To be completed by CBP during design and operation
Resource Conservation and Recovery Act (RCRA) of 1976 42 USC § 6901 et seq.	USEPA	Collection of residential, commercial, and institutional solid wastes and street wastes 40 CFR 243 Procurement of more than \$10,000 annually of products containing recovered materials 40 CFR 247 Recovery of resources from solid waste through source separation 40 CFR 246	Adherence to guidelines for waste storage and safety and collection equipment, frequency, and management Procure designated items composed of the highest percentage of recovered materials practicable Recovery of high-grade paper, residential materials, and corrugated containers	To be completed by CBP during design and operation To be completed by CBP during design and operation To be completed by CBP during design and operation
Executive Order (EO) 11988: Floodplain Management 42 Federal Register (FR) 26,951 (May 24, 1997)	Water Resources Council, Federal Emergency Management Agency, Council on Environmental Quality (CEQ)	Treatment, storage, or disposal of hazardous waste on-site 40 CFR 262.10(c)	Determination of hazardous or non-hazardous nature of solid waste, obtain an EPA identification number if necessary, properly accumulate hazardous waste, and maintain a record	To be completed by CBP during design and operation
EO 11990: Protection of Wetlands 42 FR 26,691 (May 24, 1977)	U.S. Army Corps of Engineers, USEPA	Acquisition and management of Federal lands; Federally undertaken, financed, or assisted construction; conducting Federal activities affecting land use within a floodplain Federally undertaken, financed, or assisted construction, and improvements; conducting Federal activities affecting land use, including but not limited to water and related land resources planning, regulation, and licensing activities	Determine whether the proposed action would occur in a floodplain, then evaluate potential effects of any action in a floodplain Take action to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands	No floodplains would be impacted by the Proposed Action No impacts on wetlands

Table 1-1, continued

Policy Document	Administrative Authority	Invoking Action	Requirements for Compliance	Status of Compliance
EO 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations 59 FR 7629 (February 11, 1994)	USEPA	All programs or activities receiving Federal financial assistance that affect human health or the environment	Analyze the environmental effects, including human health, economic, and social effects of CBP actions, including effects on minority communities and low-income communities	No effects on minority communities or low-income communities. Item eliminated from EA
EO 13045: Protection of Children from Environmental Health Risks and Safety Risks 62 FR 19883 (April 23, 1997)	USEPA	Any Federal action that has the potential to place children at higher health and safety risks	Identify and assess environmental health risks and safety risks that may disproportionately affect children	No effects on minority communities or low-income communities. Item eliminated from EA
EO 13423: Strengthening Federal Environmental, Energy, and Transportation Management 72 FR No. 17,3919 (January 24, 2007)	CEQ	Reduction of energy, waste production, and water consumption, and improved efficiency of transportation within Federal agencies	Incorporate waste prevention, energy efficiency, and recycling in the agency's daily operations	To be completed by CBP during design and operation as appropriate
EO 13123: Greening the Government Through Efficient Energy Management 64 FR 30851 (June 3, 1999)	USEPA, Department of Energy (DOE)	Operation and maintenance of a Federal facility	Reduce emissions of greenhouse gases, reduce energy consumption, strive to expand use of renewable energy, reduce use of petroleum, and reduce water consumption	To be completed by CBP during design and operation as appropriate

Table 1-1, continued

Policy Document	Administrative Authority	Invoking Action	Requirements for Compliance	Status of Compliance
EO 13514: Federal Leadership in Environmental, Energy, and Economic Performance 74 FR 52117 (October 8, 2009)	CEQ	Construction, operation, and maintenance of a Federal facility; aircraft operations and worker commutes	Increase energy efficiency; measure, report, and reduce greenhouse gas emissions from direct and indirect activities; conserve and protect water resources through efficiency, reuse, and stormwater management; eliminate waste, recycle, and prevent pollution; design, construct, maintain, and operate high-performance sustainable buildings in sustainable locations	To be completed by CBP during design and operation as appropriate

*Not All-Inclusive

- California Department of Fish and Game (CDFG)
- California Environmental Protection Agency (CalEPA)
- California Regional Water Quality Control Board (RWQCB)
- California State Historical Preservation Officer (SHPO)
- BLM
- Imperial Irrigation District (IID)
- Native American Tribes

This draft EA was made available for public review for 30 days, and the Notice of Availability (NOA) was published in the *Imperial Valley Press* on November 15, 2012. The draft EA was also available electronically at <http://ecso.swf.usace.army.mil/Pages/Publicreview.cfm>. In addition, the draft EA was available for review at El Centro Public Library, 539 West State Street, El Centro, California 92243 and the Calexico City Library, 850 Encinas Avenue, Calexico, California 92231, from November 15, 2012 to December 15, 2012. During this review period, only five comment letters were received. These letters and the responses to the comments are included in Appendix A, along with other correspondence sent or received during the preparation of the EA.

1.8.1 Cooperating Agency

A request to be a cooperating agency was submitted to and accepted by BLM, since all of the proposed project would be located within lands managed by BLM. A copy of the cooperation letter is in Appendix A. BLM is required to manage the natural resources on their lands to ensure sustainability of grazing leases, recreational opportunities, cultural resources, and natural resources.

1.8.2 California Environmental Quality Act (CEQA) Lead Agency

Identification of the appropriate CEQA lead agency is the necessary first step toward compliance with CEQA. Because the RWQCB is the only state agency with permitting authority over the proposed project, it is the appropriate lead agency. It is assumed that the RWQCB will determine that a Mitigated Negative Declaration would be the appropriate CEQA document and that this EA can be used in lieu of it.

1.9 REPORT ORGANIZATION

The EA is organized into eight major sections. Section 1.0 is the introduction, and Section 2.0 describes all alternatives considered for the project. Section 3.0 discusses the environmental resources potentially affected by the project and the environmental consequences for each of the viable alternatives. Section 4.0 discusses cumulative impacts, and environmental design measures are discussed in Section 5.0. Sections 6.0, 7.0, and 8.0 present a list of the references cited in the document, a list of acronyms and abbreviations used in the document, and a list of the persons involved in the preparation of the document, respectively. Correspondence generated during the preparation of the EA is presented in Appendix A. Appendix B is the Biological Survey Report, Appendix C is the BLM and California list of protected species, and Appendix D is the Air Quality Calculations completed for this project.

**SECTION 2.0
PROPOSED ACTION AND ALTERNATIVES**



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2.0 PROPOSED ACTION AND ALTERNATIVES

There are three alternatives carried forward for evaluation in the EA: 1) the No Action Alternative, 2) the Proposed Action Alternative (Preferred Alternative), 3) and the BP Hill Improvement Alternative. The following sections discuss the components necessary for the proposed road improvements and the proposed alternatives for this project.

On April 1, 2008, the Secretary of DHS, pursuant to his authority under Section 102(c) of IIRIRA, exercised his authority to waive certain environmental and other laws in order to ensure the expeditious construction of TI along the U.S./Mexico border. The proposed improvement and construction, operation, and maintenance of approximately 1.6 miles of all-weather road addressed in this EA is part of a larger TI project, portions of which are waived from NEPA and other Federal regulatory compliance by the Secretary of DHS. The other elements of the larger TI project include the improvement, operation, and maintenance of two staging areas, two access roads, and border road to the east and west of the proposed project area. As part of the Secretary of the DHS's commitment to environmental stewardship under the waiver, CBP published the May 2008 ESP for the Construction, Operation, and Maintenance of Tactical Infrastructure, U.S. Border Patrol, El Centro Sector, California, which describes the proposed TI and any potential environmental impacts.

2.1 NO ACTION ALTERNATIVE

The No Action Alternative would preclude the improvement and construction, operation, and maintenance of approximately 1.6 miles of road as described in the Proposed Action. USBP agents would continue to face safety related issues while trying to maintain and access the BP Hill RVSS tower, would have long drive times to reach patrol areas, and would be restricted in their abilities to assist with interdictions and apprehensions. The No Action Alternative does not meet the purpose and need for the proposed project but will be carried forward for analysis, as required by the CEQ regulations, and will serve as the baseline for comparison to other action alternatives.

2.2 PROPOSED ACTION ALTERNATIVE

CBP proposes to improve and construct, operate, and maintain approximately 1.6 miles of road near the U.S./Mexico border (see Figure 1-1). The Proposed Action comprises improvement of an existing border road and construction of a new access road to the top of BP Hill. The Proposed Action Alternative is CBP's Preferred Alternative.

2.2.1 Road Improvements

Improvements would include widening the existing border road (Photographs 2-1 and 2-2) for 1.4 miles from a width of 15 feet to a width of 20 feet with 2-foot shoulders, installing drainage ditches, rip-rap lining at inlet and outlet structures, and other ancillary structures (e.g., low-water crossings and culverts), and applying an all-weather surface. There is a possibility that bridges would be used in lieu of low-water crossings or culverts. These bridges would be one-piece, prefabricated, delivered onsite, and installed within the road footprint. A drag road approximately 10 feet wide would also be constructed along the northern boundary of the

improved border road. The combined temporary and permanent footprint of the road improvements would be approximately 120 feet wide by 1.4 miles long. Within this footprint, approximately 80 feet would be temporary and 40 feet would be permanent.



Photograph 2-1. Existing border road in eastern portion of project area.



Photograph 2-2. Existing border road in western portion of project area.

The new access road to BP Hill (0.2 mile in length) would be constructed to 16 feet wide and designed to not exceed a 12 percent slope. Construction would include the installation of drainage ditches and other ancillary structures, as well as the application of all-weather surfacing. The total permanent footprint for the new access road to BP Hill could be 30 feet wide by 0.2 mile long. The temporary footprint could be 90 feet wide by 0.2 mile long. Upon completion of the improvements and construction activities, all temporarily disturbed areas would be rehabilitated per BLM guidelines.

All-weather surfacing consists of adding aggregate and a soil-stabilizing or binding agent (e.g., PennzSuppress®) to the surface of the road. This would be done once the construction is completed to reduce erosion and maintenance activities. Maintenance of this road would include filling holes with aggregate, smoothing the road, and applying a top shot of the soil-stabilizing agent to the surface on at least an annual basis to ensure road surface longevity. Water bars or other water conveyance techniques would be installed at various locations along the road to direct stormwater into parallel ditches or downslope to reduce erosion of the road surface.

2.2.2 Staging Areas

Five staging areas (50 feet by 50 feet) would be constructed along the proposed all-weather road (Figure 2-1). The total footprint of the staging areas would not exceed 0.3 acres. Upon completion of the improvement activities, all temporarily impacted areas, such as the staging areas, would be rehabilitated.

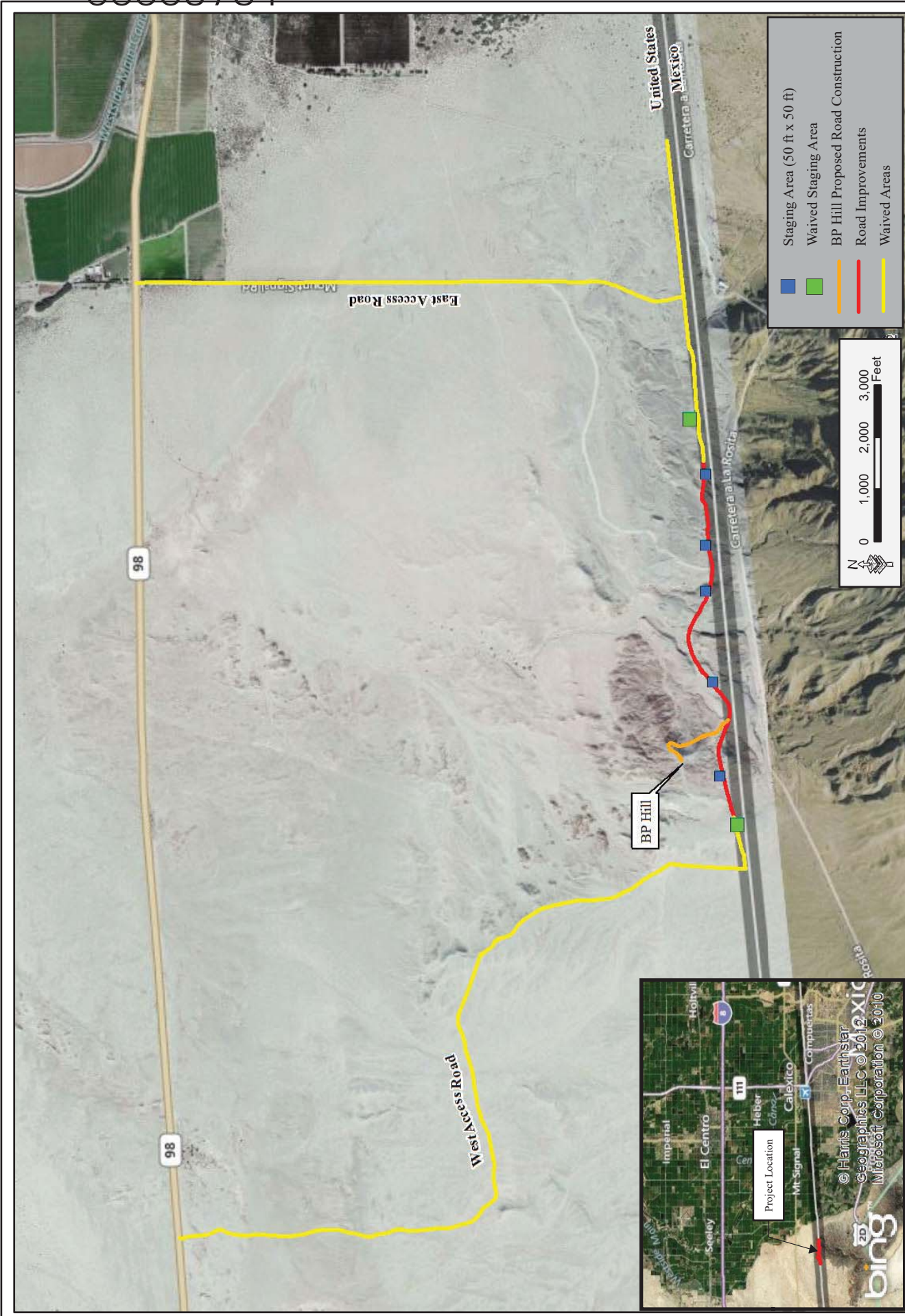


Figure 2-1: Proposed Action Alternative Map

2.2.3 Water Usage

In order to accomplish the road improvements and construction efforts, CBP would use a commercial vendor or obtain water from the All-American Canal, if possible. Water would be trucked into the site via a water truck or portable water tank and delivered to the project area in order to provide the correct moisture content for the soil during improvement and construction activities. Water would also be used to control fugitive dust emissions during those activities. It is estimated that approximately 4.9 acre-feet per mile of roadway would be needed for construction purposes (Fitts 2012).

2.2.4 Construction Personnel and Equipment

CBP maintenance staff, Joint Task Force North units, National Guard units, or private contractors would complete the proposed construction and improvements of the roadways. Equipment staging would occur at the staging areas discussed above. The equipment anticipated to be used during the construction includes a backhoe, trencher, bulldozer, grader, dump truck, front-end loader, flatbed truck, water truck, and roller/compactor.

2.3 BP HILL IMPROVEMENT ALTERNATIVE

The third alternative carried forward for analysis includes the improvement, operation, and maintenance of the existing border road and construction and use of the five new staging areas as presented in the Proposed Action Alternative. However, rather than construct a new access road to the BP Hill RVSS tower site, CBP would improve the existing access road, which is approximately 0.3 mile long, by widening it to 16 feet, installing ancillary structures, all-weather surfacing, and reducing the grade through cut and fill activities (Figure 2-2). The total footprint for the improvement of the existing BP Hill access road would be 30 feet wide by 0.3 mile long. Only an area 16 feet wide would be permanently disturbed. The remaining 14 feet of footprint would be disturbed temporarily during improvement efforts. Additionally, all temporarily impacted areas would be rehabilitated upon completion of the construction and improvement activities.

2.4 ALTERNATIVES CONSIDERED BUT ELIMINATED

Two alternatives were considered but eliminated from further consideration. The first alternative was to construct a new road parallel to the U.S./Mexico border within the 60-foot Roosevelt Reservation. However, the local topography includes towering hills and deep ravines that would require extensive earth moving and engineering. Therefore, this alternative was eliminated from further consideration.

The other alternative considered but eliminated was to only improve limited areas within the existing border road and BP Hill. Due to the impassability of the entire road, only improving limited areas would still leave a vulnerable gap in the border road and would not meet the purpose and need of the proposed project. Therefore, this alternative was eliminated from further consideration.

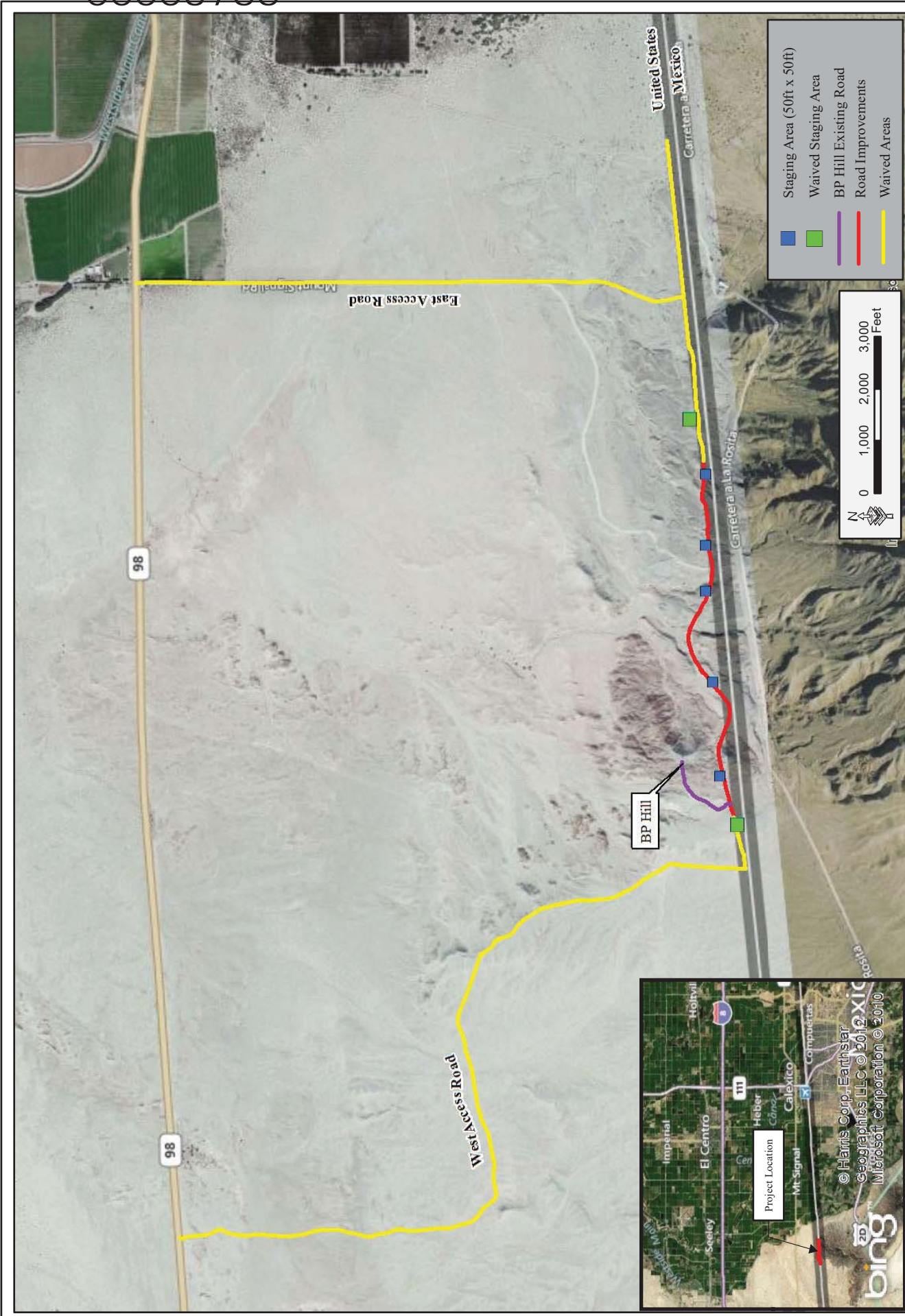


Figure 2-2: BP Hill Improvement Alternative Map

2.5 SUMMARY

The No Action Alternative, Proposed Action Alternative, and BP Hill Improvement Alternative have been carried forward for analysis. As shown in Table 2-1, only the Proposed Action and BP Hill Improvement Alternative fully support the purpose and need as described in Section 1.3. Table 2-2 summarizes the impacts of the Proposed Action Alternative, No Action Alternative, and the BP Hill Improvement Alternative on the resources evaluated in the EA.

Table 2-1. Alternatives Matrix

Purpose and Need	No Action Alternative	Proposed Action Alternative	BP Hill Improvement Alternative
Will the alternative provide increased effectiveness for USBP agents in the performance of their duties?	No	Yes	Yes
Will the alternative provide safe access to the west desert area within the El Centro Station's AOR?	No	Yes	Yes
Will the alternative provide a more safe, effective, and efficient working environment for USBP agents?	No	Yes	Yes

Table 2-2. Summary of Impacts

Affected Environment	No Action Alternative	Proposed Action Alternative	BP Hill Improvement Alternative
Land Use	No improvements or construction would occur within the project area. Therefore, there would be no direct impacts. However, long-term indirect impacts on land use would continue as a result of illegal cross-border violator (CBV) activities.	The Proposed Action would change the land use of up to 7.5 acres from undeveloped to CBP infrastructure, which is considered a moderate impact on land use. This land use would be in compliance with BLM guidance and policy for the proposed project.	This alternative would have impacts similar to those described for the Proposed Action Alternative. However, up to 0.2 acre less would be developed under this alternative.
Soils	No direct impacts on soils would occur. However, long-term indirect impacts on soils would continue as a result of CBV activities.	Up to 7.5 acres of soils would be lost as a result of the Proposed Action Alternative. Temporary impacts on up to 23.5 acres would occur; however, this area would be rehabilitated upon completion of the construction activities. Negligible impacts on soils would occur as a result of the Proposed Action.	This alternative would have impacts similar to those described for the Proposed Action Alternative. However, up to 0.2 acre less would be developed under this alternative.
Geology	No direct impacts on geologic resources would occur.	Negligible impacts on geologic resources would occur as a result of this alternative.	The same impacts would occur as described in the Proposed Action Alternative.
Vegetation	No direct impacts would occur. However, long-term indirect impacts on vegetation communities would continue as a result of illegal CBV activities that create trails, damage vegetation, and promote the dispersal and establishment of invasive species.	Up to 7.5 acres of vegetation would be lost as a result of the Proposed Action Alternative. Temporary impacts on up to 23.5 acres would occur; however, this area would be rehabilitated upon completion of the construction activities. Negligible impacts on vegetation would occur as a result of the Proposed Action Alternative.	This alternative would have impacts similar to those described for the Proposed Action Alternative. However, up to 0.2 acre less would be developed under this alternative.
Wildlife	Under the No Action Alternative, no direct impacts on wildlife habitats would occur. However, illegal cross-border activity would continue to disturb wildlife and degrade wildlife habitat.	Wildlife habitat would be permanently and temporally impacted. However, due to the habitat being locally and regionally common any impacts are considered negligible.	This alternative would have impacts similar to those described for the Proposed Action Alternative. However, up to 0.2 acre less would be developed under this alternative.

Table 2-2, continued

Affected Environment	No Action Alternative	Proposed Action Alternative	BP Hill Improvement Alternative
Protected Species	Under the No Action Alternative, there would be no direct impacts on threatened or endangered species or their habitats. However, the indirect and long-term impacts of CBV activity on habitats throughout the project region and surrounding areas would continue to disturb threatened or endangered species and their habitats.	The Proposed Action Alternative would have no effects on Federally listed or state-listed species. However, the FTHL (<i>Phrynosoma mcallii</i>), which is a conservation species was observed within the project area. CBP would mitigate impacts per the Flat-Tailed Horned Lizard Rangeland Management Strategy to a negligible level. No major impacts would occur on the FTHL.	The same impacts would occur as described in the Proposed Action Alternative.
Cultural Resources	Under the No Action Alternative, no direct impacts on cultural resources would occur. However, cultural resources sites would continue to be impacted by illegal CBV activities.	No adverse effects on architectural or aboveground resources that are eligible for the National Register of Historic Places (NRHP) are anticipated, and no adverse effects on cultural resources are anticipated from the implementation of the Proposed Action Alternative.	The same impacts would occur as described in the Proposed Action Alternative.
Air Quality	No equipment would be installed, so no direct impacts on air quality from construction would occur.	Temporary and minor increases in air emissions would occur from the use of heavy equipment during improvement or construction of the roads. Minor, long-term beneficial impacts would occur due to the use of the all-weather surface. There would be no violations of air quality standards and no conflicts with the state implementation plans (SIP); therefore, impacts on air quality from the implementation of the Proposed Action Alternative would be minor.	The same impacts would occur as described in the Proposed Action Alternative.
Noise	Under the No Action Alternative, no direct impacts on noise would occur.	The noise impacts from construction and maintenance activities would be short-term and minor.	The same impacts would occur as described in the Proposed Action Alternative.
Aesthetics and Visual Resources	No impacts on aesthetic or visual resources would occur because no construction activities would take place. However, a reduction of aesthetic and visual resources created by CBV activities and resulting law enforcement actions would continue and likely increase.	The Proposed Action Alternative would have a long-term, minor adverse effect on the viewshed and aesthetic qualities of the project area.	The same impacts would occur as described in the Proposed Action Alternative.

Table 2-2, continued

Affected Environment	No Action Alternative	Proposed Action Alternative	BP Hill Improvement Alternative
Hazardous Materials	The No Action Alternative would not contribute any hazardous waste or materials to the project area, as no construction would take place.	The Proposed Action Alternative would not result in the exposure of the environment or the public to any hazardous materials. The potential exists for minor releases of petroleum, oil, and lubricants (POL) during construction or operational activities. Best management practices (BMP) would be put in place to minimize any potential contamination at the proposed site during construction activities and operation.	The same impacts would occur as described in the Proposed Action Alternative.
Socioeconomics	The No Action Alternative would result in no new impacts on socioeconomic within the region, as no road construction and improvements would occur.	No major adverse impacts would occur as a result of the Proposed Action Alternative.	The same impacts would occur as described in the Proposed Action Alternative.
Human Health and Safety	No construction or improvements would occur, so no direct impacts would occur. However, USBP agents would continue to face safety related issues while trying to maintain and access the BP Hill RVSS tower, as well as patrol the existing border road.	No major adverse impacts would occur as a result of the Proposed Action Alternative.	The same impacts would occur as described in the Proposed Action Alternative.
Sustainability and Greening	No construction or improvements would occur, so no direct impacts would occur.	No major adverse impacts would occur as a result of the Proposed Action Alternative.	The same impacts would occur as described in the Proposed Action Alternative.

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SECTION 3.0
AFFECTED ENVIRONMENT AND CONSEQUENCES



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3.0 AFFECTED ENVIRONMENT AND CONSEQUENCES

3.1 PRELIMINARY IMPACT SCOPING

This section of the EA describes the natural and human environment that exists within the project site and region of influence (ROI), and the potential impacts of the Proposed Action Alternative, BP Hill Improvement Alternative, and No Action Alternative outlined in Section 2.0 of this document. The ROI for this project is Imperial County. Only those resources with the potential to be affected by the Proposed Action are described, per CEQ regulation (40 CFR 1501.7 [3]). The impact analysis presented in this EA is based upon existing regulatory standards, scientific and environmental knowledge, and best professional opinions.

Impacts (consequence or effect) can be either beneficial or adverse, and can be either directly related to the action or indirectly caused by the action. Direct impacts are those effects that are caused by the action and occur at the same time and place (40 CFR 1508.8[a]). Indirect impacts are those effects that are caused by the action and are later in time or further removed in distance, but are still reasonably foreseeable (40 CFR 1508.8[b]). As discussed in this section, the alternatives evaluated may create temporary (lasting the duration of construction), short-term (up to 3 years), long-term (greater than 3 years), or permanent impacts or effects.

Impacts on each resource can vary in degree or magnitude from a slightly noticeable change to a total change in the environment. For the purpose of this analysis, the intensity of impacts will be classified as negligible, minor, moderate, or major. The intensity thresholds are defined as follows:

- **Negligible:** A resource would not be affected or the effects would be at or below the level of detection, and changes would not result in any measurable or perceptible consequences.
- **Minor:** Effects on a resource would be detectable, although the effects would be localized, small, and of little consequence to the sustainability of the resource. Mitigation measures, if needed to offset adverse effects, would be simple and achievable.
- **Moderate:** Effects on a resource would be readily detectable, long-term, localized, and measurable. Mitigation measures, if needed to offset adverse effects, would be extensive and likely achievable.
- **Major:** Effects on a resource would be obvious, long-term, and would have substantial consequences on a regional scale. Extensive mitigation measures to offset the adverse effects would be required, and success of the mitigation measures would not be guaranteed.

Some resource discussions are limited in scope due to the lack of direct effect from the proposed project on the resource, or because that particular resource is not located within the project area. Resources dismissed from further discussion are:

Wild and Scenic Rivers

The proposed road improvements and construction would not affect any reach of river designated as Wild and Scenic, as none are located in the vicinity of the proposed corridor.

Utilities and Infrastructure

The road improvements would not require an increase in electrical demand, and no increase on other infrastructure is anticipated.

Aquatic Resources

There are no perennial waterbodies near the project area. Only intermittent waterbodies, which are predominantly dry most of the year and have no flowing water except directly after a rainfall event, are found in the project area. Therefore, no impacts on aquatic environments or species would be anticipated.

Floodplains

The Federal Emergency Management Agency (FEMA) indicates that the project corridor area is located within a 500-year floodplain (FEMA 2008). This area has a 0.002 percent annual chance to flood; therefore, the risk of flooding is very low. The proposed road construction and improvements would not result in an increase of flood risk, duration, elevation, or patterns.

Environmental Justice

EO 12898 *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* requires the consideration of impacts and adverse effects on minority populations and low-income populations. The project corridor is located along an existing highway in rural areas with no surrounding community nearby. Adverse impacts on minority and low-income populations would not occur.

Protection of Children

EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, requires each Federal agency to identify and assess environmental health risks and safety risks that may disproportionately affect children and ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks. No children live in proximity to the project corridor; therefore, the road improvements and construction would not adversely affect any children.

The anticipated permanent and temporary impacts resulting from the proposed infrastructure in the project corridor are summarized in Table 3-1. These impacts are considered worst case scenario and represent the maximum acreage anticipated as a result of improvement and construction activities.

3.2 LAND USE

3.2.1 Affected Environment

The project corridor is located within the Yuha Basin ACEC on lands managed by BLM. The Yuha Basin ACEC was designated by the BLM for the purpose of protecting sensitive natural and cultural resources as part of the BLM California Desert District multiple use plan (BLM

Table 3-1. Summary of Impacts of Project Components by Alternative

Type of Project	Proposed Action Alternative			BP Hill Improvement Alternative		
	Miles	Number	Acres	Miles	Number	Acres
PERMANENT IMPACTS						
Roadway Improvements (All-Weather Road, 40-foot Right-of-Way [ROW])	1.4		6.8	1.4		6.8
BP Hill Roadway Construction All-Weather Road, up to 30-foot ROW)	0.2		0.7			
BP Hill Roadway Improvement (All-Weather Road, up to 16-foot ROW)				0.3		0.5
Total Permanent Impacts			7.5			7.3
TEMPORARY IMPACTS						
Roadway Improvements (80-foot ROW)	1.4		13.5	1.4		13.5
BP Hill Roadway Construction (90-foot ROW)	0.2		2.2			
BP Hill Roadway Improvement (24-foot ROW)				0.3		0.6
Staging Area (50 feet by 50 feet)		5	0.3		5	0.3
Total Temporary Impacts			16			14.4
TOTAL ACRES IMPACTED IN PROJECT FOOTPRINT			23.5			21.7

*Acres and widths of road improvements or construction are considered maximum anticipated.

1999). This area is also classified as the Yuha Desert Management Area (YDMA) for the FTHL (*Phrynosoma mcallii*). The YDMA encompasses approximately 60,000 acres. Approximately 57,200 acres of the YDMA are under Federal ownership. As part of the FTHL Rangewide Management Strategy, the cumulative new disturbance per management area since 1997 may not exceed 1 percent of the total management area acreage on Federal lands (i.e., 572 acres).

Other than the presence of the existing border road and BP Hill access road and RVSS site, the area including and surrounding the project corridor is largely undisturbed (Figure 3-1). IID had an extant gravel/sand quarry located near the eastern terminus of the project area. This site is currently not in use and has been returned to the BLM. In general, vacant desert land exists adjacent to the project corridor in all directions. Agricultural fields, which surround the cities of Calexico (U.S.) and Mexicali (Mexico), begin approximately 1.6 miles to the east, with the residential portions of Calexico and the smaller city of Seeley beginning approximately 10 miles to the east and northeast.

3.2.2 Environmental Consequences

3.2.2.1 No Action Alternative

Under the No Action Alternative, no road improvements or construction would occur; therefore, no new impacts, either beneficial or adverse, would occur on land use within the project region.

3.2.2.2 Proposed Action Alternative

Through the implementation of the Proposed Action Alternative, moderate impacts on land use are expected. The permanent disturbance of up to 7.5 acres of the YDMA would occur as a result of the improvement and construction activities. This amount of disturbance would not cause the BLM to exceed its cumulative cap of one percent of the total area of the YDMA. Further, CBP would compensate BLM for all impacts within the YDMA. Land in the immediate surrounding area would remain uninhabited, and the presence of the proposed roadway would not have an impact on local agricultural or residential areas.

3.2.2.3 BP Hill Improvement Alternative

Impacts for this alternative would be similar to those outlined for the Proposed Action Alternative. However, only up to 7.3 acres of YDMA would be permanently disturbed.

3.3 SOILS

3.3.1 Affected Environment

The Imperial Valley, located within the Salton Trough, is a broad, flat, alluvial area that lies partly below sea level, bounded to the east by branches of the San Andreas Fault and the Brawley Seismic Zone, and to the west by the San Jacinto-Coyote Creek and Elsinore-Laguna Salada Faults (Imperial County/BLM 2012).

Soils found in the project area remain unclassified by the Natural Resource Conservation Service (NRCS) Database; however, soil surveys from similar areas of comparable elevation located approximately 13 miles to the west classify the soil as Rositas. Rositas soils are very deep, formed in sand aeolian material, and are somewhat excessively drained with negligible to low runoff and rapid permeability.

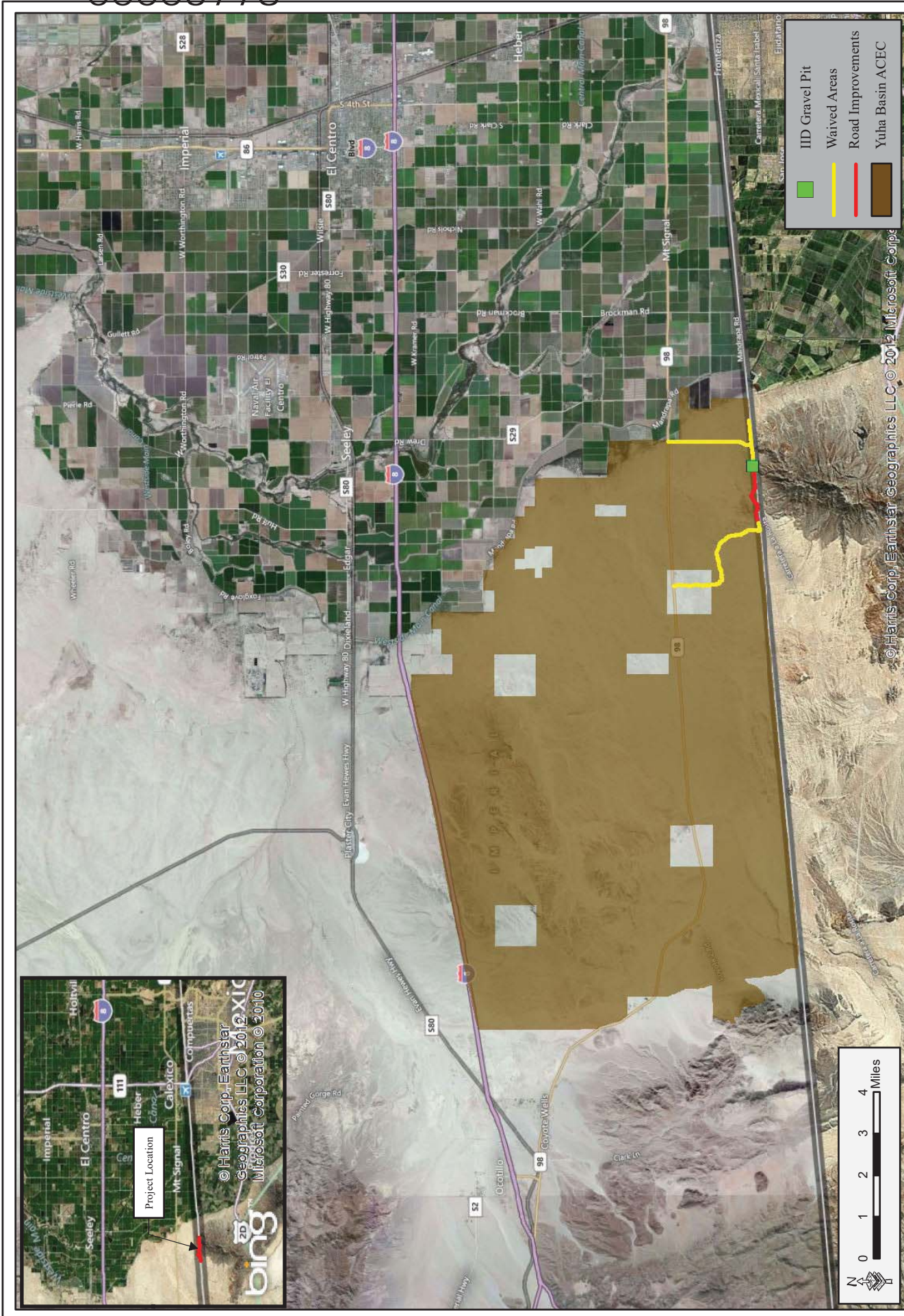


Figure 3-1: Land Use Map

Quaternary lake deposits, alluvium, stream channel deposits, fan deposits, and Pleistocene non-marine deposits comprise the majority of the material with local origin from the Inkopah and Jacumba Mountains to the west and south, and from the Coyote Mountains to the north.

3.3.2 Environmental Consequences

3.3.2.1 No Action Alternative

Under the No Action Alternative, soils within the project corridor would remain the same and no direct impacts would occur. However, possible indirect impacts from the degradation of soils might occur from the unabated illegal traffic in the project area.

3.3.2.2 Proposed Action Alternative

The road improvements would occur along an extant border road, which has become impassable due to lack of maintenance and repair efforts. With implementation of the Proposed Action Alternative, there would be up to 7.5 acres of direct permanent impacts and up to 23.5 acres of temporary impacts on soils. These soils are common locally and regionally. Therefore, no major impacts are expected.

Short-term impacts, such as increased runoff, can be expected on soils from the improvement and construction of the roads; however, these impacts would be alleviated once construction is finished. Long-term effects on soils would be compaction from vehicles on the roads. Pre- and post-construction Best Management Practices (BMP) would be developed and implemented to reduce or eliminate erosion and downstream sedimentation. Compaction techniques and erosion control measures, such as waterbars, gabions, straw bales, and the use of riprap or sediment traps, are some of the BMPs that would be implemented to avoid or minimize potential erosion.

Beneficial indirect impacts on soils north of the project corridor due to less disturbance and; therefore, less compaction and erosion would potentially occur as USBP agents are better able to detect, deter, and apprehend illegal cross-border violators (CBV) as a result of this alternative.

3.3.2.3 BP Hill Improvement Alternative

Under the BP Hill Improvement Alternative, the impacts on soils would be similar to those described for the Proposed Action Alternative. However, this alternative would permanently (up to 7.3 acres) and temporarily (up to 21.7 acres) impact less than the Proposed Action Alternative.

3.4 GEOLOGY

3.4.1 Affected Environment

The project area is located in the Colorado Desert geomorphic province, which was formed as a depression between the Mojave desert to the east and the peninsular ranges to the west. The province lies over the sediment-filled valley formed by the southern extension of the San Andreas Fault system. It covers the extent of the ancient Lake Cahuilla, the current remnant of which is the Salton Sea to the north. Subsurface rocks are Pleistocene and Recent Quaternary sediments (California Geological Survey 2002 and 2010). Signal Mountain is an exposed example of the older, indurated Pleistocene sedimentary rocks.

Groundwater in the region is contained in unconsolidated sands and silts with little to no horizontal barriers to groundwater flow, which is generally to the south and to the east into the Colorado River (California Department of Public Works 2004). The depth to groundwater in the project area is likely over 100 feet below ground surface.

The location of the project area lies over the San Andreas Fault and carries with it the moderately high probability of large damaging earthquake activity (California Department of Conservation 1999). A recent magnitude-7.2 earthquake occurred in the area in 2010.

3.4.2 Environmental Consequences

3.4.2.1 *No Action Alternative*

As a result of the No Action Alternative, no impacts on geologic resources would occur, as no construction or improvement activities would occur.

3.4.2.2 *Proposed Action Alternative*

Construction, improvement, and operation of the proposed roads would not disturb or impact any significant geologic resources of importance in the area. Modifications of surface soils and rocks would not impact groundwater-bearing strata in the area, since the depth to groundwater is generally over 100 feet below ground surface. Because the project area is located in a known earthquake hazard zone, there is the potential for any road improvements to be impacted by future earthquakes, resulting in the need for increased road maintenance and rebuilding of some road structures.

3.4.2.3 *BP Hill Improvement Alternative*

The same impacts as described for the Proposed Action Alternative would occur if this alternative were implemented.

3.5 VEGETATION

3.5.1 Affected Environment

The project area lies in the Lower Colorado River Valley (LCRV) biome of the Sonoran Desert. The vegetation community is broadly classified as Sonoran Desert scrub (Brown 1994). The Sonoran Desert is an extremely arid but hot environment. Where water flow has formed arroyos or channels denser vegetation may form, and outside of these areas that concentrate water vegetation is much sparser.

Site visits and biological surveys of the project area were conducted on June 28, 2012, and are described in a Biological Survey Report (CBP 2012) (Appendix B). During meandering pedestrian surveys, Gulf South Research Corporation (GSRC) biologists noted flora and fauna observed on-site. The project corridor contained less than five percent groundcover, was highly disturbed from past human activities, and the dominant plant species observed was creosote bush, as is typical for this area within the Sonoran Desert (Photograph 3-1 and 3-2).



Photograph 3-1. Vegetation in the project corridor, facing west.



Photograph 3-2. Facing west with creosote bush in foreground.

Among the list of 22 plant species observed was desert holly (*Atriplex hymenelytra*), skeleton weed (*Eriogonum deflexum*), white bursage (*Ambrosia dumosa*), honey mesquite (*Prosopis glandulosa*), and catclaw acacia (*Acacia greggii*). Skeleton weed, honey mesquite, and catclaw acacia were also observed growing along the intermittent washes found in the project corridor. Of the species observed in the project corridor, only Sahara mustard (*Brassica tournefortii*) is considered to be an invasive plant species (CBP 2012). A complete list of species observed is included in Appendix B.

3.5.2 Environmental Consequences

3.5.2.1 No Action Alternative

Under the No Action Alternative, no direct impacts would occur on vegetation communities. However, long-term direct and indirect impacts on vegetation communities would continue and likely increase as a result of CBV activities that damage vegetation, introduce trash and waste, and promote the dispersal and establishment of non-native invasive species. The presence of CBVs and the damage they cause could potentially result in long-term, moderate impacts on vegetation as a result of disturbance and habitat degradation.

3.5.2.2 Proposed Action Alternative

The Proposed Action Alternative would permanently impact up to 7.5 acres of vegetation. Permanent impacts on vegetation include the compaction of the natural substrate and destruction of plants within the road right-of-way (ROW). Additionally, up to 23.5 acres of vegetation would be temporarily impacted during road improvements and construction and the use of turnarounds and staging areas.

Permanent and temporary impacts on vegetation during construction activities would be minimized to the extent practicable through avoidance, minimization, and rehabilitation as discussed in Section 5.0 of this document. Fugitive dust resulting from construction activities would have a minimal effect on plant respiration and photosynthesis. Application of wetting solutions during these activities would further minimize these temporary impacts. Although the direct impacts would permanently remove up to 7.5 acres of vegetation, the impacted vegetation communities and their associated plant species are common throughout Imperial County.

Because maintenance and repair activities would be within the permanently disturbed footprint, no additional impacts would occur.

The effects of the Proposed Action Alternative would not result in the long-term reduction of population viability for any plant species and would not affect any sensitive or rare vegetation communities. Therefore, the direct and indirect impacts on vegetation would not be considered major.

3.5.2.3 BP Hill Improvement Alternative

Under this alternative, vegetation would be permanently and temporarily impacted as described under the Proposed Action Alternative; however, this alternative would impact less acreage (see Table 3-1). The Sonoran Desert scrub vegetation community is extremely common in the vicinity of the project area, and the direct effect of degradation and removal of a total of up to 7.3 acres of vegetation would not have a major adverse effect on vegetation communities in the region. Indirect effects on vegetation would occur as described in the Proposed Action Alternative.

3.6 WILDLIFE

3.6.1 Affected Environment

The Sonoran Desert is extremely hot, and many animals are nocturnal. Many of the animals that inhabit the Sonoran Desert are found throughout the warmer and drier regions of the southwestern United States (Brown 1994). Common mammals include multiple species of bat, coyote (*Canis latrans*), black-tailed jack-rabbit (*Lepus californicus*), desert cottontail (*Sylvilagus audubonii*), Merriam's kangaroo rat (*Dipodomys merriami*), white-throated woodrat (*Neotoma albigula*), and desert pocket mouse (*Chaetodipus penicillatus*). Less common mammals, like the desert kangaroo rat (*Dipodomys deserti*), Bailey's pocket mouse (*Chaetodipus baileyi*), and round-tailed ground squirrel (*Spermophilus tereticaudus*), have more limited distributions and are more specifically characteristic of Sonoran Desert habitats (Brown 1994).

The project corridor is located in a migratory flyway. Raptors, waterbirds such as brown pelican (*Pelecanus occidentalis*) and cormorant (*Phalacrocoracidae* sp.), as well as shorebirds including mountain plover (*Charadrius montanus*) and snowy plover (*Charadrius nivosus*) migrate through the desert habitat between the Gulf of Mexico and the Salton Sea. Common birds include the road runner (*Geococcyx californianus*), mourning dove (*Zenaida macroura*), lesser nighthawk (*Chordeiles acutipennis*), cactus wren (*Campylorhynchus brunneicapillus*), black-tailed gnatcatcher (*Polioptila melanura*), phainopepla (*Phainopepla nitens*), black-throated sparrow (*Amphispiza bilineata*), Gambel's quail (*Callipepla gambelii*), and northern flicker (*Colaptes auratus*) (Brown 1994). Although less abundant, raptors can be common in semidesert grasslands or croplands, and scavengers can be observed throughout the Sonoran Desert. Less than two miles east of the project area are large expanses of irrigated cropland that could attract or concentrate bird species, which may occasionally wander into the project area.

The diverse reptilian fauna in this habitat of the western Sonoran Desert includes desert iguana (*Dipsosaurus dorsalis*), desert spiny lizard (*Sceloporus magister*), Colorado fringed-toed lizard (*Uma notata*), Colorado desert sidewinder (*Crotalus cerastes laterorepens*), rosy boa (*Lichanura trivirgata*), and western shovelnose snake (*Chionactis occipitalis*).

Wildlife observed during biological surveys of the project area included mourning dove, lesser nighthawk, black-throated sparrow, tiger whiptail (*Aspidoscelis tigris*), and long-tailed brush lizard (*Urosaurus graciosus*) (CBP 2012). Although not observed during the surveys, tracks and/or scat were identified within the project corridor for the following species: FTHL, desert kangaroo rat, coyote, kit fox (*Vulpes macrotis*), and sidewinder (*Crotalus cerastes*) (CBP 2012).

The FTHL is currently being managed by an Interagency Coordinating Committee (ICC) following the species listing as Category 2, Candidate for listing as a threatened or endangered species by the USFWS and a candidate species by the CDFG Commission and subsequent lawsuits. The project is located within one of three management areas in Imperial County managed by BLM. The YDMA was established because it was of sufficient area and habitat quality to maintain a self-sustaining FTHL population. Ongoing monitoring of the species has been conducted in the YDMA for many years. Surveys include an established demographic plot in fairly close proximity to the proposed project. Other monitoring efforts include occupancy surveys that represent 45 established plots in the Yuha Desert. The ICC reports annually on results of the monitoring efforts and authorized impacts within the management areas.

3.6.2 Environmental Consequences

3.6.2.1 No Action Alternative

Under the No Action Alternative, no direct impacts on wildlife or wildlife habitat would occur. However, off-road CBV activity and required interdiction actions would continue to degrade wildlife habitat. This degradation of vegetation communities could potentially impact wildlife through a loss of cover, forage, nesting, and other opportunities, and potentially a loss of suitable habitat over large areas if wildfires are ignited. Off-road vehicle and pedestrian traffic would continue to disturb wildlife species, cause fauna to avoid areas of high illegal traffic volume, and disturb or degrade wildlife habitat.

3.6.2.2 Proposed Action Alternative

Under the Proposed Action, up to 7.5 acres of Yuha Desert ACEC habitat would be directly and permanently impacted and cleared of vegetation. Less mobile individuals such as lizards, snakes, or mice could be impacted as tunnels and burrows collapse during road improvements and construction. During construction most wildlife, however, would presumably avoid direct harm by escaping into surrounding habitat where individuals would be forced to compete with other fauna for food, water, and shelter resources.

Disturbance from construction noise and presence of equipment and people would also impact wildlife. The effects of these disturbances on wildlife would include temporary avoidance of work areas and increased competition for unaffected resources. Due to the limited extent and duration of construction activities, the impacts would be minor. Mitigation measures, including pre-construction surveys for nesting migratory birds, would reduce construction-related impacts; these measures are outlined in Section 5.0 of this EA.

Once the project is complete, the road would be more accessible and frequently used by CBP. The increased use would disturb wildlife, which may seek areas with less human activity. The Proposed Action could result in indirect and long-term beneficial impacts on wildlife by reducing the adverse impacts of CBV activity and the resulting law enforcement response. Direct impacts from off-road enforcement actions would be reduced as agents use the designated and improved roadway.

3.6.2.3 BP Hill Improvement Alternative

With the implementation of the BP Hill Alternative, impacts would be similar to those described for the Proposed Action Alternative.

3.7 THREATENED AND ENDANGERED SPECIES

3.7.1 Affected Environment

The ESA protects endangered and threatened species, as well as the habitat upon which they depend for their survival. Federal agencies are required to implement protective measures to avoid or mitigate effects on listed species and to further the purposes of the ESA whenever practicable. The Secretary of the Interior is responsible for the listing of species and development of recovery plans. USFWS is the primary agency responsible for implementing the ESA and is responsible for birds, terrestrial species, and freshwater species. The USFWS responsibilities under the ESA include (1) the identification of threatened and endangered species; (2) the identification of critical habitats for listed species; (3) implementation of research on, and recovery efforts for, these species; and (4) consultation with other Federal agencies concerning measures to avoid harm to listed species.

An endangered species is a taxonomic group officially recognized by the USFWS as being in danger of extinction throughout all or a significant portion of its range. A threatened species is a taxonomic group likely to become endangered within the foreseeable future throughout all or a significant portion of its range. Proposed species are those that have been formally submitted to Congress for official listing as threatened or endangered. Species may be considered endangered or threatened when any of the five following criteria occur: (1) current/imminent destruction, modification, or curtailment of their habitat or range; (2) overuse of the species for commercial, recreational, scientific, or educational purposes; (3) disease or predation; (4) inadequacy of existing regulatory mechanisms; and (5) other natural or human-induced factors affecting continued existence.

In addition, the USFWS has identified species that are candidates for listing as a result of identified threats to their continued existence. The candidate designation includes those species for which the USFWS has sufficient information to support proposals to list as endangered or threatened under the ESA. However, proposed rules have not yet been issued because such actions are precluded at present by other listing activity. Although not afforded protection by the ESA, candidate species may be protected under other Federal or state laws.

Biological surveys of the project area were conducted by GSRC on June 28, 2012. No Federally listed or state-listed species were observed during the biological surveys. However, scat and tracks from FTHL, which is a conservation species, were observed within the project corridor.

3.7.1.1 Federal

Four Federally listed species may potentially occur near the project corridor or similar habitat in Imperial County, California (Table 3-2, Appendix C) (USFWS 2012). Of these four species, none have the potential to occur in the project area because no suitable habitat for any of the listed species is located in the project corridor.

Table 3-2. Federally Listed Species for Imperial County, California

Common/Scientific Name	Federal Status	Habitat	Potential to Occur in the Proposed Project Area
BIRDS			
Least Bell's vireo (<i>Vireo bellii pusillus</i>)	Endangered	Inhabits dense shrubs and trees along riparian corridors.	No
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	Endangered; Proposed Critical Habitat	Inhabits riparian forests, oak (<i>Quercus</i> spp.) woodlands, and shrub willow (<i>Salix</i> spp.) patches along high-elevation streams and meadows, and broad-leaf deciduous forest along desert washes and streams.	No
Yuma clapper rail (<i>Rallus longirostris yumanensis</i>)	Endangered	Inhabits freshwater marshes containing dense stands of cattail (<i>Typha</i> spp.) and bulrush (<i>Juncus</i> spp.), and mature stands of emergent vegetation along margins of shallow ponds with stable water levels.	No
MAMMALS			
Peninsular bighorn sheep (<i>Ovis Canadensis ssp. Nelson</i>)	Endangered; Critical Habitat	Steep terrain that allows escape from predators and has a high variation in slope and aspect. Also known from alluvial fans, valleys linking mountain chains, and washes with browse plants.	No

Source: USFWS 2012

3.7.1.2 Critical Habitat

The ESA also calls for the conservation of designated "Critical Habitat" – the areas of land, water, and air space that an endangered species requires for survival. Critical Habitat also includes such things as food and water sources, breeding sites, cover or shelter, and sufficient habitat area to provide for normal population growth and behavior. One of the primary threats to many species is the destruction, conversion, or modification of essential habitat by uncontrolled land and water development.

Two of the four Federally-listed species have designated Critical Habitat. They are the southwestern willow flycatcher and peninsular bighorn sheep (see Table 3-2). No Critical Habitat occurs within or adjacent to the project area, and the closest designated Critical Habitat is for peninsular bighorn sheep approximately 15 miles to the west (USFWS 2009).

3.7.1.3 State

The CDFG maintains a list of species that are state-listed as rare, threatened, or endangered (CDFG 2012). This list is available in Appendix C and includes 14 animal and 3 plant species that could occur in Imperial County, California. These species are not necessarily the same as

those protected under the ESA. No individuals or habitat for any of the state-listed threatened or endangered species were observed during biological surveys.

3.7.1.4 BLM Sensitive Species

The BLM publishes a list of special status plants and animals which includes BLM sensitive species on lands in the BLM El Centro district of California, where the project area lies, and those lists are provided in Appendix C. Many of these are also listed by the Federal government or the State of California.

Although no Federally listed or state-listed species were observed during the biological surveys, FTHL was recorded in the project corridor. The FTHL is a BLM sensitive species. In addition, five Federal agencies (including BLM) signed a Memorandum of Agreement to protect the FTHL and its habitat on Federal lands. The Strategy specifies compensatory mitigation for ground disturbing impacts within FTHL management areas.

One burrow complex, presumably inhabited by desert kangaroo rats, that could provide habitat for the BLM-listed western burrowing owl (*Athene cunicularia*) and kit fox (*Vulpes macrotis*) was observed and recorded during the June 2012 survey efforts (CBP 2012). The kit fox, burrowing owl, and badger (*Taxidea taxus*) may occur in the project area, and the BLM indicated that these species are of growing concern to CDFG and to area natural resource managers.

3.7.2 Environmental Consequences

3.7.2.1 No Action Alternative

Under the No Action Alternative, no direct impacts on threatened or endangered species or their habitats would occur. However, the direct and long-term impacts of CBV and consequent law enforcement activities throughout the project area and surrounding areas would continue to threaten listed species and their habitats. CBV activities create trails, damage vegetation, promote the dispersal and establishment of invasive species, and can result in catastrophic wild fires. These actions have an indirect adverse impact on threatened and endangered plant species by causing harm to individuals and degrading their habitat.

The presence of CBVs and resulting law enforcement activities can disturb sensitive animal species, result in their temporary displacement from vital resources, and potentially result in the loss of individuals due to heightened response and exertion, particularly when exposed to high daytime temperatures. The degree of this impact would be dependent on environmental stressors (i.e., drought, season), the health of the animal, and the duration and frequency of disturbances.

3.7.2.2 Proposed Action Alternative

Under the Proposed Action Alternative, there would be no adverse effects on Federally listed or state-listed threatened and endangered species or their habitats, as none exist within the project area. However, long-term, beneficial effects would occur by lessening impacts of CBV activity on habitats throughout the project area and surrounding desert.

The Proposed Action would potentially impact the habitat of four BLM sensitive species: the western burrowing owl, FTHL, kit fox, and badger. Although potential habitat for the western burrowing owl, kit fox, and badger would be impacted, these species were not observed during

recent biological surveys, and the habitat for these species is both locally and regionally common. Biological monitors would be on-site during construction activities, if a western burrowing owl, kit fox, or badger is seen occupying a burrow or structure in the project area, CDFG recommended buffers would be established until the animal has left the project area. Therefore, any potential impacts would not be considered major.

FTHL habitat would be impacted by the construction activities, and there is the potential for taking individuals. BMPs discussed in Section 5.0 of this document, such as preconstruction surveys and monitoring for the presence of the FTHL during construction activities, as well as compensation for loss of habitat, would reduce the impacts on FTHL. When these BMPs are combined with the fact that there is an abundance of habitat for the FTHL both locally and regionally, no major impacts would occur as a result of the Proposed Action Alternative.

3.7.2.3 BP Hill Improvement Alternative

The BP Hill Alternative would have the same impacts on protected species as discussed under the Proposed Action Alternative.

3.8 WATER RESOURCES

3.8.1 Affected Environment

Water quality for designated beneficial uses is protected by the state and should work in tandem with sections 303 and 305 of the Clean Water Act (CWA).

3.8.1.1 Surface Waters

The proposed project area falls within the Colorado River Basin Hydrologic Region (HR) Unit, 1 of 10 hydrologic regions in California that correspond to major watersheds and drainage areas managed by the California Department of Water Resources. As the Proposed Action project area is located within the Colorado River Basin HR, actions within the area are subject to the management directives of the Water Quality Control Plan (Basin Plan) for the Imperial Valley Planning Area, under the jurisdiction of the Colorado River Basin RWQCB.

The Colorado River provides the dominant water source for the area, with water transported via the All-American Canal. Approximately 3.1 million acre-feet of Colorado River water is diverted through the All-American Canal annually (Alles 2011). Surface waters in the area are predominantly used for irrigation, industrial, and domestic purposes (RWQBC 2006). Other surface waters are located several miles to the northeast and east of the project corridor and include the Salton Sea, the Alamo River, the New River, and the Dixie Drain, which runs adjacent to and drains agriculture fields in western Calexico. There are several other smaller canals in the surrounding area that provide irrigation for agricultural purposes.

3.8.1.2 Groundwater

Groundwater in southern California is supplied from two aquifers: the Basin-Fill and the Alluvium and Older Sediments (INS 2001). The project corridor lies within the Coyote Wells Valley Groundwater Basin, which covers approximately 64,000 acres. The depth to groundwater in the project area is likely over 100 feet below ground surface (California Department of Public Works 2004). Common sources of contamination of groundwater include irrigation return flow,

application of pesticides, improper waste disposal, and untreated wastewater. The general quality of the aquifer is low, with data indicating bicarbonate-chloride as the dominant compound. The total recharge to this basin is principally derived from percolation of precipitation on the valley and ephemeral runoff from the surrounding mountains. Unconfined shallow groundwater exists in parts of the basin, but logs indicate confined groundwater conditions for several wells drilled near Ocotillo and Coyote Wells (CDWR 2004).

3.8.1.3 Waters of the United States and Wetlands

Section 404 of the CWA of 1977 (P.L. 95-217) authorizes the Secretary of the Army, acting through the USACE, to issue permits for the discharge of dredged or fill material into Waters of the U.S., including wetlands. Waters of the U.S. (Section 328.3[2] of the CWA) are those waters used in interstate or foreign commerce, subject to ebb and flow of tide, and all interstate waters including interstate wetlands. Waters of the U.S. are further defined as all other waters such as intrastate lakes, rivers, streams, mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, natural ponds or impoundments of waters, tributaries of waters, and territorial seas. Jurisdictional boundaries for Waters of the U.S. are defined in the field as the ordinary high water mark, which is that line on the shore or bank established by the fluctuations of water and indicated by physical characteristics such as clear, natural lines impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. Wetlands are those areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (USACE 1987).

Waters of the U.S. do occur as ephemeral drainages throughout the project corridor, and the survey identified six ephemeral washes bisecting the project corridor that could potentially be regulated as Waters of the U.S. (Figure 3-2). The total impact on the six potential Waters of the U.S. is less than 0.2 acre. Additionally, no wetlands were observed during the biological survey on June 28, 2012.

3.8.2 Environmental Consequences

3.8.2.1 No Action Alternative

Implementation of the No Action Alternative would not result in any impacts on surface waters, groundwater, or Waters of the U.S.

3.8.2.2 Proposed Action Alternative

Water for construction use would be trucked on site and delivered via water truck. It is estimated that 7.8 acre-feet of water (4.9 acre-feet per mile) would be needed for construction purposes. The water would either be provided from the All-American Canal or through a privately permitted water supplier. The one-time use of water from the All-American Canal could result in a temporary reduction of available water in the region; however, this reduction is *de minimis* when in comparison to the volume of water (i.e., 3.1 million acre-feet per year) flowing through the canal. Also, any water obtained from a private contractor would be from permitted wells that are allowed to withdraw set volumes. This minor extraction would have no measurable impact on the water quality or quantity of the region. BMPs to minimize the potential for runoff and sedimentation of the ephemeral washes would also be incorporated into the design of the project.



Figure 3-2: Waters of the U.S. within the Project Area

A Stormwater Pollution Prevention Plan (SWPPP) will also be developed and implemented to ensure long-term recovery of the area and to prevent major soil erosion problems.

The Proposed Action Alternative would not result in a permanent impact on any perennial or intermittent streams, as none are present within the project corridor. As mentioned above, six potential jurisdictional ephemeral Waters of the U.S. were identified during field surveys within the project corridor. The six ephemeral washes that are Waters of the U.S. would be traversed using concrete low-water crossings, reinforced concrete pipes, box culverts, or bridges. The expected total impact on those Waters of the U.S. is less than 0.2 acre. The impacted areas associated with these washes range from 0.004 to 0.1 acre. Therefore, each of the crossings would meet the threshold (0.5 acre) for authorization under Section 404 Nationwide Permit 14. Since each has independent utility, each crossing would be considered a single and complete project. Additionally, since all of the Waters of the U.S. crossings do not exceed 0.1 acre these road improvement and construction actions would not require notifying the USACE; however, a Section 401 Water Quality Certification would be obtained from the RWQCB.

The Proposed Action Alternative would not impact any surface water resource sites with the installation of the proposed roadway. Proper maintenance of construction equipment and the use of BMPs during construction activities would minimize the possibility of accidental spills of petroleum, oil, and lubricants (POL) that, if they occurred, could affect surface water and groundwater quality. Operation and maintenance of the proposed roadways would have no effect on the region's surface water or groundwater supplies and/or quality.

3.8.2.3 BP Hill Improvement Alternative

Under this alternative, the impacts on surface waters, groundwater, or Waters of the U.S. would be the same as those described for the Proposed Action Alternative.

3.9 AIR QUALITY

3.9.1 Affected Environment

The U.S. Environmental Protection Agency (USEPA) established National Ambient Air Quality Standards (NAAQS) for specific pollutants determined to be of concern with respect to the health and welfare of the general public. Ambient air quality standards are classified as either "primary" or "secondary." The major pollutants of concern, or criteria pollutants, are carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), ozone (O₃), particulate matter less than 10 microns (PM-10), particulate matter less than 2.5 microns (PM-2.5), and lead (Pb). NAAQS represent the maximum levels of background pollution that are considered safe, with an adequate margin of safety, to protect the public health and welfare. The NAAQS are included in Table 3-3.

Areas that do not meet these NAAQS standards are called non-attainment areas; areas that meet both primary and secondary standards are known as attainment areas. The Federal Conformity Final Rule (40 CFR Parts 51 and 93) specifies criteria or requirements for conformity determinations for Federal projects. The Federal Conformity Rule was first promulgated in 1993 by the USEPA, following the passage of Amendments to the Clean Air Act in 1990. The rule mandates that a conformity analysis must be performed when a Federal action generates air

pollutants in a region that has been designated a non-attainment or maintenance area for one or more NAAQS.

Table 3-3. National Ambient Air Quality Standards

Pollutant	Primary Standards		Secondary Standards	
	Level	Averaging Time	Level	Averaging Times
Carbon Monoxide	9 ppm (10 mg/m ³)	8-hour ⁽¹⁾	None	
	35 ppm (40 mg/m ³)	1-hour ⁽¹⁾		
Lead	0.15 µg/m ³ ⁽²⁾	Rolling 3-Month Average	Same as Primary	
	1.5 µg/m ³	Quarterly Average	Same as Primary	
Nitrogen Dioxide	53 ppb ⁽³⁾	Annual (Arithmetic Average)	Same as Primary	
	100 ppb	1-hour ⁽⁴⁾	None	
Particulate Matter (PM-10)	150 µg/m ³	24-hour ⁽⁵⁾	Same as Primary	
Particulate Matter (PM-2.5)	15.0 µg/m ³	Annual ⁽⁶⁾ (Arithmetic Average)	Same as Primary	
	35 µg/m ³	24-hour ⁽⁷⁾	Same as Primary	
Ozone	0.075 ppm (2008 std)	8-hour ⁽⁸⁾	Same as Primary	
	0.08 ppm (1997 std)	8-hour ⁽⁹⁾	Same as Primary	
	0.12 ppm	1-hour ⁽¹⁰⁾	Same as Primary	
Sulfur Dioxide	0.03 ppm	Annual (Arithmetic Average)	0.5 ppm	3-hour ⁽¹⁾
	0.14 ppm			
	75 ppb ⁽¹¹⁾	1-hour	None	

Source: USEPA 2012a at <http://www.epa.gov/air/criteria.html>

Units of measure for the standards are parts per million (ppm) by volume, parts per billion (ppb - 1 part in 1,000,000,000) by volume, milligrams per cubic meter of air (mg/m³), and micrograms per cubic meter of air (µg/m³).

⁽¹⁾ Not to be exceeded more than once per year.

⁽²⁾ Final rule signed October 15, 2008.

⁽³⁾ The official level of the annual NO₂ standard is 0.053 ppm, equal to 53 ppb, which is shown here for the purpose of clearer comparison to the 1-hour standard

⁽⁴⁾ To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 100 ppb (effective January 22, 2010).

⁽⁵⁾ Not to be exceeded more than once per year on average over 3 years.

⁽⁶⁾ To attain this standard, the 3-year average of the weighted annual mean PM_{2.5} concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m³.

⁽⁷⁾ To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m³ (effective December 17, 2006).

⁽⁸⁾ To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm (effective May 27, 2008).

⁽⁹⁾ (a) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 ppm.

(b) The 1997 standard—and the implementation rules for that standard—will remain in place for implementation purposes as EPA undertakes rulemaking to address the transition from the 1997 ozone standard to the 2008 ozone standard.

(c) EPA is in the process of reconsidering these standards (set in March 2008).

⁽¹⁰⁾ (a) EPA revoked the [1-hour ozone standard](#) in all areas, although some areas have continuing obligations under that standard ("anti-backsliding").

(b) The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is ≤ 1.

⁽¹¹⁾ (a) Final rule signed June 2, 2010. To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75 ppb.

A conformity analysis is the process used to determine whether a Federal action meets the requirements of the General Conformity Rule. It requires the responsible Federal agency to evaluate the nature of a proposed action and associated air pollutant emissions and calculate emissions as a result of the proposed action. If the emissions exceed established limits, known as de minimis thresholds, the proponent is required to implement appropriate mitigation measures.

Both the Federal government and the State of California monitor air quality in California. The USEPA classifies Imperial County as a moderate non-attainment area for 8-hour ozone, serious non-attainment for PM-10, and moderate non-attainment of PM-2.5 (EPA 2012b). California Air Resources Board (CARB) classifies Imperial County as in non-attainment for ozone, PM-2.5 and PM-10 (CARB 2010). Table 3-4 presents a summary of attainment and maintenance status for NAAQS and California Ambient Air Quality Standards (CAAQS) in Imperial County.

Table 3-4. NAAQS and CAAQS Air Quality Status in Imperial County

Pollutant	Federal Designation	State Designation
O ₃	Non-attainment (Moderate)	Non-attainment
CO	Attainment	Attainment
PM-10	Non-Attainment (Serious)	Non-attainment
PM-2.5	Non-attainment (Moderate)	Non-attainment
NO ₂	Attainment	Attainment
SO ₂	Attainment	Attainment
Pb	Attainment	Attainment
Sulfates	No Federal standard	Attainment
Hydrogen Sulfide	No Federal standard	Unclassified
Visibility-Reducing Particles	No Federal standard	Unclassified

Source: USEPA 2012b and CARB 2012

3.9.1.1 Greenhouse Gases and Climate Change

Global climate change refers to a change in the average weather on the earth. Greenhouse gases (GHG) are gases that trap heat in the atmosphere. They include water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), fluorinated gases including chlorofluorocarbons (CFC) and hydrochlorofluorocarbons (HFC), and halons, as well as ground-level O₃ (California Energy Commission 2007).

The major GHG-producing sectors in society include transportation, utilities (e.g., coal and gas power plants), industry/manufacturing, agriculture, and residential. End-use sector sources of GHG emissions include transportation (40.7 percent), electricity generation (22.2 percent), industry (20.5 percent), agriculture and forestry (8.3 percent), and other (8.3 percent) (California Energy Commission 2007). The main sources of increased concentrations of GHG due to human activity include the combustion of fossil fuels and deforestation (CO₂), livestock and rice farming, land use and wetland depletions, landfill emissions (CH₄), refrigeration system and fire suppression system use and manufacturing (CFC), and agricultural activities, including the use of fertilizers (California Energy Commission 2007).

Final Mandatory GHG Inventory Rule

In response to the Consolidation Appropriations Act (House Resolution 2764; PL 110–161), USEPA has issued the Final Mandatory Reporting of Greenhouse Gases Rule. The rule requires

large sources that emit 25,000 metric tons (27,557 U.S. tons) or more per year of GHG emissions to report GHG emissions in the United States, collect accurate and timely emissions data to inform future policy decisions, and submit annual GHG reports to the USEPA. The final rule was signed by the Administrator on September 22, 2009, published on October 30, 2009, and made effective December 29, 2009.

GHG Threshold of Significance

CEQ drafted guidelines for determining meaningful GHG decision-making analysis. The CEQ guidance states that if the Project would be reasonably anticipated to cause direct emissions of 25,000 metric tons (27,557 U.S. tons) or more of CO₂ GHG emissions on an annual basis, agencies should consider this a threshold for decision makers and the public. CEQ does not propose this as an indicator of a threshold of significant effects, but rather as an indicator of a minimum level of GHG emissions that may warrant some description in the appropriate NEPA analysis for agency actions involving direct emissions of GHG (CEQ 2010).

The GHG covered by EO 13514 are CO₂, CH₄, N₂O, HFC, perfluorocarbons, and sulfur hexafluoride. These GHG have varying heat-trapping abilities and atmospheric lifetimes. CO₂ equivalency (CO₂e) is a measuring methodology used to compare the heat-trapping impact from various greenhouse gases relative to CO₂. Some gases have a greater global warming potential than others. Nitrous oxides (NO_x), for instance, have a global warming potential that is 310 times greater than an equivalent amount of CO₂, and CH₄ is 21 times greater than an equivalent amount of CO₂ (USEPA 2010).

3.9.2 Environmental Consequences

3.9.2.1 No Action Alternative

The No Action Alternative would not result in any direct impacts on air quality because there would be no construction activities. However, fugitive dust emissions created by illegal off-road vehicle traffic and resulting law enforcement actions and vehicle traffic would continue and likely increase. These fugitive dust emissions would continue to adversely affect the air quality of the region.

3.9.2.2 Proposed Action Alternative

Temporary and minor increases in air pollution would occur from the use of construction equipment (combustion emissions) and the disturbance of soils (fugitive dust) during construction. The following paragraphs describe the methodologies used to estimate air emissions produced by the construction activities.

Fugitive dust emissions were calculated using USEPA's preferred emission factor of 0.19 ton per acre per month (Midwest Research Institute 1996), which is a more current standard than the 1985 PM-10 emission factor of 1.2 tons per acre-month presented in AP-42 Section 13 Miscellaneous Sources 13.2.3.3 (USEPA 2001).

NONROAD2008a model was used to estimate air emissions from construction equipment. It is USEPA's preferred model for estimating emissions from non-road sources (USEPA 2009a). Combustion emission calculations were made for standard construction equipment, such as a

backhoe, bulldozer, dump truck, and cement truck. Assumptions were made regarding the total number of days and hours each piece of equipment would be used.

Construction workers would temporarily increase the combustion emissions in the airshed during their commute to and from the project area. Emissions from trucks delivering materials such as cement, fill, and supplies would also contribute to the overall air emission budget. Emissions from delivery trucks and construction worker commuters traveling to the job site were calculated using USEPA's preferred on-road vehicle emission model MOVES2010a (USEPA 2009b).

The total air quality emissions from the construction activities were calculated and compared to the *de minimis* thresholds of the General Conformity Rule. Summaries of the total emissions for construction activities are presented in Table 3-5. Details of the conformity analyses are presented in Appendix D.

Table 3-5. Total Air Emissions (tons/year) from the Proposed Action Construction versus the *de minimis* Threshold Levels-Imperial County

Pollutant	Total (tons/year)	<i>de minimis</i> Thresholds (tons/year) ¹
CO	9.52	100
Volatile Organic Compounds (VOC)	6.23	100
Nitrous Oxides (NOx)	16.36	100
PM-10	5.91	70
PM-2.5	1.74	100
SO ₂	1.92	100
CO ₂ and CO ₂ equivalents	6,338	27,557

Source: 40 CFR 51.853 and Gulf South Research Corporation (GSRC) model projections.

¹ Note that Imperial County is in non-attainment for Ozone, PM-10 (serious), and PM 2.5 (USEPA 2010 and CARB 2012).

Several sources of air pollutants would contribute to the overall air impacts of the construction project. The air results in Table 3-5 included emissions from the following sources.

- Combustion engines of construction equipment
- Construction workers commuting to and from work
- Supply trucks delivering materials to construction site
- Fugitive dust from job-site ground disturbances

As can be seen from the tables above, the proposed construction and operational activities do not exceed Federal *de minimis* thresholds for NAAQS, CAAQS, and GHG and, thus, would not require a Conformity Determination. As there are no violations of air quality standards and no conflicts with the state implementation plans, the impacts on air quality from the implementation of the Proposed Action would not be major. BMPs would be incorporated to ensure that fugitive dust and other air quality constituent emission levels do not rise above the minimum threshold as required per 40 CFR 51.853(b)(1), and are located in Section 5.8.

3.9.2.3 *BP Hill Improvement Alternative*

Under the BP Hill Improvement Alternative, the total air quality emissions from the construction activities would be similar to those calculated for the Proposed Action Alternative. The proposed construction and operational activities would not be expected to exceed Federal *de minimis* thresholds for NAAQS, CAAQS, and GHG and, similar to the Proposed Action Alternative, would not require a Conformity Determination. As there are no violations of air quality standards and no conflicts with the state implementation plans, the impacts on air quality from the implementation of this alternative would be minor. BMPs would be utilized to ensure that emission levels are below Federal minimum thresholds.

3.10 NOISE

3.10.1 Affected Environment

Noise is generally described as unwanted sound, which can be based either on objective effects (i.e., hearing loss, damage to structures, etc.) or subjective judgments (e.g., community annoyance). Sound is usually represented on a logarithmic scale with a unit called the decibel (dB). Sound on the decibel scale is referred to as sound level. The threshold of human hearing is approximately 3 dB, and the threshold of discomfort or pain is around 120 dB. The A-weighted decibel (dBA) is a measurement of sound pressure adjusted to conform with the frequency response of the human ear. The dBA metric is most commonly used for the measurement of environmental and industrial noise.

Noise levels occurring at night generally produce a greater annoyance than do the same levels occurring during the day. It is generally agreed that people perceive intrusive noise at night as being 10 dBA louder than the same level of intrusive noise during the day, at least in terms of its potential for causing community annoyance. This perception is largely because background environmental sound levels at night in most areas are also about 10 dBA lower than those during the day.

Long-term noise levels are computed over a 24-hour period and adjusted for nighttime annoyances to produce the day-night average sound level (DNL). DNL is the community noise metric recommended by the USEPA and has been adopted by most Federal agencies (USEPA 1974). A DNL of 65 dBA is the level most commonly used for noise planning purposes and represents a compromise between community impact and the need for activities like construction.

Residential Neighborhoods

Acceptable noise levels have been established by the U.S. Department of Housing and Urban Development (HUD) for construction activities in residential areas (HUD 1984):

Acceptable (not exceeding 65 dBA) – The noise exposure may be of some concern, but common building construction will make the indoor environment acceptable, and the outdoor environment will be reasonably pleasant for recreation and play.

Normally Unacceptable (above 65 but not greater than 75 dBA) – The noise exposure is significantly more severe; barriers may be necessary between the site and prominent noise sources to make the outdoor environment acceptable; special building construction may be necessary to ensure that people indoors are sufficiently protected from outdoor noise.

Unacceptable (greater than 75 dBA) – The noise exposure at the site is so severe that the construction costs to make the indoor noise environment acceptable may be prohibitive, and the outdoor environment would still be unacceptable.

Noise Attenuation

As a general rule of thumb, noise generated by a stationary noise source, or “point source,” will decrease by approximately 6 dBA over hard surfaces and 9 dBA over soft surfaces for each doubling of the distance. For example, if a noise source produces a noise level of 85 dBA at a reference distance of 50 feet over a hard surface, then the noise level would be 79 dBA at a distance of 100 feet from the noise source, 73 dBA at a distance of 200 feet, and so on. To estimate the attenuation of the noise over a given distance, the following relationship is utilized:

$$\text{Equation 1: } dBA_2 = dBA_1 - 20 \log^{(d_2/d_1)}$$

Where:

dBA_2 = dBA at distance 2 from source (predicted)
 dBA_1 = dBA at distance 1 from source (measured)
 d_2 = Distance to location 2 from the source
 d_1 = Distance to location 1 from the source

Source: California Department of Transportation (Caltrans) 1998

The project corridor is located in a rural area and the closest sensitive noise receptor is a residential home located approximately 2.2 miles north of the project corridor.

3.10.2 Environmental Consequences

3.10.2.1 No Action Alternative

Under the No Action Alternative, the sensitive noise receptors and wildlife near the proposed project site would not experience construction noise emissions; however, noise emissions associated with CBV off-road travel and consequent law enforcement actions would be long-term and minor, and would continue under the No Action Alternative.

3.10.2.2 Proposed Action Alternative

Construction Noise

The proposed construction activities would require the use of common construction equipment. Table 3-6 presents noise emission levels for construction equipment expected to be used during the proposed construction activities. Anticipated sound levels at 50 feet from various types of construction equipment range from 76 dBA to 84 dBA, based on data from the Federal Highway Administration (FHWA) 2007.

Table 3-6. A-Weighted (dBA) Sound Levels of Construction Equipment and Modeled Attenuation at Various Distances¹

Noise Source	50 feet	100 feet	200 feet	500 feet	1000 feet
Backhoe	78	72	66	58	51
Dump Truck	76	70	64	56	49
Excavator	81	75	69	61	54
Concrete mixer truck	79	73	67	59	52
Bulldozer	84	78	72	64	57
Front-end loader	82	76	70	62	55

Source: FHWA 2007

¹The dBA at 50 feet is a measured noise emission. The 100- to 1,000-foot results are GSRC modeled estimates.

Construction would involve the use of a bulldozer, which has a noise emission level of 84 dBA at 50 feet from the source. Assuming the worst case scenario, the noise model (Caltrans 1998) estimates that noise emissions of 84 dBA would have to travel 450 feet before they would attenuate to an acceptable level of 65 dBA. To achieve an attenuation of 84 dBA to a normally unacceptable level of 75 dBA, the distance from the noise source to the receptor would need to be 140 feet. The closest sensitive noise receptor near the project corridor is over 11,000 feet away; therefore, the noise impacts from construction activities would be considered negligible.

3.10.2.3 BP Hill Improvement Alternative

Impacts as a result of this alternative would be the same as those described for the Proposed Action Alternative.

3.11 CULTURAL, HISTORICAL, AND ARCHAEOLOGICAL RESOURCES

3.11.1 Affected Environmental

3.11.1.1 Current Investigations

Prior to fieldwork, GSRC conducted a search of records on file at South Coastal Information Center of the California Historic Resources Information System at San Diego State University. Previous investigations and known cultural resources within a 1-mile radius of the project area were also cross-checked with records at the BLM El Centro Field Office. The review of cultural resources records indicates that 33 known previous projects were conducted within 1-mile surrounding the project corridor. These investigations have resulted in the identification of 39 archaeological sites (38 prehistoric and 1 historic). Two previously recorded sites, CA-IMP4833 and CA-IMP-4829, were identified as being located within or adjacent to the project corridor. CA-IMP-4833 is described as a historic cairn and trail segment located near the eastern end of the road. CA-IMP-4829 is described as a prehistoric quartz chipping station in the same vicinity. In addition, one isolated feature (13-009617), which consists of International Boundary Monument No. 225, was also identified adjacent to the project corridor.

GSRC Archaeologists David Hart, Dean Barnes, and Adam Searcy conducted the Class III intensive survey of the entire project area under California BLM Permit No. CA-12-09; Fieldwork Authorization No. CA-670-12-086-FA-01 from July 9 through July 11, 2012. GSRC has submitted a Draft Cultural Resources Survey Report to the BLM El Centro Field Office for review and approval. Mr. John Bathke, Tribe Historic Preservation Officer of the Fort Yuma

Quechan Tribe was on-site while GSRC conducted the survey. No new archaeological sites and nine isolated occurrences (IOs) were identified and recorded. The IOs consist of five General Land Office (GLO) historic survey markers, a scatter of milled lumber and nails, International Boundary Monument No. 224, a tobacco tin, and a shell fragment.

GSRC attempted to relocate both of the previously recorded archaeological sites, CA-IMP-4829 and CA-IMP-4833, as part of the pedestrian survey. GSRC determined that both sites have been completely destroyed by an extensive gravel quarry operated by the Imperial Irrigation District.

There were no aboveground historic structures within a 1-mile radius of the APE.

3.11.1.2 Tribal Concerns

Section 106 of the National Historic Preservation Act requires Federal agencies to take into account the effects of their undertakings on historic properties and defines procedures governing Federal agencies' statutory responsibilities. Revisions to these procedures emphasized consultation with Native American tribes as part of the Section 106 process for all Federal undertakings subject to Section 106 review, regardless of whether or not the undertaking is on tribal land. GSRC requested a Sacred Lands File and Native American Contacts List Requests on behalf of CBP on June 14, 2012, from the Native American Heritage Commission (NAHC). On June 18, 2012, the NAHC conducted a Sacred Lands File search of its inventory and did not identify any Native American cultural resources in the APE (Appendix A). However, the project is proximate to Native American cultural resources (NAHC 2012).

3.11.2 Environmental Consequences

3.11.2.1 No Action Alternative

No new impacts on cultural resources would occur upon implementation of the No Action Alternative, as no improvement or construction activities would take place. No changes in ongoing operations would occur with this alternative.

3.11.2.2 Proposed Action Alternative

Two NRHP-eligible historic objects, International Boundary Monuments No. 224 and No. 225, were identified through the records search and fieldwork. Both monuments would be avoided during construction; therefore, no impacts would occur to the monuments. In the absence of any other intact NRHP-eligible archaeological sites or historic properties located within the project corridor, no adverse impacts are expected to occur on any cultural resources or historic properties as a result of the Proposed Action Alternative. The California SHPO has concurred with CBP's determination of no adverse impacts (Appendix A). Additionally, BMPs as described in Section 5.7 would be implemented in an effort to avoid or minimize impacts on the GLO markers.

3.11.2.3 BP Hill Improvement Alternative

The impacts under the BP Hill Improvement Alternative are expected to be the same as those outlined under the Proposed Action Alternative.

3.12 ROADWAYS AND TRAFFIC

3.12.1 Affected Environment

The only paved road that has regular vehicle traffic near the project corridor is SR 98, which is approximately 2 miles north of the project corridor. SR 98 would be used to access the project corridor from the west and east via existing unimproved roads. Vehicles expected to travel SR 98 during construction activities include transport vehicles and delivery trucks.

3.12.2 Environmental Consequences

3.12.2.1 *No Action Alternative*

The No Action Alternative would not increase the use of roadways, and traffic volumes would not change because no construction or improvements would occur.

3.12.2.2 *Proposed Action Alternative*

Vehicle traffic along SR 98 would be increased by approximately 40 vehicles per day during the construction period. This increase in daily traffic volume would consist of heavy-duty delivery trucks and construction personnel passenger vehicles. During project construction, the delivery of materials and equipment could cause minor delays along the affected segment of SR 98.

The 2011 annual average daily traffic volume on SR 98 (Imperial Highway portion) was approximately 1,650 vehicles per day (Caltrans 2012). The potential increase (2 percent) of traffic associated with this alternative is well below the capacity of SR 98. Although additional construction traffic would impair traffic flow on SR 98, these impacts would be temporary and, therefore, minimal.

3.12.2.3 *BP Hill Improvement Alternative*

Under this alternative, the impacts on roadways and traffic within the project area would be similar to those described for Proposed Action Alternative.

3.13 AESTHETICS AND VISUAL RESOURCES

3.13.1 Affected Environment

Aesthetic resources consist of the natural and man-made landscape features that appear indigenous to the area and give a particular environment its visual characteristics. Construction would occur in the Yuha Basin ACEC on Federal lands managed by the BLM. BLM manages these lands to ensure that activities preserve the character of the landscape. Lands controlled by BLM are assigned a visual resource inventory class, which has a two-fold purpose. First, it serves as an inventory tool that portrays the relative value of the visual resources, and secondly, it serves as a management tool that portrays the visual management objectives.

Visual resources are divided into four Visual Resource Management (VRM) classes. The project area and its vicinity are characterized as VRM Class III. The objective of VRM Class III is to partially retain the existing character of the landscape. Management activities can attract attention but should not dominate the view of the public. The level of change to the characteristic landscape can be moderate to high.

The project corridor has limited aesthetic value due to past and ongoing human activities within and adjacent to the project corridor. The project corridor is adjacent to CBP infrastructure (i.e., vehicle barriers), IID gravel/sand quarry, and a water treatment facility and associated roads in Mexico. In addition, the project corridor has been degraded due to illegal foot and vehicle traffic and subsequent law enforcement actions.

3.13.2 Environmental Consequences

3.13.2.1 No Action Alternative

Aesthetics in the project corridor would continue to diminish with the implementation of the No Action Alternative. The vegetation and landscape within the area would continue to be destroyed and trampled. Thus, negative impacts on aesthetics and visual resources in the area would be expected to continue with the selection of the No Action Alternative.

3.13.2.2 Proposed Action Alternative

Degradation of the aesthetic value of the project area would occur during construction, within the immediate area. It should be noted, however, that the proposed site is adjacent to the U.S./Mexico border, which has been heavily degraded due to illegal vehicle/foot traffic and the subsequent USBP actions required to monitor and halt/apprehend these illegal activities. A minor to negligible visual impact would occur initially after construction activities but would be reduced over time. The varied and undulating terrain along the project corridor would preclude sight of the proposed construction and improvement activities, except in the immediate vicinity and/or from high vantage points. The Proposed Action Alternative is consistent with the visual resource management goals of the BLM. Thus, no major impacts on aesthetics and visual resources within the project corridor are expected.

3.13.2.3 BP Hill Improvement Alternative

Under this alternative, the impacts on aesthetics and visual resources within the area would be the same as those described for the Proposed Action Alternative.

3.14 HAZARDOUS MATERIALS

3.14.1 Affected Environment

There are a total of 10 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Superfund sites identified within Imperial County; however, none are located on or near the proposed project corridor (USEPA 2012). Only one site, located north of the City of Calexico and approximately 15 miles from the proposed site location, is designated as a Superfund site and is currently listed as having National Priorities List (NPL) status. In addition, no Resource Conservation and Recovery Act (RCRA) violation and corrective action sites, Leaking Underground Storage Tanks sites, NPL sites, or No Further Remedial Action Planned sites are known to exist near the proposed project corridor (USEPA 2012c).

No visual evidence of hazardous materials or environmental liabilities, including odors, drums, stained soil, stressed vegetation, wastewater, wells, and/or septic tanks, were observed during the site visit on June 28, 2012. According to USEPA (2012c), there is no known or suspected toxic and/or hazardous material contamination in the area surrounding the proposed project corridor, and there are no known historic land uses at the proposed sites that might have resulted in toxic

or hazardous material contamination of the underlying soil and/or groundwater resources. A transaction screen assessment, in accordance with American Society for Testing and Materials (ASTM) standard E1528-06 was performed for the project corridor, and no potential environmental concerns were identified.

3.14.2 Environmental Consequences

3.14.2.1 No Action Alternative

No impacts would occur on hazardous materials or wastes upon implementation of the No Action Alternative.

3.14.2.2 Proposed Action Alternative

No hazardous materials were observed during field surveys. In addition, no known state or Federal sites with known contamination exists in the project corridor area. Temporary impacts could occur, as the potential exists that POL and other hazardous materials could be released during improvement and construction activities. Through the use of proper BMPs (see Section 5), frequent vehicle inspections, and careful handling of hazardous materials, the possibility of either leaks or spills would be minimized; thus, no or negligible impacts are expected to occur.

3.14.2.3 BP Hill Improvement Alternative

Under the BP Hill Improvement Alternative, the impacts from hazardous wastes and materials within the project area would be the same as those described for the Proposed Action Alternative.

3.15 SOCIOECONOMICS

3.15.1 Affected Environment

This socioeconomics section outlines the basic attributes of population and economic activity in Imperial County, California, and the City of Calexico. The area is sparsely populated and relatively low-income, and in 2011, Imperial County had the highest unemployment rate of any county in the Nation, with an annual average unemployment rate of 29.7 percent.

3.15.1.1 Population

Population data for Imperial County, Calexico, and the study area census tract are shown in Table 3-7. Imperial County and Calexico grew rapidly, 22.6 and 42.3 percent, respectively, over the last decade, while California's population growth (10 percent) was in line with growth across the Nation (9.7 percent).

Table 3-7. Population

	Census Tract 123.01	Calexico	Imperial County	California
2010 Population	5,633	38,572	174,528	37,253,956
2000 Population	5,202	27,109	142,361	33,871,648
Percent Change	8.3	42.3	22.6	10.0

Source: U.S. Census Bureau 2000 and 2010a.

The project area is a high minority area, as shown in Table 3-8. According to the 2010 Census, more than 80 percent of the population of Imperial County and more than 96 percent of

Calexico's population reports being of Hispanic or Latino origin. Slightly more than half of the population of Census Tract 123.01 reports being of Hispanic or Latino origin, with the census tract also reporting almost 28 percent Black or African American.

Table 3-8. Race and Ethnicity

	Hispanic	White, Not Hispanic	Black or African American
Imperial County	80.4	13.7	3.8
Calexico	96.8	1.7	0.6
Census Tract 123.01	51.1	19.3	27.8
California	37.6	40.1	7.2
United States	16.3	63.7	13.6

Source: U.S. Census Bureau 2010a.

As shown in Table 3-9, American Community Survey estimates show that Imperial County has a much lower percentage of high school and college graduates than the State of California and the Nation. In Imperial County, only 62.3 percent of persons age 25 and above have a high school credential compared to more than 80 percent for the State of California and 85 percent for the Nation. Only about 12 percent of Imperial County residents have a bachelor's degree or higher compared to more than 30 percent for California and almost 28 percent for the Nation.

Table 3-9. Educational Attainment

Percent of Persons Age 25+	Imperial County	California	United States
High school graduate	62.3%	80.7%	85.0%
Bachelor's degree or higher	12.2%	30.1%	27.9%

Source: U.S. Census Bureau 2010b

3.15.1.2 Employment, Poverty Levels, and Income

In 2011, the annual average labor force in Imperial County was 77,561. The unemployment rate was 29.7 percent, the highest county unemployment rate in the Nation. It was more than triple the National unemployment rate of 8.9 percent and well above the 11.7 percent unemployment rate for the State of California (U.S. Bureau of Labor Statistics 2011).

The economy of the region is heavily based on agriculture, with farms irrigated using water from the Colorado River via the All-American Canal. The county is an important producer of vegetable and melon crops, field crops, and livestock, with top commodities including cattle, lettuce, and alfalfa (Imperial County 2010).

County Business Patterns data show that employment in Imperial County is concentrated in the "retail," "healthcare and social assistance," and "accommodation and food services" categories, as shown in Table 3-10. Together they account for approximately 51 percent of employment in Imperial County, compared to 35 percent for California and 38 percent for the U.S. The "retail" and "accommodation and food services" industries are historically lower-paying industries. Industries that are typically higher-paying, such as "information" and "professional, scientific,

and technical services,” account for only about 4 percent of employment in Imperial County compared to 13 percent for the State of California.

Table 3-10. Employment by Industry Sector (Percent of Total)

	Imperial County	California	United States
Forestry, fishing, hunting, and agricultural support	2%	<1%	<1%
Mining, quarrying, and oil and gas extraction	<1%	<1%	1%
Utilities	NA	NA	1%
Construction	5%	5%	5%
Manufacturing	11%	10%	10%
Wholesale trade	6%	6%	5%
Retail trade	25%	12%	13%
Transportation and warehousing	5%	3%	4%
Information	1%	4%	3%
Finance and insurance	3%	5%	5%
Real estate and rental and leasing	2%	2%	2%
Professional, scientific, and technical services	3%	9%	7%
Management of companies and enterprises	<1%	2%	2%
Admin & Support; Waste Management & Remediation Services	5%	8%	8%
Educational services	1%	3%	3%
Health care and social assistance	14%	13%	15%
Arts, entertainment, and recreation	2%	<1%	2%
Accommodation and food services	12%	10%	10%
Other services (except public administration)	3%	4%	5%
Industries not classified	<1%	<1%	NA

Source: U.S. Census Bureau 2009

Income and poverty data are shown in Table 3-11. Per capita income for Imperial County is very low at \$27,342, which is 68.5 percent of the National average. Per capita income for California, \$42,514, is more than 106 percent of the National average. Median household income for Imperial County and Calexico are also well below California and the Nation (U.S. Bureau of Economic Analysis [BEA], 2009).

Table 3-11. Income and Poverty

	Census Tract 123.01	Calexico	Imperial County	California	United States
Per capita personal income (dollars), 2009		NA	\$27,342	\$42,514	\$39,937
Per capita income as a percent of U.S., 2009		NA	68.5	106.5	100
Median Household Income (2006-2010)		\$34,848	\$38,685	\$60,883	\$51,914
Persons of all ages below poverty level, percent, 2006-2010	19.5	22.1	21.4	13.7	13.8

Sources: U.S. Census Bureau 2010b and U.S. BEA 2009.

As might be expected based on the income numbers and unemployment rate, the poverty rates for Imperial County and the City of Calexico (21.4 and 22.1 percent, respectively) are well above the poverty rates for California (13.7 percent) and the Nation (13.8 percent) (U.S. Census Bureau 2010b).

3.15.1.3 Housing

Data on housing units in the project area, California, and the Nation are presented in Table 3-12. These data show that in Census Tract 123.01, a much higher than average percentage of the population lives in the homes they own, with 74 percent of the homes owner-occupied, compared to about 55 percent for Imperial County and 65 percent for the Nation. The homeowner and rental vacancy rates in Census Tract 123.01 are also much higher than the county, the state, and the Nation.

Table 3-12. Housing Units

Geographic Area	Total Housing Units	Occupied			Homeowner Vacancy Rate* (Percent)	Rental Vacancy Rate** (Percent)	Vacant Units for Rent
		Units	Percent Owner Occupied	Percent Renter Occupied			
Census Tract 123.01	975	448	74.0	26.0	7.1	16.1	151
Calexico	10,651	10,116	53.7	46.3	2.6	3.1	23
Imperial County	56,067	49,126	55.9	44.1	3.5	7.5	1,762
State of California	13,680,081	12,577,498	55.9	44.1	2.1	6.3	374,610
United States	131,704,730	116,716,292	65.1	34.9	2.4	9.2	4,137,567

Source: U.S. Census Bureau 2010a

*Homeowner vacancy rate is the proportion of the homeowner inventory that is vacant "for sale."

** Rental vacancy rate is the proportion of the rental inventory that is vacant "for rent."

3.15.2 Environmental Consequences

3.15.2.1 No Action Alternative

The No Action Alternative would result in no new impacts on socioeconomics within the region, as no road construction and improvements would occur.

3.15.2.2 Proposed Action Alternative

The proposed project area is located approximately 10 miles west of the nearest populated area, Calexico, California. During construction there would be a temporary but minimal increase in population from the addition of construction crews in the area. No housing units or businesses are located within the footprint of the Proposed Action Alternative, so no displacement of existing people or businesses would be anticipated. Construction crews would stay at hotels. As a result, no additional demand for housing is anticipated during construction. No major adverse impacts on the regional economy or demographics would be anticipated from the Proposed Action Alternative. However, the proposed improvements would have temporary cumulative beneficial impacts on the region's economy due to temporary employment and sales taxes generated through the purchase of construction-related items such as fuel and food.

3.15.2.3 BP Hill Improvement Alternative

Under the BP Hill Improvement Alternative, the impacts on regional economy or demographics would be the same as those described for the Proposed Action Alternative.

3.16 HUMAN HEALTH AND SAFETY

3.16.1 Affected Environment

Human health effects occur in a variety of forms, such as exposure to chemicals, extreme temperatures, weather, and physical security and safety. Generally, human health factors are driven by factors that differ substantially by geographic area. In the project area, factors that could impact human health range from automobile accidents, extreme weather such as wildfires and high temperatures, and physical security on the site, as well as minimizing the chance that non-site workers could venture on the project site and be harmed. However, the general area surrounding the project site consists of BLM desert scrubland. No residences or community parks are located within 2.0 miles of the project corridor.

3.16.2 Environmental Consequences

3.16.2.1 No Action Alternative

Under the No Action Alternative, no construction would occur; therefore, there would be no direct impacts, either beneficial or adverse, on human health and safety due to construction activities. However, USBP agents would continue to face safety related issues while trying to maintain and access the BP Hill RVSS tower, as well as patrol the existing border road.

3.16.2.2 Proposed Action Alternative

There is little potential for USBP agents, private contractors, BLM personnel, or the general public to be at risk from a human health and safety aspect as a result of the Proposed Action Alternative. Construction would occur during daylight hours, whenever possible. Safety buffer zones would be designated around all construction sites to ensure public health and safety. Automobile traffic associated with construction and operation of the improved roadway is not anticipated to increase the risks of automobile accidents or roadway capacities. Through BMPs developed for general construction practices (see Section 5.0), and because of the rural nature of the project area with no residences located near the project footprint, negligible impacts would be expected.

3.16.2.3 BP Hill Improvement Alternative

Under the BP Hill Improvement Alternative, the impacts on human health and safety would be the same as those described for the Proposed Action Alternative.

3.17 SUSTAINABILITY AND GREENING

3.17.1 Affected Environment

In accordance with EO 13423, Strengthening Federal Environmental, Energy, and Transportation Management (72 FR 3919), CBP would incorporate practices in an environmentally, economically, and fiscally sound, integrated, continuously improving, efficient, and sustainable manner in support of its mission. CBP implements practices throughout the agency to:

1) improve energy efficiency and reduce GHG emissions; 2) implement renewable energy projects; 3) reduce water consumption; 4) incorporate sustainable environmental practices such

as recycling and the purchase of recycled-content products; and 5) reduce the quantity of toxic and hazardous materials used and disposed of by the agency.

3.17.2 Environmental Consequences

3.17.2.1 No Action Alternative

The No Action Alternative would not increase the use of fossil fuels or GHG emissions because no additional construction would occur.

3.17.2.2 Proposed Action Alternative

Under the Proposed Action Alternative, the Federal sustainability and greening practices would be implemented, to the maximum extent practicable. No major impacts regarding Sustainability and Greening would occur.

3.17.2.3 BP Hill Improvement Alternative

Under the BP Hill Improvement Alternative, the impacts on sustainability and greening would be the same as those described for the Proposed Action Alternative.

3.18 PALEONTOLOGICAL RESOURCES

3.18.1 Affected Environment

The surface and near-surface geologic units in the project area are of Recent and Holocene age, between 500 and 8,000 years old, and are a result of deposition of sediments in and around the ancient Lake Cahuilla (San Diego State University 2012). Lake Cahuilla was the predecessor of the current Salton Sea, and held a significant volume of fresh to slightly brackish water. Studies of the history of Lake Cahuilla indicate that the lake was active from the Pleistocene glacial periods to as recent as 500 years B.P. Sediments deposited in the lake and on shorelines around the lake contain dead vertebrate (fish) and invertebrate (gastropods and mollusks) organisms, but the types of organisms present in Lake Cahuilla are nearly identical to those presently found in the Salton Sea remnant of the ancient lake. Also, during the active period of Lake Cahuilla, Native American peoples lived around the shores of the lake and harvested organisms for food (Salton Sea Authority 2012). Discarded shells and fish bones would have been reworked by humans and thus would be considered archaeological artifacts, not fossils. The Proposed Action would occur near the center of the former Lake Cahuilla, and sediments in that area would be the youngest due to the retreat of the lake toward the center as water evaporated through time. Therefore, the potential for discovery of significant paleontological resources during any excavation activities is considered low.

3.18.2 Environmental Consequences

3.18.2.1 No Action Alternative

The No Action Alternative would result in no new impacts on paleontological resources within the region, as no road construction or improvements would occur.

3.18.2.2 Proposed Action Alternative

A pedestrian archaeological survey of the project corridor was conducted, and no fossil shells or bones were identified on the surface. No relict shoreline features are present within the project corridor, and significant recently deposited gravel and boulder material is present on the surface.

Any fossilized shells found in these deposits would be loose, and would have no provenance relationship with the original sediments from which they came. Additionally, based on the geotechnical borings and cores recovered for the Proposed Action, no indurated rock strata were recovered (Michael Baker 2012).

Using the BLM Potential Fossil Yield Classification (PFYC) System, the potential for discovery of vertebrate fossils or scientifically significant non-vertebrate fossils would be low, fitting into the PFYC Class 2. The deposits are younger than 10,000 years B.P., any remains found would be identical to currently living organisms, any fossils found would be loose with no indication of provenance, no scientific knowledge could be gained from the study of any loose fossils found, and any concentration of shells or fish bones found would be treated as an archaeological site. As stated in the BLM's Instruction Memorandum Number 2008-009, the assessment or mitigation of paleontological resources in areas classified as Class 2 is not likely to be necessary. CBP would have cultural resources monitors on-site during ground-disturbing activities, which will also reduce the likelihood of impacting unknown paleontological resources. Therefore, CBP considers any potential impacts on this resource from ground-disturbing activities of the Proposed Action to be negligible.

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SECTION 4.0
CUMULATIVE IMPACTS



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4.0 CUMULATIVE IMPACTS

NEPA regulations define cumulative impacts as an “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 1508.7). Cumulative impacts can result from individually minor, but collectively significant, actions taking place over a period of time by various agencies (Federal, state, and local) or individuals. Informed decision making is served by consideration of cumulative impacts resulting from activities that are proposed, under construction, recently completed, or anticipated to be implemented in the reasonably foreseeable future.

This cumulative impacts analysis summarizes expected environmental effects from the combined impacts of past, current, and reasonably foreseeable future activities that affected any part of the human or biological environment impacted by the Proposed Action. Activities were identified for this analysis by reviewing CBP and BLM documents, news/press releases and published media reports, and through consultation with planning and engineering departments of local governments, and state and Federal agencies.

4.1 CBP PROJECTS

USBP has been conducting law enforcement actions along the U.S/Mexico border since its inception in 1924, and has continually transformed its methods as new missions, CBV modes of operations, agent needs, and National enforcement strategies have evolved. Development and maintenance of training ranges, station and sector facilities, detention facilities, and roads and fences have affected hundreds of acres of resources in southern California, including the climate and landscapes that support native plants and animals, as well as socioeconomic conditions in border communities.

All CBP actions have been in support of the agency’s mission to gain and maintain control of the United States’ borders. Infrastructure projects have supported the operational methods determined to be the most effective approach to achieving the agency’s mission. Each of these projects has been compliant with NEPA, and measures to avoid, minimize, or mitigate for the adverse effects on the human and biological environment have been developed and implemented on a project-specific basis. With continued funding and implementation of BMPs developed as part of past, ongoing, and future actions, including environmental education and training of its agents, use of biological and archaeological monitors, and restoration activities, the direct impacts of these projects have been and would be prevented or minimized.

As mentioned previously, CBP published the May 2008 Environmental Stewardship Plan (ESP) for the Construction, Operation, and Maintenance of Tactical Infrastructure, U.S. Border Patrol (USBP), El Centro Sector, California, which described the proposed TI and any potential environmental impacts. The TI to be constructed within the El Centro Sector was divided into five segments designated as BV-1, B-2, B-4, B5-A, and B-5B. Segments BV-1 and B-2 adjoin the current project area from the west and east, respectively. Within these segments, 71.8 acres

were impacted from the construction of fence, access and patrol roads, and staging areas. The total project footprint for all TI constructed as part of the El Centro project was 326 acres.

The Proposed Action Alternative addressed in this EA is part of a larger TI project, portions of which are waived from NEPA and other Federal regulatory compliance by the Secretary of DHS. The other elements of the larger TI project include the improvement, operation, and maintenance of two staging areas, two access roads, and border road to the east and west of the proposed project area. In addition to the Proposed Action Alternative and other elements that are covered by the Secretary's waiver and are part of the larger TI project, CBP has proposed and is evaluating a program of ongoing maintenance and repair of existing tactical infrastructure within the ROI. CBP has considered both the Proposed Action Alternative and the other elements in examining cumulative impacts

4.2 PRIVATE/OTHER AGENCY/ORGANIZATION PROJECTS

Numerous private renewable energy projects have been identified as either ongoing or proposed near the project area that could have a cumulative impact when combined with the Proposed Action Alternative (BLM 2012b). These activities are described below.

- **Calexico Solar Farm I, Under Construction:** Solar photovoltaic project encompassing 1,013 acres of farmland along the All-American Canal, west of Calexico, California.
- **Calexico Solar Farm II, Ongoing:** Solar photovoltaic project encompassing 1,477 acres of farmland near the All-American Canal, west of Calexico, California.
- **Mount Signal Solar Farm, Ongoing:** A proposed 200-megawatt (MW), 1,375-acre solar project with a biomass generation component and 230-kilovolt transmission line. This project would be located on existing farmlands.
- **Imperial Solar Energy Center South Solar Farm, Ongoing:** This project is a proposed 200 MW solar facility with a transmission line and associated road widening on 946.6 acres of existing farmlands, which is located west of Calexico near the All-American Canal.
- **Centinela Solar Farm, Ongoing:** This proposed solar farm consists of 2,067 acres. The solar farm would be located on existing farmland located near SR 98, west of Calexico.
- **Acorn Greenworks Solar Farm, Ongoing:** This project would be located north of SR 98 on approximately 693 acres and would consist of a 150 MW solar energy facility.
- **Silverleaf Solar Farm, Ongoing:** The Silverleaf Solar Farm is proposed north of SR 98 and south of Interstate 8 near the western boundary of the YDMA in existing farmland. The project would encompass 1,096 acres and would be a 160 MW solar photovoltaic energy facility.
- **Campo Verde Solar Farm, Ongoing:** Over 2,260 acres of farmland would be converted to a 226 MW solar energy facility.
- **Imperial Valley Solar West Solar Farm, Ongoing:** This project entails a 1,130-acre, 250 MW solar energy facility, and associated transmission line.
- **Sunrise Powerlink-Transmission, Project Complete:** This project consists of the construction of a 117-mile transmission line from San Diego County to the Imperial Valley Substation. The total acreage impacted as a result of the project is approximately 282.3 acres.

Although the renewable energy projects described above are primarily located on private lands, a few of the projects do have components that traverse BLM lands. In general, only a transmission line needs to be constructed across BLM lands with minimal disturbance being created. BLM is also in the process of potentially approving a renewable energy project wholly within BLM lands (i.e., Ocotillo Solar Project). The Ocotillo Solar Project would impact approximately 102 acres of locally and regionally common creosote-white bursage vegetative community. No major adverse impacts on Federally protected species, Waters of the U.S., or cultural resources are expected as a result of the project.

4.3 IDENTIFICATION OF CUMULATIVE EFFECTS ISSUES

Impacts on each resource can vary in degree or magnitude from a slightly noticeable change to a total change in the environment. For the purpose of this analysis, the intensity of impacts will be classified as negligible, minor, moderate, or major. These intensity thresholds were previously defined in Section 3.1.

4.3.1 Land Use

A major impact would occur if any action is inconsistent with adopted land use plans or if an action would substantially alter those resources required for supporting or benefiting the current use. Improvements and construction of the roads would change land use from recreation to CBP infrastructure. This change would be minor because it would be located near the heavily disturbed U.S./Mexico border (which is typically not used for recreation) and within an existing road. CBV activities and CBP and law enforcement activities have historically and recently cumulatively impacted land uses for public lands in Southern California. Although land use in Southern California has changed dramatically over time, in recent history, management of the lands affected by the Proposed Action Alternative has been consistent with the mission of BLM. Additionally, the combination of the Proposed Action Alternative and other planned projects within the YDMA would not exceed the one percent cap of cumulative impacts as allowed per the FTHL Rangeland Management Strategy. Therefore, when the Proposed Action Alternative is combined with other projects in the area, it would have a negligible cumulative effect on the ability of land managers to implement land use policies.

4.3.2 Soils

A major impact would occur if the action exacerbates or promotes long-term erosion, if the soils are inappropriate for the proposed construction and would create a risk to life or property, or if there would be a substantial reduction in agricultural production or loss of prime farmland soils. Within the project area, it is estimated that the CBP would remove up to 7.5 acres of primarily disturbed soils from production. Other CBP projects, such as the pedestrian and vehicle fence projects in southern Imperial County, have resulted in hundreds of acres of soils disturbance; however, these soils were regionally and locally common. Although the road improvements and construction would impact negligible amounts of soils, the cumulative impacts on soils from CBP projects, private entity projects, and land management activities from other agencies, such as BLM, would not be considered a major cumulative adverse impact.

4.3.3 Geology

The Proposed Action Alternative would not affect geologic resources. Therefore, this action, when combined with other existing and proposed projects in the region, would result in a negligible cumulative impact on geologic resources.

4.3.4 Vegetation

The significance threshold for vegetation would include a substantial reduction in ecological processes, communities, or populations that would threaten the long-term viability of a species or result in the substantial loss of a sensitive community that could not be offset or otherwise compensated. The proposed project would permanently impact up to 7.5 acres that is sparsely vegetated (less than five percent ground cover). The other CBP projects in the region were also located in degraded, sparsely vegetated areas (Algododunes Dunes and All-American Canal). The solar farms planned in the region would be constructed primarily on existing agricultural lands. Therefore, when the Proposed Action Alternative is combined with other private and BLM projects in the region, negligible cumulative impacts on native vegetation communities would occur.

4.3.5 Wildlife

The significance threshold for wildlife and aquatic resources would include a substantial reduction in ecological processes, communities, or populations that would threaten the long-term viability of a species or result in the substantial loss of a sensitive community that could not be offset or otherwise compensated. Past CBP projects were completed within areas that were degraded from past activities and within areas of sparse vegetation. As mentioned previously, the other ongoing or proposed projects in the region are primarily located within existing agricultural areas. Most of the land use in the region is undeveloped and would be unchanged, even with the Proposed Action Alternative and other development projects. Therefore, this proposed project, in conjunction with other regionally proposed projects, would have a negligible impact on regional wildlife populations due to loss of habitat.

4.3.6 Protected Species and Critical Habitats

A major impact on threatened and endangered species would occur if any action resulted in a jeopardy opinion for any endangered, threatened, or rare species. No adverse cumulative impacts would occur, as the Proposed Action Alternative would have no effects on any Federally-listed or state-listed threatened or endangered species. Conversely, the Proposed Action Alternative would have an adverse effect on one conservation species, FTHL, due to habitat loss and potential individual mortality. Although up to 7.5 acres of habitat would be permanently impacted, only 3.6 of those acres are considered undisturbed. CBP has agreed to implement mitigation measures (minimize impacts, provide biological monitors, and provide compensation) that would offset any impacts to achieve no adverse impacts on the FTHL or its habitat. This project when combined with other ground-disturbing or development projects in the region, would have minor cumulative impacts on FTHL.

4.3.7 Water Resources

The construction, improvement, and maintenance of proposed roadways would have no impact on groundwater or wetlands and less than 0.2 acre of surface waters (ephemeral washes) would be impacted. The implementation of BMPs would reduce erosion and sedimentation during

construction to negligible levels and would eliminate post-construction erosion and sedimentation from the project area. The same measures would be implemented for other construction projects; therefore, cumulative impacts would be considered negligible.

4.3.8 Air Quality

Numerous activities have affected air quality throughout the region. As part of compliance with the Federal General Conformity Rule, GSRC performed an air conformity analysis during the development of this EA. It was determined that the impacts of the Proposed Action Alternative would be temporary, minor, and below the *de minimis* threshold presented in the General Conformity Rule. Other projects in the airshed do not exceed *de minimis* thresholds and the combination of these projects should not cause an exceedance of Federal ambient air quality standards. Thus, the Proposed Action Alternative in combination with other projects would have a negligible adverse cumulative effect on air quality. Long-term beneficial impacts from the reduction of fugitive dust would occur as the solar farms are constructed within old agricultural fields.

4.3.9 Noise

Actions would be considered to cause major impacts if they permanently increase ambient noise levels over 65 dBA. Most of the noise generated by the Proposed Action Alternative would occur during construction and, thus, would not contribute to cumulative impacts on ambient noise levels. Maintenance activities along the roads would create a minor increase in ambient noise levels; however, potential sources of noise from periodic maintenance operations are not sufficient (temporal or spatial) to increase day-night average ambient noise levels above the 50 dBA range at the proposed site. The other projects occurring or potentially occurring within the ROI are removed from the proposed project area and construction activities would likely not be contemporaneous. Therefore, the potential for cumulative impacts is negligible.

4.3.10 Cultural Resources

The Proposed Action Alternative would not affect cultural resources or historic properties. Therefore, this action, when combined with other existing and proposed projects in the region, would result in a negligible cumulative impact on cultural resources or historic properties.

4.3.11 Aesthetics and Visual Resources

Actions that cause the permanent loss of the characteristics that make an area visually unique or sensitive would be considered to cause a major impact. No major impacts on visual resources would occur from implementing the Proposed Action Alternative, due in part to the site being previously disturbed, adjacent to existing CBP infrastructure, a gravel/sand quarry, and other development in Mexico. This project, in conjunction with other projects in the region, would not result in major adverse cumulative impacts on the region's visual resources.

4.3.12 Hazardous Materials

The Proposed Action includes measures to reduce the potential effects of pollutants associated with the handling of POL, VOC, and hazardous materials, and would have a minor cumulative effect on hazardous waste.

4.3.13 Socioeconomic

Construction of the proposed improvements would have temporary cumulative beneficial impacts on the region's economy due to temporary employment and sales taxes generated through the purchase of construction-related items such as fuel and food. When combined with the other currently proposed or ongoing projects within the region, the Proposed Action Alternative is considered to have minor beneficial cumulative impacts.

4.3.14 Human Health and Safety

No health or safety risks would be created by the Proposed Action Alternative. In fact, the improvements are intended to reduce safety risks to USBP agents and the public, especially when agents are able to be more effective in reaching currently less accessible areas. When combined with other ongoing and proposed projects in the region, the Proposed Action Alternative would have a negligible cumulative effect.

SECTION 5.0
BEST MANAGEMENT PRACTICES



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5.0 BEST MANAGEMENT PRACTICES

It is CBP's policy to reduce impacts through a sequence of avoidance, minimization, mitigation, and compensation. This chapter describes those measures that would be implemented to reduce or eliminate potential adverse impacts on the human and natural environment. Many of these measures have been incorporated as standard operating procedures by CBP on past projects. BMPs are presented for each resource category potentially affected.

5.1 PROJECT PLANNING/DESIGN – GENERAL CONSTRUCTION

The all-weather road will be sited, designed, and improved/constructed to avoid or minimize habitat loss within or adjacent to the footprint. The amount of aboveground obstacles associated with the site will be minimized.

CBP will ensure that all construction will follow DHS *Directive 025-01* for Sustainable Practices for Environmental, Energy, and Transportation Management.

CBP will incorporate BMPs relating to project area delineation, water sources, waste management, and site restoration into project planning and implementation for construction and maintenance.

5.2 GENERAL CONSTRUCTION ACTIVITIES

CBP will clearly demarcate project construction area perimeters with a representative from the land management agency. No disturbance outside that perimeter will be authorized without prior coordination and approval of the land manager.

Within the designated disturbance area, CBP will minimize the area to be disturbed by limiting deliveries of materials and equipment to only those needed for effective project implementation.

CBP will avoid contamination of ground and surface waters by storing any water that has been contaminated with construction materials, oils, equipment residue, etc., in closed containers on-site until removed for disposal. This wash water is toxic to wildlife. Storage tanks must have proper air space (to avoid rainfall-induced overtopping), be on-ground containers, and be located in upland areas instead of washes.

In the event that CBP contaminates soil or water resources as a result of the proposed project, the contaminated soil or water will be remediated as per BLM requirements.

CBP will avoid transmitting disease vectors, introducing invasive non-native species, and depleting natural aquatic systems by using wells, irrigation water sources, or treated municipal sources for construction or irrigation purposes instead of natural sources.

CBP will place drip pans under parked equipment and establish containment zones when refueling vehicles or equipment.

5.3 VEGETATION

CBP will minimize habitat disturbance by restricting vegetation removal to the smallest possible project footprint. Native seeds or plants, which are compatible with the enhancement of protected species, will be used to the greatest extent practicable, as required under Section 7(a)(1) of the ESA, to rehabilitate staging areas and other temporarily disturbed areas. Additionally, organic material will be collected and stockpiled during construction to be used for erosion control after construction while the areas naturally rehabilitate.

Construction equipment will be cleaned at temporary staging areas, in accordance with BMPs, prior to entering and departing project areas to minimize the spread and establishment of non-native invasive plant species.

5.4 WILDLIFE RESOURCES

The Migratory Bird Treaty Act (MBTA) (16 USC 703-712, [1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989]) requires that Federal agencies coordinate with the USFWS if a construction activity would result in the take of a migratory bird. If construction or clearing activities are scheduled during nesting season (February 15 through September 1), surveys will be performed to identify active nests. If construction activities will result in the take of a migratory bird, then coordination with the USFWS and CDFG will be required and applicable permits would be obtained prior to construction or clearing activities. Another mitigation measure that would be considered is to schedule all construction activities outside nesting season, negating the requirement for nesting bird surveys.

CBP will not, for any length of time, permit any pets inside the project area or adjacent native habitats. This BMP does not pertain to law enforcement animals.

5.5 PROTECTED SPECIES

Construction equipment will be cleaned prior to entering and departing the project corridor area to minimize the spread and establishment of nonnative invasive plant species. Soil disturbances in temporary impact areas would be rehabilitated. Designated travel corridors would be marked with easily observed removable or biodegradable markers, and travel would be restricted to established road construction areas.

A qualified monitor will be present during the improvement, construction, and maintenance of the proposed roads in FTHL habitat. Duties of the monitor(s) would include surveying the roadways prior to improvement/construction and removing and relocating lizards outside the project area. In addition, CBP would compensate for loss of habitat using the formula outlined in the FTHL Rangewide Management Strategy.

Based upon field visits, aerial photography, and discussions with BLM, CBP has determined that of the potential 7.5 acres of habitat permanently impacted only 3.6 of those acres are considered undisturbed native habitat (the new BP Hill road is included in this acreage). The remaining 3.9 acres consists of previously disturbed habitat in the form of the existing roadway (15 feet wide)

and the extant IID gravel/sand quarry area (the eastern 2,300 feet of the project corridor). Figure 5-1 is a schematic showing how CBP classified the disturbed versus undisturbed acreages along the existing border road.

The Rangewide Management Strategy formula uses a multiplying factor (M) ranging from 3 to 6 to be applied to the affected acreage to obtain an adjusted compensation acreage. The formula is as follows:

$$M = 3 + A + G + E + D$$

- A Adjacent habitat impacts:
 - a) Adjacent lands will not be affected.....0
 - b) Adjacent lands will receive direct or indirect deleterious impacts.....0.5

- G Growth-inducing effects within FTHL habitat:
 - a) The project will have no growth-inducing effects0
 - b) The project will have growth-inducing effects.....0.5

- E Existing disturbance on-site:
 - a) There is moderate to heavy existing habitat disturbance0
 - b) There is little or no existing habitat disturbance.....1

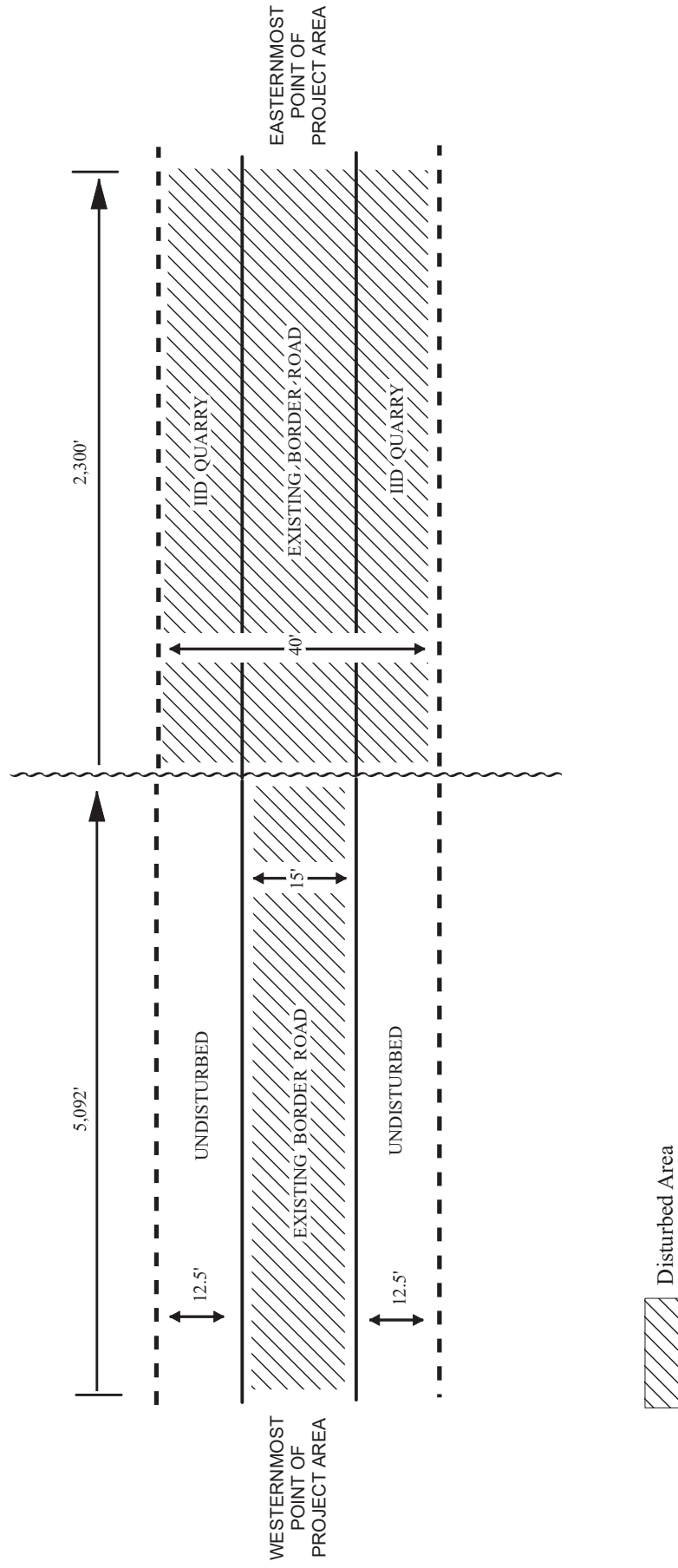
- D Duration of effect:
 - a) The effects of the project are expected to be short-term (less than 10 years) 0
 - b) The effects of the project are expected to be long-term (greater than 10 years)..... 1

CBP calculated M for the project areas classified as being undisturbed as, $M = 3 + 0 + 0 + 1 + 1$, generating a compensation ratio of 5:1. For project areas classified as being disturbed, CBP calculated M as, $M = 3 + 0 + 0 + 0 + 1$. Table 5-1 provides the required compensation ratio for impacts on FTHL habitat.

Table 5-1. Compensation for Impacts on FTHL habitat

Land Classification	Compensation Ratio	Impact Area (Acres)	Required Compensation Area (Acres)
Undisturbed	5:1	3.6	18.0
Disturbed	4:1	3.9	15.6

The total compensation for impacts on FTHL habitat will be up to 33.6 acres.



NOT TO SCALE

Figure 5-1. Schematic Showing Disturbed Versus Undisturbed Areas

During FTHL monitoring efforts, the on-site biologist will also survey for western burrowing owls, kit fox, and badgers. If an individual of any of these three species are seen occupying a burrow or structure in the project, CDFG recommended buffers will be provided until the animal has left the project area. In the event, a western burrowing owl is observed; one-way doors on burrows may be used to evict the owl during the non-breeding season.

5.6 WATER RESOURCES

Standard construction procedures will be implemented to minimize the potential for erosion and sedimentation during construction. All work will cease during heavy rains and would not resume until conditions are suitable for the movement of equipment and material. No refueling or storage will take place within 100 feet of drainages.

CBP will avoid contaminating natural aquatic systems with runoff by limiting all equipment maintenance, staging, laydown, and dispensing of fuel, oil, etc., to designated upland areas.

A SWPPP will be prepared. A Spill Prevention Control and Countermeasures Plan will be maintained to ensure that all are aware of its implementation requirements in the event of a spill.

5.7 CULTURAL RESOURCES

Cultural resource monitors will be on site during all ground-disturbing activities for the Proposed Action Alternative. Additionally, the five GLO survey markers will be flagged for avoidance prior to improvement or construction activities.

Should any archaeological artifacts be found during staging or installation activities, the appropriate BLM archaeologist or cultural resources specialist would be notified immediately. All work will cease until an evaluation of the discovery is made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values.

5.8 AIR QUALITY

In order to minimize the amount of project-related dust emissions, the contractors will comply with Imperial County Air Pollution Control District's requirements (Rule 800) for control of particulate matter (PM-10). Rule 800 provides guidance for contractors that: (1) minimize land disturbance; (2) insure saturation of exposed areas; and (3) control fugitive dust caused by hauling activities and vehicular travel on unpaved road surfaces. In addition, all construction equipment shall be maintained and operated in a manner that produces the least amount of emissions. All construction equipment and vehicles and must be maintained in good operating condition, free from leaks.

5.9 NOISE

During the construction and improvement and maintenance of the proposed roadways, short-term noise impacts are anticipated. All applicable Occupational Safety and Health Administration regulations and requirements will be followed. On-site activities would be restricted to daylight

hours, to the greatest extent practicable. All equipment will possess properly working mufflers and would be kept properly tuned to reduce backfires.

5.10 HAZARDOUS MATERIALS

BMPs will be implemented as standard operating procedures during all construction activities, and will include proper handling, storage, and/or disposal of hazardous and/or regulated materials. To minimize potential impacts from hazardous and regulated materials, all fuels, waste oils, and solvents will be collected and stored in tanks or drums within a secondary containment system that consists of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein. The refueling of machinery will be completed in accordance with accepted industry and regulatory guidelines, and all vehicles will have drip pans during storage to contain minor spills and drips. Although it is unlikely that a major spill would occur, any spill of reportable quantities will be contained immediately within an earthen dike, and the application of an absorbent (e.g., granular, pillow, sock) will be used to absorb and contain the spill.

CBP will contain non-hazardous waste materials and other discarded materials, such as construction waste, until removed from the construction and maintenance sites. This will assist in keeping the project area and surroundings free of litter and reduce the amount of disturbed area needed for waste storage.

CBP will minimize site disturbance and avoid attracting predators by promptly removing waste materials, wrappers, and debris from the site. Any waste that must remain more than 12 hours should be properly stored until disposal.

All waste oil and solvents will be recycled. All non-recyclable hazardous and regulated wastes will be collected, characterized, labeled, stored, transported, and disposed of in accordance with all applicable Federal, state, and local regulations, including proper waste manifesting procedures.

Solid waste receptacles will be maintained at the construction staging area. Non-hazardous solid waste (trash and waste construction materials) will be collected and deposited in on-site receptacles. Solid waste will be collected and disposed of by a local waste disposal contractor.

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SECTION 6.0
REFERENCES



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6.0 REFERENCES

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SECTION 7.0
ACRONYMS AND ABBREVIATIONS



00003831

7.0 ACRONYMS AND ABBREVIATIONS

ACEC	Area of Critical Environmental Concern
AOR	Area of Responsibility
ASTM International	formerly known as American Society for Testing and Materials (ASTM)
BEA	Bureau of Economic Analysis
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
BMP	Best Management Practices
CAAQS	California Ambient Air Quality Standards
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBP	U.S. Customs and Border Protection
CBV	Cross-Border Violators
CDFG	California Department of Fish and Game
CEPA	California Environment Protection Agency
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFC	chlorofluorocarbons
CFR	Code of Federal Regulations
CH ₄	methane
CO	carbon monoxide
CO ₂ -E	CO ₂ equivalent
CWA	Clean Water Act
dB	Decibel
dBA	A-Weighted Decibel
DHS	Department of Homeland Security
DNL	Day-Night Sound Level
DOE	U.S. Department of Energy
DOI	U.S. Department of the Interior
EA	Environmental Assessment
EO	Executive Order
ESA	Endangered Species Act
ESP	Environmental Stewardship Plan
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FM&E	Facilities Management and Engineering
FR	Federal Register
FTHL	Flat-tail horned lizard
GHG	greenhouse gases
GLO	General Land Office
GSRC	Gulf South Research Corporation
HFC	hydrochlorofluorocarbons

HR	Hydrologic Region
HUD	U.S. Department of Housing and Urban Development
ICC	Interagency Coordinating Committee
IID	Imperial Irrigation District
INA	Immigration and Nationality Act
INS	Immigration and Naturalization Service
IOs	isolated occurrences
IIRIRA	Illegal Immigration Reform and Immigrant Responsibility Act
LCRV	Lower Colorado River Valley
M	multiplying factor
mg/m ³	milligram per cubic meter
MOU	Memorandum of Understanding
MW	megawatt
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NO ₂	nitrogen dioxide
NOA	Notice of Availability
NO _x	nitrous oxide
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Properties
NPL	National Priorities List
O ₃	ozone
Pb	lead
PL	Public Law
PM-10	Particulate Matter <10 micrometers
PM-2.5	Particulate Matter <2.5 micrometers
POE	Ports of Entry
POL	petroleum, oil, and lubricants
ppb	parts per billion
ppm	parts per million
RCRA	Resource Conservation and Recovery Act
ROI	Region of Influence
ROW	Right-of-Way
RVSS	Remote Video Surveillance System
RWQCB	California Regional Water Quality Control Board
SHPO	State Historic Preservation Officer
SIP	state implementation plans
SO ₂	sulfur dioxide
SR	State Route
SWPPP	Stormwater Pollution Prevention Plan
TI	tactical infrastructure
TMDL	total maximum daily load
U.S.	United States
USACE	U.S. Army Corps of Engineers
USBP	U.S. Border Patrol

USC	United States Code
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USIBWC	U.S. Section, International Boundary and Water Commission
VOC	volatile organic compounds
VRM	Visual Resource Management
YDMA	Yuma Desert Management Area
$\mu\text{g}/\text{m}^3$	micrograms per cubic meter

00003835

7-4

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SECTION 8.0
LIST OF PREPARERS



00003837

8.0 LIST OF PREPARERS

The following people were primarily responsible for preparing this EA.

Name	Agency/Organization	Discipline/Expertise	Experience	Role in Preparing EA
Richard Dill	USACE, Fort Worth	Engineering Program Manager	18 years engineering and project management	USACE program management and EA review
Hope Pollmann	USACE, Fort Worth	Environmental Planning	8 years environmental management	USACE project management and EA review
John Petrilla	CBP, FM&E	Environmental Protection Specialist	5 years environmental management	CBP project management, EA review and coordination
Chris Ingram	GSRC	Biology/Ecology	33 years of EA/EIS studies	EA review
Josh McEnany	GSRC	Forest Management	12 years of natural resources and NEPA	Project management, EA preparation, and biological surveys
David Hart	GSRC	Archaeology	17 years of professional archaeology/cultural resources studies	Cultural resources surveys
Missy Singleton	GSRC	Natural Resources	9 years of natural resources and NEPA	EA preparation (Roadways and Traffic, Sustainability and Greening, and Aesthetic and Visual Resources)
Ben Tomson	GSRC	Biology	2 years of natural resources and NEPA	EA preparation (Land Use, Geology and Soils, Water Resources)
Rob Meyers	GSRC	Environmental Science	8 years of NEPA and natural resources	EA preparation (Vegetation, Wildlife, and Protected Species)
Steve Kolian	GSRC	Environmental Science	12 years of natural resources	EA preparation (Air and Noise Resources)
Ann Guissinger	GSRC	Economics	30 years economic analysis	EA preparation (Socioeconomics and Environmental Justice and Protection of Children)
Steve Oivanki	GSRC	Geology/NEPA	20 years of natural resources and NEPA	EA preparation (Hazardous Materials and Geology)

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APPENDIX A
CORRESPONDENCE

00003841

MAY 30 2012

**U.S. Customs and
Border Protection**

Daniel Steward, Resources Branch Chief
El Centro Field Office
Bureau of Land Management
1661 S. 4th St.
El Centro, CA 92243

Subject: Request that BLM Act as a Cooperating Agency in the Environmental Assessment Preparation for the West Desert All-Weather Road and BP Hill Access Road

Dear Mr. Steward:

As you know, U.S. Customs and Border Protection (CBP) is currently examining a proposal to construct a new all-weather road within the U.S. Border Patrol's (USBP) El Centro Sector along the U.S./Mexico border from approximately Border Monument 224 to Border Monument 225 and an access to BP Hill (USBP surveillance camera tower location). As part of the planning process for the proposed project, CBP will prepare an Environmental Assessment (EA) pursuant to the National Environmental Policy Act (NEPA). Among the alternative alignments that are being considered for the proposed all-weather road are ones that cross lands managed by the U.S. Bureau of Land Management (BLM).

The purpose of this letter is to convey CBP's formal request that, pursuant to 40 C.F.R. § 1501.6, BLM participate as a cooperating agency in CBP's NEPA process for the proposed all-weather road construction. Given BLM's history and background with the area, CBP believes that BLM will have knowledge and expertise that is beneficial to the NEPA process and CBP's evaluation of alternatives.

If BLM is amenable to participating as a cooperating agency in the NEPA process for the proposed project, please sign and date the acknowledgement on the following page and return it.

If you have any questions, please contact John Petrilla at (949) 360-2382 or by email at john.petrilla@dhs.gov. Thank you very much for your attention to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "C. Colacicco", with a long horizontal flourish extending to the right.

Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

00003843

Mr. Daniel Steward

Page 2

Acknowledged and agreed for the U.S. Bureau of Land Management by:

Name:

Title:

Date:

00003844

1300 Pennsylvania Avenue NW
Washington, DC 20229

MAY 30 2012



**U.S. Customs and
Border Protection**

Daniel Steward, Resources Branch Chief
El Centro Field Office
Bureau of Land Management
1661 S. 4th St.
El Centro, CA 92243

Subject: Request that BLM Act as a Cooperating Agency in the Environmental Assessment Preparation for the West Desert All-Weather Road and BP Hill Access Road

Dear Mr. Steward:

As you know, U.S. Customs and Border Protection (CBP) is currently examining a proposal to construct a new all-weather road within the U.S. Border Patrol's (USBP) El Centro Sector along the U.S./Mexico border from approximately Border Monument 224 to Border Monument 225 and an access to BP Hill (USBP surveillance camera tower location). As part of the planning process for the proposed project, CBP will prepare an Environmental Assessment (EA) pursuant to the National Environmental Policy Act (NEPA). Among the alternative alignments that are being considered for the proposed all-weather road are ones that cross lands managed by the U.S. Bureau of Land Management (BLM).

The purpose of this letter is to convey CBP's formal request that, pursuant to 40 C.F.R. § 1501.6, BLM participate as a cooperating agency in CBP's NEPA process for the proposed all-weather road construction. Given BLM's history and background with the area, CBP believes that BLM will have knowledge and expertise that is beneficial to the NEPA process and CBP's evaluation of alternatives.

If BLM is amenable to participating as a cooperating agency in the NEPA process for the proposed project, please sign and date the acknowledgement on the following page and return it.

If you have any questions, please contact John Petrilla at (949) 360-2382 or by email at john.petrilla@dhs.gov. Thank you very much for your attention to this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "C. Colacicco", with a long horizontal flourish extending to the right.

Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

00003845

Mr. Daniel Steward

Page 2

Acknowledged and agreed for the U.S. Bureau of Land Management by:


Name: _____


Title: _____


Date: _____

00003846



United States Department of the Interior



BUREAU OF LAND MANAGEMENT

El Centro Field Office

1661 South 4th Street

El Centro, CA 92243-4561

<http://www.blm.gov/ca/st/en/fo/elcentro.html>

14 June 2012

In Reply Refer to

2800 (P)

CA670.39

CACA-53512

Christopher J. Colacicco, Director
Border Patrol Facilities and Tactical Infrastructure
Program Management Office
1300 Pennsylvania Avenue NW
Washington, DC 20229

Dear Mr. Colacicco:

The Bureau of Land Management (BLM) has received your request for BLM to Act as Cooperating Agency in the NEPA process for the West Desert All-Weather Road and BP Hill Access Road.

We have reviewed your request and agree to participate as a cooperating agency in U.S. Customs and Border Protection's (CBP) NEPA process. Enclosed is the fully executed copy of the request.

If you have any questions regarding your request, please contact Daniel Steward, Supervisory Resource Management Specialist, Resources and Planning at (760) 337-4400 or via email at msteward@blm.gov.

Sincerely,

Thomas F. Zale
Acting Field Manager

Enclosures (1):

1-Request that BLM act as Cooperating Agency

00003847

JUL 25 2012

**U.S. Customs and
Border Protection**

U.S. Section, International Boundary and Water Commission
Operations and Management Division
ATTN: Mr. John Merino, P.E.
4171 N. Mesa Street, Bldg. C 100
El Paso, TX 79902

Dear Mr. Merino:

U.S. Customs and Border Protection (CBP) is preparing an Environmental Assessment (EA) that will address the potential effects, beneficial and adverse, resulting from the proposed improvement, construction, operation, and maintenance of approximately 2 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol (USBP) Calexico Station's Area of Responsibility (AOR). Currently, the existing road is impassable, which creates long drive times for agents to reach patrol areas and restricts agents' abilities to assist with interdictions and apprehensions.

The road improvements would occur from Dump Turnaround (approximately N32° 38.993, W115° 41.996), near Border Monument 224, to Iron Gate (approximately N32° 38.861, W115° 43.725), near Border Monument 225. The road would be improved to an all-weather surface road (1.8 miles long) approximately 20 feet wide with 2-foot shoulders and include any necessary drainage structures. A 10-foot-wide drag road would also be constructed along the north side of the all-weather surface. Staging areas would be located approximately every 0.3 mile within the construction corridor and on the eastern and western terminus. Additionally, several temporary passing zones would be created along the western access road to accommodate two-way traffic during construction. In addition to the 1.8 miles of road improvement, a new access road leading to the BP Hill Remote Video Surveillance System (RVSS) (approximately 0.2 mile) from the project road would be constructed. This road would be a 16-foot-wide road with necessary drainage structures and all-weather surfacing (Figure 1).

CBP respectfully requests that you provide us with any concerns or issues that you feel should be addressed in this EA. We intend to provide your agency with a copy of the Draft EA. Please inform us if additional copies are needed and/or if someone else within your agency other than you should receive the Draft EA.

00003849

Mr. John Merino

Page 2

Your prompt attention to this request would be greatly appreciated. Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at John.Petrilla@dhs.gov. Thank you for your cooperation.

Sincerely,



Christopher J. Colacicco

Director

Real Estate and Environmental Services Division

Border Patrol Facilities and Tactical Infrastructure

Program Management Office

Enclosure: Figure 1



Figure 1: Project Area Map

00003851

JUL 25 2012

**U.S. Customs and
Border Protection**

United States Fish and Wildlife Service
Palm Springs Field Office
Attn: Ken Corey
777 E. Tahquitz Canyon Way, Suite 208
Palm Springs, California 92262

Dear Mr. Corey:

U.S. Customs and Border Protection (CBP) is preparing an Environmental Assessment (EA) that will address the potential effects, beneficial and adverse, resulting from the proposed improvement, construction, operation, and maintenance of approximately 2 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol (USBP) Calexico Station's Area of Responsibility (AOR). Currently, the existing road is impassable, which creates long drive times for agents to reach patrol areas and restricts agents' abilities to assist with interdictions and apprehensions.

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We are currently in the process of gathering the most current information available regarding Federal and state-listed species, sensitive and unique areas, and other resources potentially occurring within the project areas. CBP respectfully requests that your agency provide a list of rare or unique plant communities, threatened, endangered, and candidate species, and designated critical habit that occur within the project areas, along with a location map for those resources that you believe may be affected by the proposed CBP activities in Imperial County, California.

We intend to provide your agency with a copy of the Draft EA. Please inform us if additional copies are needed and/or if someone else within your agency other than you should receive the Draft EA.

00003853

Mr. Ken Corey

Page 2

Your prompt attention to this request would be greatly appreciated. Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at John.Petrilla@dhs.gov. Thank you for your cooperation.

Sincerely,



Christopher J. Colacicco

Director

Real Estate and Environmental Services Division

Border Patrol Facilities and Tactical Infrastructure

Program Management Office

Enclosure: Figure 1

JUL 25 2012

**U.S. Customs and
Border Protection**

U.S. Army Corps of Engineers, Los Angeles District
Regulatory Division, South Coast Branch
ATTN: Lanika Cervantes
6010 Hidden Valley Road, Suite 105
Carlsbad, CA 92011

Dear Ms. Cervantes:

U.S. Customs and Border Protection (CBP) is preparing an Environmental Assessment (EA) that will address the potential effects, beneficial and adverse, resulting from the proposed improvement, construction, operation, and maintenance of approximately 2 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol (USBP) Calexico Station's Area of Responsibility (AOR). Currently, the existing road is impassable, which creates long drive times for agents to reach patrol areas and restricts agents' abilities to assist with interdictions and apprehensions.

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CBP respectfully requests that you provide us with any concerns or issues that you feel should be addressed in this EA. We intend to provide your agency with a copy of the Draft EA. Please inform us if additional copies are needed and/or if someone else within your agency other than you should receive the Draft EA.

00003855

Ms. Lanika Cervantes

Page 2

Your prompt attention to this request would be greatly appreciated. Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at John.Petrilla@dhs.gov. Thank you for your cooperation.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure: Figure 1

**U.S. Customs and
Border Protection**

JUL 25 2012

Mr. Milford Wayne Donaldson, FAIA
California State Historic Preservation Officer
ATTN: Susan Stratton, Senior State Archaeologist
Office of Historic Preservation
1416 9th Street, Room 1442-7
Sacramento, CA 95814

Dear Ms. Stratton:

U.S. Customs and Border Protection (CBP) is preparing an Environmental Assessment (EA) that will address the potential effects, beneficial and adverse, resulting from the proposed improvement, construction, operation, and maintenance of approximately 2 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol (USBP) Calexico Station's Area of Responsibility (AOR). Currently, the existing road is impassable, which creates long drive times for agents to reach patrol areas and restricts agents' abilities to assist with interdictions and apprehensions.

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We are currently in the process of gathering the most current information available, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800. CBP respectfully requests that you provide information on any cultural resources that you believe may be affected by the proposed CBP activities in San Diego County, California. A cultural survey is being conducted for the proposed project areas, and we will provide you with a copy of the cultural resources report for your comment once it is prepared.

00003857

Ms. Susan Stratton

Page 2

We intend to provide your agency with a copy of the Draft EA once the document is completed. Please inform us if additional copies are needed and/or if someone else within your agency other than you should receive the Draft EA.

Your prompt attention to this request would be greatly appreciated. Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at John.Petrilla@dhs.gov. Thank you for your cooperation.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure: Figure 1

**U.S. Customs and
Border Protection**

JUL 25 2012

Imperial Irrigation District
ATTN: Donald Vargas, Environmental Specialist
1699 West Main Street, Suite A
El Centro, CA 92243

Dear Mr. Vargas:

U.S. Customs and Border Protection (CBP) is preparing an Environmental Assessment (EA) that will address the potential effects, beneficial and adverse, resulting from the proposed improvement, construction, operation, and maintenance of approximately 2 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol (USBP) Calexico Station's Area of Responsibility (AOR). Currently, the existing road is impassable, which creates long drive times for agents to reach patrol areas and restricts agents' abilities to assist with interdictions and apprehensions.

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00003859

Mr. Donald Vargas

Page 2

Your prompt attention to this request would be greatly appreciated. Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at John.Petrilla@dhs.gov. Thank you for your cooperation.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure: Figure 1

JUL 25 2012

**U.S. Customs and
Border Protection**

Imperial Irrigation District
ATTN: Alfred Ornelas, Project Manager
1699 West Main Street, Suite A
El Centro, CA 92243

Dear Mr. Ornelas:

U.S. Customs and Border Protection (CBP) is preparing an Environmental Assessment (EA) that will address the potential effects, beneficial and adverse, resulting from the proposed improvement, construction, operation, and maintenance of approximately 2 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol (USBP) Calexico Station's Area of Responsibility (AOR). Currently, the existing road is impassable, which creates long drive times for agents to reach patrol areas and restricts agents' abilities to assist with interdictions and apprehensions.

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00003861

Mr. Alfred Ornelas

Page 2

Your prompt attention to this request would be greatly appreciated. Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at John.Petrilla@dhs.gov. Thank you for your cooperation.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure: Figure 1

JUL 25 2012

**U.S. Customs and
Border Protection**

California Regional Water Quality Control Board
Colorado River Basin
ATTN: Robert Perdue, Executive Officer
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260

Dear Mr. Perdue:

U.S. Customs and Border Protection (CBP) is preparing an Environmental Assessment (EA) that will address the potential effects, beneficial and adverse, resulting from the proposed improvement, construction, operation, and maintenance of approximately 2 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol (USBP) Calexico Station's Area of Responsibility (AOR). Currently, the existing road is impassable, which creates long drive times for agents to reach patrol areas and restricts agents' abilities to assist with interdictions and apprehensions.

The road improvements would occur from Dump Turnaround (approximately N32° 38.993, W115° 41.996), near Border Monument 224, to Iron Gate (approximately N32° 38.861, W115° 43.725), near Border Monument 225. The road would be improved to an all-weather surface road (1.8 miles long) approximately 20 feet wide with 2-foot shoulders and include any necessary drainage structures. A 10-foot-wide drag road would also be constructed along the north side of the all-weather surface. Staging areas would be located approximately every 0.3 mile within the construction corridor and on the eastern and western terminus. Additionally, several temporary passing zones would be created along the western access road to accommodate two-way traffic during construction. In addition to the 1.8 miles of road improvement, a new access road leading to the BP Hill Remote Video Surveillance System (RVSS) (approximately 0.2 mile) from the project road would be constructed. This road would be a 16-foot-wide road with necessary drainage structures and all-weather surfacing (Figure 1).

CBP respectfully requests that you provide us with any concerns or issues that you feel should be addressed in this EA. We intend to provide your agency with a copy of the Draft EA. Please inform us if additional copies are needed and/or if someone else within your agency other than you should receive the Draft EA.

00003863

Mr. Robert Perdue

Page 2

Your prompt attention to this request would be greatly appreciated. Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at John.Petrilla@dhs.gov. Thank you for your cooperation.

Sincerely,



Christopher J. Colacicco

Director

Real Estate and Environmental Services Division

Border Patrol Facilities and Tactical Infrastructure

Program Management Office

Enclosure: Figure 1

**U.S. Customs and
Border Protection**

JUL 25 2012

California State Clearing House
ATTN: Mr. Scott Morgan, Acting Director
P.O. Box 3044
Sacramento, CA 95812-3044

Dear Mr. Morgan:

U.S. Customs and Border Protection (CBP) is preparing an Environmental Assessment (EA) that will address the potential effects, beneficial and adverse, resulting from the proposed improvement, construction, operation, and maintenance of approximately 2 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol (USBP) Calexico Station's Area of Responsibility (AOR). Currently, the existing road is impassable, which creates long drive times for agents to reach patrol areas and restricts agents' abilities to assist with interdictions and apprehensions.

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We are currently in the process of gathering the most current information available regarding Federal and state-listed species, sensitive and unique areas, and other resources potentially occurring within the project areas. CBP respectfully requests that your agency provide a list of sensitive species and land issues that occur within the project areas, along with a description of the sensitive resources (e.g., rare or unique plant communities, threatened, endangered, and candidate species), and a location map for those resources that you believe may be affected by the proposed CBP activities in Imperial County, California.

00003865

Mr. Scott Morgan

Page 2

Your prompt attention to this request would be greatly appreciated. Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at John.Petrilla@dhs.gov. Thank you for your cooperation.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure: Figure 1

JUL 25 2012

**U.S. Customs and
Border Protection**

California Environmental Protection Agency
ATTN: Ricardo Martinez, Assistant Secretary of Border Affairs
1001 I Street
P.O. Box 2815
Sacramento, CA 95814

Dear Mr. Martinez:

U.S. Customs and Border Protection (CBP) is preparing an Environmental Assessment (EA) that will address the potential effects, beneficial and adverse, resulting from the proposed improvement, construction, operation, and maintenance of approximately 2 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol (USBP) Calexico Station's Area of Responsibility (AOR). Currently, the existing road is impassable, which creates long drive times for agents to reach patrol areas and restricts agents' abilities to assist with interdictions and apprehensions.

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CBP respectfully requests that you provide us with any concerns or issues that you feel should be addressed in this EA. We intend to provide your agency with a copy of the Draft EA. Please inform us if additional copies are needed and/or if someone else within your agency other than you should receive the Draft EA.

00003867

Mr. Ricardo Martinez

Page 2

Your prompt attention to this request would be greatly appreciated. Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at John.Petrilla@dhs.gov. Thank you for your cooperation.

Sincerely,



Christopher J. Colacicco

Director

Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure: Figure 1

JUL 25 2012

**U.S. Customs and
Border Protection**

Honorable Ralph Goff., Chairman
Campo Band of Kumeyaay Indians
36190 Church Road, Suite 1
Campo, CA 91906

Dear Chairman Goff:

U.S. Customs and Border Protection (CBP) is preparing an Environmental Assessment (EA) that will address the potential effects, beneficial and adverse, resulting from the proposed improvement, construction, operation, and maintenance of approximately 2 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol (USBP) Calexico Station's Area of Responsibility (AOR). Currently, the existing road is impassable, which creates long drive times for agents to reach patrol areas and restricts agents' abilities to assist with interdictions and apprehensions.

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We are currently in the process of gathering the most current information available, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800. To ensure that any areas of sacred or spiritual significance to Native American groups are considered, we would appreciate your help in identifying any interests or concerns regarding any cultural resources that you believe may be affected by the proposed project. We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding cultural resources, Traditional Cultural Properties (TCPs), and Indian sacred sites within the propose project area. A cultural survey is being conducted for the proposed project areas, and we will provide you with a copy of the cultural resources report for your comment once it is prepared.

00003869

Honorable Ralph Goff., Chairman

Page 2

We intend to provide your organization with a copy of the Draft EA once the document is completed. Please inform us if additional copies are needed and/or if someone else within your agency other than you should receive the Draft EA.

Your prompt attention to this request would be greatly appreciated. Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at John.Petrilla@dhs.gov. Thank you for your cooperation.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure: Figure 1

JUL 25 2012

**U.S. Customs and
Border Protection**

Honorable Leroy Elliott, Chairman
Manzanita Band of Mission Indians
6 Old Mine Road
Boulevard, CA 91905

Dear Chairman Elliott:

U.S. Customs and Border Protection (CBP) is preparing an Environmental Assessment (EA) that will address the potential effects, beneficial and adverse, resulting from the proposed improvement, construction, operation, and maintenance of approximately 2 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol (USBP) Calexico Station's Area of Responsibility (AOR). Currently, the existing road is impassable, which creates long drive times for agents to reach patrol areas and restricts agents' abilities to assist with interdictions and apprehensions.

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00003871

Honorable Leroy Elliott, Chairman

Page 2

We intend to provide your organization with a copy of the Draft EA once the document is completed. Please inform us if additional copies are needed and/or if someone else within your agency other than you should receive the Draft EA.

Your prompt attention to this request would be greatly appreciated. Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at John.Petrilla@dhs.gov. Thank you for your cooperation.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure: Figure 1

JUL 25 2012

**U.S. Customs and
Border Protection**

Honorable Gwendolyn Parada, Chairperson
La Posta Band of Mission Indians
1048 Crestwood Road
Boulevard, CA 92905

Dear Chairperson Parada:

U.S. Customs and Border Protection (CBP) is preparing an Environmental Assessment (EA) that will address the potential effects, beneficial and adverse, resulting from the proposed improvement, construction, operation, and maintenance of approximately 2 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol (USBP) Calexico Station's Area of Responsibility (AOR). Currently, the existing road is impassable, which creates long drive times for agents to reach patrol areas and restricts agents' abilities to assist with interdictions and apprehensions.

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00003873

Honorable Gwendolyn Parada, Chairperson

Page 2

We intend to provide your organization with a copy of the Draft EA once the document is completed. Please inform us if additional copies are needed and/or if someone else within your agency other than you should receive the Draft EA.

Your prompt attention to this request would be greatly appreciated. Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at John.Petrilla@dhs.gov. Thank you for your cooperation.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure: Figure 1

JUL 25 2012

**U.S. Customs and
Border Protection**

Honorable Keeny Escalanti Sr., President
Fort Yuma Quechan Indian Nation
P.O. Box 1899
Yuma, AZ 85366

Dear President Escalanti:

U.S. Customs and Border Protection (CBP) is preparing an Environmental Assessment (EA) that will address the potential effects, beneficial and adverse, resulting from the proposed improvement, construction, operation, and maintenance of approximately 2 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol (USBP) Calexico Station's Area of Responsibility (AOR). Currently, the existing road is impassable, which creates long drive times for agents to reach patrol areas and restricts agents' abilities to assist with interdictions and apprehensions.

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00003875

Honorable Keeny Escalanti Sr., President

Page 2

We intend to provide your organization with a copy of the Draft EA once the document is completed. Please inform us if additional copies are needed and/or if someone else within your agency other than you should receive the Draft EA.

Your prompt attention to this request would be greatly appreciated. Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at John.Petrilla@dhs.gov. Thank you for your cooperation.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure: Figure 1

JUL 25 2012

**U.S. Customs and
Border Protection**

Honorable Will Micklin, Executive Director
Ewiiapaayp Tribal Office
4054 Willows Road
Alpine, CA 91901

Dear Director Micklin:

U.S. Customs and Border Protection (CBP) is preparing an Environmental Assessment (EA) that will address the potential effects, beneficial and adverse, resulting from the proposed improvement, construction, operation, and maintenance of approximately 2 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol (USBP) Calexico Station's Area of Responsibility (AOR). Currently, the existing road is impassable, which creates long drive times for agents to reach patrol areas and restricts agents' abilities to assist with interdictions and apprehensions.

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00003877

Honorable Will Micklin, Executive Director

Page 2

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Your prompt attention to this request would be greatly appreciated. Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at John.Petrilla@dhs.gov. Thank you for your cooperation.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure: Figure 1

JUL 25 2012

U.S. Customs and
Border Protection

Ms. Jill McCormick, Tribal Archaeologist
Cocopah Museum/Cultural Resources Department
County 15th & Ave. G
Sommerton, AZ 85350

Dear Ms. McCormick:

U.S. Customs and Border Protection (CBP) is preparing an Environmental Assessment (EA) that will address the potential effects, beneficial and adverse, resulting from the proposed improvement, construction, operation, and maintenance of approximately 2 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol (USBP) Calexico Station's Area of Responsibility (AOR). Currently, the existing road is impassable, which creates long drive times for agents to reach patrol areas and restricts agents' abilities to assist with interdictions and apprehensions.

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00003879

Ms. Jill McCormick, Tribal Archaeologist

Page 2

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Your prompt attention to this request would be greatly appreciated. Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at John.Petrilla@dhs.gov. Thank you for your cooperation.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure: Figure 1

**U.S. Customs and
Border Protection**

JUL 25 2012

Mr. John P. Bathke, THPO
Quechan Indian Nation
P.O. Box 1899
Yuma, AZ 85366

Dear Mr. Bathke:

U.S. Customs and Border Protection (CBP) is preparing an Environmental Assessment (EA) that will address the potential effects, beneficial and adverse, resulting from the proposed improvement, construction, operation, and maintenance of approximately 2 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol (USBP) Calexico Station's Area of Responsibility (AOR). Currently, the existing road is impassable, which creates long drive times for agents to reach patrol areas and restricts agents' abilities to assist with interdictions and apprehensions.

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00003881

Mr. John P. Bathke, THPO

Page 2

We intend to provide your organization with a copy of the Draft EA once the document is completed. Please inform us if additional copies are needed and/or if someone else within your agency other than you should receive the Draft EA.

Your prompt attention to this request would be greatly appreciated. Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at John.Petrilla@dhs.gov. Thank you for your cooperation.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure: Figure 1

JUL 25 2012

**U.S. Customs and
Border Protection**

Honorable Preston J. Arrow-weed
Ah-Mut-Pipa Foundation
P.O. Box 160
Bard, CA 92222

Dear Honorable Arrow-weed:

U.S. Customs and Border Protection (CBP) is preparing an Environmental Assessment (EA) that will address the potential effects, beneficial and adverse, resulting from the proposed improvement, construction, operation, and maintenance of approximately 2 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol (USBP) Calexico Station's Area of Responsibility (AOR). Currently, the existing road is impassable, which creates long drive times for agents to reach patrol areas and restricts agents' abilities to assist with interdictions and apprehensions.

The road improvements would occur from Dump Turnaround (approximately N32° 38.993, W115° 41.996), near Border Monument 224, to Iron Gate (approximately N32° 38.861, W115° 43.725), near Border Monument 225. The road would be improved to an all-weather surface road (1.8 miles long) approximately 20 feet wide with 2-foot shoulders and include any necessary drainage structures. A 10-foot-wide drag road would also be constructed along the north side of the all-weather surface. Staging areas would be located approximately every 0.3 mile within the construction corridor and on the eastern and western terminus. Additionally, several temporary passing zones would be created along the western access road to accommodate two-way traffic during construction. In addition to the 1.8 miles of road improvement, a new access road leading to the BP Hill Remote Video Surveillance System (RVSS) (approximately 0.2 mile) from the project road would be constructed. This road would be a 16-foot-wide road with necessary drainage structures and all-weather surfacing (Figure 1).

We are currently in the process of gathering the most current information available, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800. To ensure that any areas of sacred or spiritual significance to Native American groups are considered, we would appreciate your help in identifying any interests or concerns regarding any cultural resources that you believe may be affected by the proposed project. We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding cultural resources, Traditional Cultural Properties (TCPs), and Indian sacred sites within the propose project area. A cultural survey is being conducted for the proposed project areas, and we will provide you with a copy of the cultural resources report for your comment once it is prepared.

00003883

Honorable Preston J. Arrow-weed

Page 2

We intend to provide your organization with a copy of the Draft EA once the document is completed. Please inform us if additional copies are needed and/or if someone else within your agency other than you should receive the Draft EA.

Your prompt attention to this request would be greatly appreciated. Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at John.Petrilla@dhs.gov. Thank you for your cooperation.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure: Figure 1

JUL 25 2012

**U.S. Customs and
Border Protection**

Mr. Frank Brown, Coordinator
Inter-Tribal Cultural Resource Protection Council
240 Brown Road
Alpine, CA 91901

Dear Mr. Brown:

U.S. Customs and Border Protection (CBP) is preparing an Environmental Assessment (EA) that will address the potential effects, beneficial and adverse, resulting from the proposed improvement, construction, operation, and maintenance of approximately 2 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol (USBP) Calexico Station's Area of Responsibility (AOR). Currently, the existing road is impassable, which creates long drive times for agents to reach patrol areas and restricts agents' abilities to assist with interdictions and apprehensions.

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00003885

Mr. Frank Brown, Coordinator

Page 2

We intend to provide your organization with a copy of the Draft EA once the document is completed. Please inform us if additional copies are needed and/or if someone else within your agency other than you should receive the Draft EA.

Your prompt attention to this request would be greatly appreciated. Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at John.Petrilla@dhs.gov. Thank you for your cooperation.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure: Figure 1

JUL 25 2012

**U.S. Customs and
Border Protection**

Honorable Bernice Paipa, Vice Spokesperson
Kumeyaay Cultural Restoration Committee
1095 Barona Road
Lakeside, CA 92040

Dear Vice Spokesperson Paipa:

U.S. Customs and Border Protection (CBP) is preparing an Environmental Assessment (EA) that will address the potential effects, beneficial and adverse, resulting from the proposed improvement, construction, operation, and maintenance of approximately 2 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol (USBP) Calexico Station's Area of Responsibility (AOR). Currently, the existing road is impassable, which creates long drive times for agents to reach patrol areas and restricts agents' abilities to assist with interdictions and apprehensions.

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00003887

Honorable Bernice Paipa, Vice Spokesperson

Page 2

We intend to provide your organization with a copy of the Draft EA once the document is completed. Please inform us if additional copies are needed and/or if someone else within your agency other than you should receive the Draft EA.

Your prompt attention to this request would be greatly appreciated. Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at John.Petrilla@dhs.gov. Thank you for your cooperation.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure: Figure 1

00003888



INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO

OFFICE OF THE COMMISSIONER
UNITED STATES SECTION

August 7, 2012

Mr. John Petrilla
U.S. Customs & Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Road, Room 5020
Laguna Niguel, California 92677-3400

Dear Mr. Petrilla:

The United States Section, International Boundary and Water Commission (USIBWC), is in receipt of your letter regarding the preparation of a draft Environmental Assessment (EA) for the construction of 2 miles of all weather road in the U.S. Border Patrol's Calexico Area of Responsibility, from border monument 224 to border monument 225.

The USIBWC has the responsibility to access, maintain, and utilize the international boundary monuments along the U.S. – Mexico international land boundary. The USIBWC is charged with these duties through treaties between the United States and Mexico. We require that the proposed works and related facilities not affect the permanence of the existing boundary monuments nor impede access for their inspection and maintenance. In addition, any proposed construction must allow for line of sight visibility between each of the boundary monuments. The majority of the monuments along the international boundary are eligible for inclusion in the national historic register under Criterion A- a structure "...associated with events that have made a significant contribution to the broad patterns of our history." Therefore, we request that you provide full consideration to the monuments in your EA and avoid or minimize any potential adverse effects.

The USIBWC also requires that engineering drawings be submitted to the USIBWC for review and approval prior to beginning any construction near the international boundary. These drawings must show the location of each component in relation to the international boundary and the monuments. The USIBWC requires that all structures be off-set from the international boundary by a minimum of 3 feet and allow a clear line of sight between any affected boundary monuments. Construction should maintain best management practices to prevent runoff or degradation of air quality during construction. The USIBWC requests that proposed construction activities be accomplished in a manner that does not change historic surface runoff characteristics at the international border. The USIBWC will not approve any construction near the international boundary in the United States that increases, concentrates, or relocates overland drainage flows into either country. This requirement is intended to ensure that developments in one country will not cause damage to lands or resources in the other country. The USIBWC will need copies of any hydrological or hydraulic studies and site specific drawings for work proposed in the vicinity of the international boundary, particularly if culverts, roads or other

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structures are proposed to be constructed in any drainage courses that cross the boundary. We will also require that you assure that structures constructed along the U.S.-Mexico border are maintained in an adequate manner and that liability issues created by these structures are addressed.

If you have any questions, please feel free to call me at (915) 832-4749 or Mr. Wayne Belzer at (915) 832-4703.

Sincerely,

A handwritten signature in cursive script, appearing to read "John L. Merino".

John L. Merino, P.E.
Principal Engineer

Josh McEnany

Sent: Wednesday, August 22, 2012 5:46 PM
To: PETRILLA, JOHN
Subject: Road Improvement Project along US/Mexico Border

In Reply Refer To:
FWS-IMP-11B0229-12SL0539

Dear Mr. Petrilla,

This email is in response to your request, dated July 25, 2012, for information on federally listed, proposed, and candidate species; critical habitat; sensitive and unique areas, and other resources that may occur in the vicinity of the proposed road improvement project along the US/Mexico border in the Yuha Desert Flat-tailed Horned Lizard Management Area (FTHL MA), Imperial County, California.

Although we do not have site-specific biological survey information, we are providing the following list of species known to occur in the general area to assist your office in the preparation of a draft environmental assessment for the project.

Sensitive Species Within Project Area

Flat-tailed horned lizard (*Phrynosoma mcallii*) Burrowing owl (*Athene cucularia*) Golden Eagle (*Aquila chrysaetos*)

No designated critical habitat for federally listed species occurs within the project area.

Because the project area is within a designated FTHL MA, we recommend you adhere to the avoidance, minimization, and mitigation measures outlined within the flat-tailed horned lizard Rangewide Management Strategy (RMS) and you coordinate closely with the Bureau of Land Management (BLM), El Centro office, to ensure you minimize flat-tailed horned lizard mortality from construction, operations, and maintenance of the road. A digital copy of the RMS is available at: <http://www.fws.gov/southwest/es/arizona/Flat.htm> www.fws.gov/southwest/es/arizona/Flat.htm

We appreciate the opportunity to provide input on this project and are available to help develop measures to avoid and minimize adverse impacts to trust resources that occur within your project area. If you have any questions, please feel free to contact me - thanks!

Felicia M. Sirchia
Fish & Wildlife Biologist
U.S. Fish and Wildlife Service
Palm Springs Fish and Wildlife Office
777 E. Tahquitz Canyon Way, Suite 208
Palm Springs, CA 92262
Phone 760.322.2070 x205
Fax 760.322.4648

00003891

NOV 13 2012

**U.S. Customs and
Border Protection**

California State Clearinghouse
ATTN: Mr. Scott Morgan, Acting Director
1400 Tenth Street
Sacramento, CA 95814

Dear Mr. Morgan:

U.S. Customs and Border Protection (CBP) is pleased to forward 15 copies of the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the proposed improvement, construction, operation, and maintenance of approximately 1.6 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol (USBP) El Centro Station's Area of Responsibility (AOR). Also enclosed is a Notice of Completion and Environmental Document Transmittal form. CBP requests your participation in this public review process and your distribution of the enclosed Draft EA and Draft FONSI to appropriate State of California agencies.

The 30-day public comment period begins on November 15, 2012 and comments must be received by December 15, 2012 to be considered for incorporation into the Final EA. Any comments concerning the Draft EA and Draft FONSI may be sent by mail to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

Thank you very much for your cooperation and assistance.

Sincerely,

A handwritten signature in blue ink, appearing to read "C. Colacicco".

Christopher J. Colacicco
Director

Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

00003893

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: West Desert Road Project

Lead Agency: U.S. Customs and Border Protection Contact Person: John Petrilla
Mailing Address: 24000 Avila Road, Suite 5020 Phone: (949) 360-2382
City: Laguna Niguel Zip: 92677 County: Orange

Project Location: County: Imperial City/Nearest Community: Calexico
Cross Streets: State Route 98 and Signal Road Zip Code: 92231
Longitude/Latitude (degrees, minutes and seconds): 32 ° 38 ' 57.95" N / 115 ° 42 ' 29.14" W Total Acres: 7.5
Assessor's Parcel No.: Mount Signal Quadrangle Section: 23, 24, 6 Twp.: 17 S Range: 12 E Base:
Within 2 Miles: State Hwy #: State Route 98 Waterways: All-American Canal
Airports: Railways: Schools:

Document Type:

- CEQA: [] NOP [] Draft EIR [] Early Cons [] Supplement/Subsequent EIR [] Neg Dec [] (Prior SCH No.) [] Mit Neg Dec Other:
NEPA: [] NOI [] EA [] Draft EIS [] FONSI
Other: [] Joint Document [] Final Document [] Other:

Local Action Type:

- [] General Plan Update [] Specific Plan [] Rezone [] Annexation
[] General Plan Amendment [] Master Plan [] Prezone [] Redevelopment
[] General Plan Element [] Planned Unit Development [] Use Permit [] Coastal Permit
[] Community Plan [] Site Plan [] Land Division (Subdivision, etc.) [] Other:

Development Type:

- [] Residential: Units Acres
[] Office: Sq.ft. Acres Employees [] Transportation: Type CBP Infrastructure
[] Commercial: Sq.ft. Acres Employees [] Mining: Mineral
[] Industrial: Sq.ft. Acres Employees [] Power: Type MW
[] Educational: [] Waste Treatment: Type MGD
[] Recreational: [] Hazardous Waste: Type
[] Water Facilities: Type MGD [] Other:

Project Issues Discussed in Document:

- [x] Aesthetic/Visual [] Fiscal [] Recreation/Parks [x] Vegetation
[] Agricultural Land [x] Flood Plain/Flooding [] Schools/Universities [x] Water Quality
[x] Air Quality [] Forest Land/Fire Hazard [] Septic Systems [x] Water Supply/Groundwater
[x] Archeological/Historical [x] Geologic/Seismic [] Sewer Capacity [x] Wetland/Riparian
[x] Biological Resources [] Minerals [x] Soil Erosion/Compaction/Grading [] Growth Inducement
[] Coastal Zone [x] Noise [x] Solid Waste [x] Land Use
[x] Drainage/Absorption [x] Population/Housing Balance [x] Toxic/Hazardous [x] Cumulative Effects
[x] Economic/Jobs [x] Public Services/Facilities [x] Traffic/Circulation [] Other:

Present Land Use/Zoning/General Plan Designation:

Currently Roosevelt Reservation and Bureau of Land Management Yuha Desert Management Area for the FTHL

Project Description: (please use a separate page if necessary)

The Proposed Action comprises improvement of an existing border road and construction of a new access road to the top of BP Hill RVSS tower. The border road improvements would occur from near Border Monument 224 to near Border Monument 225. The border road would be improved to an all-weather surface road (1.4 miles long) approximately 20 feet wide with 2-foot shoulders and would include any necessary drainage structures (i.e., culverts, low-water crossing, or bridge). A drag road would also be constructed along the north side of the all-weather surface. Staging areas would be located approximately every 0.3 mile within the construction corridor. In addition to the 1.4 miles of road improvement, a new access road (approximately 0.2 mile) leading to the BP Hill RVSS tower from the improved border road would be constructed.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with an "X". If you have already sent your document to the agency please denote that with an "S".

- | | |
|----------------------------------------------------------------------|------------------------------------------------------------------------------|
| <input type="checkbox"/> Air Resources Board | <input checked="" type="checkbox"/> Office of Historic Preservation |
| <input type="checkbox"/> Boating & Waterways, Department of | <input type="checkbox"/> Office of Public School Construction |
| <input type="checkbox"/> California Emergency Management Agency | <input type="checkbox"/> Parks & Recreation, Department of |
| <input type="checkbox"/> California Highway Patrol | <input type="checkbox"/> Pesticide Regulation, Department of |
| <input type="checkbox"/> Caltrans District # _____ | <input type="checkbox"/> Public Utilities Commission |
| <input type="checkbox"/> Caltrans Division of Aeronautics | <input checked="" type="checkbox"/> Regional WQCB # <u>7</u> |
| <input type="checkbox"/> Caltrans Planning | <input type="checkbox"/> Resources Agency |
| <input type="checkbox"/> Central Valley Flood Protection Board | <input type="checkbox"/> Resources Recycling and Recovery, Department of |
| <input type="checkbox"/> Coachella Valley Mtns. Conservancy | <input type="checkbox"/> S.F. Bay Conservation & Development Comm. |
| <input type="checkbox"/> Coastal Commission | <input type="checkbox"/> San Gabriel & Lower L.A. Rivers & Mtns. Conservancy |
| <input type="checkbox"/> Colorado River Board | <input type="checkbox"/> San Joaquin River Conservancy |
| <input type="checkbox"/> Conservation, Department of | <input type="checkbox"/> Santa Monica Mtns. Conservancy |
| <input type="checkbox"/> Corrections, Department of | <input type="checkbox"/> State Lands Commission |
| <input type="checkbox"/> Delta Protection Commission | <input type="checkbox"/> SWRCB: Clean Water Grants |
| <input type="checkbox"/> Education, Department of | <input type="checkbox"/> SWRCB: Water Quality |
| <input type="checkbox"/> Energy Commission | <input type="checkbox"/> SWRCB: Water Rights |
| <input checked="" type="checkbox"/> Fish & Game Region # <u>6</u> | <input type="checkbox"/> Tahoe Regional Planning Agency |
| <input type="checkbox"/> Food & Agriculture, Department of | <input type="checkbox"/> Toxic Substances Control, Department of |
| <input type="checkbox"/> Forestry and Fire Protection, Department of | <input type="checkbox"/> Water Resources, Department of |
| <input type="checkbox"/> General Services, Department of | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Health Services, Department of | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Housing & Community Development | |
| <input type="checkbox"/> Native American Heritage Commission | |

Local Public Review Period (to be filled in by lead agency)

Starting Date November 15, 2012 Ending Date December 15, 2012

Lead Agency (Complete if applicable):

Consulting Firm: <u>Gulf South Research Corporation</u>	Applicant: _____
Address: <u>8081 GSRI Avenue</u>	Address: _____
City/State/Zip: <u>Baton Rouge, LA 70820</u>	City/State/Zip: _____
Contact: <u>Josh McEnany</u>	Phone: _____
Phone: <u>(225) 757-8088</u>	

Signature of Lead Agency Representative:  Date: 5 Nov 12

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

NOV 13 2012

**U.S. Customs and
Border Protection**

Mr. Robert Perdue, Executive Officer
California Regional Water Quality Control Board
Colorado River Basin Region
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260

Dear Mr. Perdue:

U.S. Customs and Border Protection (CBP) is pleased to forward a copy of the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the proposed improvement, construction, operation, and maintenance of approximately 1.6 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol El Centro Station's Area of Responsibility. CBP invites your participation in this public review process and requests any comments you may have on the enclosed Draft EA and Draft FONSI. The Draft EA and Draft FONSI can also be viewed via the Internet at the following address:
<http://ecso.swf.usace.army.mil/pages/publicreview.cfm>.

The 30-day public comment period begins on November 15, 2012 and comments must be received by December 15, 2012 to be considered for incorporation into the Final EA. Any comments concerning the Draft EA and Draft FONSI may be sent by mail to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

Thank you very much for your cooperation and assistance.

Sincerely,

A handwritten signature in blue ink, appearing to read "C. Colacicco".

Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

NOV 13 2012

**U.S. Customs and
Border Protection**

Mr. Ricardo Martinez
Assistant Secretary of Border Affairs
California Environmental Protection Agency
1001 I Street, P.O. Box 3044
Sacramento, CA 95812

Dear Mr. Martinez:

U.S. Customs and Border Protection (CBP) is pleased to forward a copy of the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the proposed improvement, construction, operation, and maintenance of approximately 1.6 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol El Centro Station's Area of Responsibility. CBP invites your participation in this public review process and requests any comments you may have on the enclosed Draft EA and Draft FONSI. The Draft EA and Draft FONSI can also be viewed via the Internet at the following address:
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Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

Thank you very much for your cooperation and assistance.

Sincerely,

A handwritten signature in blue ink, appearing to read "C. Colacicco", with a long horizontal flourish extending to the right.

Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

**U.S. Customs and
Border Protection**

NOV 13 2012

Mr. Ken Corey
U.S. Fish and Wildlife Service
Palm Springs Field Office
777 E. Tahquitz Canyon Way, Suite 208
Palm Springs, CA 92262

Dear Mr. Corey:

U.S. Customs and Border Protection (CBP) is pleased to forward a copy of the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the proposed improvement, construction, operation, and maintenance of approximately 1.6 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol El Centro Station's Area of Responsibility. CBP invites your participation in this public review process and requests any comments you may have on the enclosed Draft EA and Draft FONSI. The Draft EA and Draft FONSI can also be viewed via the Internet at the following address:
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Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

Thank you very much for your cooperation and assistance.

Sincerely,

A handwritten signature in blue ink, appearing to read "C. Colacicco", written over a horizontal line.

Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

**U.S. Customs and
Border Protection**

NOV 13 2012

Ms. Kimberly Nicol
Regional Manager
California Department of Fish and Game
Inland Desert Region
3602 Inland Empire Boulevard, Suite C-220
Ontario, CA 91764

Dear Ms. Nicol:

U.S. Customs and Border Protection (CBP) is pleased to forward a copy of the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the proposed improvement, construction, operation, and maintenance of approximately 1.6 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol El Centro Station's Area of Responsibility. CBP invites your participation in this public review process and requests any comments you may have on the enclosed Draft EA and Draft FONSI. The Draft EA and Draft FONSI can also be viewed via the Internet at the following address:
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Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

Thank you very much for your cooperation and assistance.

Sincerely,

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Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

NOV 13 2012

**U.S. Customs and
Border Protection**

Mr. John Merino, P.E.
Principal Engineer
U.S. Section, International Boundary and Water Commission
Operations and Management Division
4171 N. Mesa Street, Bldg C. 100
El Paso, TX 79902

Dear Mr. Merino:

U.S. Customs and Border Protection (CBP) is pleased to forward a copy of the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the proposed improvement, construction, operation, and maintenance of approximately 1.6 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol El Centro Station's Area of Responsibility. CBP invites your participation in this public review process and requests any comments you may have on the enclosed Draft EA and Draft FONSI. The Draft EA and Draft FONSI can also be viewed via the Internet at the following address:
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Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

Thank you very much for your cooperation and assistance.

Sincerely,

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Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

NOV 13 2012

**U.S. Customs and
Border Protection**

Ms. Lanika Cervantes
U.S. Army Corps of Engineers, Los Angeles District
Regulatory Division, South Coast Branch
6010 Hidden Valley Road, Suite 105
Carlsbad, CA 92011

Dear Ms. Cervantes:

U.S. Customs and Border Protection (CBP) is pleased to forward a copy of the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the proposed improvement, construction, operation, and maintenance of approximately 1.6 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol El Centro Station's Area of Responsibility. CBP invites your participation in this public review process and requests any comments you may have on the enclosed Draft EA and Draft FONSI. The Draft EA and Draft FONSI can also be viewed via the Internet at the following address:
<http://ecso.swf.usace.army.mil/pages/publicreview.cfm>.

The 30-day public comment period begins on November 15, 2012 and comments must be received by December 15, 2012 to be considered for incorporation into the Final EA. Any comments concerning the Draft EA and Draft FONSI may be sent by mail to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

Thank you very much for your cooperation and assistance.

Sincerely,

A handwritten signature in blue ink, appearing to read "C. Colacicco".

Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

**U.S. Customs and
Border Protection**

NOV 13 2012

Mr. Donald Vargas
Imperial Irrigation District
1699 West Main Street, Suite A
El Centro, CA 92243

Dear Mr. Vargas:

U.S. Customs and Border Protection (CBP) is pleased to forward a copy of the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the proposed improvement, construction, operation, and maintenance of approximately 1.6 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol El Centro Station's Area of Responsibility. CBP invites your participation in this public review process and requests any comments you may have on the enclosed Draft EA and Draft FONSI. The Draft EA and Draft FONSI can also be viewed via the Internet at the following address:
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Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

Thank you very much for your cooperation and assistance.

Sincerely,

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Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

**U.S. Customs and
Border Protection**

NOV 13 2012

Mr. Alfred Ornelas
Imperial Irrigation District
1700 West Main Street, Suite A
El Centro, CA 92243

Dear Mr. Ornelas:

U.S. Customs and Border Protection (CBP) is pleased to forward a copy of the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the proposed improvement, construction, operation, and maintenance of approximately 1.6 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol El Centro Station's Area of Responsibility. CBP invites your participation in this public review process and requests any comments you may have on the enclosed Draft EA and Draft FONSI. The Draft EA and Draft FONSI can also be viewed via the Internet at the following address:
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U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

Thank you very much for your cooperation and assistance.

Sincerely,

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Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

**U.S. Customs and
Border Protection**

NOV 13 2012

Ms. Carol Roland-Nawi
Office of Historic Preservation
California State Historic Preservation Officer
1416 9th Street, Room 1442-7
Sacramento, CA 95814

Dear Ms. Roland-Nawi:

U.S. Customs and Border Protection (CBP) is pleased to forward a copy of the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the proposed improvement, construction, operation, and maintenance of approximately 1.6 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol El Centro Station's Area of Responsibility. CBP invites your participation in this public review process and requests any comments you may have on the enclosed Draft EA and Draft FONSI. The Draft EA and Draft FONSI can also be viewed via the Internet at the following address:
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Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

Thank you very much for your cooperation and assistance.

Sincerely,

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Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

**U.S. Customs and
Border Protection**

NOV 13 2012

Honorable Ralph Goff., Chairman
Campo Band of Kumeyaay Indians
36190 Church Road, Suite 1
Campo, CA 91906

Dear Chairman Goff:

U.S. Customs and Border Protection (CBP) is pleased to forward a copy of the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the proposed improvement, construction, operation, and maintenance of approximately 1.6 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol El Centro Station's Area of Responsibility. CBP invites your participation in this public review process and requests any comments you may have on the enclosed Draft EA and Draft FONSI. The Draft EA and Draft FONSI can also be viewed via the Internet at the following address:
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Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

Thank you very much for your cooperation and assistance.

Sincerely,

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Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

NOV 13 2012

**U.S. Customs and
Border Protection**

Honorable Leroy Elliott, Chairman
Manzanita Band of Mission Indians
6 Old Mine Road
Boulevard, CA 91905

Dear Chairman Elliott:

U.S. Customs and Border Protection (CBP) is pleased to forward a copy of the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the proposed improvement, construction, operation, and maintenance of approximately 1.6 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol El Centro Station's Area of Responsibility. CBP invites your participation in this public review process and requests any comments you may have on the enclosed Draft EA and Draft FONSI. The Draft EA and Draft FONSI can also be viewed via the Internet at the following address:
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Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

Thank you very much for your cooperation and assistance.

Sincerely,

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Christopher J. Colacicco
Director

Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

NOV 13 2012

**U.S. Customs and
Border Protection**

Honorable Gwendolyn Parada, Chairperson
La Posta Band of Mission Indians
1048 Crestwood Road
Boulevard, CA 92905

Dear Chairperson Parada:

U.S. Customs and Border Protection (CBP) is pleased to forward a copy of the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the proposed improvement, construction, operation, and maintenance of approximately 1.6 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol El Centro Station's Area of Responsibility. CBP invites your participation in this public review process and requests any comments you may have on the enclosed Draft EA and Draft FONSI. The Draft EA and Draft FONSI can also be viewed via the Internet at the following address:
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Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

Thank you very much for your cooperation and assistance.

Sincerely,

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Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

NOV 13 2012

**U.S. Customs and
Border Protection**

Honorable Keeny Escalanti Sr., President
Fort Yuma Quechan Indian Nation
P.O. Box 1899
Yuma, AZ 85366

Dear President Escalanti:

U.S. Customs and Border Protection (CBP) is pleased to forward a copy of the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the proposed improvement, construction, operation, and maintenance of approximately 1.6 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol El Centro Station's Area of Responsibility. CBP invites your participation in this public review process and requests any comments you may have on the enclosed Draft EA and Draft FONSI. The Draft EA and Draft FONSI can also be viewed via the Internet at the following address:
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Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

Thank you very much for your cooperation and assistance.

Sincerely,

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Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

NOV 13 2012

**U.S. Customs and
Border Protection**

Honorable Will Micklin
Executive Director
Ewiiapaayp Tribal Office
4054 Willows Road
Alpine, CA 91901

Dear Director Micklin:

U.S. Customs and Border Protection (CBP) is pleased to forward a copy of the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the proposed improvement, construction, operation, and maintenance of approximately 1.6 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol El Centro Station's Area of Responsibility. CBP invites your participation in this public review process and requests any comments you may have on the enclosed Draft EA and Draft FONSI. The Draft EA and Draft FONSI can also be viewed via the Internet at the following address:
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Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

Thank you very much for your cooperation and assistance.

Sincerely,

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Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

**U.S. Customs and
Border Protection**

NOV 13 2012

Ms. Jill McCormick
Tribal Archaeologist
Cocopah Museum/Cultural Resources Department
County 15th & Ave. G
Sommerton, AZ 85350

Dear Ms. McCormick:

U.S. Customs and Border Protection (CBP) is pleased to forward a copy of the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the proposed improvement, construction, operation, and maintenance of approximately 1.6 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol El Centro Station's Area of Responsibility. CBP invites your participation in this public review process and requests any comments you may have on the enclosed Draft EA and Draft FONSI. The Draft EA and Draft FONSI can also be viewed via the Internet at the following address:
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Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

Thank you very much for your cooperation and assistance.

Sincerely,

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Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

**U.S. Customs and
Border Protection**

NOV 13 2012

Mr. John P. Bathke
Tribal Historic Preservation Officer
Quechan Indian Nation
P.O. Box 1899
Yuma, AZ 85366

Dear Mr. Bathke:

U.S. Customs and Border Protection (CBP) is pleased to forward a copy of the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the proposed improvement, construction, operation, and maintenance of approximately 1.6 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol El Centro Station's Area of Responsibility. CBP invites your participation in this public review process and requests any comments you may have on the enclosed Draft EA and Draft FONSI. The Draft EA and Draft FONSI can also be viewed via the Internet at the following address:
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Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

Thank you very much for your cooperation and assistance.

Sincerely,

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Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

**U.S. Customs and
Border Protection**

NOV 13 2012

Honorable Preston J. Arrow-weed
Ah-Mut-Pipa Foundation
P.O. Box 160
Bard, CA 92222

Dear Honorable Arrow-weed:

U.S. Customs and Border Protection (CBP) is pleased to forward a copy of the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the proposed improvement, construction, operation, and maintenance of approximately 1.6 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol El Centro Station's Area of Responsibility. CBP invites your participation in this public review process and requests any comments you may have on the enclosed Draft EA and Draft FONSI. The Draft EA and Draft FONSI can also be viewed via the Internet at the following address:
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Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

Thank you very much for your cooperation and assistance.

Sincerely,

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Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

**U.S. Customs and
Border Protection**

NOV 13 2012

Mr. Frank Brown
Coordinator
Inter-Tribal Cultural Resource Protection Council
240 Brown Road
Alpine, CA 91901

Dear Mr. Brown:

U.S. Customs and Border Protection (CBP) is pleased to forward a copy of the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the proposed improvement, construction, operation, and maintenance of approximately 1.6 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol El Centro Station's Area of Responsibility. CBP invites your participation in this public review process and requests any comments you may have on the enclosed Draft EA and Draft FONSI. The Draft EA and Draft FONSI can also be viewed via the Internet at the following address:
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Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

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Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

**U.S. Customs and
Border Protection**

NOV 13 2012

Honorable Bernice Paipa
Vice Spokesperson
Kumeyaay Cultural Restoration Committee
1095 Barona Road
Lakeside, CA 92040

Dear Vice Spokesperson Paipa:

U.S. Customs and Border Protection (CBP) is pleased to forward a copy of the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the proposed improvement, construction, operation, and maintenance of approximately 1.6 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol El Centro Station's Area of Responsibility. CBP invites your participation in this public review process and requests any comments you may have on the enclosed Draft EA and Draft FONSI. The Draft EA and Draft FONSI can also be viewed via the Internet at the following address:
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Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

Thank you very much for your cooperation and assistance.

Sincerely,

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Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

00003915

1300 Pennsylvania Avenue NW
Washington, DC 20229



**U.S. Customs and
Border Protection**

NOV 13 2012

Director
El Centro Public Library
539 West State Street
El Centro, CA 92243

Dear Sir or Madam:

U.S. Customs and Border Protection (CBP) request that your library make available to the public the enclosed Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the proposed improvement, construction, operation, and maintenance of approximately 1.6 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol El Centro Station's Area of Responsibility. Please make the Draft EA and Draft FONSI available for public review along with a copy of this letter. The public comment period begins on November 15, 2012 and comments must be received by December 15, 2012. The enclosed document is also available for review at <http://ecso.swf.usace.army.mil/pages/publicreview.cfm>.

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Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

Thank you very much for your cooperation and assistance.

Sincerely,

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Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

**U.S. Customs and
Border Protection**

NOV 13 2012

Director
Calexico City Library
850 Encinas Avenue
Calexico, CA 92231

Dear Sir or Madam:

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Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

Thank you very much for your cooperation and assistance.

Sincerely,

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Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

00003917

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AFFIDAVIT OF PUBLICATION
(2015.5 C.C.P.)

STATE OF CALIFORNIA

County of Imperial

a resident of the County aforesaid;
over the age of eighteen years, and
party to or interested in the above
said matter. I am the principal clerk*
printer of the

IMPERIAL VALLEY PRESS

newspaper of general circulation,
printed and published daily in the City of
El Centro, County of Imperial and which
said newspaper has been adjudged a
newspaper of general circulation by the
Superior Court of the County of Imperial,
State of California, under the date of
September 9, 1951, Case Number 26775;
a copy of the notice, of which the annexed is
a true and correct copy, has been published in
the regular and entire issue of said
newspaper and not in any supplement
thereof on the following dates, to-wit:

11-15

the year 20 12

I do hereby (or declare) under penalty of
perjury that the foregoing is true and
correct.


SIGNATURE

Printer, Foreman of the Printer, or
Principal Clerk of the Printer

11-15 2012

El Centro, California.

This space is for the County Clerk's
Filing Stamp:

Proof of Publication of:

NOTICE OF AVAILABILITY

DRAFT ENVIRONMENTAL ASSESSMENT AND DRAFT FINDING OF NO SIGNIFICANT IMPACT FOR THE PROPOSED IMPROVEMENT AND CONSTRUCTION, OPERATION, AND MAINTENANCE OF PROPOSED ALL-WEATHER ROAD IN THE EL CENTRO STATION AREA OF RESPONSIBILITY U.S. CUSTOMS AND BORDER PROTECTION, U.S. BORDER PATROL, EL CENTRO SECTOR

November 2012

The public is hereby notified of the availability of the draft Environmental Assessment (EA) and draft Finding of No Significant Impact (FONSI) prepared by U.S. Customs and Border Protection (CBP) for the improvement and construction, operation, and maintenance of approximately 1.6 miles of all-weather roads. The proposed all-weather roads are located west of the All-American Canal adjacent to and within U.S. Bureau of Land Management (BLM) lands, near the U.S./Mexico border in Imperial County, California.

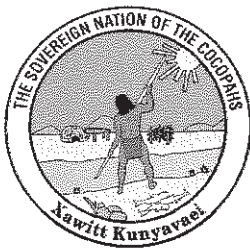
The draft EA and draft FONSI will be available at the El Centro Public Library, 539 West State Street, El Centro, California 92243 and the Calexico City Library, 850 Encinas Avenue, Calexico, California 92231. It is also available for download at the following URL address: <http://ecso.swf.usace.army.mil/Pages/Publicreview.cfm>.

The 30-day public comment period begins with publication of this Notice of Availability, expected to occur on November 15, 2012 and closes on December 15, 2012. Comments on the draft EA and draft FONSI should be submitted by mail to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

L177 N15

00003919



THE COCOPAH INDIAN TRIBE

Cultural Resource Department

14515 S. Veterans Drive

Somerton, Arizona 85350

Telephone (928) 627-4849

Cell (928) 503-2291

Fax (928) 627-3173

CCR-018-12-006

November 19, 2012

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd. Room 5020
Laguna Niguel, CA 92677-3400

RE: Request for Comments for U.S. Customs and Border Protection Improvement and Construction, Operation, and Maintenance of Proposed All – Weather Road in the El Centro Station Area of Responsibility

Dear Mr. Petrilla:

The Cultural Resources Department of the Cocopah Indian Tribe appreciates your consultation efforts on this project. We are pleased that you contacted this department on this cultural resource issue for the purpose of solicitation of our input and to address our concerns on this matter. We concur with the Finding of No Significant Impact (FONSI) determination made by your agency. We would like to continue to be kept informed on the progression of the project and be a part of the consultation process in the future

If you have any questions or need additional information please feel free to contact the cultural resource department. We will be happy to assist you with any future concerns or questions.

Sincerely,

A handwritten signature in black ink, appearing to read "H. Jill McCormick".

H. Jill McCormick, M.A.

Cultural Resource Manager

00003921

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364
 SACRAMENTO, CA 95814
 (916) 653-6251
 Fax (916) 657-5390
 Web Site www.nahc.ca.gov
 e-mail: ds_nahc@pacbell.net



November 20, 2012

Mr. John Petrilla
 Office of Healthcare Programs
**U.S. Customs & Border Protection | Facilities
 Management and Engineering**

24000 Avila Road, Room 5020
 Laguna Niguel, CA 92677-3400

Sent by U.S. Mail

No. of Pages: 5

Re: **"SCH#2012114001; NEPA 'Document: Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for the West Desert Road Project;' located in the El Centro Sector, Imperial County, California**

Dear Mr. Petrilla:

The Native American Heritage Commission (NAHC) is the California State 'Trustee Agency' pursuant to Public Resources Code §21070 for the protection of California's Native American Cultural Resources. The NAHC is also a 'reviewing agency' for environmental documents prepared under the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq*), 36 CFR Part 800.3, .5 and are subject to the Tribal and interested Native American consultation as required by the National Historic Preservation Act, as amended (Section 106) (16 U.S.C. 470; Section 106, [4f], 110 [f] [k], 304). The provisions of the Native American Graves Protection and Repatriation Act (NAGPRA) (25 U.S.C. 3001-3013) and its implementation (43 CFR Part 10.2), and California Government Code §27491 may apply to this project if Native American human remains are inadvertently discovered.

The NAHC is of the opinion that the federal standards, pursuant to the above-referenced Acts and the Council on Environmental Quality (CSQ; 42 U.S.C. 4371 *et seq*) are similar to and in many cases more stringent with regard to the 'significance' of historic, including Native American items, and archaeological, including Native American items at least equal to the California Environmental Quality Act (CEQA.). In most cases, federal environmental policy require that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Statement (EIS).

The NAHC did conduct a Sacred Lands File (SLF) search of its Inventory and Native American cultural resources **were not identified** in the location you specified. Please note that the absence of specific site information in the *Sacred Lands File* does not indicate the absence of Native American traditional cultural places or cultural landscapes in any APE. While in this case, a search of the NAHC *Sacred Lands File* did not indicate the presence of any sites within the APE you provided, a Native American tribe or individual may be the only source for the presence of traditional cultural places. For that reason, enclosed is a list of Native American

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U.S. DEPARTMENT OF
 HOMELAND SECURITY

individuals/organizations who may have knowledge of traditional cultural places in your project area. This list should provide a starting place in locating any areas of potential adverse impact

The NAHC Sacred Lands File Inventory of the Native American Heritage Commission is established by the California Legislature pursuant to California Public Resources Code §§5097.94(a) and 5097.96. The NAHC Sacred Lands Inventory is populated by submission to the data by Native American tribes and Native American elders. In this way it differs from the California and National Register of Historic Places under the jurisdiction of the U.S. Secretary of the Interior.

The NAHC, pursuant to Appendix B of the Guidelines to the California Environmental Quality Act (CEQA) is designated as the agency with expertise in the areas of issues of cultural significance to California Native American communities. Also, in the 1985 California Appellate Court decision (170 Cal App 3rd 604), the court held that the NAHC has jurisdiction and special expertise, as a state agency, over affected Native American resources, impacted by proposed projects including archaeological, places of religious significance to Native Americans and burial sites.

Culturally affiliated tribes are to be consulted to determine possible project impacts pursuant to the National Historic Preservation Act, as amended. Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. The NAHC recommends as part of 'due diligence', that you also contact the nearest Information Center of the California Historical Resources Information System (CHRIS) of the State Historic Preservation Office (SHPO) for other possible recorded sites in or near the APE (contact the Office of Historic Preservation at 916-445-7000).

Attached is a list of Native American contacts is attached to assist you pursuant to Section 800.2(c)(1)(i) and Section 800.2(c)(2); they may have knowledge of cultural resources in the project area. It is advisable to contact the persons listed and seek to establish a 'trust' relationship with them; if they cannot supply you with specific information about the impact on cultural resources, they may be able to refer you to another tribe or person knowledgeable of the cultural resources in or near the affected project area.

Lead agencies should consider avoidance, in the case of cultural resources that are discovered. A tribe or Native American individual may be the only source of information about a cultural resource; this is consistent with the NHPA (16 U.S.C. 470 *et seq* Sections. 106, 110, and 304) Section 106 Guidelines amended in 2009. Also, recommended for serious consideration are the federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) NAGPRA (25 U.S.C. 3001-3013) as appropriate. In addition, consider the 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes and are supportive guides for Section 106 consultation. The aforementioned Secretary of the Interior's *Standards* include recommendations for all 'lead agencies' to consider the historic context of proposed projects and to "research" the cultural landscape that might include the 'area of potential effect.'

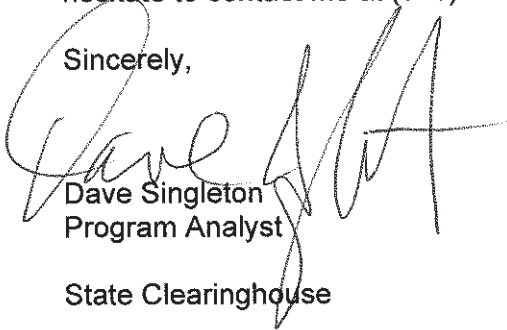
NEPA regulations provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery. Even though a discovery may be in federal property, California Government Code §27460 should be followed in the event of an accidental discovery of human remains during any groundbreaking activity; in such cases California Government Code §27491

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and California Health & Safety Code §7050.5 will apply and construction cease in the affected area.

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,

A handwritten signature in black ink, appearing to read "Dave Singleton". The signature is written in a cursive style with a large initial "D" and "S".

Dave Singleton
Program Analyst

State Clearinghouse

Attachment: Native American Contacts list

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**Native American Contacts
Imperial County
November 20, 2012**

La Posta Band of Mission Indians
Gwendolyn Parada, Chairperson
PO Box 1120 Diegueno/Kumeyaay
Boulevard , CA 91905
gparada@lapostacasino.
(619) 478-2113
619-478-2125

Fort Yuma Quechan Indian Nation
Keeny Escalanti, Sr., President
PO Box 1899 Quechan
Yuma , AZ 85366
qitpres@quechantribe.com
(760) 572-0213
(760) 572-2102 FAX

Manzanita Band of Kumeyaay Nation
Leroy J. Elliott, Chairperson
PO Box 1302 Kumeyaay
Boulevard , CA 91905
ljbirdsinger@aol.com
(619) 766-4930
(619) 766-4957 Fax

Ewiiapaayp Tribal Office
Will Micklin, Executive Director
4054 Willows Road Diegueno/Kumeyaay
Alpine , CA 91901
wmicklin@leaningrock.net
(619) 445-6315 - voice
(619) 445-9126 - fax

Campo Band of Mission Indians
Ralph Goff, Chairperson
36190 Church Road, Suite 1 Diegueno/Kumeyaay
Campo , CA 91906
chairgoff@aol.com
(619) 478-9046
(619) 478-5818 Fax

Cocopah Museum/Cultural Resources Dept.
H. Jill McCormick, Tribal Archaeologist
County 15th & Ave. G Cocopah
Sommerton , AZ 85350
culturalres@cocopah.com
(928) 530-2291 - cell
(928) 627-2280 - fax

Kwaaymii Laguna Band of Mission Indians
Carmen Lucas
P.O. Box 775 Diegueno -
Pine Valley , CA 91962
(619) 709-4207

Augustine Band of Cahuilla Mission Indians
Karen Kupcha
P.O. Box 849 Cahuilla
Coachella , CA 92236
(760) 398-4722
916-369-7161 - FAX

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2012114001; NEPA Document; Environmental Assessment (EA), Finding of No Significant Impact (FONSI) for the West Desert Road Project of the of the U.S. Customs and Border Protection; located in the El Centro Sector; Imperial County, California

00003927

Native American Contacts
Imperial County
November 20, 2012

Quenchan Indian Nation
John P. Bathke, THPO
P.O. Box 1899 Quechan
Yuma , AZ 85366
jbathke@quechantribe.
(928) 920-6068 - CELL
(760) 572-2423
(760) 572-0515 - FAX

Ah-Mut-Pipa Foundation
Preston J. Arrow-weed
P.O. Box 160 Quechan
Bard , CA 92222 Kumeyaay
ahmut@earthlink.net
(928) 388-9456

Inter-Tribal Cultural Resource Protection Council
Frank Brown, Coordinator
240 Brown Road Diegueno/Kumeyaay
Alpine , CA 91901
frankbrown6928@gmail.com
(619) 884-6437

Kumeyaay Cultural Repatriation Committee
Bernice Paipa, Vice Spokesperson
1095 Barona Road Diegueno/Kumeyaay
Lakeside , CA 92040
(619) 478-2113
(KCRC is a Colation of 12
Kumeyaay Governments

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

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Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH 2012114001

NEPA

Project Title: West Desert Road Project

Lead Agency: U.S. Customs and Border Protection Contact Person: John Petrilla
Mailing Address: 24000 Avila Road, Suite 5020 Phone: (949) 360-2382
City: Laguna Niguel Zip: 92677 County: Orange

Project Location: County: Imperial City/Nearest Community: Calexico
Cross Streets: State Route 98 and Signal Road Zip Code: 92231
Longitude/Latitude (degrees, minutes and seconds): 32 038 57.95 N / 115 042 29.14 W Total Acres: 7.5
Assessor's Parcel No.: Mount Signal Quadrangle Section: 23, 24, 25 Twp.: 17 S Range: 12 E Base:
Within 2 Miles: State Hwy #: State Route 98 Waterways: All-American Canal
Airports: Railways: Schools:

RECEIVED

Document Type:

CEQA: [] NOP [] Draft EIR NEPA: [] NOI Other: [] Joint Document
[] Early Cons [] Supplemental EIR [] EA [] Final Document
[] Neg Dec (Prior SCH No.) [] Draft EIS [] Other:
[] Mit Neg Dec Other:

STATE CLEARINGHOUSE

Local Action Type:

[] General Plan Update [] Specific Plan [] Rezone [] Annexation
[] General Plan Amendment [] Master Plan [] Prezone [] Redevelopment
[] General Plan Element [] Planned Unit Development [] Use Permit [] Coastal Permit
[] Community Plan [] Site Plan [] Land Division (Subdivision, etc.) [] Other:

Development Type:

[] Residential: Units _____ Acres _____
[] Office: Sq.ft. _____ Acres _____ Employees _____
[] Commercial: Sq.ft. _____ Acres _____ Employees _____
[] Industrial: Sq.ft. _____ Acres _____ Employees _____
[] Educational: _____
[] Recreational: _____
[] Water Facilities: Type _____ MGD _____
[] Transportation: Type CBP Infrastructure
[] Mining: Mineral _____
[] Power: Type _____ MW _____
[] Waste Treatment: Type _____ MGD _____
[] Hazardous Waste: Type _____
[] Other: _____

Project Issues Discussed in Document:

[x] Aesthetic/Visual [] Fiscal [] Recreation/Parks [x] Vegetation
[] Agricultural Land [x] Flood Plain/Flooding [] Schools/Universities [x] Water Quality
[x] Air Quality [x] Forest Land/Fire Hazard [] Septic Systems [x] Water Supply/Groundwater
[x] Archeological/Historical [] Geologic/Seismic [] Sewer Capacity [x] Wetland/Riparian
[x] Biological Resources [] Minerals [x] Soil Erosion/Compaction/Grading [] Growth Inducement
[] Coastal Zone [x] Noise [x] Solid Waste [x] Land Use
[x] Drainage/Absorption [x] Population/Housing Balance [x] Toxic/Hazardous [x] Cumulative Effects
[x] Economic/Jobs [x] Public Services/Facilities [x] Traffic/Circulation [] Other:

Present Land Use/Zoning/General Plan Designation:

Currently Roosevelt Reservation and Bureau of Land Management Yuha Desert Management Area for the FTHL

Project Description: (please use a separate page if necessary)

The Proposed Action comprises improvement of an existing border road and construction of a new access road to the top of BP Hill RVSS tower. The border road improvements would occur from near Border Monument 224 to near Border Monument 225. The border road would be improved to an all-weather surface road (1.4 miles long) approximately 20 feet wide with 2-foot shoulders and would include any necessary drainage structures (i.e., culverts, low-water crossing, or bridge). A drag road would also be constructed along the north side of the all-weather surface. Staging areas would be located approximately every 0.3 mile within the construction corridor. In addition to the 1.4 miles of road improvement, a new access road (approximately 0.2 mile) leading to the BP Hill RVSS tower from the improved border road would be constructed.

OK

State Clearinghouse Contact: (916) 445-0613

State Review Began: 11-15-2012

SCH COMPLIANCE 12-14-2012

Project Sent to the following State Agencies

- [x] Resources
[] Boating & Waterways
[] Coastal Comm
[] Colorado Rvr Bd
[] Conservation
[x] Fish & Game # 10
[] Delta Protection Comm
[] Cal Fire
[x] Historic Preservation
[x] Parks & Rec
[] Central Valley Flood Prot.
[] Bay Cons & Dev Comm.
[x] DWR
[x] Cal EMA
[] Resources, Recycling and Recovery
[] Bus Transp Hous
[] Aeronautics
[x] CHP
[x] Caltrans # 11
[] Trans Planning
[] Housing & Com Dev
[] Food & Agriculture
[] Public Health
[] State/Consumer Svcs
[] General Services
[] Cal EPA
[] ARB: Airport/Energy Projects
[x] ARB: Transportation Projects
[] ARB: Major Industrial Projects
[] SWRCB: Div. Financial Assist.
[] SWRCB: Wtr Quality
[] SWRCB: Wtr Rights
[x] Reg. WQCB # 7
[] Toxic Sub Ctrl-CTC
[] Yth/Adlt Corrections
[] Corrections
[] Independent Comm
[] Energy Commission
[x] NAHC
[] Public Utilities Comm
[x] State Lands Comm
[] Tahoe Rgl Plan Agency
[] Conservancy
[] Other:

Please note State Clearinghouse Number (SCH#) on all Comments

SCH#: 2012114001

Please forward late comments directly to the Lead Agency

AQMD/APCD 10

(Resources: 11/17)

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INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO

OFFICE OF THE COMMISSIONER
UNITED STATES SECTION

November 27, 2012

Mr. John Petrilla
U.S. Customs & Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Road, Room 5020
Laguna Niguel, California 92677-3400

Dear Mr. Petrilla:

The United States Section, International Boundary and Water Commission (USIBWC) is in receipt of your draft Environmental Assessment and draft Finding of No Significant Impact for the construction of 2 miles of all weather road in the U.S. Border Patrol's Calexico Area of Responsibility, from border monument 224 to border monument 225.

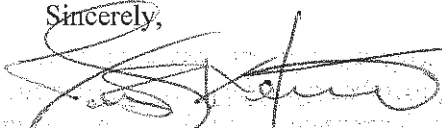
As mentioned in our previous letter concerning this project, The USIBWC has responsibility through treaties between the United States and Mexico to maintain the integrity of the border. Included is the demarcation of the boundary through the maintenance of permanent boundary monuments to include access for their inspection and maintenance. Any proposed construction must allow for line of sight visibility between each of the boundary monuments. The USIBWC requires that all structures be off-set from the international boundary by a minimum of 3 feet and allow a clear line of sight between any affected boundary monuments.

The USIBWC in its international duties also requires that proposed construction activities be accomplished in a manner that does not change historic surface runoff characteristics at the international border. The USIBWC will not approve any construction near the international boundary in the United States that increases, concentrates, or relocates overland drainage flows into either country. This requirement is intended to ensure that developments in one country will not cause damage to lands or resources in the other country.

When available, the USIBWC requests the preliminary design drawings and hydraulic studies be submitted to the USIBWC for review and approval prior to beginning any construction near the international boundary. This is to insure that the construction will not impact the border and comply with international treaties.

If you have any questions, please feel free to call me at (915) 832-4749 or Mr. Wayne Belzer at (915) 832-4703.

Sincerely,


John L. Merino, P.E.
Principal Engineer

00003931

DEC 06 2012

**U.S. Customs and
Border Protection**

The Honorable Anthony R. Pico
Chairperson
Viejas Band of Kumeyaay Indians
1 Viejas Grade Road
Alpine, CA 91901

Subject: Proposed Improvement and Construction, Operation, and Maintenance of
Approximately 1.6 Miles of All-Weather Road in Imperial County, California

Dear Chairperson Pico:

U.S. Customs and Border Protection (CBP) is proposing the improvement and construction, operation, and maintenance of approximately 1.6 miles of road along the U.S./Mexico border west of Calexico, California. The proposed all-weather roads are located west of the All-American Canal adjacent to and within U.S. Bureau of Land Management (BLM) lands, near the U.S./Mexico border in Imperial County, California. Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 "Protection of Historic Properties (Section 106)," this letter and enclosures are being transmitted to initiate consultation, identify historic properties, and to assess adverse effects of this undertaking.

Description of Undertaking

Improvements to an existing border road would occur from near Border Monument 224 (approximately N 32° 38.96544, W 115° 42.1974), to near Border Monument 225 (approximately N32° 38.89518, W115° 43.52994). The border road would be improved to an all-weather surface road (1.4 miles long) approximately 20 feet wide with 2-foot shoulders and would include any necessary drainage structures (i.e., culverts, low-water crossing, or bridge). A drag road would also be constructed along the north side of the all-weather surface. Staging areas would be located approximately every 0.3 mile within the construction corridor. In addition to the 1.4 miles of road improvement, a new access road (approximately 0.2 mile) leading to the BP Hill RVSS tower from the improved border road would be constructed. This road would be a 16-foot-wide road with necessary drainage structures to include all-weather surfacing.

Area of Potential Effect

The area of potential effect (APE) for the proposed undertaking includes the existing border road to be improved and the proposed alignment of the new access road leading to BP Hill, as well as an approximately 200-foot-wide corridor (300-foot-wide in some locations) along them that would take into account any temporary impacts from road improvement and construction

activities. A large portion of the APE has been previously disturbed by an extensive gravel quarry, while other disturbances include the existing road footprint, refuse, and erosion.

Identification and Evaluation of Historic Properties

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, a Class III pedestrian survey of the entire APE was completed to determine if cultural resources (archaeological sites, isolated finds, or historic structures) are present. Enclosed please find a copy of the cultural resources technical report titled *A Class III Cultural Resources Survey of the Proposed Improvement and Construction, Operation, and Maintenance of Approximately 1.6 Miles of All-Weather Road in the El Centro Area of Responsibility, U.S. Customs and Border Protection, El Centro Sector, Imperial County, California* for your records and comment.

As part of the background research, two previously recorded sites were identified as being located within or adjacent to the project corridor. CA-IMP-4833 is described as a cairn and trail segment located near the eastern end of the border road. CA-IMP-4829 is described as a quartz chipping station in the same vicinity. Attempts to relocate both sites were made; however, both sites have been completely destroyed by the extensive gravel quarry operated by the Imperial Irrigation District. During surveys, an isolated feature (13-009617), which consists of International Boundary Monument No. 225, was relocated.

No new archaeological sites were identified during the Class III survey of the project corridor. However, the survey of the APE did result in the identification of nine isolated finds. The isolated finds consist of five historic General Land Office survey markers, a scatter of milled lumber and nails, International Boundary Monument No. 224, a tobacco tin, and a shell fragment.

CBP has determined that the isolated artifacts, survey markers, and destroyed archaeological sites are not eligible for listing in the National Register of Historic Places (NRHP). Both International Boundary Monuments are eligible for listing on the NRHP under criteria A and C, and as such will be avoided by all road improvement and construction activities.

Determination of Effects on Historic Properties

Based on the location of the International Boundary Monuments in relation to the proposed road improvement and construction activities, the commitment by CBP to avoid the International Boundary Monuments during all road improvement and construction activities, and the absence of other historic buildings, structures, sites, districts or objects located within the APE, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

Please let us know if you have any concerns or would like to provide any additional information relative to the proposed undertaking within 30 days of receipt of this letter. Your prompt attention to this request would be greatly appreciated.

Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at john.petrilla@dhs.gov. Thank you.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

00003935

DEC 06 2012

**U.S. Customs and
Border Protection**

The Honorable Dan Tucker
Chairperson
Sycuan Band of the Kumeyaay Nation
5459 Sycuan Rd.
El Cajon, CA 92021

Subject: Proposed Improvement and Construction, Operation, and Maintenance of
Approximately 1.6 Miles of All-Weather Road in Imperial County, California

Dear Chairperson Tucker:

U.S. Customs and Border Protection (CBP) is proposing the improvement and construction, operation, and maintenance of approximately 1.6 miles of road along the U.S./Mexico border west of Calexico, California. The proposed all-weather roads are located west of the All-American Canal adjacent to and within U.S. Bureau of Land Management (BLM) lands, near the U.S./Mexico border in Imperial County, California. Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 "Protection of Historic Properties (Section 106)," this letter and enclosures are being transmitted to initiate consultation, identify historic properties, and to assess adverse effects of this undertaking.

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Area of Potential Effect

The area of potential effect (APE) for the proposed undertaking includes the existing border road to be improved and the proposed alignment of the new access road leading to BP Hill, as well as an approximately 200-foot-wide corridor (300-foot-wide in some locations) along them that would take into account any temporary impacts from road improvement and construction

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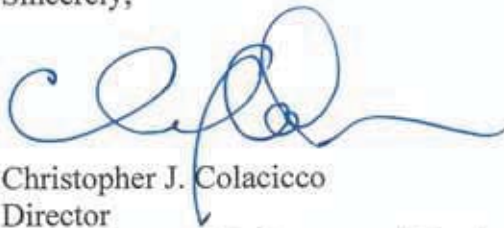
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Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at john.petrilla@dhs.gov. Thank you.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

00003939

DEC 06 2012

**U.S. Customs and
Border Protection**

The Honorable Edwin Romero
Chairperson
Barona Band of Mission Indians
1095 Barona Road
Lakeside, CA 92040

Subject: Proposed Improvement and Construction, Operation, and Maintenance of
Approximately 1.6 Miles of All-Weather Road in Imperial County, California

Dear Chairperson Romero:

U.S. Customs and Border Protection (CBP) is proposing the improvement and construction, operation, and maintenance of approximately 1.6 miles of road along the U.S./Mexico border west of Calexico, California. The proposed all-weather roads are located west of the All-American Canal adjacent to and within U.S. Bureau of Land Management (BLM) lands, near the U.S./Mexico border in Imperial County, California. Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 "Protection of Historic Properties (Section 106)," this letter and enclosures are being transmitted to initiate consultation, identify historic properties, and to assess adverse effects of this undertaking.

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The area of potential effect (APE) for the proposed undertaking includes the existing border road to be improved and the proposed alignment of the new access road leading to BP Hill, as well as an approximately 200-foot-wide corridor (300-foot-wide in some locations) along them that would take into account any temporary impacts from road improvement and construction

activities. A large portion of the APE has been previously disturbed by an extensive gravel quarry, while other disturbances include the existing road footprint, refuse, and erosion.

Identification and Evaluation of Historic Properties

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, a Class III pedestrian survey of the entire APE was completed to determine if cultural resources (archaeological sites, isolated finds, or historic structures) are present. Enclosed please find a copy of the cultural resources technical report titled *A Class III Cultural Resources Survey of the Proposed Improvement and Construction, Operation, and Maintenance of Approximately 1.6 Miles of All-Weather Road in the El Centro Area of Responsibility, U.S. Customs and Border Protection, El Centro Sector, Imperial County, California* for your records and comment.

As part of the background research, two previously recorded sites were identified as being located within or adjacent to the project corridor. CA-IMP-4833 is described as a cairn and trail segment located near the eastern end of the border road. CA-IMP-4829 is described as a quartz chipping station in the same vicinity. Attempts to relocate both sites were made; however, both sites have been completely destroyed by the extensive gravel quarry operated by the Imperial Irrigation District. During surveys, an isolated feature (13-009617), which consists of International Boundary Monument No. 225, was relocated.

No new archaeological sites were identified during the Class III survey of the project corridor. However, the survey of the APE did result in the identification of nine isolated finds. The isolated finds consist of five historic General Land Office survey markers, a scatter of milled lumber and nails, International Boundary Monument No. 224, a tobacco tin, and a shell fragment.

CBP has determined that the isolated artifacts, survey markers, and destroyed archaeological sites are not eligible for listing in the National Register of Historic Places (NRHP). Both International Boundary Monuments are eligible for listing on the NRHP under criteria A and C, and as such will be avoided by all road improvement and construction activities.

Determination of Effects on Historic Properties

Based on the location of the International Boundary Monuments in relation to the proposed road improvement and construction activities, the commitment by CBP to avoid the International Boundary Monuments during all road improvement and construction activities, and the absence of other historic buildings, structures, sites, districts or objects located within the APE, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

Please let us know if you have any concerns or would like to provide any additional information relative to the proposed undertaking within 30 days of receipt of this letter. Your prompt attention to this request would be greatly appreciated.

Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at john.petrilla@dhs.gov. Thank you.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

00003943

**U.S. Customs and
Border Protection**

DEC 06 2012

The Honorable Michael Garcia
Vice Chairperson
Ewiiapaayp Tribal Office
4055 Willows Rd.
Alpine, CA 91901

Subject: Proposed Improvement and Construction, Operation, and Maintenance of
Approximately 1.6 Miles of All-Weather Road in Imperial County, California

Dear Vice Chairperson Garcia:

U.S. Customs and Border Protection (CBP) is proposing the improvement and construction, operation, and maintenance of approximately 1.6 miles of road along the U.S./Mexico border west of Calexico, California. The proposed all-weather roads are located west of the All-American Canal adjacent to and within U.S. Bureau of Land Management (BLM) lands, near the U.S./Mexico border in Imperial County, California. Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 "Protection of Historic Properties (Section 106)," this letter and enclosures are being transmitted to initiate consultation, identify historic properties, and to assess adverse effects of this undertaking.

Description of Undertaking

Improvements to an existing border road would occur from near Border Monument 224 (approximately N 32° 38.96544, W 115° 42.1974), to near Border Monument 225 (approximately N32° 38.89518, W115° 43.52994). The border road would be improved to an all-weather surface road (1.4 miles long) approximately 20 feet wide with 2-foot shoulders and would include any necessary drainage structures (i.e., culverts, low-water crossing, or bridge). A drag road would also be constructed along the north side of the all-weather surface. Staging areas would be located approximately every 0.3 mile within the construction corridor. In addition to the 1.4 miles of road improvement, a new access road (approximately 0.2 mile) leading to the BP Hill RVSS tower from the improved border road would be constructed. This road would be a 16-foot-wide road with necessary drainage structures to include all-weather surfacing.

Area of Potential Effect

The area of potential effect (APE) for the proposed undertaking includes the existing border road to be improved and the proposed alignment of the new access road leading to BP Hill, as well as an approximately 200-foot-wide corridor (300-foot-wide in some locations) along them that would take into account any temporary impacts from road improvement and construction

activities. A large portion of the APE has been previously disturbed by an extensive gravel quarry, while other disturbances include the existing road footprint, refuse, and erosion.

Identification and Evaluation of Historic Properties

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, a Class III pedestrian survey of the entire APE was completed to determine if cultural resources (archaeological sites, isolated finds, or historic structures) are present. Enclosed please find a copy of the cultural resources technical report titled *A Class III Cultural Resources Survey of the Proposed Improvement and Construction, Operation, and Maintenance of Approximately 1.6 Miles of All-Weather Road in the El Centro Area of Responsibility, U.S. Customs and Border Protection, El Centro Sector, Imperial County, California* for your records and comment.

As part of the background research, two previously recorded sites were identified as being located within or adjacent to the project corridor. CA-IMP-4833 is described as a cairn and trail segment located near the eastern end of the border road. CA-IMP-4829 is described as a quartz chipping station in the same vicinity. Attempts to relocate both sites were made; however, both sites have been completely destroyed by the extensive gravel quarry operated by the Imperial Irrigation District. During surveys, an isolated feature (13-009617), which consists of International Boundary Monument No. 225, was relocated.

No new archaeological sites were identified during the Class III survey of the project corridor. However, the survey of the APE did result in the identification of nine isolated finds. The isolated finds consist of five historic General Land Office survey markers, a scatter of milled lumber and nails, International Boundary Monument No. 224, a tobacco tin, and a shell fragment.

CBP has determined that the isolated artifacts, survey markers, and destroyed archaeological sites are not eligible for listing in the National Register of Historic Places (NRHP). Both International Boundary Monuments are eligible for listing on the NRHP under criteria A and C, and as such will be avoided by all road improvement and construction activities.

Determination of Effects on Historic Properties

Based on the location of the International Boundary Monuments in relation to the proposed road improvement and construction activities, the commitment by CBP to avoid the International Boundary Monuments during all road improvement and construction activities, and the absence of other historic buildings, structures, sites, districts or objects located within the APE, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

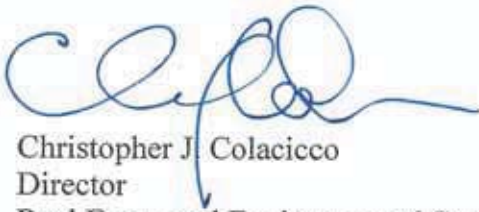
Please let us know if you have any concerns or would like to provide any additional information relative to the proposed undertaking within 30 days of receipt of this letter. Your prompt attention to this request would be greatly appreciated.

Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at john.petrilla@dhs.gov. Thank you.

Sincerely,

A handwritten signature in blue ink, appearing to read "C. Colacicco", with a long horizontal flourish extending to the right.

Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

00003947

**U.S. Customs and
Border Protection**

DEC 06 2012

The Honorable Leroy J. Elliott
Chairperson
Manzanita Band of Kumeyaay Nation
4 Old Mine Road
Boulevard, CA 91905

Subject: Proposed Improvement and Construction, Operation, and Maintenance of
Approximately 1.6 Miles of All-Weather Road in Imperial County, California

Dear Chairperson Elliott:

U.S. Customs and Border Protection (CBP) is proposing the improvement and construction, operation, and maintenance of approximately 1.6 miles of road along the U.S./Mexico border west of Calexico, California. The proposed all-weather roads are located west of the All-American Canal adjacent to and within U.S. Bureau of Land Management (BLM) lands, near the U.S./Mexico border in Imperial County, California. Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 "Protection of Historic Properties (Section 106)," this letter and enclosures are being transmitted to initiate consultation, identify historic properties, and to assess adverse effects of this undertaking.

Description of Undertaking

Improvements to an existing border road would occur from near Border Monument 224 (approximately N 32° 38.96544, W 115° 42.1974), to near Border Monument 225 (approximately N32° 38.89518, W115° 43.52994). The border road would be improved to an all-weather surface road (1.4 miles long) approximately 20 feet wide with 2-foot shoulders and would include any necessary drainage structures (i.e., culverts, low-water crossing, or bridge). A drag road would also be constructed along the north side of the all-weather surface. Staging areas would be located approximately every 0.3 mile within the construction corridor. In addition to the 1.4 miles of road improvement, a new access road (approximately 0.2 mile) leading to the BP Hill RVSS tower from the improved border road would be constructed. This road would be a 16-foot-wide road with necessary drainage structures to include all-weather surfacing.

Area of Potential Effect

The area of potential effect (APE) for the proposed undertaking includes the existing border road to be improved and the proposed alignment of the new access road leading to BP Hill, as well as an approximately 200-foot-wide corridor (300-foot-wide in some locations) along them that would take into account any temporary impacts from road improvement and construction

activities. A large portion of the APE has been previously disturbed by an extensive gravel quarry, while other disturbances include the existing road footprint, refuse, and erosion.

Identification and Evaluation of Historic Properties

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, a Class III pedestrian survey of the entire APE was completed to determine if cultural resources (archaeological sites, isolated finds, or historic structures) are present. Enclosed please find a copy of the cultural resources technical report titled *A Class III Cultural Resources Survey of the Proposed Improvement and Construction, Operation, and Maintenance of Approximately 1.6 Miles of All-Weather Road in the El Centro Area of Responsibility, U.S. Customs and Border Protection, El Centro Sector, Imperial County, California* for your records and comment.

As part of the background research, two previously recorded sites were identified as being located within or adjacent to the project corridor. CA-IMP-4833 is described as a cairn and trail segment located near the eastern end of the border road. CA-IMP-4829 is described as a quartz chipping station in the same vicinity. Attempts to relocate both sites were made; however, both sites have been completely destroyed by the extensive gravel quarry operated by the Imperial Irrigation District. During surveys, an isolated feature (13-009617), which consists of International Boundary Monument No. 225, was relocated.

No new archaeological sites were identified during the Class III survey of the project corridor. However, the survey of the APE did result in the identification of nine isolated finds. The isolated finds consist of five historic General Land Office survey markers, a scatter of milled lumber and nails, International Boundary Monument No. 224, a tobacco tin, and a shell fragment.

CBP has determined that the isolated artifacts, survey markers, and destroyed archaeological sites are not eligible for listing in the National Register of Historic Places (NRHP). Both International Boundary Monuments are eligible for listing on the NRHP under criteria A and C, and as such will be avoided by all road improvement and construction activities.

Determination of Effects on Historic Properties

Based on the location of the International Boundary Monuments in relation to the proposed road improvement and construction activities, the commitment by CBP to avoid the International Boundary Monuments during all road improvement and construction activities, and the absence of other historic buildings, structures, sites, districts or objects located within the APE, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

Please let us know if you have any concerns or would like to provide any additional information relative to the proposed undertaking within 30 days of receipt of this letter. Your prompt attention to this request would be greatly appreciated.

Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at john.petrilla@dhs.gov. Thank you.

Sincerely,

A handwritten signature in blue ink, appearing to read 'C. Colacicco', with a long horizontal flourish extending to the right.

Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

00003951

**U.S. Customs and
Border Protection**

DEC 06 2012

The Honorable Gwendolyn Parada
Chairperson
La Posta Band of Mission Indians
8 Crestwood Road
Boulevard, CA 91905

Subject: Proposed Improvement and Construction, Operation, and Maintenance of
Approximately 1.6 Miles of All-Weather Road in Imperial County, California

Dear Chairperson Parada:

U.S. Customs and Border Protection (CBP) is proposing the improvement and construction, operation, and maintenance of approximately 1.6 miles of road along the U.S./Mexico border west of Calexico, California. The proposed all-weather roads are located west of the All-American Canal adjacent to and within U.S. Bureau of Land Management (BLM) lands, near the U.S./Mexico border in Imperial County, California. Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 "Protection of Historic Properties (Section 106)," this letter and enclosures are being transmitted to initiate consultation, identify historic properties, and to assess adverse effects of this undertaking.

Description of Undertaking

Improvements to an existing border road would occur from near Border Monument 224 (approximately N 32° 38.96544, W 115° 42.1974), to near Border Monument 225 (approximately N32° 38.89518, W115° 43.52994). The border road would be improved to an all-weather surface road (1.4 miles long) approximately 20 feet wide with 2-foot shoulders and would include any necessary drainage structures (i.e., culverts, low-water crossing, or bridge). A drag road would also be constructed along the north side of the all-weather surface. Staging areas would be located approximately every 0.3 mile within the construction corridor. In addition to the 1.4 miles of road improvement, a new access road (approximately 0.2 mile) leading to the BP Hill RVSS tower from the improved border road would be constructed. This road would be a 16-foot-wide road with necessary drainage structures to include all-weather surfacing.

Area of Potential Effect

The area of potential effect (APE) for the proposed undertaking includes the existing border road to be improved and the proposed alignment of the new access road leading to BP Hill, as well as an approximately 200-foot-wide corridor (300-foot-wide in some locations) along them that would take into account any temporary impacts from road improvement and construction

activities. A large portion of the APE has been previously disturbed by an extensive gravel quarry, while other disturbances include the existing road footprint, refuse, and erosion.

Identification and Evaluation of Historic Properties

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, a Class III pedestrian survey of the entire APE was completed to determine if cultural resources (archaeological sites, isolated finds, or historic structures) are present. Enclosed please find a copy of the cultural resources technical report titled *A Class III Cultural Resources Survey of the Proposed Improvement and Construction, Operation, and Maintenance of Approximately 1.6 Miles of All-Weather Road in the El Centro Area of Responsibility, U.S. Customs and Border Protection, El Centro Sector, Imperial County, California* for your records and comment.

As part of the background research, two previously recorded sites were identified as being located within or adjacent to the project corridor. CA-IMP-4833 is described as a cairn and trail segment located near the eastern end of the border road. CA-IMP-4829 is described as a quartz chipping station in the same vicinity. Attempts to relocate both sites were made; however, both sites have been completely destroyed by the extensive gravel quarry operated by the Imperial Irrigation District. During surveys, an isolated feature (13-009617), which consists of International Boundary Monument No. 225, was relocated.

No new archaeological sites were identified during the Class III survey of the project corridor. However, the survey of the APE did result in the identification of nine isolated finds. The isolated finds consist of five historic General Land Office survey markers, a scatter of milled lumber and nails, International Boundary Monument No. 224, a tobacco tin, and a shell fragment.

CBP has determined that the isolated artifacts, survey markers, and destroyed archaeological sites are not eligible for listing in the National Register of Historic Places (NRHP). Both International Boundary Monuments are eligible for listing on the NRHP under criteria A and C, and as such will be avoided by all road improvement and construction activities.

Determination of Effects on Historic Properties

Based on the location of the International Boundary Monuments in relation to the proposed road improvement and construction activities, the commitment by CBP to avoid the International Boundary Monuments during all road improvement and construction activities, and the absence of other historic buildings, structures, sites, districts or objects located within the APE, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

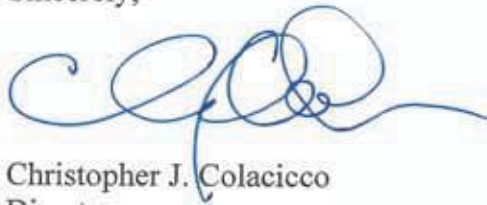
Please let us know if you have any concerns or would like to provide any additional information relative to the proposed undertaking within 30 days of receipt of this letter. Your prompt attention to this request would be greatly appreciated.

Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at john.petrilla@dhs.gov. Thank you.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

00003955

**U.S. Customs and
Border Protection**

DEC 06 2012

Mr. Paul Cuero
Kumeyaay Cultural Heritage Preservation
36190 Church Road, Suite 5
Campo, CA 91906

Subject: Proposed Improvement and Construction, Operation, and Maintenance of
Approximately 1.6 Miles of All-Weather Road in Imperial County, California

Dear Mr. Cuero:

U.S. Customs and Border Protection (CBP) is proposing the improvement and construction, operation, and maintenance of approximately 1.6 miles of road along the U.S./Mexico border west of Calexico, California. The proposed all-weather roads are located west of the All-American Canal adjacent to and within U.S. Bureau of Land Management (BLM) lands, near the U.S./Mexico border in Imperial County, California. Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 "Protection of Historic Properties (Section 106)," this letter and enclosures are being transmitted to initiate consultation, identify historic properties, and to assess adverse effects of this undertaking.

Description of Undertaking

Improvements to an existing border road would occur from near Border Monument 224 (approximately N 32° 38.96544, W 115° 42.1974), to near Border Monument 225 (approximately N32° 38.89518, W115° 43.52994). The border road would be improved to an all-weather surface road (1.4 miles long) approximately 20 feet wide with 2-foot shoulders and would include any necessary drainage structures (i.e., culverts, low-water crossing, or bridge). A drag road would also be constructed along the north side of the all-weather surface. Staging areas would be located approximately every 0.3 mile within the construction corridor. In addition to the 1.4 miles of road improvement, a new access road (approximately 0.2 mile) leading to the BP Hill RVSS tower from the improved border road would be constructed. This road would be a 16-foot-wide road with necessary drainage structures to include all-weather surfacing.

Area of Potential Effect

The area of potential effect (APE) for the proposed undertaking includes the existing border road to be improved and the proposed alignment of the new access road leading to BP Hill, as well as an approximately 200-foot-wide corridor (300-foot-wide in some locations) along them that would take into account any temporary impacts from road improvement and construction

activities. A large portion of the APE has been previously disturbed by an extensive gravel quarry, while other disturbances include the existing road footprint, refuse, and erosion.

Identification and Evaluation of Historic Properties

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, a Class III pedestrian survey of the entire APE was completed to determine if cultural resources (archaeological sites, isolated finds, or historic structures) are present. Enclosed please find a copy of the cultural resources technical report titled *A Class III Cultural Resources Survey of the Proposed Improvement and Construction, Operation, and Maintenance of Approximately 1.6 Miles of All-Weather Road in the El Centro Area of Responsibility, U.S. Customs and Border Protection, El Centro Sector, Imperial County, California* for your records and comment.

As part of the background research, two previously recorded sites were identified as being located within or adjacent to the project corridor. CA-IMP-4833 is described as a cairn and trail segment located near the eastern end of the border road. CA-IMP-4829 is described as a quartz chipping station in the same vicinity. Attempts to relocate both sites were made; however, both sites have been completely destroyed by the extensive gravel quarry operated by the Imperial Irrigation District. During surveys, an isolated feature (13-009617), which consists of International Boundary Monument No. 225, was relocated.

No new archaeological sites were identified during the Class III survey of the project corridor. However, the survey of the APE did result in the identification of nine isolated finds. The isolated finds consist of five historic General Land Office survey markers, a scatter of milled lumber and nails, International Boundary Monument No. 224, a tobacco tin, and a shell fragment.

CBP has determined that the isolated artifacts, survey markers, and destroyed archaeological sites are not eligible for listing in the National Register of Historic Places (NRHP). Both International Boundary Monuments are eligible for listing on the NRHP under criteria A and C, and as such will be avoided by all road improvement and construction activities.

Determination of Effects on Historic Properties

Based on the location of the International Boundary Monuments in relation to the proposed road improvement and construction activities, the commitment by CBP to avoid the International Boundary Monuments during all road improvement and construction activities, and the absence of other historic buildings, structures, sites, districts or objects located within the APE, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

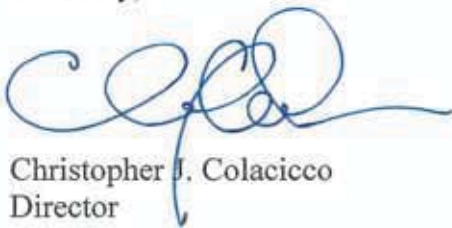
Please let us know if you have any concerns or would like to provide any additional information relative to the proposed undertaking within 30 days of receipt of this letter. Your prompt attention to this request would be greatly appreciated.

Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at john.petrilla@dhs.gov. Thank you.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

00003959

**U.S. Customs and
Border Protection**

DEC 06 2012

Mr. Will Micklin
Executive Director
Ewiiapaayp Tribal Office
4054 Willows Rd.
Alpine, CA 91901

Subject: Proposed Improvement and Construction, Operation, and Maintenance of
Approximately 1.6 Miles of All-Weather Road in Imperial County, California

Dear Mr. Micklin:

U.S. Customs and Border Protection (CBP) is proposing the improvement and construction, operation, and maintenance of approximately 1.6 miles of road along the U.S./Mexico border west of Calexico, California. The proposed all-weather roads are located west of the All-American Canal adjacent to and within U.S. Bureau of Land Management (BLM) lands, near the U.S./Mexico border in Imperial County, California. Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 "Protection of Historic Properties (Section 106)," this letter and enclosures are being transmitted to initiate consultation, identify historic properties, and to assess adverse effects of this undertaking.

Description of Undertaking

Improvements to an existing border road would occur from near Border Monument 224 (approximately N 32° 38.96544, W 115° 42.1974), to near Border Monument 225 (approximately N32° 38.89518, W115° 43.52994). The border road would be improved to an all-weather surface road (1.4 miles long) approximately 20 feet wide with 2-foot shoulders and would include any necessary drainage structures (i.e., culverts, low-water crossing, or bridge). A drag road would also be constructed along the north side of the all-weather surface. Staging areas would be located approximately every 0.3 mile within the construction corridor. In addition to the 1.4 miles of road improvement, a new access road (approximately 0.2 mile) leading to the BP Hill RVSS tower from the improved border road would be constructed. This road would be a 16-foot-wide road with necessary drainage structures to include all-weather surfacing.

Area of Potential Effect

The area of potential effect (APE) for the proposed undertaking includes the existing border road to be improved and the proposed alignment of the new access road leading to BP Hill, as well as an approximately 200-foot-wide corridor (300-foot-wide in some locations) along them that would take into account any temporary impacts from road improvement and construction

activities. A large portion of the APE has been previously disturbed by an extensive gravel quarry, while other disturbances include the existing road footprint, refuse, and erosion.

Identification and Evaluation of Historic Properties

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, a Class III pedestrian survey of the entire APE was completed to determine if cultural resources (archaeological sites, isolated finds, or historic structures) are present. Enclosed please find a copy of the cultural resources technical report titled *A Class III Cultural Resources Survey of the Proposed Improvement and Construction, Operation, and Maintenance of Approximately 1.6 Miles of All-Weather Road in the El Centro Area of Responsibility, U.S. Customs and Border Protection, El Centro Sector, Imperial County, California* for your records and comment.

As part of the background research, two previously recorded sites were identified as being located within or adjacent to the project corridor. CA-IMP-4833 is described as a cairn and trail segment located near the eastern end of the border road. CA-IMP-4829 is described as a quartz chipping station in the same vicinity. Attempts to relocate both sites were made; however, both sites have been completely destroyed by the extensive gravel quarry operated by the Imperial Irrigation District. During surveys, an isolated feature (13-009617), which consists of International Boundary Monument No. 225, was relocated.

No new archaeological sites were identified during the Class III survey of the project corridor. However, the survey of the APE did result in the identification of nine isolated finds. The isolated finds consist of five historic General Land Office survey markers, a scatter of milled lumber and nails, International Boundary Monument No. 224, a tobacco tin, and a shell fragment.

CBP has determined that the isolated artifacts, survey markers, and destroyed archaeological sites are not eligible for listing in the National Register of Historic Places (NRHP). Both International Boundary Monuments are eligible for listing on the NRHP under criteria A and C, and as such will be avoided by all road improvement and construction activities.

Determination of Effects on Historic Properties

Based on the location of the International Boundary Monuments in relation to the proposed road improvement and construction activities, the commitment by CBP to avoid the International Boundary Monuments during all road improvement and construction activities, and the absence of other historic buildings, structures, sites, districts or objects located within the APE, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

Please let us know if you have any concerns or would like to provide any additional information relative to the proposed undertaking within 30 days of receipt of this letter. Your prompt attention to this request would be greatly appreciated.

Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at john.petrilla@dhs.gov. Thank you.

Sincerely,

A handwritten signature in blue ink, appearing to read "C. Colacicco", with a stylized flourish extending to the right.

Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

00003963

**U.S. Customs and
Border Protection**

DEC 06 2012

Ms. Jill McCormick
Tribal Archaeologist
Cocapah Museum
County 15th and Ave. G
Somerton, AZ 85350

Subject: Proposed Improvement and Construction, Operation, and Maintenance of
Approximately 1.6 Miles of All-Weather Road in Imperial County, California

Dear Ms. McCormick:

U.S. Customs and Border Protection (CBP) is proposing the improvement and construction, operation, and maintenance of approximately 1.6 miles of road along the U.S./Mexico border west of Calexico, California. The proposed all-weather roads are located west of the All-American Canal adjacent to and within U.S. Bureau of Land Management (BLM) lands, near the U.S./Mexico border in Imperial County, California. Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 "Protection of Historic Properties (Section 106)," this letter and enclosures are being transmitted to initiate consultation, identify historic properties, and to assess adverse effects of this undertaking.

Description of Undertaking

Improvements to an existing border road would occur from near Border Monument 224 (approximately N 32° 38.96544, W 115° 42.1974), to near Border Monument 225 (approximately N32° 38.89518, W115° 43.52994). The border road would be improved to an all-weather surface road (1.4 miles long) approximately 20 feet wide with 2-foot shoulders and would include any necessary drainage structures (i.e., culverts, low-water crossing, or bridge). A drag road would also be constructed along the north side of the all-weather surface. Staging areas would be located approximately every 0.3 mile within the construction corridor. In addition to the 1.4 miles of road improvement, a new access road (approximately 0.2 mile) leading to the BP Hill RVSS tower from the improved border road would be constructed. This road would be a 16-foot-wide road with necessary drainage structures to include all-weather surfacing.

Area of Potential Effect

The area of potential effect (APE) for the proposed undertaking includes the existing border road to be improved and the proposed alignment of the new access road leading to BP Hill, as well as an approximately 200-foot-wide corridor (300-foot-wide in some locations) along them that would take into account any temporary impacts from road improvement and construction

activities. A large portion of the APE has been previously disturbed by an extensive gravel quarry, while other disturbances include the existing road footprint, refuse, and erosion.

Identification and Evaluation of Historic Properties

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, a Class III pedestrian survey of the entire APE was completed to determine if cultural resources (archaeological sites, isolated finds, or historic structures) are present. Enclosed please find a copy of the cultural resources technical report titled *A Class III Cultural Resources Survey of the Proposed Improvement and Construction, Operation, and Maintenance of Approximately 1.6 Miles of All-Weather Road in the El Centro Area of Responsibility, U.S. Customs and Border Protection, El Centro Sector, Imperial County, California* for your records and comment.

As part of the background research, two previously recorded sites were identified as being located within or adjacent to the project corridor. CA-IMP-4833 is described as a cairn and trail segment located near the eastern end of the border road. CA-IMP-4829 is described as a quartz chipping station in the same vicinity. Attempts to relocate both sites were made; however, both sites have been completely destroyed by the extensive gravel quarry operated by the Imperial Irrigation District. During surveys, an isolated feature (13-009617), which consists of International Boundary Monument No. 225, was relocated.

No new archaeological sites were identified during the Class III survey of the project corridor. However, the survey of the APE did result in the identification of nine isolated finds. The isolated finds consist of five historic General Land Office survey markers, a scatter of milled lumber and nails, International Boundary Monument No. 224, a tobacco tin, and a shell fragment.

CBP has determined that the isolated artifacts, survey markers, and destroyed archaeological sites are not eligible for listing in the National Register of Historic Places (NRHP). Both International Boundary Monuments are eligible for listing on the NRHP under criteria A and C, and as such will be avoided by all road improvement and construction activities.

Determination of Effects on Historic Properties

Based on the location of the International Boundary Monuments in relation to the proposed road improvement and construction activities, the commitment by CBP to avoid the International Boundary Monuments during all road improvement and construction activities, and the absence of other historic buildings, structures, sites, districts or objects located within the APE, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

Please let us know if you have any concerns or would like to provide any additional information relative to the proposed undertaking within 30 days of receipt of this letter. Your prompt attention to this request would be greatly appreciated.

Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at john.petrilla@dhs.gov. Thank you.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

00003967

**U.S. Customs and
Border Protection**

DEC 06 2012

The Honorable Ralph Goff
Chairperson
Campo Band of Mission Indians
36190 Church Road, Suite 1
Campo, CA 91906

Subject: Proposed Improvement and Construction, Operation, and Maintenance of
Approximately 1.6 Miles of All-Weather Road in Imperial County, California

Dear Chairperson Goff:

U.S. Customs and Border Protection (CBP) is proposing the improvement and construction, operation, and maintenance of approximately 1.6 miles of road along the U.S./Mexico border west of Calexico, California. The proposed all-weather roads are located west of the All-American Canal adjacent to and within U.S. Bureau of Land Management (BLM) lands, near the U.S./Mexico border in Imperial County, California. Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 "Protection of Historic Properties (Section 106)," this letter and enclosures are being transmitted to initiate consultation, identify historic properties, and to assess adverse effects of this undertaking.

Description of Undertaking

Improvements to an existing border road would occur from near Border Monument 224 (approximately N 32° 38.96544, W 115° 42.1974), to near Border Monument 225 (approximately N32° 38.89518, W115° 43.52994). The border road would be improved to an all-weather surface road (1.4 miles long) approximately 20 feet wide with 2-foot shoulders and would include any necessary drainage structures (i.e., culverts, low-water crossing, or bridge). A drag road would also be constructed along the north side of the all-weather surface. Staging areas would be located approximately every 0.3 mile within the construction corridor. In addition to the 1.4 miles of road improvement, a new access road (approximately 0.2 mile) leading to the BP Hill RVSS tower from the improved border road would be constructed. This road would be a 16-foot-wide road with necessary drainage structures to include all-weather surfacing.

Area of Potential Effect

The area of potential effect (APE) for the proposed undertaking includes the existing border road to be improved and the proposed alignment of the new access road leading to BP Hill, as well as an approximately 200-foot-wide corridor (300-foot-wide in some locations) along them that would take into account any temporary impacts from road improvement and construction

activities. A large portion of the APE has been previously disturbed by an extensive gravel quarry, while other disturbances include the existing road footprint, refuse, and erosion.

Identification and Evaluation of Historic Properties

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, a Class III pedestrian survey of the entire APE was completed to determine if cultural resources (archaeological sites, isolated finds, or historic structures) are present. Enclosed please find a copy of the cultural resources technical report titled *A Class III Cultural Resources Survey of the Proposed Improvement and Construction, Operation, and Maintenance of Approximately 1.6 Miles of All-Weather Road in the El Centro Area of Responsibility, U.S. Customs and Border Protection, El Centro Sector, Imperial County, California* for your records and comment.

As part of the background research, two previously recorded sites were identified as being located within or adjacent to the project corridor. CA-IMP-4833 is described as a cairn and trail segment located near the eastern end of the border road. CA-IMP-4829 is described as a quartz chipping station in the same vicinity. Attempts to relocate both sites were made; however, both sites have been completely destroyed by the extensive gravel quarry operated by the Imperial Irrigation District. During surveys, an isolated feature (13-009617), which consists of International Boundary Monument No. 225, was relocated.

No new archaeological sites were identified during the Class III survey of the project corridor. However, the survey of the APE did result in the identification of nine isolated finds. The isolated finds consist of five historic General Land Office survey markers, a scatter of milled lumber and nails, International Boundary Monument No. 224, a tobacco tin, and a shell fragment.

CBP has determined that the isolated artifacts, survey markers, and destroyed archaeological sites are not eligible for listing in the National Register of Historic Places (NRHP). Both International Boundary Monuments are eligible for listing on the NRHP under criteria A and C, and as such will be avoided by all road improvement and construction activities.

Determination of Effects on Historic Properties

Based on the location of the International Boundary Monuments in relation to the proposed road improvement and construction activities, the commitment by CBP to avoid the International Boundary Monuments during all road improvement and construction activities, and the absence of other historic buildings, structures, sites, districts or objects located within the APE, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

Please let us know if you have any concerns or would like to provide any additional information relative to the proposed undertaking within 30 days of receipt of this letter. Your prompt attention to this request would be greatly appreciated.

Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at john.petrilla@dhs.gov. Thank you.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

00003971

**U.S. Customs and
Border Protection**

DEC 06 2012

Ms. Carol Roland-Nawi, SHPO
Office of Historic Preservation
California Department of Parks and Recreation
1725 23rd Street, Suite 100
Sacramento, CA 95816

Subject: Proposed Improvement and Construction, Operation, and Maintenance of
Approximately 1.6 Miles of All-Weather Road in Imperial County, California

Ms. Roland-Nawi:

U.S. Customs and Border Protection (CBP) is proposing the improvement and construction, operation, and maintenance of approximately 1.6 miles of road along the U.S./Mexico border west of Calexico, California. The proposed all-weather roads are located west of the All-American Canal adjacent to and within U.S. Bureau of Land Management (BLM) lands, near the U.S./Mexico border in Imperial County, California. Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 "Protection of Historic Properties (Section 106)," this letter and enclosures are being transmitted to initiate consultation, identify historic properties, and to assess adverse effects of this undertaking.

Description of Undertaking

Improvements to an existing border road would occur from near Border Monument 224 (approximately N 32° 38.96544, W 115° 42.1974), to near Border Monument 225 (approximately N32° 38.89518, W115° 43.52994). The border road would be improved to an all-weather surface road (1.4 miles long) approximately 20 feet wide with 2-foot shoulders and would include any necessary drainage structures (i.e., culverts, low-water crossing, or bridge). A drag road would also be constructed along the north side of the all-weather surface. Staging areas would be located approximately every 0.3 mile within the construction corridor. In addition to the 1.4 miles of road improvement, a new access road (approximately 0.2 mile) leading to the BP Hill RVSS tower from the improved border road would be constructed. This road would be a 16-foot-wide road with necessary drainage structures to include all-weather surfacing.

Area of Potential Effect

The area of potential effect (APE) for the proposed undertaking includes the existing border road to be improved and the proposed alignment of the new access road leading to BP Hill, as well as an approximately 200-foot-wide corridor (300-foot-wide in some locations) along them that would take into account any temporary impacts from road improvement and construction

activities. A large portion of the APE has been previously disturbed by an extensive gravel quarry, while other disturbances include the existing road footprint, refuse, and erosion.

Identification and Evaluation of Historic Properties

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, a Class III pedestrian survey of the entire APE was completed to determine if cultural resources (archaeological sites, isolated finds, or historic structures) are present. Enclosed please find two copies of the cultural resources technical report titled *A Class III Cultural Resources Survey of the Proposed Improvement and Construction, Operation, and Maintenance of Approximately 1.6 Miles of All-Weather Road in the El Centro Area of Responsibility, U.S. Customs and Border Protection, El Centro Sector, Imperial County, California* for your records and comment.

As part of the background research, two previously recorded sites were identified as being located within or adjacent to the project corridor. CA-IMP-4833 is described as a cairn and trail segment located near the eastern end of the border road. CA-IMP-4829 is described as a quartz chipping station in the same vicinity. Attempts to relocate both sites were made; however, both sites have been completely destroyed by the extensive gravel quarry operated by the Imperial Irrigation District. During surveys, an isolated feature (13-009617), which consists of International Boundary Monument No. 225, was relocated.

No new archaeological sites were identified during the Class III survey of the project corridor. However, the survey of the APE did result in the identification of nine isolated finds. The isolated finds consist of five historic General Land Office survey markers, a scatter of milled lumber and nails, International Boundary Monument No. 224, a tobacco tin, and a shell fragment.

CBP has determined that the isolated artifacts, survey markers, and destroyed archaeological sites are not eligible for listing in the National Register of Historic Places (NRHP). Both International Boundary Monuments are eligible for listing on the NRHP under criteria A and C, and as such will be avoided by all road improvement and construction activities.

Determination of Effects on Historic Properties

Based on the location of the International Boundary Monuments in relation to the proposed road improvement and construction activities, the commitment by CBP to avoid the International Boundary Monuments during all road improvement and construction activities, and the absence of other historic buildings, structures, sites, districts or objects located within the APE, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1). CBP requests SHPO concurrence with this determination.

Pursuant to Section 800.2(c)(1)(i) and Section 800.2(c)(2), CBP is also inviting the following tribes to consult concerning this undertaking. The consultation letter is also enclosed.

Barona Band of Mission Indians	Manzanita Band of Kumeyaay Indians
Campo Band of Mission Indians	Mesa Grande Band of Mission Indians
Cocopah Indian Tribe	San Pasqual Band of Diegueño Indians
Ewiiapaayp Band of Kumeyaay Indians	Santa Ysabel Band of Diegueno Indians
Fort Yuma Quechan Indian Tribe	Sycuan Band of Kumeyaay Nation
Jamul Indian Village of California	Torres-Martinez Desert Cahuilla Indians
Kwaaymii Laguna Band of Indians	Viejas Band of Kumeyaay Indians
La Posta Band of Kumeyaay Indians	

Your prompt attention to this request would be greatly appreciated. Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at john.petrilla@dhs.gov. Thank you.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosures

00003975

DEC 06 2012

**U.S. Customs and
Border Protection**

The Honorable Kenneth A. Meza
Chairperson
Jamul Indian Village
P.O. Box 612
Jamul, CA 91935

Subject: Proposed Improvement and Construction, Operation, and Maintenance of
Approximately 1.6 Miles of All-Weather Road in Imperial County, California

Dear Chairperson Meza:

U.S. Customs and Border Protection (CBP) is proposing the improvement and construction, operation, and maintenance of approximately 1.6 miles of road along the U.S./Mexico border west of Calexico, California. The proposed all-weather roads are located west of the All-American Canal adjacent to and within U.S. Bureau of Land Management (BLM) lands, near the U.S./Mexico border in Imperial County, California. Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 "Protection of Historic Properties (Section 106)," this letter and enclosures are being transmitted to initiate consultation, identify historic properties, and to assess adverse effects of this undertaking.

Description of Undertaking

Improvements to an existing border road would occur from near Border Monument 224 (approximately N 32° 38.96544, W 115° 42.1974), to near Border Monument 225 (approximately N32° 38.89518, W115° 43.52994). The border road would be improved to an all-weather surface road (1.4 miles long) approximately 20 feet wide with 2-foot shoulders and would include any necessary drainage structures (i.e., culverts, low-water crossing, or bridge). A drag road would also be constructed along the north side of the all-weather surface. Staging areas would be located approximately every 0.3 mile within the construction corridor. In addition to the 1.4 miles of road improvement, a new access road (approximately 0.2 mile) leading to the BP Hill RVSS tower from the improved border road would be constructed. This road would be a 16-foot-wide road with necessary drainage structures to include all-weather surfacing.

Area of Potential Effect

The area of potential effect (APE) for the proposed undertaking includes the existing border road to be improved and the proposed alignment of the new access road leading to BP Hill, as well as an approximately 200-foot-wide corridor (300-foot-wide in some locations) along them that would take into account any temporary impacts from road improvement and construction

activities. A large portion of the APE has been previously disturbed by an extensive gravel quarry, while other disturbances include the existing road footprint, refuse, and erosion.

Identification and Evaluation of Historic Properties

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, a Class III pedestrian survey of the entire APE was completed to determine if cultural resources (archaeological sites, isolated finds, or historic structures) are present. Enclosed please find a copy of the cultural resources technical report titled *A Class III Cultural Resources Survey of the Proposed Improvement and Construction, Operation, and Maintenance of Approximately 1.6 Miles of All-Weather Road in the El Centro Area of Responsibility, U.S. Customs and Border Protection, El Centro Sector, Imperial County, California* for your records and comment.

As part of the background research, two previously recorded sites were identified as being located within or adjacent to the project corridor. CA-IMP-4833 is described as a cairn and trail segment located near the eastern end of the border road. CA-IMP-4829 is described as a quartz chipping station in the same vicinity. Attempts to relocate both sites were made; however, both sites have been completely destroyed by the extensive gravel quarry operated by the Imperial Irrigation District. During surveys, an isolated feature (13-009617), which consists of International Boundary Monument No. 225, was relocated.

No new archaeological sites were identified during the Class III survey of the project corridor. However, the survey of the APE did result in the identification of nine isolated finds. The isolated finds consist of five historic General Land Office survey markers, a scatter of milled lumber and nails, International Boundary Monument No. 224, a tobacco tin, and a shell fragment.

CBP has determined that the isolated artifacts, survey markers, and destroyed archaeological sites are not eligible for listing in the National Register of Historic Places (NRHP). Both International Boundary Monuments are eligible for listing on the NRHP under criteria A and C, and as such will be avoided by all road improvement and construction activities.

Determination of Effects on Historic Properties

Based on the location of the International Boundary Monuments in relation to the proposed road improvement and construction activities, the commitment by CBP to avoid the International Boundary Monuments during all road improvement and construction activities, and the absence of other historic buildings, structures, sites, districts or objects located within the APE, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

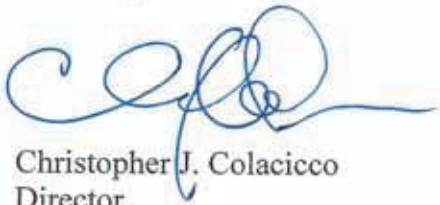
Please let us know if you have any concerns or would like to provide any additional information relative to the proposed undertaking within 30 days of receipt of this letter. Your prompt attention to this request would be greatly appreciated.

Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at john.petrilla@dhs.gov. Thank you.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

00003979

DEC 06 2012

**U.S. Customs and
Border Protection**

The Honorable Carmen Lucas
Chairperson
Kwaaymii Laguna Band of Mission Indians
P.O. Box 775
Pine Valley, CA 91962

Subject: Proposed Improvement and Construction, Operation, and Maintenance of
Approximately 1.6 Miles of All-Weather Road in Imperial County, California

Dear Chairperson Lucas:

U.S. Customs and Border Protection (CBP) is proposing the improvement and construction, operation, and maintenance of approximately 1.6 miles of road along the U.S./Mexico border west of Calexico, California. The proposed all-weather roads are located west of the All-American Canal adjacent to and within U.S. Bureau of Land Management (BLM) lands, near the U.S./Mexico border in Imperial County, California. Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 "Protection of Historic Properties (Section 106)," this letter and enclosures are being transmitted to initiate consultation, identify historic properties, and to assess adverse effects of this undertaking.

Description of Undertaking

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Area of Potential Effect

The area of potential effect (APE) for the proposed undertaking includes the existing border road to be improved and the proposed alignment of the new access road leading to BP Hill, as well as an approximately 200-foot-wide corridor (300-foot-wide in some locations) along them that would take into account any temporary impacts from road improvement and construction

activities. A large portion of the APE has been previously disturbed by an extensive gravel quarry, while other disturbances include the existing road footprint, refuse, and erosion.

Identification and Evaluation of Historic Properties

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, a Class III pedestrian survey of the entire APE was completed to determine if cultural resources (archaeological sites, isolated finds, or historic structures) are present. Enclosed please find a copy of the cultural resources technical report titled *A Class III Cultural Resources Survey of the Proposed Improvement and Construction, Operation, and Maintenance of Approximately 1.6 Miles of All-Weather Road in the El Centro Area of Responsibility, U.S. Customs and Border Protection, El Centro Sector, Imperial County, California* for your records and comment.

As part of the background research, two previously recorded sites were identified as being located within or adjacent to the project corridor. CA-IMP-4833 is described as a cairn and trail segment located near the eastern end of the border road. CA-IMP-4829 is described as a quartz chipping station in the same vicinity. Attempts to relocate both sites were made; however, both sites have been completely destroyed by the extensive gravel quarry operated by the Imperial Irrigation District. During surveys, an isolated feature (13-009617), which consists of International Boundary Monument No. 225, was relocated.

No new archaeological sites were identified during the Class III survey of the project corridor. However, the survey of the APE did result in the identification of nine isolated finds. The isolated finds consist of five historic General Land Office survey markers, a scatter of milled lumber and nails, International Boundary Monument No. 224, a tobacco tin, and a shell fragment.

CBP has determined that the isolated artifacts, survey markers, and destroyed archaeological sites are not eligible for listing in the National Register of Historic Places (NRHP). Both International Boundary Monuments are eligible for listing on the NRHP under criteria A and C, and as such will be avoided by all road improvement and construction activities.

Determination of Effects on Historic Properties

Based on the location of the International Boundary Monuments in relation to the proposed road improvement and construction activities, the commitment by CBP to avoid the International Boundary Monuments during all road improvement and construction activities, and the absence of other historic buildings, structures, sites, districts or objects located within the APE, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

Please let us know if you have any concerns or would like to provide any additional information relative to the proposed undertaking within 30 days of receipt of this letter. Your prompt attention to this request would be greatly appreciated.

Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at john.petrilla@dhs.gov. Thank you.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

00003983

DEC 06 2012

**U.S. Customs and
Border Protection**

The Honorable Mark Romero
Chairperson
Mesa Grande Band of Mission Indians
P.O. Box 270
Santa Ysabel, CA 92082

Subject: Proposed Improvement and Construction, Operation, and Maintenance of
Approximately 1.6 Miles of All-Weather Road in Imperial County, California

Dear Chairperson Romero:

U.S. Customs and Border Protection (CBP) is proposing the improvement and construction, operation, and maintenance of approximately 1.6 miles of road along the U.S./Mexico border west of Calexico, California. The proposed all-weather roads are located west of the All-American Canal adjacent to and within U.S. Bureau of Land Management (BLM) lands, near the U.S./Mexico border in Imperial County, California. Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 "Protection of Historic Properties (Section 106)," this letter and enclosures are being transmitted to initiate consultation, identify historic properties, and to assess adverse effects of this undertaking.

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Area of Potential Effect

The area of potential effect (APE) for the proposed undertaking includes the existing border road to be improved and the proposed alignment of the new access road leading to BP Hill, as well as an approximately 200-foot-wide corridor (300-foot-wide in some locations) along them that would take into account any temporary impacts from road improvement and construction

activities. A large portion of the APE has been previously disturbed by an extensive gravel quarry, while other disturbances include the existing road footprint, refuse, and erosion.

Identification and Evaluation of Historic Properties

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As part of the background research, two previously recorded sites were identified as being located within or adjacent to the project corridor. CA-IMP-4833 is described as a cairn and trail segment located near the eastern end of the border road. CA-IMP-4829 is described as a quartz chipping station in the same vicinity. Attempts to relocate both sites were made; however, both sites have been completely destroyed by the extensive gravel quarry operated by the Imperial Irrigation District. During surveys, an isolated feature (13-009617), which consists of International Boundary Monument No. 225, was relocated.

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CBP has determined that the isolated artifacts, survey markers, and destroyed archaeological sites are not eligible for listing in the National Register of Historic Places (NRHP). Both International Boundary Monuments are eligible for listing on the NRHP under criteria A and C, and as such will be avoided by all road improvement and construction activities.

Determination of Effects on Historic Properties

Based on the location of the International Boundary Monuments in relation to the proposed road improvement and construction activities, the commitment by CBP to avoid the International Boundary Monuments during all road improvement and construction activities, and the absence of other historic buildings, structures, sites, districts or objects located within the APE, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

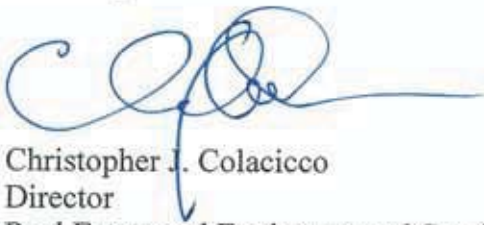
Please let us know if you have any concerns or would like to provide any additional information relative to the proposed undertaking within 30 days of receipt of this letter. Your prompt attention to this request would be greatly appreciated.

Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at john.petrilla@dhs.gov. Thank you.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

00003987

**U.S. Customs and
Border Protection**

DEC 06 2012

The Honorable Keeny Escalanti
President
Fort Yuma Quechan Indian Nation
P.O. Box 1899
Yuma, AZ 85366

Subject: Proposed Improvement and Construction, Operation, and Maintenance of
Approximately 1.6 Miles of All-Weather Road in Imperial County, California

Dear President Escalanti:

U.S. Customs and Border Protection (CBP) is proposing the improvement and construction, operation, and maintenance of approximately 1.6 miles of road along the U.S./Mexico border west of Calexico, California. The proposed all-weather roads are located west of the All-American Canal adjacent to and within U.S. Bureau of Land Management (BLM) lands, near the U.S./Mexico border in Imperial County, California. Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 "Protection of Historic Properties (Section 106)," this letter and enclosures are being transmitted to initiate consultation, identify historic properties, and to assess adverse effects of this undertaking.

Description of Undertaking

Improvements to an existing border road would occur from near Border Monument 224 (approximately N 32° 38.96544, W 115° 42.1974), to near Border Monument 225 (approximately N32° 38.89518, W115° 43.52994). The border road would be improved to an all-weather surface road (1.4 miles long) approximately 20 feet wide with 2-foot shoulders and would include any necessary drainage structures (i.e., culverts, low-water crossing, or bridge). A drag road would also be constructed along the north side of the all-weather surface. Staging areas would be located approximately every 0.3 mile within the construction corridor. In addition to the 1.4 miles of road improvement, a new access road (approximately 0.2 mile) leading to the BP Hill RVSS tower from the improved border road would be constructed. This road would be a 16-foot-wide road with necessary drainage structures to include all-weather surfacing.

Area of Potential Effect

The area of potential effect (APE) for the proposed undertaking includes the existing border road to be improved and the proposed alignment of the new access road leading to BP Hill, as well as an approximately 200-foot-wide corridor (300-foot-wide in some locations) along them that would take into account any temporary impacts from road improvement and construction

activities. A large portion of the APE has been previously disturbed by an extensive gravel quarry, while other disturbances include the existing road footprint, refuse, and erosion.

Identification and Evaluation of Historic Properties

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, a Class III pedestrian survey of the entire APE was completed to determine if cultural resources (archaeological sites, isolated finds, or historic structures) are present. Enclosed please find a copy of the cultural resources technical report titled *A Class III Cultural Resources Survey of the Proposed Improvement and Construction, Operation, and Maintenance of Approximately 1.6 Miles of All-Weather Road in the El Centro Area of Responsibility, U.S. Customs and Border Protection, El Centro Sector, Imperial County, California* for your records and comment.

As part of the background research, two previously recorded sites were identified as being located within or adjacent to the project corridor. CA-IMP-4833 is described as a cairn and trail segment located near the eastern end of the border road. CA-IMP-4829 is described as a quartz chipping station in the same vicinity. Attempts to relocate both sites were made; however, both sites have been completely destroyed by the extensive gravel quarry operated by the Imperial Irrigation District. During surveys, an isolated feature (13-009617), which consists of International Boundary Monument No. 225, was relocated.

No new archaeological sites were identified during the Class III survey of the project corridor. However, the survey of the APE did result in the identification of nine isolated finds. The isolated finds consist of five historic General Land Office survey markers, a scatter of milled lumber and nails, International Boundary Monument No. 224, a tobacco tin, and a shell fragment.

CBP has determined that the isolated artifacts, survey markers, and destroyed archaeological sites are not eligible for listing in the National Register of Historic Places (NRHP). Both International Boundary Monuments are eligible for listing on the NRHP under criteria A and C, and as such will be avoided by all road improvement and construction activities.

Determination of Effects on Historic Properties

Based on the location of the International Boundary Monuments in relation to the proposed road improvement and construction activities, the commitment by CBP to avoid the International Boundary Monuments during all road improvement and construction activities, and the absence of other historic buildings, structures, sites, districts or objects located within the APE, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

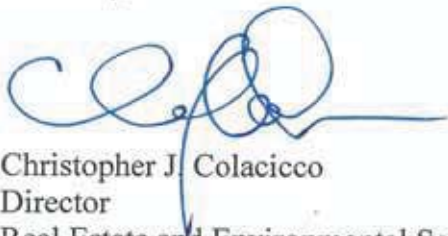
Please let us know if you have any concerns or would like to provide any additional information relative to the proposed undertaking within 30 days of receipt of this letter. Your prompt attention to this request would be greatly appreciated.

Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at john.petrilla@dhs.gov. Thank you.

Sincerely,

A handwritten signature in blue ink, appearing to read 'C. Colacicco', with a long horizontal line extending to the right.

Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

00003991

**U.S. Customs and
Border Protection**

DEC 06 2012

Mr. John P. Bathke
THPO
Quechan Indian Nation
P.O. Box 1899
Yuma, AZ 85366

Subject: Proposed Improvement and Construction, Operation, and Maintenance of
Approximately 1.6 Miles of All-Weather Road in Imperial County, California

Dear Mr. Bathke:

U.S. Customs and Border Protection (CBP) is proposing the improvement and construction, operation, and maintenance of approximately 1.6 miles of road along the U.S./Mexico border west of Calexico, California. The proposed all-weather roads are located west of the All-American Canal adjacent to and within U.S. Bureau of Land Management (BLM) lands, near the U.S./Mexico border in Imperial County, California. Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 "Protection of Historic Properties (Section 106)," this letter and enclosures are being transmitted to initiate consultation, identify historic properties, and to assess adverse effects of this undertaking.

Description of Undertaking

Improvements to an existing border road would occur from near Border Monument 224 (approximately N 32° 38.96544, W 115° 42.1974), to near Border Monument 225 (approximately N32° 38.89518, W115° 43.52994). The border road would be improved to an all-weather surface road (1.4 miles long) approximately 20 feet wide with 2-foot shoulders and would include any necessary drainage structures (i.e., culverts, low-water crossing, or bridge). A drag road would also be constructed along the north side of the all-weather surface. Staging areas would be located approximately every 0.3 mile within the construction corridor. In addition to the 1.4 miles of road improvement, a new access road (approximately 0.2 mile) leading to the BP Hill RVSS tower from the improved border road would be constructed. This road would be a 16-foot-wide road with necessary drainage structures to include all-weather surfacing.

Area of Potential Effect

The area of potential effect (APE) for the proposed undertaking includes the existing border road to be improved and the proposed alignment of the new access road leading to BP Hill, as well as an approximately 200-foot-wide corridor (300-foot-wide in some locations) along them that would take into account any temporary impacts from road improvement and construction

activities. A large portion of the APE has been previously disturbed by an extensive gravel quarry, while other disturbances include the existing road footprint, refuse, and erosion.

Identification and Evaluation of Historic Properties

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, a Class III pedestrian survey of the entire APE was completed to determine if cultural resources (archaeological sites, isolated finds, or historic structures) are present. Enclosed please find a copy of the cultural resources technical report titled *A Class III Cultural Resources Survey of the Proposed Improvement and Construction, Operation, and Maintenance of Approximately 1.6 Miles of All-Weather Road in the El Centro Area of Responsibility, U.S. Customs and Border Protection, El Centro Sector, Imperial County, California* for your records and comment.

As part of the background research, two previously recorded sites were identified as being located within or adjacent to the project corridor. CA-IMP-4833 is described as a cairn and trail segment located near the eastern end of the border road. CA-IMP-4829 is described as a quartz chipping station in the same vicinity. Attempts to relocate both sites were made; however, both sites have been completely destroyed by the extensive gravel quarry operated by the Imperial Irrigation District. During surveys, an isolated feature (13-009617), which consists of International Boundary Monument No. 225, was relocated.

No new archaeological sites were identified during the Class III survey of the project corridor. However, the survey of the APE did result in the identification of nine isolated finds. The isolated finds consist of five historic General Land Office survey markers, a scatter of milled lumber and nails, International Boundary Monument No. 224, a tobacco tin, and a shell fragment.

CBP has determined that the isolated artifacts, survey markers, and destroyed archaeological sites are not eligible for listing in the National Register of Historic Places (NRHP). Both International Boundary Monuments are eligible for listing on the NRHP under criteria A and C, and as such will be avoided by all road improvement and construction activities.

Determination of Effects on Historic Properties

Based on the location of the International Boundary Monuments in relation to the proposed road improvement and construction activities, the commitment by CBP to avoid the International Boundary Monuments during all road improvement and construction activities, and the absence of other historic buildings, structures, sites, districts or objects located within the APE, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

Please let us know if you have any concerns or would like to provide any additional information relative to the proposed undertaking within 30 days of receipt of this letter. Your prompt attention to this request would be greatly appreciated.

Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at john.petrilla@dhs.gov. Thank you.

Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

00003995

DEC 06 2012

**U.S. Customs and
Border Protection**

The Honorable Allen E. Lawson
Chairperson
San Pasqual Band of Mission Indians
P.O. Box 365
Valley Center, CA 92082

Subject: Proposed Improvement and Construction, Operation, and Maintenance of
Approximately 1.6 Miles of All-Weather Road in Imperial County, California

Dear Chairperson Lawson:

U.S. Customs and Border Protection (CBP) is proposing the improvement and construction, operation, and maintenance of approximately 1.6 miles of road along the U.S./Mexico border west of Calexico, California. The proposed all-weather roads are located west of the All-American Canal adjacent to and within U.S. Bureau of Land Management (BLM) lands, near the U.S./Mexico border in Imperial County, California. Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 "Protection of Historic Properties (Section 106)," this letter and enclosures are being transmitted to initiate consultation, identify historic properties, and to assess adverse effects of this undertaking.

Description of Undertaking

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Area of Potential Effect

The area of potential effect (APE) for the proposed undertaking includes the existing border road to be improved and the proposed alignment of the new access road leading to BP Hill, as well as an approximately 200-foot-wide corridor (300-foot-wide in some locations) along them that would take into account any temporary impacts from road improvement and construction

activities. A large portion of the APE has been previously disturbed by an extensive gravel quarry, while other disturbances include the existing road footprint, refuse, and erosion.

Identification and Evaluation of Historic Properties

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No new archaeological sites were identified during the Class III survey of the project corridor. However, the survey of the APE did result in the identification of nine isolated finds. The isolated finds consist of five historic General Land Office survey markers, a scatter of milled lumber and nails, International Boundary Monument No. 224, a tobacco tin, and a shell fragment.

CBP has determined that the isolated artifacts, survey markers, and destroyed archaeological sites are not eligible for listing in the National Register of Historic Places (NRHP). Both International Boundary Monuments are eligible for listing on the NRHP under criteria A and C, and as such will be avoided by all road improvement and construction activities.

Determination of Effects on Historic Properties

Based on the location of the International Boundary Monuments in relation to the proposed road improvement and construction activities, the commitment by CBP to avoid the International Boundary Monuments during all road improvement and construction activities, and the absence of other historic buildings, structures, sites, districts or objects located within the APE, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

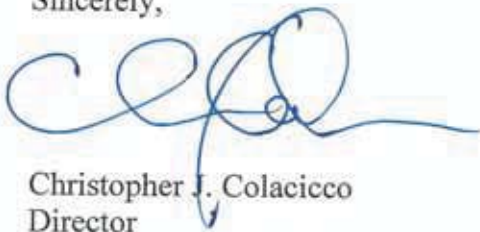
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Please direct all correspondence to:

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

If you require additional information or have any questions, please contact Mr. Petrilla at (949) 360-2382 or by email at john.petrilla@dhs.gov. Thank you.

Sincerely,

A handwritten signature in blue ink, appearing to read 'CJ Colacicco', with a long horizontal flourish extending to the right.

Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

00003999

**U.S. Customs and
Border Protection**

DEC 06 2012

The Honorable Virgil Perez
Chairperson
Santa Ysabel Band of Diegueno Indians
P.O. Box 130
Santa Ysabel, CA 92070

Subject: Proposed Improvement and Construction, Operation, and Maintenance of
Approximately 1.6 Miles of All-Weather Road in Imperial County, California

Dear Chairperson Perez:

U.S. Customs and Border Protection (CBP) is proposing the improvement and construction, operation, and maintenance of approximately 1.6 miles of road along the U.S./Mexico border west of Calexico, California. The proposed all-weather roads are located west of the All-American Canal adjacent to and within U.S. Bureau of Land Management (BLM) lands, near the U.S./Mexico border in Imperial County, California. Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 "Protection of Historic Properties (Section 106)," this letter and enclosures are being transmitted to initiate consultation, identify historic properties, and to assess adverse effects of this undertaking.

Description of Undertaking

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Area of Potential Effect

The area of potential effect (APE) for the proposed undertaking includes the existing border road to be improved and the proposed alignment of the new access road leading to BP Hill, as well as an approximately 200-foot-wide corridor (300-foot-wide in some locations) along them that would take into account any temporary impacts from road improvement and construction

activities. A large portion of the APE has been previously disturbed by an extensive gravel quarry, while other disturbances include the existing road footprint, refuse, and erosion.

Identification and Evaluation of Historic Properties

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No new archaeological sites were identified during the Class III survey of the project corridor. However, the survey of the APE did result in the identification of nine isolated finds. The isolated finds consist of five historic General Land Office survey markers, a scatter of milled lumber and nails, International Boundary Monument No. 224, a tobacco tin, and a shell fragment.

CBP has determined that the isolated artifacts, survey markers, and destroyed archaeological sites are not eligible for listing in the National Register of Historic Places (NRHP). Both International Boundary Monuments are eligible for listing on the NRHP under criteria A and C, and as such will be avoided by all road improvement and construction activities.

Determination of Effects on Historic Properties

Based on the location of the International Boundary Monuments in relation to the proposed road improvement and construction activities, the commitment by CBP to avoid the International Boundary Monuments during all road improvement and construction activities, and the absence of other historic buildings, structures, sites, districts or objects located within the APE, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

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U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
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Laguna Niguel, CA 92677-3400

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Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

00004003

DEC 06 2012

U.S. Customs and
Border Protection

The Honorable Mary L. Resvaloso
Chairperson
Torres Martinez Desert Cahuilla Indians
P.O. Box 1160
Thermal, CA 92274

Subject: Proposed Improvement and Construction, Operation, and Maintenance of
Approximately 1.6 Miles of All-Weather Road in Imperial County, California

Dear Chairperson Resvaloso:

U.S. Customs and Border Protection (CBP) is proposing the improvement and construction, operation, and maintenance of approximately 1.6 miles of road along the U.S./Mexico border west of Calexico, California. The proposed all-weather roads are located west of the All-American Canal adjacent to and within U.S. Bureau of Land Management (BLM) lands, near the U.S./Mexico border in Imperial County, California. Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 "Protection of Historic Properties (Section 106)," this letter and enclosures are being transmitted to initiate consultation, identify historic properties, and to assess adverse effects of this undertaking.

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Area of Potential Effect

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Determination of Effects on Historic Properties

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Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

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Sincerely,

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Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

00004007

DEC 06 2012

**U.S. Customs and
Border Protection**

The Honorable Allen E. Lawson
Chairperson
San Pasqual Band of Mission Indians
P.O. Box 365
Valley Center, CA 92082

Subject: Proposed Improvement and Construction, Operation, and Maintenance of
Approximately 1.6 Miles of All-Weather Road in Imperial County, California

Dear Chairperson Lawson:

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Laguna Niguel Facilities Center
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Sincerely,



Christopher J. Colacicco
Director
Real Estate and Environmental Services Division
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure

00004011



IID

A century of service.

GS-ES

December 12, 2012

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

SUBJECT: US CBP Improvement and Construction, Operation & Maintenance
Proposed All-Weather Road near the U.S./Mexico Border

Dear Mr. Petrilla:

On November 13, 2012, the U.S. Customs and Border Protection (CBP) issued a Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the improvement, construction, operation and maintenance of an all-weather road along the U.S./Mexico Border. The Proposed Action would improve and construct, operate, and maintain approximately 1.6 miles of all-weather road near the U.S./Mexico border within the U.S. Border Patrol El Centro Station's Area of Responsibility. The existing 1.4-mile road that would be improved is west of the All-American Canal and adjacent to and within U.S. Bureau of Land Management's Yuha Desert Area of Critical Environmental Concern. The Proposed Action includes improvements to the existing border road, construction of a new access road to the top of BP Hill, and required maintenance activities upon completion of the proposed project. The Proposed Action also includes the construction of a new access road to the top of BP Hill (0.2 mile in length).

The Imperial Irrigation District (IID) has reviewed the Draft EA and Draft FONSI and has the following comments:

1. On page 3-4, 3.2.1 *Affected Environment*, lines 8, 9, 10 state, "IID has an extant gravel/sand quarry located near the eastern terminus of the project area. This site is currently not in use; however, IID could continue operations in the future." (See Figure 3-1, page 3-5)". In 2012 IID relinquished the mineral materials site and did not renew the permit for gravel and clay out of the Mount Signal Gravel Pit. The Bureau of Land Management (BLM) concluded that the IID had completed all the reclamation tasks and responsibilities associated with the operation of the Mount Signal gravel pit and complied with all BLM conditions and general stipulations. The Mount Signal Gravel Pit is located within the

00004013

Mr. John Petrilla
December 12, 2012
Page 2

Southwest Quarter of Section 24, Township 17 South, Range 12 East, San Bernardino Meridian.

2. The project site lies outside the All-American Canal (AAC) Service Area Boundary. Thus, the developer is ineligible to draw water from the Westside Main Canal/AAC for this project and will require to contract water from a commercial source.

Should you have any questions, please do not hesitate to contact me by phone at 760-482-3609 or by e-mail at dvargas@iid.com. Thank you for the opportunity to comment on this matter.

Respectfully,



Donald Vargas
Environmental Specialist

Kevin Kelley – General Manager
Jesse Silva – Manager, Water Dept.
Mario Escalera – Interim Deputy Manager - Operations, Energy Dept.
Carl Stills – Interim Deputy Manager – Strategic Planning, Energy Dept.
Paul G. Peschel – Interim General Services Manager
Jeff M. Garber – General Counsel
Tom King – Interim Project Management Officer, Portfolio Mgmt. Office
Carlos Villalon – Asst. Mgr., Water Dept. System Control & Monitoring
Juan Carlos Sandoval. – Asst. Mgr. Energy Dept.
Shayne Ferber – Asst. Supervisor, Real Estate
Vikki Dee Bradshaw – Interim Supervisor, Environmental Services

00004014

Josh McEnany

From: Josh McEnany
Sent: Wednesday, January 02, 2013 9:54 AM
To: Josh McEnany
Subject: FW: Improvement and Construction, Operation and Maintenance in Imperial County

From: Julie Hagen [<mailto:jhagen@VIEJAS.com>]
Sent: Thursday, December 27, 2012 8:14 AM
To: PETRILLA, JOHN
Cc: Raymond Cuero; Tina Estrada
Subject: Improvement and Construction, Operation and Maintenance in Imperial County

Good Morning,

Viejas Band of Kumeyaay Indians received your notice on improving an existing border road and we are concern with the fact there are cultural resources in the vicinity. Viejas Band would like to know if there is going to be a Native American Cultural monitor present when you are doing your improvements to help you with avoiding any impacts to cultural resources. Thank you

Julie Hagen
Viejas Band of Kumeyaay Indians
Environmental Coordinator
Phone: 619-659-2339
Cell: 619-890-2346

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Public Comment Response Matrix Draft EA for the Improvement and Construction, Operation, and Maintenance of Proposed All-Weather Road in the El Centro Station Area of Responsibility, U.S. Customs and Border Protection (CBP), El Centro Sector					
December 2012					
#	Location		Comment	Reviewer	CBP's Response
	Page	Line			
0					
1			General	Dave Singleton, Program Analyst, Native American Heritage Commission	Thank you for your comment and analyses.
2			General	John L. Merino, Principal Engineer, USIBWC	Thank you for your comment, no structures would be built as part of the Proposed Action.
3			General	John L. Merino, Principal Engineer, USIBWC	Thank you for your comment. No construction or improvement activities would increase, concentrate or relocate any overland drainages flowing into either the United States or Mexico.

Public Comment Response Matrix					
Draft EA for the Improvement and Construction, Operation, and Maintenance of Proposed All-Weather Road in the El Centro Station Area of Responsibility, U.S. Customs and Border Protection (CBP), El Centro Sector					
December 2012					
#	Location		Comment	Reviewer	CBP's Response
	Page	Line			
4			General	John L. Merino, Principal Engineer, USIBWC	Thank you for your comment. Design drawings for Phase A (2 Miles of All-Weather Road Improvements from Mount Signal Road moving West) has been submitted to the USIBWC for approval. Phase B will be submitted for approval prior to construction activities occurring.
5			General	Jill McCormick, Cultural Resource Manager, Cocopah Indian Tribe	Thank you for your comment and support. CBP will keep the Cocopah Indian Tribe informed as the project moves forward.
6	3-4	8-10	3.2.1	Donald Vargas, Environmental Specialist, Imperial Irrigation District	The document has been revised to reflect that IID has no intention of using the quarry site in the future.

Public Comment Response Matrix Draft EA for the Improvement and Construction, Operation, and Maintenance of Proposed All-Weather Road in the El Centro Station Area of Responsibility, U.S. Customs and Border Protection (CBP), El Centro Sector					
December 2012					
#	Location		Comment	Reviewer	CBP's Response
	Page	Line			
7			General	Donald Vargas, Environmental Specialist, Imperial Irrigation District	CBP will obtain its water from a contract source.
8			General	Julie Hagen Viejas Band of Kumeyaay Indians Environmental Coordinator	Native American monitors will be onsite during construction.

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THE COCOPAH INDIAN TRIBE

Cultural Resource Department

14515 S. Veterans Drive

Somerton, Arizona 85350

Telephone (928) 627-4849

Cell (928) 503-2291

Fax (928) 627-3173

CCR-018-12-007

January 2, 2013

Mr. John Petrilla
U.S. Customs and Border Protection
Facilities Management and Engineering
Laguna Niguel Facilities Center
24000 Avila Rd, Room 5020
Laguna Niguel, CA 92677-3400

RE: Request for Comments for U.S. Customs and Border Protection Proposed
Improvement and Construction, Operation and Maintenance of Approximately 1.6
Miles of All -Weather Road in Imperial County, California

Dear Mr. Petilla:

The Cultural Resources Department of the Cocopah Indian Tribe appreciates your consultation efforts on this project. We are pleased that you contacted this department on this cultural resource issue for the purpose of solicitation of our input and to address our concerns on this matter. We concur with the No Historic Properties Affected determination made by your agency. We would like to continue to be kept informed on the progression of the project and be a part of the consultation process in the future

If you have any questions or need additional information please feel free to contact the cultural resource department. We will be happy to assist you with any future concerns or questions.

Sincerely,

A handwritten signature in blue ink that reads "Jill McCormick".

H. Jill McCormick, M.A.

Cultural Resource Manager

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Edmund G. Brown Jr.
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Ken Alex
Director

December 17, 2012

John Petrilla
U.S. Customs and Border Protection
24000 Avila Road, Suite 5020
Laguna Niguel, CA 92677

Subject: West Desert Road Project
SCH#: 2012114001

Dear John Petrilla:

The State Clearinghouse submitted the above named Joint Document to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on December 14, 2012, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

A handwritten signature in black ink that reads "Scott Morgan".

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

SCH# 2012114001
Project Title West Desert Road Project
Lead Agency U.S. Customs and Border Protection

Type JD Joint Document
Description Note: EA / FONSI

The Proposed Action comprises improvement of an existing border road and construction of a new access road to the top of BP Hill RVSS tower. The border road improvements would occur from near Border Monument 224 to near Border Monument 225. The border road would be improved to an all-weather surface road (1.4 miles long) approximately 20 feet wide with 2-foot shoulders and would include any necessary drainage structures (i.e., culverts, low-water crossing, or bridge). A drag road would also be constructed along the north side of the all-weather surface. Staging areas would be located approximately every 0.3 mile within the construction corridor. In addition to the 1.4 miles of road improvement, a new access road (approximately 0.2 mile) leading to the BP Hill RVSS tower from the improved border road would be constructed.

Lead Agency Contact

Name John Petrilla
Agency U.S. Customs and Border Protection
Phone 949 360 2382 **Fax**
email
Address 24000 Avila Road, Suite 5020
City Laguna Niguel **State** CA **Zip** 92677

Project Location

County Imperial
City Calexico
Region
Lat / Long 32° 38' 57.95" N / 115° 42' 29.11" W
Cross Streets SR 98 and Signal Road
Parcel No. Mount Signal Quadrangle
Township 17S **Range** 12E **Section** 23/24 **Base**

Proximity to:

Highways SR 98
Airports
Railways
Waterways All-American Canal
Schools
Land Use Currently Roosevelt Reservation and Bureau of Land Management Yuha Desert Management Area for the FTHL

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Economics/Jobs; Flood Plain/Flooding; Geologic/Seismic; Noise; Population/Housing Balance; Public Services; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Fish and Game, Region 6; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Office of Emergency Management Agency, California; California Highway Patrol; Caltrans, District 11; Air Resources Board, Transportation Projects; Regional Water Quality Control Board, Region 7; Native American Heritage Commission; State Lands Commission

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Document Details Report
State Clearinghouse Data Base

Date Received 11/15/2012 *Start of Review* 11/15/2012 *End of Review* 12/14/2012

00004025

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364
 SACRAMENTO, CA 95814
 (916) 653-6251
 Fax (916) 657-5390
 Web Site www.nahc.ca.gov
 e-mail: ds_nahc@pacbell.net



RECEIVED

November 20, 2012

NOV 27 2012

Mr. John Petrilla
 Office of Healthcare Programs

STATE CLEARING HOUSE

**U.S. Customs & Border Protection | Facilities
 Management and Engineering**

24000 Avila Road, Room 5020
 Laguna Niguel, CA 92677-3400

Clear
 12/14/12
 C

Sent by U.S. Mail

No. of Pages: 5

Re: "**SCH#2012114001; NEPA 'Document: Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for the West Desert Road Project;**" located in the El Centro Sector; Imperial County, California

Dear Mr. Petrilla:

The Native American Heritage Commission (NAHC) is the California State 'Trustee Agency' pursuant to Public Resources Code §21070 for the protection of California's Native American Cultural Resources. The NAHC is also a 'reviewing agency' for environmental documents prepared under the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq*), 36 CFR Part 800.3, .5 and are subject to the Tribal and interested Native American consultation as required by the National Historic Preservation Act, as amended (Section 106) (16 U.S.C. 470; Section 106, [4f], 110 [f] [k], 304). The provisions of the Native American Graves Protection and Repatriation Act (NAGPRA) (25 U.S.C. 3001-3013) and its implementation (43 CFR Part 10.2), and California Government Code §27491 may apply to this project if Native American human remains are inadvertently discovered.

The NAHC is of the opinion that the federal standards, pursuant to the above-referenced Acts and the Council on Environmental Quality (CSQ; 42 U.S.C. 4371 *et seq*) are similar to and in many cases more stringent with regard to the 'significance' of historic, including Native American items, and archaeological, including Native American items at least equal to the California Environmental Quality Act (CEQA.). In most cases, federal environmental policy require that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Statement (EIS).

The NAHC did conduct a Sacred Lands File (SLF) search of its Inventory and Native American cultural resources were not identified in the location you specified. Please note that the absence of specific site information in the *Sacred Lands File* does not indicate the absence of Native American traditional cultural places or cultural landscapes in any APE. While in this case, a search of the NAHC *Sacred Lands File* did not indicate the presence of any sites within the APE you provided, a Native American tribe or individual may be the only source for the presence of traditional cultural places. For that reason, enclosed is a list of Native American

individuals/organizations who may have knowledge of traditional cultural places in your project area. This list should provide a starting place in locating any areas of potential adverse impact

The NAHC Sacred Lands File Inventory of the Native American Heritage Commission is established by the California Legislature pursuant to California Public Resources Code §§5097.94(a) and 5097.96. The NAHC Sacred Lands Inventory is populated by submission to the data by Native American tribes and Native American elders. In this way it differs from the California and National Register of Historic Places under the jurisdiction of the U.S. Secretary of the Interior.

The NAHC, pursuant to Appendix B of the Guidelines to the California Environmental Quality Act (CEQA) is designated as the agency with expertise in the areas of issues of cultural significance to California Native American communities. Also, in the 1985 California Appellate Court decision (170 Cal App 3rd 604), the court held that the NAHC has jurisdiction and special expertise, as a state agency, over affected Native American resources, impacted by proposed projects including archaeological, places of religious significance to Native Americans and burial sites.

Culturally affiliated tribes are to be consulted to determine possible project impacts pursuant to the National Historic Preservation Act, as amended. Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. The NAHC recommends as part of 'due diligence', that you also contact the nearest Information Center of the California Historical Resources Information System (CHRIS) of the State Historic Preservation Office (SHPO) for other possible recorded sites in or near the APE (contact the Office of Historic Preservation at 916-445-7000).

Attached is a list of Native American contacts is attached to assist you pursuant to Section 800.2(c)(1)(i) and Section 800.2(c)(2); they may have knowledge of cultural resources in the project area. It is advisable to contact the persons listed and seek to establish a 'trust' relationship with them; if they cannot supply you with specific information about the impact on cultural resources, they may be able to refer you to another tribe or person knowledgeable of the cultural resources in or near the affected project area.

Lead agencies should consider avoidance, in the case of cultural resources that are discovered. A tribe or Native American individual may be the only source of information about a cultural resource; this is consistent with the NHPA (16 U.S.C. 470 *et seq* Sections. 106, 110, and 304) Section 106 Guidelines amended in 2009. Also, recommended for serious consideration are the federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) NAGPRA (25 U.S.C. 3001-3013) as appropriate. In addition, consider the 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes and are supportive guides for Section 106 consultation. The aforementioned Secretary of the Interior's *Standards* include recommendations for all 'lead agencies' to consider the historic context of proposed projects and to "research" the cultural landscape that might include the 'area of potential effect.'

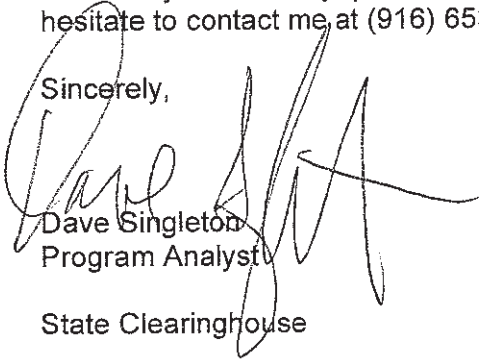
NEPA regulations provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery. Even though a discovery may be in federal property, California Government Code §27460 should be followed in the event of an accidental discovery of human remains during any groundbreaking activity; in such cases California Government Code §27491

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and California Health & Safety Code §7050.5 will apply and construction cease in the affected area.

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,

A handwritten signature in black ink, appearing to read "Dave Singleton", written over the typed name and title.

Dave Singleton
Program Analyst

State Clearinghouse

Attachment: Native American Contacts list

00004029

**OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION**

1725 23rd Street, Suite 100
SACRAMENTO, CA 95816-7100
(916) 445-7000 Fax: (916) 445-7053
calshpo@parks.ca.gov
www.ohp.parks.ca.gov



December 20, 2012

Reply in Reference To: CBP_2012_1210_001

Christopher Colacicco, Director
Real Estate and Environmental Services
Border Patrol Facilities and Tactical Infrastructure
1301 Constitution Avenue, NW
EPA West Building, B-155
Washington, DC 20229

Re: Section 106 Consultation for Improvement, Construction, Operation and Maintenance of 1.6 Miles of All-Weather Road, Imperial County

Dear Director Colacicco:

Thank you for initiating consultation regarding the U.S. Customs and Border Protection's (CBP) efforts to comply with Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470f), as amended, and its implementing regulation found at 36 CFR Part 800.

You have identified the undertaking as the construction, operation and maintenance of 1.6 miles of all-weather road in Imperial County. Project activities include the improvement of a segment of existing border road between Border Monuments 224 and 225 through widening, installation of drainage features and new access road.

It is my understanding that Native American tribes have been notified about this project but no comments have been received at this time. No listed or eligible National Register resources have been identified within the project area and CBP is requesting my concurrence with their finding of no historic properties affected. After reviewing the information submitted by CBP, I have no objection to this finding. Please be advised that under certain circumstances, such as an unanticipated discovery or a change in project description, you may have future responsibilities for this undertaking under 36 CFR Part 800.

Thank you for seeking my comments and considering historic properties as part of your project planning. If you have any questions or concerns, please contact Ed Carroll of my staff at (916) 445-7006 or at email at ecarroll@parks.ca.gov.

Sincerely,

A handwritten signature in cursive script that reads "Susan K. Stratton for".

Carol Roland-Nawi, PhD
State Historic Preservation Officer

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APPENDIX B
BIOLOGICAL SURVEY REPORT



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Biological Survey for the West Desert Road El Centro Station, El Centro Sector

Dates Surveyed: June 28, 2012
Climate: Calm winds, Sunny, 85° F

Biologist: Josh McEnany – Gulf South Research Corporation
John Ginter – Gulf South Research Corporation

U.S. Customs and Border Protection (CBP) is proposing the improvement, construction, operation, and maintenance of approximately 2 miles of all-weather road along the U.S./Mexico border within the U.S. Border Patrol (USBP) El Centro Station's Area of Responsibility (AOR). Currently, the existing road is impassable, which creates long drive times for agents to reach patrol areas and restricts agents' abilities to assist with interdictions and apprehensions. The improvements to the West Desert Road begin at the Dump Turnaround (approximately N32° 38.993, W115° 41.996), near Border Monument 224, and extend to the Iron Gate (approximately N32° 38.861, W115° 43.725), near Border Monument 225. The road would be improved to an all-weather surface road (1.8 miles long) approximately 20 feet wide with 2-foot shoulders, and would include any necessary drainage structures. A drag road would also be constructed along the north side of the all-weather surface. Staging areas would be located approximately every 1/3 mile within the construction corridor and at the eastern and western terminuses. In addition to the 1.8 miles of road improvement, a new access road leading to the BP Hill Remote Video Surveillance System (RVSS) (approximately 0.2 mile) from the project road would be constructed (Figure 1). The entire project corridor, which includes the new road to BP Hill, was surveyed on foot (meandering transects) by biologists from Gulf South Research Corporation on June 28, 2012. The survey limits varied from 200 to 300 feet wide, depending on the terrain and suggestions by the project engineer. Vegetation, wildlife, and any potential waters of the United States were identified and recorded as needed. Photographs taken during the field survey are included in Attachment 1, and the location of each photo point is depicted on Figure 1.

The project lies in the Lower Colorado River Valley (LCRV) biome of the Sonoran Desert, and the vegetation community is broadly classified as Sonoran Desert scrub (Brown 1994). The project corridor contained less than five percent groundcover, and the predominant vegetation observed was creosote bush (*Larrea tridentata*), which is typical for this area within the Sonoran Desert. Other species observed included desert holly (*Atriplex hymenelytra*), skeleton weed (*Eriogonum deflexum*), white bursage (*Ambrosia dumosa*), velvet mesquite (*Prosopis velutina*), and catclaw acacia (*Acacia greggii*). Table 1 includes the full list of plant species observed during the survey.

The Sonoran Desert is extremely hot, and many animals are nocturnal or crepuscular. Many of the animals that inhabit the Sonoran Desert are found throughout the warmer and drier regions of the southwestern United States (Brown 1994). Common mammals found in this habitat include multiple species of bats, coyote (*Canis latrans*), black-tailed jack-rabbit (*Lepus californicus*), desert pocket mouse (*Chaetodipus penicillatus*), road runner (*Geococcyx californianus*), mourning dove (*Zenaida macroura*), lesser nighthawk (*Chordeiles acutipennis*), and desert iguana (*Dipsosaurus dorsalis*). The most common wildlife observed during the survey

Table 1. Plant Species Observed During the West Desert Road Survey

Common Name	Scientific Name
Velvet mesquite	<i>Prosopis velutina</i>
Desert holly	<i>Atriplex hymenelytra</i>
Cattle saltbush	<i>Atriplex polycarpa</i>
Desert trumpet	<i>Eriogonum inflatum</i>
Catclaw acacia	<i>Acacia greggii</i>
Skeleton weed	<i>Eriogonum deflexum</i>
White bursage	<i>Ambrosia dumosa</i>
Sahara mustard	<i>Brassica tournefortii</i>
Desert Indianwheat	<i>Plantago ovate</i>
White ratany	<i>Krameria grayi</i>
Sweetbush	<i>Bebia juncea</i>
Devil's spineflower	<i>Chorizanthe rigida</i>
Desert lavender	<i>Hyptis emoryi</i>
Wild heliotrope	<i>Phacelia crenulata</i>
Arabian schismus	<i>Schismus arabicus</i>
Sixweeks fescue	<i>Vulpia octoflora</i>
California threeawn	<i>Aristida californica</i>
Desert smoketree	<i>Psorothamnus spinosor</i>
Dyebush	<i>Psorothamnus emoryi</i>
Jointfir	<i>Ephedra nevadensis</i>
Fanleaf crinklemat	<i>Tiquilia plicata</i>
Creosote bush	<i>Larrea tridentata</i>

includes mourning dove, lesser nighthawk, black-throated sparrow (*Amphispiza bilineata*), tiger whiptail (*Aspidoscelis tigris*), and long-tailed brush lizard (*Urosuarus graciosus*). All of the wildlife species observed during the survey are included in Table 2.

Table 2. Wildlife Observed During the West Desert Road Survey

Common Name	Scientific Name
Black-throated sparrow	<i>Amphispiza bilineata</i>
Lesser nighthawk	<i>Chordeiles acutipennis</i>
Mourning dove	<i>Zenaida macroura</i>
Red-tailed hawk	<i>Buteo jamaicensis</i>
Flat-tail horned lizard*	<i>Phrynosoma mcallii</i>
Desert kangaroo rat*	<i>Dipodomys deserti</i>
Coyote*	<i>Canis latrans</i>
Kit fox*	<i>Vulpes macrotis</i>
Sidewinder*	<i>Crotalus cerastes</i>
Tiger whiptail	<i>Aspidoscelis tigris</i>
Desert iguana	<i>Dipsosaurus dorsalis</i>
Zebra-tailed lizard	<i>Callisaurus draconoides</i>
Long-tailed brush lizard	<i>Urosuarus graciosus</i>

*These species were not observed; however, tracks and/or scat were observed within the project corridor.

The survey identified seven ephemeral washes bisecting the project corridor that might be regulated as waters of the United States (Figure 1). The total impact on the seven potential waters of the United States would be less than 0.1 acre. Dominant plants found along the drainages include velvet mesquite, catclaw acacia, and skeleton weed.

Although no Federally listed or state-listed species were observed during the surveys, tracks and scat of the flat-tail horned lizard (*Phrynosoma mcallii*) (FTHL) were recorded at one location. FTHL, a conservation agreement species, is not a Federally protected species. However, five Federal agencies signed a Memorandum of Agreement to protect the FTHL and its habitat on Federal lands. Habitat for the FTHL exists within the project corridor in the Yuma Desert Management Area (YDMA). Established by the 1997 Flat-Tailed Horned Lizard Rangeland Management Strategy, the YDMA serves as a tool to facilitate FTHL conservation. The project area is located within the YDMA. One burrow complex, presumably inhabited by desert kangaroo rats (*Dipodomys deserti*) and which could provide habitat for the BLM listed western burrowing owl (*Athene cunicularia*) and kit fox (*Vulpes macrotis*), was also observed and recorded during the survey efforts (Figure 1).

References

Brown, D. E. (ed.). 1994. *Biotic Communities: Southwestern United States and Northwestern Mexico*. Salt Lake City, UT: University of Utah Press.

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ATTACHMENT 1



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Photograph Point 1. Facing West



Photograph Point 1. Facing North

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Photograph Point 1. Facing East



Photograph Point 2. Facing West

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Photograph Point 2. Facing North



Photograph Point 3. Facing East

00004043



Photograph Point 3. Facing Southeast



Photograph Point 3. Facing East

00004044



Photograph Point 4. Facing West



Photograph Point 4. Facing Southeast

00004045



Photograph Point 5. Facing Southwest



Photograph Point 5. Facing Northeast

00004046



Photograph Point 6. Facing North



Photograph Point 6. Facing West

00004047



Photograph Point 6. Facing East



Photograph Point 6. Facing South

00004048



Photograph Point 7. Facing North



Photograph Point 8. Facing South

00004049



Photograph Point 8. Facing North



Photograph Point 9. Facing South

00004050



Photograph Point 9. Facing North



Photograph Point 10. Facing North

00004051



Photograph Point 10. Facing West



Photograph Point 11. Facing Southwest

00004052



Photograph Point 12. Facing Northeast



Photograph Point 12. Facing North

00004053



Photograph Point 13. Facing South

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APPENDIX C
PROTECTED SPECIES: FEDERAL, STATE, AND BLM SENSITIVE



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Scientific Name	Common Name	Taxon Abbrev.	Lead Office	State Status	Fed. Status	LISTING		RECOVERY			FEDERAL REGISTER	DISTRIBUTION [2]				
						Date Listed	Critical Habitat [3]	Plan	5-Year Review	RPN [4]	Most Recent Publication	LA	O	SB	Riv	SD
PLANTS																
<i>Acanthoscyphus parishii</i> var. <i>goodmaniana</i> (<i>Oxytheca</i> p. var. g.) [1]	Cushenbury oxytheca	ACPAGO	CFWO		FE	24-Aug-94	f-02	D 97	2009	9C					X	
<i>Acanthomintha ilicifolia</i>	San Diego thornmint	ACIL	CFWO		FT	13-Oct-98	f-08		2009	8						X
<i>Acemison dendroideus</i> var. <i>traskiae</i> (<i>Lonicera</i> s. subsp. <i>traskiae</i>) [1]	San Clemente Island lotus	LODETR	CFWO	SE	FE	11-Aug-77		F 84	2007	15	16-May-12	X				
<i>Allium manzi</i>	Manz's onion	ALMU	CFWO	ST	FE	13-Oct-98	n-12		2009	2C	11-Sep-12					X
<i>Ambrosia pumila</i>	San Diego ambrosia	AMPU	CFWO		FE	2-Jul-02	f-10		2010	11C					X	X
<i>Arctostaphylos glandulosa</i> subsp. <i>crassifolia</i>	Del Mar manzanita	ARGLCR	CFWO		FE	7-Oct-96			2010	6C						X
<i>Arenaria pululicicola</i>	marsh sandwort	ARPA	VFWO	SE	FE	3-Aug-93		F 98	2008	2		X	X			
<i>Astragalus albens</i>	Cushenbury milk-veich	ASAL	CFWO		FE	24-Aug-94	f-02	D 97	2009	8C						X
<i>Astragalus brauntonii</i>	Braunton's milk-veich	ASBR	VFWO		FE	29-Jan-97	f-06	F 99	2009	2		X	X		X	
<i>Astragalus lentiginosus</i> var. <i>coacheliae</i>	Coachella Valley milk-veich	ASLECO	CFWO		FE	6-Oct-98	f-05		2009	6C	16-May-12				X	
<i>Astragalus magdalenae</i> var. <i>peirsonii</i>	Peirson's milk-veich	ASMAPE	CFWO	SE	FT	6-Oct-98	f-08		2008	9	17-Jul-08					X
<i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i>	Ventura marsh milk-veich	ASPYLA	VFWO	SE	FE	21-May-01	f-04		2010	6C		X	X			
<i>Astragalus tener</i> var. <i>tini</i>	coastal dunes milk-veich	ASTEti	VFWO	SE	FE	12-Aug-98		F 05	2009	6C		X				X
<i>Astragalus tricarinatus</i>	triple-ribbed milk-veich	ASTR	CFWO		FE	6-Oct-98			2009	14				X	X	
<i>Atriplex coronata</i> var. <i>notator</i>	San Jacinto Valley crowscale	ATCONO	CFWO		FE	13-Oct-98	n-12		2008	3	11-Sep-12					X
<i>Baccharis vaucesar</i>	Encinitas baccharis	BAVA	CFWO	SE	FT	7-Oct-96			2011	5C						X
<i>Berberis nesii</i>	Nevin's barberry	BENE	CFWO	SE	FE	13-Oct-98	f-08		2009	2		X	X	X	X	
<i>Brodiaea filifolia</i>	thread-leaved brodiaea	BRFI	CFWO	SE	FT	13-Oct-98	f-11		2009	8C		X	X	X	X	
<i>Casilleja cinerea</i>	ash-gray paintbrush	CACI	CFWO		FT	14-Sep-98	f-07		2008	8						X
<i>Casilleja grisea</i>	San Clemente Island paintbrush	CAGR	CFWO	SE	FE	11-Aug-77		F 84	2007	14	16-May-12	X				
<i>Ceanothus ophiocchilus</i>	Vail Lake ceanothus	CEOP	CFWO	SE	FT	13-Oct-98	f-07		2008	2						X
<i>Cercocarpus traskiae</i>	Catalina Island mountain-mahogany	CTTR	CFWO	SE	FE	8-Aug-97			2007	8		X				
<i>Chloropyron maritimum</i> subsp. <i>maritimum</i> (<i>Cordylanthus maritimus</i> subsp. <i>maritimus</i>) [1]	salt marsh bird's-beak	CHMAMA	CFWO	SE	FE	28-Sep-78		F 85	2009	9		X	X			X
<i>Chorizanthe arcuata</i>	Orcutt's spineflower	CHOR	CFWO	SE	FE	7-Oct-96			2008	5						X
<i>Chorizanthe parryi</i> var. <i>fernandina</i>	San Fernando Valley spineflower	CHPAFE	VFWO	SE	C	25-Oct-99			na			X	X	X		
<i>Deinandra conjugens</i> (<i>Hemizonia</i> c.) [1]	Otay tarplant	DECO	CFWO	SE	FT	13-Oct-98	f-02	F 04	2009	8C						X
<i>Delphinium variegatum</i> subsp. <i>kimense</i>	San Clemente Island larkspur	DEVAKI	CFWO	SE	FE	11-Aug-77		F 84	2008	15	19-Jan-11	X				
<i>Dodecaedema leptoceras</i> [1]	slender-horned spineflower	DOLE	CFWO	SE	FE	28-Sep-87			2010	7C		X	X	X		
<i>Dudleya cymosa</i> subsp. <i>ovatifolia</i>	Santa Monica Mountains dudleya	DUCYOV	VFWO		FT	29-Jan-97		F 99	2009	6		X	X			
<i>Dudleya stolonifera</i>	Laguna Beach live-forever	DUST	CFWO	ST	FT	13-Oct-98			2010	8			X			
<i>Eremogone ursina</i> (<i>Arenaria ursina</i>) [1]	Bear Valley sandwort	ERUR	CFWO		FT	14-Sep-98	f-07		2008	8						X
<i>Eriastrum densifolium</i> subsp. <i>sanctorum</i>	Santa Ana River woolly-star	ERDESA	CFWO	SE	FE	28-Sep-87			2010	6C		X	X	X		
<i>Erigeron parishii</i>	Parish's daisy	ERPA	CFWO		FT	24-Aug-94	f-02	D 97	2009	8C						X
<i>Eriogonum kennedyi</i> var. <i>austromontanum</i>	southern mountain wild buckwheat	ERKEAU	CFWO		FT	14-Sep-98	f-07		2008	9						X
<i>Eriogonum ovalifolium</i> var. <i>vineum</i>	Cushenbury buckwheat	EROVVI	CFWO		FE	24-Aug-94	f-02	D 97	2009	9C						X
<i>Eryngium aristulatum</i> var. <i>parishii</i>	San Diego button celery	ERARPA	CFWO	SE	FE	3-Aug-93		F 98	2010	9C					X	X
<i>Fremontodendron mexicanum</i>	Mexican flannelbush	FRME	CFWO	SR	FE	13-Oct-98	f-07		2009	8						X
<i>Hazardia arcuati</i>	Orcutt's hazardia	HAOR	CFWO	ST	C				na		26-Oct-11					X
<i>Helianthemum greenei</i>	Island rush-rose	HEGR	VFWO		FT	13-Jul-97		F 00	2010	14		X				
<i>Lithophragma maximum</i>	San Clemente Island woodland star	LIMA	CFWO	SE	FE	8-Aug-97		F 84	2007	2		X				
<i>Malacothamnus clementinus</i>	San Clemente Island bush mallow	MACL	CFWO	SE	FE	11-Aug-77		F 84	2007	8	16-May-12	X				
<i>Monardella viminea</i> (<i>M. linoides</i> subsp. v.) [1]	willow monardella	MOVI	CFWO	SE	FE	13-Oct-98	f-12		2008	2	6-Mar-12					X
<i>Navarretia fossalis</i>	spreading navarretia	NAFO	CFWO		FT	13-Oct-98	f-10	F 98	2009	8		X	X	X	X	
<i>Orcuttia californica</i>	California Orcutt grass	ORCA	CFWO	SE	FE	3-Aug-93		F 98	2011	11C		X	X	X	X	
<i>Pentachaeta lyonii</i>	Lyon's pentachaeta	PELY	VFWO	SE	FE	29-Jan-97	f-06	F 99	2008	2C		X				
<i>Phacelia stellaris</i>	Brand's phacelia	PHST	CFWO		C				na		26-Oct-11	X		X	X	
<i>Physaria kingii</i> subsp. <i>bernardina</i> (<i>Lesquerella</i> k. subsp. b.) [1]	San Bernardino Mountains bladderpod	PHKIBE	CFWO		FE	24-Aug-94	f-02	D 97	2009	9C						X
<i>Poa atopurpurea</i>	San Bernardino bluegrass	POAT	CFWO		FE	14-Sep-98	f-08		2008	2		X				X
<i>Pogogyne abramsii</i>	San Diego mesa mint	POAH	CFWO	SE	FE	28-Sep-78		F 98	2010	8C						X
<i>Pogogyne nudiuscula</i>	Otay mesa mim	PONU	CFWO	SE	FE	3-Aug-93		F 98	2010	2C						X
<i>Nasturtium gambelii</i> (<i>Rorippa gambelii</i>) [1]	Gambel's watercress	ROGA	VFWO	ST	FE	3-Aug-93		F 98	in prep.	5		X	X	X	X	
<i>Sibara filifolia</i>	Santa Cruz Island rock-cress	SIFI	CFWO		FE	8-Aug-97			2006	2		X				
<i>Sidacea pedata</i>	pedate checker-mallow	SIPE	CFWO	SE	FE	31-Aug-84		F 98	2011	5C						X
<i>Taraxacum californicum</i>	California taraxacum	TACA	CFWO		FE	14-Sep-98	f-08		2008	5						X
<i>Thelypodium stenopetalum</i>	slender-petaled mustard	THST	CFWO	SE	FE	31-Aug-84		F 98	2011	5C						X

INDEX
Federal Status: FE = endangered; FT = threatened; C = candidate for listing; P = proposed; W = proposal withdrawn; PDM = post delisting monitoring plan; X* = experimental population; N = 90-day finding; M = 12-month finding.
State Status: SE = state endangered; ST = state threatened; SCE = state candidate endangered; SCT = state candidate threatened; sde = state delisted; SR = state listed rare; FP = fully protected; SSC = species of special concern (does not apply to plants or invertebrates).
Critical Habitat: p = Proposed; f = Designated; pf=Prudent Finding; npf=Not Prudent Finding; pr = Proposed Revised; fr = Final Revised; fde = Final delisting; W* = proposal withdrawn; fnd = final not designated.
Recovery Plan: F = Final-year published, D = Draft-year published
Distribution (historical county occurrences): LA = Los Angeles; O = Orange; SB = San Bernardino; Riv = Riverside; SD = San Diego; Imp = Imperial
Note: Santa Catalina Island and San Clemente Island are considered to be located within L.A. County
* Plant names format: scientific name including synonym, if any, followed by common name in parentheses [e.g. <i>Allium munzii</i> (Munz's onion); <i>Eremogone ursina</i> (<i>Arenaria ursina</i>) (Bear Valley sandwort)] Animal names format: common name including name of DPS, if any, followed by scientific name (including synonyms, if any) in parentheses [e.g. Santa Ana sucker (<i>Catostomus santaanae</i>); western snowy plover (Pacific Coast population DPS) (<i>Charadrius nivosus nivosus</i> (<i>Charadrius alexandrinus nivosus</i>))]
[1] Current name, followed by name under which the taxon was listed, or otherwise recognized, in parentheses. Cite "current name (older name)" form at least once in the beginning of a document, otherwise use the current name throughout.
[2] For species' range refer to the 5-Year Review or utilize the "Distribution" link to access the ECOS Mapper.
[3] For species' Critical Habitat refer to the final critical habitat rule or utilize the "Critical Habitat" link to access the ECOS critical habitat Mapper.
[4] Recovery Priority Number (RPN) for listed taxa; definitions relate to Degree of Threat, Recovery Potential, Taxonomic Status, and Conflict (na = not applicable).
PLEASE SEND CHANGES OR CORRECTIONS CONCERNING: SPECIES NAMES TO GARY WALLACE (Gary_Wallace@fws.gov, 760-431-9440); CRITICAL HABITAT MAPPING TO TONY MCKINNEY (Tony_McKinney@fws.gov, 760-431-9440); HYPERLINKS OR ASSOCIATED DOCUMENTS TO JASON STAYER (Jason_Stayer@fws.gov, 760-431-9440).
LIST REVISED September 12, 2012

BLM Special Status Plants under the jurisdiction of the El Centro Field Office as of September 18, 2012.

SCIENTIFIC NAME	COMMON NAME	TYPE OF PLANT	FAMILY	STATUS	KNOWN OR SUSPECTED ON BLM LANDS?
<i>Abronia villosa</i> var. <i>aurita</i>	chaparral sand-verbena	Vascular Plant	Nyctaginaceae	BLM Sensitive	Suspected on BLM lands
<i>Astragalus magdalenae</i> var. <i>peirsonii</i>	Peirson's milk-vetch	Vascular Plant	Fabaceae	Federal Threatened	Known on BLM lands
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i>	Orcutt's pincushion	Vascular Plant	Asteraceae	BLM Sensitive	Suspected on BLM lands
<i>Chamaesyce platysperma</i>	flat-seeded spurge	Vascular Plant	Euphorbiaceae	BLM Sensitive	Suspected on BLM lands
<i>Charanthe polygonoides</i> var. <i>longispina</i>	long-spined spineflower	Vascular Plant	Polygonaceae	BLM Sensitive	Suspected on BLM lands
<i>Croton wigginsii</i>	Wiggins' croton	Vascular Plant	Euphorbiaceae	BLM Sensitive	Known on BLM lands
<i>Cylindropuntia fosbergii</i>	pink teddy-bear cholla	Vascular Plant	Cactaceae	BLM Sensitive	Known on BLM lands
<i>Cylindropuntia munzii</i>	Munz cholla	Vascular Plant	Cactaceae	BLM Sensitive	Known on BLM lands
<i>Dieteria asteroides</i> var. <i>lagunensis</i>	Mount Laguna aster	Vascular Plant	Asteraceae	BLM Sensitive	Known on BLM lands
<i>Fremontodendron mexicanum</i>	Mexican flannelbush	Vascular Plant	Malvaceae	Federal Endangered	Known on BLM lands
<i>Grindelia hallii</i>	San Diego gumplant	Vascular Plant	Asteraceae	BLM Sensitive	Known on BLM lands
<i>Helianthus niveus</i> subsp. <i>tephrodes</i>	Algodones Dunes sunflower	Vascular Plant	Asteraceae	BLM Sensitive	Known on BLM lands
<i>Hulsea californica</i>	San Diego sunflower	Vascular Plant	Asteraceae	BLM Sensitive	Known on BLM lands
<i>Lupinus excubitus</i> var. <i>medius</i>	Mountain Springs bush lupine	Vascular Plant	Fabaceae	BLM Sensitive	Known on BLM lands
<i>Monardella nana</i> subsp. <i>leptosiphon</i>	San Felipe monardella	Vascular Plant	Lamiaceae	BLM Sensitive	Suspected on BLM lands
<i>Palafoxia arida</i> var. <i>gigantea</i>	giant Spanish needle	Vascular Plant	Asteraceae	BLM Sensitive	Known on BLM lands
<i>Pholisma sonorae</i>	sand food	Vascular Plant	Boraginaceae	BLM Sensitive	Known on BLM lands
<i>Streptanthus campestris</i>	southern jewel-flower	Vascular Plant	Brassicaceae	BLM Sensitive	Suspected on BLM lands
<i>Symphotrichum defoliatum</i>	San Bernardino aster	Vascular Plant	Asteraceae	BLM Sensitive	Suspected on BLM lands
<i>Thermopsis californica</i> var. <i>semota</i>	velvety false lupine	Vascular Plant	Fabaceae	BLM Sensitive	Suspected on BLM lands
<i>Thysanocarpus rigidus</i>	Ridge Fringe-pod	Vascular Plant	Brassicaceae	BLM Sensitive	Suspected on BLM lands
<i>Xylorhiza orcuttii</i>	Orcutt's woody aster	Vascular Plant	Asteraceae	BLM Sensitive	Known on BLM lands

El Centro Faunal Sensitive Species 2011**MAMMALS**

California leaf-nosed bat	<i>Macrotus californicus</i>
Cave myotis	<i>Myotis velifer</i>
Desert bighorn sheep	<i>Ovis canadensis nelsoni</i>
Fringed myotis	<i>Myotis thysanodes</i>
Long-eared myotis	<i>Myotis evotis</i>
Pallid bat	<i>Antrozous pallidus</i>
Palm Springs little pocket mouse	<i>Perognathus longimembris bangsi</i>
Small-footed myotis	<i>Myotis ciliolabrum</i>
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>
Western mastiff-bat	<i>Eumops perotis californicus</i>
Yuma myotis	<i>Myotis yumanensis</i>

BIRDS

Brown pelican	<i>Pelecanus occidentalis</i>
Burrowing owl	<i>Athene cunicularia</i>
California black rail	<i>Laterallus jamaicensis coturniculus</i>
California spotted owl	<i>Strix occidentalis occidentalis</i>
Elf owl	<i>Micrathene whitneyi</i>
Gila woodpecker	<i>Melanerpes uropygialis</i>
Mountain plover	<i>Charadrius montanus</i>
Tricolored blackbird	<i>Agelaius tricolor</i>
Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>

REPTILES

Barefoot banded gecko	<i>Coleonyx switaki</i>
Colorado Desert fringe-toed lizard	<i>Uma notata notata</i>
Flat-tailed horned lizard	<i>Phrynosoma mcalli</i>
	<i>Actinemys (=Clemmys) marmorata</i>
	<i>Pallid</i>
Southwestern pond turtle	
Two-striped garter snake	<i>Thamnophis hammondii</i>

00004061

AMPHIBIANS

Couch's spadefoot toad

Lowland leopard frog

Scaphiopus couchi

Lithobates (=Rana) yavapaiensis

State of California
The Natural Resources Agency
DEPARTMENT OF FISH AND GAME
Biogeographic Data Branch
California Natural Diversity Database

STATE & FEDERALLY LISTED ENDANGERED & THREATENED ANIMALS OF CALIFORNIA

January 2011

This is a list of animals found within California or off the coast of the State that have been classified as Endangered or Threatened by the California Fish & Game Commission (state list) or by the U.S. Secretary of the Interior or the U.S. Secretary of Commerce (federal list).

The official California listing of Endangered and Threatened animals is contained in the California Code of Regulations, Title 14, Section 670.5. The official federal listing of Endangered and Threatened animals is published in the Federal Register, 50 CFR 17.11. The California Endangered Species Act of 1970 created the categories of "Endangered" and "Rare". The California Endangered Species Act of 1984 created the categories of "Endangered" and "Threatened". On January 1, 1985, all animal species designated as "Rare" were reclassified as "Threatened".

Animals that are candidates for state listing and animals proposed for federal listing are also included on this list. A state candidate species is one that the Fish and Game commission had formally noticed as being under review by the Department for addition to the State list. A federal proposed species is one for which a proposed regulation has been published in the Federal Register.

Code Designation:	Totals as of January 2011
SE = State-listed as Endangered	46
ST = State listed as Threatened	35
SR = State listed as Rare – old designation, all animals reclassified to Threatened on 1/1/85	0
FE = Federally listed as Endangered (21.2% of all U.S. listed endangered animals as of 1/10/11)	88
FT = Federally listed as Threatened (24.4% of all U.S. listed threatened animals as of 1/10/11)	40
SCE = State candidate (Endangered)	2
SCT = State Candidate (Threatened)	0
SCD = State Candidate (Delisting)	1
FPE = Federally proposed (Endangered)	1
FPT = Federally proposed (Threatened)	1
FPD = Federally proposed (Delisting)	0
Total number of animals listed (includes subspecies & population segments)	157
Total number of candidate/proposed animals for listing	4
Number of animals State listed only	31
Number of animals Federally listed only	71
Number of animals listed under both State & Federal Acts	55

Common and scientific names are shown as they appear on the state or federal lists. If the nomenclature differs for a species that is included on both lists, the state nomenclature is given and the federal nomenclature is shown in a footnote. Synonyms, name changes, and other clarifying points are also footnoted.

Critical Habitat is defined in Section 3 of the federal Endangered Species Act as specific areas, both occupied and unoccupied, that is essential to the conservation of a listed species and that may require special management considerations or protection.

Recovery Plans are discussed in Section 4 of the federal Endangered Species Act. Each plan incorporates site-specific management actions necessary for the conservation and survival of the species.

The "List Date" for **final** federal listing and **final** Critical Habitat designation is the date the listing or designation becomes effective, this is usually not the date of publication of the rule in the Federal Register; it is usually about 30 days after publication, but may be longer.

If a taxa that was previously listed or proposed for listing no longer has any listing status the entry has been grayed out.

For taxa that have more than one status entry, the current status is in bold and underlined.

Changes to this update of the list are denoted by *

	<u>LISTING STATUS</u>			<u>CRITICAL</u>	<u>RECOVERY</u>			
	State	List Date	Federal	HABITAT	Effective List Date	Effective Date	Version	Date
<u>GASTROPODS</u>								
Trinity bristle snail <i>Monadenia setosa</i> ¹	ST ²	10-02-80						
Morro shoulderband (=banded dune) snail <i>Helminthoglypta walkeriana</i>			FE		1-17-95	Final	3-09-01	Final 1998
White abalone <i>Haliotis sorenseni</i>			FE		6-28-01	Not prudent	6-28-01	Final 2008
Black abalone <i>Haliotis cracherodii</i>			FE		2-13-09	*Proposed	9-28-10	
<u>CRUSTACEANS</u>								
Riverside fairy shrimp <i>Streptocephalus woottoni</i>			FE		8-03-93	Final ³ Proposed	5-12-05 4-27-04	Final 1998
Conservancy fairy shrimp <i>Branchinecta conservatio</i>			FE		9-19-94	Final ⁴ Proposed	2-10-06 12-28-04	Final 2005
Longhorn fairy shrimp <i>Branchinecta longiantenna</i>			FE		9-19-94	Final ⁴ Proposed	2-10-06 12-28-04	Final 2005
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>			FT		9-19-94	Final ⁴ Proposed	2-10-06 12-28-04	Final 2005
San Diego fairy shrimp <i>Branchinecta sandiegoensis</i>			FE		2-03-97	Final Proposed ⁵	1-11-08 4-22-03	Final 1998
Vernal pool tadpole shrimp <i>Lepidurus packardi</i>			FE		9-19-94	Final ⁴ Proposed	2-10-06 12-28-04	Final 2005
Shasta crayfish <i>Pacifastacus fortis</i>	<u>SE</u> ST	2-26-88 10-02-80	FE		9-30-88			Final 1998
California freshwater shrimp <i>Syncaris pacifica</i>	SE	10-02-80	FE		10-31-88			Final 1998
<u>INSECTS</u>								
Zayante band-winged grasshopper <i>Trimerotropis infantilis</i>			FE		2-24-97	Final	3-09-01	Final 1998

¹ Current taxonomy is *Monadenia infumata setosa*.

² On January 1, 1985, all species designated as "rare" were reclassified as "threatened", as stipulated by the California Endangered Species Act.

³ The Federal Circuit Court vacated critical habitat for the Riverside fairy shrimp on 10-30-02. The judge instructed the USFWS to begin the process of re-designating critical habitat for this species. New critical habitat was proposed 4-27-04 and finalized effective 5-12-05.

⁴ On October 28, 2004 the courts ordered the USFWS to reconsider the areas excluded from the final critical habitat designation made August 6, 2003. The December 28 2004 proposed rule is only for lands previously excluded and does not affect the areas included in the August 6, 2003 final rule. The non-economic exclusions made to the August 6, 2003 final rule were confirmed effective March 8, 2005

⁵ Due to court order the previously designated critical habitat was vacated and the USFWS was directed to re-proposed critical habitat.

	<u>LISTING STATUS</u>			<u>CRITICAL</u>	<u>RECOVERY</u>			
	State	List Date	Federal	HABITAT	Effective List Date	Effective Date	Version	Date
Mount Hermon June beetle <i>Polyphylla barbata</i>			FE		2-24-97		Final	1998
Casey's June beetle <i>Dinacoma caseyi</i>			FPE	Proposed	7-09-09	7-09-09		
Delta green ground beetle <i>Elaphrus viridis</i>			FT	Final	8-08-80	8-08-80	Final	2006
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>			FT	Final	8-08-80	8-08-80	Final	1985
Ohlone tiger beetle <i>Cicindela ohlone</i>			FE		10-03-01		Final	1984
Kern primrose sphinx moth <i>Euproserpinus euterpe</i>			FT	Proposed	4-08-80	7-03-78	Final	1998
Mission blue butterfly <i>Icaricia icarioides missionensis</i> ⁶			FE	Proposed	6-01-76	2-08-77	Final	1984
Lotis blue butterfly <i>Lycaeides argyrognomon lotis</i> ⁷			FE	Proposed	6-01-76	2-08-77	Final	1985
Palos Verdes blue butterfly <i>Glaucopsyche lygdamus palosverdesensis</i>			FE	Final	7-02-80	7-02-80	Final	1984
El Segundo blue butterfly <i>Euphilotes battoides allyni</i>			FE	Proposed	6-01-76	2-08-77	Final	1998
Smith's blue butterfly <i>Euphilotes enoptes smithi</i>			FE	Proposed	6-01-76	2-08-77	Final	1984
San Bruno elfin butterfly <i>Callophrys mossii bayensis</i>			FE	Proposed	6-01-76	2-08-77	Final	1984
Lange's metalmark butterfly <i>Apodemia mormo langei</i>			FE	Proposed	6-01-76	2-08-77	Revised	1984
Bay checkerspot butterfly <i>Euphydryas editha bayensis</i>			FT	Final	10-18-87	9-25-08	Final	1998
Quino checkerspot <i>Euphydras editha quino (=E.e.wrighti)</i>			FE	Proposed ⁸	1-16-97	8-22-07	Final	2003
				Final		5-30-01		
				Proposed		1-17-08		
				Proposed		5-15-02		
						2-07-01		
Carson wandering skipper <i>Pseudocopaodes enus obscurus</i>			FE		8-07-02		Final	2007
							Draft	2005
Laguna Mountains skipper <i>Pyrgus ruralis lagunae</i>			FE	Final	1-16-97	1-11-07		
Callippe silverspot butterfly <i>Speyeria callippe callippe</i>			FE	Proposed	12-05-97	3-28-80		
Behren's silverspot butterfly <i>Speyeria zerene behrensii</i>			FE		12-05-97		Draft	2004
Oregon silverspot butterfly ⁹ <i>Speyeria zerene hippolyta</i>			FT	Final	7-02-80	7-02-80	Revised	2001
Myrtle's silverspot butterfly <i>Speyeria zerene myrtilae</i>			FE		6-22-92		Final	1998
Delhi Sands flower-loving fly <i>Rhaphiomidas terminatus abdominalis</i>			FE		9-23-93		Final	1997

⁶ Current taxonomy is *Plebejus icarioides missionensis*⁷ Current taxonomy is *Plebejus idas lotis*⁸ Proposed rule is to revise designated Critical Habitat⁹ Current common name is *Hippolyta fritillary*

	<u>LISTING STATUS</u>			<u>CRITICAL HABITAT</u>		<u>RECOVERY PLAN</u>		
	State	List Date	Federal	Effective List Date	Designation	Effective Date	Version	Date
<u>FISHES</u>								
Green sturgeon – southern DPS <i>Acipenser medirostris</i>			FT ¹⁰	6-06-06	Final Proposed	11-09-09 9-08-08		
Chinook salmon-Winter-run ¹¹ <i>Oncorhynchus tshawytscha</i>	SE	9-22-89	<u>FE</u> ¹² FE	8-29-05 2-03-94	Final	3-23-99	Draft	2009 1997
Chinook salmon-California coastal ESU ¹³ <i>Oncorhynchus tshawytscha</i>			<u>FT</u> ¹⁴ <u>FT</u> ¹⁵	8-29-05 11-15-99	Final Proposed Rescinded Final	1-02-06 12-10-04 4-30-02 2-16-00		
Chinook salmon-Spring-run <i>Oncorhynchus tshawytscha</i>	ST ¹⁶	2-05-99	<u>FT</u> ¹⁷ <u>FT</u> ¹⁸	8-29-05 11-15-99	Final Proposed Rescinded Final	1-02-06 12-10-04 4-30-02 2-16-00	Draft	2009
Coho salmon-Central California Coast ESU <i>Oncorhynchus kisutch</i>	SE ¹⁹	3-30-05	<u>FE</u> ²⁰ <u>FT</u> ²¹	8-29-05 12-02-96	Final	6-04-99	Final (state)	2004
Coho salmon-So. Oregon/No. Calif ESU <i>Oncorhynchus kisutch</i>	ST ²²	3-30-05	<u>FT</u> ²³ <u>FT</u> ²⁴	8-29-05 6-05-97	Final	3-17-00	Final (state)	2004
Little Kern golden trout <i>Oncorhynchus mykiss whitei</i>			FT	4-13-78	Final	4-13-78	Exempt	
Lahontan cutthroat trout <i>Oncorhynchus clarki henshawi</i>			<u>FT</u> FE	7-16-75 10-13-70			Final	1995
Paiute cutthroat trout <i>Oncorhynchus clarki seleniris</i>			<u>FT</u> FE	7-16-75 3-11-67 ²⁵			Revised Final	2004 1985
Steelhead-Northern California DPS ^{26 27} <i>Oncorhynchus mykiss</i>			<u>FT</u> ²⁸ FT	2-06-06 8-07-00	Final Proposed	1-02-06 12-10-04		

¹⁰ Includes all spawning populations south of the Eel River

¹¹ Federal: Sacramento River winter run Chinook salmon

¹² The NMFS has completed comprehensive status reviews for 27 west coast salmon & steelhead ESUs, 10 of these in California. The 29 Aug 2005 list date refers to the final designations made as a result of those status reviews.

¹³ ESU = Evolutionarily Significant Unit

¹⁴ The NMFS has completed comprehensive status reviews for 27 west coast salmon & steelhead ESUs, 10 of these in California. The 29 Aug 2005 list date refers to the final designations made as a result of those status reviews.

¹⁵ Naturally spawned coastal spring & fall Chinook salmon between Redwood Creek in Humboldt County & the Russian River in Sonoma County.

¹⁶ State listing is for the Sacramento River drainage.

¹⁷ The NMFS has completed comprehensive status reviews for 27 west coast salmon & steelhead ESUs, 10 of these in California. The 29 Aug 2005 list date refers to the final designations made as a result of those status reviews.

¹⁸ Federal: Central Valley Spring-Run ESU. Includes populations spawning in the Sacramento River & its tributaries.

¹⁹ The Coho south of San Francisco Bay were state listed in 1995; in February 2004 the Fish and Game Commission determined that the Coho from San Francisco to Punta Gorda should also be listed as Endangered. This changed was finalized by of Office of Administrative Law on March 30, 2005.

²⁰ The NMFS has completed comprehensive status reviews for 27 west coast salmon & steelhead ESUs, 10 of these in California. The 29 Aug 2005 list date refers to the final designations made as a result of those status reviews.

²¹ The Federal listing is limited to naturally spawning populations in streams between Punta Gorda, Humboldt County & the San Lorenzo River, Santa Cruz County.

²² The Fish and Game Commission determined that the Coho from Punta Gorda to the Oregon border should be listed as Threatened on February 25, 2004. This determination was finalized by the Office of Administrative Law on March 30, 2005.

²³ The NMFS has completed comprehensive status reviews for 27 west coast salmon & steelhead ESUs, 10 of these in California. The 29 Aug 2005 list date refers to the final designations made as a result of those status reviews.

²⁴ The Federal listing is for populations between Cape Blanco, Oregon & Punta Gorda, California.

²⁵ All species with a list date of 03-11-67 were listed under the Endangered Species Preservation Act of Oct 15, 1966.

	<u>LISTING STATUS</u>			<u>CRITICAL HABITAT</u>		<u>RECOVERY PLAN</u>		
	State	List Date	Federal	Effective List Date	Designation	Effective Date	Version	Date
Steelhead-Central California Coast DPS ²⁹ <i>Oncorhynchus mykiss</i>			<u>FT</u> ³⁰ FT	2-06-06 10-17-97	Final Proposed Rescinded Final	1-02-06 12-10-04 4-30-02 3-17-00		
Steelhead-South/Central Calif Coast DPS ³¹ <i>Oncorhynchus mykiss</i>			<u>FT</u> ³² FT	2-06-06 10-17-97	Final Proposed Rescinded Final	1-02-06 12-10-04 4-30-02 3-17-00		
Steelhead-Southern California DPS ³³ <i>Oncorhynchus mykiss</i>			<u>FE</u> ³⁴ FE	2-06-06 10-17-97	Final Proposed Rescinded Final	1-02-06 12-10-04 4-30-02 3-17-00	Draft	2009
Steelhead-Central Valley DPS ³⁵ <i>Oncorhynchus mykiss</i>			<u>FT</u> ³⁶ FT	2-06-06 5-18-98	Final Proposed Rescinded Final	1-02-06 12-10-04 4-30-02 3-17-00	Draft	2009
Bull trout <i>Salvelinus confluentus</i>	SE	10-02-80	FT	12-01-99	*Proposed (revised) ³⁷ Final	1-14-10 10-26-05		
Delta smelt <i>Hypomesus transpacificus</i>	<u>SE</u>	1-20-10	FT	3-05-93	Final	12-19-94	Final	1996
Longfin smelt <i>Spirinchus thaleichthys</i>	<u>ST</u>	12-09-93						
Eulachon – southern DPS <i>Thaleichthys pacificus</i>	<u>SCE</u>	4-09-10 2-02-08						
Mohave tui chub <i>Gila bicolor mohavensis</i> ³⁸			FT	5-17-10	*Proposed	1-05-11		
Owens tui chub <i>Gila bicolor snyderi</i> ³⁹	SE	6-27-71	FE	10-13-70			Final	1984
Cowhead Lake tui chub <i>Gila bicolor vaccaiceps</i>			withdrawn FPE	10-11-06 3-30-98				

²⁶ Naturally spawned populations residing below impassable barriers in coastal basins from Redwood Creek in Humboldt County to, and including, the Gualala River in Mendocino County.

²⁷ DPS = Distinct Population Segment

²⁸ The NMFS has completed comprehensive status reviews for 27 west coast salmon & steelhead ESUs. The 6 Feb 2006 list date refers to the final designations made as a result of those status reviews. There was no change in listing status for the steelhead ESUs in California.

²⁹ Coastal basins from the Russian River, south to Soquel Creek, inclusive. Includes the San Francisco & San Pablo Bay basins, but excludes the Sacramento-San Joaquin River basins.

³⁰ The NMFS has completed comprehensive status reviews for 27 west coast salmon & steelhead ESUs. The 6 Feb 2006 list date refers to the final designations made as a result of those status reviews. There was no change in listing status for the steelhead ESUs in California.

³¹ Coastal basins from the Pajaro River south to, but not including, the Santa Maria River.

³² The NMFS has completed comprehensive status reviews for 27 west coast salmon & steelhead ESUs. The 6 Feb 2006 list date refers to the final designations made as a result of those status reviews. There was no change in listing status for the steelhead ESUs in California.

³³ Coastal basins from the Santa Maria River (inclusive), south to the U.S.-Mexico Border.

³⁴ The NMFS has completed comprehensive status reviews for 27 west coast salmon & steelhead ESUs. The 6 Feb 2006 list date refers to the final designations made as a result of those status reviews. There was no change in listing status for the steelhead ESUs in California.

³⁵ The Sacramento and San Joaquin Rivers and their tributaries.

³⁶ The NMFS has completed comprehensive status reviews for 27 west coast salmon & steelhead ESUs. The 6 Feb 2006 list date refers to the final designations made as a result of those status reviews. There was no change in listing status for the steelhead ESUs in California.

³⁷ There is no designated or proposed Critical Habitat for bull trout in California.

³⁸ Current taxonomy: *Siphateles bicolor mohavensis*

³⁹ Current taxonomy: *Siphateles bicolor snyderi*

	<u>LISTING STATUS</u>			<u>CRITICAL</u>	<u>RECOVERY</u>			
	State	List Date	Federal	<u>HABITAT</u>	Effective List Date	Effective Date	Version	Date
Tecopa pupfish (Extinct)	delisted	1987	delisted		1-15-82			
<i>Cyprinodon nevadensis calidae</i>	SE	6-27-71	FE		10-13-70			
Bonytail ⁴⁰	<u>SE</u>	1-10-74	FE		4-23-80	Final	3-21-94	Revised 2002
<i>Gila elegans</i>	SR	6-27-71						Revised 1990
Sacramento splittail			deleted ⁴¹		9-22-03			
<i>Pogonichthys macrolepidotus</i>			FT		3-10-99			
Colorado squawfish ⁴²	SE	6-27-71	FE		3-11-67	Final	3-21-94	Revised 2002
<i>Ptychocheilus lucius</i>								Revised 1991
Lost River sucker	<u>SE</u>	1-10-74	FE		7-18-88	Proposed	12-01-94	Final 1993
<i>Deltistes luxatus</i>	SR	6-27-67						
Modoc sucker	<u>SE</u>	10-02-80	FE		6-11-85	Final	6-11-85	Exempt
<i>Catostomus microps</i>	SR	1-10-74						
Santa Ana sucker			FT ⁴³		5-12-00	*Final	1-13-11	
<i>Catostomus santaanae</i>						Proposed (revised)	12-09-09	
Shortnose sucker	<u>SE</u>	1-10-74	FE		7-18-88	Proposed	12-01-94	Final 1993
<i>Chasmistes brevirostris</i>	SR	6-27-71						
Razorback sucker	<u>SE</u>	1-10-74	FE		10-23-91	Final	3-21-94	Revised 2002
<i>Xyrauchen texanus</i>	SR	6-27-71						Final 1998
Desert pupfish	SE	10-02-80	FE		3-31-86	Final	3-31-86	Final 1993
<i>Cyprinodon macularius</i>								
Cottonball Marsh pupfish	ST	1-10-74						
<i>Cyprinodon salinus milleri</i>								
Owens pupfish	SE	6-27-71	FE		3-11-67			Final 1998
<i>Cyprinodon radiosus</i>								
Thicktail chub (Extinct)	delisted	10-02-80						
<i>Gila crassicauda</i>	SE	1-10-74						
Unarmored threespine stickleback	SE	6-27-71	FE		10-13-70	Designation should not be made ⁴⁴	9-17-02	Final 1985
<i>Gasterosteus aculeatus williamsoni</i>						Proposed	11-17-80	
Tidewater goby			With-drawn		12-09-02	Final	3-03-08	Final 2005
<i>Eucyclogobius newberryi</i>			FPD ⁴⁵		6-24-99	Proposed	11-28-06	
			<u>FE</u>		2-04-94	Final	11-20-00	
Rough sculpin	ST	1-10-74						
<i>Cottus asperrimus</i>								

⁴⁰ Federal: Bonytail chub

⁴¹ On 23 June 2000, the Federal Eastern District Court of Calif. found the final rule to be unlawful and on 22 Sept 2000 remanded the determination back to the USFWS for a reevaluation of the final decision. After a thorough review the USFWS removed the Sacramento splittail from the list of threatened species.

⁴² Current nomenclature and federal listing: Colorado pikeminnow

⁴³ Populations in the Los Angeles, San Gabriel and Santa Ana River basins.

⁴⁴ Full explanation of this situation is given in the Federal Register notice.

⁴⁵ Proposal to delist refers to populations north of Orange County only.

	<u>LISTING STATUS</u>			<u>CRITICAL HABITAT</u>		<u>RECOVERY PLAN</u>		
	State	List Date	Federal	Effective List Date	Designation	Effective Date	Version	Date
<u>AMPHIBIANS</u>								
California tiger salamander (central valley DPS) <i>Ambystoma californiense</i>	ST ^{46,47}	5-20-10	FT ⁴⁸	9-03-04	Final ⁴⁹ Proposed ⁵⁰	9-22-05 8-10-04		
California tiger salamander (Santa Barbara County DPS) <i>Ambystoma californiense</i>	(ST)		FE 48	9-15-00	Final ⁵¹	11-24-04		
California tiger salamander (Sonoma County DPS) <i>Ambystoma californiense</i>	(ST)		FE 48	3-19-03	Proposed ⁵²	8-18-09 8-02-05		
Santa Cruz long-toed salamander <i>Ambystoma macrodactylum croceum</i>	SE	6-27-71	FE	3-11-67	Proposed	6-22-78	Draft	1999
Siskiyou Mountains salamander <i>Plethodon stormi</i>	SCD <u>ST</u>	9-30-05 6-27-71						
Scott Bar salamander <i>Plethodon asupak</i>	ST ⁵³	6-27-71						
Techachapi slender salamander <i>Batrachoseps stebbinsi</i>	ST	6-27-71						
Kern Canyon slender salamander <i>Batrachoseps simatus</i>	ST	6-27-71						
Desert slender salamander <i>Batrachoseps aridus</i> ⁵⁴	SE	6-27-71	FE	6-04-73			Final	1982
Shasta salamander <i>Hydromantes shastae</i>	ST	6-27-71						
Limestone salamander <i>Hydromantes brunus</i>	ST	6-27-71						
Black toad <i>Bufo exsul</i> ⁵⁵	ST	6-27-71						
Arroyo toad ⁵⁶ <i>Bufo californicus</i> ⁵⁷			FE	1-17-95	Proposed (Revised) Final Proposed ⁵⁸ Final	10-13-09 5-13-05 2-14-05 4-27-04 3-09-01	Final	1999

⁴⁶ The state listing refers to the entire range of the species.

⁴⁷ The Office of Administrative Law approved the listing on Aug 2, 2010. The regulations become effective on Aug 19, 2010.

⁴⁸ In 2004 the California tiger salamander was listed as “threatened” statewide. The Santa Barbara County and Sonoma County Distinct Vertebrate Population Segments (DPS), formerly listed as “endangered”, were reclassified to “threatened”. On Aug 19 2005 U.S. District court vacated the downlisting of the Sonoma and Santa Barbara populations from “endangered” to “threatened”. Therefore, the Sonoma & Santa Barbara populations are once again listed as “endangered”

⁴⁹ Final rule published Aug 23, 2005 is for the central valley population only.

⁵⁰ Critical Habitat proposal published Aug 10, 2004 is for the central valley population only.

⁵¹ Final rule published Nov 24, 2004 is for the Santa Barbara County population only.

⁵² Proposed rule published Aug 2, 2005 is for the Sonoma County population only. The proposed rule published Aug 18, 2009 encompasses the same geographic area as the Aug 2, 2005 proposal.

⁵³ Since this newly described species was formerly considered to be a subpopulation of *Plethodon stormi*, and since *Plethodon stormi* is listed a Threatened under the California Endangered Species Act (CESA), *Plethodon asupak* retains the designation as a Threatened species under CESA.

⁵⁴ Current taxonomy: *Batrachoseps major aridus*.

⁵⁵ Current taxonomy: *Anaxyrus exsul*

⁵⁶ Former taxonomy: *Bufo microscaphus californicus*.

⁵⁷ Current taxonomy: *Anaxyrus californicus*

	<u>LISTING STATUS</u>			<u>CRITICAL HABITAT</u>		<u>RECOVERY PLAN</u>		
	State	List Date	Federal	Effective List Date	Designation	Effective Date	Version	Date
California red-legged frog ⁵⁹ <i>Rana aurora draytonii</i>			FT	5-20-96	Final Proposed ⁶⁰ Final	4-16-10 9-16-08 4-12-01	Final	2002
Mountain yellow-legged frog – Southern California DPS ^{61,62} <i>Rana muscosa</i>	*SCE or SCT ⁶³	9-21-10	FE	8-01-02	Final Proposed	10-16-06 9-13-05		
Mountain yellow-legged frog <i>Rana sierrae</i>	*SCE or SCT	9-21-10						

REPTILES

Desert tortoise <i>Gopherus agassizii</i>	ST	8-03-89	FT	4-02-90	Final	2-08-94	Draft Revised Final	2008 1994
Green sea turtle <i>Chelonia mydas</i>			FT FE	7-28-78 10-13-70	Final	3-23-99	Revised	1998
Loggerhead sea turtle – North Pacific DPS ⁶⁴ <i>Caretta caretta</i>			FPE FT	3-16-10 7-28-78	Proposed	3-19-80	Revised	1998
Olive (=Pacific) Ridley sea turtle <i>Lepidochelys olivacea</i>			FT	7-28-78	Proposed	3-19-80	Revised	1998
Leatherback sea turtle <i>Dermochelys coriacea</i>			FE	6-02-70	Proposed (Revised) Final	1-05-10 3-23-99	Revised	1998
Barefoot banded gecko ⁶⁵ <i>Coleonyx switaki</i>	ST	10-02-80						
Coachella Valley fringe-toed lizard <i>Uma inornata</i>	SE	10-02-80	FT	9-25-80	Final	9-25-80	Final	1985
Blunt-nosed leopard lizard <i>Gambelia silus</i> ⁶⁶	SE	6-27-71	FE	3-11-67			Final	1998
Flat-tailed horned lizard <i>Phrynosoma mcallii</i>			Withdrawn ⁶⁷ FPT ⁶⁸	6-28-06 11-29-93				
Island night lizard <i>Xantusia riversiana</i>			FT	8-11-77			Final	1984
Southern rubber boa <i>Charina bottae umbratica</i> ⁶⁹	ST	6-27-71						

⁵⁸ The Federal Circuit Court vacated critical habitat for the Arroyo toad on 10-30-02. The judge instructed the USFWS to begin the process of re-designating critical habitat for this species. New critical habitat was first proposed on 4-27-04 and proposed with revisions on 2-14-05. A new final rule became effective 5-13-05.

⁵⁹ Current taxonomy: *Rana draytoni*

⁶⁰ Proposed rule is for revised Critical Habitat boundaries

⁶¹ Federal listing refers to the distinct population segment (DPS) in the San Gabriel, San Jacinto & San Bernardino Mountains only.

⁶² The current common name for this species is Sierra Madre yellow-legged frog.

⁶³ The Fish and Game Commission notice of finding states that the mountain yellow-legged frog, *Rana muscosa* and *Rana sierrae* are candidates for listing as either endangered or threatened species.

⁶⁴ 1978 listing was for the worldwide range of the species. The Mar 16, 2010 proposed rule is for the north pacific DPS (north of the equator & south of 60 degrees north latitude).

⁶⁵ Current nomenclature: Barefoot gecko.

⁶⁶ Current taxonomy: *Gambelia sila*. is the scientific name and bluntnose leopard lizard is the common name

⁶⁷ On June 28, 2006 the USFWS determined that the proposed listing was not warranted and the proposed rule that had been reinstated on Nov 17, 2005 was withdrawn.

⁶⁸ On November 17, 2005, the U. S. District Court for the District of Arizona vacated the January 3, 2003 withdrawal of the proposed rule to list the flat-tailed horned lizard and reinstated the 1993 proposed rule.

⁶⁹ Current taxonomy: *Charina umbratica*.

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	State	List Date	Federal	Effective List Date	Designation	Effective Date	Version	Date
Alameda whipsnake <i>Masticophis lateralis euryxanthus</i>	ST	6-27-71	FT	12-05-97	Final Proposed ⁷⁰ Vacated ⁷¹ Final	11-01-06 10-18-05 5-09-03 10-03-00	Draft	2003
San Francisco garter snake <i>Thamnophis sirtalis tetrataenia</i>	SE	6-27-71	FE	3-11-67			Final	1985
Giant garter snake <i>Thamnophis couchi gigas</i> ⁷²	ST	6-27-71	FT	10-20-93			Draft	1999
<u>BIRDS</u>								
Short-tailed albatross <i>Phoebastria albatrus</i>			FE	8-30-00			Final	2009
California brown pelican ⁷³ (Recovered) <i>Pelecanus occidentalis californicus</i>	<u>delisted</u> SE	6-03-09 6-27-71	<u>delisted</u> FE	12-17-09 2-20-08 10-13-70			Final	1983
Aleutian Canada goose (Recovered) <i>Branta canadensis leucopareia</i> ⁷⁴			<u>delisted</u> FT FE	3-20-01 12-12-90 3-11-67			Final	1991
California condor <i>Gymnogyps californianus</i>	SE	6-27-71	FE	3-11-67	Final	9-22-77	Revised	1996
Bald eagle <i>Haliaeetus leucocephalus</i>	<u>SE</u> (rev) SE	10-02-80 6-27-71	<u>delisted</u> ⁷⁵ FT FE(rev) FE	8-08-07 7-06-99 8-11-95 2-14-78 3-11-67			Final	1982
Swainson's hawk <i>Buteo swainsoni</i>	ST	4-17-83						
American peregrine falcon (Recovered) <i>Falco peregrinus anatum</i>	<u>delisted</u> SE	11-04-09 6-27-71	<u>delisted</u> FE	8-25-99 6-02-70	Final	9-22-77	Final	1982
Arctic peregrine falcon (Recovered) <i>Falco peregrinus tundrius</i>			<u>delisted</u> FT FE	10-05-94 3-20-84 6-02-70				
California black rail <i>Laterallus jamaicensis coturniculus</i>	ST	6-27-71						
California clapper rail <i>Rallus longirostris obsoletus</i>	SE	6-27-71	FE	10-13-70			Final	1984
Light-footed clapper rail <i>Rallus longirostris levipes</i>	SE	6-27-71	FE	10-13-70			Revised Final	1985 1979
Yuma clapper rail <i>Rallus longirostris yumanensis</i>	<u>ST</u> SE	2-22-78 6-27-71	FE	3-11-67			Final	1983

⁷⁰ The proposed rule redesignates Critical Habitat that was vacated in 2003.

⁷¹ Due to legal action on 9 May 2003, the Critical Habitat designation has been completely vacated; there is currently no Critical Habitat for Alameda whipsnake.

⁷² Current taxonomy and Federal listing: *Thamnophis gigas*.

⁷³ Federal: Brown pelican, *Pelecanus occidentalis*.

⁷⁴ Current taxonomy: *Branta hutchinsii leucopareia*, and common name is now cackling goose.

⁷⁵ The Post-delisting Monitoring Plan will monitor the status of the bald eagle over a 20 year period with sampling events held once every 5 years.

	<u>LISTING STATUS</u>			<u>CRITICAL HABITAT</u>		<u>RECOVERY PLAN</u>		
	State	List Date	Federal	Effective List Date	Designation	Effective Date	Version	Date
Greater sandhill crane <i>Grus Canadensis tabida</i>	ST	4-17-83					Draft (state)	
Western snowy plover ⁷⁶ <i>Charadrius alexandrinus nivosus</i>			FT	4-05-93	Final Proposed Final	10-31-05 8-16-05 12-07-99 ⁷⁷	Final Draft	2007 2001
Mountain plover ⁷⁸ <i>Charadrius montanus</i>			FPT	6-29-10				
California least tern <i>Sterna antillarum browni</i> ⁷⁹	SE	6-27-71	FE	10-13-70			Revised Final	1985 1980
Marbled murrelet <i>Brachyramphus marmoratus</i> ⁸⁰	SE	3-12-92	FT	9-30-92	Proposed ⁸¹ Final	7-31-08 5-24-96	Final	1997
Xantus's murrelet <i>Synthliboramphus hypoleucus</i>	ST ⁸²	12-22-04						
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	<u>SE</u> ST	3-26-88 6-27-71						
Elf owl <i>Micrathene whitneyi</i>	SE	10-02-80						
Northern spotted owl <i>Strix occidentalis caurina</i>			FT	6-22-90	Final Proposed Final	9-12-08 6-17-07 1-15-92	Final Draft	2008 2007
Great gray owl <i>Strix nebulosa</i>	SE	10-02-80						
Gila woodpecker <i>Melanerpes uropygialis</i>	SE	3-17-88						
Gilded northern flicker ⁸³ <i>Colaptes auratus chrysoides</i>	SE	3-17-88						
Willow flycatcher <i>Empidonax traillii</i>	SE ⁸⁴	1-02-91						
Southwestern willow flycatcher <i>Empidonax traillii extimus</i>	(SE)		FE	3-29-95	Final Proposed Final ⁸⁵	11-18-05 10-12-04 7-22-97	Final	2002
Bank swallow <i>Riparia riparia</i>	ST	6-11-89					Final (state)	1993
Coastal California gnatcatcher <i>Polioptila californica californica</i>			FT	3-30-93	Final Proposed ⁸⁶ Final	1-18-08 4-24-03 10-24-00	Exempt	

⁷⁶ Federal status applies only to the Pacific coastal population.

⁷⁷ The Dec 7, 1999 designation was remanded & partially vacated by the US District Court for the District of Oregon on July 2, 2003.

⁷⁸ The Jun 29, 2010 proposed rule reinstates that portion of the Dec 5, 2002 proposed rule concerning the listing of the plover as threatened. It doesn't reinstate the portion of the rule regarding a special rule under section 4(d) of the ESA.

⁷⁹ Current taxonomy is *Sternula antillarum browni*

⁸⁰ Federal: *Brachyramphus marmoratus marmoratus* with a proposal (7-31-08) to change the name to *Brachyramphus marmoratus*.

⁸¹ Proposed rule to revise the previously designated Critical Habitat.

⁸² The Fish and Game Commission determined that Xantus's murrelet should be listed as a Threatened species February 24, 2004. As part of the normal listing process, this decision was reviewed by the Office of Administrative Law. The listing became effective on Dec 22, 2004.

⁸³ Current taxonomy: Gilded flicker (*Colaptes chrysoides*).

⁸⁴ State listing includes all subspecies.

⁸⁵ On May 11, 2001 the 10th Circuit Court of Appeals vacated the previously designated Critical Habitat

⁸⁶ Due to court order the previously designated critical habitat was vacated and the USFWS was directed to re-propose critical habitat.

	State	<u>LISTING STATUS</u>		<u>CRITICAL HABITAT</u>		<u>RECOVERY PLAN</u>		
		List Date	Federal	Effective List Date	Designation	Effective Date	Version	Date
San Clemente loggerhead shrike <i>Lanius ludovicianus mearnsi</i>			FE	8-11-77			Final	1984
Arizona Bell's vireo <i>Vireo bellii arizonae</i>	SE	3-17-88						
Least Bell's vireo <i>Vireo bellii pusillus</i>	SE	10-02-80	FE	5-02-86	Final	2-02-94	Draft	1998
Inyo California towhee ^{87 88} <i>Pipilo crissalis eremophilus</i>	SE	10-02-80	FT	8-03-87	Final	8-03-87	Final	1998
San Clemente sage sparrow <i>Amphispiza belli clementeae</i>			FT	8-11-77			Final	1984
Belding's savannah sparrow <i>Passerculus sandwichensis beldingi</i>	SE	1-10-74						
Santa Barbara song sparrow (Extinct) <i>Melospiza melodia graminea</i>			<u>delisted</u> FE	10-12-83 6-04-73				

MAMMALS

Buena Vista Lake shrew <i>Sorex ornatus relictus</i>			FE ⁸⁹	4-05-02	Final Proposed	2-23-05 8-19-04	Final	1998
Lesser long-nosed bat <i>Leptonycteris yerbabuenae</i>			FE	10-31-88			Final	1997
Riparian brush rabbit <i>Sylvilagus bachmani riparius</i>	SE	5-29-94	FE	3-24-00			Final	1998
Point Arena mountain beaver <i>Aplodontia rufa nigra</i>			FE	12-12-91			Final	1998
San Joaquin antelope squirrel ⁹⁰ <i>Ammospermophilus nelsoni</i>	ST	10-02-80						
Mohave ground squirrel ⁹¹ <i>Spermophilus mohavensis</i>	ST	6-27-71						
Pacific pocket mouse <i>Perognathus longimembris pacificus</i>			FE	9-26-94			Final	1998
Morro Bay kangaroo rat <i>Dipodomys heermanni morroensis</i>	SE	6-27-71	FE	10-13-70	Final	8-11-77	Draft revision Final	2000 1982
Giant kangaroo rat <i>Dipodomys ingens</i>	SE	10-02-80	FE	1-05-87			Final	1998
Stephens' kangaroo rat <i>Dipodomys stephensi</i> ⁹²	ST	6-27-71	FE	9-30-88				
San Bernardino kangaroo rat <i>Dipodomys merriami parvus</i>			FE ⁹³	9-24-98	Final ⁹⁴ Final	11-17-08 5-23-02		
Tipton kangaroo rat <i>Dipodomys nitratooides nitratooides</i>	SE	6-11-89	FE	7-08-88			Final	1998
Fresno kangaroo rat <i>Dipodomys nitratooides exilis</i>	<u>SE</u> SR	10-02-80 6-27-71	FE	3-01-85	Final	1-30-85	Final	1998

⁸⁷ Federal: Inyo California (=brown) towhee.⁸⁸ Current taxonomy is *Melospiza crissalis eremophilus*⁸⁹ Federal: Buena Vista Lake ornate shrew⁹⁰ Current taxonomy: Nelson's antelope squirrel⁹¹ Current taxonomy: *Xerospermophilus mohavensis*⁹² Federal: includes *Dipodomys cascus*.⁹³ Federal: San Bernardino Merriam's kangaroo rat⁹⁴ This final revised designation constitutes a reduction of approximately 25,516 acres from the 2002 designation of Critical Habitat.

LISTING STATUSCRITICAL
HABITATRECOVERY
PLAN

	State	List Date	Federal	Effective List Date	Designation	Effective Date	Version	Date
Salt-marsh harvest mouse <i>Reithrodontomys raviventris</i>	SE	6-27-71	FE	10-13-70			Final	1984
Amargosa vole <i>Microtus californicus scirpensis</i>	SE	10-02-80	FE	11-15-84	Final	11-15-84	Final	1997
Riparian woodrat <i>Neotoma fuscipes riparia</i>			FE ⁹⁵	3-24-00			Final	1998
Sierra Nevada red fox <i>Vulpes vulpes necator</i>	ST	10-02-80						
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	ST	6-27-71	FE	3-11-67			Final	1998
Island fox <i>Urocyon littoralis</i>	ST ⁹⁶	6-27-71						
San Miguel Island Fox <i>Urocyon littoralis littoralis</i>	(ST)		FE	4-05-04	Final ⁹⁷ (none) Proposed ⁹⁸	12-09-05 10-07-04		
Santa Rosa Island Fox <i>Urocyon littoralis santarosae</i>	(ST)		FE	4-05-04	Final ⁹⁷ (none) Proposed ⁹⁸	12-09-05 10-07-04		
Santa Cruz Island Fox <i>Urocyon littoralis santacruzae</i>	(ST)		FE	4-05-04	Final ⁹⁷ (none) Proposed ⁹⁸	12-09-05 10-07-04		
Santa Catalina Island Fox <i>Urocyon littoralis catalinae</i>	(ST)		FE	4-05-04	Final ⁹⁷ (none) Proposed ⁹⁸	12-09-05 10-07-04		
Guadalupe fur seal <i>Arctocephalus townsendi</i>	ST	6-27-71	<u>FT</u> FE	1-15-86 3-11-67			Draft (revised)	2007
Stellar (=northern) sea lion <i>Eumetopias jubatus</i>			FT	4-05-90	Final	3-23-99	Revised Final	2008 1992
Wolverine <i>Gulo gulo</i>	ST	6-27-71						
Southern sea otter <i>Enhydra lutris nereis</i>			FT	1-14-77			Revised Final	2003 1981
Pacific fisher <i>Martes pennanti(pacifica)</i> DPS	SCT or SCE ⁹⁹	Listing Not warranted						
Gray whale (Recovered) <i>Eschrichtius robustus</i>			delisted FE	6-15-94 6-02-70				
Sei whale <i>Balaenoptera borealis</i>			FE	6-02-70				

⁹⁵ Federal: Riparian (=San Joaquin Valley) woodrat⁹⁶ State listing includes all 6 subspecies on all 6 islands. Federal listing is for only 4 subspecies on 4 islands⁹⁷ The USFWS did not find any habitat on the 4 islands occupied by the foxes that meets the definition of Critical Habitat under the Act. Therefore, the final rule does not designate any Critical Habitat⁹⁸ The USFWS did not find any habitat on the 4 islands occupied by the foxes that meets the definition of Critical Habitat under the Act. Therefore, the proposal is that zero Critical Habitat be designated.⁹⁹ The Fish and Game Commission notice of finding states that the Pacific fisher is a candidate for listing as either an endangered or a threatened species. At the June 23, 2010 meeting the Commission determined that the listing was not warranted.

	<u>LISTING STATUS</u>			<u>CRITICAL HABITAT</u>		<u>RECOVERY PLAN</u>		
	State	List Date	Federal	Effective List Date	Designation	Effective Date	Version	Date
Blue whale <i>Balaenoptera musculus</i>			FE	6-02-70			Final	1998
Fin whale <i>Balaenoptera physalus</i>			FE	6-02-70			Draft	2006
Humpback whale ¹⁰⁰ <i>Megaptera novaeangliae</i>			FE	6-02-70			Final	1991
Right whale ¹⁰¹ <i>Eubalaena japonica</i> ¹⁰²			FE	6-02-70			Final	1991
Sperm whale <i>Physeter macrocephalus</i>			FE	6-02-70			Draft	2006
Killer whale (Southern resident DPS) <i>Orcinus orca</i>			FE ¹⁰³	4-04-07 2-16-06 12-22-04			Final	2008
California (=Sierra Nevada) bighorn sheep <i>Ovis canadensis californiana</i> ¹⁰⁴	<u>SE</u> ST	8-27-99 6-27-71	FE	1-03-00	Final Proposed	9-04-08 7-25-07	Final Draft	2008 2003
Peninsular bighorn sheep DPS ¹⁰⁵ <i>Ovis canadensis cremnobates</i>	ST	6-27-71	FE	3-18-98	Final Proposed (Revised) Final	5-14-09 10-10-07 3-05-01	Final	2000

¹⁰⁰ Also known as Hump-backed whale.

¹⁰¹ Also known as Black right whale.

¹⁰² The scientific name was clarified in the Federal Register Vol. 68, No. 69 April 10, 2003.

¹⁰³ The killer whale was listed as endangered by the NMFS on Feb 16, 2006 and by the USFWS on Apr 4, 2007.

¹⁰⁴ Current & Federal taxonomy: Sierra Nevada bighorn sheep (*Ovis canadensis sierrae*)

¹⁰⁵ Current taxonomy: the subspecies *O.c. cremnobates* has been synonymized with *O.c. nelsoni*. Peninsular bighorn sheep are now considered to be a Distinct Vertebrate Population Segment (DPS).

State of California
The Resources Agency
DEPARTMENT OF FISH AND GAME
Resource Management and Planning Division
Biogeographic Data Branch
California Natural Diversity Database

STATE AND FEDERALLY LISTED
ENDANGERED, THREATENED, AND RARE PLANTS OF CALIFORNIA

October 2012

Designations and Subtotals for each Designation:

Designations:	Subtotals:
SE State-listed endangered	134
ST State-listed threatened	22
SR State-listed rare	64
SC State candidate for listing	0
FE Federally listed endangered	139
FT Federally listed threatened	47
FPE Federally proposed endangered	0
FPT Federally proposed threatened	0
Both State and Federally listed	125

State listing is pursuant to §1904 (Native Plant Protection Act of 1977) and §2074.2 and §2075.5 (California Endangered Species Act of 1984) of the Fish and Game Code, relating to listing of Endangered, Threatened and Rare species of plants and animals. Federal listing is pursuant with the Federal Endangered Species Act of 1973, as amended. For information regarding plant conservation, contact the Habitat Conservation Planning Branch, 1416 Ninth Street, Sacramento, CA 95814, phone (916) 653-9767, or the nearest Department of Fish and Game office. For information on this list, contact CNDDDB's Information Services at (916) 324-3812. Scientific and common names for State-listed plants are listed in Title 14, §670.2. Scientific or common names in parentheses are the most scientifically accepted nomenclature but have yet to be officially adopted into the California Code of Regulations, Title 14, Division 1, §670.2.

State Designated Plants

Classification

	<u>State</u>	<u>List Date</u>	<u>Federal</u>	<u>List Date</u>
<i>Acanthomintha duttonii</i> San Mateo thorn-mint	SE	Jul 1979	FE	Sep 18,1985
<i>Acanthomintha ilicifolia</i> San Diego thorn-mint	SE	Jan 1982	FT	Oct 13,1998
<i>Agrostis blasdalei</i> var. <i>marinensis</i> (= <i>Agrostis blasdalei</i>) Marin bent grass		Delisted April 2008.		
<i>Allium munzii</i> Munz's onion	ST	Jan 1990	FE	Oct 13,1998
<i>Allium yosemitense</i> Yosemite onion	SR	Jul 1982		

State Designated PlantsClassification

	<u>State</u>	<u>List Date</u>	<u>Federal</u>	<u>List Date</u>
<i>Alopecurus aequalis</i> var. <i>sonomensis</i> Sonoma alopecurus			FE	Oct 22,1997
<i>Ambrosia pumila</i> San Diego ambrosia			FE	July 2, 2002
<i>Amsinckia grandiflora</i> large-flowered fiddleneck	SE	Apr 1982	FE	May 08,1985
<i>Arabis hoffmannii</i> Hoffmann's rock cress			FE	Jul 31,1997
<i>Arabis macdonaldiana</i> McDonald's rock cress	SE	Jul 1979	FE	Sep 28,1978
<i>Arctostaphylos bakeri</i> (= <i>A. b. ssp. bakeri</i> and <i>A. b. ssp. sublaevis</i>) Baker's manzanita	SR	Sep 1979		
<i>Arctostaphylos confertiflora</i> Santa Rosa Island manzanita			FE	Jul 31,1997
<i>Arctostaphylos densiflora</i> Vine Hill manzanita	SE	Aug 1981		
<i>Arctostaphylos edmundsii</i> var. <i>parvifolia</i> Hanging Gardens manzanita		Delisted April 2008		
<i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i> Del Mar manzanita			FE	Oct 07,1996
<i>Arctostaphylos hookeri</i> ssp. <i>hearstiorum</i> Hearst's manzanita	SE	Sep 1979		
<i>Arctostaphylos hookeri</i> ssp. <i>ravenii</i> Presidio manzanita	SE	Nov 1978	FE	Oct 26,1979
<i>Arctostaphylos imbricata</i> San Bruno Mountain manzanita	SE	Sep 1979		
<i>Arctostaphylos morroensis</i> Morro manzanita			FT	Dec 15,1994
<i>Arctostaphylos myrtifolia</i> Ione manzanita			FT	May 26,1999
<i>Arctostaphylos pacifica</i> Pacific manzanita	SE	Sep 1979		
<i>Arctostaphylos pallida</i> pallid manzanita	SE	Nov 1979	FT	Apr 22,1998
<i>Arenaria paludicola</i> marsh sandwort	SE	Feb 1990	FE	Aug 03,1993
<i>Arenaria ursina</i> Big Bear Valley sandwort			FT	Sep 14,1998
<i>Astragalus agnicidus</i> Humboldt milk-vetch	SE	Apr 1982		
<i>Astragalus albens</i> Cushenbury milk-vetch			FE	Aug 24,1994

State Designated PlantsClassification

	<u>State</u>	<u>List Date</u>	<u>Federal</u>	<u>List Date</u>
<i>Astragalus brauntonii</i> Braunton's milk-vetch			FE	Jan 29,1997
<i>Astragalus claranus</i> (= <i>A. clarianus</i>) Clara Hunt's milk-vetch	ST	Jan 1990	FE	Oct 22,1997
<i>Astragalus jaegerianus</i> Lane Mountain milk-vetch			FE	Oct 06,1998
<i>Astragalus johannis-howellii</i> Long Valley milk-vetch	SR	Jul 1982		
<i>Astragalus lentiginosus</i> var. <i>coachellae</i> Coachella Valley milk-vetch			FE	Oct 06,1998
<i>Astragalus lentiginosus</i> var. <i>piscinensis</i> Fish Slough milk-vetch			FT	Oct 06,1998
<i>Astragalus lentiginosus</i> var. <i>sesquimetralis</i> Sodaville milk-vetch	SE	Sep 1979		
<i>Astragalus magdalena</i> var. <i>peirsonii</i> Peirson's milk-vetch	SE	Nov 1979	FT	Oct 06,1998
<i>Astragalus monoensis</i> (= <i>A. monoensis</i> var. <i>monoensis</i>) Mono milk-vetch	SR	Jul 1982		
<i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i> Ventura Marsh milk-vetch	SE	Apr 2000	FE	May 21,2001
<i>Astragalus tener</i> var. <i>titi</i> coastal dunes milk-vetch	SE	Feb 1982	FE	Aug 12,1998
<i>Astragalus traskiae</i> Trask's milk-vetch	SR	Nov 1979		
<i>Astragalus tricarinatus</i> triple-ribbed milk-vetch			FE	Oct 06,1998
<i>Atriplex coronata</i> var. <i>notatior</i> San Jacinto Valley crownscale			FE	Oct 13,1998
<i>Atriplex tularensis</i> Bakersfield smallscale	SE	Jan 1987		
<i>Baccharis vanessae</i> Encinitas baccharis	SE	Jan 1987	FT	Oct 07,1996
<i>Bensoniella oregona</i> bensoniella	SR	Jul 1982		
<i>Berberis nevinii</i> Nevin's barberry	SE	Jan 1987	FE	Oct 13,1998
<i>Berberis pinnata</i> ssp. <i>insularis</i> island barberry	SE	Nov 1979	FE	Jul 31,1997
<i>Blennosperma bakeri</i> Sonoma sunshine	SE	Feb 1992	FE	Dec 02,1991
<i>Blennosperma nanum</i> var. <i>robustum</i> Point Reyes blennosperma	SR	Nov 1978		
<i>Bloomeria humilis</i> dwarf goldenstar	SR	Nov 1978		
<i>Brodiaea coronaria</i> ssp. <i>rosea</i> Indian Valley brodiaea	SE	Sep 1979		

State Designated PlantsClassification

	<u>State</u>	<u>List Date</u>	<u>Federal</u>	<u>List Date</u>
<i>Brodiaea filifolia</i> thread-leaved brodiaea	SE	Jan 1982	FT	Oct 13,1998
<i>Brodiaea insignis</i> Kaweah brodiaea	SE	Nov 1979		
<i>Brodiaea pallida</i> Chinese Camp brodiaea	SE	Nov 1978	FT	Sep 14,1998
<i>Calamagrostis foliosa</i> leafy reed grass	SR	Nov 1979		
<i>Calochortus dunnii</i> Dunn's mariposa lily	SR	Nov 1979		
<i>Calochortus persistens</i> Siskiyou mariposa lily	SR	Jul 1982		
<i>Calochortus tiburonensis</i> Tiburon mariposa lily	ST	May 1987	FT	Feb 03,1995
<i>Calyptridium pulchellum</i> Mariposa pussypaws			FT	Sep 14,1998
<i>Calystegia stebbinsii</i> Stebbins's morning-glory	SE	Aug 1981	FE	Oct 18,1996
<i>Camissonia benitensis</i> San Benito evening-primrose			FT	Feb 12,1985
<i>Carex albida</i> white sedge	SE	Nov 1979	FE	Oct 22,1997
<i>Carex tompkinsii</i> Tompkins's sedge	SR	Nov 1979		
<i>Carpenteria californica</i> tree-anemone	ST	Jan 1990		
<i>Castilleja affinis</i> ssp. <i>neglecta</i> Tiburon Indian paintbrush	ST	Jan 1990	FE	Feb 03, 1995
<i>Castilleja campestris</i> ssp. <i>succulenta</i> succulent owl's-clover	SE	Sep 1979	FT	Mar 26,1997
<i>Castilleja cinerea</i> ash-gray Indian paintbrush			FT	Sep 14,1998
<i>Castilleja gleasonii</i> Mt. Gleason Indian paintbrush	SR	Jul 1982		
<i>Castilleja grisea</i> San Clemente Island Indian paintbrush	SE	Apr 1982	FE	Aug 11,1977

State Designated PlantsClassification

	<u>State</u>	<u>List Date</u>	<u>Federal</u>	<u>List Date</u>
<i>Castilleja mollis</i> soft-leaved Indian paintbrush			FE	Jul 31,1997
<i>Castilleja uliginosa</i> Pitkin Marsh Indian paintbrush	SE	Nov 1978		
<i>Caulanthus californicus</i> California jewel-flower	SE	Jan 1987	FE	Jul 19,1990
<i>Caulanthus stenocarpus</i> slender-pod jewel-flower		Delisted April 2008		
<i>Ceanothus ferrisiae</i> coyote ceanothus			FE	Feb 03,1995
<i>Ceanothus hearstiorum</i> Hearst's ceanothus	SR	Aug 1981		
<i>Ceanothus maritimus</i> maritime ceanothus	SR	Nov 1978		
<i>Ceanothus masonii</i> Mason's ceanothus	SR	Nov 1978		
<i>Ceanothus ophiochilus</i> Vail Lake ceanothus	SE	Jan 1994	FT	Oct 13,1998
<i>Ceanothus roderickii</i> Pine Hill ceanothus	SR	Jul 1982	FE	Oct 18,1996
<i>Cercocarpus traskiae</i> Catalina Island mountain-mahogany	SE	Apr 1982	FE	Aug 08,1997
<i>Chamaesyce hooveri</i> Hoover's spurge			FT	Mar 26,1997
<i>Chlorogalum purpureum</i> var. <i>purpureum</i> ¹ purple amole			FT	Mar 20,2000
<i>Chlorogalum purpureum</i> var. <i>reductum</i> ² Camatta Canyon amole	SR	Nov 1978	FT	Mar 20,2000
<i>Chorizanthe howellii</i> Howell's spineflower	ST	Jan 1987	FE	Jun 22,1992
<i>Chorizanthe orcuttiana</i> Orcutt's spineflower	SE	Nov 1979	FE	Oct 07,1996

¹ The U.S. Fish & Wildlife Service listed the entire species, *Chlorogalum purpureum*.

² The U.S. Fish & Wildlife Service listed the entire species, *Chlorogalum purpureum*.

State Designated PlantsClassification

	<u>State</u>	<u>List Date</u>	<u>Federal</u>	<u>List Date</u>
<i>Chorizanthe parryi</i> var. <i>fernandina</i> San Fernando Valley spineflower	SE	Aug 2001		
<i>Chorizanthe pungens</i> var. <i>hartwegiana</i> Ben Lomond spineflower			FE	Feb 04,1994
<i>Chorizanthe pungens</i> var. <i>pungens</i> Monterey spineflower			FT	Feb 04,1994
<i>Chorizanthe robusta</i> (includes vars. <i>hartwegii</i> and <i>robusta</i>) robust spineflower			FE	Feb 04,1994
<i>Chorizanthe valida</i> Sonoma spineflower	SE	Jan 1990	FE	Jun 22,1992
<i>Cirsium ciliolatum</i> Ashland thistle	SE	Sep 1982		
<i>Cirsium fontinale</i> var. <i>fontinale</i> fountain thistle	SE	Jul 1979	FE	Feb 03,1995
<i>Cirsium fontinale</i> var. <i>obispoense</i> Chorro Creek bog thistle	SE	Jun 1993	FE	Dec 15,1994
<i>Cirsium hydrophilum</i> var. <i>hydrophilum</i> Suisun thistle			FE	Nov 20,1997
<i>Cirsium loncholepis</i> La Graciosa thistle	ST	Feb 1990	FE	Mar 20,2000
<i>Cirsium rhotophilum</i> surf thistle	ST	Feb 1990		
<i>Clarkia franciscana</i> Presidio clarkia	SE	Nov 1978	FE	Feb 03,1995
<i>Clarkia imbricata</i> Vine Hill clarkia	SE	Nov 1978	FE	Oct 22,1997
<i>Clarkia lingulata</i> Merced clarkia	SE	Jan 1989		
<i>Clarkia speciosa</i> ssp. <i>immaculata</i> Pismo clarkia	SR	Nov 1978	FE	Dec 15,1994
<i>Clarkia springvillensis</i> Springville clarkia	SE	Sep 1979	FT	Sep 14,1998
<i>Cordylanthus maritimus</i> ssp. <i>maritimus</i> salt marsh bird's-beak	SE	Jul 1979	FE	Sep 28,1978
<i>Cordylanthus mollis</i> ssp. <i>mollis</i> soft bird's-beak	SR	Jul 1979	FE	Nov 20,1997
<i>Cordylanthus nidularius</i> Mt. Diablo bird's-beak	SR	Nov 1978		
<i>Cordylanthus palmatus</i> palmate-bracted bird's-beak	SE	May 1984	FE	Jul 01, 1986
<i>Cordylanthus rigidus</i> ssp. <i>littoralis</i> seaside bird's-beak	SE	Jan 1982		

State Designated PlantsClassification

	<u>State</u>	<u>List Date</u>	<u>Federal</u>	<u>List Date</u>
<i>Cordylanthus tenuis</i> ssp. <i>capillaris</i> Pennell's bird's-beak	SR	Nov 1978	FE	Feb 03,1995
<i>Croton wigginsii</i> Wiggins' croton	SR	Jan 1982		
<i>Cryptantha roosiorum</i> bristlecone cryptantha	SR	Jul 1982		
<i>Cupressus abramsiana</i> (= <i>Callitropsis abramsiana</i>) Santa Cruz cypress	SE	Nov 1979	FE	Jan 08,1987
<i>Cupressus goveniana</i> ssp. <i>goveniana</i> (= <i>Callitropsis goveniana</i>) Gowen cypress			FT	Aug 12,1998
<i>Dedeckera eurekaensis</i> July gold	SR	Nov 1978		
<i>Deinandra arida</i> (= <i>Hemizonia arida</i>) Red Rock tarplant	SR	Jul 1982		
<i>Deinandra conjugens</i> (= <i>Hemizonia conjugens</i>) Otay tarplant	SE	Nov 1979	FT	Oct 13,1998
<i>Deinandra increscens</i> ssp. <i>villosa</i> (= <i>Hemizonia increscens</i> ssp. <i>villosa</i>) Gaviota tarplant	SE	Jan 1990	FE	Mar 20,2000
<i>Deinandra minthornii</i> (= <i>Hemizonia minthornii</i>) Santa Susana tarplant	SR	Nov 1978		
<i>Deinandra mohavensis</i> (= <i>Hemizonia mohavensis</i>) Mojave tarplant	SE	Aug 1981		
<i>Delphinium bakeri</i> Baker's larkspur	SE	April 2007	FE	Jan 26,2000
<i>Delphinium hesperium</i> ssp. <i>cuyamaca</i> Cuyamaca larkspur	SR	Jul 1982		
<i>Delphinium luteum</i> yellow larkspur	SR	Sep 1979	FE	Jan 26,2000
<i>Delphinium variegatum</i> ssp. <i>kinkiense</i> San Clemente Island larkspur	SE	Sep 1979	FE	Aug 11,1977
<i>Dichanthelium lanuginosum</i> var. <i>thermale</i> Geysers dichanthelium	SE	Sep 1978		
<i>Dieteria asteroides</i> var. <i>lagunensis</i> Mount Laguna aster (= <i>Machaeranthera asteroides</i> var. <i>lagunensis</i>)	SR	Sep 1979		
<i>Dithyrea maritima</i> beach spectaclepod	ST	Feb 1990		
<i>Dodecahema leptoceras</i> slender-horned spineflower	SE	Jan 1982	FE	Sep 28,1987
<i>Downingia concolor</i> var. <i>brevior</i> Cuyamaca Lake downingia	SE	Feb 1982		

State Designated PlantsClassification

	<u>State</u>	<u>List Date</u>	<u>Federal</u>	<u>List Date</u>
<i>Dudleya abramsii</i> ssp. <i>parva</i> (=D. <i>parva</i>) Conejo dudleya			FT	Jan 29,1997
<i>Dudleya brevifolia</i> (=D. <i>blochmaniae</i> ssp. <i>brevifolia</i>) short-leaved dudleya	SE	Jan 1982		
<i>Dudleya cymosa</i> ssp. <i>agourensis</i> ³ Santa Monica Mtns. dudleya			FT	Jan 29, 1997
<i>Dudleya cymosa</i> ssp. <i>marcescens</i> marcescent dudleya	SR	Nov 1978	FT	Jan 29,1997
<i>Dudleya cymosa</i> ssp. <i>ovatifolia</i> Santa Monica Mountains dudleya			FT	Jan 29,1997
<i>Dudleya nesiotica</i> Santa Cruz Island dudleya	SR	Nov 1979	FT	Jul 31,1997
<i>Dudleya setchellii</i> Santa Clara Valley dudleya			FE	Feb 03,1995
<i>Dudleya stolonifera</i> Laguna Beach dudleya	ST	Jan 1987	FT	Oct 13,1998
<i>Dudleya traskiae</i> Santa Barbara Island dudleya	SE	Nov 1979	FE	Apr 26,1978
<i>Dudleya verityi</i> Verity's dudleya			FT	Jan 29,1997
<i>Enceliopsis nudicaulis</i> var. <i>corrugata</i> Ash Meadows daisy			FT	May 20,1985
<i>Eremalche kernensis</i> Kern mallow			FE	Jul 19,1990
<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i> Santa Ana River woollystar	SE	Jan 1987	FE	Sep 28,1987
<i>Eriastrum hooveri</i> Hoover's woolly-star			Delisted	Oct 7,2003
<i>Eriastrum tracyi</i> Tracy's eriastrum	SR	Jul 1982		
<i>Erigeron parishii</i> Parish's daisy			FT	Aug 24,1994
<i>Eriodictyon altissimum</i> Indian Knob mountainbalm	SE	Jul 1979	FE	Dec 15,1994
<i>Eriodictyon capitatum</i> Lompoc yerba santa	SR	Sep 1979	FE	Mar 20,2000

³ The U.S. Fish & Wildlife Service has listed the more encompassing *Dudleya cymosa* ssp. *ovatifolia* from which ssp. *agourensis* was split.

State Designated PlantsClassification

	<u>State</u>	<u>List Date</u>	<u>Federal</u>	<u>List Date</u>
<i>Eriogonum alpinum</i> Trinity buckwheat	SE	Jul 1979		
<i>Eriogonum apricum</i> var. <i>apricum</i> ⁴ Ione buckwheat	SE	Aug 1981	FE	May 26,1999
<i>Eriogonum apricum</i> var. <i>prostratum</i> ⁵ Irish Hill buckwheat	SE	Jan 1987	FE	May 26,1999
<i>Eriogonum butterworthianum</i> Butterworth's buckwheat	SR	Nov 1979		
<i>Eriogonum crocatum</i> Conejo buckwheat	SR	Sep 1979		
<i>Eriogonum giganteum</i> var. <i>compactum</i> Santa Barbara Island buckwheat	SR	Nov 1979		
<i>Eriogonum grande</i> ssp. <i>timorum</i> (= <i>Eriogonum grande</i> var. <i>timorum</i>) San Nicolas Island buckwheat	SE	Nov 1979		
<i>Eriogonum kelloggii</i> Kellogg's buckwheat	SE	Apr 1982		
<i>Eriogonum kennedyi</i> var. <i>austromontanum</i> southern mountain buckwheat			FT	Sep 14,1978
<i>Eriogonum ovalifolium</i> var. <i>vineum</i> Cushenbury buckwheat			FE	Aug 24,1994
<i>Eriogonum thornei</i> (= <i>E. ericifolium</i> var. <i>thornei</i>) Thorne's buckwheat	SE	Nov 1979		
<i>Eriogonum twisselmannii</i> Twisselmann's buckwheat	SR	Jul 1982		
<i>Eriophyllum congdonii</i> Congdon's woolly sunflower	SR	Jul 1982		
<i>Eriophyllum latilobum</i> San Mateo woolly sunflower	SE	Jun 1992	FE	Feb 03,1995
<i>Eryngium aristulatum</i> var. <i>parishii</i> San Diego button-celery	SE	Jul 1979	FE	Aug 03,1993
<i>Eryngium constancei</i> Loch Lomond button-celery	SE	Jan 1987	FE	Dec 23,1986
<i>Eryngium racemosum</i> Delta button-celery	SE	Aug 1981		
<i>Erysimum capitatum</i> var. <i>angustatum</i> Contra Costa wallflower	SE	Nov 1978	FE	Apr 26,1978

⁴ The U.S. Fish & Wildlife Service has listed *Eriogonum apricum* as the species, which includes both rare varieties.

⁵ The U.S. Fish & Wildlife Service has listed *Eriogonum apricum* as the species, which includes both rare varieties.

State Designated PlantsClassification

	<u>State</u>	<u>List Date</u>	<u>Federal</u>	<u>List Date</u>
<i>Erysimum menziesii</i> ⁶ Menzies' wallflower	SE	Sep 1984	FE	Jun 22,1992
<i>Erysimum teretifolium</i> Santa Cruz wallflower	SE	Aug 1981	FE	Feb 04,1994
<i>Fremontodendron decumbens</i> Pine Hill flannelbush	SR	Jul 1979	FE	Oct 18,1996
<i>Fremontodendron mexicanum</i> Mexican flannelbush	SR	Jul 1982	FE	Oct 13,1998
<i>Fritillaria gentneri</i> Gentner's fritillary			FE	Dec 10,1999
<i>Fritillaria roderickii</i> Roderick's fritillary	SE	Nov 1979		
<i>Fritillaria striata</i> striped adobe-lily	ST	Jan 1987		
<i>Galium angustifolium</i> ssp. <i>borregoense</i> Borrego bedstraw	SR	Sep 1979		
<i>Galium buxifolium</i> box bedstraw	SR	Nov 1979	FE	Jul 31,1997
<i>Galium californicum</i> ssp. <i>sierrae</i> El Dorado bedstraw	SR	Nov 1979	FE	Oct 18,1996
<i>Galium catalinense</i> ssp. <i>acrispum</i> San Clemente Island bedstraw	SE	Apr 1982		
<i>Gilia tenuiflora</i> ssp. <i>arenaria</i> sand gilia	ST	Jan 1987	FE	Jun 22,1992
<i>Gilia tenuiflora</i> ssp. <i>hoffmannii</i> Hoffmann's slender-flowered gilia			FE	Jul 31,1997
<i>Gratiola heterosepala</i> Boggs Lake hedge-hyssop	SE	Nov 1978		
<i>Grindelia fraxino-pratensis</i> Ash Meadows gumplant			FT	May 20,1985
<i>Hazardia orcuttii</i> Orcutt's hazardia	ST	Aug 2002		
<i>Helianthemum greenei</i> island rush-rose			FT	Jul 31,1997
<i>Helianthus niveus</i> ssp. <i>tephrodes</i> Algodones Dunes sunflower	SE	Nov 1979		
<i>Hesperolinon congestum</i> Marin western flax	ST	Jun 1992	FT	Feb 03,1995

⁶ The U.S. Fish & Wildlife Service separately listed all as endangered, *E. menziesii* ssp. *eurekaense*, *E. menziesii* ssp. *menziesii*, and *E. menziesii* ssp. *yadonii*.

State Designated PlantsClassification

	<u>State</u>	<u>List Date</u>	<u>Federal</u>	<u>List Date</u>
<i>Hesperolinon didymocarpum</i> Lake County western flax	SE	Aug 1981		
<i>Holmgrenanthe petrophila</i> (= <i>Maurandya petrophila</i>) rock lady	SR	Jul 1982		
<i>Holocarpha macradenia</i> Santa Cruz tarplant	SE	Sep 1979	FT	Mar 20,2000
<i>Howellia aquatilis</i> water howellia			FT	Jul 14,1994
<i>Ivesia callida</i> Tahquitz ivesia	SR	Jul 1982		
<i>Lasthenia burkei</i> Burke's goldfields	SE	Sep 1979	FE	Dec 02,1991
<i>Lasthenia conjugens</i> Contra Costa goldfields			FE	Jun 18,1997
<i>Layia carnosa</i> beach layia	SE	Jan 1990	FE	Jun 22,1992
<i>Lembertia congdonii</i> (= <i>Monolopia congdonii</i>) San Joaquin woollythreads			FE	Jul 19,1990
<i>Lesquerella kingii</i> ssp. <i>bernardina</i> San Bernardino Mountains bladderpod			FE	Aug 24,1994
<i>Lessingia germanorum</i> San Francisco lessingia	SE	Jan 1990	FE	Jun 19,1997
<i>Lewisia congdonii</i> Congdon's lewisia	SR	Jul 1982		
<i>Lilaeopsis masonii</i> Mason's lilaeopsis	SR	Nov 1979		
<i>Lilium occidentale</i> western lily	SE	Jan 1982	FE	Aug 17,1994
<i>Lilium pardalinum</i> ssp. <i>pitkinense</i> Pitkin Marsh lily	SE	Nov 1978	FE	Oct 22,1997
<i>Limnanthes bakeri</i> Baker's meadowfoam	SR	Nov 1978		
<i>Limnanthes douglasii</i> var. <i>sulphurea</i> (= <i>Limnanthes douglasii</i> ssp. <i>sulphurea</i>) Point Reyes meadowfoam	SE	Apr 1982		
<i>Limnanthes floccosa</i> ssp. <i>californica</i> Butte County meadowfoam	SE	Feb 1982	FE	Jun 08,1992
<i>Limnanthes gracilis</i> var. <i>parishii</i> (= <i>Limnanthes gracilis</i> ssp. <i>parishii</i>) Parish's meadowfoam	SE	Jul 1979		
<i>Limnanthes vinculans</i> Sebastopol meadowfoam	SE	Nov 1979	FE	Dec 02,1991

State Designated PlantsClassification

	<u>State</u>	<u>List Date</u>	<u>Federal</u>	<u>List Date</u>
<i>Lithophragma maximum</i> San Clemente Island woodland star	SE	Feb 1982	FE	Aug 08,1997
<i>Lotus argophyllus</i> var. <i>adsurgens</i> San Clemente Island bird's-foot trefoil	SE	Nov 1979		
<i>Lotus argophyllus</i> var. <i>niveus</i> Santa Cruz Island bird's-foot trefoil	SE	Aug 1981		
<i>Lotus dendroideus</i> var. <i>traskiae</i> San Clemente Island lotus	SE	Apr 1982	FE	Aug 11,1977
<i>Lupinus citrinus</i> var. <i>deflexus</i> Mariposa lupine	ST	Jan 1990		
<i>Lupinus milo-bakeri</i> Milo Baker's lupine	ST	Jan 1987		
<i>Lupinus nipomensis</i> Nipomo Mesa lupine	SE	Jan 1987	FE	Mar 20,2000
<i>Lupinus padre-crowleyi</i> Father Crowley's lupine	SR	Aug 1981		
<i>Lupinus tidestromii</i> var. <i>tidestromii</i> (=L. <i>tidestromii</i>) Tidestrom's lupine	SE	Jan 1987	FE	Jun 22,1992
<i>Machaeranthera lagunensis</i> (see <i>Dieteria asteroides</i> var. <i>lagunensis</i>)				
<i>Mahonia sonnei</i> (= <i>Berberis sonnei</i>) Truckee barberry		Delisted April 2008	Delisted	Oct 1,2003
<i>Malacothamnus clementinus</i> San Clemente Island bush mallow	SE	Feb 1982	FE	Aug 11,1977
<i>Malacothamnus fasciculatus</i> var. <i>nesioticus</i> Santa Cruz Island bush mallow	SE	Nov 1979	FE	Jul 31,1997
<i>Malacothrix indecora</i> Santa Cruz Island malacothrix			FE	Jul 31,1997
<i>Malacothrix squalida</i> island malacothrix			FE	Jul 31,1997
<i>Monardella linoides</i> ssp. <i>viminea</i> (=M. <i>viminea</i>) willowy monardella	SE	Nov 1979	FE	Oct 13,1998
<i>Nasturtium gambellii</i> (= <i>Rorippa gambellii</i>) Gambel's water cress	ST	Feb 1990	FE	Aug 03,1993
<i>Navarretia fossalis</i> spreading navarretia			FT	Oct 13,1998
<i>Navarretia leucocephala</i> ssp. <i>pauciflora</i> few-flowered navarretia	ST	Jan 1990	FE	Jun 18,1997

State Designated PlantsClassification

	<u>State</u>	<u>List Date</u>	<u>Federal</u>	<u>List Date</u>
<i>Navarretia leucocephala</i> ssp. <i>plieantha</i> many-flowered navarretia	SE	Nov 1979	FE	Jun 18,1997
<i>Nemacladus twisselmannii</i> Twisselmann's nemacladus	SR	Jul 1982		
<i>Neostapfia colusana</i> Colusa grass	SE	Nov 1979	FT	Mar 26,1997
<i>Nitrophila mohavensis</i> Amargosa nitrophila	SE	Nov 1979	FE	May 20,1985
<i>Nolina interrata</i> Dehesa nolina	SE	Nov 1979		
<i>Oenothera californica</i> ssp. <i>eurekaensis</i> Eureka Dunes evening-primrose	SR	Nov 1978	FE	Apr 26,1978
<i>Oenothera deltoides</i> ssp. <i>howellii</i> Antioch Dunes evening-primrose	SE	Nov 1978	FE	Apr 26,1978
<i>Opuntia basilaris</i> var. <i>treleasei</i> Bakersfield cactus	SE	Jan 1990	FE	Jul 19,1990
<i>Orcuttia californica</i> California Orcutt grass	SE	Sep 1979	FE	Aug 03,1993
<i>Orcuttia inaequalis</i> San Joaquin Valley Orcutt grass	SE	Sep 1979	FT	Mar 26,1997
<i>Orcuttia pilosa</i> hairy Orcutt grass	SE	Sep 1979	FE	Mar 26,1997
<i>Orcuttia tenuis</i> slender Orcutt grass	SE	Sep 1979	FT	Mar 26,1997
<i>Orcuttia viscida</i> Sacramento Orcutt grass	SE	Jul 1979	FE	Mar 26,1997
<i>Ornithostaphylos oppositifolia</i> Baja California birdbush	SE	Apr 2001		
<i>Oxytheca parishii</i> var. <i>goodmaniana</i> (= <i>Acanthoscyphus parishii</i> var. <i>goodmaniana</i>) Cushenbury oxytheca			FE	Aug 24,1994
<i>Packera ganderi</i> (= <i>Senecio ganderi</i>) Gander's ragwort	SR	Jul 1982		
<i>Packera layneae</i> (= <i>Senecio layneae</i>) Layne's ragwort	SR	Nov 1979	FT	Oct 18,1996
<i>Parvisedum leiocarpum</i> (= <i>Sedella leiocarpa</i>) Lake County stonecrop	SE	Jan 1990	FE	Jun 18,1997
<i>Pedicularis dudleyi</i> Dudley's lousewort	SR	Sep 1979		
<i>Pentachaeta bellidiflora</i> white-rayed pentachaeta	SE	Jun 1992	FE	Feb 03,1995
<i>Pentachaeta lyonii</i> Lyon's pentachaeta	SE	Jan 1990	FE	Jan 29,1997
<i>Phacelia insularis</i> ssp. <i>insularis</i> northern Channel Islands phacelia			FE	Jul 31,1997

State Designated PlantsClassification

	<u>State</u>	<u>List Date</u>	<u>Federal</u>	<u>List Date</u>
<i>Phlox hirsuta</i> Yreka phlox	SE	Jan 1987	FE	Feb 3,2000
<i>Piperia yadonii</i> Yadon's rein orchid			FE	Aug 12,1998
<i>Plagiobothrys diffusus</i> San Francisco popcorn-flower	SE	Sep 1979		
<i>Plagiobothrys strictus</i> Calistoga popcorn-flower	ST	Jan 1990	FE	Oct 22,1997
<i>Pleuropogon hooverianus</i> North Coast semaphore grass	ST	Dec 2002		
<i>Poa atropurpurea</i> San Bernardino blue grass			FE	Sep 14,1998
<i>Poa napensis</i> Napa blue grass	SE	Jul 1979	FE	Oct 22,1997
<i>Pogogyne abramsii</i> San Diego mesa mint	SE	Jul 1979	FE	Sep 28,1978
<i>Pogogyne clareana</i> Santa Lucia mint	SE	Nov 1979		
<i>Pogogyne nudiuscula</i> Otay Mesa mint	SE	Jan 1987	FE	Aug 03,1993
<i>Polygonum hickmanii</i> Scott's Valley polygonum	SE	May 2005	FE	Apr 8,2003
<i>Potentilla hickmanii</i> Hickman's cinquefoil	SE	Sep 1979	FE	Aug 12,1998
<i>Pseudobahia bahiifolia</i> Hartweg's golden sunburst	SE	Aug 1981	FE	Feb 06,1997
<i>Pseudobahia peirsonii</i> San Joaquin adobe sunburst	SE	Jan 1987	FT	Feb 06,1997
<i>Rorippa subumbellata</i> Tahoe yellow cress	SE	Apr 1982		
<i>Rosa minutifolia</i> small-leaved rose	SE	Oct 1989		
<i>Sanicula maritima</i> adobe sanicle	SR	Aug 1981		
<i>Sanicula saxatilis</i> rock sanicle	SR	Jul 1982		
<i>Sedella leiocarpa</i> (= <i>Parvisedum leiocarpum</i>) Lake County stonecrop	SE	Jan 1990	FE	Jun 18,1997
<i>Senecio ganderi</i> (see <i>Packera ganderi</i>)				
<i>Senecio layneae</i> (= <i>Packera layneae</i>)				
<i>Sibara filifolia</i> Santa Cruz Island rock cress			FE	Aug 08,1997
<i>Sidalcea covillei</i> Owens Valley checkerbloom	SE	Jul 1979		

State Designated PlantsClassification

	<u>State</u>	<u>List Date</u>	<u>Federal</u>	<u>List Date</u>
<i>Sidalcea hickmanii</i> ssp. <i>anomala</i> Cuesta Pass checkerbloom	SR	Nov 1979		
<i>Sidalcea hickmanii</i> ssp. <i>parishii</i> Parish's checkerbloom	SR	Nov 1979	Removed as FC, 2006 Fed. Register	
<i>Sidalcea keckii</i> Keck's checker-mallow			FE	Feb 16,2000
<i>Sidalcea oregana</i> ssp. <i>valida</i> Kenwood Marsh checkerbloom	SE	Jan 1982	FE	Oct 22,1997
<i>Sidalcea pedata</i> bird-foot checkerbloom	SE	Jan 1982	FE	Aug 31,1984
<i>Sidalcea stipularis</i> Scadden Flat checkerbloom	SE	Jan 1982		
<i>Silene campanulata</i> ssp. <i>campanulata</i> Red Mountain catchfly	SE	Apr 1982		
<i>Streptanthus albidus</i> ssp. <i>albidus</i> Metcalf Canyon jewel-flower			FE	Feb 03,1995
<i>Streptanthus niger</i> Tiburon jewel-flower	SE	Feb 1990	FE	Feb 03,1995
<i>Suaeda californica</i> California seablite			FE	Dec 15,1994
<i>Swallenia alexandrae</i> Eureka Valley dune grass	SR	Aug 1981	FE	Apr 26,1978
<i>Taraxacum californicum</i> California dandelion			FE	Sep 14,1998
<i>Thelypodium stenopetalum</i> slender-petaled thelypodium	SE	Feb 1982	FE	Aug 31,1984
<i>Thermopsis macrophylla</i> var. <i>angina</i> (= <i>T. macrophylla</i>) Santa Ynez false lupine	SR	Aug 1981		
<i>Thlaspi californicum</i> Kneeland Prairie penny-cress			FE	Feb 9,2000
<i>Thysanocarpus conchuliferus</i> Santa Cruz Island fringedpod			FE	Jul 31,1997
<i>Trichostema austromontanum</i> ssp. <i>compactum</i> Hidden Lake bluecurls			FT	Sep 14,1998
<i>Trifolium amoenum</i> showy Indian clover			FE	Oct 22,1997
<i>Trifolium polyodon</i> Pacific Grove clover	SR	Sep 1979		
<i>Trifolium trichocalyx</i> Monterey clover	SE	Nov 1979	FE	Aug 12,1998
<i>Tuctoria greenei</i> Greene's tuctoria	SR	Sep 1979	FE	Mar 26,1997
<i>Tuctoria mucronata</i> Crampton's tuctoria	SE	Jul 1979	FE	Sep 28,1978
<i>Verbena californica</i> California vervain	ST	Aug 1994	FT	Sep 14,1998

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State Designated Plants

Classification

	<u>State</u>	<u>List Date</u>	<u>Federal</u>	<u>List Date</u>
	<i>Verbesina dissita</i> Big-leaved crownbeard	ST	Jan 1990	FT

00004091

00004092

APPENDIX D
AIR QUALITY CALCULATIONS



00004093

CALCULATION SHEET-COMBUSTION EMISSIONS-CONSTRUCTION

Assumptions for Combustion Emissions						
Type of Construction Equipment	Num. of Units	HP Rated	Hrs/day	Days/yr	Total hp-hrs	
Water Truck	2	300	8	130	624000	
Diesel Road Compactors	1	100	8	15	12000	
Diesel Dump Truck	2	300	8	130	624000	
Diesel Excavator	2	300	8	60	288000	
Diesel Hole Trenchers	1	175	8	15	21000	
Diesel Bore/Drill Rigs	0	300	8	60	0	
Diesel Cement & Mortar Mixers	1	300	8	60	144000	
Diesel Cranes	0	175	8	130	0	
Diesel Graders	3	300	8	15	108000	
Diesel Tractors/Loaders/Backhoes	1	100	8	90	72000	
Diesel Bull Dozers	2	300	8	15	72000	
Diesel Front End Loaders	2	300	8	30	144000	
Diesel Fork Lifts	1	100	8	130	104000	
Diesel Generator Set	2	40	8	130	83200	

Type of Construction Equipment	Emission Factors ¹						
	VOC g/hp-hr	CO g/hp-hr	NOx g/hp-hr	PM-10 g/hp-hr	PM-2.5 g/hp-hr	SO2 g/hp-hr	CO2 g/hp-hr
Water Truck	0.440	2.070	5.490	0.410	0.400	0.740	536.000
Diesel Road Compactors	0.370	1.480	4.900	0.340	0.330	0.740	536.200
Diesel Dump Truck	0.440	2.070	5.490	0.410	0.400	0.740	536.000
Diesel Excavator	0.340	1.300	4.600	0.320	0.310	0.740	536.300
Diesel Trenchers	0.510	2.440	5.810	0.460	0.440	0.740	535.800
Diesel Bore/Drill Rigs	0.600	2.290	7.150	0.500	0.490	0.730	529.700
Diesel Cement & Mortar Mixers	0.610	2.320	7.280	0.480	0.470	0.730	529.700
Diesel Cranes	0.440	1.300	5.720	0.340	0.330	0.730	530.200
Diesel Graders	0.350	1.360	4.730	0.330	0.320	0.740	536.300
Diesel Tractors/Loaders/Backhoes	1.850	8.210	7.220	1.370	1.330	0.950	691.100
Diesel Bull Dozers	0.360	1.380	4.760	0.330	0.320	0.740	536.300
Diesel Front End Loaders	0.380	1.550	5.000	0.350	0.340	0.740	536.200
Diesel Fork Lifts	1.980	7.760	8.560	1.390	1.350	0.950	690.800
Diesel Generator Set	1.210	3.760	5.970	0.730	0.710	0.810	587.300

CALCULATION SHEET-COMBUSTION EMISSIONS-CONSTRUCTION

1. Emission factors (EF) were generated using USEPA's preferred model for nonroad sources, the NONROAD2008 model. Emissions were modeled for the 2007 calendar year. The VOC EFs includes exhaust and evaporative emissions. The VOC evaporative components included in the NONROAD2008 model are diurnal, hotsoak, running loss, tank permeation, hose permeation, displacement, and spillage. The construction equipment age distribution in the NONROAD2008 model is based on the population in U.S. for the 2007 calendar year.

Emission Calculations							
Type of Construction Equipment	VOC tons/yr	CO tons/yr	NOx tons/yr	PM-10 tons/yr	PM-2.5 tons/yr	SO2 tons/yr	CO2 tons/yr
Water Truck	0.303	1.423	3.775	0.282	0.275	0.509	368.579
Diesel Road Paver	0.005	0.020	0.065	0.004	0.004	0.010	7.091
Diesel Dump Truck	0.303	1.423	3.775	0.282	0.275	0.509	368.579
Diesel Excavator	0.108	0.413	1.460	0.102	0.098	0.235	170.209
Diesel Hole Cleaners/Trenchers	0.012	0.056	0.134	0.011	0.010	0.017	12.399
Diesel Bore/Drill Rigs	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Cement & Mortar Mixers	0.097	0.368	1.155	0.076	0.075	0.116	84.057
Diesel Cranes	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Graders	0.042	0.162	0.563	0.039	0.038	0.088	63.828
Diesel Tractors/Loaders/Backhoes	0.147	0.651	0.573	0.109	0.106	0.075	54.835
Diesel Bull Dozers	0.029	0.109	0.378	0.026	0.025	0.059	42.552
Diesel Front End Loaders	0.060	0.246	0.793	0.056	0.054	0.117	85.089
Diesel Aerial Lifts	0.227	0.889	0.981	0.159	0.155	0.109	79.171
Diesel Generator Set	0.111	0.345	0.547	0.067	0.065	0.074	53.847
Total Emissions	1.442	6.106	14.200	1.213	1.180	1.918	1390.237

Conversion factors	
Grams to tons	1.102E-06

MOVES2010a MODEL ON-ROAD TRANSPORTATION AIR EMISSIONS-
DELIVERY MATERIALS AND COMMUTING DURING CONSTRUCTION ACTIVITIES

00004096

MOVES 2010a						
Source	Fuel type	Number of vehicles	Miles traveled per day	Days of travel per year	Miles traveled per year	
Passenger cars	Gasoline	20	60	260	312,000	
Passenger truck	Gasoline	20	60	260	312,000	
Light commercial truck	Diesel	2	60	260	31,200	
Short-haul truck	Diesel	4	130	260	135,200	
Long-haul truck	Diesel	1	130	260	33,800	

Emission Factors (MOVES 2010a Emission Rates) ¹							
Source	VOC (g/mile)	CO (g/mile)	NOx (g/mile)	PM-10 (g/mile)	PM-2.5 (g/mile)	SO ₂ (g/mile)	CO ₂ and CO ₂ Equivalents (g/mile)
Passenger cars	8.497	2.892	0.576	0.019	0.018	0.005	320
Passenger truck	3.645	5.449	1.168	0.027	0.025	0.007	439
Light commercial truck	4.460	2.158	2.986	0.164	0.190	0.005	609
Short-haul truck	2.438	2.273	6.095	0.270	0.313	0.007	929
Long-haul truck	2.519	3.610	14.776	0.625	0.726	0.016	2,020

Total Emission for On-Road Construction Activities (tons/year)							
Source	VOC	CO	NOx	PM-10	PM-2.5	SO ₂	CO ₂ and CO ₂ Equivalents
Passenger cars	2.921	0.994	0.198	0.007	0.006	0.002	110
Passenger truck	1.253	1.873	0.402	0.009	0.009	0.002	151
Light commercial truck	0.153	0.074	0.103	0.006	0.007	0.000	21
Short-haul truck	0.363	0.339	0.908	0.040	0.047	0.001	138
Long-haul truck	0.094	0.134	0.550	0.023	0.027	0.001	75
Total	4.785	3.415	2.161	0.085	0.095	0.006	496

Key:

Short-haul trucks category include trucks such as dump trucks and cement trucks.
Long-haul trucks category includes trucks such as semi-trailer (18 wheeler).

1. Emission factors were generated by USEPA preferred model MOVES2010a. MOVES simulates daily motor vehicle operations and produces emission rates. MOVES emission rates include sources from engine combustion, tire wear, brake wear, evaporative fuel permiation, vapor venting and leaking (running and parking), and crankcase loss. Emission rates are daily averages for each of the criteria pollutants. The averages from a combination of vehicle operations such as: stop and go, highway travel, acceleration at on-ramps, parking, start-up, extended idle, etc.

MOVES 2010a					
Source	Fuel type	Number of vehicles	Miles traveled per day	Days of travel per year	Miles traveled per year
Passenger cars	Gasoline	-	0	365	-
Passenger truck	Gasoline	-	0	365	-
Light commercial truck	Diesel	-	0	365	-
Short-haul truck	Diesel	-	0	365	-
Long-haul truck	Diesel	-	0	365	-

Emission Factors (MOVES 2010a Emission Rates) ¹							
Source	VOC (g/mile)	CO (g/mile)	NOx (g/mile)	PM-10 (g/mile)	PM-2.5 (g/mile)	SO ₂ (g/mile)	CO ₂ and CO ₂ Equivalents (g/mile)
Passenger cars	8.497	2.892	0.576	0.019	0.018	0.005	320
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Short-haul truck	2.438	2.273	6.095	0.270	0.313	0.007	929
Long-haul truck	2.519	3.610	14.776	0.625	0.726	0.016	2,020

Total Emission for On-Road Commuter Activities (tons/year)							
Source	VOC	CO	NOx	PM-10	PM-2.5	SO ₂	CO ₂ and CO ₂ Equivalents
Passenger cars	0.00	0.00	0.00	0.00	0.00	0.00	-
Passenger truck	0.00	0.00	0.00	0.00	0.00	0.00	-
Light commercial truck	0.00	0.00	0.00	0.00	0.00	0.00	-
Short-haul truck	0.00	0.00	0.00	0.00	0.00	0.00	-
Long-haul truck	0.00	0.00	0.00	0.00	0.00	0.00	-
Total	0.00	0.00	0.00	0.00	0.00	0.00	-

Key:

Short-haul trucks category include trucks such as dump trucks and cement trucks.

Long-haul trucks category includes trucks such as semi-trailer (18 wheeler).

1. Emission factors were generated by USEPA preferred model MOVES2010a. MOVES simulates daily motor vehicle operations and produces emission rates. MOVES emission rates include sources from engine combustion, tire wear, brake wear, evaporative fuel permeation, vapor venting and leaking (running and parking), and crankcase loss. Emission rates are daily averages for each of the criteria pollutants. The averages from a combination of vehicle operations such as: stop and go, highway travel, acceleration at on-ramps, parking, start-up, extended idle, etc.

CALCULATION SHEET-FUGITIVE DUST-CONSTRUCTION

Assumptions for Combustion Emissions

Construction Fugitive Dust Emission Factors

	Emission Factor	Units	Source
General Construction Activities	0.19 ton PM10/acre-month		MRI 1996; EPA 2001; EPA 2006
New Road Construction	0.42 ton PM10/acre-month		MRI 1996; EPA 2001; EPA 2006

PM2.5 Emissions

PM2.5 Multiplier 0.10 (10% of PM10 emissions assumed to be PM2.5) EPA 2001; EPA 2006

Control Efficiency

0.50 (assume 50% control efficiency for PM10 and PM2.5 emissions) EPA 2001; EPA 2006

Project Assumptions

	Conversion Factors
Construction Area (0.19 ton PM10/acre-month)	
Duration of Soil Disturbance in Project	8 months
Length	2 miles
Length (converted)	10560 feet
Width	24 feet
Area	5.82 acres
	0.000022957 acres per foot
	5280 feet per mile

Staging Areas

Duration of Construction Project	8 months
Length	miles
Length (converted)	feet
Width	feet
Area	2.00 acres

	Project Emissions (tons/year)			
	PM10 uncontrolled	PM10 controlled	PM2.5 uncontrolled PM2.5 controlled	
Construction Area (0.19 ton PM10/ac)	8.84	4.42	0.88	0.44
Staging Areas	0.38	0.19	0.04	0.02
Total	9.22	4.61	0.92	0.46

References:

- USEPA 2001. *Procedures Document for National Emissions Inventory, Criteria Air Pollutants, 1985-1999*. EPA-454/R-01-006. Office of Air Quality Planning and Standards, United States Environmental Protection Agency. March 2001.
- USEPA 2006. *Documentation for the Final 2002 Nonpoint Sector (Feb 06 version) National Emission Inventory for Criteria and Hazardous Air Pollutants*. Prepared for: Emissions Inventory and Analysis Group (C339-02) Air Quality Assessment Division Office of Air Quality Planning and Standards, United States Environmental Protection Agency. July 2006.
- MRI 1996. *Improvement of Specific Emission Factors (BACM Project No. 1)*. Midwest Research Institute (MRI). Prepared for the California South Coast Air Quality Management District, March 29, 1996.

Assumptions for Fugitive Emissions

General Construction Activities Emission Factor**0.19 ton PM10/acre-month** Source: MRI 1996; EPA 2001; EPA 2006

The area-based emission factor for construction activities is based on a study completed by the Midwest Research Institute (MRI) Improvement of Specific Emission Factors (BACM Project No. 1), March 29, 1996. The MRI study evaluated seven construction projects in Nevada and California (Las Vegas, Coachella Valley, South Coast Air Basin, and the San Joaquin Valley). The study determined an average emission factor of 0.11 ton PM10/acre-month for sites without large-scale cut/fill operations. A worst-case emission factor of 0.42 ton PM10/acre-month was calculated for sites with active large-scale earth moving operations. The monthly emission factors are based on 168 work-hours per month (MRI 1996). A subsequent MRI Report in 1999, Estimating Particulate Matter Emissions from Construction Operations, calculated the 0.19 ton PM10/acre-month emission factor by applying 25% of the large-scale earthmoving emission factor (0.42 ton PM10/acre-month) and 75% of the average emission factor (0.11 ton PM10/acre-month).

The 0.19 ton PM10/acre-month emission factor is referenced by the EPA for non-residential construction activities in recent procedures documents for the National Emission Inventory (EPA 2001; EPA 2006). The 0.19 ton PM10/acre-month emission factor represents a refinement of EPA's original AP-42 area-based total suspended particle (TSP) emission factor in Section 13.2.3 Heavy Construction Operations. In addition to the EPA, this methodology is also supported by the South Coast Air Quality Management District and the Western Regional Air Partnership (WRAP) which is funded by the EPA and is administered jointly by the Western Governor's Association and the National Tribal Environmental Council. The emission factor is assumed to encompass a variety of non-residential construction activities including building construction (commercial, industrial, institutional, governmental), public works, and travel on unpaved roads. The EPA National Emission Inventory documentation assumes that the emission factors are uncontrolled and recommends a control efficiency of 50% for PM10 and PM2.5 in PM nonattainment areas.

New Road Construction Emission Factor**0.42 ton PM10/acre-month** Source: MRI 1996; EPA 2001; EPA 2006

The emission factor for new road construction is based on the worst-case conditions emission factor from the MRI 1996 study described above (0.42 tons PM10/acre-month). It is assumed that road construction involves extensive earthmoving and heavy construction vehicle travel resulting in emissions that are higher than other general construction projects. The 0.42 ton PM10/acre-month emission factor for road construction is referenced in recent procedures documents for the EPA National Emission Inventory (EPA 2001; EPA 2006).

PM2.5 Multiplier

PM2.5 emissions are estimated by applying a particle size multiplier of 0.10 to PM10 emissions. This methodology is consistent with the procedures documents for the National Emission Inventory (EPA 2006).

Control Efficiency for PM10 and PM2.5

The EPA National Emission Inventory documentation recommends a control efficiency of 50% for PM10 and PM2.5 in PM nonattainment areas. Wetting controls will be applied during project construction (EPA 2006).

References:

- EPA 2001. *Procedures Document for National Emissions Inventory, Criteria Air Pollutants, 1985-1999*. EPA-454/R-01-006. Office of Air Quality Planning and Standards, United States Environmental Protection Agency. March 2001.
- EPA 2006. *Documentation for the Final 2002 Nonpoint Sector (Feb 06 version) National Emission Inventory for Criteria and Hazardous Air Pollutants*. Prepared for: Emissions Inventory and Analysis Group (C339-02) Air Quality Assessment Division Office of Air Quality Planning and Standards, United States Environmental Protection Agency. July 2006.
- MRI 1996. *Improvement of Specific Emission Factors (BACM Project No. 1)*. Midwest Research Institute (MRI). Prepared for the California South Coast Air Quality Management District, March 29, 1996.

CALCULATION SHEET-SUMMARY OF EMISSIONS

Assumptions for Combustion Emissions										
Emission Source	VOC	CO	NOx	PM-10	PM-2.5	SO2	CO2	CO2 Equivalents	Total CO2	
Combustion Emissions	1.44	6.11	14.20	1.21	1.18	1.92	1390.24	4,452	5,843	
Construction Site-Fugitive PM-10	NA	NA	NA	4.61	0.46	NA	NA	NA	NA	NA
Construction Workers Commuter & Trucking	4.78	3.42	2.16	0.08	0.09	0.01	NA	496	496	
Total emissions-CONSTRUCTION	6.23	9.52	16.36	5.91	1.74	1.92	1390	4,948	6,338	
De minimis Threshold (1)	100	100	100	70	100	100	NA	NA	25,000	

1. Note that Imperial County is in non-attainment for Ozone, PM-10 (serious), and PM 2.5 (USEPA 2010b and CARB 2012).

Carbon Equivalents	Conversion Factor
N2O or NOx	311
Methane or VOCs	25

Source: EPA 2010 Reference, Tables and Conversions, Inventory of U.S. Greenhouse Gas Emissions and Sinks; <http://www.epa.gov/climatechange/emissions/usinventoryreport.html>

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Final

**ENVIRONMENTAL ASSESSMENT
FOR THE PROPOSED INSTALLATION, OPERATION, AND
MAINTENANCE OF PRIMARY PEDESTRIAN FENCE
NEAR LUKEVILLE, ARIZONA
U.S. BORDER PATROL
TUCSON SECTOR**



**U.S. Department of Homeland Security
U.S. Customs & Border Protection
U.S. Border Patrol
Washington, D.C.**

February 2008

**FINDING OF NO SIGNIFICANT IMPACT
FOR THE PROPOSED INSTALLATION, OPERATION, AND
MAINTENANCE OF PRIMARY PEDESTRIAN FENCE
NEAR LUKEVILLE, ARIZONA
U.S. BORDER PATROL
TUCSON SECTOR**

PROJECT HISTORY: The United States (U.S.) Border Patrol (USBP) is a law enforcement entity of U.S. Customs and Border Protection (CBP), a component of U.S. Department of Homeland Security (DHS). USBP's priority mission is to prevent the entry of terrorists and terrorist weapons and to enforce the laws that protect the U.S. homeland by the detection, interdiction, and apprehension of those who attempt to illegally enter or smuggle any person or contraband across the sovereign borders of the U.S.

During recent years, illegal aliens (IA) and illegal entry into the U.S. along the U.S.-Mexico border in southern Arizona has become a severe problem. Consequently, USBP has significantly increased its emphasis on deterrence. Deterrence is achieved only when USBP has the ability to create and convey the immediate, credible, and absolute certainty of detection and apprehension. As such, tactical infrastructure components, such as fencing and roads, are a critical element in the current enforcement strategy. Developing trends such as the recognition of environmental preservation concerns and the increase of criminal trans-boundary activities (including trafficking in people, drugs, and terrorism efforts) continue to pose a border enforcement challenge and support the ever increasing need for tactical infrastructure along the international border.

In 2001, the Immigration and Naturalization Service (INS) prepared the Supplemental Programmatic Environmental Impact Statement (SPEIS) for INS and Joint Task Force 6 (JTF-6) Activities along the U.S.-Mexico Border. Additionally, in December 2003, National Park Service (NPS) issued a Final Finding of No Significant Impact (FONSI) and Final EA for the Proposed Permanent Vehicle Barriers (PVB) across the southern boundary of the Organ Pipe Cactus National Monument (OPCNM) in Pima County, Arizona. The PVBs span approximately 30 miles of the U.S.-Mexico border. The PVBs constructed by NPS have served effectively and efficiently in deterring and hindering illegal vehicle traffic on the OPCNM.

PROJECT LOCATION: The project corridor for the proposed action extends 2.1 miles to the west and 3.1 miles to the east of the Lukeville Port of Entry (POE), which encompasses approximately 5.2 miles total.

PURPOSE AND NEED: The purpose and need for the NPS 2003 Final EA was to prevent illegal vehicle traffic from degrading the biological resources of OPCNM as well as to protect the health and safety of Federal staff and visitors. The construction of the PVBs met the stated purpose and need of the NPS 2003 Final EA. However, since the completion of the NPS 2003 Final EA, shifts in IA traffic and recent Federal legislation have required changes in the designs of border tactical infrastructure. Therefore, the purpose of the proposed primary pedestrian fence is to help CBP agents and officers gain effective control of our nation's borders. CBP is developing and deploying the appropriate mix of technology, infrastructure, and personnel. In some locations, primary pedestrian fence is a critical element of border security. In alignment with Federal mandates, USBP has identified this area of the border as a location where primary pedestrian fence would contribute significantly to their priority homeland security mission. The

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need for the proposed action is to meet USBP operational requirements; provide a safer environment for USBP agents, NPS staff, and general public; deter IAs by constructing an impediment to northward movement into the U.S.; enhance the response time of USBP agents; and meet the mandates of Federal legislation (i.e., Secure Fence Act of 2006 and 2007 Department of Homeland Security [DHS] Appropriations Act [HR 5441]).

ALTERNATIVES: Two alternatives were carried forward for analysis: Alternative 1: No Action Alternative and Alternative 2: Proposed Action Alternative (i.e., Preferred Alternative).

Alternative 1: No Action Alternative: The No Action Alternative would preclude the installation of primary pedestrian fence. The existing PVBs would continue to be maintained by NPS. The No Action Alternative does not meet the project's purpose and need, but has been carried forward for analysis, as defined in 40 Code of Federal Regulations (CFR) Section 1502.14. The No Action Alternative does not meet the mandates of Federal legislation and does not enhance the detection, deterrence, or apprehensions of IAs.

Alternative 2: Proposed Action Alternative: The Proposed Action Alternative includes the construction and maintenance of 5.2 miles of primary pedestrian fence along the U.S.-Mexico border near Lukeville, Arizona. The project corridor would extend 2.1 miles to the west and 3.1 miles to the east of the Lukeville POE. Approximately 5.2 miles of primary pedestrian fence would be constructed. Construction activities would remain within the 60-foot Roosevelt Reservation with the exception of the western most 0.65 miles. The western most 0.65 miles, which would be built over Sonoyta Hill, requires a construction footprint of 150 feet. The primary pedestrian fence would be installed approximately 3 feet north of the existing PVBs with the exception of the western most 0.65 miles over Sonoyta Hill. Due to the lack of PVBs over Sonoyta Hill the fence would be constructed approximately 3 feet north of the U.S.-Mexico border within these 0.65 miles. A mesh fence design would be used and would meet design performance measures which dictate that the fence must:

- extend 15 feet above ground and 3 to 6 feet below ground;
- be capable of withstanding a crash of a 10,000-pound (gross weight) vehicle traveling at 40 miles per hour;
- be semi-transparent, as dictated by operational need;
- be vandal resistant;
- be designed to survive the extreme climate changes of a desert environment;
- not impede the natural flow of water; and
- allow for maintenance access to border monuments as required by the U.S. Section, International Boundary and Water Commission.

Furthermore, in most washes or arroyos, the fence would be designed and constructed to ensure proper conveyance of floodwaters and to eliminate the potential to cause backwater flooding on

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either side of the U.S.-Mexico border. CBP will remove debris from the fence within washes/arroyos immediately after rain events to ensure that no backwater flooding occurs.

Staging areas and turnarounds would be located within the Roosevelt Reservation. Construction access would include the use of the existing patrol road adjacent to the U.S.-Mexico border as well as South Puerto Blanco Road in order to construct the primary pedestrian fence and road over Sonoyta Hill. Additionally, the road, existing PVBs, and primary pedestrian fence would be maintained by CBP to ensure the integrity of the road and primary pedestrian fence is not compromised.

ENVIRONMENTAL CONSEQUENCES: The Proposed Action Alternative could permanently impact up to 45 acres. However, approximately 17 acres of the project corridor are previously disturbed from the construction of the existing PVBs. Impacts to wildlife, unique and sensitive areas, vegetation, and aesthetics would be expected. Wildlife movement across the international boundary would be impeded within the corridor, but these impacts would be minimal to local and regional wildlife populations. The viewshed of the OPCNM would be impacted by the construction of the pedestrian fence; however, once completed, the fence would afford greater safety to park visitors and sensitive resources. Temporary impacts to air quality, noise, and water resources are expected during construction.

CBP has determined that the Proposed Action Alternative may adversely affect the lesser long-nosed bat and Sonoran pronghorn. Consequently, CPB and the USFWS are currently in formal Section 7 consultation to address these effects and identify conservation measures. Some conservation measures for the pronghorn that have been identified and would be implemented include:

1. During construction USBP will conduct daily observations of project region as close to dawn as possible to determine if Sonoran pronghorn are within 0.62 mile of project activities. No project work will begin until pronghorn move on their own volition to a distance greater than 0.62 mile from the activities. This measure would be relevant for those activities only on the western slope of Sonoyta Hill, where there is a greater potential for pronghorn to occur.
2. The number of vehicles traveling to and from the project site for construction purposes and the number of trips per day will be minimized to reduce the likelihood of disturbing pronghorn in the area or injuring an animal on the road. The use of vehicle convoys, multi-passenger vehicles, and other methods are appropriate to project construction.
3. CBP will provide assistance to annually fill one supplemental water for Sonoran pronghorn on OPCNM per the CBP programmatic mitigation agreement with USFWS.

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Examples of other conservation measures that have been identified and would be implemented to offset effects to the lesser long-nosed bat include the following:

1. Clearly demarcate the construction footprint to ensure construction contractors do not expand the disturbance area.
2. Salvage of lesser-long nosed bat food plants from areas to be disturbed by project activities as described in the salvage plan.
3. Complete a restoration plan for various illegal trails and roads to compensate for creation or improvement of roads needed for the fence project (in addition to other concerns, this will address the control of non-native, invasive plant species) within six months of issuance of the Biological Opinion.

The potential exists for shifts in illegal pedestrian traffic to adversely impact resources outside of the project corridor; however, these impacts are not quantifiable at this time because it is unknown if, when, or where this shift in traffic may occur. Because the primary pedestrian fence would act as a force multiplier, USBP would be able to deploy agents to those areas that lack pedestrian barriers in an effort to minimize any indirect adverse impacts. Indirect beneficial impacts, such as a reduced amount of trash and debris caused by IAs, would result from the construction of the Proposed Action Alternative.

No significant adverse effects to the natural or human environment, as defined in 40 CFR Section 1508.27 of the Council on Environmental Quality's Regulations for Implementing the National Environmental Policy Act, are expected upon implementation of the Proposed Action Alternative.

MITIGATION MEASURES: Mitigation measures are presented for each resource category that would be potentially affected. Many of these measures have been incorporated as standard operating procedures by the USBP on past projects. It is USBP policy to mitigate adverse impacts through the sequence of avoidance, minimization, and compensation. These mitigation measures would be incorporated into the current Project Management Plan to be carried forward.

General Construction Activities: Best Management Practices (BMPs) would be implemented as standard operating procedures during all construction activities, and would include proper handling, storage, and/or disposal of hazardous and/or regulated materials. To minimize potential impacts from hazardous and regulated materials, all fuels, waste oils and solvents would be collected and stored in tanks or drums within a secondary containment system that consists of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein. The refueling of machinery would be completed following accepted industry guidelines, and all vehicles could have drip pans during storage to contain minor spills and drips. Although it will be unlikely for a major spill to occur, any spill of reportable quantities would be contained immediately within an earthen dike, and the application of an absorbent (e.g., granular,

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pillow, sock, *etc.*) would be used to absorb and contain the spill. Furthermore, any petroleum liquids (e.g., fuel) or material listed in 40 Code of Federal Register (CFR) 302 Table 302.4 of a reportable quantity must be cleaned up and reported to the appropriate Federal and state agencies. Reportable quantities of those substances listed on 40 CFR 302 Table 302.4 would be included as part of the Spill Prevention, Control, and Countermeasures Plan (SPCCP). A SPCCP would be in place prior to the start of construction and all personnel would be briefed on the implementation and responsibilities of this plan.

All construction would follow DHS management directive 5100 for waste management. All waste oil and solvents would be recycled. All non-recyclable hazardous and regulated wastes would be collected, characterized, labeled, stored, transported and disposed of in accordance with all Federal, state, and local regulations, including proper waste manifesting procedures.

Solid waste receptacles would be maintained at staging and bivouac areas. Non-hazardous solid waste (trash and waste construction materials) would be collected and deposited in the on-site receptacles. Solid waste would be collected and disposed of by a local waste disposal contractor. Waste materials and other discarded materials would be removed from the site as quickly as possible in an effort to keep the project area and surroundings free of litter.

Waste water (water used for project purposes that is contaminated with construction materials, was used for cleaning equipment and thus carries oils or other toxic materials or other contaminants in accordance with state regulations) is to be stored in closed containers on site until removed for disposal. Concrete wash water would not be dumped on the ground, but is to be collected and moved offsite for disposal.

Soils: Erosion control techniques, such as the use of straw bales (weed free straw), aggregate materials, wetting compounds (i.e., water) and revegetation with native plant species, where possible, would be incorporated with the design of the Proposed Action Alternative. In addition, other erosion control measures, as required and promulgated through the Storm Water Pollution Prevention Plan (SWPPP), would be implemented before and after construction activities.

Biological Resources: All contractors, work crews (including National Guard and military personnel), and CBP personnel in the field performing construction and maintenance activities would receive training on the habitat and habits of the species that are found in the area, including information on how to avoid impacts to the species from their activities. This training would be provided to all contractor and work crew project managers and senior military leaders who are working onsite. It would be the responsibility of these project managers and senior military leaders to ensure that their personnel are familiar with the BMPs and other limitations and constraints.

The Migratory Bird Treaty Act requires that Federal agencies coordinate with U.S. Fish and Wildlife Service (USFWS) if a construction activity would result in the "take" of a migratory bird.

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If construction or clearing activities are scheduled during the nesting season (typically March 15 through September 15) preconstruction surveys for migratory bird species would occur immediately prior to the start of any construction activity to identify active nests. If construction activities would result in the "take" of a migratory bird, then coordination with USFWS and Arizona Game and Fish Department would occur, and applicable permits would be obtained prior to construction or clearing activities.

Although no Sonoran desert tortoises or Mexican rosy boas were observed during biological surveys the potential exists for these species to occur in and near Sonoyta Hill. In the event a tortoise or boa is observed within the construction corridor during construction activities, a qualified biologist would capture and relocate the individual to an area outside of the corridor but still on Sonoyta Hill.

CBP would truck water into the project site for purposes of construction to ensure that no impacts to flora or fauna near and within Quitobaquito Springs would occur.

A salvage plan would be developed by the CBP, in close coordination with NPS, prior to construction activities. CBP will salvage as many columnar cacti as possible. CBP will develop and fund a restoration plan, in coordination with the NPS to restore illegal trails and roads on OPCNM. This will enhance bat foraging opportunities.

Materials used for on-site erosion control would be free of non-native plant seeds and other plant parts to limit potential for infestation. Additionally, all areas within the construction footprint would be monitored for a period of three years for the spread and eradication of non-native and invasive species. Construction equipment would be cleaned using BMPs prior to entering and departing the OPCNM to minimize the spread and establishment of non-native and invasive species.

Cultural Resources: Construction near the Gachado Line Camp would be monitored by a professional archeological monitor to ensure no impacts would occur. Buffers would be established around the three historic objects that lie within the proposed construction corridor in order to avoid any adverse effects to these significant cultural resources. If any cultural material is discovered during the construction efforts, then all activities would halt until a qualified archeologist can be brought in to assess the cultural remains.

Water Resources: Standard construction procedures would be implemented to minimize the potential for erosion and sedimentation during construction. All work would cease during heavy rains and would not resume until conditions are suitable for the movement of equipment and material. In accordance with regulations of the Environmental Protection Agency Phase II of the National Pollutant Discharge Elimination System stormwater program, a SWPPP would be required for stormwater runoff from construction activities greater than 1 acre and less than 5 acres. Therefore, a SWPPP would be prepared and the Notice of Intent submitted prior to the start

**FINDING OF NO SIGNIFICANT IMPACT
FOR THE PROPOSED INSTALLATION, OPERATION, AND
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TUCSON SECTOR**

of any construction. Equipment required for the construction activities would not be staged or stored within 100 feet of any wash to prevent any contamination from accidental petroleum, oil, or lubricant spills that could occur. Primary pedestrian fence constructed in washes/arroyos would be designed to ensure proper conveyance of floodwaters and to eliminate the potential to cause backwater flooding on either side of the U.S.-Mexico border. Immediately after rain events, CBP would be responsible for ensuring that debris is removed from the primary pedestrian fence within washes/arroyos to ensure that no backwater flooding occurs. Additionally, all concrete trucks would be washed and cleaned outside of the project corridor and OPCNM lands.

Air Quality: Standard construction practices such as routine watering of the construction site would be used to control fugitive dust during the construction phases of the proposed project. Additionally, all construction equipment and vehicles would be required to be kept in good operating condition to minimize exhaust emissions.

Noise: During the construction phase, short-term noise impacts are anticipated. All Occupational Safety and Health Administration requirements would be followed. On-site activities would be restricted to daylight hours with the exception of concrete pours and emergency situations. Construction equipment would possess properly working mufflers and would be kept properly tuned to reduce backfires. Implementation of these measures would reduce the expected short-term noise impacts to an insignificant level in and around the construction site.

Aesthetics: In order to minimize potential aesthetic impacts over Sonoyta Hill, CBP would use subdued and non-reflective materials to build the primary pedestrian fence. These materials are expected to blend with the landscape as it naturally rusts.

**FINDING OF NO SIGNIFICANT IMPACT
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MAINTENANCE OF PRIMARY PEDESTRIAN FENCE
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TUCSON SECTOR**

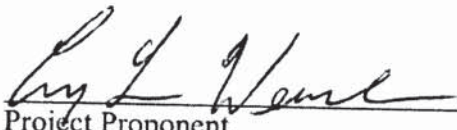
FINDING: Based upon the results of the environmental assessment and the mitigation measures to be incorporated as part of the Proposed Action Alternative, it has been concluded that the Proposed Action Alternative will not have a significant effect on the environment. Therefore, no further environmental impact analysis is warranted.



Robert F. Janson
Office of Finance Management
Acting Executive Director, Asset Management
U.S. Customs and Border Protection

2/13/08

Date



Project Proponent
Assistant Chief Patrol Agent, Craig Weinbrenner
Office of Border Patrol
Tucson Sector Headquarters

1/30/08

Date

Final

**ENVIRONMENTAL ASSESSMENT
FOR THE PROPOSED INSTALLATION, OPERATION, AND
MAINTENANCE OF PRIMARY PEDESTRIAN FENCE
NEAR LUKEVILLE, ARIZONA
U.S. BORDER PATROL
TUCSON SECTOR**

January 2008

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EXECUTIVE SUMMARY

BACKGROUND: National Park Service (NPS) issued a Finding of No Significant Impact (FONSI) and Final Environmental Assessment (EA) for the Proposed Permanent Vehicle Barriers (PVB) in 2003, which addressed the construction of PVBs across the southern boundary of the Organ Pipe Cactus National Monument (OPCNM) in Pima County, Arizona. The PVBs span approximately 30 miles of the United States (U.S.) – Mexico border. The PVBs constructed by the NPS have served effectively and efficiently in deterring and hindering illegal vehicle traffic on the OPCNM.

PURPOSE AND NEED FOR THE PROPOSED PROJECT: The purpose of the proposed primary pedestrian fence is to help U.S. Customs and Border Protection (CBP) agents and officers gain effective control of our nation's borders. CBP is developing and deploying the appropriate mix of technology, infrastructure, and personnel. In some locations, primary pedestrian fence is a critical element of border security. In alignment with Federal mandates, U.S. Border Patrol (USBP) has identified this area of the border as a location where primary pedestrian fence would contribute significantly to their homeland security mission. The need for the proposed action is to meet USBP operational requirements; provide a safer environment for USBP agents, NPS staff, and general public; deter illegal aliens (IAs) by constructing an impediment to northward movement into the U.S.; enhance the response time of USBP agents; and meet the mandates of Federal legislation (i.e., Secure Fence Act of 2006 and 2007 Department of Homeland Security [DHS] Appropriations Act [HR 5441]).

PROPOSED ACTION: The Proposed Action Alternative includes the construction and maintenance of 5.2 miles of primary pedestrian fence along the U.S.-Mexico border near Lukeville, Arizona. Approximately 3.1 miles and 2.1 miles of primary pedestrian fence would be installed on the east and west sides of the Lukeville POE, respectively. The primary pedestrian fence would be constructed approximately 3 feet north of the existing PVBs with the exception of 0.65 miles over Sonoyta Hill. Construction activities would remain within the 60-foot Roosevelt Reservation with the exception of the western most 0.65 miles. The western most 0.65 miles, which would be built over Sonoyta Hill, requires a construction footprint of 150 feet and the fence would be built approximately 3 feet north of the U.S.-Mexico border due to no PVBs existing over Sonoyta Hill.

The design selected for the primary pedestrian fence is a mesh design. It would be 15 feet high and capable of withstanding a crash from a 10,000-pound (gross weight) vehicle traveling at 40 miles per hour. Currently, an existing patrol road parallels most of the border in the project corridor, which would also be used for access during construction of the primary pedestrian fence and as a maintenance road when construction is completed. However, this road would

need to be widened by approximately 30 feet to accommodate construction equipment needed to install the fence. This construction/maintenance road would encompass the entire 60-foot wide Roosevelt Reservation once completed. In addition, a new road would need to be constructed in order to install the primary pedestrian fence over Sonoyta Hill; this new road would be in the westernmost 0.65 mile of the project corridor. CBP will be responsible for maintaining the road, existing PVBs, and primary pedestrian fence.

**ALTERNATIVES TO
THE PROPOSED
ACTION:**

Alternatives addressed in the EA include: Alternative 1: No Action Alternative, which would preclude the construction of any primary pedestrian fence, and Alternative 2: Proposed Action Alternative (i.e., Preferred Alternative). The No Action Alternative would not fully meet the mandate established by Federal legislation and only incrementally enhances the detection, deterrence and apprehension of IAs.

**ENVIRONMENTAL
IMPACTS OF THE
PROPOSED
ACTION:**

The Proposed Action Alternative would potentially result in permanent impacts of up to 45 acres. However, approximately 17 acres of the project corridor have been previously disturbed from the construction of the existing PVBs. Direct impacts to vegetation, wildlife, unique and sensitive areas, and aesthetics would be expected. Wildlife movement across the international boundary would be impeded within the corridor, but these impacts would be minimal to local or regional wildlife population. The viewshed of the OPCNM would be impacted by the construction of the primary pedestrian fence; however, once completed, the primary pedestrian fence would afford greater safety to park visitors and sensitive resources. Additionally, mitigation measures would be implemented (i.e., using subdued and non-reflective materials) to ensure impacts to aesthetics would not be considered significant. No significant impacts on any human or natural resources either locally or regionally would be expected upon implementation of the Proposed Action Alternative.

CONCLUSIONS:

Based upon the results of this EA, it has been concluded that the Proposed Action Alternative would not have a significant adverse effect on the environment, and no additional National Environmental Policy Act documentation is warranted.

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SECTION 1.0
INTRODUCTION AND PURPOSE AND NEED



1.0 INTRODUCTION AND PURPOSE AND NEED

1.1 INTRODUCTION

This Environmental Assessment (EA) addresses the potential effects, beneficial and adverse, of the proposed installation of 5.2 miles of primary pedestrian fence near Lukeville, Arizona. The action is proposed by United States (U.S.) Border Patrol (USBP) Tucson Sector and would occur in the Ajo Station's Area of Operation (AO). This EA is tiered from the 2001 Supplemental Programmatic Environmental Impact Statement (SPEIS) for Immigration and Naturalization Service (INS) and Joint Task Force 6 (JTF-6) Activities along the U.S.-Mexico Border (INS 2001). The SPEIS was developed in an attempt to provide the public with USBP's assessment of impacts as they relate to potential future infrastructure projects. Mentioned in the SPEIS is the potential to construct fence, roads, and other infrastructure along the U.S.-Mexico border including Arizona. In addition, information was gleaned from and incorporated by reference from the National Park Service (NPS), Organ Pipe Cactus National Monument (OPCNM) Finding of No Significant Impact (FONSI) and Final EA for the Proposed Permanent Vehicle Barriers (PVB) December 2003 (NPS 2003). The OPCNM Final EA addressed the proposed construction of approximately 30 miles of PVB along OPCNM's U.S.-Mexico border.

This EA was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality (CEQ) Regulations implementing NEPA (Title 40 of the U.S. Code of Federal Regulations [CFR], Parts 1500-1508), and Department of Homeland Security (DHS) Management Directive 5100.1, which is the Environmental Planning Program Directive that outlines DHS's procedures for the implementation of NEPA.

1.2 HISTORY AND BACKGROUND

1.2.1 CBP History

In 1924, Congress created USBP to serve as the law enforcement entity of INS, which it did until November 25, 2002. With the passage of the Homeland Security Act of 2002 (Public Law 107-296), DHS was established to reorganize Federal law enforcement and border protection agencies into a single department. USBP was officially transferred into the Office of Border Patrol, under DHS, U.S. Customs and Border Protection (CBP), on March 1, 2003.

1.2.2 CBP Strategic Intent and Priorities

The priority mission of CBP is to prevent terrorists and terrorist weapons from entering the U.S. This priority mission involves maintaining a diverse, multi-layered approach, which includes improving security at the international borders and ports of entry (POE). It also extends the physical zone of security beyond the Nation's physical borders so that U.S. borders are the last line of defense, not the first (CBP 2003). As part of this mission, CBP has implemented its *Comprehensive Strategy to Address the Threat of Nuclear and Radiological Terrorism* to identify and seize terrorists' assets and funding sources and enhance the support infrastructure to further develop targets and analyses.

In addition to carrying out its priority mission, CBP must fulfill its traditional missions including:

- controlling the sovereign borders of the U.S. by apprehending individuals attempting to enter the U.S. illegally;
- stemming the flow of illegal drugs and other contraband;
- protecting the Nation's agriculture and economic interest from harmful pests and diseases;
- facilitating international trade;
- collecting import duties; and
- enforcing U.S. trade, immigration and other laws of the U.S. at and beyond the Nation's borders (CBP 2003).

Hereinafter, any individual, including terrorists and smugglers, who attempt to illegally enter the U.S. between POEs is referred to as an illegal alien (IA).

The mission of USBP is to strengthen the U.S. borders to prevent the entry of IAs, terrorist weapons, narcotics and other contraband. The principle objective of USBP is to apply appropriate levels of USBP personnel, intelligence, technology, and infrastructure resources to increase the level of operational effectiveness until the likelihood of apprehension is sufficient to be an effective deterrent that conveys an absolute certainty of detection and apprehension.

During recent years, USBP has significantly increased its emphasis on deterrence. Deterrence is achieved only when USBP has the ability to create and convey the immediate, credible, and absolute certainty of detection and apprehension. As such, tactical infrastructure components, such as pedestrian barriers and roads are a critical element. Trends such as the continued urbanization and industrialization of the immediate border, the recognition of environmental

preservation concerns, and the increase of criminal trans-boundary activities (including trafficking in people, drugs, and terrorism efforts) continue as a border enforcement challenge and increase the need for tactical infrastructure along the international borders.

1.2.3 Background

NPS issued a Final EA and FONSI in 2003, which addressed the construction of PVBs along the southern boundary of OPCNM (NPS 2003). The PVBs extend across the entire southern boundary of OPCNM along the U.S.-Mexico border except over Sonoyta Hill. All of the construction activities completed while building the PVBs were located within the 60-foot Roosevelt Reservation. To date, the entire 30 miles of planned PVBs have been completed by NPS. The PVBs constructed by NPS have served effectively and efficiently in deterring and hindering illegal vehicle traffic on OPCNM; however, PVBs do not deter pedestrian traffic.

1.3 LOCATION OF THE PROPOSED PROJECT

The general location of the proposed project was previously discussed in the December 2003 Final EA (NPS 2003) and is incorporated herein by reference. The project corridor is located along the U.S.-Mexico border near Lukeville, Arizona (Figure 1-1).

1.4 PURPOSE AND NEED

The purpose and need for the NPS 2003 Final EA was to prevent illegal vehicle traffic from degrading the biological resources of OPCNM as well as to protect the health and safety of Federal staff and visitors. The construction of the PVBs met the stated purpose and need of the NPS 2003 Final EA. However, since the completion of the NPS 2003 Final EA, shifts in IA traffic and recent Federal legislation has required changes in the designs of border tactical infrastructure. The purpose of the proposed primary pedestrian fence is to help CBP agents and officers gain effective control of our nation's borders.



Figure 1-1: Vicinity Map



August 2007

CBP is developing and deploying the appropriate mix of technology, infrastructure, and personnel. In some locations, primary pedestrian fence is a critical element of border security. In alignment with Federal mandates USBP has identified this area of the border as a location where primary pedestrian fence would contribute significantly to their priority homeland security mission. The need for the proposed action is to meet USBP operational requirements; provide a safer environment for USBP agents, NPS staff, and general public; deter IAs by constructing an impediment to northward movement into the U.S.; enhance the response time of USBP agents; and meet the mandates of Federal legislation (i.e., Secure Fence Act of 2006 and 2007 Department of Homeland Security [DHS] Appropriations Act [HR 5441]).

1.5 APPLICABLE ENVIRONMENTAL STATUTES AND REGULATIONS

The applicable environmental statutes and regulations for this EA are similar to those of the December 2003 Final EA (NPS 2003) and are hereby incorporated by reference. In summary, this EA was prepared in accordance with, but not limited to the NEPA of 1969; Endangered Species Act (ESA) of 1973, as amended; the National Historic Preservation Act (NHPA) of 1966, as amended; and the Archeological and Historical Preservation Act of 1974, as amended. In addition to these environmental statutes and regulations this EA is guided by Federal legislation, DHS's Management Directive 5100.1, Clean Air Act (CAA), Clean Water Act (CWA), Noise Control Act, Resource Conservation and Recovery Act, and Toxic Substances Control Act. Executive Orders (E.O.) bearing on the proposed action include E.O. 11988 (*Floodplain Management*), E.O. 11990 (*Protection of Wetlands*), E.O. 12088 (*Federal Compliance with Pollution Control Standards*), E.O. 12580 (*Superfund Implementation*), E.O. 12898 (*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*), E.O. 13045 (*Protection of Children from Environmental Health Risks and Safety Risks*), E.O. 13101 (*Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition*), E.O. 13123 (*Greening the Government Through Efficient Energy Management*), E.O. 13148 (*Greening the Government Through Leadership in Environmental Management*), E.O. 13175 (*Consultation and Coordination with Indian Tribal Governments*), and E.O. 13186 (*Responsibilities of Federal Agencies to Protect Migratory Birds*).

1.6 REPORT ORGANIZATION

This report is organized into 10 major sections including this introduction. Section 2.0 describes all alternatives considered for the project. Section 3.0 discusses the environmental features potentially affected by the project, while Section 4.0 discusses the environmental consequences for each of the viable alternatives. Cumulative impacts are discussed in Section 5.0, mitigation measures are discussed in Section 6.0, and public comments and the notice of Availability (NOA) are presented in Section 7.0. Sections 8.0, 9.0, and 10.0 present a list of the references cited in the document, a list of acronyms and abbreviations, and a list of the persons involved in the preparation of this document. Appendix A contains the March 2006 Memorandum of Understanding while Appendix B is a list of state and Federal protected species for Pima County. Appendix C contains correspondence that was sent and received during the preparation of this EA. Appendix D contains the air quality calculations for the Proposed Action Alternative.

SECTION 2.0
ALTERNATIVES

2.0 ALTERNATIVES

Three alternatives were identified and considered during the planning stages of the proposed project: No Action Alternative, Proposed Action Alternative, and Technology in Lieu of Tactical Infrastructure Alternative. The Proposed Action Alternative and Preferred Action Alternative are synonymous terms; however, for the purposes of this EA they will be referred to as the Proposed Action Alternative. The following paragraphs describe the alternatives considered.

2.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, no construction activities would occur. The existing PVBs would continue to be maintained by NPS. The No Action Alternative does not meet the project's purpose and need, but has been carried forward for analysis, as required by CEQ regulations. The No Action Alternative will form the basis for evaluation of other action alternatives.

2.2 PROPOSED ACTION ALTERNATIVE

Primary pedestrian fencing has proved invaluable in denying quick access to concealment and escape opportunities for IAs inside the U.S. It performs a dual role in border security by acting as a visual deterrent and a formidable physical barrier, impeding IAs and increasing the window of time USBP agents have to respond to IAs attempting to breach the U.S.-Mexico border. The Proposed Action Alternative includes the construction and maintenance 5.2 miles of primary pedestrian fence along the U.S.-Mexico border near Lukeville, Arizona (Figure 2-1). The project corridor would extend 2.1 miles to the west and 3.1 miles to the east of the Lukeville POE. Approximately 5.2 miles of primary pedestrian fence would be constructed. Construction activities would remain within the 60-foot Roosevelt Reservation with the exception of the westernmost 0.65 miles. The westernmost 0.65 miles, which would be built over Sonoyta Hill, requires a construction footprint of 150 feet.

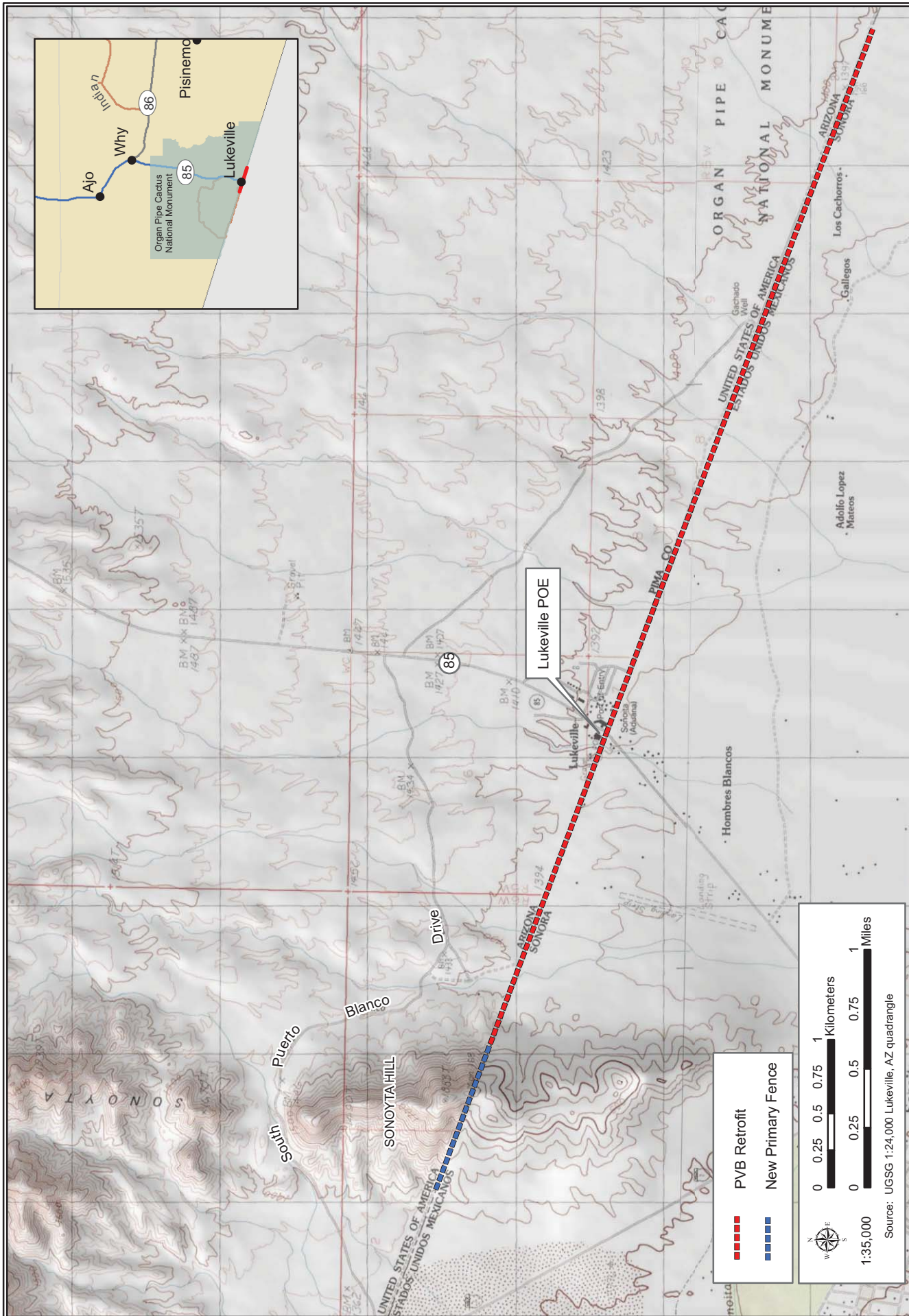
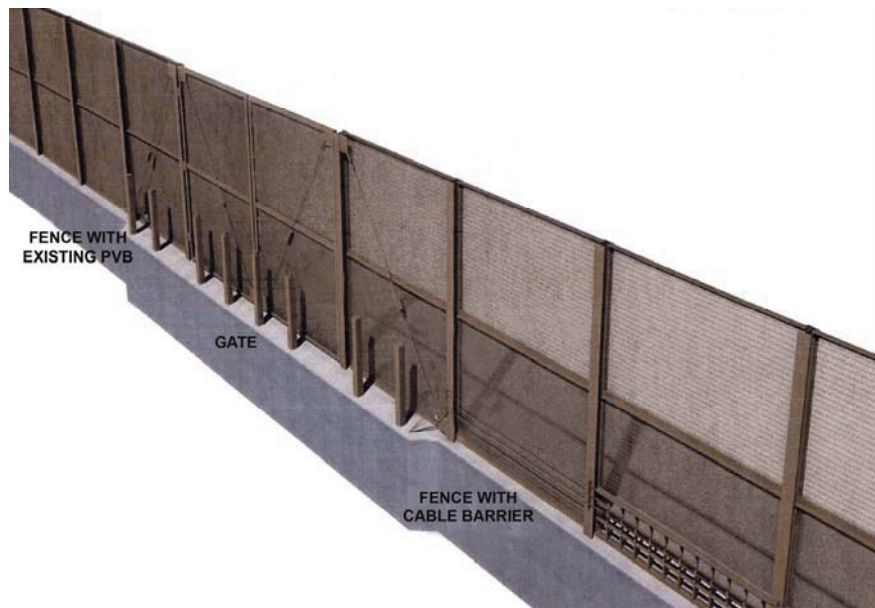


Figure 2-1: Proposed Action Alternative

The primary pedestrian fence would be installed approximately 3 feet north of the existing PVBs with the exception of the Sonoyta Hill portion. Due to the lack of PVBs in this area, the fence would be constructed approximately 3 feet north of the U.S.-Mexico border. An example of the mesh fence design is shown in Exhibit 2-1. This design would be used and would meet design performance measures, which dictate that the fence must:

- extend 15 to 18 feet above ground and 3 to 6 feet below ground;
- be capable of withstanding a crash of a 10,000-pound (gross weight) vehicle traveling at 40 miles per hour;
- be semi-transparent, as dictated by operational need;
- be vandal resistant;
- be designed to survive the extreme climate changes of a desert environment;
- not impede the natural flow of water; and
- allow for maintenance access to border monuments as required by the U.S. Section, International Boundary and Water Commission.

Exhibit 2-1. Example of Mesh Fence Design



Furthermore, in most washes or arroyos, the primary pedestrian fence would be designed and constructed to ensure proper conveyance of floodwaters and to eliminate the potential to cause backwater flooding on either side of the U.S.-Mexico border. CBP will remove debris from the

fence within washes/arroyos immediately after rain events to ensure that no backwater flooding occurs.

Staging areas and turnarounds would be located within the Roosevelt Reservation. Construction access would include the use of the existing patrol road adjacent to the U.S.-Mexico border as well as South Puerto Blanco Road in order to construct the primary pedestrian fence and road up and over Sonoyta Hill. Additionally, the road, existing PVBs, and primary pedestrian fence would be maintained by CBP to ensure the integrity of the road, PVBs, and primary pedestrian fence is not compromised.

2.3 OTHER ALTERNATIVES EVALUATED BUT ELIMINATED FROM CONSIDERATION

One other alternative was evaluated but eliminated from further consideration due to impediments to construction or failure to meet the purpose and need for the project. This alternative is discussed in the following subsection.

2.3.1 Technology in Lieu of Tactical Infrastructure

Under this alternative, USBP would use radar, cameras, lights, and other technology to identify illegal border crossings. The use of technology is a critical component of *SBI_{net}* and an effective force multiplier that allows USBP to monitor large areas and deploy agents to where they will be most effective. However, in the more populated areas within the Tucson Sector, physical barriers represent the most effective means to control illegal entry into the U.S. The use of technology alone would not provide a practical solution to achieving effective control of the border in USBP Tucson Sector. Therefore, this alternative would not meet the purpose and need as described in Section 1.4 and will not be carried forward for further analysis.

2.4 CONSTRUCTION PERSONNEL AND EQUIPMENT

Private contractors would complete the proposed construction and installation of the infrastructure components. All project personnel will not exceed a speed limit of 25 miles per hour within the OPCNM during construction and maintenance related activities. The project is expected to be completed by December 2008. Equipment staging would be located within previously disturbed areas to minimize potential effects to the environment. The equipment

anticipated to be used during the construction includes a backhoe, trencher, auger, crane, bulldozer, front-end loader, flatbed truck, water truck and roller/compactor.

2.5 SUMMARY

The two alternatives carried forward for analysis are the No Action Alternative and Proposed Action Alternative. An alternative matrix (Table 2-1) compares the two alternatives relative to the purpose and need. Table 2-2 presents a summary matrix of the impacts from the three alternatives analyzed and how they affect the environmental resources in the region.

Table 2-1. Relationship between Purpose and Need and Project

Requirements	Alternative 1: No Action Alternative	Alternative 2: Proposed Action Alternative
Provide a safer work environment for the USBP agents	PARTIALLY	YES
Deter illegal pedestrian traffic by constructing an impediment to northward movement	NO	YES
Satisfy Federal legislation	NO	YES

Table 2-2. Summary Matrix

Affected Environment	No Action Alternative	Proposed Action Alternative
Land Use	No impacts are expected.	Approximately 7 acres (0.65 mile X 90 feet) of NPS lands over Sonoyta Hill would be used as USBP infrastructure. The lands would remain as NPS lands; however, USBP would be allowed use of the 7 acres as articulated through a Special Use Permit. The remainder of the project corridor is within the Roosevelt Reservation; therefore, land use would not change in these areas. No significant impacts are expected as the indirect beneficial impacts would greatly outweigh the minor direct impacts. No significant impacts are expected as the indirect beneficial impacts would greatly outweigh the minor direct impacts.
Soils	No impacts are expected.	Up to 45 acres of soils could be permanently impacted. No prime farmlands would be impacted. Indirect impacts could occur to areas outside the project corridor. No significant impacts would occur as a result of the Proposed Action Alternative.
Vegetation	No impacts are expected.	Up to 28 acres of vegetation would be permanently altered. The remaining 17 acres of the total footprint of the project corridor are previously disturbed. The 28 acres that would be affected are comprised of vegetation communities that are regionally and locally common. Thus, no significant impacts would be expected. Indirect impacts could occur to areas outside the project corridor.
Wildlife	No impacts are expected.	If implemented, approximately 45 acres of wildlife habitat could be impacted; however, approximately 17 acres within the project corridor is previously disturbed from the construction of the existing PVBs. Therefore, no significant impacts are expected. Wildlife movement across the international boundary would be impeded within the corridor; however, these impacts would be minimal to wildlife, locally or regionally. Indirect impacts could occur to areas outside the project corridor.
Unique and Sensitive Areas	No impacts are expected.	The project footprint is primarily located within the Roosevelt Reservation. The viewshed of the OPCNM would be impacted by the construction of the primary pedestrian fence; however, once completed, the primary pedestrian fence will afford greater safety to park visitors and sensitive resources. Indirect impacts could occur as construction is ongoing or by IAs outside of the corridor if they try to circumvent the proposed infrastructure.
Wilderness	No impacts are expected	No direct impacts are expected. Indirect impacts could occur if IAs attempt to circumvent the proposed infrastructure. USBP would use the primary pedestrian fence as a force multiplier, which would all USBP to deploy agents to areas lacking infrastructure, thus, minimizing any indirect impacts.

Table 2-2. continued

Affected Environment	No Action Alternative	Proposed Action Alternative
Protected Species	No impacts are expected.	Although approximately 17 acres of the total project footprint (45 acres) have been previously disturbed due to the construction of the existing PVBs, food sources (columnar cacti) for the lesser long-nosed bat (<i>Leptonycteris curasoae yerbabuena</i>) and habitat for the Sonoran pronghorn (<i>Antilocapra americana sonoriensis</i>) would be impacted. The Proposed Action Alternative may affect and is likely to adversely affect these two species. Section 7 consultation is on-going with the U.S. Fish and Wildlife Service (USFWS); conservation measures have been identified and would be implemented to off-set impacts to the bat and pronghorn. Indirect impacts could occur to habitat or species outside of the corridor if IAs attempt to circumvent the proposed infrastructure.
Cultural Resources	No impacts are expected.	No cultural resources would be impacted either directly or indirectly.
Air Quality	No impacts are expected.	Pima County is in attainment for all criteria pollutants. Minor, temporary impacts would occur during construction but would cease upon completion of the Proposed Action Alternative.
Water Resources	No impacts are expected.	Up to 11.4 acre-feet of groundwater would be used for dust suppression and mixing concrete. All water will be trucked into the project site from sources north of the OPCNM (i.e., Why, Ajo, or Gila Bend). No deficit would occur to the region's available groundwater sources; therefore, no significant impacts to water resources would occur.
Socioeconomics	No impacts are expected.	Minor, temporary impacts could occur. Indirect beneficial impacts would occur within the region due to the reduction of IA foot traffic and the associated societal cost.
Noise	No impacts are expected.	The project corridor is located adjacent to the busy Lukeville POE; therefore, the impacts would be minimal and temporary. No significant impacts to ambient noise levels would occur.
Aesthetics	No impacts are expected.	The project footprint is located within or adjacent to previously disturbed areas. The visibility of the primary pedestrian fence from within the OPCNM would have minimal adverse impacts; however, the beneficial impacts from the reduction of IAs and associated trash would be expected to outweigh any adverse impacts. No significant impacts would occur. Indirect impacts could occur outside of the project corridor.

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SECTION 3.0
AFFECTED ENVIRONMENT



3.0 AFFECTED ENVIRONMENT

In accordance with CEQ regulations (40 CFR § 1502.15), this chapter of the EA describes the baseline environment of the area(s) that would be affected by the viable alternatives under consideration. Data and analyses are commensurate with the importance of the impact, with less important material summarized, consolidated, or simply referenced. For those resources that have not changed, or where updates were not required, the discussions presented in the NPS 2003 Final EA are incorporated by reference (NPS 2003). Each of these resources is identified as such.

Resources such as prime farmlands, geology, communications, climate, and Wild and Scenic Rivers would not be impacted by this project and, thus, will not be evaluated in this EA for the following reasons:

- Prime Farmlands: There are no prime or unique farmlands in the project area.
- Geology: The construction activities proposed for this project do not include practices that would alter the geology of the area. These activities would result in negligible and localized effects to geological features, primarily due to the construction of concrete fence foundations and minimal cut and fill activities over Sonoyta Hill.
- Communications: The project would not affect communications systems in the area.
- Climate: The project would not affect nor be affected by the climate.
- Wild and Scenic Rivers: The proposed project would not affect any designated Wild and Scenic Rivers because no rivers designated as such are located within the project corridor.

3.1 LAND USE

This section was discussed in the 2003 Final EA and is incorporated herein by reference (NPS 2003). OPCNM is used for public use and recreation, species conservation, and as an International Biosphere Reserve. However, the project corridor is located within the Roosevelt Reservation along the U.S.-Mexico border. In March 2006, a Memorandum of Understanding (MOU) was established between DHS, U.S. Department of the Interior, and U.S. Department of Agriculture stating that all parties recognize that CBP operation and construction within the Roosevelt Reservation is the intended land use of the reservation (see Appendix A). Thus, land use within the majority of the project corridor is USBP infrastructure and operations. The

construction footprint over Sonoyta Hill and the use of South Puerto Blanco Road are north of the 60-foot Roosevelt Reservation and would require the issuance of a Special Use Permit by the NPS.

3.2 SOILS

Soils found within the project corridor were previously discussed in the 2003 Final EA and are hereby incorporated by reference (NPS 2003). No prime farmlands are located in the project corridor. There are 7 soils series found within the project corridor, as follows:

- Antho fine sandy loam
- Gilman very fine sandy loam, saline
- Gunsight very gravelly loam, 2-15% slopes
- Harqua very gravelly loam, 0-3% slopes
- Harqua-Gunsight complex
- Lomitas very stony loam, 8-40% slopes
- Torrifluvents (wash beds)

3.3 BIOLOGICAL RESOURCES

3.3.1 Vegetation Communities

Vegetation communities within the project corridor were discussed in the 2003 NPS Final EA and are incorporated herein by reference (NPS 2003). In general, the dominant biotic community of OPCNM is the mixed Sonoran desertscrub. This community is predominantly composed of palo verde (*Cercidium* spp.), organ pipe cactus (*Stenocereus thurberi*), saguaro (*Carnegiea gigantea*), ocotillo (*Fouquieria splendens*), Sonora barrel cactus (*Ferocactus covillei*), California barrel cactus (*Ferocactus cylindraceus*), and brittlebush (*Encelia farinosa*) (INS 2001). The creosote-bursage vegetation community is the second most common vegetation community on OPCNM and is comprised of creosotebush (*Larrea tridentata*), white bursage (*Ambrosia dumosa*), and triangle-leaf bursage (*Ambrosia deltoidea*) (NPS 2003). Saltbush (*Atriplex* sp.) is common throughout most of the project corridor, especially east of the Lukeville POE (Baiza 2007).

3.3.2 Wildlife

A detailed discussion of wildlife resources was presented in the 2003 NPS Final EA and is incorporated herein by reference (NPS 2003). In summary, a large diversity of animal species

are known to occur on OPCNM; these species include 55 mammals, 277 bird species, 48 reptiles and amphibians, one fish and two invertebrates. Many of the wildlife species found on OPCNM are obligate desert species; however, the riparian habitat available at Quitobaquito and Aquajita Springs support some aquatic species such as the Sonoran toad (*Bufo alvarius*) and Quitobaquito pupfish (*Cyprinodon macularius*).

3.3.3 Non-Native and Invasive Species

Non-native vegetation was previously discussed in the 2003 Final EA and is incorporated herein by reference (NPS 2003). Although the OPCNM has a minimal amount of non-native or invasive species in relation to the overall habitat area, these species have become a major problem in certain areas. One such area is Quitobaquito Springs. The common non-native species observed on the OPCNM include buffelgrass (*Pennisetum ciliare*), blue panic (*Panicum antidotale*), and ice plants (*Mesembryanthemum* sp.). More specifically, the common non-native plant located in the project corridor is Bermuda grass (*Cynodon dactylon*) (Baiza 2007).

3.4 UNIQUE AND SENSITIVE AREAS

Southwestern Arizona has many unique and sensitive areas. Ongoing efforts by many government agencies, as well as private entities, have set aside areas for preservation. These areas are intended for use by the public in hopes of better understanding the myriad of biological and physical systems exhibited in their natural state. The unique or sensitive areas located within or near the project corridor are discussed below.

Organ Pipe Cactus National Monument

OPCNM was established in 1937 by President Franklin D. Roosevelt to “celebrate the life and landscape of the Sonoran desert” (Desert USA 2004a). In 1976, the United Nations designated OPCNM as an International Biosphere Reserve; it is an almost pristine example of the Sonoran Desert (NPS 2005). In OPCNM, three distinctive desert habitats (i.e., desert wilderness, vast mountain ranges, and plains) converge within 500 square miles, representing diverse plant communities (Desert USA 2004b). OPCNM encompasses approximately 330,000 acres, of which 312,600 acres, or 94 percent, are designated as Wilderness Area (NPS 2004). With 26 species of cacti, OPCNM exhibits an extraordinary collection of plants of the Sonoran desert, including the organ pipe cactus, which is rarely found in the U.S. (NPS 2004). Within the project corridor lies components (i.e., xeroriparian areas and rocky hillsides) that make up the Sonoran Desert

ecosystem for which the OPCNM was set aside to preserve. These components are common throughout the Sonoran Desert, although the concentrations of certain Sonoran Desert species (e.g., organ pipe, senita) are higher within the OPCNM.

Cabeza Prieta National Wildlife Refuge (CPNWR)

CPNWR shares 56 miles of border with Sonora, Mexico, and is home to seven mountain ranges (USFWS 2002, Defenders of Wildlife 2004). CPNWR, established in 1939 to conserve natural wildlife resources (e.g., desert bighorn sheep [*Ovis canadensis mexicana*]), occupies 860,010 acres and is the third largest National Wildlife Refuge in the contiguous 48 states (USFWS 2002, 2005). The Arizona Desert Wilderness Act of 1990 designated over 90 percent (approximately 799,000 acres) of CPNWR as Wilderness Area making it the largest Wilderness Area in the state of Arizona (Arizona Wilderness Coalition 2004). CPNWR supports more than 391 plant species and 300 wildlife species, including the Federally listed Sonoran pronghorn (*Antilocapra americana sonoriensis*) (USFWS 2002). The refuge is characterized by creosote and bursage flats, ocotillo, western honey mesquite (*Prosopis glandulosa*), palo verde, ironwood (*Olneya tesota*), and an abundance of cacti, including cholla (*Opuntia* spp.) and saguaro.

Barry M. Goldwater Range (BMGR)

BMGR, established in 1941 as an aerial gunnery and bombing range, lies to the north and west of the project corridor and CPNWR. BMGR is a 1.7 million acre military tactical aviation training area with 57,000 cubic miles of restricted airspace. It is the second largest range within Department of Defense, and at one time over 2.7 million acres were set aside for the range. Within the boundaries of BMGR, at least 100 important cultural resource sites have been identified, three BLM designated areas of critical environmental concern, and the Flat-tailed Horned Lizard Management Area (BMGR Visitor Information Brochure, n.d.). The “southern westernmost” boundary of BMGR shares approximately 37 miles with the U.S.-Mexico border (U.S. Department of Air Force *et al.* 2006).

The Tohono O’odham Nation

Tohono O’odham Nation (TON) is comprised of four non-contiguous areas (Inter Tribal Council of Arizona 2003). The largest of the four areas within TON is located east of the project corridor. This area stretches 70 miles across the U.S.-Mexico border and occupies 2,773,357 acres. The total population of TON was 23,750 in 1999 (Arizona Department of Commerce 2004). The town

of Sells serves as the Nation's capital and other small, scattered villages are located within TON. Members of the Nation live in both the U.S. and Mexico.

3.5 WILDERNESS

The Wilderness Act of 1964 allowed for the establishment of a National Wilderness Preservation System. The act allows for the establishment of wilderness on Federally owned lands designated by Congress. Areas designated as wilderness are to be administered for the use and enjoyment of the public in such a manner as to leave the lands undisturbed for future use and enjoyment as wilderness, and to provide protection of these areas, and the preservation of their wilderness character. To maintain the wilderness characteristics of designated wilderness areas certain activities are prohibited and include permanent roads (except as necessary to meet minimum requirements for administration of the area, including measures required for emergencies involving human health and safety), temporary roads, motor vehicles, motorized equipment, motorboats, landing of aircraft, any form of mechanical transport, and structures (16 United States Code [U.S.C.] 1121 [note], 1131-1136).

In furtherance of the purpose of the Wilderness Act of 1964, the Arizona Desert Wilderness Act of 1990 was established to provide for the designation of certain public lands as wilderness in the state of Arizona (Public Law 88-577, found in 16 U.S.C. 1131-1136). There are no designated wilderness areas within the project corridor. However, most of OPCNM beginning 150 feet north of South Puerto Blanco Road is designated as Wilderness.

3.6 PROTECTED SPECIES AND CRITICAL HABITATS

3.6.1 Federal

An in-depth discussion of this resource was presented in the 2003 NPS Final EA and is incorporated herein by reference (NPS 2003). Within Pima County, 13 species are listed as Federally endangered, two are Federally threatened, one has been proposed for endangered status and three for candidate species (Table 3-1). Not all of these species occur within the vicinity of the project corridor; however, several have the potential to occur within or near the project corridor. These include the lesser long-nosed bat, Sonoran pronghorn and the Acuna cactus (*Echinomastus erectocentrus* var. *acuñensis*).

Table 3-1. Federally Listed and Proposed Species Potentially Occurring Within Pima County, Arizona

Common/Scientific Name	Federal/State Status	Habitat	Potential to Occur within or near Project Corridor
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	Candidate	Large blocks of riparian woods.	No – No suitable habitat.
Masked bobwhite (<i>Colinus virginianus ridgewayi</i>)	Endangered	Desert grasslands with diversity of dense native grasses, forbs, and brush.	No – Presently only known to occur on Buenos Aires NWR.
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	Endangered	Cottonwood/willow and tamarisk vegetation communities along river and streams.	No – No suitable habitat.
California brown pelican (<i>Pelecanus occidentalis californicus</i>)	Endangered	Coastal lands and islands, also found around lakes and rivers inland.	No – No suitable habitat.
Mexican spotted owl (<i>Strix occidentalis lucida</i>)	Threatened	Nests in canyons and dense forests with multi-layered foliage structure.	No – No suitable habitat.
Sonoran pronghorn (<i>Antilocapra americana sonoriensis</i>)	Endangered	Broad intermountain alluvial valleys with creosote-bursage and palo verde-mixed cacti associations. Current distribution known to occur on the CPNWR.	Yes- Species present on CPNWR and OPCNM.
Ocelot (<i>Leopardus pardalis</i>)	Endangered	Dense, thorny chaparral communities and cedar breaks.	No – No suitable habitat.
Lesser long-nosed bat (<i>Leptonycteris curasoae yerbabuenae</i>)	Endangered	Desertscrub habitat with agave and columnar cacti present as food plants.	Yes – Potential foraging habitat present.
Jaguar (<i>Panthera onca</i>)	Endangered	Found in Sonoran desertscrub up through subalpine conifer forest.	No – Extirpated from the area.
Sonoyta mud turtle (<i>Kinosternon sonoriense longifemorale</i>)	Candidate	Occurs in pond and streams; however, it is restricted to Quitobaquito Springs and nearby stream habitat.	No – Known to occur at Quitobaquito Springs, but outside of project corridor.
Chiricahua leopard frog (<i>Rana chiricahuensis</i>)	Threatened	Streams, rivers, ponds, backwaters, and stock tanks that are mostly free from exotic species at elevations ranging from 1,200 to 4,000 feet.	No – No suitable habitat.
Quitobaquito pupfish (<i>Cyprinodon macularius</i>)	Endangered	Shallow springs, small streams, and marshes. Tolerant of saline and warm water.	No – Critical Habitat designated within the OPCNM at Quitobaquito Springs and Pond, but outside of the project corridor.
Gila chub (<i>Gila intermedia</i>)	Proposed Endangered	Pools, springs, cienegas, and streams within the Gila River system.	No – Known populations occur within the Gila River drainage.
Gila topminnow (<i>Poeciliopsis occidentalis occidentalis</i>)	Endangered	Small streams, springs, and cienegas within the Gila River system.	No – Known populations occur within the Gila River drainage.
Kearney blue star (<i>Amsonia kearneyana</i>)	Endangered	West-facing drainages in the Baboquivari mountains.	No –Project corridor west of Baboquivari Mountains.
Pima pineapple cactus (<i>Coryphantha scheeri</i> var. <i>robustispina</i>)	Endangered	Ridges in semi-desert grassland and alluvial fans in Sonoran desertscrub with elevation ranges from approximately 2,300 to 5,000 feet.	No – Known populations occur in east Pima County at high elevations.

Table 3-1, continued

Common/Scientific Name	Federal/State Status	Habitat	Potential to Occur within or near Project Corridor
Nichol Turk's head cactus (<i>Echinocactus horizonthalonius</i> var. <i>nicholii</i>)	Endangered	Unshaded microsites in Sonoran desertscrub on dissected limestone mountains.	No – Known populations occur in east Pima and south Pinal counties.
Huachuca water umbel (<i>Liaeopsis schaffneriana</i> var. <i>recurva</i>)	Endangered	Cienegas, perennial low gradient streams, wetlands.	No – Known populations found in San Pedro River Basin.
Acuña cactus (<i>Sclerocactus erectocentrus</i> Synonym: <i>Echinomastus erectocentrus</i> var. <i>acunensis</i>)	Candidate	Acuña cacti are found on granite substrates on rounded small hills at elevations ranging from 1,300-2,000 feet.	Yes – Potential to occur, known populations are located on OPCNM approximately 8 miles north of the U.S.-Mexico border.

Source: USFWS 2007.

3.6.1.1 Sonoran Pronghorn

The Sonoran pronghorn was listed as Federally endangered on March 11, 1967 (32 Federal Register [FR] 4001), and is currently recognized as one of five subspecies of pronghorn (USFWS 1998). Sonoran pronghorn range from the plains of central and western Sonora, Mexico north to southwestern Arizona (USFWS 2003). In Arizona, Sonoran pronghorn occur on the CPNWR, the BMGR, and OPCNM, from State Route 85 west to the Cabeza Prieta Mountains and from the vicinity of the Wellton-Mohawk Canal south to the U.S.-Mexico border (Figure 3-1). Although, the Sonoran pronghorn is known to inhabit the OPCNM west of State Route 85, the likelihood of encountering a Sonoran pronghorn within the project corridor is limited because Mexico Highway 2 is near the project corridor, the existing barbed wire fence, and human activity near Sonoyta, Mexico. All of these elements are considered an impediment to pronghorn movement (NPS 2003).

3.6.1.2 Lesser Long-nosed Bat

The lesser long-nosed bat was listed as endangered on September 30, 1988 (53 FR 38456). Lesser long-nosed bats are a nectar, pollen, and fruit eating species that migrates into southern New Mexico and Arizona seasonally from Mexico (Arizona Game and Fish Department [AGFD] 2003). Lesser long-nosed bats migrate starting in early April, apparently following the flowering of columnar cacti and desert agave (*Agave deserti simplex*), returning to Mexico during September (USFWS 1995). A total of 206 saguaro and 295 organ pipe cacti were observed within the survey corridor during the field surveys. It should be noted that over 85 percent of the columnar cacti observed within the project corridor were located within the 0.65 miles across Sonoyta Hill.

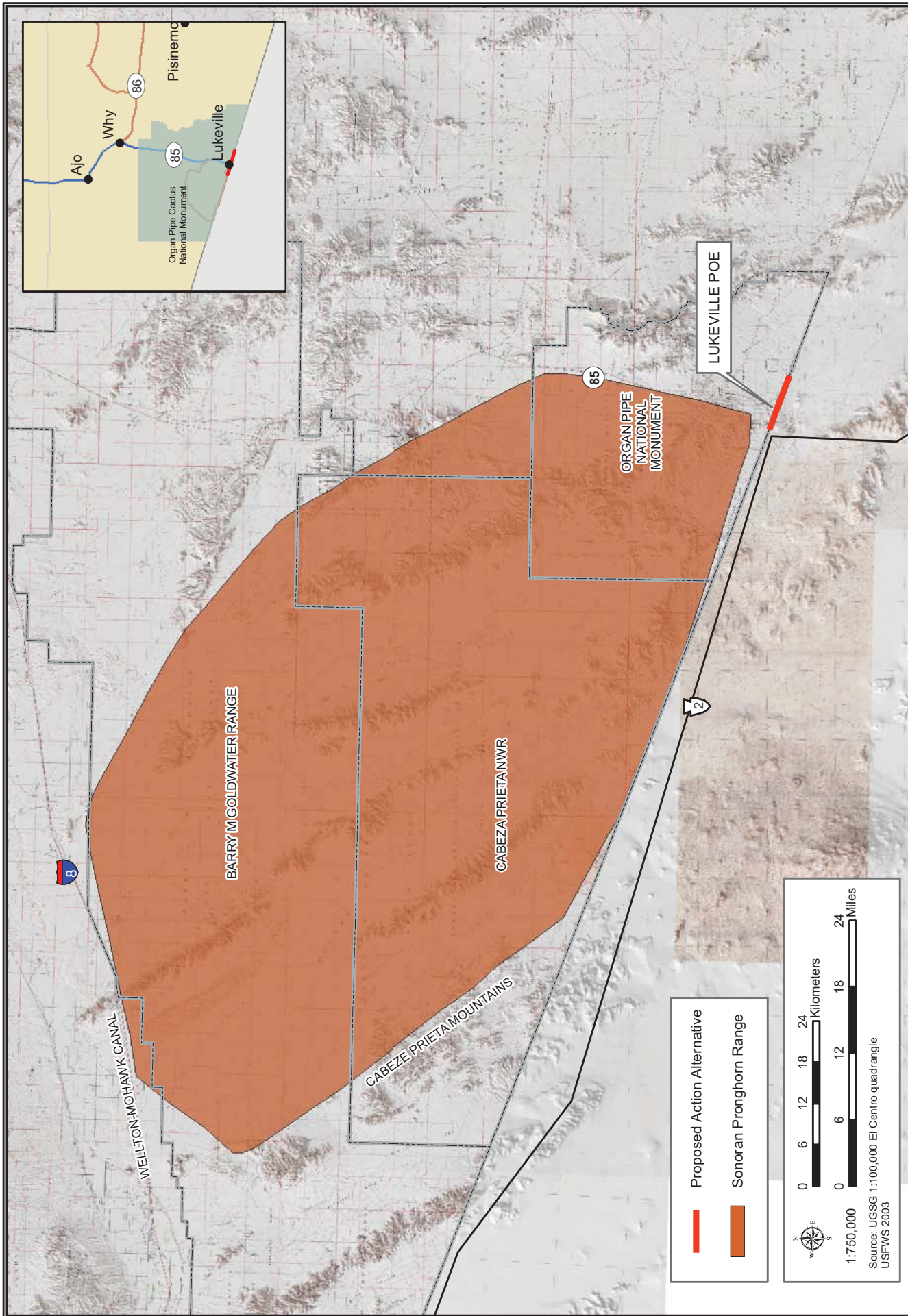


Figure 3-1: Sonoran Pronghorn Range within Project Corridor

The lesser long-nosed bat is found during the summer within desert grasslands and scrublands. The lesser long-nosed bat spends the day in caves and tunnels and forages at night upon plant nectar and pollen. This bat is an important pollinator of agave, and organ pipe and saguaro cacti (AGFD 2003). Roosting occurs in caves, abandoned buildings, and mines, which are usually located at the base of mountains where food sources are present (AGFD 2003). The lesser long-nosed bat is a seasonal resident of the OPCNM. Roosting sites are located in the OPCNM, but no known roosting sites occur within the project corridor (NPS 2003). The closest location of a known maternity colony to the project corridor would be approximately 15 miles (NPS 2003).

3.6.1.3 *Acuña Cactus*

The candidate status of *Acuña cactus* was last reviewed on May 11, 2005 (70 FR 24870). Seven populations of *Acuña cactus* are currently known to exist (Baiza 2007). The species is restricted to well drained knolls and gravel ridges between major washes on substrates, including granite hills and flats and bright red to white andesite, occurring from 1,300 to 2,000 feet in elevation (AGFD 2004). The species requires insect vectors for pollination, with polylectic bee species being the primary agent (AGFD 2004). Dispersal occurs primarily through gravity, and secondarily by wind, rain, and small insects.

As a candidate species, the *Acuña cactus* is not Federally protected, but is protected by the Arizona's Native Plant Law. Consideration is given to candidate species because of the potential for their listing during project activities, which could require USFWS Section 7 consultation. Although the *Acuña cactus* is known to inhabit the OPCNM, the known population is outside of the project corridor (approximately 8 miles north of U.S.-Mexico border) and no specimens were found within the project corridor during recent field surveys.

3.6.2 State

Suitable habitat for state sensitive species exists within the project corridor. All of the faunal species listed in Table 3-1 have a state-sensitive designation of Wildlife of Special Concern (WSC). State protected species (i.e., WSC) potentially found in the project corridor that are not Federally protected include the Great Plains narrow mouthed toad (*Gastrophylax olivacea*), cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*), Sonoran desert tortoise (*Gopherus agassizii*), California leaf-nosed bat (*Macrotus californicus*), Mexican rosy boa (*Charina trivirgata trivirgata*), and tropical kingbird (*Tyrannus melancholicus*). The Sonoran

desert tortoise and the Mexican rosy boa have the potential to exist near Sonoyta Hill within the project corridor. A complete list of state and Federal protected species for Pima County is included in Appendix B.

3.6.3 Critical Habitat

The Quitobaquito pupfish (*Cyprinodon macularius*) is the only species near the project corridor which has designated critical habitat. The critical habitat includes the Quitobaquito Springs and pond, and a 100-foot riparian buffer (USFWS 1986). Although the Quitobaquito pupfish critical habitat is located within the OPCNM, it is approximately 10.5 miles west of the project corridor.

3.7 CULTURAL RESOURCES

The NHPA of 1966 establishes the Federal government's policy to provide leadership in the preservation of historic properties and to administer Federally owned or controlled historic properties in a spirit of stewardship. Section 106 of the NHPA of 1966, as amended, requires Federal agencies to identify and assess the effects of their undertakings on cultural properties included in or eligible for inclusion in the National Register of Historic Places (NRHP), and to afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings. Federal agencies must consult with the appropriate state and local officials, Indian tribes, applicants for Federal assistance, and members of the public and consider their views and concerns about historic preservation issues. The ACHP is authorized to promulgate such rules and regulations as it deems necessary to govern the implementation of Section 106 in its entirety. Those regulations are contained in the Code of Federal Regulations as 36 CFR Part 800, "Protection of Historic Properties".

Several other important pieces of legislation include the Archeological Resources Protection Act (ARPA), the Native American Graves Protection and Repatriation Act (NAGPRA), along with EO 13007 and EO 13175. ARPA strengthened the permitting procedures required for conducting archeological fieldwork on Federal lands, originally mandated by the Antiquities Act. It also established more rigorous fines and penalties for unauthorized excavation on Federal land. NAGPRA mandates Federal agencies to summarize, inventory, and repatriate cultural items in the possession of or control of the Federal agency to lineal descendants or to culturally affiliated Federally recognized Indian tribes. NAGPRA also requires that certain procedures be followed when there is an intentional excavation of or an inadvertent discovery of human remains. EO

13007 was issued on May 24, 1996 in order to facilitate the implementation of the American Indian Religious Freedom Act of 1978. It specifically charges Federal agencies to: (1) accommodate, to the extent practical, American Indian access to and use of sacred sites by religious practitioners; (2) avoid adversely affecting the physical integrity of sacred sites; and (3) to maintain the confidentiality of these sites. E.O. 13175 outlines the official U.S. government policy on consultation and coordination with American tribal governments. The order emphasizes formal recognition of the American Indian Tribes' status as...“domestic independent nations” that have entered into treaties with the U.S. guaranteeing their right to self-government. It stipulates that this consultation would be done on a “government to government basis.”

3.7.1 Cultural History

The archaeology of southern Arizona is relatively complex considering the various geographic and related cultural features. The OPCNM lies within a cultural area known as the Western Papaguería, which includes the region bounded by the Colorado River to the west, the Gila River to the north, the TON to the east, and Puerto Peñasco, Sonora, Mexico to the south (USFWS 2001). The cultural history of OPCNM can be divided into five periods:

Period	Dates
Preceramic	10,000 B.C. to A.D. 200
Ceramic	A.D. 200 to 1500
Early Historic	A.D. 1540 to 1848
Late Historic	A.D. 1848-1945
World War II and Cold War	A.D. 1945-1989

Source: USFWS 2001

3.7.2 Previous Investigation

A cultural resources survey was conducted in 2002 for the proposed construction of vehicle barriers along the U.S.-Mexico Border with the OPCNM. The survey corridor consisted of a 100 foot survey corridor along the international border within the OPCNM. The survey identified seven cultural resources that would be potentially impacted by the proposed vehicle barriers (NPS 2003).

3.7.3 Current Investigation

A site records check and cultural resources survey was conducted for the construction footprint of the Proposed Action Alternative. Three previously recorded historic objects, International Boundary Monuments 166, 167, and 168 were relocated during the current surveys. The International Boundary Monuments are listed on the NRHP and are considered significant

cultural resources. In addition, one previously recorded archaeological site, the Gachado Well and Line Camp (AZ C:1:17[ASM]) was also relocated and mapped during the current survey. This archaeological site is also listed on the NRHP and is considered a significant cultural resource. It should be noted that the Gachado Well and Line Camp, however, are not located within the 60-foot wide project corridor (Tuomey 2007).

3.8 AIR QUALITY

A detailed discussion of air quality conditions was presented in the 2003 NPS Final EA and is incorporated herein by reference (NPS 2003). Pima County is classified as being in attainment for all criteria pollutants under the National Ambient Air Quality Standards (NAAQS) (Pima County Department of Environmental Quality [PCDEQ] 2007).

According to 40 CFR 51.853(b), Federal actions require a Conformity Determination for each pollutant where the total of direct and indirect emissions in a non-attainment or maintenance area caused by a Federal action would equal or exceed any of the rates in paragraphs 40 CFR 51.853(b)(1) or (2). If emissions from a Federal action do not exceed *de minimis* thresholds, and if the Federal action is not considered a regionally significant action, it is exempt from further conformity analysis. Therefore, because Pima County is in attainment for all criteria pollutants and because any alternative chosen would not exceed *de minimis* thresholds, a conformity analysis is not warranted (see Section 4.8.2).

3.9 WATER RESOURCES

A detailed discussion of this resource was presented in the 2003 NPS Final EA and is incorporated herein by reference (NPS 2003). Surface waters on OPCNM are limited as water availability varies seasonally with the majority of rainfall occurring in late summer. Section 404 of the CWA of 1977 (PL 95-217) authorizes the Secretary of the Army, acting through the Chief of Engineers, to issue permits for the discharge of dredged or fill material into waters of the U.S., including wetlands. Any area that meets these criteria is commonly classified as “Waters of the U.S.” Waters of the U.S. are further defined as all other waters such as intrastate lakes, rivers, streams, mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, natural ponds, or impoundments of waters, tributaries of waters, and territorial seas. Activities that result in the dredging and/or filling of jurisdictional Waters of the U.S., including wetlands, are

regulated under Section 404 of the CWA. There are 16 intermittent streams which cross the project corridor; however, there are no perennial streams on OPCNM (NPS 2003). Wetlands are sparse on OPCNM and are limited to those areas with perennial water flow such as Quitobaquito Springs and Aquajito Springs. Both of these wetland areas are outside of the project corridor and would not be impacted (NPS 2003).

The project corridor is within the Western Mexican Drainage Basin (WMDB), which covers approximately 730 square miles in southern Arizona (INS 2001). The WMDB is similar in structure to the surrounding Basin and Range Province basins that are characterized by broad alluvium-filled valleys dissected by elongated mountain ranges. The Arizona Department of Water Resources (ADWR) estimated that in 1988 approximately 4.1 million acre-feet of groundwater was stored at a depth of 1,200 feet below the land surface (ADWR 2005, INS 2001). The annual recharge rate for the WMDB is 2,400 acre-feet per year (Leake 2005). In 1985, the ADWR estimated approximately 220 acre-feet of water was withdrawn from the WMDB (ADWR 2005). Since the recharge rate far exceeds the withdrawal rate, the WMDB currently provides ample groundwater supply for the current users.

The Lower Gila River Basin is situated north of the WMDB and OPCNM, within this basin, groundwater occurs in both floodplain and basin fill deposits. Streambed or floodplain deposits (consisting of sand, gravel, cobbles, and boulders) range from approximately 10 ft thick in the smaller drainages to as much as 110 ft thick in the Gila River floodplain (Babcock *et al.* 1947). The basin fill deposits may be divided into three separate units; the upper sandy unit, a middle fine-grained unit, and a lower coarse-grained unit (ADWR 2004). These units vary in thickness and may not be present at all locations. Groundwater recharge is from infiltration of rainfall runoff and underflow from groundwater basins that are hydraulically up gradient (Weist 1965). The groundwater for the construction of the proposed project would come from within this basin and more than likely from the town of Why or Ajo, Arizona. Because much of the land surrounding the towns of Ajo and Why is undeveloped public land and the need for water in the region is limited to the populated areas, the municipal wells often maintain high water levels (Tibbits 2004).

Pursuant to the National Flood Insurance Act of 1968, as amended (42 USC 4001 et seq.), and the Flood Disaster Protection Act of 1973 (P.L. 93-234, 87 Stat. 975), EO 11988, floodplain management requires that each Federal agency take actions to reduce the risk of flood loss,

minimize the impact of floods on human safety, health and welfare, and preserve the beneficial values which floodplains serve. EO 11988 requires that agencies evaluate the potential effects of actions within a floodplain and avoid floodplains unless the agency determines that there is no practicable alternative. Where the only practicable alternative is to site in a floodplain, a planning process is followed to ensure compliance with EO 11988. In summary, this process includes the following steps:

- determine whether or not the action is in the regulatory floodplain;
- conduct early public notice;
- identify and evaluate practicable alternatives, if any;
- identify the impact of the action;
- minimize the impact;
- reevaluate alternatives;
- present the findings and a public explanation; and
- implement the action.

This process is further outlined on the FEMA's Environmental Planning and Historic Preservation Program Web site (FEMA 2006). As a planning tool, the NEPA process incorporates floodplain management through analysis and public coordination, ensuring that the floodplain management planning process is adhered to. In addition, floodplains are managed at the local municipal level through the assistance and oversight of FEMA. According to FEMA Map Panel number 0007643050B, approximately 550 feet of the project corridor is located within the 100-year floodplain. This area is located immediately west of the Lukeville POE.

3.10 SOCIOECONOMICS

The socioeconomic environment for the Region of Influence (ROI), Pima County, was described in the 2003 Final EA and is herein incorporated by reference (NPS 2003). The population of Pima County in 2006 was estimated at 902,720 (U.S. Census Bureau 2005). The 2005 racial mix of Pima County was predominantly Caucasian (71.1 percent), followed by American Indians and Alaskan Natives (3.2 percent), African Americans (2.9 percent) and Asian persons (2.4 percent), with the remaining 20.4 percent of the population reporting other races (U.S. Census Bureau 2005). Persons of any race can claim Hispanic or Latino origin; 32 percent of the 2005 population of Pima County claim to be of Hispanic or Latino origin (U.S. Census Bureau 2005). The total number of jobs in Pima County in 2005 was 486,165, an increase of 26 percent over the number of jobs in 1995 (384,604; Bureau of Economic Analysis [BEA] 2005). The 2005 annual average unemployment rate for Pima County was 4.6 percent (Arizona Department of

Commerce 2005). This is lower than the 4.7 percent average annual unemployment rate for the state of Arizona (Arizona Department of Commerce 2005).

In 2005, Pima County had a per capita personal income (PCPI) of \$28,869. This PCPI ranked 2nd in the state of Arizona, and was 96 percent of the state average of \$30,019, and 84 percent of the National average of \$34,471. Total personal income (TPI) for Pima County in 2005 was \$26.7 billion.

3.10.1 Environmental Justice

E.O. 12898 (Federal Actions to Address Environmental Justice in Minority and Low-Income Populations) was signed in February 1994. This order was intended to direct Federal agencies "...to make achieving environmental justice part of its mission by identifying and addressing... disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the [U.S.]..." To comply with the E.O., minority and poverty status in the vicinity of the project was examined to determine if any minority and/or low-income communities would potentially be disproportionately affected by implementation of the Proposed Action Alternative. Both low-income and minority populations are prevalent within the ROI. No residential areas exist in or near the project corridor in the U.S. However, developed areas (i.e., residential) are located adjacent to the project corridor in Sonoyta, Mexico.

3.10.2 Protection of Children

E.O. 13045 requires each Federal agency "to identify and assess environmental health risks and safety risks that may disproportionately affect children", and "ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks". This E.O. was prompted by the recognition that children, still undergoing physiological growth and development, are more sensitive to adverse environmental health and safety risks than adults. The potential for impacts to the health and safety of children is greater where projects are located near residential areas. No residential areas exist in or near the project corridor in the U.S. However, developed areas (i.e., residential) are located adjacent to the project corridor in Sonoyta, Mexico.

3.11 NOISE

Noise is generally described as unwanted sound, which is identified by either objective effects (hearing loss, damage to structures, *etc.*) or subjective judgments (community annoyance). Sound is represented on a logarithmic scale with a unit called the decibel (dB). Sound on the decibel scale is referred to as a sound level. The threshold of human hearing is approximately 0 dB, and the threshold of discomfort or pain is around 120 dB.

Sound levels are computed over a 24-hour period and adjusted for nighttime annoyances to produce the day-night average sound level (DNL). DNL is the community noise measurement recommended by the U.S. Environmental Protection Agency (EPA) and has been adopted by most Federal agencies (EPA 1974). A-weighted decibels (dBA) are used to express the relative loudness of sounds in air as perceived by the human ear (Generac Power Systems, Inc. 2004). A-weighting is necessary to compare the effects of sounds on the human body, because the human ear is less sensitive at low frequencies than at high frequencies. A DNL of 65 dBA is most commonly used for noise planning purposes, and represents a compromise between community impact and the need for activities like construction. Areas exposed to DNL above 65 dBA are generally not considered suitable for residential use. A DNL of 55 dBA was identified by EPA as a level below which there are effectively no adverse impacts (EPA 1974).

Noise levels surrounding the project corridor are variable depending on the time of day and climatic conditions. The construction activities potentially causing elevated noise levels within the project corridor would include diesel and gasoline powered generators, trucks, and construction equipment.

Heavy duty trucks generate a noise level of approximately 90 dBA. Attenuation to 55 dBA occurs at a distance of approximately 2,600 feet depending on climatic conditions, topography, vegetation, and man-made barriers (Generac Power Systems, Inc. 2004). Noise levels for other types of construction equipment range from the loudest, tractors and backhoes (70 to 95 dBA) to pumps and generators (65 to 85 dBA) (Bugliarello *et al.* 1976). The Lukeville POE is a busy port with continuous traffic during its hours of operation. Therefore, noise generated near the POE is expected to be elevated due to the operation of the POE and associated traffic. The OPCNM and its associated Wilderness Area as well as the residences in Mexico are considered sensitive noise receptors and are located near the project corridor.

3.12 AESTHETICS

Aesthetic resources consist of the natural and man-made landscape features that appear indigenous to the area and give a particular environment its visual characteristics. The major visual characteristic of southern Arizona lies in its vast areas of naturally occurring landscape, tranquil dark skies, and scenic mountain ranges. The project corridor is located near Sonoyta, Mexico and the town of Lukeville, Arizona (i.e., Lukeville POE). OPCNM and its associated Wilderness Areas are located adjacent to the project corridor and are visited for recreational purposes, natural settings, and aesthetic values. However, the project corridor currently has a limited aesthetic value due to the disturbed nature of the project footprint, existing PVBs and chain link fence, illegal trails, trash (Photograph 3-1), Sonoyta, Mexico (Photograph 3-2), and Lukeville POE (Photograph 3-3).



Photograph 3-1. Trails and trash left by IAs near Lukeville, Arizona POE.



Photograph 3-2. View of Sonoyta, Mexico residential areas from U.S. Border near Lukeville, Arizona.



Photograph 3-3. Lukeville, Arizona-Sonoyta, Mexico POE.

3.13 WASTE

3.13.1 Hazardous Waste

EPA's mission is to protect humans and the environment and work to develop and enforce regulations that implement environmental laws enacted by Congress (from such legislation as the Resource Conservation and Recovery Act of 1976 and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980). The EPA maintains a list of hazardous waste sites, particularly waste storage/treatment facilities or former industrial manufacturing sites in the U.S. The chemical contaminants released into the environment (air, soil or groundwater) from hazardous waste sites may include heavy metals, organic compounds, solvents and other chemicals. The potential adverse human health impact of hazardous waste sites is a considerable source of concern to the general public, as well as government agencies and health professionals.

EPA databases, Environmental and Compliance History Online and Envirofacts Data Warehouse, were reviewed for the locations of hazardous waste sites within or near the proposed project corridor (EPA 2007a, 2007b). According to both of these databases, no hazardous waste sites are located near or within the project corridor.

3.13.2 Unregulated Solid Waste

Unregulated solid waste within OPCNM has become a severe problem in recent years due to illegal vehicle and foot traffic. According to the Ninth Report of the Good Neighbor Environmental Board (GNEB) to the President and Congress of the U.S., the average IA disposes of approximately 8 pounds of waste a day. This waste consists of backpacks, clothing, blankets, water bottles, plastic sheeting, food, and other debris (GNEB 2006). Within the project area these forms of unregulated solid waste are the most commonly observed.

SECTION 4.0
ENVIRONMENTAL CONSEQUENCES



4.0 ENVIRONMENTAL CONSEQUENCES

In accordance with CEQ regulations (40 CFR § 1502.16), this section of the EA addresses potential impacts to the affected environment within the project corridor for the two alternatives outlined in Section 2 of this document. An impact (consequence or effect) is defined as a modification to the human or natural environment that would result from the implementation of an action. The impacts can be either beneficial or adverse, and can be either directly related to the action or indirectly caused by the action. The effects can be temporary, short-term, long-term or permanent. For purposes of this EA, temporary effects are defined as those that would occur during construction or immediately after construction; short-term impacts would last less than 3 years after completion of the action. Long-term impacts are defined as those that would last 3 to 10 years. Permanent impacts would indicate an irretrievable loss or alteration of resources.

Impacts can vary in degree or magnitude from a slightly noticeable change to a total change in the environment. The significance of the impacts presented in this EA is based upon existing regulatory standards, scientific and environmental knowledge, and best professional opinions. Significant impacts are those effects that would result in substantial changes to the environment (as defined by 40 CFR 1500-08) and should receive the greatest attention in the decision making process.

This EA describes the potential permanent impacts assuming that the entire 60-foot Roosevelt Reservation and 150-foot project footprint over Sonoyta Hill would be disturbed. It is also assumed that within the construction footprint any impacts would be permanent. Therefore, the permanent impacts described for the Proposed Action Alternative would total approximately 45 acres (12 acres within 150-foot wide footprint and 33 acres the within 60-foot wide footprint).

Other assumptions were also made in this EA regarding the primary pedestrian fence. It was assumed that in order to build the road and fence would require a range of 5.2 to 11.4 acre-feet (1.7 million gallons to 3.7 million gallons) of water for the concrete footer and dust suppression. One acre-foot is equivalent to 325,000 gallons of water. The primary pedestrian fence would require, as needed, maintenance activities to be performed by USBP that would be mostly limited to minor patchwork repairs and standard maintenance operations. These maintenance activities would not result in significant impacts to the natural or human environment.

The following discussions describe and, where possible, quantify the potential effects of each alternative on the resources within or near the project corridor. All impacts described below are considered to be adverse unless stated otherwise.

4.1 LAND USE

4.1.1 Alternative 1: No Action Alternative

Under the No Action Alternative, no infrastructure proposed as part of this project would be constructed. Although land use would not change, IA pedestrian traffic on OPCNM would continue and potentially increase with the implementation of other border enforcement activities along the southwest border.

4.1.2 Alternative 2: Proposed Action Alternative

The majority of the project corridor is within the Roosevelt Reservation. However, some of the project corridor (i.e., 7 acres) over Sonoyta Hill is not within the Roosevelt Reservation and would be used for USBP infrastructure maintenance and enforcement operations. A Special Use Permit articulating USBP's use of the 7 acres would be obtained from the NPS prior to construction, since the area would remain under NPS's management. The use of 7 acres represents less than 0.002 percent of the total OPCNM.

Indirect impacts to land use could occur outside of the project corridor as IAs attempt to circumvent the proposed infrastructure. These impacts cannot be quantified at this time because IA patterns and migration routes are completely out of USBP's control. However, the primary pedestrian fence would act as a force multiplier and allow for USBP to deploy agents to areas without pedestrian barriers. Therefore, potential adverse indirect impacts to land use would be minimal. Indirect beneficial impacts to land use on OPCNM are expected as a result of decreased illegal traffic within the project corridor. By reducing illegal traffic within and adjacent to the project corridor, damage to OPCNM north of the project corridor would also be reduced or possibly eliminated. OPCNM has identified that implementation of the Proposed Action Alternative might allow OPCNM to re-open some areas east of Lukeville (i.e., Gachado Line Camp) to the public that have been closed in the past due to IA activity (Kralovec 2007).

4.2 SOILS

4.2.1 Alternative 1: No Action Alternative

No ground disturbing activities would be conducted as a result of this alternative. Therefore, the No Action Alternative would have no direct impacts, either beneficial or adverse, on the soils within the project corridor. However, soils are currently indirectly impacted by illegal pedestrian traffic on OPCNM. In the absence of the primary pedestrian fence, IA foot traffic would continue and potentially increase, disturbing additional soils and causing soil erosion north of the project corridor.

4.2.2 Alternative 2: Proposed Action Alternative

The Proposed Action Alternative would permanently impact approximately 45 acres of soils within the project corridor through the construction of the primary pedestrian fence. About 17 acres of the total footprint are highly disturbed from the construction of the existing PVBs. Although these impacts would be permanent, they would not be considered significant because the impacts would primarily affect previously disturbed soils, and because of the vast amounts of similar soil types adjacent to the project corridor. No impacts to prime farmlands would occur.

As a result of this alternative, the volume of illegal pedestrian traffic would be expected to decrease and, consequently, would result in long-term indirect beneficial impacts to soils north of the project corridor. Indirect adverse effects to soils could occur in adjacent areas where the border infrastructure proposed under this alternative is not employed, as IAs try to circumvent the improved areas to avoid detection.

A Stormwater Pollution Prevention Plan (SWPPP) and Notice of Intent (NOI) under the CWA's National Pollutant Discharge Elimination System (NPDES) would be required for all construction sites greater than 1 acre (33 U.S.C. §1342). These and other mitigation measures proposed to reduce or minimize erosion and ensure the hydrology of the project corridor is not permanently altered are discussed in Section 6.0.

4.3 BIOLOGICAL RESOURCES

4.3.1 Vegetation Communities

4.3.1.1 Alternative 1: No Action Alternative

There would be no direct impacts to the project corridor's vegetation communities as no construction would occur. Adverse, long term impacts to vegetation and vegetation communities would continue to occur from the continued damage caused by IA foot traffic on OPCNM. The No Action Alternative would not increase deterrence of illegal entry nor expand the window of opportunity for USBP agents to detect and respond to illegal entry attempts. Implementation of the No Action Alternative would result in continued indirect adverse impacts to vegetation communities from illegal traffic.

4.3.1.2 Alternative 2: Proposed Action Alternative

Implementation of the Proposed Action Alternative would result in the permanent loss of approximately 28 acres within the project corridor. The remaining 17 acres within the project corridor has no vegetation due to past construction and other human disturbances. The vegetation that does occur consists of locally and regionally common species; therefore, negligible effects would occur to the region's vegetation. Erosion within the disturbed areas would occur but would be minimized by implementing pre- and post-construction BMPs identified in the SWPPP. The proposed primary pedestrian fence and road would be designed and constructed in a manner that would not alter drainage patterns; thus, increased downstream erosion or sedimentation, which could affect vegetation communities, would not be expected.

Beneficial indirect impacts, such as a reduction of native vegetation being damaged from illegal activities and consequent USBP enforcement activities, would occur as IAs and smuggling activities are reduced or potentially eliminated within the area. Conversely, areas outside of the project corridor could be indirectly impacted as IAs attempt to avoid detection and circumvent the proposed infrastructure. These impacts cannot be quantified at this time because IA patterns and migration routes are completely out of USBP's control. However, the primary pedestrian fence would act as a force multiplier and allow USBP to deploy agents to areas without pedestrian barriers, therefore, minimizing potential adverse indirect impacts.

4.3.2 Wildlife

4.3.2.1 Alternative 1: No Action Alternative

No impacts to fish and wildlife resources would occur as a result of the implementation of the No Action Alternative because no construction activities would occur. However, indirect adverse impacts to wildlife from continued illegal pedestrian traffic degrading habitat would occur and could potentially increase.

4.3.2.2 Alternative 2: Proposed Action Alternative

Although approximately 45 acres would be permanently impacted from the Proposed Action Alternative, these impacts would be considered negligible, since much of the project corridor (17 acres) has been previously disturbed, and the remainder has limited and somewhat disturbed vegetation. The Proposed Action Alternative would not have direct impacts to fish or other aquatic species, because the proposed construction activities would not take place in naturally flowing or standing water. Mitigation measures would be implemented for construction in or near washes as stated in Section 6.0 and follow the measures described in the project's SWPPP to reduce potential impacts to riparian areas from erosion or sedimentation.

Mobile animals (e.g., birds) would escape to areas of similar habitat, while other slow or sedentary species of reptiles, amphibians, and small mammals could potentially be lost. As a result, direct minor adverse impacts to wildlife species in the vicinity of the project corridor are expected. Although some animals may be lost, this alternative would not result in any substantial reduction of the breeding opportunities for birds and other animals on a regional scale due to the tens of thousands of acres of suitable, similar habitat adjacent to the project corridor. Additionally, mitigation measures would be implemented to ensure that no "take" of migratory birds occurs if this alternative is implemented, in accordance with the Migratory Bird Treaty Act (MBTA).

Although the primary pedestrian fence could preclude transboundary migration patterns of animals, especially larger mammals (e.g., mule deer [*Odocoileus hemionus*]), and thus fragmenting habitat within the project corridor, these impacts would be considered minimal. Habitat fragmentation typically affects species with small population sizes or that are dependent upon migration to obtain spatially or temporally limited resources (Gilpin and Hanski, 1991). The primary pedestrian fence would be designed and constructed in the washes to allow proper conveyance of flood flows. It is expected that these designs would also allow the transboundary migration of reptiles, amphibians, and small mammals, which would reduce the fragmentation

effects. Wildlife would also still be able to migrate across the U.S.-Mexico border either to the east or west of the project footprint terminus. In addition, the species located within the project corridor are regionally common in both the U.S. and Mexico. Therefore, no significant adverse effects are anticipated to the region's wildlife population.

Indirect adverse impacts to wildlife habitat adjacent to the project corridor could occur as illegal pedestrian traffic attempts to circumvent the proposed infrastructure. It is possible for IAs to attempt illegal entry outside of the project corridor. However, the primary pedestrian fence would act as a force multiplier and allow USBP to deploy agents to areas without pedestrian barriers, minimizing potential adverse indirect impacts. Beneficial indirect impacts would be expected from the protection afforded to areas to the north of the project corridor due to the implementation of the Proposed Action Alternative.

4.3.3 Non-native and invasive species

4.3.3.1 Alternative 1: No Action Alternative

No impacts to non-native and invasive plants are expected as a result of the No Action Alternative because no construction activities would occur. However, indirect adverse impacts, such as the spread of non-native or invasive plants, could occur as a result of continued illegal pedestrian traffic.

4.3.3.2 Alternative 2: Proposed Action Alternative

Disturbance of 45 acres (total) of soils during the construction activities would result in favorable conditions for the establishment of non-native and invasive species. Disturbances would occur in vegetated areas that would create dispersal corridors for invasive species. However, because the project corridor would be patrolled and maintained by NPS and USBP (limiting potential for growth of new sprouts) and would be monitored for the spread of invasive species, potential impacts would not be considered significant. With the exception of Sonoyta Hill, some of the project corridor has been previously disturbed from the construction of the existing PVBs. Regardless, the establishment of invasive species within disturbed areas would be minimized through mitigation measures mentioned above and as described later in Section 6.0. The Proposed Action Alternative would also serve as a barrier to the spread of non-native and invasive plants, as many invasive plant propagules are transported into the U.S. on clothing of IAs (INS 2002).

4.4 UNIQUE AND SENSITIVE AREAS

4.4.1 Alternative 1: No Action Alternative

No impacts to unique and sensitive areas would result from the implementation of the No Action Alternative, as no construction would occur. However, indirect adverse impacts to unique and sensitive areas due to continued illegal pedestrian traffic would occur and could potentially increase.

4.4.2 Alternative 2: Proposed Action Alternative

Noise increases due to construction activities would be temporary; therefore, no long-term significant impacts to unique and sensitive areas, as a result of increases in ambient noise levels, would occur. The construction crews and equipment would access the project corridor along the border road primarily within the Roosevelt Reservation, limiting visual and noise impacts to the OPCNM. However, the use of South Puerto Blanco Road would be required to access the project corridor on the western face of Sonoyta Hill. A Special Use Permit from NPS would be needed for construction to access areas outside of the Roosevelt Reservation. This permit would be obtained prior to construction activities. Temporary impacts to aesthetics would be expected for the duration of the construction activities; however, these would be eliminated upon completion of this alternative. Permanent impacts to aesthetics would also be expected due to the additional infrastructure. However, these impacts would occur primarily within previously disturbed areas and mitigation measures (i.e., using non-reflective materials) would be implemented to ensure any impacts would be less than significant.

Furthermore, approximately 7 acres of unique and sensitive area (i.e., OPCNM) would be directly impacted. This area is located on Sonoyta Hill along the western terminus of the project corridor. Although OPCNM would be adversely impacted, these impacts would not be considered significant as the indirect beneficial impacts from long-term protection of the remaining portions of OPCNM would be expected to outweigh the direct impacts.

The proposed infrastructure would have indirect beneficial impacts to unique and sensitive areas by reducing the frequency of illegal pedestrian traffic on OPCNM and subsequent creation of trails and disposal of trash. Furthermore, long-term protection of OPCNM resources such as natural vegetation, landscapes, and cultural sites would be expected under the Proposed Action Alternative. Indirect adverse impacts such as a decline in visitor attendance may occur during

construction activities; however, once the construction activities are complete, OPCNM would be afforded better protection and a safer environment. Thus, in the long-term, visitor experiences would be potentially enhanced (see Section 4.1.2). Other indirect adverse impacts to unique and sensitive areas outside of the project corridor could occur if IAs chooses to circumvent the proposed primary pedestrian fence. However, the primary pedestrian fence would act as a force multiplier and allow USBP to deploy agents to areas without pedestrian barriers; therefore, potential adverse indirect impacts would be minimized.

4.5 WILDERNESS

4.5.1 Alternative 1: No Action Alternative

No impacts to Wilderness Areas would occur from the implementation of the No Action Alternative, as no construction would occur. However, indirect adverse impacts to Wilderness Areas north and west of the project corridor could occur, since illegal pedestrian traffic would continue to occur and could potentially increase.

4.5.2 Alternative 2: Proposed Action Alternative

Wilderness Areas as defined in the Wilderness Act of 1964 are lands in an area where the earth and its community of life are untrammelled by man. The Proposed Action Alternative would not directly impact any areas designated as Wilderness Area. However, noise associated with construction equipment and construction activities would adversely affect Wilderness Area characteristics. These impacts would be temporary because noise levels near the OPCNM Wilderness would return to preconstruction levels upon completion of construction activities. Additionally, aesthetic qualities inherent to Wilderness Areas would be adversely impacted by the sight of the primary pedestrian fence within the viewshed. Two schematic representations of how the fence would appear from South Puerto Blanco road (near the OPCNM Wilderness) are presented in Exhibit 4-1 and 4-2. Additionally, as shown previously in Photographs 3-1 through 3-3, the area along the border contains a lot of development, litter, trails, and other types of disturbances. The primary pedestrian fence would reduce the amount of IA-associated litter and trails and screen the surrounding development from park visitors. Therefore, the adverse impacts of the primary pedestrian fence, when compared to the No Action Alternative and the long-term benefits of the primary pedestrian fence, would be considered insignificant.

Exhibit 4-1. Schematic Representation of View from South Puerto Blanco Road Facing Southwest



Exhibit 4-2. Schematic Representation of View from South Puerto Blanco Road Facing Southeast



There is a potential for areas adjacent to the project corridor to experience an increase in illegal foot traffic with the implementation of this alternative. All or none of the illegal foot traffic could shift to either east or west of the project corridor and potentially into designated Wilderness Areas. However, the Proposed Action Alternative would allow USBP to deploy agents, as needed, to other areas that are unprotected, which would reduce IA traffic impacts to Wilderness Areas near the project corridor. Therefore, no significant direct or indirect impacts to Wilderness Areas would be expected upon implementation of the Proposed Action Alternative.

4.6 PROTECTED SPECIES AND CRITICAL HABITAT

4.6.1 Alternative 1: No Action Alternative

The No Action Alternative would not directly impact any protected species as no construction activities would occur. However, indirect adverse impacts to protected species, such as habitat degradation as a result of continued illegal pedestrian traffic, would occur and could potentially increase.

4.6.2 Alternative 2: Proposed Action Alternative

The potential impacts to the Sonoran pronghorn associated with the Proposed Action Alternative would be similar to those discussed in the 2003 NPS Final EA and are incorporated herein by reference (NPS 2003). As seen on Figure 3-1, the Sonoran pronghorn range is not within the project corridor. Additionally, the project corridor is located along the U.S.-Mexico border (which is rarely visited by the pronghorn), within 2.1 miles of the Lukeville POE (pronghorn are very reclusive and do not like human interaction), and contains previously disturbed habitat. Although no direct impacts would occur to the pronghorn, there is the potential for indirect adverse impacts if IA traffic shifts west of the proposed infrastructure. Therefore, through consultation with USFWS, CBP and USBP has determined that this alternative would adversely effect the Sonoran pronghorn. CBP and USBP would implement conservation measures, identified during the Section 7 consultation process, to offset these impacts. Some conservation measures that have been identified and would be implemented include:

1. During construction USBP would conduct daily observations of project region as close to dawn as possible to determine if Sonoran pronghorn are within 0.62 mile of project activities. No project work will begin until pronghorn move on their own volition to a distance greater than 0.62 mile from the activities. This measure would be relevant for those activities only on the western slope of Sonoyta Hill, where there is a greater potential for pronghorn to occur.

2. The number of vehicles traveling to and from the project site for construction purposes and the number of trips per day would be minimized to reduce the likelihood of disturbing pronghorn in the area or injuring an animal on the road. The use of vehicle convoys, multi-passenger vehicles, and other methods are appropriate to project construction.
3. CBP will provide assistance to annually fill one supplemental water for Sonoran pronghorn on OPCNM per the CBP programmatic mitigation agreement with USFWS.

The project corridor is not located near any known bat roosting sites, and therefore, would not affect any roost sites, including maternity roosts. Almost all of the Sonoran Desert is considered foraging habitat for the lesser long-nosed bat and OPCNM consist of over 330,300 acres of Sonoran Desert. The permanent disturbance of 28 acres of foraging habitat would amount to the loss of less than 0.0006 percent of foraging habitat within the OPCNM. However, USBP and USFWS have determined that this loss would constitute an adverse impact on the lesser long-nose bat. Conservation measures developed through the Section 7 consultation process would be implemented by USBP to offset these impacts. For example, saguaro and other columnar cacti, which are main food sources for the lesser long-nosed bats, that are located within the project footprint would be removed, avoided, relocated, or replaced as part of the construction activities. Specifications regarding the size of columnar cacti to be relocated or replaced are presented in Section 6.0. Examples of other conservation measures that have been identified and would be implemented include the following:

1. Clearly demarcate the construction footprint to ensure construction contractors do not expand the disturbance area.
2. Salvage of lesser-long nosed bat food plants from areas to be disturbed by project activities as described in the salvage plan.
3. Complete a restoration plan for various illegal trails and roads to compensate for creation or improvement of roads needed for the fence project (in addition to other concerns, this will address the control of non-native, invasive plant species) within six months of issuance of the Biological Opinion.

Although no Sonoran desert tortoises or Mexican rosy boas were observed within the project corridor, the potential exists for them to occur near Sonoyta Hill. Wildlife strikes could be caused by construction vehicles or USBP patrol vehicles during project construction, maintenance activities, and during future USBP operations. However, the likelihood of these strikes are low because of the ability of most wildlife species to escape to surrounding habitat and the relatively low vehicle speed of construction and USBP patrol vehicles, especially in this rugged terrain. Due to the beneficial impacts of a reduction of habitat degradation north of the project corridor

combined with mitigation measures discussed in Section 6, these potential impacts to these two species are considered insignificant.

Additionally, the cactus ferruginous-pygmy owl has the potential to exist in the project corridor. However, the habitat in the project corridor is extremely limited and classified as ranging from poor to moderate with the exception of the western slope of Sonoyta Hill (NPS 2003). Therefore, due to the previously disturbed nature of some of the project corridor in conjunction with the limited quality habitat available, CBP has determined that the Proposed Action Alternative would not adversely affect the cactus ferruginous pygmy owl.

Indirect adverse impacts to potentially suitable habitat for protected species along the southwest border could occur due to IAs shifting their activities in order to avoid apprehension. It is impossible, however, for USBP to determine how much of the illegal pedestrian traffic currently entering the project corridor would shift either to the east, west, or be eliminated completely. The implementation of the Proposed Action Alternative would reduce or eliminate illegal foot traffic north of the primary pedestrian fence within the project corridor, protecting habitat that could otherwise be disturbed and permanently degraded. Further, because the primary pedestrian fence would act as a force multiplier, USBP would be able to deploy agents to those areas without primary pedestrian fence, minimizing potential indirect impacts to protected species habitat.

4.6.3 Critical habitat

No critical habitat exists near or within the project corridor; therefore, no direct impacts would be expected. Indirect adverse impacts could occur to areas outside of the project corridor (*i.e.*, Quitobaquito Springs); however, these potential impacts are outside of the USBP's control. IA movement, if any, to avoid the proposed infrastructure would be totally at the IAs discretion. Because the primary pedestrian fence would act as a force multiplier, USBP would be able to deploy agents to those areas lacking primary pedestrian fence and therefore, minimize potential indirect impacts.

Water would be trucked into the project corridor from sources located north of the OPCNM. These sources would be located within a completely different watershed and basin than Quitobaquito Springs. Therefore, the use of groundwater for the implementation of this project is

not expected to cause a deficit of water availability nor a drop in hydrostatic pressure for Quitobaquito Springs.

4.7 CULTURAL RESOURCES

4.7.1 Alternative 1: No Action Alternative

No impacts to cultural resources are expected, as no construction activities would occur. However, indirect adverse impacts to cultural resources as a result of continued IA pedestrian traffic disturbing cultural resources north of the project corridor could occur, and could potentially increase.

4.7.2 Alternative 2: Proposed Action Alternative

Three historic objects, International Boundary Monument 166, 167, and 168 are located within the project corridor and could be potentially affected by the Proposed Action Alternative. The historic objects are listed on the NRHP and are considered significant cultural resources. Mitigation measures to avoid adverse impacts to the cultural resources are outlined in Section 6 of this document. These measures, as well as other potential mitigation measures developed through consultation with the Arizona State Historic Preservation Officer (SHPO), would assure that no adverse impacts would occur to these cultural resources. SHPO concurrence with USBP's determination of "no affect to historic properties" is included in Appendix C.

As a result, the Proposed Action Alternative would not result in significant impacts on cultural resources provided mitigation measures, which will be identified through the Section 106 process, are properly implemented.

4.8 AIR QUALITY

4.8.1 Alternative 1: No Action Alternative

No impacts to air quality are expected as no construction activities would occur. However, indirect adverse impacts to air quality from illegal pedestrian traffic and subsequent USBP enforcement activities would occur, and could potentially increase.

4.8.2 Alternative 2: Proposed Action Alternative

Fugitive dust or PM-10 from soil disturbance, and emissions associated with construction equipment engines, are expected to create temporary, minor increases in air pollution in the project corridor. Due to the short duration of the construction project, any increases or impacts on ambient air quality are expected to be short-term and below levels that would cause Pima County to be in non-attainment for air quality standards.

A model was used to estimate the total air emissions from the new construction activities. Calculations were made for standard construction equipment such as drilling rigs, hole cleaners, generators, cement trucks, backhoes, cranes, and bulldozers using emission factors from EPA approved emission model NONROAD6.2. Model results for air emissions are presented in Appendix D. Fugitive dust emissions were calculated using emission factors from Mid-Atlantic Regional Air Management Association (MARAMA 2006) for the primary pedestrian fence construction.

Assumptions were made regarding the type of equipment, duration of the project, and the number of hours per day each type of equipment would be used. The assumptions, emission factors, and resulting calculations are presented in Appendix D. A summary of the total emissions are presented in Table 4-1. As Pima County is in attainment for all air quality standards, an air conformity analysis is not required.

Table 4-1. Total Air Emissions (tons/year) from Construction Activities

Pollutant	Total (tons/year)
Carbon Monoxide	23.49
Volatile Organic Compounds	5.28
Nitrogen Oxides	43.93
Particulate Matter <10 microns	32.92
Particulate Matter < 2.5 microns	9.52
Sulfur Dioxide	5.38

Source: 40 CFR 51.853 and Gulf South Research Corporation (GSRC) 2007

Impacts from combustible air emissions due to everyday USBP traffic are expected to be the same after the primary pedestrian fence is built as they are currently. Construction workers would temporarily increase the combustible emissions in the air shed during their commute to and from work. Supplies would have to be delivered to the site by large delivery trucks. The

emissions from supply trucks and workers commuting to work were included in the air emission analysis (Appendix D) and in the totals presented in Table 4-1.

During the construction of the proposed project, proper maintenance of all vehicles and other construction equipment shall be implemented to ensure that emissions are within the design standards of all construction equipment. Dust suppression methods (*e.g.*, watering of soils) shall be implemented to minimize fugitive dust emissions. Such measures would further ensure that air emissions generated by the Proposed Action Alternative would be temporary and would not significantly impair air quality in the region.

Indirect impacts to air quality due to the shifting of illegal traffic in order to avoid the proposed infrastructure is possible; however, it is unknown where IAs would choose to breach the U.S.-Mexico border. Therefore, it is impossible for USBP to determine how much of the illegal traffic currently entering the project corridor would shift either to the west or be eliminated completely.

4.9 WATER RESOURCES

4.9.1 Alternative 1: No Action Alternative

No impacts to water resources as a result of the No Action Alternative are expected because no construction activities would occur.

4.9.2 Alternative 2: Proposed Action Alternative

No wetlands would be either directly or indirectly impacted as a result of this alternative as none exist within the project corridor. A total of 16 intermittent streams cross the project corridor. All appropriate CWA Section 404 Permits from the U.S. Army Corps of Engineers (USACE) Los Angeles District Regulatory Branch, as well as Section 401 Water Quality Certifications from the Arizona Department of Environmental Quality, would be obtained prior to any fill material being placed in potential jurisdictional waters of the U.S. As mentioned previously, the primary pedestrian fence and road would be designed and constructed in a manner that would not alter drainage patterns or exacerbate erosion and sedimentation problems. Pre- and post-construction BMPs would also be implemented to further reduce the potential for erosion and sedimentation. Some of these measures are described in Section 6.0. Furthermore, as mentioned in Section 2.2, USBP would be responsible for maintaining the primary pedestrian fence and assuring that any

debris accumulated along the primary pedestrian fence during rain events is quickly removed to prevent backwater flooding.

Although the project corridor traverses the 100-year floodplain, no adverse impacts are expected. The design of the primary pedestrian fence will incorporate features to ensure that flows and flood elevations within the floodplain are not adversely modified, both locally and regionally. CBP has determined that there is no other practicable alternative to constructing sections of the fence within the floodplain, as the border bisects the floodplain and the proposed fence must be located on the border. Therefore, the Proposed Action Alternative would not contradict E.O. 11988 nor create significant impacts to floodplains.

It is estimated that a range of 5.2 to 11.4 acre-feet of water would be required for dust suppression and construction activities. Water would be obtained from a source north of the OPCNM (e.g., Why, Ajo, or Gila Bend) and be trucked in to the project corridor. The use of water from these sources would not create a deficit either locally or regionally. Therefore, no significant impacts to groundwater within the project corridor would be expected.

During construction activities, degradation of water quality as a result of sediment transported by stormwater within any of the washes located within the project corridor would be minimized by implementing the SWPPP and best management practices (BMPs). Equipment required for the construction activities would not be staged or stored within 100 feet of washes to prevent any contamination from accidental petroleum, oil, and lubricants (POL) spills that could occur. Additionally, the primary pedestrian fence within washes would be designed and constructed to ensure that the primary pedestrian fence does not impede flow nor contribute significantly to sedimentation or erosion within the washes. Therefore, no significant impacts to surface waters would be expected.

Indirect impacts associated with the construction process would be insignificant, and minimized through the implementation of mitigation measures discussed in Section 6.0. Additional indirect impacts to water quality outside of the project corridor could also occur as IAs attempt to circumvent the proposed infrastructure. However, it is unknown at this time where, when, or if IAs will try to circumvent the project corridor, as this is completely out of USBP control and totally at the IAs' discretion. Although it is unknown where IAs might try to circumvent the proposed infrastructure, the primary pedestrian fence would act as a force multiplier and allow USBP to

deploy agents to unprotected areas. Thus, any potential indirect impacts to water resources outside the project corridor would be further minimized.

4.10 SOCIOECONOMICS

4.10.1 Alternative 1: No Action Alternative

No impacts to the region's socioeconomic resources would occur under the No Action Alternative, as no construction activities would take place. However, the current level of illegal pedestrian traffic would continue at its current rate and possibly increase. As a result, illegal traffic and the crimes and social costs associated with it would also continue or increase; thus, long-term, adverse socioeconomic impacts across the region would be incurred.

4.10.2 Alternative 2: Proposed Action Alternative

Direct beneficial impacts from the Proposed Action Alternative include minor and temporary increases in sales volumes, housing demands for construction crews, material purchases, and sales taxes. Additionally, implementation of the Proposed Action Alternative would reduce the amount of illegal pedestrian traffic in the region, which, in turn, would reduce the associated societal and economic costs to the region. These societal and economic costs include but are not limited to the costs of removal of trash, overall degradation of property, reduction in property value, and degradation of natural and cultural resources (*i.e.*, OPCNM). Consequently, this reduction in illegal traffic would have an indirect beneficial long-term impact to the local economy.

Impacts regarding E.O. 13045 and E.O. 12898 from the implementation of the Proposed Action Alternative would be similar to those previously discussed in the 2003 Final EA and are incorporated herein by reference (NPS 2003). Given the remote location of the primary pedestrian fence, there is no potential for disproportionately high and adverse impacts to minority populations and low income families. The primary pedestrian fence would reduce illegal traffic north of the project corridor, making it safer for everyone regardless of race, nationality, age, or income level. Therefore, no significant impacts relative to environmental justice or protection of children issues are expected as a result of the Proposed Action Alternative.

Indirect impacts could occur to areas outside of the project corridor if illegal pedestrian traffic shifts to other areas of the U.S.-Mexico border (*i.e.*, TON). However, it is impossible to determine what those impacts would be, if any, as the direction or lack thereof is solely at the discretion of the

IAs. As mentioned previously, the primary pedestrian fence would allow USBP to deploy agents to those areas lacking infrastructure to minimize impacts from any potential shift in IA traffic.

4.11 NOISE

4.11.1 Alternative 1: No Action Alternative

No noise impacts would occur as a result of the No Action Alternative because construction activities would not occur. However, indirect adverse impacts from illegal pedestrian traffic and consequent USBP enforcement activities would continue and possibly increase.

4.11.2 Alternative 2: Proposed Action Alternative

Noise levels created by the transport of construction vehicles, construction equipment, and construction activities would vary depending on several factors, such as climatic conditions, season, and the condition of the equipment. All construction and transport activities would occur during daylight hours. OPCNM and its associated Wilderness Area are considered sensitive noise receptors within the region. However, noise levels would decrease to an inaudible level as the distance between the construction activities and the noise receptors (OPCNM and Wilderness Area) increases. As mentioned in Section 3.11, noise from construction equipment would be reduced to 55 dBA (*i.e.*, acceptable noise level) within 2,600 feet. Additionally, the project corridor is located adjacent to the Lukeville POE and Sonoyta, Mexico, which are constant sources of noise within the region. Therefore, because the increased noise levels would be temporary and minor, no direct significant impacts to ambient noise levels would occur upon completion of construction.

Indirect impacts as a result of IAs trying to circumvent the proposed infrastructure could occur to areas outside the project corridor. However, it is impossible for USBP to determine how much of the illegal traffic would shift either to the east, west, or be eliminated completely.

4.12 AESTHETICS

4.12.1 Alternative 1: No Action Alternative

No impacts to aesthetics would occur upon implementation of the No Action Alternative as no construction activities would occur. However, indirect adverse impacts to aesthetics as a result of IAs trampling vegetation and leaving trash and debris would continue and possibly increase.

4.12.2 Alternative 2: Proposed Action Alternative

The construction of 0.65 miles of primary pedestrian fence over the Sonoyta Hill would create additional impacts as compared to the No Action Alternative. However, due to the existing infrastructure surrounding Sonoyta Hill combined with mitigation measures (see Section 6.8), these impacts would not be considered significant. The construction of 5.2 miles of primary pedestrian fence would not differ substantially from the existing border infrastructure (e.g., chain link fence, PVBs). In addition, the Lukeville POE, illegal trails, trash, and developments within Sonoyta, Mexico also detract from the visual qualities of the project corridor, as shown previously in Photographs 3-1 through 3-3. A short term minimal impact to aesthetics would occur during construction; however, there would be no long term significant adverse impacts on the visual quality of the region.

Indirect adverse impacts related to the possibility of IAs circumventing the proposed primary pedestrian fence would be similar to those mentioned previously. Beneficial indirect impacts would be expected as the primary pedestrian fence would eliminate IA traffic and associated trash and illegal trails in the project corridor.

4.13 Hazardous and Solid Waste

4.13.1 Alternative 1: No Action Alternative

No impacts regarding hazardous or solid waste are expected, as no construction activities would occur.

4.13.2 Alternative 2: Proposed Action Alternative

The potential exists for POL spills to occur while refueling construction equipment used during the implementation of the Proposed Action Alternative. However, clean-up materials (e.g., oil mops) would be maintained at the project site to allow immediate action in case an accidental spill occurs. Drip pans would be provided for stationary equipment to capture any POL that is accidentally spilled during maintenance activities or leaks from equipment. In addition, a Spill Prevention, Control, and Countermeasures Plan (SPCCP) would be in place prior to the start of construction, and all personnel would be briefed on the implementation and responsibilities of this plan. OPCNM would be provided a copy of the SPCCP prior to construction activities.

Sanitary facilities would be provided during construction activities and waste products would be collected and disposed of by licensed contractors. No gray water would be discharged to the ground. Disposal contractors would disposed of all waste in strict compliance with Federal, state, and local regulations, in accordance with the contractor's permits.

The proposed infrastructure would also have indirect beneficial impacts through the reduction of solid waste. As illegal foot traffic is reduced or eliminated within the project corridor, so would the solid waste that is associated with it.

SECTION 5.0
CUMULATIVE IMPACTS



5.0 CUMULATIVE IMPACTS

This section of the EA addresses the potential cumulative impacts associated with the implementation of the alternatives and other projects/programs that are planned for the region. The CEQ defines cumulative impacts as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions” (40 CFR 1508.7). This section continues, “Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”

USBP has been conducting law enforcement actions along the border since its inception in 1924 and has continuously transformed its methods as new missions, IA modes of operations, agent needs and national enforcement strategies have evolved. Development and maintenance of training ranges, station and sector facilities, detention facilities, and roads and fences have impacted thousands of acres with synergistic and cumulative impacts to soil, wildlife habitats, water quality, and noise. Beneficial effects, too, have resulted from the construction and use of these roads and fences including, but not limited to, increased employment and income for border regions and its surrounding communities; protection and enhancement of sensitive resources north of the border; reduction in crime within urban areas near the border; increased land value in areas where border security has increased; and increased knowledge of the biological communities and pre-history of the region through numerous biological and cultural resources surveys and studies.

With continued funding and implementation of CBP’s environmental conservation measures, including environmental education and training of its agents; use of biological and archeological monitors; wildlife water systems; and restoration activities, adverse impacts due to future and on-going projects would be avoided or minimized. However, recent, on-going and reasonably foreseeable proposed projects will result in cumulative impacts. In particular, within the next 2 years, 225 miles are scheduled to be completed. The first phase of construction would occur in areas that have already been developed (e.g., currently contains PVB or temporary vehicle barriers [TVB]) and thus, little or no additional environmental impacts would be expected. The second phase of construction would generally occur in more remote areas, and would inevitably result in cumulative impacts. It should be noted that the final locations for the primary

pedestrian fence have not been determined yet so, these should be considered only as planning estimates.

A list of the past, on-going, and other proposed projects within the region surrounding the Ajo Station's AO are summarized in Table 5-1:

Table 5-1. Recently Completed or Reasonably Foreseeable USBP projects in Ajo Station's AO

Project	Approximate Distance from Project Corridor (miles)	Approximate Acres Permanently Impacted
Installation of 26 emergency beacons within the CPNWR and BMGR	24	0
Implementation of Operation Skywatch (a seasonal search and rescue mission using helicopters and fixed-wing aircraft)	0	0
Proposed construction of 36 miles of pedestrian barrier, 35 miles of patrol and drag road, eight water wells, two new temporary staging areas, five existing staging areas, and approximately 7.5 miles of improvements to north-south access roads	70	198
Proposed acquisition of 30 acres adjacent to the USBP Ajo Station for horse corral, station expansion, and parking	30	30
Proposed installation of five camp details, access and maintenance of approximately 300 miles of roads on CPNWR and BMGR, installation of eight temporary vehicle barriers, construction of 104 miles of all-weather road, construction of 114 miles of drag roads, and construction of approximately 36 miles of permanent vehicle barriers on the CPNWR	40	589
Proposed installation of two additional rescue beacons on CPNWR	18	0
Proposed installation of 12 RVS systems along the U.S.-Mexico border south of Ajo, Arizona	30	1
Proposed improvement of 80 miles of all weather patrol road and construction of 50 miles of PVBs on TON as well as a construction access road for the installation and maintenance of the PVBs	15	72
Proposed installation of a water well and upgrade of Desert Grip camp detail including road improvements in the Wellton Station's AO	25	14
New infrastructure at the Lukeville – Sonoyta crossing including office space, light industrial space, health unit space, and warehouse/storage space (Garcia 2007)	0	1
Proposed widening of the El Camino Del Diablo to approximately 18-feet wide.	15	62
Proposed installation of 14 tower sites in the Ajo Station AO.	15	7
Total		974 acres

The USBP might be required to implement other activities and operations that are currently not foreseen or mentioned in this document. These actions could be in response to National emergencies or security events like the terrorist attacks on September 11, 2001 or to changes in the mode of operations of the potential IAs.

In addition, projects are currently being planned by other Federal entities which could affect areas in use by USBP. CBP should maintain close coordination with these agencies to ensure that CBP activities do not conflict with other agency(s) policies or management plans. CBP will consult with applicable state and Federal agencies prior to performing any construction activities and will coordinate operations so that it does not impact the mission of other agencies. The following is a list of projects other Federal agencies and tribes are conducting or have completed within the U.S.-Mexico border region.

OPCNM:

1. Planned installation of fiber optic cable along State Route 85 from the northern boundary of the OPCNM to the Visitors Center (Kralovec 2007b).
2. Proposed installation of approximately 2 miles of new water line from the Visitors Center to the Camp Grounds (Kralovec 2007b).

A summary of the anticipated cumulative impacts relative to the Proposed Action Alternative (*i.e.*, construction of 5.2 miles of primary pedestrian fence within the Ajo Station) is presented below. These discussions are presented for each of the resources described previously.

Land Use. A significant impact would occur if any action is inconsistent with adopted land use plans or an action would substantially alter those resources required for, supporting or benefiting the current use. The Proposed Action Alternative would only permanently affect 45 acres, of which 38 are located in the Roosevelt Reservation that was set aside specifically for border control actions. The use of 7 acres of NPS lands on the OPCNM would not be considered cumulatively significant as the OPCNM encompasses over 330,000 acres and the impact would account for less than 0.002 percent of the OPCNM total acreage. In addition, a Special Use Permit would be obtained by USBP for the use of this land for construction of the road and fence which acts as a tool to protect the remainder of the park. Therefore, this action within the Roosevelt Reservation is consistent with the authorized land use and, when

considered with other potential alterations of land use, would not be expected to result in a significant cumulative adverse effect.

Soils. A significant impact would occur if the action exacerbates or promotes long-term erosion, if the soils are inappropriate for the proposed construction, and would create a risk to life or property; or if there would be a substantial reduction in agricultural production or loss of prime farmland soils. The proposed action and other USBP actions have not reduced prime farmland soils or agricultural production. Pre- and post-construction SWPPP measures would be implemented to control soil erosion. No inappropriate soil types are located in the project corridor that would present a safety risk. The impact to 45 acres, including 17 acres of previously disturbed soils, when combined with past and proposed projects in the region, would not be considered a significant cumulative adverse impact.

Biological Resources. The significance threshold for biological resources would include a substantial reduction in ecological process, communities, or populations that would threaten the long-term viability of a species or result in the substantial loss of a sensitive community that could not be off-set or otherwise compensated. Removal of 28 acres of locally common habitat would result in insignificant cumulative impacts to vegetation communities and wildlife populations since habitat in the project corridor is regionally common. The long-term viability of species and communities in the project region would not be threatened. The loss of 28 acres of wildlife habitat, when combined with other ground disturbing or development projects in the project region, would not result in significant cumulative negative impacts on the region's biological resources.

Cultural Resources. The proposed action would have no effect on cultural resources. Therefore, this action, when combined with other existing and proposed projects in the region, would not result in significant cumulative impacts to historical properties.

Air Quality. Impacts to air quality would be considered significant if the action resulted in a violation of air quality standards, obstructs implementation of an air quality plan, or exposes sensitive receptors to substantial pollutant concentrations. The emissions generated during and after the construction of the proposed primary pedestrian fence would be short-term and minor. Although maintenance of the primary pedestrian fence would result in cumulative impacts to the region's airshed, these impacts would not be considered significant even when combined with

the other proposed developments in the border region. Deterrence of and improved response time to IAs created by the construction of the primary pedestrian fence would reduce off-road enforcement actions that are currently required by USBP agents.

Water Resources. The significance threshold for water resources include any action that substantially depletes groundwater or surface water supplies or interferes with groundwater recharge, substantially alters drainage patterns, or results in the loss of waters of the U.S. that cannot be compensated. No significant impact to water resources would occur as a result of the construction and maintenance of the proposed primary pedestrian fence. The required SWPPP and BMPs would reduce erosion and sedimentation during construction to negligible levels and would eliminate post-construction erosion and sedimentation from the site. The same measures would be implemented for other construction projects; therefore, cumulative impacts would not be significant.

Socioeconomics. Significance threshold for socioeconomic conditions include displacement or relocation of residences or commercial buildings; increases in long-term demands to public services in excess of existing and projected capacities; and disproportionate impacts to minority and low income families. Construction of the proposed infrastructure would result in temporary cumulative beneficial impacts to the region's economy. No impacts to residential areas, population, or minority or low-income families would occur. These effects, when combined with the other currently proposed or on-going projects within the region, would not be considered as significant cumulative impacts.

Noise. Actions would be considered to cause significant impacts if they permanently increase ambient noise levels over 65 dBA. Most of the noise generated by the proposed action would occur during construction and, thus, would not contribute to cumulative impacts to ambient noise levels. Routine maintenance of the primary pedestrian fence would result in slight temporary increases in noise levels that would continue to sporadically occur over the long-term and would be similar to ongoing PVB maintenance within the project corridor. Potential sources of noise from other projects are not enough (temporal or spatial) to increase ambient noise levels above the 65 dBA range at the proposed sites. Thus, the noise generated by the construction and maintenance of the proposed infrastructure, when considered with the other existing and proposed projects in the region, would not be considered a significant cumulative adverse effect.

Aesthetics. Actions that cause the permanent loss of the characteristics that make an area visually unique or sensitive would be considered to cause a significant impact. No major impacts to visual resources would occur from implementing the proposed action, due in part to the heavily degraded nature of the project corridor, development on the south side of the border, and the existing border tactical infrastructure. Construction and maintenance of the proposed primary pedestrian fence, when considered with existing and proposed developments in the surrounding area, would not result in a significant cumulative negative impact on the visual quality of the region. Areas north of the border would experience beneficial, indirect cumulative effects by the reduction of trash and debris produced by IAs.

Hazardous and Solid Wastes. Significant impacts would occur if an action creates a public hazard, the site is considered a hazardous waste site that poses health risks, or if the action would impair the implementation of an adopted emergency response or evacuation plan. Only minor increases in the use of hazardous substances (*e.g.*, POL) would occur as a result of the construction and maintenance of the primary pedestrian fence. No health or safety risks would be created by the proposed action. The effects of this proposed action, when combined with other on-going and proposed projects in the region, would not be considered a significant cumulative effect.

SECTION 6.0
MITIGATION MEASURES



6.0 MITIGATION MEASURES

This chapter describes those measures that would be implemented to reduce or eliminate potential adverse impacts to the human and natural environment. Many of these measures have been incorporated as standard operating procedures by USBP on past projects. It is USBP policy to mitigate adverse impacts through the sequence of avoidance, minimization, and finally, compensation. Mitigation measures are presented below for each resource category that would be potentially affected. It should be noted that if any of the alternatives for this project are implemented, the following mitigation measures could be employed.

6.1 GENERAL CONSTRUCTION ACTIVITIES

BMPs would be implemented as standard operating procedures during all construction activities, and would include proper handling, storage, and/or disposal of hazardous and/or regulated materials. To minimize potential impacts from hazardous and regulated materials, all fuels, waste oils and solvents would be collected and stored in tanks or drums within a secondary containment system that consists of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein. The refueling of machinery would be completed following accepted industry guidelines, and all vehicles could have drip pans during storage to contain minor spills and drips. Although it will be unlikely for a major spill to occur, any spill of reportable quantities would be contained immediately within an earthen dike, and the application of an absorbent (*e.g.*, granular, pillow, sock, *etc.*) would be used to absorb and contain the spill. Furthermore, any petroleum liquids (*e.g.*, fuel) or material listed in 40 CFR 302 Table 302.4 of a reportable quantity must be cleaned up and reported to the appropriate Federal and state agencies. Reportable quantities of those substances listed on 40 CFR 302 Table 302.4 would be included as part of the SPCCP. A SPCCP would be in place prior to the start of construction and all personnel would be briefed on the implementation and responsibilities of this plan.

All construction would follow DHS management directive 5100 for waste management. All waste oil and solvents would be recycled. All non-recyclable hazardous and regulated wastes would be collected, characterized, labeled, stored, transported and disposed of in accordance with all Federal, state, and local regulations, including proper waste manifesting procedures.

Solid waste receptacles would be maintained at staging and bivouac areas. Non-hazardous solid waste (trash and waste construction materials) would be collected and deposited in the on-site receptacles. Solid waste would be collected and disposed of by a local waste disposal contractor. Waste materials and other discarded materials would be removed from the site as quickly as possible in an effort to keep the project area and surroundings free of litter.

Waste water (water used for project purposes that is contaminated with construction materials, was used for cleaning equipment and thus carries oils or other toxic materials or other contaminants in accordance with state regulations) is to be stored in closed containers on site until removed for disposal. Concrete wash water would not be dumped on the ground, but is to be collected and moved offsite for disposal.

6.2 SOILS

Erosion control techniques, such as the use of straw bales (weed free straw), aggregate materials, wetting compounds (*i.e.*, water) and revegetation with native plant species, where possible, would be incorporated with the design of the Proposed Action Alternative. In addition, other erosion control measures, as required and promulgated through the SWPPP, would be implemented before and after construction activities.

6.3 BIOLOGICAL RESOURCES

All contractors, work crews (including National Guard and military personnel), and CBP personnel in the field performing construction and maintenance activities would receive training on the habitat and habits of the species that are found in the area, including information on how to avoid impacts to the species from their activities. This training would be provided to all contractor and work crew project managers and senior military leaders who are working onsite. It would be the responsibility of these project managers and senior military leaders to ensure that their personnel are familiar with the BMPs and other limitations and constraints.

CBP would truck water into the project site for purposes of construction to ensure that no impacts to flora or fauna near and within Quitobaquito Springs would occur.

The MBTA requires that Federal agencies coordinate with USFWS if a construction activity would result in the “take” of a migratory bird. Since construction or clearing activities cannot be scheduled to avoid the nesting season (typically March 15 through September 15), preconstruction surveys for migratory bird species would occur immediately prior to the start of any construction activity to identify active nests. If construction activities would result in the “take” of a migratory bird, then coordination with USFWS and AGFD would occur, and applicable permits would be obtained prior to construction or clearing activities.

Although no Sonoran desert tortoises or Mexican rosy boas were observed during biological surveys the potential exists for these species to occur in and near Sonoyta Hill. In the event a tortoise or boa is observed within the construction corridor during construction activities, a qualified biologist would capture and relocate the individual to an area outside of the corridor but still on Sonoyta Hill.

CBP would truck water into the project site for purposes of construction to ensure that no impacts to flora or fauna near and within Quitobaquito Springs would occur.

A salvage plan would be developed by the CBP, in close coordination with NPS, prior to construction activities. CBP will salvage as many columnar cacti as possible. CBP will develop and fund a restoration plan, in coordination with the NPS to restore illegal trails and roads on OPCNM. This will enhance bat foraging opportunities.

Materials used for on-site erosion control would be free of non-native plant seeds and other plant parts to limit potential for infestation. Additionally, all areas within the construction footprint would be monitored for a period of three years for the spread and eradication of non-native and invasive species. Construction equipment would be cleaned using BMPs prior to entering and departing the OPCNM to minimize the spread and establishment of non-native and invasive species.

6.4 CULTURAL RESOURCES

Construction near the Gachado Line Camp would be monitored by a professional archeological monitor to ensure no impacts would occur. Buffers would be established around the three historic objects that lie within the proposed construction corridor in order to avoid any adverse effects to

these significant cultural resources. If any cultural material is discovered during the construction efforts, then all activities would halt until a qualified archeologist can be brought in to assess the cultural remains.

6.5 WATER RESOURCES

Standard construction procedures would be implemented to minimize the potential for erosion and sedimentation during construction. All work would cease during heavy rains and would not resume until conditions are suitable for the movement of equipment and material. In accordance with regulations of the EPA Phase II of the NPDES stormwater program, a SWPPP would be required for stormwater runoff from construction activities greater than 1 acre and less than 5 acres. Therefore, a SWPPP would be prepared and the NOI submitted prior to the start of any construction. Equipment required for the construction activities would not be staged or stored within 100 feet of any wash to prevent any contamination from accidental POL spills that could occur. Primary pedestrian fence constructed in washes/arroyos would be designed to ensure proper conveyance of floodwaters and to eliminate the potential to cause backwater flooding on either side of the U.S.-Mexico border. Immediately after rain events, CBP would be responsible for ensuring that debris is removed from the primary pedestrian fence within washes/arroyos to ensure that no backwater flooding occurs. Additionally, all concrete trucks would be washed and cleaned outside of the project corridor and OPCNM lands.

6.6 AIR QUALITY

Standard construction practices such as routine watering of the construction site would be used to control fugitive dust during the construction phases of the proposed project. Additionally, all construction equipment and vehicles would be required to be kept in good operating condition to minimize exhaust emissions.

6.7 NOISE

During the construction phase, short-term noise impacts are anticipated. All Occupational Safety and Health Administration requirements would be followed. On-site activities would be restricted to daylight hours with the exception of concrete pours and emergency situations. Construction equipment would possess properly working mufflers and would be kept properly tuned to reduce

backfires. Implementation of these measures would reduce the expected short-term noise impacts to an insignificant level in and around the construction site.

6.8 AESTHETICS

In order to minimize potential aesthetic impacts over Sonoyta Hill, CBP would use subdued and non-reflective materials to build the primary pedestrian fence. These materials are expected to blend with the landscape as it naturally rusts.

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SECTION 7.0
PUBLIC INVOLVEMENT



7.0 PUBLIC INVOLVEMENT

7.1 AGENCY COORDINATION

This chapter discusses consultation and coordination that has occurred during preparation of this document. Agency correspondence and consultation letters are included in Appendix C. Formal and informal coordination has been conducted with the following agencies:

- U.S. Fish and Wildlife Service (USFWS)
- U.S. Environmental Protection Agency (EPA)
- U.S. Section, International Boundary and Water Commission (USIBWC)
- Natural Resource Conservation Service (NRCS)
- Arizona State Historic Preservation Office (SHPO)
- Arizona Game and Fish Department (AGFD)
- Pima County Department of Environmental Quality
- National Park Service (NPS)
- Organ Pipe Cactus National Monument (OPCNM)
- U.S. Army Corps of Engineers, Los Angeles District (USACE)
- Federally Recognized Tribes

7.2 PUBLIC REVIEW

The draft EA was made available for public review for a period of 30 days, beginning on September 17, 2007, which is the day the Notice of Availability (NOA) was published in local newspapers. A copy of the NOA that was published, announcing the availability of the draft EA, is included on the following page. Comments received concerning the draft EA were addressed and, where appropriate, changes were incorporated into the final EA.

During the public review period, comments were received from USIBWC, TON, OPCNM, and AGFD. Copies of the comment letters are included in Appendix C as well as the comment/response matrix developed by CBP. In summary, USIBWC expressed their jurisdictional concerns pertaining to overland drainage flow into Mexico, maintenance of border monuments, and the structural integrity of proposed primary pedestrian fence. AGFD expressed its natural resource management concerns pertaining to habitat fragmentation and degradation, as well as the need to coordinate its responsibilities with CBP's mission. The OPCNM expressed concerns with traversing Sonoyta Hill and potential effects to groundwater supplies. The TON was

mainly concerned with viewshed and cultural landscape issues, and indirect effects of shifts in illegal traffic to the TON (see Appendix C).

Revisions to the Draft EA have been incorporated, as appropriate, to this Final EA, based on the comments received. In addition, CBP has coordinated with OPCNM to ensure that its primary concerns have been sufficiently addressed in this document.

TUCSON'S NEWSPAPERS

Tucson, Arizona

STATE OF ARIZONA)
COUNTY OF PIMA)

Debbie Capanear, being first duly sworn deposes and says: that she is the Legal Advertising Representative of the **TUCSON'S NEWSPAPERS COMPANY**, a corporation organized and existing under the laws of the State of Arizona, and that the said **TUCSON'S NEWSPAPERS PUBLISHING COMPANY** prints and publishes the Arizona Daily Star and Tucson Citizen, daily newspapers printed and published in the City of Tucson, Pima County, State of Arizona, and having a general circulation in said City, County, State and elsewhere, and that the attached

Legal Notice

was printed and published correctly in the entire issue of the said Arizona Daily Star and Tucson Citizen on each of the following dates, to-wit:

Sept. 17, 2007

Debbie Capanear

Subscribed and sworn to before me this 20th day of Sept., 2007

Silvia H. Valdez
Notary Public



SILVIA H VALDEZ
Notary Public - Arizona
Pima County
Expires 12/15/09

My commission expires _____

TNI AD NO. _____

NOTICE OF AVAILABILITY
DRAFT ENVIRONMENTAL ASSESSMENT AND DRAFT FINDING OF NO SIGNIFICANT IMPACT FOR THE INSTALLATION OF 5.2 MILES OF PRIMARY FENCE U.S. BORDER PATROL TUCSON SECTOR, ARIZONA
The public is hereby notified of the availability of the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) to construct 5.2 miles of Primary Fence along the U.S.-Mexico border within the Ajo Station's Area of Operations (AO). This document addresses the construction of 0.65 miles of new primary fence and retrofitting 4.55 miles of existing permanent vehicle barriers with primary fence near the Lukeville Port-of-Entry.
This Draft EA and FONSI are available for review at the Ajo Public Library in Ajo, Arizona and are also available at the following URL: <http://ecso.swf.usace.army.mil>. Additional copies are available upon written request. Written comments can be submitted to: U.S. Army Corps of Engineers, Fort Worth District, ATTN: CESWF-PM-ECSO/McGregor, 819 Taylor Street, Room 3A28, Fort Worth, TX 76102 or via facsimile at (817) 886-6404. Comments must be received within 30 calendar days of the date of this publication.
Publish September 17, 2007
The Arizona Daily Star
Tucson Citizen

Publisher's Affidavit of Publication

oOo

STATE OF ARIZONA }
COUNTY OF YUMA }

Julie Moreno or Patrick Norris, having been first duly sworn, deposes and says: that The Sun is a newspaper of general circulation published daily in the City of Yuma, County of Yuma, State of Arizona; that (s)he is the publisher or business manager of said paper; that the

NOTICE OF AVAILABILITY
DRAFT ENVIRONMENTAL ASSESSMENT AND DRAFT FINDING OF NO SIGNIFICANT IMPACT FOR THE INSTALLATION OF 5.2 MILES OF PRIMARY FENCE U.S. BORDER PATROL TUCSON SECTOR, ARIZONA

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This Draft EA and FONSI are available for review at the Ajo Public Library in Ajo, Arizona and are also available at the following URL:

<http://ecso.swf.usace.army.mil>. Additional copies are available upon written request. Written comments can be submitted to: U.S. Army Corps of Engineers, Fort Worth District, ATTN:

CESWF-PM-ECISO/McGregor, 819 Taylor Street, Room 3A28, Fort Worth, TX 76102 or via facsimile at (817) 886-6404. Comments must be received within 30 calendar days of the date of this publication. Daily September 17, 2007 #L35684

NOTICE OF AVAILABILITY

a printed copy of which, as it appeared in said paper, is hereto attached and made a part of this affidavit, was published in The Sun

For ONE issues; that the date of the first publication of said NOTICE OF AVAILABILITY

was SEPTEMBER 17, 2007 and the date of the last publication

being SEPTEMBER 17, 2007 and that the dates when said

NOTICE OF AVAILABILITY

was printed and published in said paper were

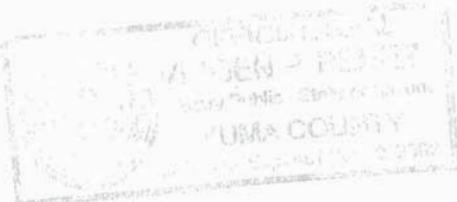
SEPTEMBER 17, 2007

Subscribed and sworn to before me, by the said Julie Moreno or Patrick Norris

19th day of September, 2007

Vigen P. Perez Notary Public

My commission expires May 10, 2009



SECTION 8.0
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SECTION 9.0
LIST OF PREPARERS



9.0 LIST OF PREPARERS

The following people were primarily responsible for preparing this Environmental Assessment.

NAME	AGENCY/ORGANIZATION	DISCIPLINE/EXPERTISE	EXPERIENCE	ROLE IN PREPARING EA
Patience E. Patterson, RPA	Architect-Engineer Resource Center	Archaeology	29 years, Professional Archeologist/Cultural Resource Manager	Project Manager, cultural resources review, and EA coordination
Charles McGregor	USACE, Fort Worth District, AERC	NEPA	10 years Environmental Management and Review	ECSO Project Manager, EA review and coordination
Suna Adam Knaus	Gulf South Research Corporation	Forestry/Wildlife	17 years, natural resources	EA review
Eric Webb, Ph.D.	Gulf South Research Corporation	Ecology/Wetlands	15 years experience in natural resources and NEPA studies	EA technical review
Chris Ingram	Gulf South Research Corporation	Biology/ Ecology	30 years EA/EIS studies	Project Coordinator/EA technical review
Josh McEnany	Gulf South Research Corporation	Forestry/Wildlife	7 years, natural resources and NEPA studies	Project Manager
Sharon Newman	Gulf South Research Corporation	GIS/graphics	11 years, GIS/graphics experience	GIS/graphics
Howard Nass	Gulf South Research Corporation	Forestry/Wildlife	17 years, natural resources	EA review
Shanna McCarty	Gulf South Research Corporation	Forestry	3 years natural resources	EA preparation
Steve Kolian	Gulf South Research Corporation	Environmental Science	10 years natural resources	EA preparation
Joanna Cezniak	Gulf South Research Corporation	Wildlife	9 years natural resources	EA preparation

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SECTION 10.0
ACRONYMS



10.0 ACRONYMS

AO	Area of Operation
ACHP	Advisory Council on Historic Preservation
ADWR	Arizona Department of Water Resources
AGFD	Arizona Game and Fish Department
ARPA	Archeological Resources Protection Act
BEA	Bureau of Economic Analysis
BMP	Best Management Practice
BMGR	Barry M. Goldwater Range
CAA	Clean Air Act
CBP	U.S. Customs and Border Protection
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CPNWR	Cabeza Prieta National Wildlife Refuge
CWA	Clean Water Act
DNL	Day-Night average sound Level
dB	Decibel
dBA	A-weighted Decibel
DHS	Department of Homeland Security
EA	Environmental Assessment
EPA	U.S. Environmental Protection Agency
E.O.	Executive Order
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
FR	Federal Register
GNEB	Good Neighbor Environmental Board
GSRC	Gulf South Research Corporation
IA	Illegal Alien
INS	Immigration and Naturalization Service
JTF-6	Joint Task Force Six
MBTA	Migratory Bird Treaty Act
MARAMA	Mid-Atlantic Regional Air Management Association
MOU	Memorandum of Understanding
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act of 1969
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NOA	Notice of Availability
NOI	Notice of Intent
OPCNM	Organ Pipe Cactus National Monument
PCDEQ	Pima County Department of Environmental Quality
PCPI	Per Capita Personal Income
POE	Port of Entry
POL	Petroleum, Oils, and Lubricants
PVB	Permanent Vehicle Barrier
ROI	Region of Influence

SHPO	State Historic Preservation Officer
SPCCP	Spill Prevention, Control, and Countermeasures Plan
SPEIS	Supplemental Programmatic Environmental Impact Statement
SWPPP	Storm Water Pollution Prevention Plan
TON	Tohono O’odham Nation
TPI	Total Personal Income
TVB	Temporary Vehicle Barrier
U.S.	United States
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
USBP	U.S. Border Patrol
USFWS	U.S. Fish and Wildlife Service
WSC	Wildlife of Special Concern
WMDB	Western Mexican Drainage Basin

APPENDIX A
March 2006 Memorandum of Understanding

**Memorandum of Understanding
Among
U. S. Department of Homeland Security
and
U. S. Department of the Interior
and
U. S. Department of Agriculture
Regarding
Cooperative National Security and Counterterrorism
Efforts on Federal Lands along the United States' Borders**

I. Purpose and Scope

A. This Memorandum of Understanding (MOU) is made and entered into by the Department of Homeland Security (DHS), including and on behalf of its constituent bureau U.S. Customs and Border Protection (CBP) and the CBP Office of Border Patrol (CBP-BP); the Department of the Interior (DOI), including and on behalf of its constituent bureaus, the National Park Service (NPS), U.S. Fish and Wildlife Service (FWS), Bureau of Indian Affairs (BIA), Bureau of Land Management (BLM), and the Bureau of Reclamation (BOR); and the Department of Agriculture (USDA), including and on behalf of its constituent agency the U.S. Forest Service (USFS). Throughout this MOU, these three Departments, including their constituent agencies, may be referred to as “the Parties.” Any reference to a bureau, agency, or constituent component of a Party shall not be deemed to exclude application to any appropriate bureau or constituent component of that Party. DHS recognizes that the BIA enters into this agreement only on its own behalf and not on behalf of any Indian tribe.

B. The geographic and jurisdictional scope of this MOU is nationwide. The Parties recognize the national security and counterterrorism significance of preventing illegal entry into the United States by cross-border violators (CBVs), including but not limited to the following: drug and human smugglers and smuggling organizations, foreign nationals, and terrorists and terrorist organizations. The Parties further recognize that damage to DOI and USDA-managed lands and natural and cultural resources is often a significant consequence of such illegal entry. The Parties are committed to preventing illegal entry into the United States, protecting Federal lands and natural and cultural resources, and - where possible - preventing adverse impacts associated with illegal entry by CBVs.

C. This MOU is intended to provide consistent goals, principles, and guidance related to border security, such as law enforcement operations; tactical infrastructure installation; utilization of roads; minimization and/or prevention of significant impact on or impairment of natural and cultural resources; implementation of the Wilderness Act, Endangered Species Act, and other related environmental law, regulation, and policy across land management agencies; and provide for coordination and sharing information

on threat assessments and other risks, plans for infrastructure and technology improvements on Federal lands, and operational and law enforcement staffing changes. This MOU provides guidance in the development of individual agreements, where appropriate, between CBP and land management agencies to further the provisions contained herein.

D. This MOU is entered into pursuant to the governing statutory authorities of each of the Parties.

E. The Parties acknowledge that CBP operation and construction within the sixty-foot "Roosevelt Reservation" of May 27, 1907 (along the US-Mexico border) and the sixty-foot "Taft Reservation" of May 3, 1912 (along the US-Canada border) is consistent with the purpose of those reservations and that any CBP activity (including, but not limited to, operations and construction) within the sixty-foot reservations is outside the oversight or control of Federal land managers.

F. This MOU supersedes any conflicting provision of any prior MOU or Memorandum of Agreement between the Parties or their subordinate bureaus or components.

II. Background

A. DHS, through its constituent bureaus (including CBP and its CBP-BP), is statutorily mandated to control and guard the Nation's borders and boundaries, including the entirety of the northern and southern land and water borders of the United States.

B. DOI and USDA, through their constituent bureaus, are statutorily charged as managers of Federal lands throughout the United States, including DOI and USDA lands in the vicinity of international borders that are administered as wilderness areas, conservation areas, national forests, wildlife refuges, units/irrigation projects of the Bureau of Reclamation, and/or units of the national park system. Tribal governments have primary management roles over tribal lands; however, the United States, through the BIA, may also have a stewardship or law enforcement responsibility over these lands. Many of these Federal and tribal lands contain natural and cultural resources that are being degraded by activities related to illegal cross-border movements.

C. The volume of CBVs can and has, in certain areas, overwhelmed the law enforcement and administrative resources of Federal land managers. In order to more effectively protect national security, respond to terrorist threats, safeguard human life, and stop the degradation of the natural and cultural resources on those lands, DOI and USDA land managers will work cooperatively with CBP to benefit from the enforcement presence, terrorist and CBV interdiction, and rescue operations of CBP.

III. Common Findings and Affirmation of the Parties

A. The Parties to this MOU recognize that CBP-BP access to Federal lands can facilitate rescue of CBVs on Federal lands, protect those lands from environmental damage, have a role in protecting the wilderness and cultural values and wildlife resources of these lands, and is necessary for the security of the United States. Accordingly, the Parties understand that CBP-BP, consistent with applicable Federal laws and regulations, may access public lands and waterways, including access for purposes of tracking, surveillance, interdiction, establishment of observation points, and installation of remote detection systems.

B. The Parties recognize that DOI and USDA have responsibility for enforcing Federal laws relating to land management, resource protection, and other such functions on Federal lands under their jurisdiction.

IV. Responsibilities and Terms of Agreement

A. The Parties Agree to the Following Common Goals, Policies, and Principles:

1. The Parties enter into this MOU in a cooperative spirit with the goals of securing the borders of the United States, addressing emergencies involving human health and safety, and preventing or minimizing environmental damage arising from CBV illegal entry on public lands;
2. The Parties will strive to both resolve conflicts at and delegate resolution authority to the lowest field operational level possible while applying the principles of this MOU in such manner as will be consistent with the spirit and intent of this MOU;
3. The Parties will develop and consistently utilize an efficient communication protocol respecting the chain of command for each of the Parties that will result in the consistent application of the goals, policies, and principles articulated in this MOU, and provide a mechanism that will, if necessary, facilitate the resolution of any conflicts among the Parties. If resolution of conflict does not occur at the local level, then the issue will be elevated first to the regional/sector office; if not resolved at the regional/sector level, then the issue will be elevated to the headquarters level for resolution;
4. The Parties will cooperate with each other to complete, in an expedited manner, all compliance that is required by applicable Federal laws not otherwise waived in furtherance of this MOU. If such activities are authorized by a local agreement as described in sub-article IV.B below, then the DOI, USDA, and CBP will complete the required compliance before executing the agreement;

5. The Parties will cooperate with each other to identify methods, routes, and locations for CBP-BP operations that will minimize impacts to natural, cultural, and wilderness resources resulting from CBP-BP operations while facilitating needed CBP-BP access;
6. The Parties will, as necessary, plan and conduct joint local law enforcement operations consistent with all Parties' legal authorities;
7. The Parties will establish a framework by which threat assessments and other intelligence information may be exchanged, including intelligence training to be conducted by all parties so that the intelligence requirements of each may be identified and facilitated;
8. The Parties will establish forums and meet as needed at the local, regional, and national levels to facilitate working relationships and communication between all Parties;
9. The Parties will develop and share joint operational strategies at the local, regional, and national levels, including joint requests for infrastructure and other shared areas of responsibility;
10. The Parties will share the cost of environmental and cultural awareness training unless otherwise agreed; and
11. The Parties will, as appropriate, enter into specific reimbursable agreements pursuant to the Economy Act, 31 U.S.C. §1535 when one party is to furnish materials or perform work or provide a service on behalf of another party.

B. Responsibilities and Terms Specific to DOI and USDA. The DOI and the USDA hereby recognize that, pursuant to applicable law, CBP-BP is authorized to access the Federal lands under DOI and USDA administrative jurisdiction, including areas designated by Congress as wilderness, recommended as wilderness, and/or wilderness study areas, and will do so in accordance with the following conditions and existing authorities:

1. CBP-BP agents on foot or on horseback may patrol, or pursue, or apprehend suspected CBVs off-road at any time on any Federal lands administered by the Parties;
2. CBP-BP may operate motor vehicles on existing public and administrative roads and/or trails and in areas previously designated by the land management agency for off-road vehicle use at any time, provided that such use is consistent with presently authorized public or administrative use. At CBP-BP's request, the DOI and the USDA will provide CBP-BP with keys, combinations, or other means necessary to

access secured administrative roads/trails. CBP-BP may drag existing public and administrative roads that are unpaved for the purpose of cutting sign, subject to compliance with conditions that are mutually agreed upon by the local Federal land manager and the CBP-BP Sector Chief. For purposes of this MOU, "existing public roads/trails" are those existing roads/trails, paved or unpaved, on which the land management agency allows members of the general public to operate motor vehicles, and "existing administrative roads/trails" are those existing roads/trails, paved or unpaved, on which the land management agency allows persons specially authorized by the agency, but not members of the general public, to operate motor vehicles;

- 3 CBP-BP may request, in writing, that the land management agency grant additional access to Federal lands (for example, to areas not previously designated by the land management agency for off-road use) administered by the DOI or the USDA for such purposes as routine patrols, non-emergency operational access, and establishment of temporary camps or other operational activities. The request will describe the specific lands and/or routes that the CBP-BP wishes to access and the specific means of access desired. After receiving a written request, the local Federal land manager will meet promptly with the CBP-BP Sector Chief to begin discussing the request and negotiating the terms and conditions of an agreement with the local land management agency that authorizes access to the extent permitted by the laws applicable to the particular Federal lands. In each agreement between CBP-BP and the local land management agency, the CBP-BP should be required to use the lowest impact mode of travel and operational setup reasonable and practicable to accomplish its mission. The CBP-BP should also be required to operate all motorized vehicles and temporary operational activities in such a manner as will minimize the adverse impacts on threatened or endangered species and on the resources and values of the particular Federal lands. However, at no time should officer safety be compromised when selecting the least impactful conveyance or operational activity. Recognizing the importance of this matter to the Nation's security, the CBP-BP Sector Chief and the local Federal land manager will devote to this endeavor the resources necessary to complete required compliance measures in order to execute the local agreement within ninety (90) days after the Federal land manager has received the written request for access. Nothing in this paragraph is intended to limit the exercise of applicable emergency authorities for access prior to the execution of the local agreement. The Secretaries of the Interior, Agriculture, and Homeland Security expect that, absent compelling justification, each local agreement will be executed within that time frame and provide the maximum amount of access requested by the CBP-BP and allowed by law;

4. Nothing in this MOU is intended to prevent CBP-BP agents from exercising existing exigent/emergency authorities to access lands, including authority to conduct motorized off-road pursuit of suspected CBVs at any time, including in areas designated or recommended as wilderness, or in wilderness study areas when, in their professional judgment based on articulated facts, there is a specific exigency/emergency involving human life, health, safety of persons within the area, or posing a threat to national security, and they conclude that such motorized off-road pursuit is reasonably expected to result in the apprehension of the suspected CBVs. Articulated facts include, but are not limited to, visual observation; information received from a remote sensor, video camera, scope, or other technological source; fresh “sign” or other physical indication; canine alert; or classified or unclassified intelligence. For each such motorized off-road pursuit, CBP-BP will use the least intrusive or damaging motorized vehicle readily available, without compromising agent or officer safety. In accordance with paragraph IV.C.4, as soon as practicable after each such motorized off-road pursuit, CBP-BP will provide the local Federal land manager with a brief report;
5. If motorized pursuits in wilderness areas, areas recommended for wilderness designation, wilderness study areas, or off-road in an area not designated for such use are causing significant impact on the resources, or if other significant issues warrant consultation, then the Federal land manager and the CBP-BP will immediately meet to resolve the issues subject to paragraphs IV.A.2 and IV.A.3 of this MOU;
6. CBP may request, in writing, that the land management agency authorize installation or construction of tactical infrastructure for detection of CBVs (including, but not limited to, observation points, remote video surveillance systems, motion sensors, vehicle barriers, fences, roads, and detection devices) on land under the local land management agency’s administrative jurisdiction. In areas not designated as wilderness, the local Federal land manager will expeditiously authorize CBP to install such infrastructure subject to such terms and conditions that are mutually developed and articulated in the authorization issued by the land management agency. In areas designated or managed as wilderness, the local Federal land manager, in consultation with CBP, will promptly conduct a “minimum requirement,” “minimum tool,” or other appropriate analysis. If supported by such analysis, the local Federal land manager will expeditiously authorize CBP to install such infrastructure subject to such terms and conditions that are mutually developed and articulated in the authorization issued by the land management agency;

7. The DOI and USDA will provide CBP-BP agents with appropriate environmental and cultural awareness training formatted to meet CBP-BP operational constraints. The DOI and USDA will work with CBP-BP in the development and production of maps for use or reference by CBP-BP agents including, as appropriate, site-specific and resource-specific maps that will identify specific wildlife and environmentally or culturally sensitive areas;
8. The DOI and USDA will, as applicable, provide CBP-BP with all assessments and studies done by or on behalf of DOI or USDA on the effects of CBVs on Federal lands and native species to better analyze the value of preventative enforcement actions;
9. The DOI and USDA will assist CBP-BP in search and rescue operations on lands within the respective land managers' administration when requested;
10. The CBP-BP and land management agencies may cross-deputize or cross-designate their agents as law enforcement officers under each other agency's statutory authority. Such cross-deputation or cross-designation agreements entered into by the local land management agency and the field operations manager for the CBP-BP shall be pursuant to the policies and procedures of each agency; and
11. DOI and USDA will work at the field operations level with affected local CBP-BP stations to establish protocols for notifying CBP-BP agents when DOI or USDA law enforcement personnel are conducting law enforcement operations in an area where CBP-BP and DOI/USDA operations can or will overlap.

C. Responsibilities and Terms Specific to the CBP. DHS hereby agrees as follows:

1. Consistent with the Border Patrol Strategic Plan, CBP-BP will strive to interdict CBVs as close to the United States' international borders as is operationally practical, with the long-term goal of establishing operational control along the immediate borders;
2. If the CBP-BP drag any unpaved roads for the purpose of cutting sign under provision IV.B.2 above, then CBP-BP will maintain or repair such roads to the extent that they are damaged by CBP-BP's use or activities;
3. If CBP-BP agents pursue or apprehend suspected CBVs in wilderness areas or off-road in an area not designated for such use under

paragraph IV.B.5, then the CBP-BP will use the lowest impact mode of travel practicable to accomplish its mission and operate all motorized vehicles in such a manner as will minimize the adverse impacts on threatened or endangered species and on the resources and values of the particular Federal lands, provided officer safety is not compromised by the type of conveyance selected;

4. CBP-BP will notify the local Federal land manager of any motorized emergency pursuit, apprehension, or incursion in a wilderness area or off-road in an area not designated for such use as soon as is practicable. A verbal report is sufficient unless either CBP-BP or the land managing agency determines that significant impacts resulted, in which case a written report will be necessary;
5. If motorized pursuits in wilderness areas, areas recommended for wilderness designation, wilderness study areas, or off-road in an area not designated for such use are causing significant impact on the resources as determined by a land manager, or if other significant issues warrant consultation, then the CBP-BP and Federal land manager will immediately meet to resolve the issues subject to paragraphs IV.A.2 and IV.A.3 of this MOU;
6. CBP will consult with land managers to coordinate the placement and maintenance of tactical infrastructure, permanent and temporary video, seismic and other remote sensing sites in order to limit resource damage while maintaining operational efficiency;
7. CBP-BP will ensure that current and incoming CBP-BP agents attend environmental and cultural awareness training to be provided by the land management agencies;
8. CBP-BP will provide land management agencies with appropriate and relevant releasable statistics of monthly CBV apprehensions, search and rescue actions, casualties, vehicles seized, drug seizures and arrests, weapons seizures and arrests, and other significant statistics regarding occurrences on the lands managed by the land manager;
9. CBP-BP will consult with land managers in the development of CBP-BP's annual Operational-Requirements Based Budgeting Program to ensure affected land managers can provide input and are, in the early stages of planning, made aware what personnel, infrastructure, and technology the CBP-BP would like to deploy along the border within their area of operation; and
10. CBP-BP will work at the field operations manager level with affected local land management agencies to establish protocols for notifying

land management agency law enforcement officers when BP is conducting special operations or non-routine activities in a particular area.

V. Miscellaneous Provisions

A. Nothing in this MOU may be construed to obligate the agencies or the United States to any current or future expenditure of funds in advance of the availability of appropriations, nor does this MOU obligate the agencies or the United States to spend funds for any particular project or purpose, even if funds are available.

B. Nothing in this MOU will be construed as affecting the authority of the Parties in carrying out their statutory responsibilities.

C. This MOU may be modified or amended in writing upon consent of all Parties, and other affected Federal agencies may seek to become a Party to this MOU.

D. The Parties shall retain all applicable legal responsibility for their respective personnel working pursuant to this MOU with respect to, *inter alia*, pay, personnel benefits, injuries, accidents, losses, damages, and civil liability. This MOU is not intended to change in any way the individual employee status or the liability or responsibility of any Party under Federal law.

E. The Parties agree to participate in this MOU until its termination. Any Party wishing to terminate its participation in this MOU shall provide sixty (60) days written notice to all other Parties.

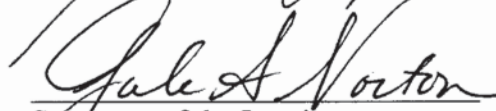
F. This document is an intra-governmental agreement among the Parties and does not create or confer any rights, privileges, or benefits upon any person, party, or entity. This MOU is not and shall not be construed as a rule or regulation.

In witness whereof, the Parties hereto have caused this Memorandum of Understanding to be executed and effective as of the date of the last signature below.

Date: 3/24/06


Secretary of Homeland Security

Date: 3/31/06


Secretary of the Interior

Date: 3/29/06


Secretary of Agriculture

APPENDIX B
List of State and Federal Protected Species for Pima County

Pima County

COMMON NAME	SCIENTIFIC NAME	STATUS	DESCRIPTION	COUNTY	ELEVATION	HABITAT	COMMENTS
Bald eagle	<i>Haliaeetus leucocephalus</i>	Threatened	Large, adults have white head and tail. Height 28-38 inches; wingspan 66-96 inches. Dark with varying degrees of mottled brown plumage. Feet bare of feathers.	Apache, Cochise, Coconino, Gila, Graham, La Paz, Maricopa, Mohave, Navajo, Pima, Pinal, Santa Cruz, Yavapai, Yuma	Varies	Large trees or cliffs near water (reservoirs, rivers, and streams) with abundant prey.	Some birds are nesting residents while a larger number winters along rivers and reservoirs. An estimated 200 to 300 birds winter in Arizona. Once endangered (32 FR 4001, 03-11-1967; 43 FR 6233, 02-14-78) because of reproductive failures from pesticide poisoning and loss of habitat, this species was down listed to threatened on August 11, 1995. Illegal shooting, disturbance, and loss of habitat continues to be a problem. Species has been proposed for delisting (64 FR 36454) but still receives full protection under the ESA.
California Brown pelican	<i>Pelecanus occidentalis californicus</i>	Endangered	Large dark gray-brown water bird with a pouch underneath long bill and webbed feet. Adults have a white head and neck, brownish black breast, and silver gray upper parts.	Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Maricopa, Mohave, Navajo, Pima, Pinal, Santa Cruz, Yavapai, Yuma	Varies	Coastal land and islands; species found around many Arizona lakes and rivers.	Subspecies is found on Pacific Coast and is endangered due to pesticides. It is an uncommon transient in Arizona on many Arizona lakes and rivers. Individuals wander up from Mexico in summer and fall. No breeding records in Arizona.
Chiricahua leopard frog	<i>Rana chiricahuensis</i>	Threatened	Cream colored tubercules (spots) on a dark background on the rear of the thigh, dorsolateral folds that are interrupted and deflected medially, and a call given out of water distinguish this spotted frog from other leopard frogs.	Apache, Cochise, Coconino, Gila, Graham, Greenlee, Navajo, Pima, Santa Cruz, Yavapai	3300-8900 ft	Streams, rivers, backwaters, ponds, and stock tanks that are mostly free from introduced fish, crayfish, and bullfrogs.	Require permanent or nearly permanent water sources. Populations north of the Gila River may be a closely-related, but distinct, undescribed species. A special rule allows take of frogs due to operation and maintenance of livestock tanks on State and private lands.
Desert pupfish	<i>Cyprinodon macularius</i>	Endangered	Small (2 inches) smoothly rounded body shape with narrow vertical bars on the sides. Breeding males blue on head and sides with yellow on tail. Females and juveniles tan to olive colored back and silvery sides.	Graham, La Paz, Maricopa, Pima, Pinal, Santa Cruz, Yavapai	< 5,000 ft	Shallow springs, small streams, and marshes. Tolerates saline and warm water.	Critical habitat includes Quitobaquito Springs, Pima County, portions of San Felipe Creek, Carrizo Wash, and Fish Creek Wash, Imperial County, California. Two subspecies are recognized: Desert Pupfish (<i>C.m.macularis</i>) and Quitobaquito Pupfish (<i>C.m.ereumus</i>).

COMMON NAME	SCIENTIFIC NAME	STATUS	DESCRIPTION	COUNTY	ELEVATION	HABITAT	COMMENTS
Gila chub	<i>Gila intermedia</i>	Endangered	Deep compressed body, flat head. Dark olive-gray color above, silver sides. Endemic to Gila River Basin.	Cochise, Gila, Graham, Greenlee, Maricopa, Pima, Pinal, Santa Cruz, Yavapai	2,000 - 5,500 ft	Pools, springs, cienegas, and streams.	Found on multiple private lands, including the Nature Conservancy, the Audubon Society, and others. Also occurs on Federal and state lands and in Sonora, Mexico. Critical habitat occurs in Cochise, Gila, Graham, Greenlee, Pima, Pinal, Santa Cruz and Yavapai counties.
Gila topminnow	<i>Poeciliopsis occidentalis occidentalis</i>	Endangered	Small (2 inches), guppy-like, live bearing, lacks dark spots on its fins. Breeding males are jet black with yellow fins.	Gila, Graham, La Paz, Maricopa, Pima, Pinal, Santa Cruz, Yavapai	< 4,500 ft	Small streams, springs, and cienegas vegetated shallows.	Species historically occurred in backwaters of large rivers but is currently isolated to small streams and springs.
Huachuca water umbel	<i>Lilaeopsis schaffneriana ssp. recurva</i>	Endangered	Herbaceous, semi-aquatic perennial in the parsley family (Umbelliferae) with slender erect, hollow, leaves that grow from the nodes of creeping rhizomes. Flower: 3 to 10 flowered umbels arise from root nodes.	Cochise, Pima, Santa Cruz	3500-6500 ft	Cienegas, perennial low gradient streams, wetlands.	Species also occurs in adjacent Sonora, Mexico, west of the continental divide. Critical habitat in Cochise and Santa Cruz counties (64 FR 37441, July 12, 1999).
Jaguar	<i>Panthera onca</i>	Endangered	Largest species of cat native to Southwest. Muscular, with relatively short, massive limbs, and a deep-chested body. Usually cinnamon-buff in color with many black spots. Weights ranges from 40-135 kg (90-300 lbs).	Cochise, Santa Cruz, Pima	1,600 - >9,000 ft	Found in Sonoran desertscrub up through subalpine conifer forest.	Also occurs in New Mexico. A Jaguar conservation team is being formed that is being led by Arizona and New Mexico state entities along with private organizations.
Kearney blue star	<i>Amsonia kearneyana</i>	Endangered	A herbaceous perennial about 2 feet tall in the dogbane family (Apocynaceae). Thickened woody root and many pubescent (hairy) stems that rarely branch. Flowers: white terminal inflorescence in April and May.	Pima	3600-3800 ft	West-facing drainages in the Baboquivari Mountains.	Plants grow in stable, partially shaded, coarse alluvium along a dry wash in the Baboquivari Mountains. Range is extremely limited. Protected by Arizona Native Plant Law.

COMMON NAME	SCIENTIFIC NAME	STATUS	DESCRIPTION	COUNTY	ELEVATION	HABITAT	COMMENTS
Lesser long-nosed bat	<i>Leptonycteris curasoae yerbabuena</i>	Endangered	Elongated muzzle, small leaf nose, and long tongue. Yellowish brown or gray above and cinnamon brown below. Tail minute and appears to be lacking. Easily disturbed.	Cochise, Gila, Graham, Greenlee, Pima, Pinal, Maricopa, Santa Cruz	< 6000 ft	Desert scrub habitat with agave and columnar cacti present as food plants.	Day roosts in caves and abandoned tunnels. Forages at night on nectar, pollen, and fruit of paniculate agaves and columnar cacti. This species is migratory and is present in Arizona usually from April to September and south of the border the remainder of the year.
Masked bobwhite	<i>Colinus virginianus ridgewayi</i>	Endangered	Males brick-red breast and black head and throat. Females are generally nondescript but resemble other races such as the Texas bobwhite.	Pima	1000-4000 ft	Desert grasslands with diversity of dense native grasses, forbs, and brush.	Species is closely associated with <i>Acacia angustissima</i> . Formerly occurred in Altar and Santa Cruz valleys, as well as Sonora, Mexico. Presently only known from reintroduced populations on Buenos Aires NWR.
Mexican spotted owl	<i>Strix occidentalis lucida</i>	Threatened	Medium sized with dark eyes and no ear tufts. Brownish and heavily spotted with white or beige.	Apache, Cochise, Coconino, Gila, Graham, Greenlee, Maricopa, Mohave, Navajo, Pima, Pinal, Santa Cruz, Yavapai	4100-9000 ft	Nests in canyons and dense forests with multi-layered foliage structure.	Generally nest in older forests of mixed conifer or ponderosa pine/gambel oak type, in canyons, and use variety of habitats for foraging. Sites with cool microclimates appear to be of importance or are preferred. Critical habitat was finalized on August 31, 2004 (69 FR 53182). Critical habitat in Arizona occurs in Apache, Cochise, Coconino, Gila, Graham, Greenlee, Maricopa, Navajo, Pima, Pinal, Santa Cruz, and Yavapai counties.
Nichol Turk's head cactus	<i>Echinocactus horizontalis</i> <i>var. nicholii</i>	Endangered	Blue-green to yellowish-green, columnar, 18 inches tall, 8 inches in diameter. Spine clusters have 5 radial and 3 central spines; one downward short; 2 spines upward and red or vasally gray. Flower: pink fruit: woolly white.	Pima, Pinal	2400-4100 ft	Sonoran desertscrub.	Found in unshaded microsites in Sonoran desertscrub on dissected alluvial fans at the foot of limestone mountains and on inclined terraces and saddles on limestone mountain sides.
Ocelot	<i>Leopardus (=Felis) pardalis</i>	Endangered	Medium-sized spotted cat whose tail is about 1/2 the length of head and body. Yellowish with black streaks and stripes running from front to back. Tail is spotted and face is less heavily streaked than the back and sides.	Cochise, Pima, Santa Cruz	< 8000 ft	Humid tropical and sub-tropical forests, savannahs, and semi-arid thornscrub.	May persist in partly-cleared forests, second-growth woodland, and abandoned cultivated areas reverted to brush. Universal component is presence of dense cover. Unconfirmed reports of individuals in the southern part of the State continue to be received.

COMMON NAME	SCIENTIFIC NAME	STATUS	DESCRIPTION	COUNTY	ELEVATION	HABITAT	COMMENTS
Pima pineapple cactus	<i>Coryphantha scheeri</i> var. <i>robustispina</i>	Endangered	Hemispherical stems 4-7 inches tall 3-4 inches diameter. Central spine 1 inch long straw colored hooked surrounded by 6-15 radial spines. Flower: yellow, salmon, or rarely white narrow floral tube..	Pima, Santa Cruz	2300-5000 ft	Sonoran desertscrub or semi-desert grassland communities.	Occurs in alluvial valleys or on hillsides in rocky to sandy or silty soils. This species can be confused with juvenile barrel cactus (<i>Ferocactus</i>). However, the spines of the later are flattened, in contrast with the round cross-section of the <i>Coryphantha</i> spines. 80-90% of individuals on state or private land.
Sonoran pronghorn	<i>Antilocapra americana</i> <i>sonoriensis</i>	Endangered	Buff on back and white below, hooped with slightly curved black horns having a single prong. Smallest and palest of the pronghorn subspecies	Maricopa, Pima, Yuma	500 - 2,000 ft	Broad intermountain alluvial valleys with creosote-bursage and palo verde-mixed cacti associations.	Typically, bajadas are used as fawning areas and sandy dune areas provide food seasonally. Historical range was probably larger than exists today. This subspecies also occurs in Mexico.
Southwestern willow flycatcher	<i>Empidonax traillii</i> <i>extimus</i>	Endangered	Small passerine (about 6 inches) grayish-green back and wings, whitish throat, light olive-gray breast and pale yellowish belly. Two wingbars visible. Eye-ring faint or absent.	Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Maricopa, Mohave, Navajo, Pima, Pinal, Santa Cruz, Yavapai, Yuma	<8500 ft	Cottonwood/willow and tamarisk vegetation communities along rivers and streams.	Migratory riparian-obligate species that occupies breeding habitat from late April to September. Distribution within its range is restricted to riparian corridors. Difficult to distinguish from other members of the <i>Empidonax</i> complex by sight alone. Training seminar required for those conducting flycatcher surveys. Critical habitat was finalized on October 19, 2005 (50 CFR 60886) and can be viewed at http://arizonaes.fws.gov . In Arizona there are critical habitat segments in Apache, Cochise, Gila, Graham, Greenlee, Maricopa, Mohave, Pima, Pinal, and Yavapai counties.
Acuna cactus	<i>Echinomastus erectocentrus</i> var. <i>acunensis</i>	Candidate	<12 inches high; spine clusters borne on tubercles, each with a groove on the upper surface. 2-3 central spines and 12 radial spines. Flowers pink to purple.	Pima, Pinal	1300-2000 ft	Well drained knolls and gravel ridges in Sonoran desertscrub.	Immature plants distinctly different from mature plants. They are disc-shaped or spherical and have no central spines until they are about 1.5 inches. Radial spines are dirty white with maroon tips.
Sonoyta mud turtle	<i>Kinosternon sonoriense</i> <i>longifemorale</i>	Candidate	Primarily a pond turtle, prefers mud or sandy bottoms. Body 3 1/2 to 6 1/2 inches. Head and neck mottled with contrasting light and dark markings. Found in Quitobaquito Springs.	Pima	1,100 ft	Ponds and streams.	Species also found in Rio Sonoyta, Sonora, Mexico.

COMMON NAME	SCIENTIFIC NAME	STATUS	DESCRIPTION	COUNTY	ELEVATION	HABITAT	COMMENTS
Yellow-billed cuckoo	<i>Coccyzus americanus</i>	Candidate	Medium-sized bird with a slender, long-tailed profile, slightly down-curved bill, which is blue-black with yellow on the lower half of the bill. Plumage is grayish-brown above and white below, with rufous primary flight feathers.	Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Maricopa, Mohave, Navajo, Pima, Pinal, Santa Cruz, Yavapai, Yuma	< 6,500 ft	Large blocks of riparian woodlands (cottonwood, willow, or tamarisk galleries).	Listing was found warranted, but precluded as a distinct vertebrate population segment in the western U.S. on July 25, 2001. This finding indicates that the Service has sufficient information to list the bird, but other, higher priority listing actions prevent the Service from addressing the listing of the cuckoo at this time.
Gooddings onion	<i>Allium gooddingii</i>	Conservation Agreement	Herbaceous perennial plant; broad, flat, rather blunt leaves; flowering stalk 14-17 inches tall, flattened, and narrowly winged toward apex; fruit is broader than long; seeds are short and thick.	Apache, Greenlee, Pima	> 7,500 ft	Forested drainage bottoms and on moist north facing slopes of mixed conifer and spruce fir forests.	Conservation agreement between the Service and the Forest Service signed in February 1998. In New Mexico on the Lincoln and Gila National Forests.
San Xavier talussnail	<i>Sonorella eremita</i>	Conservation Agreement	Land snail, less than one inch in diameter (about .75 inches), 4.5 whorls, round shell, white to pinkish tint.	Pima	3,850-3,920 ft	Deep, limestone rockslide with outcrops of limestone and decomposed granite.	Conservation agreement signed by the Service, Arizona Game and Fish Department, El Paso Natural Gas Company, and Arizona Electric Power Cooperative, Inc. in September 1998.

**Special Status Species Documented within 5 Miles of the US/Mexico Border in the Organ
Pipe Cactus National Monument**

NAME	COMNAME	ESA	USFS	BLM	STATE
<i>Anthocharis cethura</i>	Felder's Orange Tip		S		
<i>Antilocapra americana sonoriensis</i>	Sonoran Pronghorn	LE	S		WSC
<i>Aspidoscelis burti xanthonota</i>	Red-back Whiptail	SC	S		
<i>Charina trivirgata trivirgata</i>	Mexican Rosy Boa	SC	S		
<i>Chionactis palarostris organica</i>	Organ Pipe Shovel-nosed Snake		S		
<i>Coccyzus americanus occidentalis</i>	Western Yellow-billed Cuckoo	C	S		WSC
<i>Cyprinodon eremus</i>	Quitobaquito Desert Pupfish	LE			WSC
<i>Echinomastus erectocentrus</i> var. <i>acunensis</i>	Acuna Cactus	C			HS
<i>Eumops perotis californicus</i>	Greater Western Bonneted Bat	SC			
<i>Eumops underwoodi</i>	Underwood's Bonneted Bat	SC	S		
<i>Ferocactus emoryi</i>	Emory's Barrel-cactus				SR
<i>Gastrophryne olivacea</i>	Great Plains Narrow-mouthed Toad				WSC
<i>Glaucidium brasilianum cactorum</i>	Cactus Ferruginous Pygmy-owl	SC			WSC
<i>Gopherus agassizii</i> (Sonoran Population)	Sonoran Desert Tortoise	SC			WSC
<i>Kinosternon sonoriense longifemorale</i>	Sonoyta Mud Turtle	C	S		
<i>Leptonycteris curasoae yerbabuena</i>	Lesser Long-nosed Bat	LE	S		WSC
<i>Lophocereus schottii</i>	Senita				SR
<i>Macrotus californicus</i>	California Leaf-nosed Bat	SC			WSC
<i>Mammillaria thornberi</i>	Thornber Fishhook Cactus				SR
<i>Myotis velifer</i>	Cave Myotis	SC		S	
<i>Nyctinomops femorosaccus</i>	Pocketed Free-tailed Bat			S	
<i>Peniocereus striatus</i>	Dahlia Rooted Cereus				SR
<i>Phyllorhynchus browni lucidus</i>	Maricopa Leaf-nosed Snake		S		
<i>Rallus longirostris yumanensis</i>	Yuma Clapper Rail	LE			WSC
<i>Stenocereus thurberi</i>	Organ Pipe Cactus				SR
<i>Tryonia quitobaquitae</i>	Quitobaquito Tryonia	SC	S		
<i>Tumamoca macdougalli</i>	Tumamoc Globeberry		S		SR
<i>Tyrannus melancholicus</i>	Tropical Kingbird				WSC

Designated Critical Habitat for the Quitobaquito Desert Pupfish within project area.

Arizona Game and Fish Department, Heritage Data Management System, May 7, 2007.

APPENDIX C
Correspondence



United States Department of the Interior
U.S. Fish and Wildlife Service
2321 West Royal Palm Road, Suite 103
Phoenix, Arizona 85021-4951
Telephone: (602) 242-0210 FAX: (602) 242-2513

In Reply Refer To:
AESO/SE
22410-2008-F-0011

February 11, 2008

Mr. George Hutchinson
U.S. Department of Homeland Security
Customs and Border Protection
1300 Pennsylvania Avenue NW
Room 3.4-D
Washington, D.C. 20229

RE: Biological Opinion for the Proposed Installation of 5.2 Miles of Primary Fence near
Lukeville, Arizona

Dear Mr. Hutchinson:

Thank you for your request for formal consultation with the U.S. Fish and Wildlife Service (FWS) pursuant to section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531-1544), as amended (Act). You requested initiation of formal consultation on September 17, 2007. At issue are impacts that may result from your proposed primary fence project on Organ Pipe Cactus National Monument in Pima County, Arizona. The proposed action may affect Sonoran pronghorn (*Antilocapra americana sonoriensis*) and lesser long-nosed bats (*Leptonycteris curasoae yerbabuena*).

This biological opinion is based on information provided in the "Final Environmental Assessment for the Proposed Installation of 5.2 Miles of Primary Fence near Lukeville, Arizona - U.S. Border Patrol, Tucson Sector, November 2007" (EA) and other sources of information as described in the consultation history. Literature cited in this biological opinion is not a complete bibliography of all literature available on the species of concern; primary fence installation and maintenance activities and their effects; road improvement and maintenance activities and their effects; or on other subjects considered in this opinion. A complete administrative record of this consultation is on file at the Phoenix, Arizona, Ecological Services Office (AESO).

CONSULTATION HISTORY

- June 11, 2007: We received your¹ June 4, 2007, request for information on threatened or endangered species, or those that are proposed to be listed as such under the Endangered Species Act of 1973, as amended (Act), which may occur in your proposed project area.
- July 10, 2007: We sent you a letter that included the aforementioned information you requested as well as other recommendations to consider during the preparation of your Environmental Assessment for the project.
- September 17, 2007: We received your “Draft Environmental Assessment for the Proposed Installation of 5.2 Miles of Primary Fence near Lukeville, Arizona - U.S. Border Patrol, Tucson Sector, September 2007” and August 14, 2007, letter requesting our concurrence that the Installation of 5.2 Miles of Primary Fence near Lukeville, Border Patrol (BP) Tucson Sector Project, Pima County, Arizona (proposed project), may affect, but is not likely to adversely affect, the federally endangered lesser long-nosed bat and will have no effect on the endangered Sonoran pronghorn.
- October 9, 2007: We held a conference call with Chris Ingram and Josh McEnany of Gulf South Research Corporation (GSRC) to discuss the project’s effects on the Sonoran pronghorn and lesser long-nosed bat. During the call, GSRC revised the determination and concluded that the project may result in adverse effects to both species and that formal section 7 consultation is warranted.
- October 12, 2007: We received your electronic mail confirming the aforementioned revision.
- October 19, 2007: We sent you a letter initiating formal consultation. This letter also included a request for information needed to complete our Biological Opinion.
- December 3, 2007: We received an electronic mail from GSRC with the Final EA attached.
- December 19, 2007: We received your electronic mail inquiring about the status of our Draft BO and informing us that the Final EA was submitted to our office. In a separate electronic mail you stated that the Final EA addressed all requests in our October 19, 2007, letter. We sent you an electronic mail stating that the Final EA did not address all of our requests, but that it contained enough information to start working on the Biological Opinion. A conference call was scheduled for January 8, 2008, to discuss outstanding information needs.
- January 8 to February 5, 2007: We had numerous conference calls to discuss outstanding concerns and information needs regarding your project. During these calls we agreed to a

¹ For the purposes of this biological opinion, “your” and “you” means either Customs and Border Protection or the Army Corps of Engineers.

number of conservation measures that are now incorporated into the “Description of the Proposed Action” of this biological opinion.

- February 6, 2008: We received your electronic mail providing the conservation measures that CBP will implement as part of this project.
- February 6, 2008: We sent you our draft biological opinion for the project.

BIOLOGICAL OPINION

DESCRIPTION OF PROPOSED ACTION

U.S. Customs and Border Protection (CBP) and U.S. Border Patrol (USBP) propose to construct and maintain 5.2 miles of primary fence along the U.S.-Mexico border near Lukeville, Arizona to help agents and officers gain effective control of the border. The proposed action, summarized below, is described in detail in the “Final Environmental Assessment for the Proposed Installation of 5.2 Miles of Primary Fence near Lukeville, Arizona - U.S. Border Patrol, Tucson Sector, November 2007” (EA), as well as electronic mail correspondence from Army Corps of Engineers (ACOE) and GSRC to FWS, and notes from conference calls with CBP, ACOE, and GSRC. The project corridor (Figure 1) is within the Organ Pipe Cactus National Monument (OPCNM) and encompasses 5.2 linear miles of the U.S. - Mexico border, including 3.1 miles to the east and 2.1 miles to the west of the Lukeville Port of Entry (POE); the project area is described in the Final EA.

Approximately 4.55 miles of primary fence will be installed approximately 6 feet north of the U.S.-Mexico border on either side of the Lukeville POE and 3 feet north of the existing Permanent Vehicle Barriers (PVBs). Approximately 0.65 mile of primary fence over Sonoyta Hill (also known as Monument Hill) will be installed 3 feet north of the U.S.-Mexico border. Construction activities associated with the installation of 4.55 miles of fence will occur entirely within the 60-foot Roosevelt Reservation² (RR); construction of the 0.65 mile of fence will require a footprint of 150 feet, 90 feet beyond the RR.

The fence will be made of 9-gauge mesh and though the final design will be developed by the design/build contractor, at a minimum, it must extend 15 feet above ground and three to six feet below ground; not impede the natural flow of water; and result only in minimal impacts on small animal movements (see EA for a complete list of minimum fence requirements). Furthermore, in most washes or arroyos, the fence will be designed and constructed to ensure proper conveyance

² The 60-foot wide Roosevelt Reservation along the border was set aside from public use, with the exception of public highways, as a protection against the smuggling of goods between the U.S. and Mexico by Presidential Proclamation in 1907 by President Theodore Roosevelt. The Roosevelt Reservation includes all lands under Federal ownership in California, Arizona and New Mexico at the time the proclamation was signed, creating a formal border enforcement zone between the U.S. and Mexico (International Boundary Commission 1936).

of floodwaters and to eliminate the potential to cause backwater flooding on either side of the U.S.-Mexico border. During rain events the USBP will be responsible for ensuring that debris does not become wedged against the fence creating backwater flooding.

An existing patrol road that parallels the border for 4.55 miles of the project corridor will be used for access during construction and subsequent maintenance of most of the fence (no improvement to this portion of the road is proposed). To install and maintain primary fence over Sonoyta Hill, west of the Lukeville POE, a new road will be constructed. The existing South Puerto Blanco Road will be used for construction access and maintenance of the Sonoyta Hill portion of the fence. Staging areas and turnarounds for the project will be located in previously disturbed areas, within the RR, to minimize potential effects to the environment. Between 5.2 and 11.4 acre-feet (1.7 to 3.7 million gallons) of water for fence and road construction-related activities will be required. All water will be trucked into the project site from sources north of the OPCNM (i.e., Why, Ajo, or Gila Bend).

A total of about 45 acres (12 acres within the 150-foot wide footprint [this represents 5 acres within the RR and 7 acres outside of the RR] and 33 acres within the 60-foot wide footprint) will be permanently disturbed. About 17 acres of the total footprint have been previously disturbed from the construction of the existing PVBs. Within the project footprint, up to 206 saguaros and 295 organ pipe cacti will be removed or salvaged (85 percent of these occur within the 0.65-mile project corridor over Sonoyta Hill).

The road and fence will be maintained by the USBP on an as-needed basis to ensure the integrity of the road and fence is not compromised. All project personnel will not exceed a speed limit of 25 miles per hour within OPCNM during construction and maintenance related activities (excluding travel on Highway 85). The number of vehicles traveling to and from the project site and the number of trips per day will be minimized to reduce the likelihood of disturbing pronghorn in the area or injuring an animal on the road. The project is expected to be completed by December 2008. Nighttime construction is not anticipated, however, it may occur.

CBP anticipates that the fence will facilitate increased border control within the 5.2-mile project corridor. Therefore, the enforcement resources once used for security in that area will be more available to respond to illegal activity on either side of the fence. Furthermore, CBP aims to interdict illegal activity as close to the border as possible.

Conservation Measures

To reduce impacts to the environment, CBP and their representatives (i.e., ACOE, contractors, and consultants) will implement a number of Environmental Design and Conservation Measures, including: 1) demarcate the project area to be impacted before construction begins; 2) implement a Stormwater Pollution Prevention Plan (SWPPP), including pre- and post-construction Best Management Practices (BMPs) identified in the SWPPP; 3) implement erosion

control techniques; 4) construct the fence in arroyos in a way that ensures proper conveyance of floodwaters and that eliminates the potential for backwater flooding on either side of the U.S.-Mexico border; 5) remove debris from the fence immediately after rain events to ensure that no backwater flooding occurs; 6) comply with the Migratory Bird Treaty Act; 7) check all construction-related holes and trenches on a daily-basis and immediately remove and relocate all animals that have fallen in the holes and trenches away from the site (>100 feet) (checking may be done by anyone on-site; however, removal of animals will be done by a qualified biologist); and 8) clean construction equipment prior to entering OPCNM to minimize the spread and establishment of non-native and invasive species. A biological monitor will be on-site daily to ensure project compliance (i.e., ensure contractors are staying within the demarcated impact area; move animals, such as desert tortoise, out of the project corridor; etc.). When contractors are working on the western slope of Sonoyta Hill, the biological monitor will conduct surveys for Sonoran pronghorn as close to dawn as possible. If Sonoran pronghorn are detected within 0.62 mile of project activities, no project work will begin until pronghorn move on their own volition to a distance greater than 0.62 mile from the activities. All contractors, work crews (including National Guard and military personnel), and CBP personnel in the field performing construction and maintenance activities would receive training on the habitat and habits of species found in the project area, including information on how to avoid impacts to the species from their activities.

To help offset impacts to lesser long-nosed bat foraging habitat and other natural resources, CBP and their representatives will (or provide funding for): 1) in close coordination with OPCNM, salvage all columnar cacti less than three feet tall to the extent practicable (approximately 74 saguaro and 68 organ pipe cacti³) and attempt to salvage columnar cacti between three and six feet (approximately 41 saguaro and 55 organ pipe cacti³) that face danger of destruction within the project corridor as determined by the biological monitor and that have been identified using GPS-technology (either by GSRC or OPCNM), as well as about 20 barrel cacti; 2) transport the salvaged cacti to an area, likely the OPCNM nursery, where they will be temporarily planted in prepared beds; 3) care for them until they are ready to be replanted; and 4) replant (water and monitor) them in areas to be restored within OPCNM (as identified in the restoration plan-see below). The contractor responsible for constructing the fence will also be responsible for cactus salvage and transportation, as well as care until funds become available through the programmatic mitigation agreement (explained below). Non-salvageable plants destroyed in the project corridor and not needed for on-site erosion control or restoration, as determined by an erosion-control/restoration specialist and OPCNM staff, will be hauled away to an appropriate disposal site outside of OPCNM.

³ During a recent survey (February 2008), OPCNM staff counted a total of 140 salvageable saguaros and 112 salvageable organ pipe cacti. These numbers differ from those provided by GSRC; however, regardless of the exact number, all saguaros and organ pipe determined to be salvageable within the project footprint will be salvaged.

To help offset impacts to lesser long-nosed bats, Sonoran pronghorn, and other natural resources CBP will provide funding in the amount of \$955,000.00⁴ to restore 84 acres (to be identified by OPCNM personnel) within OPCNM, including illegal roads and trails within the Monument. We anticipate that about 60 percent of the restoration will benefit the conservation of the lesser long-nosed bat and about 40 percent will benefit the Sonoran pronghorn. A restoration plan will be developed and implemented by a qualified Sonoran Desert restoration specialist, in close coordination with OPCNM. Development of the plan will be the responsibility of the fence contractor, however, implementation of it will be the responsibility of DOI. The plan will be completed within 6 months of the issuance of the biological opinion and, among other components, will include replanting, watering as needed, and monitoring the success of salvaged cacti; eradication of non-native invasive species; and general maintenance and monitoring of the restoration areas for 5 years. No restoration will occur within the project footprint, as the area will be needed for future CBP operations; however, non-native invasive plants will be monitored and controlled in the area for three years.

To aid in the conservation and recovery of pronghorn and to help offset potential impacts to pronghorn that may occur as a result of this project, the CBP will provide funding to the FWS to fill a Sonoran pronghorn water for 10 years at a cost per year of \$2,500.00 (for a total of \$25,000).

The aforementioned funding (\$955,000 and \$25,000) will be incorporated within a programmatic mitigation agreement between Department of Homeland Security/CBP and Department of the Interior (DOI)/FWS. Once funding is provided to DOI through this agreement, DOI will be responsible for implementing the restoration plan and filling the Sonoran pronghorn water.

SONORAN PRONGHORN STATUS OF THE SPECIES

A. Description, Legal Status, and Recovery Planning

The Sonoran subspecies of pronghorn (*Antilocapra americana sonoriensis*) was first described by Goldman (1945) and is the smallest of the five subspecies of pronghorn (Nowak and Paradiso 1983). The subspecies was listed throughout its range as endangered on March 11, 1967 (32 FR 4001) under the Endangered Species Preservation Act of October 15, 1966 without critical habitat. Three sub-populations of the Sonoran pronghorn are extant: 1) a U.S. sub-population in southwestern Arizona, 2) a sub-population in the Pinacate Region of northwestern Sonora, and 3) a sub-population on the Gulf of California west and north of Caborca, Sonora. The three sub-populations are geographically isolated due to barriers such as roads and fences, and in the case of the two Sonora sub-populations, by distance.

⁴ These funds will also be used to pay for the care of salvaged cactus at the temporary holding facility until they are ready to be replanted. If the salvage occurs before the funds are available, the salvaged cactus will be cared for by CBP or their representatives until the funds become available.

The 1982 Sonoran Pronghorn Recovery Plan (U.S. Fish and Wildlife Service 1982) was revised in 1998 (U.S. Fish and Wildlife Service 1998). The recovery criteria presented in the revised plan entailed the establishment of a population of 300 adult pronghorn in one self-sustaining population for a minimum of five years, as well as the establishment of at least one other self-sustaining population in the U.S. to reclassify the subspecies to threatened. Actions identified as necessary to achieve these goals include the following: 1) enhance present sub-populations of pronghorn by providing supplemental forage and/or water; 2) determine habitat needs and protect present range; 3) investigate and address potential barriers to expansion of presently used range and investigate, evaluate, and prioritize present and potential future reintroduction sites within historical range; 4) establish and monitor a new, separate herd(s) to guard against catastrophes decimating the core population, and investigate captive breeding; 5) continue monitoring sub-populations and maintain a protocol for a repeatable and comparable survey technique; and 6) examine additional specimen evidence available to assist in verification of taxonomic status. In 2001 a supplement and amendment to the 1998 Final Revised Sonoran Pronghorn Recovery Plan was prepared (U.S. Fish and Wildlife Service 2001). We concluded that data do not yet exist to support establishing delisting criteria. Tasks necessary to accomplish reclassification to threatened status (as outlined in the 1998 plan) should provide the information necessary to determine if and when delisting will be possible and what the criteria should be.

B. Life History and Habitat

Sonoran pronghorn inhabit one of the hottest and driest portions of the Sonoran Desert. They forage on a large variety of perennial and annual plant species (Hughes and Smith 1990, Hervert *et al.* 1997b, U.S. Fish and Wildlife Service 1998). During drought years, Hughes and Smith (1990) reported cacti were the major dietary component (44 percent). Consumption of cacti, especially chain fruit cholla (*Cylindropuntia fulgida*, Pinkava 1999), provides a source of water during hot, dry conditions (Hervert *et al.* 1997b). Other important plant species in the diet of the pronghorn include pigweed (*Amaranthus palmeri*), ragweed (*Ambrosia* sp.), locoweed (*Astragalus* sp.), brome (*Bromus* sp.), and snakeweed (*Gutierrezia sarothrae*) (U.S. Fish and Wildlife Service 1998). Pronghorn will move in response to spatial limitations in forage availability (Hervert *et al.* 1997a). Water intake from forage is not adequate to meet minimum water requirements (Fox *et al.* 2000), hence pronghorn need and readily use both natural and artificial water sources (Morgart *et al.* 2005).

Sonoran pronghorn rut during July-September, and does have been observed with newborn fawns from February through May. Parturition corresponds with annual spring forage abundance. Fawning areas have been documented in the Mohawk Dunes and the bajadas of the Sierra Pinta, Mohawk, Bates, Growler, and Puerto Blanco mountains. Does usually have twins, and fawns suckle for about 2 months. Does gather with fawns, and fawns sometimes form nursery groups (U.S. Fish and Wildlife Service 1998). Sonoran pronghorn form small herds of up to 21 animals (Wright and deVos 1986).

Telemetry locations of 35 Sonoran pronghorn demonstrated that during 1995-2002, pronghorn used creosote/bursage and palo verde/mixed cactus vegetation associations less than expected or equal to availability. Pronghorn use of palo verde/chain fruit cholla associations and desert washes occurred more than expected. However, during the cool and wet winter on 1997-1998, pronghorn were found in creosote/bursage associations more than expected (Hervert *et al.* 2005). In contrast, during 1983-1991, pronghorn used creosote/bursage and palo verde mixed cacti associations more than expected (deVos and Miller 2005). Differences between these study results may be due in part to differences in precipitation and forage patterns between these periods. The earlier period was wetter with greater forage availability in flats and valleys where creosote/bursage associations predominate. In wet winters and early spring pronghorn are often found in flats and valleys, such as Pinta Sands, the Mohawk Dunes west of the Mohawk Mountains, and the west side of the Aguila Mountains. In late spring and summer, pronghorn then move from the flats and valleys upslope into bajadas and often south or southeast where palo verde associations, chain fruit cholla, and washes are more common. Movements are most likely motivated by the need for thermal cover provided by leguminous trees and water available in succulent chain fruit cholla (Hervert *et al.* 1997b). Home range size of Sonoran pronghorn during 1995-2002 ranged from 16.6 to 1,109 mi², with an average of 197 ± 257 mi² (Hervert *et al.* 2005).

From 1995-2002, adult mortality rates varied from 11-83%. Adults were killed by coyotes, bobcats, mountain lions, capturing efforts, drought, and unknown causes (Bright and Hervert 2005). However, during 1983-1991, apparently a more favorable period for pronghorn during which the population grew significantly, mean annual survival of females and males was $96\% \pm 0.04$ and $92\% \pm 0.04$ (DeVos and Miller 2005). Disease may affect mortality, but has not been thoroughly investigated (Bright and Hervert 2005). Hervert *et al.* (2000) found that the number of fawns surviving until the first summer rains was significantly correlated to the amount of preceding winter rainfall, and negatively correlated to the number of days without rain between the last winter rain and the first summer rain. Drought may be a major factor in the survival of adults and fawns (Bright and Hervert 2005). Three radio-collared pronghorn died in July and August of 2002 with no obvious cause of death. Given that 2002 was one of the driest years on record, the proximate cause of these mortalities was likely heat stress and/or malnutrition resulting from inadequate forage conditions due to drought.

C. Distribution and Abundance

United States

Historically, the Sonoran pronghorn ranged in the U.S. from approximately the Santa Cruz River in the east, to the Gila Bend and Kofa Mountains to the north, and to Imperial Valley, California, to the west (Mearns 1907, Nelson 1925, Monson 1968, Wright and deVos 1986, Paradiso and Nowak 1971; Figure 2). Bright *et al.* (2001) defined the present U.S. range of the Sonoran pronghorn as bordered by Interstate 8 to the north, the International Border to the south, the Copper and Cabeza mountains to the west, and SR 85 to the east (see Figure 3). This area encompasses 2,508 mi² (Bright *et al.* 2001).

While Mearns (1907) suggested that pronghorn may have been common in some areas in the late 1800s, evidence suggests that the sub-population declined dramatically in the early 20th century. Sub-population estimates for Arizona, which only began in 1925, have never shown the pronghorn to be abundant (Table 1). Repeatable, systematic surveys were not conducted in Arizona until 1992. Since 1992, Sonoran pronghorn in the United States have been surveyed biennially (Bright *et al.* 1999, 2001) using aerial line transects (Johnson *et al.* 1991). Sub-population estimates from these transects have been derived using three different estimators (Table 2); currently the sightability model (Samuel and Pollock 1981) is considered the most reliable estimator (Bright *et al.* 1999, 2001). Table 2 presents observation data from transects and compares estimates derived from the three population models from 1992 through 2006.

The sightability model population estimates from 1992 to 2000 showed a 45 percent decrease in sub-population size (Table 2). The estimates indicate a steady decline in sub-population size, with the exception of the 1994 survey. The 1994 estimate may be somewhat inflated due to inconsistencies in survey timing (U.S. Fish and Wildlife Service 1998, Bright *et al.* 2001). High fawn mortality in 1995 and 1996 and the death of half (8 of 16) of the adult, radio-collared pronghorn during the 13 months preceding the December 1996 survey corresponded to five consecutive six-month seasons of below normal precipitation (summer 1994 through summer 1996) throughout most of the Sonoran pronghorn range, which likely contributed, in part, to observed mortality (Bright *et al.* 2001, Hervert *et al.* 1997b).

Mortality of Sonoran pronghorn in 2002 was exceptionally high (Bright and Hervert 2005). At the start of the year, seven radio-collared Sonoran pronghorn were at large in the U.S. sub-population. By December 2002, all but one of these had died. For most, drought stress was considered to be the proximate cause. For those animals that may have succumbed to predation, it was suspected that drought stress was again a factor, by making the animal more vulnerable to predation, due to an emaciated physical condition and being forced into predator habitats by drought. The 2002 drought was one of the driest on record. As an example, annual rainfall at the OPCNM visitor center was only 2.54 inches in 2002 (T. Tibbitts, Organ Pipe Cactus NM, pers. comm. 2002); *average* annual rainfall for the visitor center is 9.2 inches (Brown 1982). The November/December 2002 population survey revealed the U.S. sub-population had declined to the lowest level ever recorded. A total of 18 pronghorn were observed, in three groups (8, 9, and 1). The sightability model resulted in a population estimate of 21 animals, or a 79% decline from 2000. Also, very few fawns survived in 2002 to replace these dying adults.

Although drought was likely the proximate cause of the dramatic decline of the U.S. sub-population in 2002, anthropogenic factors almost certainly contributed to or exacerbated the effects of the drought. Historically, pronghorn likely moved to wetted areas and foraged along the Rio Sonoyta, Sonora, and the Gila and probably Colorado rivers during drought. These areas are no longer accessible to the U.S. population due to fences, Interstate 8, Mexico Highway 2, and other barriers. The rate of decline in the U.S. sub-population from 2000-2002 (79 percent) was also much greater than that observed in either the sub-population southeast of Highway 8 (18 percent decline) or the El Pinacate sub-population (26 percent) during the same period (see discussion of Mexican sub-populations in the next section). Observations of forage availability

suggest the El Pinacate sub-population experienced the same severe drought that occurred on the Arizona side (T. Tibbitts, J. Morgart, pers. comm. 2003). Yet that sub-population fared much better than its U.S. counterpart. The high level of human activities and disturbance on the U.S. side, particularly in regard to undocumented alien traffic, smugglers, and required law enforcement response, as compared to what occurs in the El Pinacate area, is a likely contributing factor in the differing rates of decline observed north and south of the border. See the section entitled “Drought” in the Environmental Baseline and “Cumulative Effects” for further discussion.

The December 2004 survey resulted in an estimated 58 wild pronghorn in the U.S. sub-population, a substantial increase brought on by favorable conditions since 2002. Based on casual surveys and estimated fawn survival, the population in 2005 was roughly 75 wild pronghorn. Based on a December 2006 aerial survey, the U.S. sub-population was estimated at 68 (Table 2). Based, again, on casual surveys as well as aerial tracking of ten telemetered pronghorn, the 2007 wild population is now estimated at about 70.

Semi-captive breeding facility

As part of a comprehensive emergency recovery program, adult pronghorn were first captured and placed into a semi-captive breeding facility at CPNWR in 2004. There are currently (as of January 2008) 37 pronghorn in the enclosure. Two yearling bucks were released from the pen into the wild herd in November 2006, and another two were released in January 2007. The objective is to produce 10-25 fawns each year to be released into the U.S. sub-population, and potentially to establish a second U.S. sub-population at Kofa NWR. Planning for the second herd is underway. Various alternatives are being considered, but a second herd could be established in King Valley of Kofa NWR within five years. A captive facility with a forage enhancement plot, and development of waters in King Valley would likely be needed. The population would probably be introduced as an experimental, nonessential population under section 10(j) of the Act.

Mexico

Historically, Sonoran pronghorn ranged in Sonora from the Arizona border south to Hermosillo and Kino Bay, west to at least the Sierra del Rosario, and east to the area south of the Baboquivari Valley on the Tohono O’odham Nation (Nelson 1925, Carr 1974, Monson 1968). The distribution in Baja California Norte is less clear, but observations by Mearns (1907) indicate they occurred in the Colorado Desert west of the Colorado River, as well. Sonoran pronghorn are currently extant in two sub-populations in Mexico, including: (1) Pinacate sub-population west of Highway 8 near the Pinacate Lava flow; and (2) north and west of Caborca and southeast of Highway 8.

Sub-populations of Sonoran pronghorn in Sonora had not been thoroughly surveyed until the December 2000 surveys (Bright *et al.* 2001), at which time 346 pronghorn were estimated to occur in Sonora. Although the 1993 estimate was approximate, survey results suggested a decline in the sub-populations of 16 percent from 1993 to 2000 (Table 3). The two Mexico sub-populations were resurveyed in December 2002. A grand total (both El Pinacate and southeast

of Highway 8) of 214 pronghorn in 32 groups were seen for a tentative population estimate of 280, indicating further decline. Only 19 pronghorn were observed in the Pinacate area for an estimate of 25, which is a decline of 26% from the 2000 estimate. Surveys conducted in December 2004 and February 2005 demonstrated that the population southeast of Highway 8 increased to 625 (439 observed), while the Pinacate population increased to 59 (30 observed). In January 2006, surveys indicated that pronghorn numbers are remaining steady with an estimated total of 634 (486 observed) individuals (combined for both populations). Nine of these were captured, of which five were fitted with radio-collars and released and four were transferred to the semi-captive breeding facility in the U.S.

Population Viability Analysis

In 1996, a workshop was held in which a population viability analysis (PVA) was conducted for the U.S. sub-population of Sonoran pronghorn (Defenders of Wildlife 1998). A PVA is a structured, systematic, and comprehensive examination of the interacting factors that place a population or species at risk (Gilpin and Soulé 1986). Based on the best estimates of demographic parameters at the time, the likelihood of extinction of Sonoran pronghorn was calculated as one percent in the next 25 years, nine percent in the next 50 years, and 23 percent in the next 100 years. More severe threats include population fluctuation, periodic decimation during drought (especially of fawns), small present population size, limited habitat preventing expansion to a more secure population size, and expected future inbreeding depression. At populations of less than 100, population viability declined at an increasingly steep rate. To maintain genetic diversity over the long term, a population of at least 500 is desirable (Defenders of Wildlife 1998). The likelihood of extinction increased markedly when fawn mortality exceeded 70 percent. Thus, a 30 percent fawn crop (30 fawns/100 does) each year is necessary to ensure the continuance of the U.S. sub-population. The authors concluded that “this population of the Sonoran pronghorn, the only one in the U.S., is at serious risk of extinction.” The authors made these conclusions prior to the severe drought and decline in the species in 2002. On the other hand, Hosack *et al.* (2002) found that some management actions were possible that could improve the chances of population persistence significantly. Actions that would ameliorate the effects of drought or minimize mortality of pronghorn were of particular importance for improving population persistence.

E. Threats

Barriers that Limit Distribution and Movement

Highways, fences, railroads, developed areas, and irrigation canals can block access to essential forage or water resources. Highways 2 and 8 in Sonora, and SR 85 between Gila Bend and Lukeville, Arizona support a considerable amount of fast-moving vehicular traffic, and are fenced in some areas, and are likely a substantial barrier to Sonoran pronghorn. Interstate 8, the Wellton-Mohawk Canal, agriculture, a railroad, and associated fences and human disturbance near the Gila River act as barriers for northward movement of pronghorn. De-watering of reaches of the Río Sonoyta and lower Gila River, and barriers to pronghorn accessing the Gila River, such as Interstate 8 and the Wellton-Mohawk Canal, have caused significant loss of habitat and loss of access to water (Wright and deVos 1986). Agricultural, urban, and

commercial development at Sonoyta, Puerto Peñasco, and San Luis Río Colorado, Sonora; in the Mexicali Valley, Baja California Norte; and at Ajo, Yuma, and along the Gila River, Arizona, have further removed habitat and created barriers to movement.

Human-caused Disturbance

A variety of human activities occur throughout the range of the pronghorn that have the potential to disturb pronghorn or its habitat, including livestock grazing in the U.S. and Mexico; military activities; recreation; poaching and hunting; clearing of desert scrub and planting of buffelgrass (*Pennisetum ciliare*) in Sonora; gold mining southeast of Sonoyta, dewatering and development along the Gila River and Río Sonoyta; increasing undocumented immigration and drug trafficking across the international border and associated required law enforcement response; and roads, fences, canals, and other artificial barriers.

Studies of captive pronghorn, other than the Sonoran subspecies, have shown that they are sensitive to disturbance such as human presence and vehicular noise. Human traffic, such as a person walking or running past pronghorn in an enclosed pen, a motorcycle driving past, a truck driving past, a truck blowing its horn while driving past, or a person entering a holding pen, caused an increased heart-rate response in American pronghorn in half-acre holding pens (Workman *et al.* 1992). The highest heart rates occurred in female pronghorn in response to a person entering a holding pen, or a truck driving past while sounding the horn. The lowest heart rates occurred when a motorcycle or truck was driven past their pen. Pronghorn were more sensitive to helicopters, particularly those flying at low levels or hovering, than fixed wing aircraft. Other investigators have shown that heart rate increases in response to auditory or visual disturbance in the absence of overt behavioral changes (Thompson *et al.* 1968, Cherkovich and Tatoyan 1973, Moen *et al.* 1978). Hughes and Smith (1990) found that pronghorn immediately ran 1,310-1,650 feet from a vehicle. Krausman *et al.* (2001, 2004, 2005a) examined effects of military aircraft and ground-based activities on Sonoran pronghorn at the North and South TACs on the Barry M. Goldwater Range (BMGR) and concluded that military activities, both ground-based and aerial, were associated with some changes in behavior (e.g., from standing to trotting or running, or bedded to standing) but the authors concluded that these changes were not likely to be detrimental to the animals. Sightings of pronghorn were biased towards disturbed habitats on the TACs and other areas of military activities, which also corresponded to areas of favorable ephemeral forage production (Krausman *et al.* 2005a). No conclusions could be drawn about effects of military activities on fawns due to poor fawn productivity during the Krausman *et al.* study. During times of drought, disturbances that cause pronghorns to startle and run would energetically have a more significant effect. Such energetic expenditures, particularly during times of stress, may lead to lower reproductive output and/or survival of individual animals (Geist 1971).

Habitat Disturbance

Livestock grazing has the potential to significantly alter pronghorn habitat and behavior (Leftwich and Simpson 1978, Kindschy *et al.* 1982, Yoakum *et al.* 1996). Overgrazing well into the 19th century by Spaniards and their descendants caused widespread habitat changes throughout much of the Sonoran Desert, particularly in more settled areas such as central Sonora,

Mexico (Sheridan 2000). The effects of cattle grazing are largely historical; cattle were removed from OPCNM, CPNWR, and the BMGR in 1979, 1983, and 1986, respectively (U.S. Fish and Wildlife Service 1998, Rutman 1997). In 2004, the Bureau of Land Management (BLM) closed the Cameron Allotment on the borders of CPNWR and OPCNM, but grazing still occurs in the nearby Childs and Coyote Flat allotments near Ajo. In Sonora, livestock grazing occurs at Pozo Nuevo and at Ejido Puerto Peñasco, but cattle typically stay close to feed and water except in seasons with abundant annual growth when cattle range widely in the Pinacate region.

Mining occurred historically throughout much of the U.S. range of the pronghorn, but is currently not a significant threat to Sonoran pronghorn in the U.S. During recent pronghorn surveys in Mexico, increasing effects from gold mining activities were noted in habitats used by the sub-population located southeast of Highway 8.

Illegal crossings by undocumented immigrants and drug smugglers in the U.S. range of the pronghorn have increased dramatically in recent years. In 2001, estimates of undocumented migrants traffic reached 1,000 per night in OPCNM alone (Organ Pipe Cactus National Monument 2001), and an estimated 150,000 people entered the monument illegally from Mexico (Milstead and Barns 2002). Apprehensions of illegal immigrants and smugglers by the Ajo Station of the Tucson USBP Sector increased from 2837 in 1997 to 6327 in 2005 (personal communication with David BeMiller, February 10, 2006). From October 2005 to February 2006, 6908 apprehensions were made by the Ajo Station (personal communication with David BeMiller, February 10, 2006). The Wellton Station of the Yuma USBP Sector made 2080 apprehensions in fiscal year 2005 and 3339 apprehensions from October 2005 to February 2006 (personal communication with David BeMiller, February 10, 2006). USBP agents have indicated, however, that apprehensions have recently decreased due to USBP presence at Camp Grip (electronic mail from David Guzewich, February 8, 2008). Illegal border-related activities and required USBP response have resulted in widespread habitat degradation and increased human presence in remote areas. For instance, all the valleys at Cabeza Prieta NWR are now criss-crossed with a network of north-south roads and trails, even though those areas are designated as wilderness. Illegal immigrants and smugglers have shifted their activities to more remote areas, including Sonoran pronghorn habitat in southwestern Arizona, as USBP has been able to successfully gain control of more urban areas. There is anecdotal evidence that pronghorn are avoiding areas of high illegal traffic and law enforcement activities (personal communication with Curtis McCasland, CPNWR, 2007).

Fire

The winter and spring of 2004/2005 were very wet, resulting in some of the highest productivity of cool season annual plants in recent memory. As these annual plants dried out, they created fuel for wildfire. In 2005, Mediterranean grass combined with high densities of the native wooly plantain (*Plantago ovata*) and other species created fuels adequate to carry fire. Military training, such as strafing and bombing in the tactical ranges, as well as fires set by illegal immigrants or smugglers, provided the ignition sources. Exact numbers are unknown; however, in 2005 roughly 7,500 acres of pronghorn habitat burned on the CPNWR (personal communication with Curtis McCasland, CPNWR, February 15, 2006) and more than 63,000

acres burned on the BMGR-East during that time. Approximately 29,260 acres of pronghorn habitat were consumed as a result of these fires.

Most Sonoran Desert trees, shrubs, and cacti are poorly adapted to fire (Brown and Minnich 1986, Schwalbe *et al.* 2000, Alford and Brock 2002). If areas burn repeatedly, permanent changes are likely in the flora. Even in the best scenario it is likely to be many years before trees once again provide thermal cover in wash communities and cholla recover to a point that they are useful forage plants for pronghorn. In 2007, pronghorn were attracted to the burned areas, which often supported better growth of annual plants and forbs than adjacent unburned areas. However, in the long term and if these areas continue to burn, removal of thermal cover (trees) and chain fruit cholla, which they depend on in drought, would likely adversely affect pronghorn and probably limit the use of these areas to wetter and cooler periods and seasons.

Drought

As discussed, drought may be a major factor in the survival of adults and fawns (Bright and Hervert 2005), and the major decline in 2002 was driven by drought. Mean annual temperatures rose 2.0-3.1 °F in the American Southwest in the 20th century, and are predicted to rise 8.1-11.0 °F in the 21st century. Most of the observed increases in globally averaged temperatures since the mid-20th century are very likely due to the observed increases in anthropogenic greenhouse gas concentrations (Intergovernmental Panel on Climate Change 2007). In the Sonoran Desert, anthropogenic climate change is causing warming trends in winter and spring, decreased frequency of freezing temperatures, lengthening of the freeze-free season, and increased minimum temperatures in winter, which will likely cause changes in vegetation communities (Weiss and Overpeck 2005). These increases in temperature are predicted to be accompanied by a more arid climate in the Southwest (Seager *et al.* 2007, Intergovernmental Panel on Climate Change 2007). As a result, the Sonoran pronghorn is expected to be confronted with more frequent drought, which increases the importance of recovery actions, such as forage enhancement plots and water developments, which can offset the effects of drought.

Small Population Size and Random Changes in Demographics

At populations of less than 100, population viability declines at an increasingly steep rate. To maintain genetic diversity over the long term, a population of at least 500 is desirable (Defenders of Wildlife 1998). At an estimated 21 in 2002, and roughly 70 wild pronghorn in 2007, the U.S. sub-population is critically endangered and is going through a genetic bottleneck. At an estimated 25 in 2002 and 59 in 2004, the Pinacate sub-population is also well below desired numbers. At 625, the third sub-population (southeast of Highway 8) is marginally large enough to maintain genetic diversity. Loss of the U.S. sub-population would dramatically reduce our ability to manage or recover this subspecies. Populations at low levels may experience random variations in sex ratios, age distributions, and birth and death rates among individuals, which can cause fluctuations in population size and possibly extinction (Richter-Dyn and Goel 1972). In very sparse populations, males may have trouble finding females, reducing productivity (Ehrlich and Roughgarden 1987). Small populations are also sensitive to variations in natural processes, such as drought and predation (Hecht and Nickerson 1999).

Disease

Sonoran pronghorn can potentially be infected by a variety of viral and bacterial diseases. Blood testing has shown pronghorn exposure to these diseases by increases in antibody titers over time. The diseases relevant to pronghorn can be transmitted indirectly through vectors, such as infected midges or ticks, or directly via aerosolized or direct contact of infected fluids or tissues. Diseases that potentially infect pronghorn are all serious diseases of cattle, which can act as vectors. Cattle within the current range of the pronghorn have not been tested for these diseases.

ENVIRONMENTAL BASELINE

The environmental baseline includes past and present impacts of all Federal, state, or private actions in the action area; the anticipated impacts of all proposed Federal actions in the action area that have undergone formal or early section 7 consultation; and the impact of state and private actions which are contemporaneous with the consultation process. The environmental baseline defines the current status of the species and its habitat in the action area to provide a platform from which to assess the effects of the action now under consultation.

A. Action Area

The “action area” means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. Within the U.S. portion of the Sonoran pronghorn’s range, pronghorn interact to form one sub-population in which interbreeding may occur. The U.S. sub-population is effectively separated from sub-populations in the El Pinacate Region and on the Gulf Coast of Sonora by Mexico Highways 2 and 8. Activities that may affect animals in any portion of the U.S. range of the pronghorn may affect the size or structure of the U.S. sub-population, or habitat use within the U.S. range. The action area for this biological opinion is defined as the current range of the pronghorn within the U.S. (Figure 3), plus areas along the border 3.1 miles to the east and 2.1 miles to the west of the Lukeville POE.

Management of the action area is almost entirely by Federal agencies. The BMGR (roughly 1.6 million acres) is managed by Luke Air Force Base and MCAS-Yuma primarily for military training. OPCNM manages 329,000 acres in the southeastern corner of the action area for scenic, ecological, natural, and cultural values. CPNWR lies along the border west of OPCNM and encompasses 860,000 acres. CPNWR is managed to protect, maintain, and restore the diversity of the Sonoran Desert. Most of the refuge and OPCNM are designated as wilderness. The BLM manages lands near Ajo for recreation, grazing, and other multiple uses in accordance with the Lower Gila Resource Management Plan. OPCNM and CPNWR are critically important for Sonoran pronghorn recovery because of their management for protection of natural resources. Lands on the BMGR are managed primarily for military training, and although important recovery is ongoing on these lands and the Department of Defense has generously contributed to the recovery program both on and off the BMGR, changing military priorities could, in the future, limit the value of the BMGR for Sonoran pronghorn recovery.

B. Terrain, Vegetation Communities, and Climate in the Action Area

The action area is characterized by broad alluvial valleys separated by block-faulted mountains and surface volcanics. The Yuma Desert on the western edge of the BMGR is part of a broad valley that includes the Colorado River. Major drainages and mountain ranges run northwest to southeast. Major drainages flow mostly northward to the Gila River, although southern portions of OPCNM and the southern slope of the Agua Dulce Mountains drain south to the Río Sonoyta.

Climate is characterized by extreme aridity, mild winters, and hot summers. Approximately 2.7 inches of precipitation fall annually at Yuma, with slightly more than half of this occurring in the winter months (Brown 1982). Annual precipitation increases from west to east across the BMGR; at Aguajita/Quitobaquito, precipitation is 10.5 inches annually.

The vegetation community of the western portion of the BMGR has been classified as the lower Colorado River Valley subdivision of Sonoran Desert scrub (Brown 1982). It is the largest and most arid subdivision of Sonoran Desert scrub. The Arizona Upland subdivision of Sonoran Desert scrub is found in the Growler, Puerto Blanco, Ajo and Bates mountains, and surrounding bajadas.

C. Status of the Sonoran Pronghorn in the Action Area

Distribution, Abundance, and Life History

The distribution and abundance of the Sonoran pronghorn in the action area is the same as that described above in the Status of the Species for the U.S. sub-population. Life history, including demographics, chronology of breeding and movements, diet, and other factors were also described above for the U.S. population.

Drought

As discussed in the Status of the Species, anthropogenic climate change in the Southwest and the Sonoran Desert is predicted to result in warming trends and drier conditions, with accompanying changes in vegetation communities (Weiss and Overpeck 2005, Seager *et al.* 2007). Rowlands (2000) examined trends in precipitation for southwestern Arizona and OPCNM from 1895-1999. For southwestern Arizona, no trend in precipitation was found for the period, but low precipitation occurred around 1895 and during the 1950s. Periods of high precipitation occurred in 1915-1920 and in the 1980s. For OPCNM, there was a slightly increasing trend in monthly and annual precipitation over the period 1895-1999, a strong drought occurred in the 1950s, and a lesser drought occurred in the 1970s. No discernable trend in precipitation in southwestern Arizona or OPCNM was found in the 1990s, which is when the current decline in the U.S. pronghorn sub-population began.

Since Rowland's analysis, we had one year characterized by above-average rainfall and abundant ephemeral forage (2001) followed by a year with virtually no precipitation or ephemeral forage (2002). Recruitment and survival were high in 2001 and very low in 2002 (Bright and Hervert 2005). Based on the lack of forage and water, and the condition of pronghorn observed, drought is

considered the proximate cause of the 79% decline in the U.S. pronghorn sub-population from 2000 to 2002. The December 2007 long-term (48-months) drought status report (http://www.azwater.gov/dwr/drought/documents/December_2007_Drought_Monitor_Report.pdf) indicates that southwestern Arizona continues to experience abnormally dry to severe drought conditions. Despite this, since 2002, winter and summer precipitation, in conjunction with emergency recovery actions, has been adequate to maintain pronghorn reproduction and fawn survival.

Historically, pronghorn populations must have weathered many severe droughts in the Sonoran Desert, including many that were more severe and longer term than what has occurred recently. Given that pronghorn populations survived the droughts of the 1890s, 1950s, 1970s, and others before those, it is unreasonable to solely attribute recent declines in the U.S. pronghorn population to drought. OPCNM (2001) concluded, “If (individual) recent dry years have had an impact on Sonoran pronghorn, it is most likely because in recent decades Sonoran pronghorn have much more limited options for coping with even brief moderate drought. Because of restrictions on their movements and range, and increasing human presence within their range, pronghorn are less able to employ their nomadic strategy in search of relief. It is not that drought itself is an impact, but possibly that drought has *become* an impact, due to other factors confounding the species’ normal ecological strategy.”

Emergency Recovery Actions

A number of critically important emergency recovery projects have been recently initiated in an attempt to reverse the decline of the U.S. sub-population of the Sonoran pronghorn (Krausman *et al.* 2005b). These projects are designed to increase availability of green forage and water during dry periods and seasons to offset to some extent the effects of drought and barriers that prevent pronghorn from accessing greenbelts and water, such as the Gila River and Río Sonoyta. Nine emergency water sources (six on CPNWR, one on OPCNM, and two on BMGR-West) have been constructed in recent years throughout the range of the U.S. sub-population. Four forage enhancement plots, each consisting of a well, pump, pipelines and irrigation lines, have been developed to irrigate the desert and produce forage for pronghorn. One plot is currently being constructed and two additional plots will be installed over the next five years.

A semi-captive breeding facility at CPNWR was first stocked with pronghorn in 2004 and now contains 37 animals. As described above, this facility will be used to augment the current U.S. sub-population, and potentially to establish a second herd at Kofa NWR. These crucial projects, which we hope will pull the U.S. population back from the brink of extinction, have been cooperative efforts among FWS, Arizona Game and Fish Department, MCAS-Yuma, Luke Air Force Base, and OPCNM, with volunteer efforts from the Arizona Desert Bighorn Sheep Society, Arizona Antelope Foundation, and the Yuma Rod and Gun Club.

D. Past and Ongoing Non-Federal Actions in the Action Area

The Status of the Species section describes a variety of human activities that have affected the Sonoran pronghorn since initiation of livestock grazing over 300 years ago (Officer 1993). Most

non-Federal activities that have affected the pronghorn are historical in nature, and pronghorn have been all but extirpated from private, state, and Tribal lands.

E. Past and Ongoing Federal Actions in the Action Area

Because of the extent of Federal lands in the action area, most activities that currently, or have recently, affected the U.S. sub-population or their habitat are Federal actions. The primary Federal agencies involved in activities in the action area include the MCAS-Yuma, Luke Air Force Base, FWS, BLM, OPCNM, and Border Patrol. In the following discussion, we have categorized Federal actions affecting the pronghorn as: 1) those actions that have not yet undergone section 7 consultation (although in some cases consultation has been completed on components of the Federal activity), and 2) Federal actions that have undergone consultation.

Federal Actions For Which Consultation Has Not Been Completed

1) Tucson Sector of the Border Patrol

We have been in informal consultation with the Tucson Sector Border Patrol regarding development of a biological assessment for several years (consultation number 02-21-99-I-0138). This consultation will encompass all field activities conducted by the Tucson Sector under their program to detect, deter, and apprehend undocumented immigrants and drug traffickers. Activities within the Ajo Station of the Tucson Sector have the greatest potential to adversely affect pronghorn; although currently that Station is being operated out of the Yuma Sector. Adverse effects may result from patrol and drag road activities, off-road operations, aircraft overflights, the use and maintenance of sensors, construction of vehicle barriers and fences, and installation, operation, and maintenance of cameras and communication towers. From 2002 to 2006, about 180 miles of illegal roads were created in wilderness areas of CPNWR (Segee and Neeley 2006). These routes were likely created both by Border Patrol and smugglers, and all are probably used by Border Patrol. Furthermore, the potential for disturbance to pronghorn due to human presence may increase in areas where agents live on site (i.e., Operation Grip). Border Patrol activities can be beneficial as well, in that they deter illegal border crossings, foot traffic, and off-road vehicles in pronghorn habitat associated with undocumented aliens and smuggling. At the same time, effectiveness of Border Patrol operations elsewhere along the U.S./Mexico border have driven illegal activities into remote areas, such as CPNWR. McCasland (pers. comm. 2007) has anecdotal observations suggesting a negative correlation between areas of high Border Patrol and smuggling traffic and pronghorn use.

2) Smuggler/Drug Interdiction

We are aware of U.S. Customs, Drug Enforcement Authority, and Arizona Army National Guard smuggler or drug interdiction activities in pronghorn habitat, including vehicle and helicopter activities. However, none of these agencies have provided information to us about the extent or types of activities they conduct, and no consultation has occurred on these activities. Impacts are probably similar in scope to those described for the Tucson Sector activities.

3) BLM Off-Road Vehicle Use Area

We are aware of an off-road vehicle (ORV) use area located north of Ajo on BLM land, near the CPNWR, and adjacent to suitable pronghorn habitat. The BLM has not authorized the use of this ORV area but plans to in the updated Resource Management Plan (RMP) they are developing for BLM lands in the vicinity. They will request formal section 7 consultation on the updated RMP. To date, BLM has not provided us with information about the extent and type of use of the ORV area or its possible effects to pronghorn.

Federal Actions Addressed in Section 7 Consultations

As part of our comprehensive discussion of all past and present actions affecting pronghorn within the action area, we describe below all biological opinions issued to date on actions that may affect the pronghorn.

Several opinions addressed projects with minor effects to the pronghorn (capture and collaring of pronghorn for research purposes, consultation numbers 02-21-83-F-0026 and 02-21-88-F-0006; installation of a water source in the Mohawk Valley for pronghorn, consultation number 02-21-88-F-0081; implementation of the CPNWR Comprehensive Conservation Plan, consultation number 22410-2006-F-0416; a change in aircraft type from the F-15A/B to the F-15E on BMGR-East [F-15E Beddown Project], consultation number 02-21-89-F-0008; and the following projects at OPCNM: widen North Puerto Blanco Road project, consultation number 02-21-01-F-0109; roadway and drainage improvements to SR 85, consultation 02-21-01-F-0546; vehicle barrier, consultation number 02-21-02-F-237; and improvement, maintenance, and use of the West Boundary Route, consultation number 02-21-05-M-0100 (this opinion has not yet been finalized)). Incidental take was anticipated only for the Beddown Project in the form of harassment as a result of aircraft overflights. This project was later incorporated into the biological opinion on Luke Air Force Base's activities on the BMGR, discussed below. All of these formal consultations can be viewed on our website at <http://www.fws.gov/arizonaes/Biological.htm>.

Nine biological opinions evaluated major projects with greater effects to pronghorn:

Border Patrol Activities in the Yuma Sector, Wellton Station, Yuma, Arizona

This biological opinion (consultation number 02-21-96-F-0334), issued September 5, 2000, addressed all Border Patrol activities along the United States/Mexico border in Yuma County from the Colorado River to about the area of Pinta Sands at the southern end of the Sierra Pinta Mountains. The Yuma Sector requested reinitiation of consultation, and we delivered a draft biological opinion in 2004; however, we have not received comments from the Border Patrol to date. Currently, Border Patrol activities within the Yuma Sector/Wellton Station include helicopter and ground patrols; drag road preparation and assessment of road maintenance; remote sensor installation and maintenance; maintenance of pedestrian fences east and north of San Luis, construction of a vehicle barrier on the CPNWR, apprehensions and rescues; and assistance to other sectors and agencies. Disturbance to pronghorn was anticipated as a result of on-the-ground Border Patrol operations, and direct injury or mortality of pronghorn as a result of collision with Border Patrol vehicles or by low-level helicopter flights abruptly approaching and startling pronghorn, which may result in injury or energetic stress, particularly during drought.

Pronghorn may also be adversely affected by noise and visual impacts of helicopter overflights. To reduce adverse effects on pronghorn, the Border Patrol agreed to implement a number of conservation measures. We determined that the proposed action was not likely to jeopardize the continued existence of the pronghorn. We anticipated take in the form of harassment that is likely to injure up to one pronghorn in 10 years. The following reasonable and prudent measures were provided: 1) minimize injury of pronghorn; 2) monitor and study reactions of pronghorn on BMGR to Border Patrol activities; and 3) provide a means to determine the level of incidental take that results from Border Patrol activities. Several conservation recommendations were also provided. We are not aware of any incidental take attributable to Yuma Sector activities.

BLM's Lower Gila South Management Area

Three biological opinions address BLM's Lower Gila South Management Area. The Lower Gila South Resource Management Plan-Goldwater Amendment (consultation number 02-21-90-F-0042), proposed specific and general management guidance for non-military activities on the BMGR. The non-jeopardy biological opinion, issued April 25, 1990, was programmatic, requiring BLM to consult when site-specific projects are proposed. No incidental take was anticipated. The Lower Gila South Habitat Management Plan (HMP) (consultation number 02-21-89-F-0213) provided management guidance for both specific and general actions in southwestern Arizona. Four actions were addressed in the HMP, including an exchange of 640 acres near Ajo, rehabilitation work on two catchments, and assessment of livestock removal from pronghorn habitat. Exchange of land out of public ownership may facilitate development or other uses that would preclude use by pronghorn. The non-jeopardy opinion was issued on May 15, 1990. The biological opinion for the Lower Gila South Resource Management Plan and Amendment (consultation number 02-21-85-F-0069) addressed programmatic management of lands in southwestern Arizona, including livestock grazing, wilderness, cultural resources, fire, minerals and energy, recreation, wildlife management, wood cutting, Areas of Critical Environmental Concern, and other land uses. The non-jeopardy biological opinion was issued on March 27, 1998; no incidental take was anticipated. In regard to management on the BMGR, these three opinions have been replaced by the opinion on the BMGR's Integrated Natural Resources Management Plan (INRMP) (see below). The Air Force and MCAS-Yuma have assumed BLM's management responsibilities on the BMGR.

BLM grazing allotments in the vicinity of Ajo, Arizona

The original biological opinion (consultation number 02-21-94-F-0192), issued December 3, 1997, addressed effects to pronghorn resulting from issuance of grazing permits on five allotments, four of which were located near Ajo and Why (Cameron, Childs, Coyote Flat, and Why allotments); and the fifth near Sentinel (Sentinel allotment). All but portions of allotments east of Highway 85 were considered to be within the current distribution of the Sonoran pronghorn. Reinitiations resulted in revised biological opinions dated November 16, 2001, September 30, 2002, June 21, 2004, March 3, 2005, and March 8, 2007. Under the current proposed action, the Cameron Allotment is closed, the Sentinel Allotment has been in non-use for several years, the Coyote Flat and Why allotments were combined into one (Coyote Flat Allotment), and the Childs Allotment remains relatively unchanged in terms of management. Effects of livestock grazing activities included reduced forage availability for pronghorn, human

disturbance due to livestock management, barriers to movement caused by pasture and allotment fences, and potential for disease transfer from cattle to pronghorn. The March 8, 2007 opinion concluded that the proposed action was not likely to jeopardize the continued existence of the pronghorn. No incidental take was anticipated, and none is known to have occurred.

Organ Pipe Cactus National Monument General Management Plan

The original biological opinion (consultation number 02-21-89-F-0078), issued June 26, 1997, addressed implementation of OPCNM's General Management Plan (GMP). This opinion was reinitiated five times, resulting in revised biological opinions dated November 16, 2001, April 7, 2003, March 10 and August 23, 2005, and March 8, 2007. GMP plan elements included: 1) continuing travel and commerce on SR 85 while enhancing resource protection, 2) seeking designation of OPCNM as the Sonoran Desert National Park, 3) establishment of partnerships, 4) increased wilderness and an interagency wilderness and backcountry management plan, 5) changes in trails, facilities, and primitive camping, and 6) implementation of a Cultural Resources Management Plan. Included were a number of conservation measures to minimize impacts to pronghorn. Effects of the action included human disturbance to pronghorn and habitat due to recreation and management activities. We determined that the proposed action was not likely to jeopardize the continued existence of the pronghorn. In the latest versions of the opinion, no incidental take of pronghorn was anticipated. No incidental take is known to have occurred.

Marine Corps Air Station-Yuma in the Arizona Portion of the Yuma Training Range Complex

The original biological opinion (consultation number 02-21-95-F-0114), was issued on April 17, 1996. That opinion was reinitiated and revised opinions were issued November 16, 2001 and August 6, 2003. These opinions addressed all proposed and authorized actions on the BMGR by MCAS-Yuma, including ongoing and proposed changes to military flights over CPNWR and the BMGR, operation of various training facilities such as landing strips, a rifle range, targets, a parachute drop zone, a transmitter/telemetry system, ground support areas, and Weapons Tactics Instructor courses, conducted twice a year (March-April and October-November) that involve overflights, ground-based activities, and deliverance of ordnance at targets in BMGR-East. Ground-based activities, such as those of troops and vehicles at ground-support areas were determined to adversely affect pronghorn habitat use. In areas where helicopters fly particularly low and create noise and visual stimuli, disturbance of pronghorn was anticipated. Ordnance delivery at North and South TACs could disturb pronghorn, and ordnance, live fire, and shrapnel could potentially strike and kill or injure a pronghorn. MCAS-Yuma proposed measures to reduce the direct and indirect impacts of the proposed action, including measures to reduce or eliminate take of Sonoran pronghorn and to minimize destruction and degradation of habitat. We determined that the proposed action was not likely to jeopardize the continued existence of the pronghorn. In the 2003 version of the BO, no incidental take of pronghorn was anticipated and none is known to have occurred.

Luke Air Force Base Use of Ground-Surface and Airspace for Military Training on the BMGR

The original biological opinion (consultation number 02-21-96-F-0094), issued August 27, 1997, addressed military use of the airspace above and the ground space on BMGR-East and CPNWR by Luke Air Force Base. Military activities within the area of overlap with the CPNWR were limited to use of airspace and operation of four Air Combat Maneuvering Instrumentation sites. Military activities occurring within BMGR-East included: airspace use, four manned air-to-ground ranges, three tactical air-to-ground target areas, four auxiliary airfields, Stoval Airfield, and explosive ordnance disposal/burn areas. Primary potential effects of the action included habitat loss due to ground-based activities, harassment and possible mortality of pronghorn at target areas, and disturbance of pronghorn due to military overflights. We determined that the proposed action was not likely to jeopardize the continued existence of the pronghorn. This opinion was reinitiated in 2001 and 2003, resulting in revised opinions dated November 16, 2001 and August 6, 2003. In the latest (2003) opinion, no incidental take was anticipated. We are not aware of any take of pronghorn confirmed attributable to Luke Air Force Base use of the ground-surface and airspace on the BMGR. A pronghorn found dead near a target may have been strafed, but it may also have died from other causes (see "Effects of the Proposed Action" in the 2003 opinion for a full discussion of this incident).

During the development of these opinions, Luke Air Force Base made substantial commitments to minimize the effects of their activities on the Sonoran pronghorn, and additionally committed to implementing a variety of recovery projects recommended by the Sonoran Pronghorn Recovery Team.

Western Army National Guard Aviation Training Site Expansion Project

The non-jeopardy biological opinion for WAATS (consultation number 02-21-92-F-0227) was issued on September 19, 1997; however, Sonoran pronghorn was not addressed in formal consultation until reinitiations and revised opinions dated November 16, 2001 and August 6, 2003. The purpose of WAATS is to provide a highly specialized environment to train ARNG personnel in directed individual aviator qualification training in attack helicopters. The WAATS expansion project included: 1) expansion of the existing Tactical Flight Training Area, which includes establishing four Level III touchdown sites, 2) development of the Master Construction Plan at the Silver Bell Army Heliport, and 3) establishment of a helicopter aerial gunnery range for use by the ARNG on East TAC of the BMGR. All activities that are part of the proposed action occur outside the current range of the pronghorn, with the exception of training at North TAC. Training at North TAC only occurs when East TAC is closed for annual maintenance and EOD clearances (4-6 weeks each year). Effects to pronghorn at North TAC are minimized by monitoring protocols established by Luke Air Force Base. Training at East TAC could preclude recovery of historical habitat if the many other barriers that prevent pronghorn use of East TAC were removed. The November 16, 2001 and August 6, 2003 opinions found that the proposed action was not likely to jeopardize the continued existence of the pronghorn. No incidental take was anticipated and none is known to have occurred as a result of the proposed action. ARNG included the following conservation measures as part of their proposed action: 1) they proposed to study the effects of low-level helicopter flights on a surrogate pronghorn population at Camp Navajo, and 2) they committed to funding up to five percent of emergency recovery actions on the BMGR.

BMGR Integrated Natural Resources Management Plan

The non-jeopardy opinion for this action was issued on August 26, 2005. The Military Lands Withdrawal Act (MLWA) of 1999 required that the Secretaries of the Air Force, Navy, and Interior jointly prepare an INRMP for the BMGR, the purpose of which was to provide for the “proper management and protection of the natural and cultural resources of [the range], and for sustainable use by the public of such resources to the extent consistent with the military purposes [of the BMGR].” The proposed action was comprehensive land management, including public use restrictions, authorizations, and permitting on portions of the BMGR regarding camping, vehicle use, shooting, entry into mines, firewood collection and use, rockhounding, and other activities; natural resources monitoring, surveys, and research; habitat restoration; wildlife water developments; development of a wildfire management plan; law enforcement; limitations on the locations of future utility projects and the Yuma Area Service Highway; control of trespass livestock; and designation of special natural/interest areas, while allowing other designations to expire. The proposed action included many land use prescriptions that would improve the baseline for the pronghorn. No incidental take was anticipated, and none is known to have occurred from the proposed action.

Department of Homeland Security Permanent Vehicle Barrier

This biological opinion (consultation number 22410-2006-F-0113), issued September 15, 2006, addressed the CBP - Office of the Border Patrol’s installation of a permanent vehicle barrier (as well as access improvements, construction/improvement of border roads, and associated maintenance and patrol activities) along the border from the western end of the OPCNM barrier to Avenue C just east of San Luis, Arizona. Effects to pronghorn included 1) disturbance of a narrow swath of habitat along the border, 2) presence of construction crews and vehicles that may disturb or preclude use of the area by pronghorn, 3) presence of maintenance and patrol vehicles and crews along the barrier access road, and 4) dramatic reduction or elimination of illegal drive-throughs and required law enforcement response, with much reduced route proliferation and habitat damage from off-highway vehicles. We determined that the proposed action was not likely to jeopardize the continued existence of the pronghorn. No incidental take of pronghorn was anticipated. Subsequent to issuing the biological opinion, the action was changed to include the installation of a hybrid-style fence designed to prevent the passage of pedestrians. Because all environmental laws were waived (as permitted by the Real ID Act of 2005) by Secretary of the DHS, CBP never reinitiated consultation with us regarding this change to their proposed action.

F. Summary of Activities Affecting Sonoran Pronghorn in the Action Area

Historically, livestock grazing, hunting or poaching, and development along the Gila River and Río Sonoyta were all probably important factors in the well-documented Sonoran pronghorn range reduction and apparent population decline that occurred early in the 20th century. Historical accounts and population estimates suggest pronghorn were never abundant in the 20th century, but recently, the estimated size of the wild population in the action area declined from 179 (1992) to 21 (December 2002) and 68 (2006). At 21 and 68, genetic diversity could erode, and the sub-population is in imminent danger of extirpation due to human-caused impacts, or

natural processes, such as predation or continued drought. Although the proximate cause of the decline during 2002 was drought, human activities limit habitat use options by pronghorn and increase the effects of drought on the sub-population. The U.S. pronghorn sub-population is isolated from other sub-populations in Sonora by a highway and the U.S./Mexico boundary fence, and access to the greenbelts of the Gila River and Río Sonoyta, which likely were important sources of water and forage during drought periods, has been severed.

Within its remaining range, the pronghorn is subjected to a variety of human activities that disturb the pronghorn and its habitat, including military training, increasing recreational activities, grazing, increasing presence of undocumented immigrants and smugglers, and in response, increased law enforcement activities. MCAS-Yuma (2001) quantified the extent of the current pronghorn range that is affected by various activities and found the following: recreation covers 69.6 percent of the range, military training on North and South TACs covers 9.8 percent, active air-to-air firing range covers 5.8 percent, proposed EOD five-year clearance areas at North and South TACs and Manned Range 1 cover 1.0 percent, and MCAS-Yuma proposed ground support areas and zones cover 0.29 percent. Border Patrol enforcement and smuggling activities occur throughout the range of the pronghorn, and anecdotal evidence suggests pronghorn are avoiding areas of high enforcement and illegal activities. Historically, pronghorn tended to migrate to the southeastern section of their range (southeastern CPNWR and OPCNM) during drought and in the summer. Within the last few years, very few pronghorn have been observed south of El Camino del Diablo on CPNWR. This suggests illegal smuggling and the interdiction of these illegal activities have resulted in pronghorn avoiding areas south of El Camino del Diablo; these areas are considered important summer habitat for pronghorn and may have long-term management and recovery implications (McCasland pers. comm. 2007). All of the valleys at CPNWR, which were once nearly pristine wilderness Sonoran Desert, now have many braided, unauthorized routes through them and significant vehicle use by USBP agents pursuing illegal immigrants and smugglers. OPCNM (2001) identified 165 human activities in the range of the pronghorn, of which 112 were adverse, 27 were beneficial, 26 had both adverse and beneficial effects, and four had unknown effects. OPCNM (2001) concluded that in regard to the pronghorn, "while many projects have negligible impacts on their own, the sheer number of these actions is likely to have major adverse impacts in aggregate."

Although major obstacles to recovery remain, since 2002, numerous crucial recovery actions have been implemented in the U.S. range of the species, including nine emergency waters and four forage enhancement plots, with additional waters and forage plots planned. The projects tend to offset the effects of drought and barriers to prevent movement of pronghorn to greenbelts such as the Gila River and Río Sonoyta. A semi-captive rearing facility, built on Cabeza Prieta NWR, currently holds 37 pronghorn. This facility will provide pronghorn to augment the existing sub-population and hopefully to establish a second U.S. sub-population at Kofa NWR.

The current range of the pronghorn in the U.S. is almost entirely comprised of lands under Federal jurisdiction; thus authorized activities that currently affect the pronghorn in the action area are almost all Federal actions. However, illegal, unauthorized foot traffic and off-road vehicle activity, but also required Federal law enforcement response have been and continue to be significant threats to the pronghorn and its habitat. Prior to November 2001, in seven of 12 biological opinions issued by FWS that analyzed impacts to the pronghorn, we anticipated that

take would occur. In total, we anticipated take of five pronghorn in the form of direct mortality every 10-15 years, and an undetermined amount of take in the form of harassment. Given the small and declining population of pronghorn in the U.S. at the time the opinions were written, take at the levels anticipated in the biological opinions would constitute a substantial impact to the population.

Changes made in proposed actions and reinitiated biological opinions from 2001 to the present, plus the findings in other recent opinions, reduced the amount or extent of incidental take anticipated to occur from Federal actions. Significantly, we have been successful working with action agencies to modify proposed actions and to include significant conservation measures that reduce adverse effects to the pronghorn and its habitat. The only current opinion that anticipates incidental take is the Yuma Sector opinion, in which we anticipated take in the form of harassment that is likely to injure up to one pronghorn in 10 years. With the exception of likely capture-related deaths during telemetry studies (which were addressed in 10(a)(1)(A) recovery permits), we are unaware of any confirmed incidental take resulting from the Federal actions described here (although a pronghorn may have been strafed near one of the targets on BMGR-East – see above).

We believe the aggregate effects of limitations or barriers to movement of pronghorn and continuing stressors, including habitat degradation and disturbance within the pronghorn's current range resulting from a myriad of human activities, exacerbated by periodic dry seasons or years, are responsible for the present precarious status of the Sonoran pronghorn in the action area. However, collaborative, multi-agency and multi-party efforts to develop forage enhancement plots and emergency waters, combined with the success of the semi-captive breeding facility, plus planned future recovery actions, including establishment of a second U.S. sub-population, provide hope that recovery of the Sonoran pronghorn in the U.S. is achievable.

EFFECTS OF THE ACTION

Effects of the action refer to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated and interdependent with that action that will be added to the environmental baseline. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration. Indirect effects are those that are caused by the proposed action and are later in time, but are still reasonably certain to occur.

Sonoran Pronghorn

The proposed fence project may result in disturbance to Sonoran pronghorn and/or degradation of pronghorn habitat. Construction and maintenance of the fence and roads, as well as possible increased illegal pedestrian and law enforcement activity to the west of the project will result in removal, destruction, and disturbance of vegetation that may provide forage and cover to pronghorn and may visually and auditorily disturb pronghorn. Though activities associated with the proposed project may be detrimental to pronghorn, conservation measures included in the project description will minimize and help offset disturbance to pronghorn and degradation of

their habitat. The fence may have a beneficial effect on pronghorn and pronghorn habitat in the Lukeville area if it is successful in reducing the number of illegal pedestrians that currently cross into the pronghorn range from Mexico. However, habitat damage and disturbance of pronghorn to the west of the project may increase if illegal traffic is redirected to the west of the fence.

Effects from Construction and Maintenance Activities

Construction and maintenance activities associated with the project may result in some, though we anticipate minimal, disturbance to Sonoran pronghorn, particularly on the western slope of Sonoyta Hill, where there is a greater chance for pronghorn to occur. At least during the project construction phase, disturbance will be minimized by having a biological monitor present (only during construction activities on the western slope of Sonoyta Hill) to ensure that all project construction activities are suspended if Sonoran pronghorn are detected within 0.62 mile of project activities. Access to the western portion of the construction site (i.e., west of Highway 85) will be along the OPCNM border road and South Puerto Blanco road. Though use of these roads may result in some disturbance to Sonoran pronghorn, because pronghorn are not likely to occur near the border or South Puerto Blanco roads between Highway 85 and Sonoyta Hill (based on pronghorn detections for the last 13 years and abundant near-by human presence), we anticipate disturbance to pronghorn will be minimal. Vehicles associated with construction and maintenance could also collide with pronghorn causing injury and/or death. However, we believe the likelihood of collisions with construction and maintenance vehicles is probably low because, as described in the “Status of the Species”, pronghorn are relatively rare, particularly within the project corridor; vehicles will travel at speeds less than 25 miles per hour; and because we are not aware of any such collisions in the U.S., or along unpaved routes anywhere within the range of the Sonoran pronghorn.

Effects from Pedestrian Traffic and Patrol Activities

The fence may have a beneficial effect on Sonoran pronghorn if it reduces illegal pedestrian activities and law enforcement pursuits within the Sonoran pronghorn range. These benefits are most likely to accrue immediately north of the pedestrian fence in the Lukeville area. However, if illegal traffic is redirected, particularly to the west of fence, disturbance to pronghorn and important pronghorn habitat in that area will increase. Patrol activities, which are expected to increase to the west of the fence if illegal traffic shifts west, may additionally disturb pronghorn and their habitat. As noted in the Environmental Baseline, pronghorn appear to be avoiding areas south of the Camino del Diablo in CPNWR possibly due to high levels of smuggling and required law enforcement response. Shifting traffic to west of the Lukeville fence would exacerbate these effects. Increased illegal and law enforcement activities in pronghorn habitat could cause pronghorn to flee and result in short-term denial of access to habitat, both of which would likely result in severe adverse physiological effects to pronghorn. As discussed in the “Status of the Species” and below, Sonoran pronghorn are sensitive to human disturbance. Vehicle traffic is disturbing to pronghorn and will often cause flight or startle responses with associated adverse physiological changes. Hughes and Smith (1990) found that pronghorn immediately ran 1,310-1,650 feet from a vehicle. Krausman *et al.* (2001) found that Sonoran pronghorn reacted to ground disturbances (vehicles or people on foot) with a change in behavior 37 percent of the time, resulting in the animals running or trotting away 2.6 percent of the time. Wright and deVos (1986) noted that Sonoran pronghorn exhibit “a heightened response to human traffic” as compared to other subspecies of pronghorn. Disturbance and flight of

ungulates are known to result in a variety of physiological effects that are adverse, including elevated metabolism, lowered body weight, reduced fetus survival, and withdrawal from suitable habitat (Geist 1971, Harlow *et al.* 1987), which may be exacerbated in harsh environments such as those occupied by Sonoran pronghorn. Disturbance may also lead to mortality, including increased vulnerability to predator attack and susceptibility to heat stress and malnutrition.

Because pronghorn are rare, encounters with illegal immigrants and smugglers should be a relatively rare event. The likelihood of encounters will increase however if illegal traffic increases to the west of the fence. Patrol vehicles pursuing illegal immigrants/smugglers along the improved vehicle route adjacent to the pedestrian fence or in areas to west of the fence in response a shift in illegal traffic could also collide with pronghorn causing injury and/or death. However, we believe the likelihood of collisions with patrol vehicles is probably low because vehicles will not likely be traveling at high speeds (due to traveling primarily along unimproved routes); we are not aware of any such collisions in the U.S., or along unpaved routes anywhere within the range of the Sonoran pronghorn; and pronghorn are relatively rare. Shifts in illegal and law enforcement activity to the west could also further degrade pronghorn habitat in that area. Trails and other soil disturbance can increase erosion, promote the spread of invasive species, and increase the potential for fires, which can adversely affect Sonoran pronghorn habitat. Additionally, off-road vehicle travel can cause changes in surface hydrology (from channelization of water in entrenched vehicle track prisms), which may substantially impact vegetation that provides forage and cover to pronghorn.

However, if patrol increases to the west of the fence along the border, and illegal activity is more successfully interdicted at the border, we anticipate the frequency of law enforcement pursuits through the action area should decrease, which will minimize disturbance to pronghorn and degradation of their habitat. Increased patrol along the border may disturb pronghorn and cause them to avoid or less frequently use the border area. However, because pronghorn are rare along the border, encounters with patrol activities near the border should be a relatively rare event.

Habitat Loss and Degradation

The proposed project would result in the direct disturbance of approximately 45 acres (this includes 17 acres of previously disturbed area); however, much of this is not considered suitable habitat for pronghorn due to abundant near-by human presence or rocky, steep terrain. However, the 45 acres of disturbed ground will be susceptible to colonization by invasive non-native plants such as buffelgrass, Sahara mustard, and *Eruca vesicaria*. Non-native species may outcompete natives and carry fire which could impact near-by pronghorn habitat. As stated in the "Status of the Species", most Sonoran Desert trees, shrubs, and cacti, which provide thermal cover and forage for pronghorn, are very fire intolerant.

Removal of vegetation via fire and direct disturbance in the pronghorn's range decreases the amount of thermal cover and forage available to pronghorn, with adverse effects to pronghorn, especially in drought situations when less forage is already available. The amount of habitat loss due to fence and road construction, however, is extremely small in the context of the approximately 2 million acres of potentially suitable habitat available to the U.S. sub-population of Sonoran pronghorn. The amount of habitat loss due to potential fire cannot be predicted; however, fire could impact a significant amount of pronghorn habitat. Control of non-native

plants within the project footprint, as proposed by CBP, should help decrease the risk of fire within the Sonoran pronghorn range. Additionally, restoration of 84 acres, if it occurs within the Sonoran pronghorn range, should help offset impacts to pronghorn habitat caused by the project.

Barriers to Pronghorn Movement

The proposed project overlays an existing barrier to Sonoran pronghorn movement, the international boundary. It is generally thought that pronghorn currently do not cross the international boundary due to the combined barrier effects of: (1) the international-boundary livestock fence; (2) Mexican Highway 2; (3) right-of-way fencing and livestock fencing that is intermittent along Highway 2 between Sonoyta and San Luis; and (4) human settlements and activity concentrations, which are expanding linearly along the boundary. Mexican Highway 2 does not continue near the border east of Lukeville (it turns south) and thus does not act as a barrier to trans-border Sonoran pronghorn movement along the eastern portion of the proposed project. Sonoran pronghorn, however, in recent years have only rarely been documented using the eastern portion of the proposed project area, likely due to the barrier effect of Highway 85. The proposed fence would completely impede any attempted trans-border Sonoran pronghorn movements near Lukeville. However, because Sonoran pronghorn are not known to cross the international border due to aforementioned existing barriers, we do not anticipate the fence will affect their trans-border movement patterns.

Conservation Measures

CBP's commitments to provide funding to fill a Sonoran pronghorn water for 10 years (at an annual cost of \$2,500.00) will help offset potential impacts to pronghorn that may occur as a result of this project and will generally aid in the conservation and recovery of pronghorn. Furthermore, restoration of 84 acres, if it occurs with the Sonoran pronghorn range, will also help offset project impacts to pronghorn.

Pronghorn Status

The most recent formal Sonoran pronghorn survey in December 2006 resulted in an estimated 68 wild pronghorn in the U.S. population, which was a substantial increase from an estimated 18 wild pronghorn in the U.S. in 2002. This increase can likely be attributed to improved habitat conditions since 2002 when a severe drought occurred, as well as emergency recovery actions such as forage enhancement plots and waters (see details under the "Environmental Baseline"), which undoubtedly offset to some extent the effects of drought and barriers that prevent pronghorn from accessing greenbelts and water, such as the Gila River and Río Sonoyta. We expect these recovery actions may also help offset adverse effects from this project as well as other activities within the action area that disturb pronghorn and their habitat. Because pronghorn remain critically endangered, however, it is imperative that all adverse effects to pronghorn from the proposed action and other activities are minimized and offset to the greatest extent possible.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future

Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

Most lands within the action area (current range of the pronghorn within Arizona) are managed by Federal agencies; thus, most activities that could potentially affect pronghorn are Federal activities that are subject to section 7 consultation. The effects of these Federal activities are not considered cumulative effects. Relatively small parcels of private and State lands occur within the currently-occupied range of the pronghorn near Ajo and Why, north of the BMGR from Dateland to Highway 85, and from the Mohawk Mountains to Tacna. State inholdings in the BMGR were acquired by the USAF. Continuing rural and agricultural development, recreation, vehicle use, grazing, and other activities on private and State lands adversely affect pronghorn and their habitat. MCAS-Yuma (2001) reports that 2,884 acres have been converted to agriculture near Sentinel and Tacna. These activities on State and private lands and the effects of these activities are expected to continue into the foreseeable future. Historical habitat and potential recovery areas currently outside of the current range are also expected to be affected by these same activities on lands in and near the action area in the vicinity of Ajo, Why, and Yuma.

Of particular concern are illegal border crossings by undocumented immigrants and smugglers. In fiscal year 2005, the Yuma Sector of the Office of Border Patrol (OBP) apprehended record numbers of illegal immigrants and smugglers, and from October 1, 2005 to May 2006, 96,000 were made, which was a 13% increase over the same time period in 2005 (Gerstenzang 2006). In 2001, estimates of undocumented migrant traffic reached 1,000 per night in OPCNM alone (National Park Service 2001 or OPCNM 2001) and an estimated 150,000 people entered the OPCNM illegally from Mexico (Milstead and Barns 2002). Increased presence of the Border Patrol in the Douglas, Arizona area, and in San Diego (Operation Gatekeeper) and southeastern California, pushed illegal immigrant and smuggler traffic into remote desert areas, such as CPNWR, OPCNM, and BMGR (Klein 2000). Though the operation of Camp Grip within the CPNWR and the temporary camp detail at Bates Well on the OPCNM reduced the number of illegal drive-throughs in the eastern portion of the CPNWR in FY 2005 (Hubbard 2005, as cited in U.S. Customs and Border Protection 2005). In recent years, the number of illegal roads and foot trails created by illegal immigrants within the CPNWR has increased substantially (U.S. Customs and Border Protection 2005, C. McCasland pers. comm. 2007). These illegal crossings and required law enforcement response have resulted in route proliferation, off-highway vehicle activity, increased human presence in backcountry areas, discarded trash, abandoned vehicles, cutting of firewood, illegal campfires, and increased chance of wildfire. Habitat degradation and disturbance of pronghorn almost certainly result from these illegal activities. Currently, much of the illegal traffic travels through the southern passes of the Growler Mountains and lead either through or by all of our forage enhancements and captive rearing pen in the Child's Valley, with potential to impact these recovery projects and use of the area by pronghorn (C. McCasland pers. comm. 2007). Probably due to increased enforcement presence, ongoing construction of a vehicle barrier at CPNWR, and the vehicle barrier at OPCNM, all forms of illegal activities except narcotics trafficking are significantly down so far in fiscal year 2008 as compared to the same period in fiscal year 2007. Apprehensions are down from 40-67% at OPCNM and CPNWR over this period, and thus far in FY 08 no drive-throughs have occurred at OPCNM (CBP presentation to the Borderlands Management Task Force, January 16, 2008). Despite high levels of illegal activity and required law enforcement response throughout the action area,

pronghorn in the U.S. have managed to increase since 2002, although their use of areas subject to high levels of illegal use and law enforcement have likely declined, as discussed above.

We expect illegal activities and their effects on pronghorn to continue, though they should be reduced once the PVB on CPNWR is completed (as of this writing, the PVB has been installed from the border of OPCNM and CPNWR to the boundary of Pima and Yuma counties).

CONCLUSION

After reviewing the current status of the Sonoran pronghorn, the environmental baseline for the action area, the effects of the proposed activities associated with the Lukeville fence project, and the cumulative effects, it is our biological opinion the proposed action is not likely to jeopardize the continued existence of the Sonoran pronghorn. No critical habitat has been designated for this species, therefore, none will be affected. Our conclusion is based on the following:

1. The Sonoran pronghorn population has increased since 2002, despite high levels of human use in the form of off- and on-road vehicle and foot travel by smugglers, illegal immigrants, and law enforcement.
2. Completion of forage enhancement plots, waters, and the semi-captive breeding facility have helped make the pronghorn population in the U.S. more secure and more resistant to drought and other stressors.
3. Loss of pronghorn habitat resulting from this project is very small in the context of the approximately 2 million acres of potentially suitable habitat available to the U.S. sub-population of Sonoran pronghorn. Additionally, habitat disturbance will be minimized by conducting project activities within previously disturbed areas to the extent practicable.
4. The likelihood of pronghorn crossing the international boundary with Mexico in the project area is currently very low because of current physical barriers (e.g., Mexico Highway 2) and human activities. Therefore, the presence of the Lukeville fence is unlikely to result in additional barriers to pronghorn movement across the international boundary.
5. Conservation measures included in the proposed action will reduce disturbance to pronghorn during project construction activities (i.e., the presence of a biological monitor to ensure that all project construction activities are suspended if pronghorn are detected within 0.62 mile of project activities).
6. Conservation measures included in the proposed action (i.e., funding to fill a pronghorn water and habitat restoration) will help offset adverse effects to pronghorn that could result from implementation of the project.
7. When added to the environmental baseline, the status of the species, and cumulative effects, the effects of the proposed action do not reduce appreciably the likelihood of

survival and recovery of the subspecies in the wild. Therefore, the proposed action will not jeopardize the continued existence of the subspecies. Though illegal activity could increase to the west of the fence, such activity should be reduced by CPB/USBP's assignment of additional agents to unprotected areas. The presence of a vehicle barrier to the west of the fence also halts most or all illegal vehicle traffic. Consequently, adverse effects to pronghorn from possible increased illegal activity should be minimized. Additionally, once the Lukeville fence is completed we expect to see a dramatic decrease in illegal traffic in the Lukeville area. Decreased illegal and legal human activity within pronghorn habitat in the vicinity of Lukeville will be beneficial to pronghorn.

The conclusions of this biological opinion are based on full implementation of the project as described in the "Description of the Proposed Action" section of this document, including any conservation measures that were incorporated into the project design.

INCIDENTAL TAKE STATEMENT

Section 9 of the ESA and Federal regulation pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without special exemption. "Take" is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. "Harm" is defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering (50 CFR 17.3). "Harass" is defined as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering (50 CFR 17.3). "Incidental take" is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the ESA provided that such taking is in compliance with the terms and conditions of this incidental take statement.

AMOUNT OR EXTENT OF TAKE ANTICIPATED

We do not anticipate the proposed action will result in incidental take of Sonoran pronghorn for the following reasons:

1. Pronghorn are rare; making encounters with human activities (both legal and illegal) associated with the Lukeville fence project a relatively rare event.
2. Measures included in the proposed action, such as the daily surveys for Sonoran pronghorn, will further reduce the potential for take.
3. No incidental take of Sonoran pronghorn is known to have occurred in Arizona due to CBP/OBP or illegal immigrant/smuggler activities.

LESSER LONG-NOSED BAT

STATUS OF THE SPECIES

A. Species Description

The lesser long-nosed bat is a medium-sized, leaf-nosed bat. It has a long muzzle and a long tongue, and is capable of hover flight. These features are adaptations for feeding on nectar from the flowers of columnar cacti (e.g., saguaro; cardon, *Pachycereus pringlei*; and organ pipe cactus, *Stenocereus thurberi*) and from paniculate agaves (e.g., Palmer's agave, *Agave palmeri*) (Hoffmeister 1986). The lesser long-nosed bat was listed (originally, as *Leptonycteris sanborni*; Sanborn's long-nosed bat) as endangered in 1988 (U.S. Fish and Wildlife Service 1988). No critical habitat has been designated for this species. A recovery plan was completed in 1994 (U.S. Fish and Wildlife Service 1997). Loss of roost and foraging habitat, as well as direct taking of individual bats during animal control programs, particularly in Mexico, have contributed to the current endangered status of the species. Recovery actions include roost monitoring, protection of roosts and foraging resources, and reducing existing and new threats.

B. Distribution and Life History

The lesser long-nosed bat is migratory and found throughout its historical range, from southern Arizona and extreme southwestern New Mexico, through western Mexico, and south to El Salvador. It has been recorded in southern Arizona from the Picacho Mountains (Pinal County) southwest to the Agua Dulce Mountains (Pima County) and Copper Mountains (Yuma County), southeast to the Peloncillo Mountains (Cochise County), and south to the international boundary. Roosts in Arizona are occupied from late April to September (Cockrum and Petryszyn 1991) and on occasion, as late as November (Sidner 2000); the lesser long-nosed bat has only rarely been recorded outside of this time period in Arizona (U. S. Fish and Wildlife Service 1997, Hoffmeister 1986, Sidner and Houser 1990). In spring, adult females, most of which are pregnant, arrive in Arizona gathering into maternity colonies. These roosts are typically at low elevations near concentrations of flowering columnar cacti. After the young are weaned these colonies mostly disband in July and August; some females and young move to higher elevations, primarily in the southeastern parts of Arizona near concentrations of blooming paniculate agaves. Adult males typically occupy separate roosts forming bachelor colonies. Males are known mostly from the Chiricahua Mountains and recently the Galiuro Mountains (personal communication with Tim Snow, Arizona Game and Fish Department, 1999) but also occur with adult females and young of the year at maternity sites (U. S. Fish and Wildlife Service 1997). Throughout the night between foraging bouts, both sexes will rest in temporary night roosts (Hoffmeister 1986).

Lesser long-nosed bats appear to be opportunistic foragers and extremely efficient fliers. They are known to fly long distances from roost sites to foraging sites. Night flights from maternity colonies to flowering columnar cacti have been documented in Arizona at 15 miles, and in Mexico at 25 miles and 36 miles (one way) (Dalton *et al.* 1994; personal communication with V. Dalton, 1997; personal communication with Y. Petryszyn, University of Arizona, 1997). Steidl (personal communication, 2001) found that typical one-way foraging distance for bats in southeastern Arizona is roughly 12.5 miles. A substantial portion of the lesser long-nosed bats at the Pinacate Cave in northwestern Sonora (a maternity colony) fly 25-31 miles each night to

foraging areas in OPCNM (U.S. Fish and Wildlife Service 1997). Horner *et al.* (1990) found that lesser long-nosed bats commuted 30-36 miles round trip between an island maternity roost and the mainland in Sonora; the authors suggested these bats regularly flew at least 47 miles each night. Lesser long-nosed bats have been observed feeding at hummingbird feeders many miles from the closest known potential roost site (personal communication with Yar Petryszyn, University of Arizona, 1997).

Lesser long-nosed bats, which often forage in flocks, consume nectar and pollen of paniculate agave flowers and the nectar, pollen, and fruit produced by a variety of columnar cacti. Nectar of these cacti and agaves is high energy food. Concentrations of some food resources appear to be patchily distributed on the landscape, and the nectar of each plant species used is only seasonally available. Cacti flowers and fruit are available during the spring and early summer; blooming agaves are available primarily from July through October. In Arizona, columnar cacti occur in lower elevational areas of the Sonoran Desert region, and paniculate agaves are found primarily in higher elevation desert scrub areas, semi-desert grasslands and shrublands, and into the oak woodland (Gentry 1982). Lesser long-nosed bats are important pollinators for agave and cacti, and are important seed dispersers for some cacti.

C. Status and Threats

Recent information indicates that lesser long-nosed bat populations appear to be increasing or stable at most Arizona roost sites identified in the recovery plan (AGFD 2005, Tibbitts 2005, Wolf and Dalton 2005). Lesser long-nosed bat populations additionally appear to be increasing or stable at other roost sites in Arizona and Mexico not included for monitoring in the recovery plan (Sidner 2005). Less is known about lesser long-nosed bat numbers and roosts in New Mexico. Though lesser long-nosed bat populations appear to be doing well, many threats to their stability and recovery still exist, including excess harvesting of agaves in Mexico; collection and destruction of cacti in the U.S.; conversion of habitat for agricultural and livestock uses, including the introduction of buffleggrass, a non-native, invasive grass species; wood-cutting; drought; fires; human disturbance at roost sites; and urban development.

Approximately 20 – 25 large lesser long-nosed bat roost sites, including maternity and late-summer roosts, have been documented in Arizona (personal communication with Scott Richardson, FWS, 2006). Of these, 10 – 20 are monitored on an annual basis depending on available resources. Monitoring in Arizona in 2004 documented approximately 78,600 lesser long-nosed bats in late-summer roosts and approximately 34,600 in maternity roosts. Ten to 20 lesser long-nosed bat roost sites in Mexico are also monitored annually. Over 100,000 lesser long-nosed bats are found at just one natural cave at the Pinacate Biosphere Reserve, Sonora, Mexico (Cockrum and Petryszyn 1991). The numbers above indicate that although a relatively large number of lesser long-nosed bats exist, the relative number of known large roosts is quite small.

Maternity roosts, suitable day roosts, and concentrations of food plants are all critical resources for the lesser long-nosed bat. All of the factors that make roost sites useable have not yet been identified, but maternity roosts tend to be very warm and poorly ventilated (U.S. Fish and Wildlife Service 1997). Human presence/disturbance at roosts is clearly an important factor as

bats appear to be particularly sensitive to human disturbance at roost sites. For example, the illegal activity, presumably by immigrants or smugglers, at the Bluebird maternity roost site, caused bats to abandon the site in 2002, 2003, and 2005. The presence of alternate roost sites may be critical when this type of disturbance occurs.

The lesser long-nosed bat recovery plan (U.S. Fish and Wildlife Service 1997) identifies the need to protect foraging areas and food plants such as columnar cacti and agaves. More information regarding the average size of foraging areas around roosts would be helpful to identify the minimum area around roosts that should be protected to maintain adequate forage resources.

The 2005 fires referred to under Sonoran Pronghorn “Status of the Species” affected some lesser long-nosed bat foraging habitat, though the extent is unknown. For example, the Goldwater, Aux, and Sand Tank Fire Complexes on BMGR-East burned through and around isolated patches of saguaros, but the immediate effects and longer term impacts of the fires on saguaros are not yet known. Monitoring of saguaro mortality rates should be done to assess the impacts on potential lesser long-nosed bat foraging habitat. Fire suppression activities associated with the 2005 fires could also have affected foraging habitat. For example, slurry drops may have left residue on saguaro flowers, which could have impacted lesser long-nosed bat feeding efficiency or resulted in minor contamination.

Drought (see the “Status of the Species” and “Environmental Baseline” for Sonoran pronghorn for further details regarding drought) may affect lesser long-nosed bat foraging habitat, though the effects of drought on bats are not well understood. The drought in 2004 resulted in near complete flower failure in saguaros throughout the range of lesser long-nosed bats. During that time however, in lieu of saguaro flowers, lesser long-nosed bats foraged heavily on desert agave (*Agave deserti*) flowers, a plant not typically used by lesser long-nosed bats (personal communication with Scott Richardson, FWS, March 20, 2006). Similarly, there was a failure of the agave bloom in southeastern Arizona in 2006, probably related to the ongoing drought. As a result, lesser long-nosed bats left some roosts earlier than normal, and increased use of hummingbird feeders by lesser long-nosed bats was observed in the Tucson area (personal communication with Scott Richardson, FWS, January 11, 2008). Monitoring bats and their forage during drought years is needed to better understand the effects of drought on this species.

We have produced numerous biological opinions on the lesser long-nosed bat since it was listed as endangered in 1988, some of which anticipated incidental take. Incidental take has been in the form of direct mortality and injury, harm, and harass and has typically been only for a small number of individuals. Because incidental take of individual bats is difficult to detect, incidental take has often been quantified in terms of loss of forage resources, decreases in numbers of bats at roost sites, or increases in proposed action activities.

A few examples of more recent biological opinions that anticipated incidental take for lesser long-nosed bats are summarized below. The 2007 biological opinion for the installation of one 600 kilowatt wind turbine and one 50KW mass megawatts wind machine on Fort Huachuca included incidental take in the form of 10 bats caused by blade-strikes for the life (presumed indefinite) of the proposed action. The 2005 biological opinion for implementation of the Coronado National Forest Land and Resource Management Plan (U.S. Forest Service) included

incidental take in the form of harm or harass. The amount of take for individual bats was not quantified; instead take was to be considered exceeded if simultaneous August counts (at transitory roosts in Arizona, New Mexico, and Sonora) drop below 66,923 lesser long-nosed bats (the lowest number from 2001 – 2004 counts) for a period of two consecutive years as a result of the action. The 2004 biological opinion for the Bureau of Land Management Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management included incidental take in the form of harassment. The amount of incidental take was quantified in terms of loss of foraging resources, rather than loss of individual bats. The 2003 biological opinion for Marine Corps Air Station (MCAS) – Yuma Activities on the BMGR included incidental take in the form of direct mortality or injury (five bats every 10 years). Because take could not be monitored directly, it was to be considered exceeded if nocturnal low-level helicopter flights in certain areas on the BMGR increased significantly or if the numbers of bats in the Agua Dulce or Bluebird Mine roosts decreased significantly and MCAS-Yuma activities were an important cause of the decline. The 2002 biological opinion for Department of the Army Activities at and near Fort Huachuca (Fort), Arizona anticipated incidental take in the form of direct mortality or injury (six bats over the life of the project), harassment (20 bats per year), and harm (10 bats over the life of the project).

ENVIRONMENTAL BASELINE

A. Action Area

The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR §402.02). The FWS has determined that the action area for the lesser long-nosed bat includes the areas directly impacted by the installation of primary fence (including the fence and access roads) and an area around the project defined by a circle with a radius of 36 miles (the maximum documented one-way foraging distance of the lesser long-nosed bat). The action area represents only a small portion of the lesser long-nosed bat's range.

Management of the action area is largely by Federal agencies, as described in the “Action Area” for Sonoran pronghorn. The action area for the lesser long-nosed bat also includes part of the Tohono O’odham Nation (TON) and lands near the border in Sonora.

B. Terrain, Vegetation Communities, and Climate in the Action Area

A description of the region encompassing the action area has been previously provided (see “Environmental Baseline”, part B. Terrain, Vegetation Communities, and Climate in the Action Area” for the Sonoran pronghorn).

The project is near the Sonoyta and Puerto Blanco mountains. Suitable day and night roosting potentially occur within the immediate project vicinity, however, these areas have not recently been surveyed for lesser long-nosed bat roosts.

C. Status of the Lesser Long-Nosed Bat in the Action Area

Based on the known foraging distances for lesser long-nosed bats, it is likely that this species forages throughout portions of the OPCNM, CPNWR, TON, and BLM lands, where flowers and fruit of saguaro, organ pipe, prickly pear, and agave are available.

Three large maternity roosts occur in the action area, including Bluebird Mine, Copper Mountain Mine, and Pinacate Cave. Bluebird Mine, located along the eastern border of CPNWR in the Growler Mountains, is over 15 miles northwest of the nearest border portion of the project site and generally supports an estimated 3,000 lesser long-nosed bats at the peak of annual occupancy (U.S. Fish and Wildlife Service 1997). The highest estimate of lesser long-nosed bats using Bluebird Mine from 2001-2005 was 4,500. They abandoned the mine however in 2002, 2003, and 2005 due to disturbance from illegal activities. In 2004, the bats returned to the mine after CPNWR staff placed a high steel fence around the mine to prevent disturbance. The bats returned to the mine in 2005, however abandoned the site once again after the fence was damaged, presumably by illegal immigrants or smugglers.

Copper Mountain Mine, located within the OPCNM, is about 15 miles north of the nearest border portion of the project and supports approximately 25,000 bats at the peak of annual occupancy (National Park Service 2002). The highest estimate of lesser long-nosed bats using Copper Mountain Mine from 2001-2005 was 35,000.

The largest maternity roost in the project area is Pinacate Cave in northern Sonora, Mexico. Approximately 40 miles south of the nearest border portion of project site, this roost is estimated to support about 130,000 bats each year (U.S. Fish and Wildlife Service 1997). In May 2006, approximately 200,000 lesser long-nosed bats were counted at the Pinacate Cave. However, in 2007, a significantly lower number of lesser long-nosed bats (83,000) were observed at this roost.

Before they give birth, female bats probably occasionally move between the Bluebird and Copper Mountain roosts, and it has been recommended that these two roosts be censused simultaneously to avoid double-counting bats (U.S. Fish and Wildlife Service 1997). Observations at Copper Mountain and Pinacate Cave indicate that they are occupied from mid-April to early-to-mid-September (U.S. Fish and Wildlife Service 1997), although these roosts reach their peak occupancy in late spring/early summer.

Though OPCNM and CPNWR monitor the Copper Mountain and Bluebird roosts annually to determine the presence, abundance, and disturbance of lesser long-nosed bats, including examining the roost year round for evidence of human entry, the rest of OPCNM and CPNWR has not been well surveyed to determine the number of additional day and night roosts that might exist in natural caves and/or mineshafts. A small roost or roosts is known to occur in the Agua Dulce Mountains in the southeastern corner of the CPNWR, though the current status (i.e., whether lesser long-nosed bats are still using the site) of the roost is unknown. Smaller day roosts are known in other mine tunnels, and are also suspected in other mines and natural rock crevices and caves. Short-term night roosts are known in natural caves, under the eaves of buildings, and inside several abandoned buildings associated with past ranching activities. It is likely that there is within- and between-season interchange between these colonies, perhaps even within and between nights (U. S. Fish and Wildlife Service 1997).

Flowers and fruits of saguaro, organ pipe cactus, and cardon provide nearly all of the energy and nutrients obtained by pregnant and lactating females roosting in the Sonoran Desert in the spring and early summer (U.S. Fish and Wildlife Service 1997). Saguaro, which is common and abundant throughout much of the BMGR, CPNWR, and OPCNM; and organ pipe cactus, which is common at OPCNM and localized in the eastern portions of CPNWR and BMGR, and portions of the TON, flower in May and fruit mature in June and July (Benson and Darrow 1982). Lesser long-nosed bats feed on both the nectar and fruits of these cacti. When cacti fruit are scarce or unavailable in late July or early August, agave nectar may be the primary food resource for lesser long-nosed bats in OPCNM, CPNWR, and TON. Agaves typically bolt or flower and provide a nectar resource for foraging bats from about July into October. Desert agave occurs in mountainous areas within the action area. As mentioned above under “Status of the Species”, fires and drought may affect some lesser long-nosed bat foraging habitat within the action area, though the extent is unknown.

A number of activities occur in the action area that could affect bats. For example, our 1997 biological opinion on the OPCNM General Management Plan, found that the proposed action could result in incidental take of bats from recreation, specifically from unauthorized human disturbance to the Copper Mountain maternity roost. Our 2003 biological and conference opinion for the installation of the international boundary vehicle barrier on the OPCNM did not find the action could result in incidental take, but found that the project would result in the disturbance of 70 acres of potential lesser long-nosed bat foraging habitat, including the destruction of up to 750 to 1000 saguaro and 80 to 100 organ pipe cacti (about 400 to 600 of these were to be salvaged). Our 2006 biological opinion on the CBP - Office of the Border Patrol’s installation of a permanent vehicle barrier (as well as access improvements, construction/improvement of border roads, and associated maintenance and patrol activities) along the border from the western end of the OPCNM barrier to Avenue C just east of San Luis, Arizona, did not find the action could result in incidental take. It did find, however, that the project would result in the direct disturbance of approximately 207 acres of potential lesser long-nosed bat foraging habitat, including the destruction of up to 50 saguaros and 3 organ pipe cacti. About 200 saguaros in the project corridor were to be avoided or salvaged.

High levels of undocumented immigrant activities and narcotics trafficking (see “Environmental Baseline, part E. Threats” for the Sonoran pronghorn for further detail about undocumented immigrant activity) and the associated damage resulting to the landscape from their activities, as well the activities of law enforcement in pursuit of undocumented immigrants, is becoming an increasing threat, not just to lesser long-nosed bats but to all wildlife of the region. As stated earlier, much illegal traffic occurs through the Growler Mountains, and Bluebird Mine on CPNWR in the Growlers was vandalized by suspected illegal immigrants in June 2002, which resulted in at least four dead bats and abandonment of the roost. The bats returned to the mine in 2005; however, abandoned the site once again after the fence was damaged by illegal immigrants. Both OPCNM and CPNWR are planning to implement additional protective measures at Copper Mountain and Bluebird Mine, such as the possible construction of bat-friendly gates at roost entrances to prevent illegal human entry. However, lesser long-nosed bats are sensitive to bat gates and may not adapt readily to their use. Therefore, use of bat gates to protect these roosts may not be a feasible alternative

EFFECTS OF THE ACTION

Effects to Roosts

No known or suspected roost sites will be directly impacted by the proposed action. At its closest point, the proposed project is approximately 15 miles from the Copper Mountain roost on OPCNM and the Bluebird Mine roost on CPNWR, and will have no direct impact on these sites or the Pinacate Cave roost site. Neither will the proposed action directly impact any potential roosting habitat (mines, caves, etc.) on OPCNM.

The proposed action may have an indirect positive effect on lesser long-nosed bats using the Copper Mountain roost if the fence decreases the amount of illegal pedestrian traffic in areas directly north of the fence (the Copper Mountain roost site is located 15 miles north of the proposed fence). Decreases in illegal pedestrian traffic near roost sites decrease the possibility of illegal entry into these sites which can cause disturbance to bats (i.e., roost abandonment). The proposed action, however, may adversely affect lesser long-nosed bats using the Bluebird Mine roost if the fence results in the redirection of and subsequent increase in illegal pedestrian traffic through the eastern portions of CPNWR. We anticipate the likelihood of this occurring is relatively low.

Effects to Cross-Border Movements

The effects of fences on lesser long-nosed bat movement patterns are unknown. We do not anticipate the fence will greatly impact cross-border movement of lesser long-nosed bats because they are agile fliers and because the fence will not be installed along the entire border of OPCNM. If the fence does impede their cross-border movements, the ability of lesser long-nosed bats using the Pinacate roost to obtain adequate food resources will be diminished given their heavy reliance on these resources in OPCNM.

Effects to Foraging Habitat

The proposed project will result in the disturbance of lesser long-nosed bat food plants (approximately 206 to 266 saguaros and 295 to 397 organ pipe cacti⁵); however, as stated in the "Description of the Proposed Action", CBP will salvage (remove and replant outside the project corridor) all columnar cacti less than three feet tall to the extent practicable (approximately 74 saguaros and 68 organ pipe cacti⁵) and will attempt to salvage all columnar cacti between three and six feet tall (41 saguaro and 55 organ pipe cacti⁵) that face danger of destruction within the project corridor as determined by the biological monitor and that have been identified using GPS-technology (either by GSRC or OPCNM). Because saguaros and organ pipe cacti less than 6 feet tall generally do not flower, the salvaged cacti, once replanted, will not be available as a forage resource for lesser long-nosed bats until they reach the size at which they flower. Construction activities associated with the proposed project will likely destroy approximately 91 to 126 saguaros and 172 to 285 organ pipe cacti on the OPCNM; approximately 115 to 140 saguaros and 112 to 123 organ pipe within the project corridor will be salvaged. Seedlings that

⁵ During a recent survey (February 2008), OPCNM staff counted a total of 140 salvageable saguaros and 112 salvageable organ pipe cacti and 126 non-salvageable saguaros and 285 non-salvageable. These numbers differ from those provided by GSRC; however, regardless of the exact number, all saguaros and organ pipe determined to be salvageable within the project footprint will be salvaged.

may have been missed during the surveys⁶ will likely be destroyed by project activities. Additionally, the roots and rooting areas of plants adjacent to the project corridor might also be damaged, which may affect plant vigor and cause increased plant mortality.

According to BP, the proposed project will result in the permanent disturbance of about 45 acres. Of this, about 17 acres was previously disturbed by the installation of PVBs; however, about 28 acres of potential lesser long-nosed bat foraging habitat adjacent to the international border will be newly disturbed. The 45 acres of disturbed ground will be susceptible to colonization by invasive non-native plants such as buffelgrass, Sahara mustard, and *Eruca vesicaria*. Non-native species may prevent the recruitment of lesser long-nosed bat forage species (columnar cacti and agaves) and may also carry fire that could also impact lesser long-nosed bat forage species. Most Sonoran Desert trees, shrubs, and cacti are very fire intolerant. For example, fires at Saguaro National Park resulted in greater than 20 percent mortality of mature saguaros (Schwalbe *et al.* 2000).

In addition to areas directly disturbed by the project, we anticipate some, unquantifiable amount of potential lesser long-nosed bat foraging habitat will be affected by altered hydrology and increased erosion and sedimentation caused by the fence and associated road. Though the Final EA says that the fence and road will be designed and constructed in a way that would not alter drainage patterns or cause increased downstream erosion and sedimentation, we expect some effects to hydrological function based on the effects of the OPCNM PVB. According to the Research and Endangered Species Coordinator at OPCNM, after significant rainfall events, debris becomes lodged on the OPCNM PVBs (six inch-wide posts on five-foot centers), which creates a dam that causes water to pool upstream (up to 100+ feet) and laterally (up to 300+ feet)(electronic mail from Tim Tibbits, October 4, 2007). We anticipate the fence and road will cause at least some changes in hydrology, as well as increased erosion and sedimentation.

Destruction of and damage to lesser long-nosed bat forage plants and disturbance of potential bat foraging habitat will reduce food available to the lesser long-nosed bat; this will likely adversely affect bats, especially during drought periods when forage availability is already impaired. It is difficult to evaluate the significance of the loss of foraging habitat; however, this loss is small compared to the large amount of potentially suitable foraging habitat available to the lesser long-nosed bat throughout the action area. However, it is still extremely important that effects to forage resources are minimized.

The proposed project may result in fewer disturbances to lesser long-nosed bat foraging habitat directly north of the fence if the fence decreases the amount of illegal pedestrian and pursuant law enforcement traffic in these areas. Construction of the fence, if it redirects illegal pedestrian and pursuant law enforcement activities to the east and west of the fence, however, may result in greater disturbance of lesser long-nosed bat foraging habitat in these areas. Trails and other soil disturbance can increase erosion, promote the spread of invasive plant species, and increase the potential for fires, which can adversely affect lesser long-nosed bat food resources. Off-road vehicle travel may damage the shallow root systems of large columnar cacti, causing loss of

⁶ Gulf South Research Corporation conducted surveys in August 2007 by walking, with 30 feet between two surveyors, the project corridor and recording the species and location of each columnar cactus seen.

vigor or death, and result in destruction of numerous columnar cacti, and can be assumed to destroy large numbers of seedlings. Also, off-road travel can cause changes in surface hydrology (from channelization of water in entrenched vehicle track prisms), which can adversely affect vegetation, including lesser long-nosed bat forage species.

Though nighttime construction is not anticipated, if it occurs within bat foraging habitat, bat foraging behavior may be temporarily affected. Because bats are nocturnal, we do not anticipate that daytime construction and maintenance activities will affect bat foraging behavior.

Conservation measures

Environmental design measures incorporated into the project, such as implementing erosion control techniques and constructing the fence in arroyos in a way that ensures proper conveyance of floodwater, will help minimize project impacts to lesser long-nosed bat foraging habitat.

Additionally, CBP's commitment to salvage, replant, and monitor the success of 238 columnar cacti; restore 84 acres within OPNCM, and control non-native plants within the project footprint, will help offset project impacts to lesser long-nosed bats.

CUMULATIVE EFFECTS

Most lands within the action area are managed by Federal agencies; thus, most activities that could potentially affect bats are Federal activities that are subject to section 7 consultation. The effects of these Federal activities are not considered cumulative effects. However, a portion of the action area also occurs on the TOIR, on private lands in the U.S., and in Mexico. Residential and commercial development, farming, livestock grazing, surface mining and other activities occur on these lands and are expected to continue into the foreseeable future. These actions, the effects of which are considered cumulative, may result in small-scale loss or degradation of lesser long-nosed bat foraging habitat, and potential disturbance of roosts. Illegal immigrant/smuggler activities, described above under "Cumulative Effects" for pronghorn, can result in loss or degradation of potential lesser long-nosed bat foraging habitat (impacts to foraging habitat have not been quantified however) and disturbance to and abandonment of roosts, as has been documented at the Bluebird Mine roost site. Though immigrant/smuggler activity has been high in recent years, it has declined recently, likely due to increased law enforcement presence (see Cumulative Effects for the pronghorn). In spite of these activities, lesser long-nose bat populations appear to be increasing or stable at many roost sites within and outside the action area.

CONCLUSION

After reviewing the current status of the lesser long-nosed bat, the environmental baseline for the action area, the effects of the proposed activities associated with the Lukeville fence project, and the cumulative effects, it is our biological opinion that the proposed action is not likely to jeopardize the continued existence of the lesser long-nosed bat. No critical habitat has been designated for this species, therefore, none will be affected. Our conclusion is based on the following:

1. Lesser long-nosed bat populations appear to be increasing or stable at many roost sites in Arizona and Mexico.
2. The project will not directly affect any known bat roosts in the action area (Bluebird Mine, Copper Mountain Mine, and Pinacate Cave).
3. The project may increase the possibility of disturbance to bats at the Bluebird Mine roost site if it results in the redirection of and subsequent increase in illegal pedestrian traffic through the eastern portions of CPNWR; however, we anticipate the likelihood of this occurring is relatively low.
4. The project will result in direct loss of 28 acres of lesser long-nosed bat foraging habitat, but disturbance to and loss of foraging habitat and forage plants will be minimized through environmental design measures, such as implementing erosion control, and offset through conservation measures, such as the salvage of columnar cacti and habitat restoration. Specifically, CBP will salvage (remove and replant outside the project corridor) all columnar cacti less than three feet tall to the extent practicable and will attempt to salvage all columnar cacti between three and six feet tall (an estimated 238 saguaro and organ pipe cacti will be salvaged) that face danger of destruction within the project corridor as determined by the biological monitor and that have been identified using GPS-technology (either by GSRC or OPCNM). Additionally, CBP will fund the restoration of 84 acres within OPCNM.

The conclusions of this biological opinion are based on full implementation of the project as described in the “Description of the Proposed Action” section of this document, including any conservation measures that were incorporated into the project design.

INCIDENTAL TAKE STATEMENT

Section 9 of the ESA and Federal regulation pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without special exemption. “Take” is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. “Harm” is defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering (50 CFR 17.3). “Harass” is defined as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering (50 CFR 17.3). “Incidental take” is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the ESA provided that such taking is in compliance with the terms and conditions of this incidental take statement.

AMOUNT OR EXTENT OF TAKE ANTICIPATED

We do not anticipate the proposed action will result in incidental take of lesser long-nosed bat for the following reasons:

1. The project will not directly affect any known bat roosts.
2. Impacts to bat foraging habitat and plants will be minimized and offset.

DISPOSITION OF DEAD OR INJURED LISTED SPECIES

Upon locating a dead, injured, or sick listed species initial notification must be made to the FWS's Law Enforcement Office, 2450 West Broadway Road, Suite 113, Mesa, Arizona, 85202, telephone: 480/967-7900), made within five calendar days and include the date, time, and location of the animal, a photograph if possible, and any other pertinent information. The notification shall be sent to the Law Enforcement Office with a copy to this office. Care must be taken in handling sick or injured animals to ensure effective treatment and care and in handling dead specimens to preserve the biological material in the best possible state.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. We recommend implementing the following actions:

1. In conjunction with OPCNM, CPNWR, BMGR, BLM, and TON facilitate restoration (i.e., re-contour entrenched areas, ensure the establishment of native vegetation, etc.) of areas degraded by off-route travel (by illegal immigrants/smugglers and OBP) within the action area (in addition to the areas that will be restored as part of the proposed action).
2. Monitor or provide funding to land managers to monitor future ecological conditions in the action area, including the overall success of active and passive restoration (i.e., the degree to which native vegetation becomes reestablished on illegal routes, the degree to which non-native invasive plants have decreased or increased, etc.).
3. Assist agencies in the control of non-native plants that may alter fire frequencies and intensities within OPCNM, CPNWR, BMGR, BLM, and TON, and in developing methods for controlling these species (lesser long-nosed bat Recovery Plan task 2).
4. Provide annual financial assistance (at least until illegal CPNWR immigrant/smuggler entry into southwestern Arizona is significantly reduced) to OPCNM, CPNWR, BMGR, BLM, and TON to monitor the effects of illegal immigrants/smugglers on lesser long-

- nosed bat roosts and foraging habitat and to restore habitat and implement protective measures for lesser long-nosed bats, such as fencing around roost sites.
5. Provide annual financial assistance (at least until illegal immigrant/smuggler entry into southwestern Arizona is significantly reduced) to OPCNM, CPNWR, BMGR, and BLM to monitor the effects of illegal immigrants/smugglers on pronghorn and their habitat, particularly near forage enhancement plots, water sites, and the semi-captive breeding pen, and to restore habitat and implement recovery actions for the Sonoran pronghorn.
 6. Provide ongoing financial support to agencies to implement the Sonoran pronghorn and lesser long-nosed bat recovery plans, as appropriate.
 7. Tucson and Yuma Sector offices should each have a full-time biologist or environmental specialist to assist OBP compliance with ESA, NEPA, and other environmental requirements; to provide environmental training to agents; and to coordinate with agencies regarding environmental issues.

In order for us to be kept informed of actions minimizing or avoiding adverse effects or benefiting listed species or their habitats, we request notification of the implementation of any conservation recommendations.

REINITIATION - CLOSING STATEMENT

This concludes formal consultation on the action outlined in this biological opinion. As provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner that causes an effect to the listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to a listed species or critical habitat that was not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

We appreciate CBP's efforts to identify, minimize, and offset effects to listed species from the project. For further information, please contact Erin Fernandez (x238) or Jim Rorabaugh (x230) of our Tucson Suboffice at (520) 670-6150. Please refer to the consultation number 22410-2008-F-0011 in future correspondence concerning this project.

Sincerely,

Steven L. Spangle
Field Supervisor

Mr. George Hutchinson

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cc: Assistant Field Supervisor, Fish and Wildlife Service, Tucson, AZ
Superintendent, Organ Pipe Cactus National Monument, Ajo, AZ
Refuge Manager, Cabeza Prieta National Wildlife Refuge, Ajo, AZ
Director Construction and Support Office, Army Corps of Engineers, Ft. Worth, TX (Attn:
Charles McGregor)
Chief, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ
Regional Supervisor, Arizona Game and Fish Department, Tucson, AZ
Regional Supervisor, Arizona Game and Fish Department, Yuma, AZ
Gulf South Research Corporation, Baton Rouge, LA (Attn: Chris Ingram)
Chairperson, Tohono O'Odham Nation, Sells, AZ

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TABLES AND FIGURES

Table 1. A summary of population estimates from literature and field surveys for Sonoran pronghorn in the U.S.

Date	Population estimate (95 percent CI ^a)	Source
1925	105	Nelson 1925
1941 ^b	60	Nicol 1941
1957	<1,000	Halloran 1957
1968	50	Monson 1968
1968-1974	50 - 150	Carr 1974
1981	100 - 150	Arizona Game and Fish Department 1981
1984	85 - 100	Arizona Game and Fish Department 1986
1992	179 (145-234)	Bright <i>et al.</i> 1999
1994	282 (205-489)	Bright <i>et al.</i> 1999
1996	130 (114-154)	Bright <i>et al.</i> 1999
1998	142 (125-167)	Bright <i>et al.</i> 1999
2000	99 (69-392)	Bright <i>et al.</i> 2001
2002	21 (18-33)	Bright and Hervert 2003
2004	58 (40-175)	Bright and Hervert 2005
2006	68 (52-116)	Unpublished data

^a Confidence interval; there is only a 5 percent chance that the population total falls outside of this range.

^b Population estimate for southwestern Arizona, excluding Organ Pipe Cactus National Monument.

Table 2. Comparison of U.S. Sonoran pronghorn population surveys, 1992-2006.

Date	<u>Pronghorn observed</u>		<u>Population estimates</u>		
	On transect	Total observed	Density estimate using DISTANCE (95 percent CI ^a)	Lincoln-Peterson (95 percent CI)	Sightability model (95 percent CI)
Dec 92	99	121	246 (103-584)	---	179 (145-234)
Mar 94	100	109	184 (100-334)	---	282 (205-489)
Dec 96	71	82 (95 ^b)	216 (82-579)	162 (4-324)	130 (114-154)
Dec 98	74	86 (98 ^b)	---	172 (23-321)	142 (125-167)
Dec 00	67	69 ^b	N/A	N/A	99 (69-392)
Dec 02	18	18	N/A	N/A	21 (18-33) ^c
Dec 04	39	51	N/A	N/A	58
Dec 06	51	59	N/A	N/A	68

^a Confidence interval; there is only a 5 percent chance that the population total falls outside of this range.

^b Includes animals missed on survey, but located using radio telemetry.

^c Jill Bright, Arizona Game and Fish Department, pers. comm. 2003

Figure 1. Proposed Lukeville Primary Fence Project corridor (Final EA, November 2007)

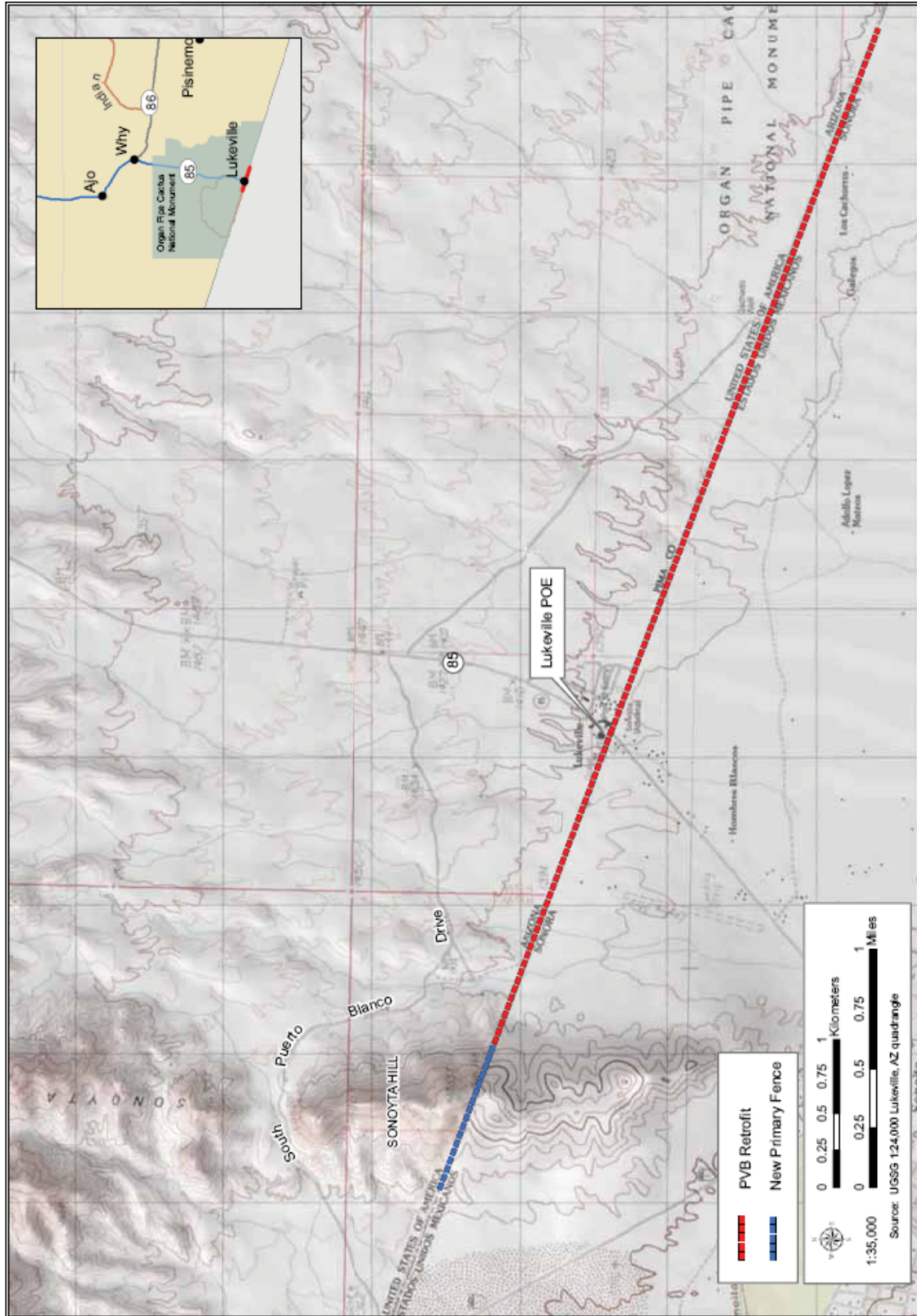
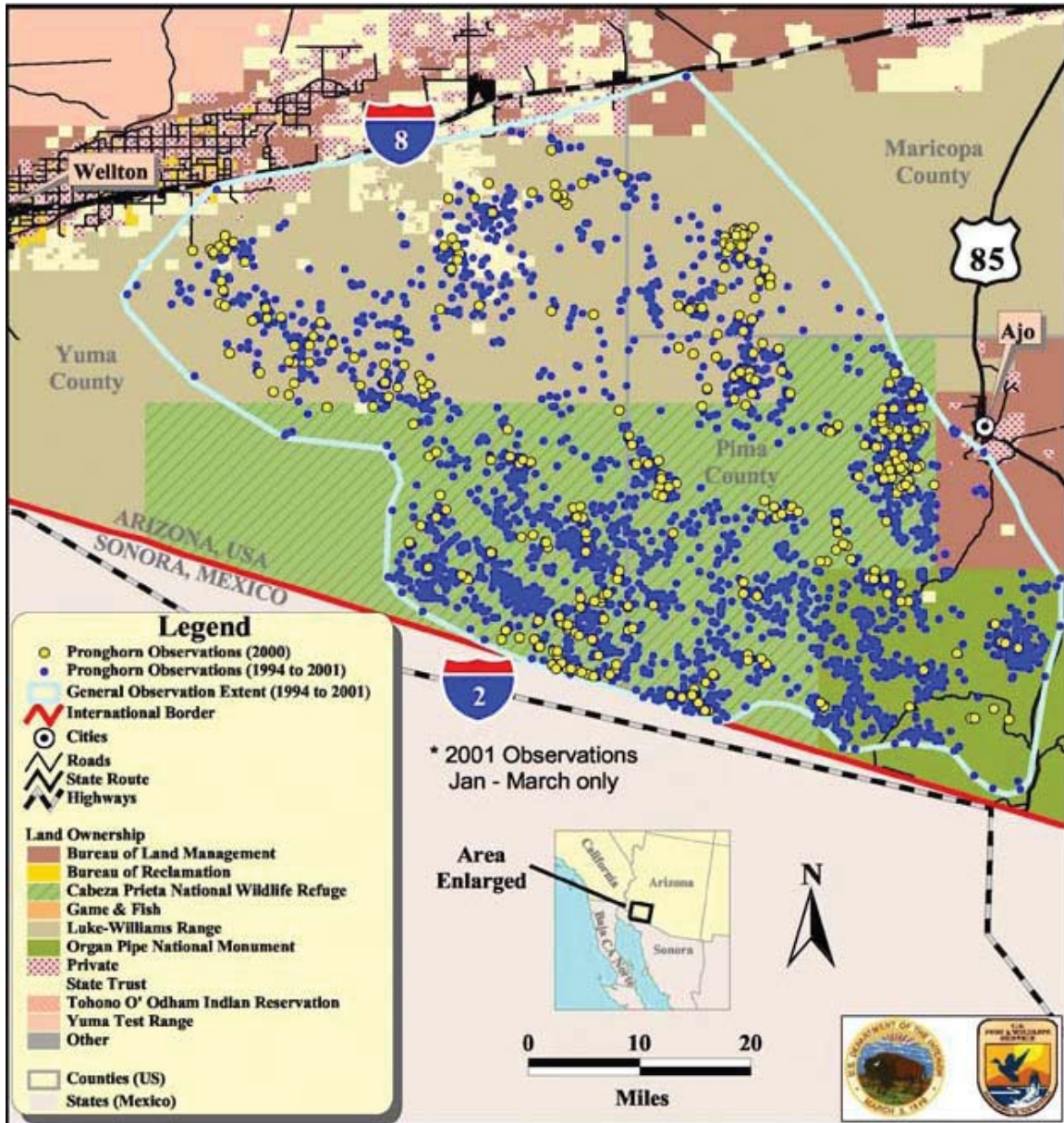


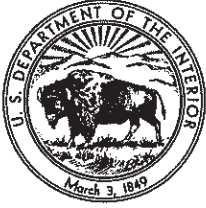
Figure 2-1: Proposed Action Alternative

Figure 2. Historic range of Sonoran pronghorn in the Unites States and Mexico.



Figure 3. Current Sonoran pronghorn distribution in the United State: Records from 1994-2001.





United States Department of the Interior

NATIONAL PARK SERVICE
Organ Pipe Cactus National Monument
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IN REPLY REFER TO:

December 19, 2007

Mr. Eric W. Verwers
Director Engineering, Construction and Support Office
Department of the Army
Fort Worth District, Corps of Engineers
P.O. Box 17300
Fort Worth, Texas 76102-0300

Subject: Comments on November 2007 Final Environmental Impact Statement for the proposed installation of primary fence near Lukeville, Arizona

Thank you for the opportunity to comment on the subject document. We offer the following comments and recommendations.

General Comments

Organ Pipe Cactus National Monument (OPCNM) can not support the inclusion of the proposed 7 acres over Sonoyta Hill outside of the Roosevelt Reservation for construction of a road to access proposed work. National Park Service policy and practice in this area is clear. The decision to issue or deny a permit for a special use such as this proposed undertaking flows from the appropriate compliance under the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act of 1966 (NHPA), and other applicable laws. This November Environmental Assessment is inadequate as it lacks appropriate alternatives for construction, design of proposed work and mitigation to list a few of the concerns. It is within our mandate to protect these very important resources to this ecosystem and feel that with additional technology being discussed some fencing such as this proposed undertaking would not be necessary. The use of technology, such as the proposed SBInet (Southern Border Initiative network), should be evaluated with fence placement since they could support each other. The technological solution would cause much less long-term impacts to natural and cultural resources on OPCNM than would the proposed pedestrian fence.

The November 2007 Final Environmental Assessment (FEA) states that the pedestrian fence would be ineffectual without SBInet and vice versa. Since SBInet and the pedestrian fence form the basis for the border enforcement strategy in the OPCNM area, these actions should be evaluated in one NEPA document and not evaluated separately. We believe the proposed alternatives will have a significant and long-term impact on resources managed by the NPS.

The proposed action in the Executive Summary and the Alternatives does not agree. The alternative mentions the requirement of a construction footprint of 150 which is a major attribute of this project and should be in the summary if that is the intent.