Final

SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT FOR THE INSTALLATION OF PERMANENT SECURITY LIGHTING AND A BORDER INFRASTRUCTURE SYSTEM OFFICE OF BORDER PATROL YUMA SECTOR, ARIZONA

Department of Homeland Security
U.S. Customs & Border Protection
Washington, D.C.

March 2007

FINDING OF NO SIGNIFICANT IMPACT
For Proposed the Installation of Permanent Security Lighting
and Border Infrastructure System
Office of Border Patrol
Yuma Sector, Arizona

PROJECT HISTORY: The Office of Border Patrol (OBP) is a law enforcement entity of United States (U.S.) Customs and Border Protection (CBP), a component of the U.S. Department of Homeland Security (DHS). The OBP'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 southwest Arizona has been a severe problem. Consequently, the OBP has significantly increased its emphasis on deterrence. Deterrence is achieved only when the OBP has the ability to create and convey the immediate, credible, and absolute certainty of detection and apprehension. As such, tactical infrastructure components, such as roads and lights, 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 compound the need for tactical infrastructure along the international border.

In December 2004, the CBP released a Final Environmental Assessment (EA) for the construction of tactical infrastructure (TI) near San Luis, Arizona. The infrastructure proposed in the original EA involved the construction of a border infrastructure system, which included the installation of permanent security lights, a secondary fence, all-weather patrol road, maintenance road, security fence, and extension of the primary border fence along the U.S.-Mexico border. Since the completion of that original Final EA, the OBP has determined that the border infrastructure system needs to be extended northward for about 1.5 miles, somewhat parallel to the Colorado River, primarily due to changes in the enforcement environment that occurred after the EA was complete. This Supplemental EA (SEA) analyzes the potential impacts associated with the approximately 1.5 miles of TI extension.

The Bureau of Land Management (BLM) in December 2004 under Categorical Exclusion (CATEX) CX-AZ-320-2005-12 (Hazardous Fuels Reduction and Emergency Safety Hazard Removal) removed all non-native vegetation from an approximately 164-acre area west of the Bypass Drain (also known as the Salinity Canal) and an approximately 35-acre area east of the drain. This area now offers the OBP a tactically improved location closer to the border and a clearer line of vision. Consequently, the OBP determined this area needs to be maintained and the border infrastructure system needs to be constructed in this area to ensure control of this portion of the border.

The OBP has also identified other TI components that are needed in and near the original project corridor. For instance, three foot bridges would be removed and replaced with vehicle bridges in an effort to create a more direct line of travel for the OBP agents. Additionally, several gates that

cross irrigation canals within the region have been replaced or lowered in an effort to impede illegal vehicle traffic in the area.

Additionally, after reviewing engineering designs it was determined by the Joint Task Force North (JTF-N) that the original infrastructure alignment needed to be redesigned. Consequently,

JTF-N prepared a Record of Environmental Consideration (REC) for the purposes of realigning approximately 2,150 feet (ft) of border infrastructure system. No additional impacts were incurred and the permanent footprint of the border infrastructure system was reduced.

PROJECT LOCATION: The Yuma Station is responsible for controlling a total of approximately 54-miles of U.S.-Mexico border, including approximately 28-miles along Sonora Mexico and approximately 17-miles along the Colorado River that forms the border between California and Arizona as well as the international border between Arizona and Mexico. Much of the Yuma Station's area of operation (AO) is undeveloped desert and agricultural fields. The proposed project consists of a 1.5 mile corridor extending from the U.S.-Mexico border northward along the Bypass Drain in San Luis, Arizona.

PURPOSE AND NEED: The purpose of the proposed project is to assist OBP agents in the detection and deterrence of illegal traffic, thus, further facilitating the OBP's mandate to gain, maintain and extend control of the U.S.-Mexico border. The need for the proposed project is to further enhance the effectiveness of the apprehension activities through the flexible deployment of resources and OBP agents; protect sensitive resources, public and private lands and U.S. residents from IA, illegal activities and terrorists; enhance the safety, effectiveness, and efficient environment in which to accomplish the OBP mission; and provide a level of deterrence through a certainty of detection and apprehension.

The U.S.-Mexico border at San Luis and the Colorado River is a popular crossing point for IAs, and OBP agents have come under attack by IAs throwing rocks and, at times, gunfire. Additionally, this area has become an active area for illegal activity and crimes (*e.g.*, robberies and murders) generally associated with gangs. Installation of an enhanced enforcement zone would further minimize this dangerous situation for the OBP agents, the general public, and IAs.

ALTERNATIVES: Two alternatives were considered: Alternative 1: No Action Alternative and Alternative 2: Proposed Action Alternative.

Alternative 1: No Action Alternative: Under the No Action Alternative, the OBP would continue the construction of the enforcement zone as originally proposed in the December 2004 Final EA. However, without the installation of the infrastructure components discussed in the Proposed Action Alternative of this SEA, the OBP agents would be restricted by the limitations of the planned infrastructure and, consequently, apprehension of IAs would not be as close to the border as possible. Additionally, without the re-clearing and maintenance of lands adjacent to the

Colorado River, the risk associated with patrolling the area would be considered severely dangerous, as the vegetation would allow for concealment of IAs and smugglers.

Alternative 2: Proposed Action Alternative: The Proposed Action Alternative for this SEA includes: (1) installation of three pre-manufactured bridges (one east of the San Luis Port of Entry (POE), crossing the 242 Well Field Canal and two west of the POE, at the Sanchez Canal and Canal 242), which includes the removal and replacement of two foot-bridges with the two pre-manufactured bridges at the Sanchez Canal and Canal 242, (2) trimming and maintenance of three camera lanes, (3) relocation of the security lighting originally planned for the area north of the waste water treatment plant near San Luis, Arizona to the area along the Bypass Drain, extending approximately 1.5 miles from the U.S.-Mexico border northward, (4) establishment of a border infrastructure system to parallel the lights, and (5) re-clear and maintain an approximately 164-acre area west of the Bypass Drain and an approximately 35-acre area east of the drain to create an enforcement zone along 1.5 miles of the Bypass Drain.

The security lights originally sited north of the waste water treatment facility would be moved closer to the U.S.-Mexico border, parallel to the Bypass Drain. The enforcement zone along the Bypass Drain would include a border infrastructure system (including 1.5 miles of security style lighting, two all-weather roads, a pedestrian fence, and a maintenance road). Permanent security lights would be installed along the western toe of the west levee of the Bypass Drain. An all-weather road surface would be applied to both the existing west and east levee road within the 1.5 mile corridor. A Sandia style pedestrian fence would be built parallel to the east levee approximately 10-15 feet east of the levee toe. An existing farm road would be used as a maintenance road, located along the eastern toe of the eastern levee. Camera lanes consist of corridors created through the trimming and maintenance of brush and trees. Three camera lanes would be established to provide lanes for an existing Remote Video Surveillance camera to observe any potential IA activities within the security zone.

ENVIRONMENTAL CONSEQUENCES: The Proposed Action Alternative would result in disturbance to a total of 199 acres (164 + 35 acres) within the security zone, which would be re-cleared and maintained. The three camera lanes would produce minimal impacts through brush maintenance and tree trimming. Additionally, the security lights within the security zone would not create significant impacts to vegetation or wildlife (see Sections 4.3.1 and 4.3.2). No significant impacts to protected species would occur as a result of the Proposed Action Alternative (see Section 4.5.2). No impacts to vegetation or wildlife habitat would occur due to the construction of the enforcement zone, since this area is currently disturbed and denuded of vegetation. No cultural resources sites or water resources would be adversely impacted by the proposed construction activities (see Sections 4.6.2, 4.8.1, 4.8.2, and 4.8.3). Additionally, no significant adverse impacts to air quality, land use, soils, or noise within the region is expected upon implementation of the Proposed Action Alternative (see Sections 4.1.2, 4.2.2, 4.9.2, and 4.10.2).

The potential exists for indirect adverse impacts to resources outside of the project corridor resulting from shifts in IA activity. However, these impacts are considered insignificant when compared to the No Action Alternative. Indirect beneficial impacts to land use, unique and sensitive areas, soils, air quality, cultural resources, protected species and their associated habitat, as well as vegetation will result from the implementation of the Proposed Action Alternative.

No significant adverse effects to the natural or human environment, as defined in 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.

ENVIRONMENTAL DESIGN MEASURES: Environmental design measures are presented for each resource category that will be potentially affected. Many of these measures have been incorporated as standard operating procedures by the OBP on past projects. The proposed environmental design measures will be coordinated through the appropriate agencies and land managers or administrators, as required. These environmental design measures will be incorporated into the current Project Management Plan to be carried forward.

It should be noted that if any of the alternatives for this project are implemented, the following measures will be employed:

General Construction Activities: Best Management Practices (BMPs) will 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 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 following accepted industry guidelines, and all vehicles will 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 will be contained immediately within an earthen dike, and the application of an absorbent (*e.g.*, granular, pillow, sock, *etc.*) will be used to absorb and contain the spill. A pill Prevention Control and Countermeasures Plan (SPCCP) will be in place prior to the start of construction and all personnel will be briefed on the implementation and responsibilities of this plan. Furthermore, any petroleum liquids (e.g., fuel) or material listed in 40 CFR 302 Table 302.4 (included as part of an SPCCP) 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 will be included as part of the SPCCP.

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 Federal, state, and local regulations, including proper waste manifesting procedures.

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

Soils: Vehicular traffic associated with the construction activities and operational support activities will remain on established roads to the maximum extent practicable. Erosion control techniques, such as, straw bales, aggregate materials, wetting compounds and revegetation with native plant species, where possible, will 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), will be implemented before and after construction activities. Furthermore, the vegetation that is removed within the security zone will be mulched on site in an effort to retard erosion upon completion of the clearing activities.

Vegetation: Spot herbicide application will occur near existing native vegetation within the security zone in an effort to minimize potential impacts to native vegetation. The three camera lanes will have the salt cedar and arrow weed cut to a height of 1 foot and will be maintained at this height. No topping of willows will occur, only lateral branches will be trimmed, and no more than two-thirds of the trees' length will be trimmed from the ground upwards. Additionally, no cottonwoods will be trimmed within these lanes. The willows will be trimmed manually using saws and limb trimmers, while the salt cedar and arrow weed will be cut via Hydro-axe or similar machine.

Wildlife: The Migratory Bird Treaty Act requires that Federal agencies coordinate with the U.S. Fish and Wildlife Service (USFWS) if a construction activity will result in the take of a migratory bird. Surveys of suitable habitat will be performed prior to construction to identify active nests. If construction activities will result in the take of a migratory bird, then consultation with the USFWS and Arizona Game and Fish Department (AGFD) will be conducted prior to construction or clearing activities. Another mitigation measure that will be considered is to schedule all construction activities outside nesting season (March 1 through September 1). Bird surveys will not be required if clearing activities occur outside of the nesting season.

Protected Species: No work will be done within the security zone during neotropical migratory bird migration (early May to early to mid September) in an effort to further minimize the potential impact to the southwestern willow flycatcher. Additionally, all naturally recruited native vegetation within the security zone will be retained in an effort to encourage the re-growth and re-establishment of these native species. On-site mitigation for the western burrowing owl will consist of passive relocation. This entails encouraging owls to move from occupied burrows within the project area to alternative locations in suitable habitat beyond 150 feet from the project disturbance. The use of one-way doors on burrows should keep owls from returning to the burrows within the project area. Relocation will only be attempted during the non-breeding season (September 1 through March 1).

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Cultural Resources: If any cultural material is discovered during the construction efforts, then all activities will halt until a qualified archeologist can be brought in to assess the cultural remains.

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. Effective March 10, 2003, in accordance with regulations of the Environmental Protection Agency (EPA) Phase II of the National Pollutant Discharge Elimination System stormwater program, a SWPPP will be required for stormwater runoff from construction activities greater than 1 acre. Therefore, a SWPPP will be prepared and implemented prior to the start of any construction.

Air Quality: Mitigation measures will be incorporated to insure that particles less than 10 microns in aerodynamic diameter (PM-10) emission levels do not rise above the minimum threshold of 100 tons per year as required per 40 Code of Federal Register 51.853(b)(1). Measures will include dust suppression methods to minimize airborne particulate matter that will be created during construction activities. Standard construction practices such as routine watering of the construction site and access routes will be used to control fugitive dust during the construction phases of the proposed project. Additionally, all construction equipment and vehicles will 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 will be followed. On-site activities will be restricted to daylight hours with the exception of concrete pours and emergency situations. Construction equipment will possess properly working mufflers and will be kept properly tuned to reduce backfires. Implementation of these measures will reduce the expected short-term noise impacts to an insignificant level in and around the construction site.

Aesthetics: Security light poles will be painted to blend in with the surrounding environment. Shields will be installed on the lights to prevent backlighting or vertical lighting. The security lights' angle of elevation will be below the horizon to minimize potential light pollution. Lastly, the bulbs to be used in the lights will be metal halide bulbs.

FINDING: Based upon the results of the environmental assessment and the environmental design measures to be incorporated as part of the Proposed Action, 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.

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Final

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March 2007

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EXECUTIVE SUMMARY

BACKGROUND:

The U.S. Customs and Border Protection (CBP) released a Final Environmental Assessment (EA) in December 2004 for the construction of tactical infrastructure (TI) near San Luis, Arizona. The infrastructure proposed in the original EA involved the construction of a border infrastructure system, which included the installation of permanent security lights, a secondary fence, all-weather patrol road, maintenance road, security fence, and extension of the primary border fence along the U.S./Mexico border. Since the completion of that original Final EA, the OBP has determined that the border infrastructure system needs to be extended northward for about 1.5 miles, somewhat parallel to the Colorado River, primarily due to changes in the enforcement environment that occurred after the EA was complete.

The Bureau of Land Management (BLM) in December 2004 under Categorical Exclusion (CATEX) CX-AZ-320-2005-12 (Hazardous Fuels Reduction and Emergency Safety Hazard Removal) removed all non-native vegetation from an approximately 164-acre area west of the Bypass Drain (also known as the Salinity Canal) and an approximately 35-acre area east of the drain. This area now offers the OBP a tactically improved location closer to the border and a clearer line of vision. Consequently, the OBP determined this area needs to be maintained and the border infrastructure system needs to be constructed in this area to ensure control of this portion of the border.

The OBP has also identified other TI components that are needed in and near the original project corridor. For instance, three foot bridges would be removed and replaced with vehicle bridges in an effort to create a more direct line of travel for the OBP agents. Additionally, several gates that cross irrigation canals within the region have been replaced or lowered in an effort to impede illegal vehicle traffic in the area.

Additionally, after reviewing engineering designs it was determined by the Joint Task Force North (JTF-N) that the original infrastructure alignment needed to be redesigned. Consequently, JTF-N prepared a Record of Environmental Consideration (REC) for the purposes of realigning 2,150 feet (ft) of border infrastructure system. No additional impacts were incurred and the permanent footprint of the border infrastructure system was reduced.

PURPOSE AND NEED FOR THE PROPOSED PROJECT:

The purpose of the Proposed Action Alternative is to assist OBP agents in the detection and deterrence of illegal traffic, thus, further facilitating the OBP's mandate to gain, maintain and extend control of the U.S.-Mexico border. The need for the Proposed Action Alternative is to further enhance the effectiveness of the apprehension activities through the flexible deployment of resources and OBP agents; protect sensitive resources, public and private lands and U.S. residents from illegal aliens (IA), illegal activities and terrorists; enhance the safety, effectiveness, and efficient environment in which to accomplish the OBP mission; and provide a level of deterrence through a certainty of detection and apprehension.

The international border at San Luis and the Colorado River is a popular crossing point for IAs, and OBP agents have come under attack by IAs throwing rocks and, at times, gunfire. Additionally, this area has become an active area for activity and crimes (*e.g.,* robberies and murders) generally associated with gangs. Installation of an enhanced enforcement zone would further minimize this dangerous situation for the OBP agents, the general public, and IAs.

PROPOSED ACTION:

The Proposed Action Alternative for this Supplemental EA includes: (1) installation of three pre-manufactured bridges (one east of the San Luis Port of Entry (POE), crossing the 242 Well Field Canal and two west of the POE, at the Sanchez Canal and Canal 242), which includes the removal and replacement of two foot-bridges with the two pre-manufactured bridges at the Sanchez Canal and Canal 242, (2) trimming and maintenance of three camera lanes, (3) relocation of the security lighting originally planned for the area north of the waste water treatment plant near San Luis, Arizona to the area along the Bypass Drain, extending approximately 1.5 miles from the international border northward, (4) establishment of a border infrastructure system to parallel the lights, and (5) re-clear and maintain an approximately 164-acre area west of the Bypass Drain and an approximately 35-acre area east of the drain to create an enforcement zone between the San Luis POE and the Colorado River.

The security lights originally sited north of the waste water treatment facility would be moved closer to the international border, parallel to the Bypass Drain. The enforcement zone along the Bypass Drain would include a border infrastructure system (including 1.5 miles of security style lighting, two all-weather roads, a pedestrian fence and a maintenance road). Permanent security lights would be installed along the western toe of the west levee of the Bypass Drain. An all-weather road surface would be applied to both the existing west and east levee road within the 1.5 mile corridor. A Sandia style pedestrian fence would be built parallel to the east levee approximately 10-15 feet east of the levee toe. An existing farm road would be used as a maintenance road, located along the eastern toe of the eastern levee. Camera lanes consist of corridors created through the trimming and maintenance of brush and trees. Three camera lanes would be established to provide lanes for an existing Remote Video Surveillance camera to observe any potential IA activities within the security zone.

ALTERNATIVES TO THE PROPOSED ACTION:

Alternatives addressed in the Supplemental Environmental Assessment (SEA) include Alternative 1: No Action Alternative (which would include construction of all elements of the Proposed Action described by the 2004 Final EA) and Alternative 2: Proposed Action Alternative. The No Action Alternative would not enhance the OBP's ability to detect, deter, or apprehend IAs in the immediate vicinity of the international border or reduce the current enforcement footprint near the Colorado River. Of the alternatives considered, the Proposed Action Alternative would be the most efficient and strategically effective approach to control illegal traffic and terrorist activities, and to satisfy the stated purpose and need.

ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION:

The Proposed Action Alternative would result in disturbance to a total of 199 acres (164 + 35 acres) within the security zone, which would be re-cleared and maintained. The three camera lanes would produce minimal impacts through brush maintenance and tree trimming. The three camera lanes would vary in size, and would be approximately 80 feet wide by 135, 150, and 220 feet long, respectively. Additionally, the security lights within the security zone would not create significant impacts to vegetation or wildlife. No significant impacts to protected species would occur as a result of the Proposed Action Alternative. No impacts to vegetation or wildlife habitat would occur due to the construction of the enforcement zone, since this area is currently disturbed and denuded of vegetation. No wetlands or cultural resources sites would be adversely impacted by the proposed construction activities. Additionally, no significant adverse impacts to air quality, land use, soils, or noise within the region is expected upon implementation of the Proposed Action Alternative.

CONCLUSIONS:	Based upon the results of this SEA, it has been concluded that the Proposed Action Alternative would not have a significant adverse effect on the environment, and no additional NEPA 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 Supplemental Environmental Assessment (SEA) addresses new actions and updates alternatives addressed in the December 2004 Final Environmental Assessment (EA) for the Installation of Permanent Lighting and a Border Infrastructure System, Office of Border Patrol (OBP), Yuma Sector, Arizona (U.S. Customs and Border Protection [CBP] 2004). The December 2004 EA was also tiered from several past National Environmental Policy Act (NEPA) documents, including the Supplemental Programmatic Environmental Impact Statement for Immigration Naturalization Service (INS) and Joint Task Force Six (JTF-6) Activities along the United States (U.S.)-Mexico Border (U.S. Army Corps of Engineers [USACE] 2001a). The JTF-6 (now called the Joint Task Force North [JTF-N]) also prepared two Final EAs in 1998 and 1999, which addressed the potential impacts of extending the primary border fence approximately 3.3 miles to the east, beginning at the terminus of the existing primary border fence, and the installation of permanent security lights (JTF-6 1998 and JTF-6 1999).

1.2 BACKGROUND AND HISTORY

The background and history of the CBP, OBP, JTF-N, Yuma Sector and Yuma Station, and regulatory authority of the CBP were described in detail in the December 2004 Final EA (CBP 2004) and are incorporated herein by reference. JTF-N is a cooperating agency on this SEA.

The Proposed Action of the December 2004 Final EA involved the construction of a border infrastructure system, which included the installation of permanent security lights, a secondary fence, all-weather patrol road, maintenance road, security fence and extension of the primary border fence. The border infrastructure system would create a 150-foot enforcement zone north of the U.S.-Mexico border, except where the enforcement zone deviates to the north to avoid existing canals west of Friendship Park in San Luis, Arizona. The Proposed Action was divided into three phases that encompassed approximately 13 miles. Phases I and II included the installation of permanent security lights, all-weather patrol road, secondary fence, maintenance road and security fence near San Luis, Arizona. Phase I also included the construction of approximately 1 mile of permanent lights north of the San Luis wastewater treatment plant. Phase II included extending the primary border fence approximately 3.5 miles east from its

current eastern-most terminus to Avenue C. Phase III only included the installation of permanent security lights near the town of Gadsden, Arizona. Each phase was expected to be constructed independently of the others as funding became available.

Since the completion of the December 2004 Final EA and Finding of No Significant Impact (FONSI), 1.2 miles of the permanent lights within the enforcement zone in Phase I have been constructed. The border infrastructure portion of Phase I, as well as portions of Phase II, was tentatively scheduled for construction from February through August 2006. Phase III would be completed upon completion of both Phase I and II. It was also stated in the December 2004 Final EA that, depending on the availability of resources, construction of other components could occur concurrently, with the last element to be constructed being the permanent security lighting near Gadsden, Arizona.

After reviewing engineering plans submitted to JTF-N, it was determined that two minor deviations in the original alignment along the southern border would provide a more efficient and effective infrastructure system. Consequently, JTF-N prepared a Record of Environmental Consideration (REC) for the purpose of realigning 2,150 feet (ft) of border infrastructure system (Appendix A). As included in the REC, no additional impacts were incurred and, in fact, the permanent footprint of the border infrastructure system was reduced. In addition, immediately after the Final EA was released, the Bureau of Land Management (BLM), Yuma Field Office, in December 2004, cleared hazardous fuels vegetation in accordance with BLM's Categorical Exclusion (CATEX) CX-AZ-320-2005-12 (Hazardous Fuels Reduction and Emergency Safety Hazard Removal) (Appendix B).

This action cleared non-native vegetation within an area (164 acres) approximately 900 feet wide and extending north 1.5 miles from the international border between the Colorado River and the western Bypass Drain (also known as the Salinity Canal) levee, near San Luis. In addition, an area of approximately 35 acres east of the Bypass Drain was also cleared as part of the action that occurred under the CATEX. Therefore, the total acreage cleared was 199 acres (164 + 35 acres). The areas that were cleared contained dense vegetation consisting primarily of salt cedar (*Tamarix ramosissima*), which is a non-native and invasive species. This area was a fire hazard and a health and public safety hazard due to the dense brush being a favorable hiding place for criminal activity, which is rapidly increasing in the vicinity. In December 2004, several instances occurred where law enforcement officers came under gunfire. The BLM

determined that the proposed actions to clear the heavily vegetated area were in accordance with the BLM's CATEX criteria and would not cause any significant adverse environmental effects. Vegetative clearing is in accordance with the Yuma Field Office Resource Management Plan dated 1987, which states that exotic species would be discouraged in the planning area (Reichhardt 2006).

This SEA is being developed to address the potential effects, beneficial and adverse, of installing three pre-manufactured bridges within the original enforcement zone along the southern border, creating three camera lanes by trimming limbs and brush maintenance, relocating the 1 mile of permanent security lights north of the San Luis wastewater treatment plant to the Bypass Drain, extending the enforcement zone and border infrastructure system 1.5 miles north along the Bypass Drain near the Colorado River, and selectively clearing and retreating the 199 acres (164 + 35 acres) cleared by the BLM between the Bypass Drain and the Colorado River and east of the Bypass Drain levees. These changes are necessary to decrease the OBP operational footprint, improve the detection, deterrence, and apprehension of IAs and terrorists closer to the international border, and to increase the response time to these areas. Figure 1-1 is a map depicting the location of the infrastructure originally discussed in the December 2004 Final EA in juxtaposition to the actions proposed for this SEA.

1.3 LOCATION OF THE PROPOSED PROJECT

The general location of the proposed project was previously discussed in the December 2004 Final EA (CBP 2004) and is incorporated herein by reference.

1.4 PURPOSE AND NEED

The purpose and need of this SEA is similar to that of the December 2004 Final EA, which is hereby incorporated by reference. The purpose of the December 2004 project was to deter IAs and terrorist from attempting to cross the international border in the San Luis and Colorado River enforcement areas within the OBP Yuma Station's Area of Operation (AO). The need for the December 2004 project was to enhance the effectiveness of the apprehension activities through the flexible deployment of resources and OBP agents; protect sensitive resources, public and private lands, and U.S. residents from IAs, illegal activities, and terrorists; enhance the safety, effectiveness, and efficient environment in which to accomplish the OBP mission;

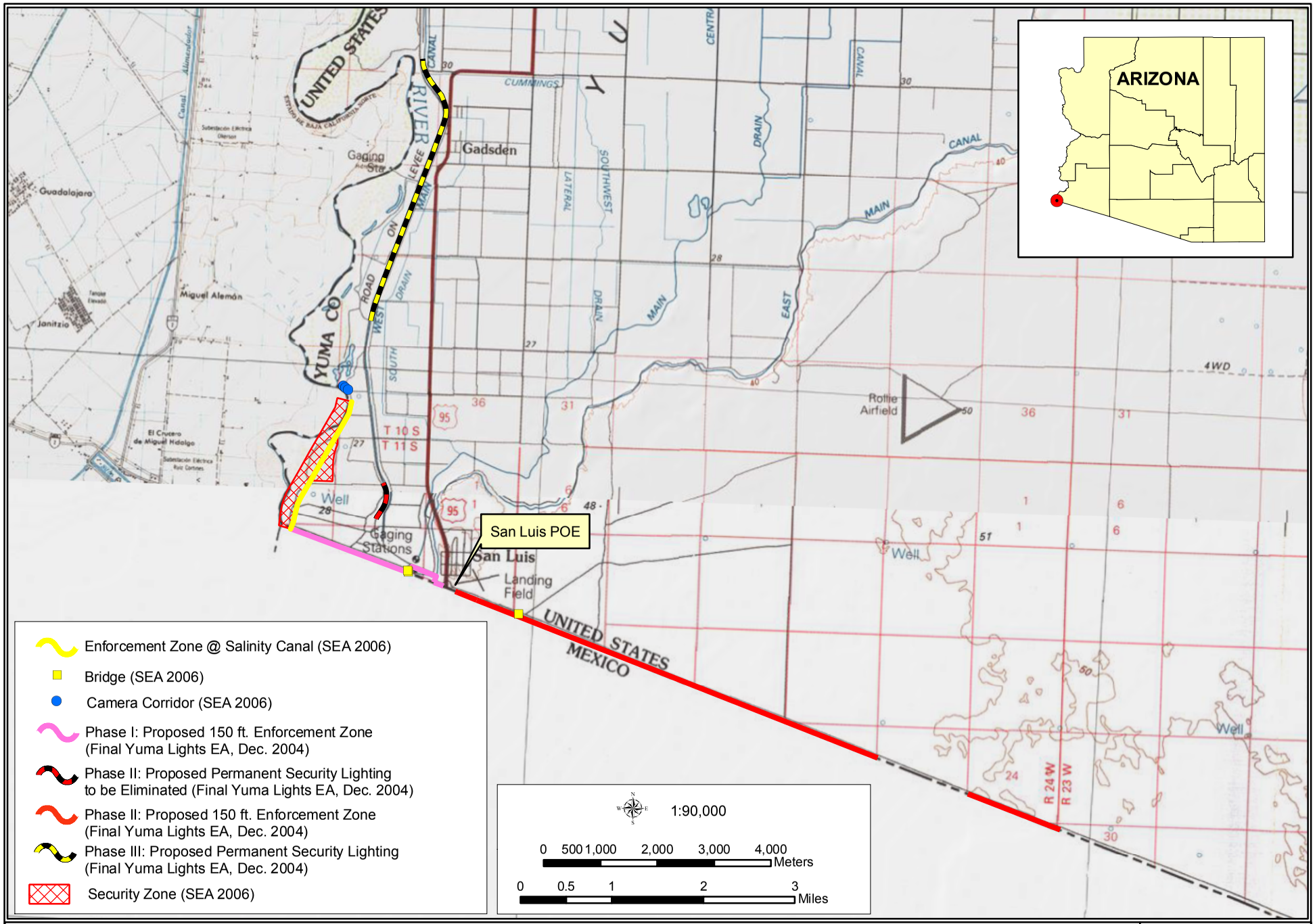

Figure 1-1: Project Location Map

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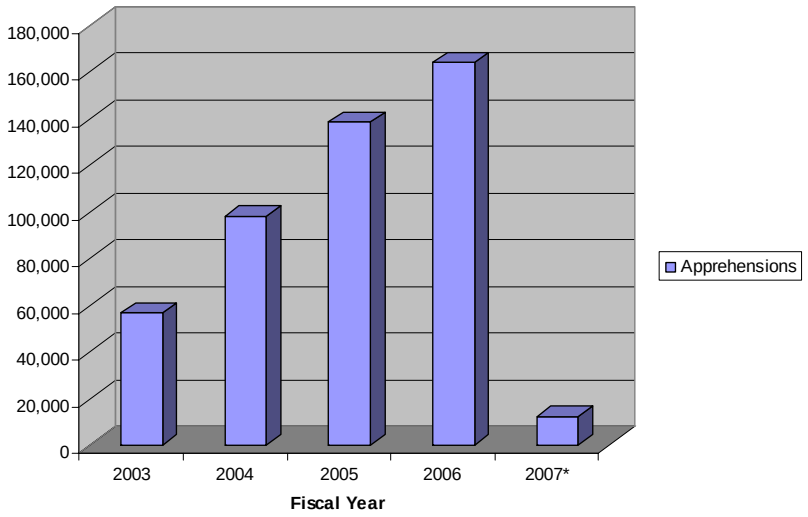
and provide a level of deterrence through a certainty of detection and apprehension. However, due to recent developments on BLM land, some of the proposed actions of the December 2004 Final EA must be relocated and re-evaluated in this SEA.

The U.S./Mexico border at San Luis and the Colorado River is a popular crossing point for IAs. If IAs can breach the existing primary border fence, or cross the agricultural fields adjacent to the Colorado River undetected and reach the developed areas of San Luis, they can mix into the general population of the area. OBP agents have come under attack by IAs throwing rocks and, at times, gunfire. On several occasions, OBP agents have had to return gunfire in order to escape the attacks in the area between San Luis and the Colorado River. Installation of an enhanced enforcement zone would minimize this dangerous situation for the OBP agents and IAs. Further, due to the poor lighting conditions in the project area, it is often difficult to discern if an IA is carrying a firearm or a non-lethal object, thus creating a safety concern for both the OBP agents and IAs.

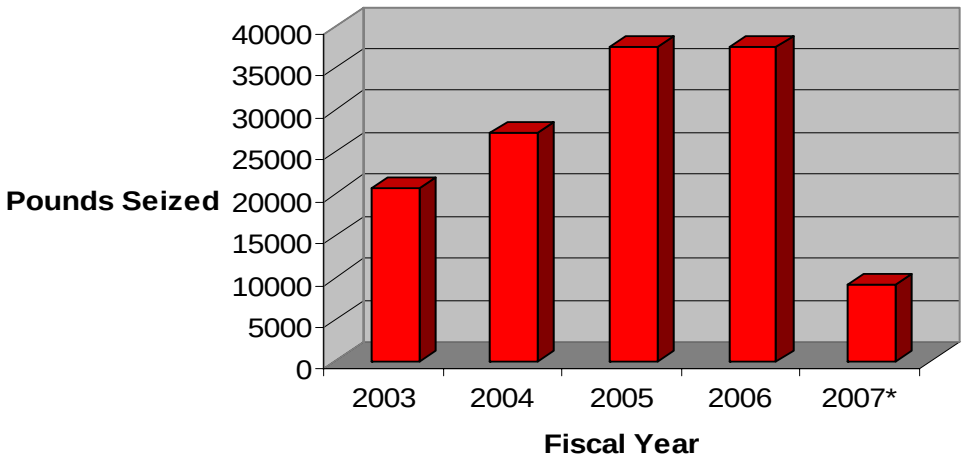
Apprehensions of IAs and drug seizures have increased over the past years in the Yuma Station's AO (Figures 1-2 and 1-3). The border infrastructure proposed for this project would act as a strategically important first line of defense. The safety of OBP agents, Yuma County Sheriff's Office deputies, IAs, and citizens of nearby San Luis would greatly improve with the implementation of this project.

Figure 1-2. Yuma Station AO's Apprehensions for FY03-FY07



*FY07 apprehensions through January 17, 2007

Figure 1-3. Yuma Station AO's Pounds of Drugs (Cocaine, Marijuana, Other Drugs & Barbiturates) Seized for FY03-FY07



*FY07 drugs seized through January 17, 2007

The purpose of the Proposed Action Alternative is to assist OBP agents in the detection and deterrence of illegal traffic, thus, further facilitating the OBP's mandate to gain, maintain and extend control of the U.S.-Mexico border. The need for the Proposed Action Alternative is as follows:

- Decrease the current OBP enforcement footprint;
- Detect, deter, and apprehend IAs as close to the international border as practicable;
- Enhance the safety of OBP agents, BLM, U.S. Bureau of Reclamation (Reclamation), and other law enforcement agency personnel, as well as the general public.

The strategic placement of infrastructure (*e.g.*, roads, fences, and permanent security lights) and deployment of resources (*i.e.*, vehicles, field agents, and support personnel) as presented in the Proposed Action Alternative is essential for the safety of the OBP agents and the effective implementation of the border strategy. They are also integral to the success of the OBP's mandate to gain, maintain, and extend control of the border.

1.5 APPLICABLE ENVIRONMENTAL STATUTES AND REGULATIONS

The applicable environmental statutes and regulations for this SEA are similar to those of the December 2004 Final EA (CBP 2004) and are hereby incorporated by reference. In addition, this SEA is in accordance with the Department of Homeland Security (DHS) Management Directive 5100.1, which is the Environmental Planning Program Directive that outlines the CBP's procedures for the implementation of NEPA.

1.6 REPORT ORGANIZATION

This report is organized into nine 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. Environmental design measures are discussed in Section 5.0, and public comments and the Notice of Availability (NOA) are presented in Section 6.0. Sections 7.0, 8.0, and 9.0 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 is a copy of the REC prepared and completed by JTF-N. Appendix B includes the BLM CATEX for Hazardous Fuels Reduction and Emergency Safety, as well as the Cultural Resource Compliance Documentation Record. Appendix C includes the Material Safety Data Sheets (MSDS) for chemicals used for soil stabilization. Appendix D is the lists of Federal and state protected species potentially affected by this project. Appendix E is the documentation of BLM's consultation with the U.S. Fish and Wildlife Service (USFWS) regarding the Hazardous Fuels Reduction project and its impacts to the southwestern willow flycatcher. Additionally, the BLM's Biological Evaluation from BLM herbicide EA and Approved Pesticide Use Proposal for herbicide treatment of the "security zone" is also found in this appendix. Appendix F contains correspondence that was generated during the preparation of this SEA. Appendix G includes the comments received during the public review process and OBP's corresponding responses.

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SECTION 2.0
ALTERNATIVES

2.0 ALTERNATIVES

Two alternatives were identified and considered during the planning stages of the proposed project: No Action Alternative; and Proposed Action Alternative. The following paragraphs describe the alternatives considered.

2.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, the OBP would continue the construction of the enforcement zone as originally proposed in the December 2004 Final EA (CBP 2004). However, without the installation of the infrastructure components discussed in the Proposed Action Alternative of this SEA, the OBP agents would be restricted by the limitations of the planned infrastructure and, consequently, apprehension of IAs would not be as close to the border as possible. Additionally, without the re-clearing and maintenance of lands adjacent to the Colorado River, the risk associated with patrolling the area would be considered severely dangerous, as the vegetation would allow for concealment of IAs and smugglers.

The No Action Alternative has been carried forward for analysis, as required by the Council on Environmental Quality (CEQ) regulations. The No Action Alternative does not decrease the current OBP enforcement footprint, and incrementally enhances the detection, deterrence and apprehension of IAs, as well as the safety of OBP agents and the general public. Therefore, because of the lack of additional infrastructure along the Colorado River, the No Action Alternative would not be as effective as the Proposed Action Alternative discussed in this SEA.

2.2 PROPOSED ACTION ALTERNATIVE

The Proposed Action Alternative consists of five components:

1. Installation of three pre-manufactured bridges (one east of the San Luis Port of Entry (POE), crossing the 242 Well Field Canal and two west of the POE, at the Sanchez Canal and Canal 242), which includes the removal and replacement of two foot-bridges with the two pre-manufactured bridges at the Sanchez Canal and Canal 242.
2. Creation of three camera lanes through brush maintenance and tree trimming.
3. Relocation of the permanent security lighting originally planned for the area north of the waste water treatment plant near San Luis, Arizona to the area along the Bypass Drain, extending approximately 1.5 miles from the international border northward
4. Establishment of a border infrastructure system to parallel the lights and Bypass Drain.

5. Re-clearing and maintenance of an approximately 164-acre area west of the Bypass Drain and an approximately 35-acre area east of the Bypass Drain. These areas are known as the "security zone", and will be referred to as such hereafter in this SEA (Geary 2005). The various components that comprise the proposed action are discussed in the following subsections.

2.2.1 Pre-Manufactured Bridges

The first modification to the original project is the addition of pre-manufactured bridges across three canals within the enforcement zone near the San Luis POE (Figure 2-1). These pre-manufactured bridges would be made of concrete, and would be placed on pillars on the levees near the canals. The two footbridges that currently cross the Sanchez Canal and Canal 242 would be removed. These footbridges would no longer be needed, as the pre-manufactured bridges would act as pedestrian and vehicle bridges. These vehicle bridges would reduce OBP response times and provide for a safer work environment for the OBP agents.

Photograph 2-1. Footbridge to be replaced by Pre-Manufactured Bridge

2.2.2 Relocated Infrastructure

The proposed security lighting originally sited north of the San Luis wastewater treatment plant would be relocated and expanded to parallel the Bypass Drain from the U.S./Mexico border north for 1.5 miles (see Figure 2-1). Permanent security lights would be installed along the western toe of the west levee of the Bypass Drain. The lights would enhance OBP safety within the security zone cleared by the BLM, and offer the OBP a tactically improved location that is closer to the border and provides a more clear line of vision. Arizona Public Service (APS) would provide power to both the lights and other border infrastructure system components (*e.g.,* electrical gates).

2.2.3 Border Infrastructure System

A border infrastructure system would be established to create an enforcement zone parallel to the Bypass Drain. The infrastructure system would include pedestrian fencing and road improvements to the levee roads and an adjacent farm road. Electrical gates would be installed to access the enforcement zone at several locations. These gates would be powered by the same power supply used to power the security lights.

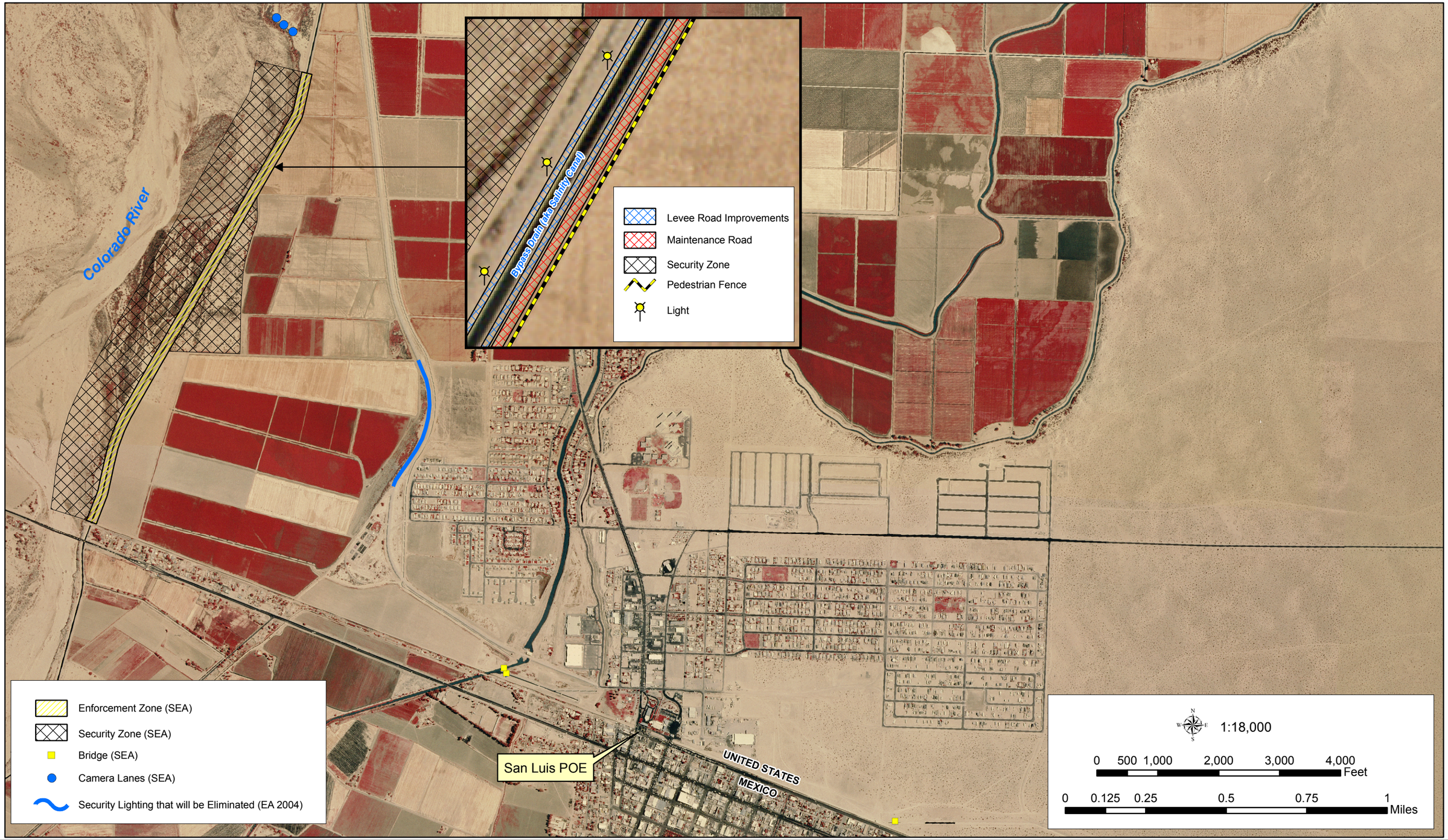

Figure 2-1: Yuma SEA Project Area

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Road improvements (*i.e.,* application of an all-weather road surface) would be made to both the west and east levee roads within the 1.5-mile corridor. A Sandia style pedestrian fence would be built along the eastern limits of Reclamation's right of way (ROW), which is approximately 10-15 feet east of the toe of the east levee. An existing farm road would act as the maintenance road for the fence (Figure 2-2). All elements of the border infrastructure system are discussed in detail below.

2.2.3.1 Permanent Security Lights

Permanent security lights are proposed to provide a light source along the 1.5-mile corridor along the Bypass Drain. Approximately 27 permanent security lights would be placed approximately 300 feet apart and at a height of 50 to 80 feet (Photograph 2-2), with the angle of illumination facing downward and westward. The light poles would be anchored in concrete footings. Electricity would be supplied via subsurface conduit connecting to the existing power grid. Electricity for the permanent security lights would be provided by APS. APS would be responsible for designing and installing the required electrical infrastructure. Any additional utility ROW on Federal lands required to extend power to the project area would be the responsibility of APS (CBP 2004).

Photograph 2-2. Permanent Security Lighting

The overall ground disturbance during installation would be approximately 41 square feet per light pole. The security lights would consist of a bank of metal halide bulbs. The security lights would be designed to provide no more than 5 foot-candles of illumination at a distance 900 feet west (extent of clearing) of the Bypass Drain. The lights would be operated continuously from dusk until dawn, and would illuminate the area cleared by the BLM. Shields would be placed on the tops and backs of the lighting structures in an effort to control the direction of illumination and to maximize the utility of the security lights. Additionally, the lights would be oriented in a manner to not shine above a horizontal plane at the light level. Table 2-1 presents typical illumination levels in foot-candles for various meteorological and man-made sources of light.

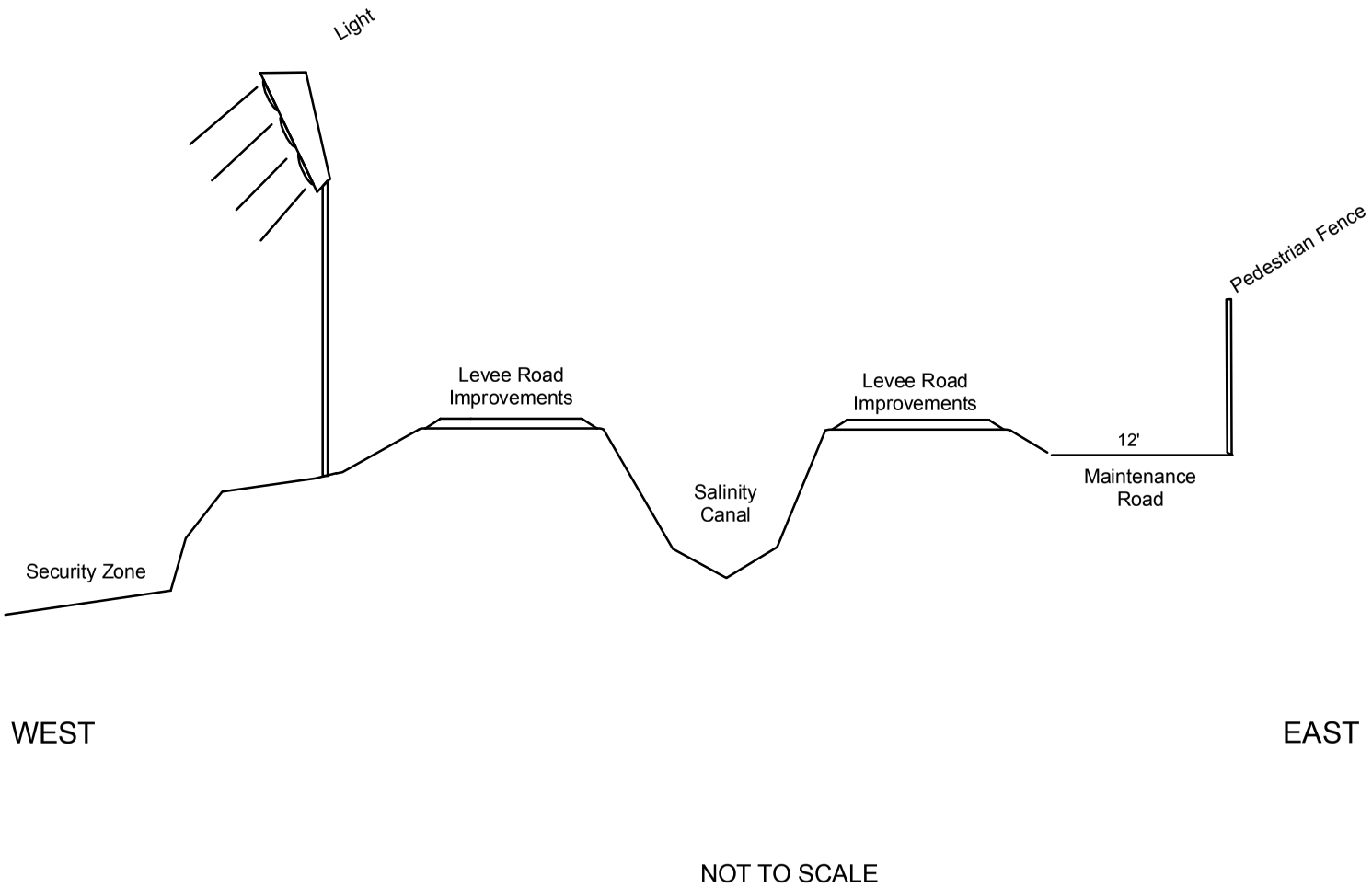

Figure 2-2: Schematic and Typical Cross-Section
of Border Infrastructure System along Salinity Canal (looking north)

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Table 2-1. Typical illumination levels (foot-candles)

Meteorological/Man-made	Foot-candles
Direct sunlight	10,000
Hospital operating room	1,800
Municipal sporting activities	20 to 50
Tool and die shop	40
Typical office	30
Bank lobby	20
Car dealership parking lot	5
Retail parking lot	2.5
Roadway lighting	1.5
Full Moon	0.01

Source: International Dark-Sky Association 2005

2.2.3.2 Pedestrian Fence

Pedestrian fencing has proved invaluable in denying quick access to concealment and escape 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 OBP agents have to respond. With no border infrastructure established along the international border at the Colorado River, there is little to serve as a deterrence to IAs.

Photograph 2-3. Sandia Style Fence

The standard design for the pedestrian fencing consists of vertical secura metal mesh panels attached to 16-foot steel poles (Photograph 2-3). Secura mesh is a 16-gauge, expanded metal that provides visibility through the fence (except at extreme oblique angles), yet is small enough to prohibit saws, files and other type cutting equipment from being inserted into the holes. The poles would be anchored to a 12-inch wide by 4-foot deep concrete footing that runs the length of the proposed fence. The fence panels are secured to the fence posts using steel plates and flat-head bolts. The head of the bolts are on the west side of the secondary fence to prevent vandalism of the bolt threads/nuts.

As part of the pedestrian fence construction, a series of gates would be provided within the fence. The OBP agents would use the gates to enter and exit the corridor from the maintenance road. The gates would be used as access points along the entire length of the fence, and would consist

of 10-foot wide vehicle swing-gates or overhead rolling vehicle gates (15 feet wide or 22 feet wide).

2.2.3.3 Maintenance Road

An existing 12-foot wide farm road which parallels the east levee of the Bypass Drain would be used as a maintenance road. The maintenance road would extend the entire length of the pedestrian fence (see Figure 2-2). The maintenance road would be maintained by grading the surface of the soil, thereby creating a clear, relatively smooth, level surface on which to drive maintenance vehicles.

This maintenance road would enable the OBP to perform necessary maintenance activities to the secondary fence when needed. Additionally, the maintenance road would serve as an emergency route for OBP or other law enforcement agencies, if necessary, and would be utilized only on an as-needed basis.

2.2.3.4 Road Improvements

The existing levee roads along the Bypass Drain are comprised of a gravel surface and are approximately 20 feet wide. These levee roads would be surfaced with an aggregate and treated with a soil stabilizer such as PennzSuppress, Road Oyl, or similar materials. These types of road surfacing materials are approved by the U.S. Environmental Protection Agency (EPA) and are non-toxic to fish and wildlife. Copies of the MSDS for PennzSuppress and Road Oyl are included in Appendix C.

The existing levee roads are currently graded periodically by the Reclamation for maintenance purposes. Surfacing is required to reduce maintenance costs and to improve driving conditions during inclement weather. Surfacing would also reduce fugitive dust created by OBP and public vehicles while traveling on unimproved roads. The incorporation of an all-weather surface would eliminate or reduce ruts and potholes that create unsafe driving conditions. Thus, the all-weather surface would allow the OBP agents to safely travel at efficient speeds (*i.e.*, 35 miles per hour), and enhance their response to illegal entries or other emergency situations. Upon completion of the road improvements, only a top shot (*i.e.*, small quantity applied to the surface) of the soil stabilizer would be required at a rate anticipated not to exceed more than once per year for maintenance purposes to ensure the longevity of the roadways. This activity would not require

any ground disturbance, and careful application of the stabilizer would ensure that no material is spread outside of the existing roadbed.

2.2.4 Security Zone

An approximately 900-foot wide by 1.5-mile long area (164 acres) west of the western levee of the Bypass Drain and an area (approximately 35 acres) east of the Bypass Drain, which have been previously cleared of non-native vegetation, would be re-cleared and maintained (see Figure 2-1). These areas were cleared in an effort to enhance safety and reduce hazardous fuels within the area. As per stipulations of the BLM CATEX, native species such as cottonwoods, willows, and mesquite were not cleared. This project will follow the guidelines used in the BLM CATEX and would re-clear non-native species, primarily salt cedar and arundo cane (*Arundo donax*). The OBP intends to mechanically remove the non-native vegetation and follow up with the spraying of a BLM listed, EPA approved, herbicide such as Habitat™ or Pathfinder, under an approved Pesticide Use Proposal in an effort to control the vegetation. Copies of the MSDS for Habitat™ and Pathfinder are included in Appendix C. In order to keep the area clear of non-native vegetation, or to keep vegetation no taller than 3 feet, the OBP would spray Habitat™ no more than twice per year. The security zone would be maintained by mechanically or manually applying Habitat™ or Pathfinder on emerging non-native vegetation. Native species such as seep willow (*Baccharis salicifolia*) creosote bush (*Larrea tridentata*), and white bursage (*Ambrosia dimosa*) would be avoided to the greatest extent practicable. All native woody vegetation that is naturally recruited would be retained.

The mechanical clearing would be performed using a Hydro-axe or similar equipment. Hydro-axe, also known as a Hydro-mower, is an articulated tractor with a mower–mulcher mounted on the front of the machine. The Hydro-axe has rubber flotation-type tires that cause little disturbance to the surface of the ground. At a width of 8 to 9 feet, the mower–mulcher clips and mulches plant debris from 4 to 10 inches above the ground. The machine can move around trees to treat selected areas. The Hydro-axe allows the operator to precisely clear or treat areas. The Hydro-axe leaves the mulched trees and brush on the ground which helps retard erosion. The mulch also creates a protective vegetal layer for the rubber tire tractor to travel over, thus reducing surface disturbance. Additionally, no stumps would be removed as part of the alternative, which would leave a network of roots to help stabilize the soils.

Additionally, the OBP intends to trim vegetation within three camera lanes near the east bank of the Colorado River riparian area in an effort to allow a Remote Video Surveillance (RVS) camera already in place to gain a better line of sight into the security zone. The three lanes would be 80 feet wide and range from 135 feet to 220 feet long. The vegetation within these lanes consists of willow (*Salix gooddingii*), salt cedar and arrow weed (*Pluchea sericea*). The salt cedar and arrow weed would be cut to a height of 1 foot and would be maintained at this height. No topping of willows would occur, only lateral branches would be trimmed, and no more than two-thirds of the trees' length would be trimmed from the ground upwards. Additionally, no cottonwoods (*Populus fremontii*) would be trimmed within these lanes. The willows would be trimmed manually using saws and limb trimmers, while the salt cedar and arrow weed would be cut via Hydro-axe or similar machine.

2.3 ALTERNATIVE CONSIDERED BUT ELIMINATED

One other alternative was considered but eliminated during the process of developing this SEA. This alternative consisted of only installing the border infrastructure system along the Bypass Drain. The re-clearing and maintenance of the security zone and relocation of the permanent security lights north of the waste water treatment plant would not occur under this alternative. The border infrastructure system would consist of the same design specifications as those mentioned in the Proposed Action Alternative. In addition, all road improvements and maintenance would be performed in the same manner as the Proposed Action Alternative. This alternative was eliminated from further consideration because, without the re-clearing and maintenance of the security zone, the risk associated with patrolling the enforcement zone would be considered severely dangerous as the vegetation would allow for concealment of IAs near the enforcement zone.

2.4 CONSTRUCTION PERSONNEL AND EQUIPMENT

OBP maintenance staff, JTF-N units, National Guard units or private contractors would complete the proposed construction and installation of the infrastructure components, which includes the permanent security lights. 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 road grader, Hydro-axe, backhoe, trencher, auger, crane, bulldozer, front-end loader, flatbed truck, water truck and roller/compactor.

2.5 SUMMARY

The two viable alternatives carried forward for analysis are the No Action Alternative and Proposed Action Alternative. An alternative matrix (Table 2-2) shows how each of the two alternatives carried forward for analysis and the one alternative eliminated satisfies or does not satisfy the purpose and need. Table 2-3 presents a summary matrix of the impacts from the two alternatives analyzed and how they affect the environmental resources in the Region of Influence (ROI).

Table 2-2. Relationship between Purpose and Need and Project

Requirements	Alternative 1: No Action Alternative	Alternative 2: Proposed Action Alternative	Alternative 3: Enforcement Zone Only Alternative
Decrease the current OBP enforcement footprint	NO	YES	PARTIALLY
Detect, deter, and apprehend IAs as close to the international border as possible	PARTIALLY	YES	PARTIALLY
Enhance the safety of OBP agents as well as the general public	PARTIALLY	YES	NO

Table 2-3. Summary Matrix

Affected Environment	No Action Alternative	Proposed Action Alternative
Land Use	The No Action Alternative would alter the land use on 76 acres within the project area from its current use to that of the particular infrastructure component implemented.	Under the Proposed Action Alternative, 209 acres of land would be permanently converted from its current land use to border infrastructure and enforcement zone. No significant impacts are expected to occur due to the vast amount of areas classified with similar land uses in the region.
Soils	The No Action Alternative would affect 163 acres of soils in the project area; however, of this approximately 87 acres have been previously disturbed or developed. No significant impacts would occur.	The Proposed Action Alternative would permanently impact 9.8 acres of soils in the project area. Impacts would not be considered significant due to the minimal amount of soils impacted and the vast amount of similar soils in the region.
Vegetation	Approximately 76 acres of vegetated area dominated by bursage and creosotebush would be removed. The No Action Alternative would have no significant impacts to vegetation in the project corridor.	The Proposed Action Alternative would result in approximately 199 acres of permanent impacts to vegetation. The proposed camera lanes would minimally impact vegetation as only brush maintenance and tree trimming would occur. Due to the vastness of similar surrounding habitat and because the project area has been previously heavily disturbed, no significant impacts to vegetation are expected. Additionally, due to the project area being so heavily disturbed, any impact associated with the illumination of the security zone is expected to be insignificant.
Wildlife	Approximately 98 acres of wildlife habitat would be directly impacted by the No Action Alternative; however, a majority of this area has been previously disturbed. Therefore, no significant impacts are expected to occur.	The Proposed Action Alternative would cause direct, permanent impacts to approximately 199 acres of degraded wildlife habitat. However, due to the disturbed nature of the area, and because naturally recruited native species would be retained upon completion of aerial herbicide applications, any impacts associated with the re-clearing and continued maintenance of the security zone would not be considered significant.
Unique and Sensitive Areas	The No Action would impact approximately nine acres of the Yuma Desert Management Area.	Long-term, direct impacts to the Colorado River riparian area would occur under this alternative. However, these impacts are expected to be insignificant due to the previously disturbed nature of the project area in conjunction with the vast amount of similar habitat within the region.
Protected Species	The No Action Alternative may affect, but is not likely to adversely affect any Federally protected species. Indirect beneficial effects on protected species are anticipated as a result of reducing illegal off-road traffic.	Direct impacts to Federally protected species would be similar to those for the No Action Alternative, except for the southwestern willow flycatcher. The re-clearing of non-native vegetation and maintenance of the security zone (approximately 199 acres) along the Colorado River would reduce the acreage of potential southwestern willow flycatcher habitat. However, due to the vast amount of similar habitat, natural recruitment of native species and current degraded condition of the area the Proposed Action Alternative may affect, but is not likely to adversely affect the flycatcher.

Table 2-3, continued

Affected Environment	No Action Alternative	Proposed Action Alternative
Cultural Resources	No adverse effects are anticipated. This alternative would have a beneficial indirect effect by reducing illegal traffic, thus reducing the potential effects to cultural resources.	No direct impacts to cultural resources would occur. This alternative would have a beneficial indirect effect by reducing illegal traffic, thus reducing potential effects to cultural resources east of the enforcement zone.
Air Quality	Hydrocarbon and fugitive dust emissions would increase temporarily during construction activities discussed in the December 2004 Final EA (CBP 2004). However, they would be expected to be below *de minimus* threshold levels.	Hydrocarbon and fugitive dust emissions would increase temporarily during construction activities. However, they would be expected to be below *de minimus* threshold levels and would not be considered a significant impact.
Water Resources	No adverse effects to surface or ground water supplies or quality are anticipated. Approximately 594,000 gallons of water would be used during construction of all-weather roads discussed in the December 2004 Final EA (CBP 2004).	Approximately 150,000 gallons (0.46 acre-feet) of water would be required for dust suppression and construction techniques (Sikel 2005b). This minimal amount would not create a deficit to local water supplies. Therefore, no significant impacts are expected. No wetlands would be impacted as part of the Proposed Action Alternative.
Socioeconomics	No significant effects to the regional or local economy are anticipated.	The Proposed Action Alternative would have a beneficial indirect effect by providing additional protection from illegal foot traffic, potentially lowering crime, and improving the quality of life along the international border. No significant direct impacts to socioeconomics within the region are expected under this alternative.
Noise	Effects to noise levels in the area would be minor, localized, and temporary. Therefore, no significant impacts relating to noise would be expected upon implementation of the No Action Alternative.	Noise levels would be expected to temporarily increase during construction. Effects to noise levels in the area would be minor, localized and temporary. Increased vehicle speeds on the all-weather road may increase noise emissions slightly.
Aesthetics	Proposed Infrastructure would have a temporary adverse effect on aesthetics in the immediate vicinity of the project area.	The Proposed Action Alternative construction activities would permanently impact the local aesthetics. The proposed security lighting would have long-term impacts to aesthetics, however, because the location of the lights is remote and they would be shielded, any impacts would be considered insignificant.
Light Pollution	The impacts from the No Action Alternative would be minimal, as the area is primarily located near the City of San Luis which is brightly lit on a nightly basis. Therefore, the impacts of the proposed lights along the border area, which is currently illuminated, would be insignificant.	The lighting of the security zone would create direct impacts to light pollution in the region. However, through the use of metal halide bulbs, backlighting and vertical shields, and because the angle of the light would be oriented in a manner to not shine above horizontal, these impacts are considered to be insignificant.

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SECTION 3.0
ENVIRONMENTAL FEATURES

3.0 ENVIRONMENTAL FEATURES

In accordance with CEQ regulations (40 Code of Federal Regulations [CFR] § 1502.15), this chapter of the SEA 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 December 2004 Final EA are incorporated by reference (CBP 2004). Each of these resources is identified as such.

Resources such as geology, communications, climate, Areas of Critical Environmental Concern, Wilderness and Wild and Scenic Rivers would not be impacted by this project for the same reasons outlined in the December 2004 Final EA (CBP 2004):

- 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 light and fence footers.
- Communications: The project would not affect communications systems in the area.
- Climate: The project would not affect nor be affected by the climate.
- Areas of Critical Environmental Concern: No Areas of Critical Environmental Concern are located within the proposed project area.
- Wilderness: There are no areas in the project area designated as Wilderness; therefore, the proposed project would not affect designated Wilderness Areas.
- 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 area.

Therefore, the above listed resources will not be included for evaluation in this SEA.

3.1 LAND USE

This section was discussed in the December 2004 Final EA and is incorporated herein by reference (CBP 2004). Land use immediately adjacent to the project area is irrigated agriculture, bare ground, water control structures and planned border security infrastructure.

The Arizona Standards for Rangeland Health and Guidelines for Grazing Administration were approved in April 1997. The standards apply to all lands managed by the BLM. A majority of the

lands managed by the BLM within the project area are previously disturbed and committed to other activities. The lands in this area are in compliance with the Arizona Standards for Rangeland Health.

3.2 SOILS AND PRIME FARMLAND

Soils found within the original enforcement zone footprint were previously discussed and mapped in the December 2004 Final EA and are hereby incorporated by reference (CBP 2004). According to the U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), there are four soil types identified in the project area along the Bypass Drain. The four soil types are Holtville clay, Gadsden clay, Glenbar silty clay loam and Indio-Ripley-Lagunita (USDA 1980). Each of these soils are considered prime farmlands although, Holtville clay requires irrigation to be considered prime farmland soils (California Department of Conservation 1995).

3.3 BIOLOGICAL RESOURCES

3.3.1 Vegetation Communities

Vegetation communities as well as non-native and invasive species were discussed in the December 2004 Final EA and are incorporated herein by reference (CBP 2004). The flora of the project area is limited due to the disturbed conditions near the proposed construction sites. Agricultural fields cover most of the adjacent area to the east of the Bypass Drain. As mentioned previously, the vegetation in the security zone was removed by the BLM in December 2004. This area contained dense vegetation consisting primarily (approximately 98 percent) of salt cedar, which is a non-native and invasive species. Since December of 2004, the salt cedar has regenerated, and the security zone is now approximately 30 to 35 percent covered with salt cedar (Photograph 3-1). Native vegetation does exist within the security zone; however, these species are sparse and scattered. The native vegetation observed includes cottonwood, willow and mesquite (*Prosopis glandulosa*); however,

Photograph 3-1. Security Zone

these species are primarily located along the eastern side of the security zone in limited numbers of small clusters. The Bypass Drain levees are devoid of any vegetation. The vegetation located within the proposed camera lanes consists of arrow-weed, salt cedar and willow. The willows were located immediately adjacent to the eastern bank of the river.

3.3.2 Wildlife

This section was discussed in the December 2004 Final EA and is incorporated herein by reference (CBP 2004). During the biological surveys conducted February 19-20, 2004 for the original EA, blacktail jackrabbit (*Lepus californicus*), Anna's hummingbird (*Calypte anna*), turkey vulture (*Cathartes aura*), house finch (*Carpodacus mexicanus*), and killdeer (*Charadrius vociferous*) were observed. Small animal tracks and burrows were observed, and indicated the presence of rodent species and desert dwelling lizards in the proposed project area.

3.4 UNIQUE AND ENVIRONMENTALLY SENSITIVE AREAS

This section was discussed in the December 2004 Final EA and is incorporated herein by reference (CBP 2004). The Yuma Desert Management Area and the Cocopah Indian Reservation occur to the east and north of the project area respectively. The riparian area along the Colorado River is considered to be a unique and sensitive area in the region. This riparian area has also been designated by the BLM as priority wildlife habitat for its riparian values, which creates additional value to the areas unique and sensitive nature.

3.5 PROTECTED SPECIES AND CRITICAL HABITATS

3.5.1 Federal

This section was discussed in the December 2004 Final EA and is incorporated herein by reference (CBP 2004). Two Federally protected species, southwestern willow flycatcher (*Empidonaz trailli extimus*) and Yuma clapper rail (*Rallus longirostris yumasensis*) have the potential to occur along the Colorado River near the project area. A complete list of Federally protected species for Yuma County is included in Appendix D.

The project area is within the Lower Colorado Recovery Unit for the southwestern willow flycatcher. There are no known flycatcher nesting sites within the riparian area located adjacent to the project area. A portion of the Yuma clapper rail's historic range is along the Lower

Colorado River. The potential habitat for Yuma clapper rail and the southwestern willow flycatcher in or near the proposed project area is degraded due to the diversion of water from the Colorado River into concrete canals for agricultural and water supply.

3.5.2 State

This section was discussed in the December 2004 Final EA and is incorporated herein by reference (CBP 2004). Arizona Game and Fish Department, Natural Heritage Department's list of wildlife of special concern and the Arizona Department of Agriculture's list of protected plants for the project area are discussed in Appendix D.

3.5.3 Critical Habitat

There is no designated critical habitat in or near the project area.

3.6 CULTURAL RESOURCES

This section was discussed in the December 2004 Final EA and is incorporated herein by reference (CBP 2004). The security zone lies within floodplain and alluvial deposits of the Colorado River. This area has been an active depositional area of the river and the soils are characterized as fine granitic alluvium. The surrounding areas have had survey work completed as evidenced by reports in the latest survey "Cultural Resources Survey Secondary Fence Alignment along Salinity Canal, Office of Border Patrol, Yuma Sector, Yuma, Arizona" (Dosh 2006). Therefore, through previous record searches and their results it has been determined that there is no potential for the occurrence of cultural materials that will be affected by the proposed project.

Furthermore, the probability of cultural resources being intact along the Bypass Drain levee is low. The BLM, OBP, Reclamation and local farmers use the levee roads on a daily basis as well as the adjacent farm road located east of the Bypass Drain. These roads are graded periodically for maintenance purposes, thus, further reducing the likelihood of this project impacting any cultural site. In fact, the Arizona State Historic Preservation Officer (SHPO) has concurred with the finding of no adverse impacts to historic properties (Appendix F).

All appropriate Native American Tribes have been coordinated with, and a copy of the coordination letters is included in Appendix F. Additionally, the tribes have all received copies of

the Draft SEA and have provided no comments. Native American religious concerns are not discussed in this document because no concerns have been identified by the Tribes.

3.7 AIR QUALITY

Air quality was discussed in the December 2004 Final EA and is incorporated herein by reference (CBP 2004). However, since the completion of the December 2004 Final EA, the EPA introduced an interim policy for general conformity in PM-2.5 non-attainment and maintenance areas for use during the public comment period (April 5, 2006 through June 5, 2006). During this time, the EPA believes that it is appropriate for Federal agencies to use the particulate matter less than 10 microns (PM-10) level of 100 tons per year as a surrogate for PM-2.5 *de minimis* levels in general conformity applicability analysis. Under this guidance, if an actions direct or indirect emissions of PM-2.5 are exceeded, then a general conformity determination would be required (EPA 2006a).

Additionally, the USEPA issued a Final Ruling (40 CFR part 52 and 81; see *Federal Register* on March 16, 2006) designating Yuma, Arizona as being in attainment for PM-10.

3.8 WATER RESOURCES

3.8.1 Surface Water Resources

This section was discussed in the December 2004 Final EA and is incorporated herein by reference (CBP 2004). The project area is completely within the Lower Colorado watershed. Water quality in the Lower Colorado River is classified as Category 2, which means that at least one of the designated uses of the river has been determined as in attainment and others are assessed as inconclusive or threatened (ADEQ 2003). Overall, the watershed is classified as a Category 1 watershed (EPA 2004). Category 1 designation is assigned when all designated uses are considered to be in attainment.

3.8.2 Groundwater Resources

The discussion of groundwater resources is incorporated by reference from the December 2004 Final EA (CBP 2004). The discussion included a description of the Yuma Groundwater Basin and a brief description of the components of the water bearing strata. Water quality in the Yuma Groundwater Basin generally supports drinking water uses. In 1995, 171,326 acre-feet of water was withdrawn from the Yuma Basin (U.S. Geological Survey [USGS] 2005). The recharge rate for the basin is approximately 210,000 acre-feet per year (Sikel 2005a). Consequently, the Yuma

basin has an excessive supply of water due to the large annual recharge rate attributed to agricultural run-off.

3.8.3 Waters of the U.S./Wetlands

This section was discussed in the December 2004 Final EA and is incorporated herein by reference (CBP 2004). The only Waters of the U.S. (WUS) in the project area is the Colorado River. In the original Final EA it was stated that the riparian area adjacent to the river was a potential jurisdictional wetland. Although wetlands do exist within the riparian area, not all of the riparian area can be considered jurisdictional wetlands. According to BLM CATEX CX-AZ-320-2005-12 (Hazardous Fuels Reduction and Emergency Safety Hazard Removal) no wetlands were disturbed as a result of the removal of vegetation within the riparian area. During biological surveys conducted for the December 2004 EA, many non-tidal drainage and irrigation ditches were observed. These ditches usually have concrete bottoms and sides, and metal gates to control the amount of water flow. Non-tidal drainage and irrigation ditches excavated on dry land are usually not under the jurisdiction of the USACE or EPA.

Executive Order (E.O.) 11988 (Flood Plain Management) (43 FR 6030) was signed by the President on May 24, 1977 to “avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative. E.O. 11988 directs all Federal agencies to reduce the risk of flood loss; minimize the impact of floods on human safety, health and welfare; and restore and preserve the natural and beneficial values served by floodplains…” (USFWS 2002a).

According to Panel 0400990975C of the Federal Emergency Management Agency (FEMA) floodplain map, the 100-year flood zone is delineated by the road that runs on top of the western Bypass Drain levee. All lands between the river and the levee are within the 100-year floodplain. Of the proposed infrastructure, only the security lights, which would be constructed on the western toe of the levee, would be in the floodplain.

3.9 SOCIOECONOMICS

Socioeconomic resources were discussed in the December 2004 Final EA and are incorporated herein by reference (CBP 2004). The 2003 population of Yuma County was 171,134, which

ranked 6th in the state of Arizona (U.S. Census Bureau 2004a). This is an increase of 6.9 percent over the 2000 census population of 160,026 (U.S. Census Bureau 2005). The 2004 average annual unemployment rate for Yuma County was 15.5 percent. The 2004 annual average unemployment rate for the state of Arizona was 5.0 percent (Arizona Workforce Informer 2005). The estimated number of people of all ages living in poverty for Yuma County was 32,564 in 2002 (U.S. Census Bureau 2004b).

3.9.1 Environmental Justice and Protection of Children

Environmental Justice and Protection of Children issues were discussed in the December 2004 Final EA and are incorporated herein by reference (CBP 2004). Low-income and minority populations are prevalent in Yuma County. However, only the pre-manufactured bridges portion of the proposed project is located in the vicinity of any populated areas.

3.10 NOISE

This section was discussed in the December 2004 Final EA and is incorporated herein by reference (CBP 2004). Noise levels surrounding the proposed project location are variable depending on the time of day and climatic conditions. However, generally speaking, noise levels are higher near the San Luis POE than by the Bypass Drain due to industry traffic and commercial activities in and around the POE.

3.11 AESTHETICS

Aesthetics were discussed in the December 2004 Final EA and are incorporated herein by reference (CBP 2004). Two populated areas occur within the project area: San Luis, Arizona and the City of San Luis, Mexico. The remaining sections of the project area are located either in agricultural areas or remote sections of the Yuma Desert along the international border. Aesthetic values are currently limited within the project area due to a disturbed landscape from agricultural and urban development. Additionally, lighting that illuminates both cities immediately adjacent to the project area could further detract from any perceived aesthetic value of the project area.

3.12 LIGHT POLLUTION

Light pollution is a major obstacle for scientists and observers attempting to learn more about the physics of stars, galaxies, and plasmas. Light pollution occurs when too much artificial illumination enters the night sky and reflects off of airborne water droplets and dust particles causing a condition known as sky glow. In general, light pollution does not come from light that goes directly into the equipment used by these scientist or observers; rather, it is often associated with the stray light that goes upward. Stray light that travels upward eventually is reflected off of dust particles or other molecules in the atmosphere, which in turn moves downward and into the equipment (telescopes) used for astrological studies hindering the efforts of scientists and observers.

Light pollution has become a growing concern within the Yuma area due to the increased urbanization of Yuma, Mexicali, Phoenix, and surrounding inhabited areas. However, through the use of building codes and street light controls these resources have received some protection from light pollution. According to the Southern California Light Pollution Map (Figure 3-1), the project area is located in the red zone, which represents areas that have less than 100 stars visible over 30 degree elevation (Sipe 2002) (Table 3-1). The other zones found on Figure 3-1 are described in regard to their level of impact on light pollution in Table 3-1.

Figure 3-1. Southern California Light Pollution Map

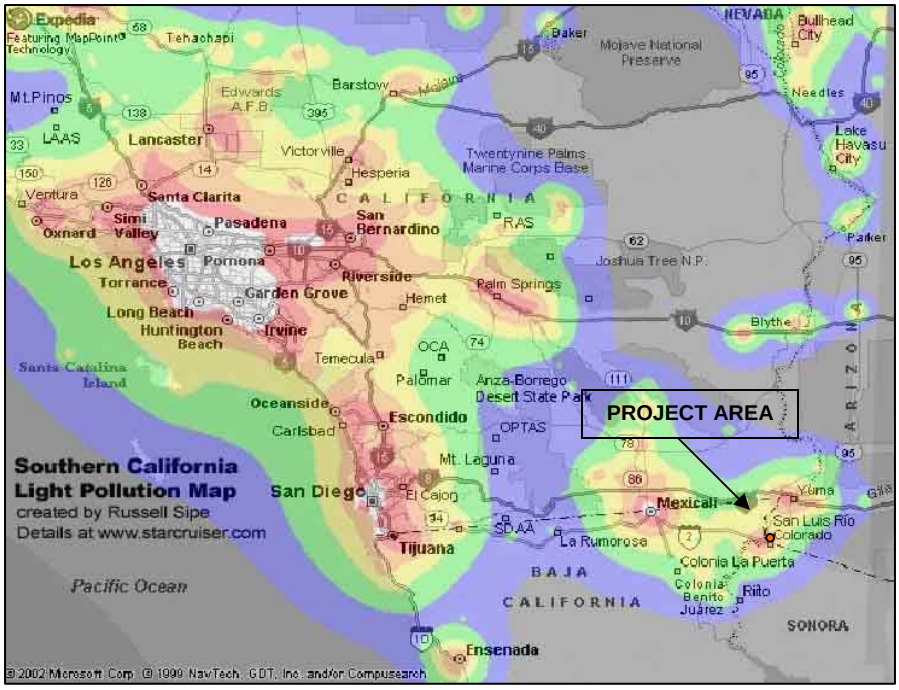

Table 3-1. Southern California Light Pollution Map Legend

Zone	Color	Description
1	Black	Trace artificial Light Pollution (LP)
2	Blue	Artificial LP is 10 percent over natural sky brightness ("light polluted sky"). Long exposure astrophotos might show some light pollution gradient, but visual observing is relatively unimpaired.
3	Green	Artificial LP is 50 percent over natural sky brightness. Modest impact on deep sky observing and imaging. Milky Way shows structure.
4	Yellow	Artificial LP is equal to natural sky brightness (total sky brightness is doubled). Serious impact to deep sky observing and imaging. Milky Way visible but not crisp.
5	Orange	Milky Way not visible.
6	Red	Less than 100 stars visible over 30 degrees elevation.
7	White	Hopeless?

Source: Sipe 2002

3.13 HAZARDOUS AND SOLID WASTE

The 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, including 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.

The 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 2006b and 2006c). According to both of these databases, no hazardous waste sites are located near or within the project corridor.

Solid waste within the project corridor is limited and attributed to illegal foot traffic within the security zone. As the IAs enter the U.S., water bottles, plastic bags and other debris are often discarded with no regard to the local landscape.

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SECTION 4.0
ENVIRONMENTAL CONSEQUENCES

4.0 ENVIRONMENTAL CONSEQUENCES

In accordance with CEQ regulations (40 Code of Federal Regulations [CFR] § 1502.16), this section of the SEA addresses potential impacts to the affected environment within the project area 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 SEA, temporary effects are defined as those that would occur during construction or immediately after construction; short-term impacts would last less than three years after completion of the action. Long-term impacts are defined as those that would last three 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 SEA 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.

The following discussions describe and, where possible, quantify the potential effects of each alternative on the resources within or near the project area. An existing 12-foot wide farm road would be used as a maintenance road for the proposed infrastructure. Each bridge is expected to require about 400 square feet of ground disturbance for the bridge abutment. All impacts described below are considered to be adverse unless stated otherwise. Table 4-1 provides a summary of impacts (in acres) for each project component.

Table 4-1. Summary of Impacts (Acres) of Project Components by Alternative

Project Components	No Action Alternative	Proposed Action Alternative
Bridges	NA	0.03
Road Improvements	33	7.3
Permanent Security Lighting (41 square feet per pole)	0.7	0.02
Enforcement Zone*	130	2.5
Security Zone**	NA	199
Total Area Disturbed (Acres)	163	209

*Enforcement Zone = Maintenance Road and Pedestrian Fence.
**Security Zone = Cleared area, which includes 164 acres west of Bypass Drain and 35 acres east of the Bypass Drain.
Note: Approximately one acre of vegetation maintenance would occur within the camera lanes in addition to the impacts mentioned in Table 4-1.
NA – Not Applicable: not proposed in December 2004 Final EA (CBP 2004).
Source: GSRC 2005

4.1 LAND USE

4.1.1 Alternative 1: No Action Alternative

The impacts to land use as a result of the implementation of the No Action Alternative were discussed in Section 4.1.1 of the December 2004 Final EA (CBP 2004) as the Proposed Action Alternative and are incorporated herein by reference. The No Action Alternative would result in 76 acres of land being permanently converted from its current land use, that is classified as being undeveloped (bare ground and agricultural land), conservation or recreation, to enforcement zone for the purpose of construction of the OBP's border infrastructure system. Additionally, the 199 acres cleared by BLM within the security zone would be allowed to naturally revegetate under this alternative.

4.1.2 Alternative 2: Proposed Action Alternative

Under the implementation of this alternative, 209 acres of land that is currently classified as disturbed areas and riparian areas would be permanently converted from its current land use to enforcement and security zones. These direct impacts would be localized and are considered minor due to the abundance of similar land use surrounding the project area.

Indirect impacts could occur outside of the project area as IAs attempt to circumvent the proposed infrastructure. However, these impacts cannot be quantified at this time because IA patterns and migration routes are completely out of the OBP's control. Indirect beneficial impacts are expected

as a result of anticipated decreased illegal traffic within and east of the project area. By reducing illegal traffic within and adjacent to the project area, damage to agricultural land and riparian areas would also be reduced or possibly eliminated. In addition, private land, as well as the OBP agents and other law enforcement personnel that patrol the area, would be afforded greater protection from the IAs, smugglers and terrorists by the Proposed Action Alternative.

4.2 SOILS AND PRIME FARMLAND

4.2.1 Alternative 1: No Action Alternative

The impacts to soils and prime farmland as a result of the implementation of the No Action Alternative were discussed in Section 4.2.1 of the December 2004 Final EA (CBP 2004) as the Proposed Action Alternative and are incorporated by reference. A total of 163.2 acres of soils would be altered by implementing the No Action Alternative. The No Action Alternative would not result in impacts to land currently being farmed. The temporary soil erosion that would potentially occur during construction and installation of the infrastructure would be minimized with the use of silt fences and other Best Management Practices (BMPs). Additionally, the 199 acres that were previously cleared would be allowed to naturally revegetate, which would result in less potential for erosion.

4.2.2 Alternative 2: Proposed Action Alternative

The Proposed Action Alternative would permanently impact approximately 9.8 acres of soils within the project area through the road improvements (7.3 acres) and construction of the enforcement zone (2.5 acres). These 9.8 acres are highly disturbed from ongoing Reclamation, BLM, OBP and local farming operations. Although these impacts would be permanent, they would not be considered significant due to the vast amounts of similar soils adjacent to the project area. Additionally, the pre-manufactured bridges would be placed on concrete pillars, which would require minimal ground disturbing activities. Therefore, impacts to soils from the installation of the bridges would occur; however, these impacts would be insignificant. BMPs for erosion control during construction would prevent significant soil loss due to erosion.

Prime farmland soils (Gadsden clay [1.3 acres], Glenbar silty clay loam [0.9], Holtville clay [2.9] and Indio-Lagunita-Ripley complex [4.7 acres]) would be impacted as part of this alternative; however, the prime farmland soils are currently disturbed (*i.e.,* road) and not in use for agricultural production. Therefore, a NRCS Farmland Conversion Impact Rating Form AD-1006

is not warranted as no farmland would be converted to other uses. The expected impacts to soils as a result of the Proposed Action Alternative would be insignificant.

The re-clearing of non-native vegetation within the security zone would account for 199 acres of temporary direct impacts. Soils to be impacted in the security zone do not have high hazard ratings for erosion. These impacts would be temporary as the machine used to remove the brush and trees is equipped with rubber flotation-type tires that cause little disturbance to the surface of the ground. Additionally, the mulch left on the ground would also help retard any erosion potentially created from the clearing of the vegetation. Other temporary potential impacts to soils during construction and installation of proposed infrastructure would be minimized with the use of BMPs. Indirect impacts to soils are also expected through increased erosion. Without the benefit of vegetation as a stabilizer, these soils would be more susceptible to erosion from both wind and water.

As a result of this alternative, the volume of illegal traffic would decrease and, therefore, would result in long-term indirect beneficial impacts to soils. 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.

4.3 BIOLOGICAL RESOURCES

4.3.1 Vegetation Communities

4.3.1.1 Alternative 1: No Action Alternative

The impacts to vegetation as a result of the implementation of the No Action Alternative were discussed in Section 4.3.1.1 of the December 2004 Final EA (CBP 2004) as the Proposed Action Alternative and are incorporated by reference. Implementation of the No Action Alternative would result in approximately 76 acres of permanent impacts to the creosotebush-white bursage plant community in the original project area east and west of the San Luis POE. The 199 acres within the security zone, which was cleared by the BLM, would be allowed to revegetate under this alternative, thus providing beneficial indirect impacts to the region's vegetation communities. Short-term impacts to vegetation from fugitive dust generated by construction equipment and vehicles would also occur if the No Action Alternative is implemented.

4.3.1.2 Alternative 2: Proposed Action Alternative

Implementation of the Proposed Action Alternative would result in approximately 164 acres of long-term impacts to the Colorado River riparian area and the 35-acre salt cedar community east of the Bypass Drain within the security zone. These areas would be re-cleared of non-native vegetation and maintained for the purposes of allowing the OBP to observe any illegal activity within the security zone. Although the 199 acres would be re-cleared and maintained, most of the vegetation is non-native and is locally and regionally common. Mechanical or manual application of Habitat^{tm} or Pathfinder within the security zone would minimize potential impacts to native vegetation to the greatest extent possible. Additionally, all naturally recruited native species would be retained. Therefore, the proposed action would be in compliance with E.O. 13112, which mandates that each Federal agency action shall to the extent practicable prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological, and human health impacts that invasive species cause. No long-term significant impacts to vegetation within the region would occur as a result of re-clearing and maintaining the security zone.

The enforcement zone and the locations of the pre-manufactured bridges have been previously denuded of vegetation. Therefore, no significant impacts to vegetation within these areas are expected to occur.

The vegetation maintenance of the camera lanes would impact approximately 1 acre of vegetation primarily consisting of salt cedar and arrow weed. Willows within these areas would be trimmed no more than two-thirds of their length from the ground up, would only have lateral branches trimmed; no topping would occur. The salt cedar and arrow weed would be maintained to a height of approximately 1-foot within the camera lanes. Additionally, no cottonwoods would be trimmed as part of the vegetation maintenance. This action would create direct impacts to vegetation within the lanes; however, these associated impacts would be insignificant, since only a minimal amount of trimming would occur, and because no vegetation would be completely removed.

Short-term indirect effects to vegetation west of the Bypass Drain would occur during construction of the permanent security lights and border infrastructure system due to fugitive dust settling on leaves, thus reducing photosynthesis and respiration. The magnitude of this effect would depend upon several biotic and abiotic variables, including the speed and type of construction vehicles, climatic conditions, success of wetting measures during construction and the general health of the

vegetation. However, upon completion, the OBP operations would be expected to generate less fugitive dust as a result of the all-weather surfacing along the levee roads.

It is anticipated that any illumination associated impacts within the security zone would be insignificant, because the security zone has been previously cleared, is now minimally vegetated, and would be maintained as such. Additionally, the light fixtures would be fitted with backlighting shields, as well as vertical shields to minimize any stray light from escaping to areas outside of the project area (*i.e.*, agricultural fields).

Beneficial indirect impacts would occur as IAs, smugglers and criminal activities are reduced or potentially eliminated within the area. These impacts include the reduction of habitat damage from fire and trampling by IAs and a reduction of agricultural crops being damaged from illegal activities and subsequent OBP activities. Conversely, the areas to the north of the project area could be indirectly impacted as IAs attempt to avoid detection and circumvent the security zone and proposed infrastructure. However, these impacts cannot be quantified at this time because IA patterns and migration routes are completely out of the OBP's control.

4.3.2 Wildlife

4.3.2.1 Alternative 1: No Action Alternative

The impacts to wildlife as a result of the implementation of the No Action Alternative were discussed in Section 4.3.3.1 of the December 2004 Final EA (CBP 2004) as the Proposed Action Alternative and incorporated herein by reference. The No Action Alternative would permanently impact approximately 76 acres of wildlife habitat. This alternative would include the clearing of vegetation along the southern border to increase visibility, the installation of permanent security lighting, and the construction of the enforcement zone. Lighting would attract or repel various wildlife species within the project area; however, due to the small size of the project area and similar adjacent habitat, no significant impacts would be expected regionally. Beneficial impacts would occur, as the security zone would be allowed to naturally revegetate providing habitat to wildlife within the region.

4.3.2.2 Alternative 2: Proposed Action Alternative

The Proposed Action Alternative would cause direct impacts to approximately 199 acres of degraded wildlife habitat. Although the 199 acres would be re-cleared and maintained, most of the vegetation is non-native and is locally and regionally common. Mechanical or manual

application of Habitat[tm] or Pathfinder within the security zone would minimize potential impacts to native vegetation to the greatest extent possible. Additionally, all naturally recruited native species would be retained. Therefore, due to the currently disturbed nature of the area and because all naturally recruited native species would be retained, any impacts associated with the re-clearing and continued maintenance would not be considered significant.

As mentioned in Section 4.3.1.2, vegetation maintenance (1 acre) would occur within the camera lanes. The impacts as a result of the maintenance of the lanes to wildlife resources would be insignificant because of the minimal amount of trimming proposed. Beneficial impacts would also occur, as these lanes would create an edge effect within the vegetation which is preferred by some species, such as the Gamble's quail (*Callipepla gambelii*).

Lighting could attract or repel various wildlife species within the security zone; however, due to similar adjacent habitat, no significant impacts would be expected regionally. Changes in photoperiod could cause disturbances in circannual hormone rhythms, which could alter normal reproduction, migration and activity rates in some wildlife species. However, adjacent dark areas in agriculture fields as well as along the Colorado River riparian habitat would continue to provide non-illuminated areas for wildlife migration; therefore impacts from the installation and operation of the security lights is not expected to be significant.

Impacts to migratory birds could occur, as the lights could become the strongest cue the birds use for nocturnal migration. This could cause mortality to the birds if they collide with the lighting structures or other birds. However, since only 27 lights would be installed that would provide no more than 5 foot-candles of illumination at a distance 900 feet west of the Bypass Drain, and because the lights would be located in juxtaposition to the City of San Luis, these would be considered minimal to moderate adverse impacts.

The proposed enforcement zone is currently used on a daily basis by the OBP, BLM, Reclamation and local farmers, and is not suitable for supporting abundant wildlife populations. The transformation of this area to an enforcement zone could potentially eliminate migration of small mammals and reptiles between the U.S. and Mexico. However, the majority of the adjacent land in Mexico is urban and the Bypass Drain, which acts a barrier itself, is located adjacent to the enforcement zone. Therefore, because the affected species are likely common in both the U.S. and Mexico, and because the enforcement zone would be no more of a barrier than the drain, no

significant impacts to migration are expected. The Proposed Action Alternative would beneficially impact wildlife by protecting habitat through the expected reduction in IA traffic within the region.

Indirect adverse impacts to wildlife habitat adjacent to the project area could also occur as illegal traffic attempts to circumvent the protected areas of the border. It is possible for IAs to decide to attempt illegal entry north of the proposed infrastructure into riparian areas where concealment opportunities would still exist. However, these impacts cannot be quantified at this time because IA patterns and migration routes are completely out of the OBP's control.

4.4 UNIQUE AND ENVIRONMENTALLY SENSITIVE AREAS

4.4.1 Alternative 1: No Action Alternative

The impacts to unique and environmentally sensitive areas as a result of the implementation of the No Action Alternative were discussed in Section 4.3.1.1 of the December 2004 Final EA (CBP 2004) as the Proposed Action Alternative and are incorporated by reference. Impacts to the Yuma Desert Management Area for the flat-tailed horned lizard would occur as a result of the No Action Alternative. However, these impacts are being mitigated through the use of bio-monitors during construction activities and from compensatory mitigation such as the payment of monies to the Reclamation for flat-tailed horned lizard management. Indirect impacts could occur to the Yuma Desert Management Area if IAs attempt to circumvent the infrastructure to the east.

4.4.2 Alternative 2: Proposed Action Alternative

Long-term, direct impacts to the riparian area along the Colorado River would occur under this alternative due to the permanent removal of vegetation and because of the illumination of the security zone. Even though 164 acres of Colorado River riparian area would be directly impacted, this habitat is locally and regionally abundant north of the project corridor. Therefore, due to the abundance of riparian area adjacent to the project area, combined with the fact that after a 2 to 3 year period all naturally recruited native vegetation would be retained, it is expected that any impacts associated with the vegetation removal and illumination of the security zone would be insignificant. The impacts associated with the maintenance of the vegetation are not expected to be significant due to the minimal amount of trimming that would occur and because no vegetation would be completely removed. The construction of the roads

and fences within the enforcement zone along the Bypass Drain would have no direct impacts to the Colorado River riparian area.

Indirect impacts could occur outside of the project area as IAs attempt to circumvent the proposed infrastructure, especially if they use the riparian area north of the proposed infrastructure. However, these impacts cannot be quantified at this time because IA patterns and migration routes are completely out of the OBP's control. In addition, indirect beneficial impacts are expected as a result of a decrease in illegal traffic within the project area. By reducing illegal traffic within the project area, damage to unique and environmentally sensitive areas would also be reduced or possibly eliminated.

4.5 PROTECTED SPECIES AND CRITICAL HABITATS

4.5.1 Alternative 1: No Action Alternative

The impacts to Federally protected species as a result of the implementation of the No Action Alternative were discussed in Section 4.5.1 of the December 2004 Final EA (CBP 2004) as the Proposed Alternative and are incorporated by reference. The No Action Alternative would potentially impact the habitat of two state protected wildlife species: the flat-tailed horned lizard and western burrowing owl, respectively. Indirect beneficial impacts to the southwestern willow flycatcher could also occur upon the regeneration of 199 acres of migration habitat (*i.e.,* security zone) cleared in December 2004. Without intense management, salt cedar is likely to return. Although salt cedar is not considered quality habitat, flycatchers have been known to nest in salt cedar and use salt cedar forests as migration cover. Indirect adverse impacts to protected species could occur as IAs travel to adjacent areas with less developed border infrastructure in order to avoid detection, causing habitat degradation.

4.5.2 Alternative 2: Proposed Action Alternative

The re-clearing and maintenance of vegetation within the security zone (approximately 199 acres) would reduce the long-term acreage of potential southwestern willow flycatcher migration habitat. Although the 199 acres would be re-cleared and maintained, most of the vegetation is non-native and is locally and regionally abundant. Additionally, the use of mechanical or manual application of herbicides would minimize potential impacts to existing native species. Furthermore, all naturally recruited native species would be retained.

The USFWS issued a memorandum in April 2005 regarding the BLM's CATEX that stated, although the security zone was not considered occupied suitable habitat, it was considered migration habitat. It also stated that the one time reduction of this migration habitat would not significantly impact the southwestern willow flycatcher because of the amount of such habitat remaining in the immediate vicinity (USFWS 2005). Additionally, the closest recorded flycatcher nesting site is located at the confluence of the Gila River with the Colorado River (USFWS 2002a), approximately 20 miles north of the project area. There are no known flycatcher nesting sites within this reach of the Colorado River. As mentioned previously, all naturally recruited native species would be retained after mechanical herbicide applications are complete, which could have long-term beneficial impacts on migration habitat for the flycatcher. Additionally, as mentioned in the environmental design measures in Section 5.0, the OBP would not perform any work in the security zone during the neotropical migratory bird migration period. The southwestern willow flycatcher is present in southern Arizona from early May to early to mid September. Therefore, the Proposed Action Alternative may affect but is not likely to adversely affect the southwestern willow flycatcher.

The vegetation maintenance of the camera lanes would impact approximately 1 acre of potential migratory habitat for the flycatcher; however, vegetation would not be completely removed. Additionally, the willows located within the lanes would only have lateral branches trimmed, no topping would occur, and no more than two-thirds of the trees length would be trimmed from the ground upwards. No cottonwoods would be trimmed as part of the vegetation maintenance. The salt cedar and arrow weed in the lanes would be trimmed to a height of no more than 1 foot. Although direct impacts to the vegetation in the lanes would occur, any potential impacts may affect but are not likely to adversely affect the flycatcher.

The security lights would not exceed 5 foot-candles of illumination at the western edge of the security zone (approximately 900 feet west of the Bypass Drain). The operation of the security lights within the security zone could impact the flycatcher by repelling them from the area. However, as mentioned previously, an abundance of similar habitat is regionally and locally abundant. Therefore, impacts to the flycatcher as a result of the illumination of the security zone are expected to minimal to moderate.

It is for the reasons presented above in conjunction with the planned conservation measures presented in Section 5.0 that it has been determined that the proposed action may affect, but is not likely to adversely affect the flycatcher.

The Proposed Action Alternative could potentially impact western burrowing owls and their habitat within the project area. However, suitable owl habitat exists adjacent to the project area. If the proposed construction occurred outside of the breeding season and the mitigation measures mentioned in Section 5.0 are implemented, the owls would be able to relocate to habitat outside of the project area. Additionally, the lights would be fixed to face away from the agricultural fields and would have backlighting shields, which would reduce any potential impacts from the security lights. Therefore, no significant impact to the owls is expected.

Long-term beneficial indirect impacts within the project region are expected with a reduction in IA traffic and consequent OBP enforcement activities. Additionally, the recruitment of native trees into the security zone would provide further beneficial impacts in the region. However, as discussed previously, IAs could relocate their actions to other areas outside of the project area, in particularly to the north of the Bypass Drain and enforcement zone. These impacts cannot be quantified at this time because IA patterns and migration routes are completely out of the OBP's control.

4.6 CULTURAL RESOURCES

4.6.1 Alternative 1: No Action Alternative

The impacts to cultural resources as a result of the implementation of the No Action Alternative were discussed in Section 4.6.1 of the December 2004 Final EA (CBP 2004) as the Proposed Action Alternative and are incorporated by reference. No direct impacts to the five previously recorded archeological sites are anticipated from the implementation of the No Action Alternative. Indirect adverse impacts to cultural resources would potentially occur as IAs travel to adjacent areas with less developed border infrastructure in order to avoid detection.

4.6.2 Alternative 2: Proposed Action Alternative

Cultural surveys were performed January 2004 (Hart 2004), as part of the original studies for the December 2004 Final EA in the areas of the enforcement zone near the San Luis POE where modifications are planned, and included in the Proposed Action Alternative. In November 2006 an

additional survey was conducted along a 45-foot corridor parallel to the Bypass Drain for 1.5 miles (Dosh 2006). No cultural resources were found during these surveys.

Under the Proposed Action Alternative, no direct impacts to cultural resources would occur. Due to the security zone being located within a floodplain and alluvial deposits, the probability of intact cultural resource in this area is low. The clearing of vegetation within the security zone would have no effect on historic properties as little to no ground disturbance would occur. Therefore, the removal of vegetation within the security zone as proposed under this alternative would have no direct impacts to cultural resources.

Within the Bypass Drain levee road footprint there is an extremely low probability of encountering any cultural resources during construction due to the extreme amount of disturbance that has occurred, and continues to occur. The Bypass Drain levee roads and adjacent farm road were constructed with borrow material and are used daily by the BLM, Reclamation, OBP and local farmers. Additionally, as stated previously, during the November 2006 cultural surveys along the eastern edge of the Bypass Drain levee road no cultural resources were found (Dosh 2006). No significant impacts are expected upon implementation of the Proposed Action Alternative. Also, as stated in Section 3.6 of this SEA, the SHPO has concurred with our findings that this alternative would have no affect to historic properties (see Appendix F).

Indirectly, the reduction of illegal traffic through the area would have the potential for long-term beneficial impacts to cultural resources found in the region. The reduction of illegal traffic would decrease the amount of foot and vehicle traffic through the area, thus, reducing potential impacts to cultural resources.

4.7 AIR QUALITY

4.7.1 Alternative 1: No Action Alternative

The impacts to air quality as a result of the implementation of the No Action Alternative were discussed in Section 4.7.1 of the December 2004 Final EA (CBP 2004) as the Proposed Action Alternative and are incorporated by reference. Implementation of the No Action Alternative would temporarily increase exhaust pollutants and dust emissions from the operation of heavy

equipment used for construction activities. Upon completion of the road construction, fugitive dust emissions would be lowered as a result of the all-weather road surface.

4.7.2 Alternative 2: Proposed Action Alternative

Under this alternative, increased exhaust pollutants and dust emissions would be temporarily created from the operation of heavy equipment used for construction activities. Measures outlined in Section 5.0 would reduce these temporary impacts. It is anticipated that most construction would be conducted as JTF-N or National Guard units become available. The total amount of time needed to complete the Proposed Action Alternative is not known at this time due to the uncertainty of which unit(s) would perform the work. However, it is estimated that a total of 8 to 10 weeks of work would be required to complete the construction process. Additionally, regardless of which unit is tasked to complete any portion of the project, the duration of construction activities by that particular military unit would not be expected to exceed one month. Any increases or impacts to ambient air quality during construction and maintenance activities are expected to be short-term, and can be reduced further through the use of standard dust control techniques, including roadway watering and chemical dust suppressants. This alternative is not expected to create significant temporary impacts to the area's air quality. Additionally, 199 acres would be re-cleared of non-native vegetation and maintained, which could potentially lead to increases in wind blown PM-10. However, the trees and brush mechanically removed would be mulched and left on the ground and naturally recruited native species would be retained, which would reduce this potential. Also, as mentioned in Section 2.2.5, the root systems of any vegetation removed would be left intact, which would help to stabilize the soils and further retard impacts to air quality. Therefore, long term impacts to air quality in the region are not expected.

Upon completion of the road construction, fugitive dust emissions would be lowered as a result of the all-weather surfacing of the levee roads. The Proposed Action Alternative would have an indirect beneficial effect on the area's air quality. Implementation of this alternative would reduce IA traffic in the project area, thus reducing the need for OBP off-road pursuit, which creates fugitive dust emissions.

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 the OBP to determine how much of the illegal

traffic currently entering the project area would shift either to the north or be eliminated completely.

4.8 WATER RESOURCES

4.8.1 Surface Water Resources

4.8.1.1 Alternative 1: No Action Alternative

The impacts to surface water resources as a result of the implementation of the No Action Alternative were discussed in Section 4.8.1.1 of the December 2004 Final EA (CBP 2004) as the Proposed Action Alternative and are incorporated by reference. The No Action Alternative would not significantly impact surface waters. During construction activities, water quality within irrigation ditches would be protected through the use of BMPs that would be developed in a Storm Water Pollution Prevention Plan (SWPPP) required for construction projects impacting more than 1 acre.

4.8.1.2 Alternative 2: Proposed Action Alternative

Direct impacts to surface water resources from Alternative 2 would be insignificant. BMPs would be used during construction to minimize adverse impacts to the water quality of the Colorado River, its riparian areas, and the irrigation canals within the project area. The machine used to clear the vegetation removes the trees and brush and mulches them, leaving the mulch on the ground to retard erosion. During construction activities, water quality within the Bypass Drain would be protected through the use of BMPs that would be developed in a SWPPP.

Indirect impacts associated with the construction process would be insignificant, and minimized through the use of environmental design measures discussed in Section 5.0. Additional indirect impacts could also occur as IAs attempt to circumvent the proposed infrastructure, causing impacts to water resources outside of the project area. However, is it unknown at this time where, when, or if IAs will try to circumvent the project area as this is completely out of the OBP control and totally at the IA's discretion.

4.8.2 Groundwater Resources

4.8.2.1 Alternative 1: No Action Alternative

The No Action Alternative would not result in long term impacts to groundwater resources. In the December 2004 Final EA it stated that no groundwater sources would be used; however, since

the completion of the original EA, it has been established that ground water would be needed to complete the construction activities. The amount of water needed is approximately 549,000 gallons (1.82 acre-feet) over the life of the project. The water would be obtained through the use of an existing public source or an existing private well. Due to the minimal amount of withdrawals, and because of the high recharge rate in the region, no significant impact to groundwater resources would occur.

4.8.2.2 Alternative 2: Proposed Action Alternative

Groundwater would be required for dust suppression while construction activities are ongoing. Approximately 150,000 gallons (0.46 acre-feet) of water would be required for dust suppression and construction techniques (Sikel 2005b). No new wells would be established. Water would be obtained from an existing public source in San Luis or an existing private well through a contract with the owner. Water withdrawals for this project would cause a temporary impact to groundwater supply. However, the recharge rates are currently in excess of withdrawal rates. The one time withdrawal of 0.46 acre-feet over a 1 to 2 month construction period would not cause a deficit to the aquifer, and thus, would be insignificant.

4.8.3 Waters of the U.S./Wetlands

4.8.3.1 Alternative 1: No Action Alternative

The Colorado River and its riparian area is the only WUS/wetlands site in the project area. The No Action Alternative would not directly impact the river and its riparian areas.

4.8.3.2 Alternative 2: Proposed Action Alternative

No direct impacts to the Colorado River or potential wetlands in the riparian corridor would occur upon the implementation of the Proposed Action Alternative, since these resources are not present within the project area. An indirect benefit of the Proposed Action Alternative would be decreased IA traffic through the Colorado River near the project area due to the permanent security lights and cleared security zone, which would increase the OBP agents' visibility and apprehension capabilities. Conversely, IAs could try to circumvent the proposed infrastructure by traveling to areas outside of the project area which could lead to the possible degradation of wetlands north of the project area. However, these impacts cannot be quantified at this time because IA patterns and migration routes are completely out of the OBP's control.

As mentioned in Section 3.8.3, the permanent security lights would be located within the 100 year floodplain. However, due to the negligible flow of the Colorado River near the project area, coupled with the location of the lights (immediately adjacent to the western toe of the Bypass Drain levee) the likelihood of the lights significantly adversely impacting the floodplain is minimal. The placement of the lights would not effect flood frequency, duration, or flood elevation within the 100 year floodplain. Therefore, the Proposed Action Alternative would comply with E.O. 11988 and would not have significant impacts.

4.9 SOCIOECONOMICS

4.9.1 Alternative 1: No Action Alternative

Impacts to socioeconomics as a result of the No Action Alternative were discussed in Section 4.9.1 of the December 2004 Final EA (CBP 2004) as the Proposed Action Alternative and are incorporated herein by reference. The purchase of construction materials and supplies (increase in local sales and income) would be the primary, direct economic effect in the project vicinity. These effects would be short-term, beneficial, and insignificant.

4.9.2 Alternative 2: Proposed Action Alternative

Impacts to socioeconomics from the implementation of the Proposed Action Alternative would be similar those described for Alternative 1. An existing farm road adjacent to the east Bypass Drain levee would be used for maintenance of the proposed infrastructure. Indirect impacts associated with illegal traffic and activities in agricultural areas would be reduced due to the ability of the OBP to apprehend IAs closer to the border.

Indirect beneficial impacts to socioeconomics would be expected from effective enforcement operations across the project area. Overall, implementation of this alternative would reduce currently existing adverse impacts on local law enforcement and the emergency response community. The Proposed Action Alternative would provide additional protection from illegal foot traffic, would lower crime rates, and could potentially improve the quality of life north of the international border.

4.10 NOISE

4.10.1 Alternative 1: No Action Alternative

Noise impacts as a result of the implementation of the No Action Alternative were discussed in Section 4.10.1 of the December 2004 Final EA (CBP 2004) as the Proposed Action Alternative and are incorporated herein by reference. Temporary construction noise impacts would occur as a result of the operation of heavy equipment. Noise levels created by construction equipment would vary greatly depending on factors such as the type and specific model of equipment, the operation being performed and the condition of the equipment. The equivalent sound level of the construction activity also depends on the amount of time that the equipment is operated over the length of the construction.

Only one sensitive receptor, Friendship Park near San Luis, currently exists in the project area. Increases in noise levels would be short-term and are not expected to contribute to the long-term degradation of the area's noise environment.

4.10.2 Alternative 2: Proposed Action Alternative

Impacts to noise would be similar to those identified for Alternative 1. The Proposed Action Alternative would produce temporary impacts due to spikes in noise levels during construction of the enforcement and security zones. Additionally, other temporary spikes in noise levels would occur with the mechanical application of herbicide within the security zone. These spike in noise levels are expected to be insignificant as the herbicide would be applied no more than twice per year.

4.11 AESTHETICS

4.11.1 Alternative 1: No Action Alternative

The impacts to aesthetics as a result of the implementation of the No Action Alternative were discussed in Section 4.11.1 of the December 2004 Final EA (CBP 2004) as the Proposed Action Alternative and are incorporated by reference. Under the No Action Alternative, construction activities would temporarily impact local aesthetics. New infrastructure constructed in the study area would also have the potential to adversely impact the aesthetic value of the area. This would be particularly true of infrastructure with a high visibility such as the permanent security lighting and, to a lesser extent, fencing. The lights would only have an adverse impact on aesthetics while in operation near the City of San Luis.

4.11.2 Alternative 2: Proposed Action Alternative

The Proposed Action Alternative's new construction activities would permanently impact the local aesthetics. This would be particularly true of infrastructure with a high visibility such as permanent security lighting and, to a lesser extent, fencing. The proposed location for this segment of lights is remote and the lights would be shielded. Road improvements and maintenance road construction would have a relatively low potential for impact on aesthetics given the low profile and location within previously disturbed areas. Design measures for permanent security lighting would be used to minimize impacts to aesthetic resources and are detailed in Section 5.0. Therefore, through the use of these design measures, and because the urban area located immediately south of the project corridor is illuminated nightly, no significant impacts to regional aesthetics are expected.

Indirect impacts, both beneficial and adverse, to aesthetics would be similar to those discussed for Alternative 1 (CBP 2004).

4.12 LIGHT POLLUTION

4.12.1 Alternative 1: No Action Alternative

Impacts to light pollution as a result of the No Action Alternative were discussed in Section 4.12.1 of the December 2004 Final EA (CBP 2004) as the Proposed Action Alternative and are incorporated herein by reference. The proposed lights could have an adverse impact to light pollution and could potentially degrade the tranquil, dark skies for which Arizona is known. However, design measures would be implemented to minimize any impacts to light pollution in the area.

4.12.2 Alternative 2: Proposed Action Alternative

The lighting of the security zone would create direct impacts to light pollution in the region. The security lights would incrementally add to the "red zone" as depicted previously in Figure 3-1. However, through the use of metal halide bulbs, backlighting and vertical shields, and because the angle of the light would be oriented in a manner to not shine above horizontal, these impacts are considered to be insignificant.

4.13 Hazardous and Solid Waste

4.13.1 Alternative 1: No Action Alternative

No significant impacts would occur if the No Action Alternative were implemented. The BMPs outlined in the original December 2004 Final EA (CBP 2004) and this EA would prevent and reduce any potential impact as a result of hazardous or solid waste to a level well below significant.

4.13.2 Alternative 2: Proposed Action Alternative

The potential exists for petroleum, oil and lubricant (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 the 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. All appropriate land management agencies 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 use only established roads to transport equipment and supplies; all waste would be disposed of in strict compliance with Federal, state, and local regulations, in accordance with the contractors' permits.

The proposed tactical 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.

4.14 CUMULATIVE IMPACTS

The CEQ defines a cumulative impact as an impact on the environment which results from the incremental impact of multiple past, present and future actions with individually minor but collectively significant effects (40 CFR §1508.7). A cumulative impact can be concisely defined as

the total effect of multiple land uses and developments, including their interrelationships, on the environment, including cultural and socioeconomic resources.

This section of the EA addresses the potential cumulative impacts associated with the implementation of the alternatives outlined in Section 2.0 and other projects/programs that are planned within or near the project area. Past NEPA documents were reviewed to evaluate cumulative effects of the OBP operations/activities and infrastructure construction projects for the southwest border region. These included, but were not limited to, EAs and Environmental Impact Statements (EISs) from previous and current CBP and JTF-N projects, the Programmatic Environmental Impact Statement for JTF-6 Activities Along the U.S.-Mexico Border (USACE 1994), the Environmental Assessment for Operation Skywatch for Tucson Sector, Arizona (INS 2002a), the Environmental Assessment for Operation Desert Grip within the Tucson and Yuma Sectors, Arizona (INS 2002b) and the Supplemental Programmatic Environmental Impact Statement for INS and JTF-6 Activities (USACE 2001a). Many positive cumulative impacts have been realized through OBP activities. For example, construction and maintenance activities have had cumulative positive impacts on socioeconomic resources within the border area through reductions in illegal drug smuggling activities. The legacy INS (now CBP) activities completed from 1994 to 1999 have provided information on over 100 new cultural resources potentially eligible for NRHP listing.

A summary of impacts related to current and future projects of the CBP, the OBP, and other agency projects in southern Arizona is provided in sections 4.14.1 and 4.14.2. Reasonably foreseeable projects are those likely to occur within the next five years. The anticipated cumulative effects to the environment are analyzed by each alternative and are discussed in sections 4.14.3 through 4.14.7.

4.14.1 Other CBP/OBP Operations

Recently completed or reasonably foreseeable OBP projects in southern Arizona are summarized in Table 4-2. The OBP 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 potential changes in the mode of operations of the IAs. For instance, during the summers of 2001 to 2004, the Tucson Sector temporarily had to detail aircraft and support personnel from other sectors to provide additional search and rescue missions. The sole purpose of these

missions (known as Operation Skywatch) was to save the lives of IAs. Operation Skywatch temporarily assigns 20 helicopters and two fixed-wing aircraft, two un-manned aerial vehicles, 24 pilots, up to 12 aircraft mechanics and other support personnel as needed to the Tucson Sector for a period of approximately 125 days, beginning around June 1 and ending in September each year. Search and rescue aerial reconnaissance also indirectly benefits the natural environment by reducing the amount of off-road traffic required to rescue IAs. The OBP has prepared an EA documenting the potential impacts from Operation Skywatch (INS 2002a). The Yuma Sector, on an as-needed basis, provides additional support. Furthermore, aircraft used in Operation Skywatch often fly over the project area while on routine patrols. In addition, the TIWAZ project has been proposed to establish additional tactical infrastructure to assist OBP agents in the detection and deterrence of illegal traffic. The need for the proposed TIWAZ project is to control illegal traffic, save lives, protect natural and cultural resources, reduce impacts to military training, and improve National security. The TIWAZ project includes several types of tactical infrastructure such as the improvement of roads to all-weather roads, drag roads, additional camp details, and PVBs.

The CBP is currently planning new infrastructure at the San Luis crossing with a total of 13,286 square feet of office space, 24,834 square feet of light industrial space, 356 square feet of health unit space and 769 square feet of warehouse/storage space (CBP 2004b).

Table 4-2. Recently Completed or Reasonably Foreseeable OBP projects in Southern Arizona

Project	Approximate Distance from Project Area (miles)	Approximate Area Permanently Impacted (acres)
Installation of 26 emergency beacons within the Cabeza Prieta National Wildlife Refuge (CPNWR) and Barry M. Goldwater Range (BMGR)	70	0
Implementation of Operation Skywatch (a seasonal search and rescue mission using helicopters and fixed-wing aircraft) (INS 2002a)	0	0
Proposed construction of 40 Remote Video Surveillance along approximately 45 miles of the U.S.-Mexico border in the Yuma and Wellton stations	0	3
Proposed acquisition of 30 acres adjacent to the OBP Ajo Station for horse corral, station expansion, and parking.	75	30
Conversion of the existing Yuma Station complex into a training facility for BP personnel	17	0
Construction of a new OBP station in Yuma AO	15	5
The deployment of 14 additional rescue beacons in the Yuma Station's AO	24	0
Proposed installation of five camp details as part of the Tactical Infrastructure Western Arizona (TIWAZ) project	40	5
Proposed installation of eight temporary vehicle barriers as part of TIWAZ	15	1
Access and maintenance of approximately 300 miles of illegal and administrative trails on CPNWR and BMGR as part of TIWAZ	15	291
Proposed construction of a new OBP Wellton Station on a 50 acre project site	45	50
Potential addition of two camp details on the CPNWR within the Ajo Station's AO in support of ABC Initiative	75	6
Proposed installation of 12 RVS systems along the U.S.-Mexico border south of Ajo, Arizona	75	1
Proposed construction of 104 miles of all-weather road on CPNWR as part of TIWAZ	75	101
Proposed construction of 114 miles of drag road as part of TIWAZ	75	171
Planned construction of approximately 37 miles of access road and 35 miles of permanent vehicle barriers (PVB) on the CPNWR.	65	98
Proposed construction of 80 miles of all-weather patrol road within the existing footprint of the existing patrol road on the TON	100	0
Proposed construction of 50 miles of PVBs, along with a construction access road for the installation of maintenance of the PVBs	100	96
Planned construction of vehicle barriers, an all-weather road, and drag road along the 37 miles of U.S.-Mexico border in the BMGR (construction is ongoing)	6	198
Proposed installation of a water well at the existing Desert Grip Camp in the Wellton Station's AO	87	0.5
Upgrading the existing Desert Grip camp detail including road improvements	87	13
Proposed construction of a border infrastructure system, which includes the installation of permanent stadium style lights, a secondary fence, all-weather patrol road, maintenance road, security fence, and extension of the primary border fence near San Luis, Arizona (original EA, construction ongoing)	0	167
Total		**1,228 acres**

4.14.2 Other Agency Projects

Other Federal, state and private agencies have projects planned within the ROI that could affect the region's natural and human environment. The BMGR is an active 1.9 million acre military training installation used for tactical aviation training (USAF 2004). No specific USAF or USMC projects are listed here for the BMGR. Projects currently being planned by other agencies could affect areas of Yuma County utilized by the OBP. The CBP and OBP would maintain close coordination with these agencies to ensure that their activities do not conflict with other agency(s) policies or management plans. The OBP would consult with applicable state and Federal agencies prior to performing any construction activities, and would coordinate operations so that they do applicable agencies are conducting or planning within the ROI.

- A new commercial POE is being proposed by the Greater Yuma Port Authority (GYPA) approximately 6 miles east of the current San Luis POE and would be approximately 339 acres in size. This POE would be located on lands owned by the GYPA and would be used by the CBP and other agencies, but would be constructed by the Port Authority (Reclamation 2000);
- The Laguna Dam restoration project is in the early stages of planning. Over two million cubic yards of sediment would be removed from the reservoir behind Laguna Dam. Removal of the sediment is scheduled to begin in March 2006 (Reclamation 2005);
- The USAF and USMC have released a draft EIS for the implementation of an Integrated Natural Resources Management Plan (INRMP) for the BMGR. The INRMP would be produced following the completion of the environmental analysis. The INRMP, if implemented, could also change the areas available for certain OBP operations/activities;
- Yuma County, Arizona Department of Public Works (YCDPW) has planned County-wide general road maintenance (YCDPW 2004).
- Western Area Power Administration is currently proposing to interconnect from two existing power facilities to a new power plant being proposed in Sonora, Mexico. The interconnection would consist of approximately 20 miles of 500kV line from Sonora, Mexico to Western's Gila substation, then proceed another 5 miles to Arizona Public Services North Gila substation. The proposed power-line would be generally located adjacent to the western boundary of the BMGR (Wieringa 2006).
- Arizona Department of Transportation's (ADOT) planning improvements for Yuma County through 2009 are:
    - Route 8: Construction of a rest area and road rehabilitation using asphaltic rubber/cement,
    - Route 85: Chip Seal,
    - Route 95: Construction of a passing lane and road rehabilitation using asphaltic rubber/cement (ADOT 2004),
    - Area Surface Highway: Construct 23 miles of new roadway from the proposed commercial POE near San Luis to Interstate 8 east of Yuma (Yuma Metropolitan Planning Organization 2004),

- Route 195: Construct and widen into 4 lane divided highway, and
- I-8 to B-8, Ave 3E: Reconstruct roadway (ADOT 2004).

With the exception of the proposed new roadways, the remaining projects would be along existing corridors or within previously disturbed sites (*e.g.*, road reconstruction, military activities). Land use would change along the new roadways, and additional wildlife habitat would be lost. The magnitude of these effects would depend upon the length and width of the new roadway ROW and the extant conditions within and adjacent to the ROW.

The Cocopah Tribe has planned two separate land clearing projects. Non-native vegetation west of the Bypass Drain would be cleared in a similar process to the BLM clearing conducted in December 2004. In one 75-acre area along the Colorado River, the Tribe hopes to create an environmental and cultural education area (*Yuma Sun* 2005a). Over 1,000 native trees would be planted with the hopes of establishing suitable southwestern willow flycatcher habitat (*Yuma Sun* 2005a). A total of 253 acres would be restored upon completion of the projects (*Yuma Sun* 2005b).

Along with the Cocopah Tribe, a collaboration of local, state and Federal agencies have demonstrated a need for up to 500 acres of brush clearing to occur along the Colorado River. The BLM is currently planning, under a Catex for hazardous fuels removal, to clear 500 acres or less of non-native vegetation along the river. Three separate areas (totaling 500 acres) would be mechanically cleared or trimmed per specific prescriptions. The prescriptions range from removing all vegetation in areas of dense salt cedar and arrow weed to selectively trimming vegetation to allow for visibility. Core areas identified as southwestern willow flycatcher and Yuma clapper rail habitat would not be cleared. Additionally, the collaborating agencies intend to replant native vegetation where possible in an effort to create better suitable habitat for the southwestern willow flycatcher and other protected species in the area. Although these activities would remove potential habitat for protected species, the long-term beneficial impacts and quality habitat gained as a result of the clearing far outweigh any potential adverse cumulative impacts.

4.14.3 Cumulative Environmental Effects

4.14.3.1 Alternative 1: No Action Alternative

The greatest disturbance of soils, native vegetation, and wildlife habitat on a regional basis has been and will continue to be agricultural and urban development, particularly between Yuma and

San Luis. Agricultural areas in the region are typically located east and north of the project area, while development is located near Yuma and major routes of travel (*i.e.,* I-8). Other cumulative impacts would occur to resources, as a result of continued development. Such activities would permanently affect well over 100,000 acres of land use, soils, vegetation and wildlife habitat in the reasonably foreseeable future.

Ongoing CBP infrastructure and operations have required some form of disturbance to soil and vegetation. However, erosion control and habitat rehabilitation is an important planning element of CBP approved actions. Cumulative adverse impacts to wildlife resulting from the fragmentation of habitat, loss of habitat, and reduction of breeding and foraging opportunities for birds and other animals could potentially occur within the project area. Additionally, vegetation communities and wildlife species have been indirectly impacted by increased illumination associated with permanent and portable security lights. The proposed OBP infrastructure and operations are not expected to produce significant cumulative adverse impacts on soils, vegetation or wildlife habitat regionally because of the vast abundance of these resources. The implementation of appropriate environmental design and conservation measures would help to mitigate the cumulative impact of development related to the No Action Alternative and other CBP projects. Furthermore, degradation and erosion of the regional landscape has been alleviated by the CBP-implemented projects involving improvements to roads and associated drainage crossings. Additionally, fences have precluded illegal foot and vehicular traffic that, in turn, disturb soils, native plant and wildlife species (USACE 2001b). There are soil disturbance activities (*e.g.* drag-roads) that are inherent with ongoing and approved CBP actions that would yield minor adverse secondary effects, including an increase in fugitive dust affecting PM-10 levels. However, the vast majority of impacts associated with approved projects are from road maintenance and improvement projects planned to alleviate IA traffic and associated degradation.

A net reduction of indirect impacts to soils, vegetation, and wildlife species would occur through the elimination of off-road vehicle traffic from both IAs and subsequent OBP activities as a result of the No Action Alternative and upon completion of the infrastructure planned eastward along the U.S.-Mexico border. This reduction of impacts would provide benefits to soils, vegetation and wildlife in the region over the long-term (INS *et al.* 2002). Therefore, while the No Action Alternative would contribute to development related impacts within the project area, the installation of the border infrastructure, combined with other activities, would have a beneficial cumulative impact to these resources on a regional level.

The No Action Alternative, in combination with other actions by the CBP, would provide beneficial impacts to unique and sensitive areas through a reduction in illegal vehicle traffic (INS *et al.* 2002). Actions proposed or implemented by other entities are located primarily in and around Yuma and San Luis, and would not impact unique and sensitive areas. Therefore, the project would result in cumulative beneficial impacts to unique and sensitive areas.

Federally protected species, their habitats and critical habitat, as well as state protected species and their habitats, would benefit from this project and other infrastructure projects through a reduction of illegal traffic and subsequent OBP activities throughout the region. In combination with state, Federal and tribal management projects, such as the Yuma Desert Management Area and the Cocopah Tribe 75-acre habitat restoration project along the Colorado River, the reduction of disturbance and habitat degradation would result in cumulative beneficial effects to state and Federally protected species.

Air quality impacts in the project region are generally attributed to the arid conditions and the dusty nature of the soils. Agricultural practices often account for a majority of PM-10 emissions due to farming practices such as tilling, rowing and disking. Other sources of fugitive dust occur from off-road activities, both legal and illegal traffic. The reduction of off-road traffic from both IAs and subsequent OBP activities would be eliminated in the immediate area of the project area, creating a beneficial cumulative impact to air quality in the region. As other infrastructure projects are completed along the international border, a greater net reduction of fugitive dust is expected to occur. The No Action Alternative would improve air quality within the region due to the reduced amount of IA traffic and subsequent OBP off-road pursuits. Additionally, through the use of improved infrastructure such as all-weather roads, less fugitive dust will be generated which, in turn, would improve the net reduction of fugitive dust within the region.

Water withdrawals for the construction of the proposed infrastructure would be a 1-time event occurring over 1 to 3 years. This reduction would not cause a deficit to water resources in the region. Therefore, no adverse cumulative impacts to water resources are anticipated.

The No Action Alternative in combination with other ongoing or proposed CBP construction and maintenance activities would have positive cumulative impacts on socioeconomic resources within the border area and the nation through reductions in crime associated with human smuggling and illegal drug smuggling activities. Direct cumulative impacts of approved CBP actions on socioeconomics would be expected to be beneficial but insignificant. The magnitude

of the effects would depend upon the project costs (*i.e.*, local expenditures) and the economic multipliers in the region. At the same time, cumulative indirect effects on socioeconomic resources (*e.g.*, purchase of diesel fuel) would be beneficial but not quantifiable. OBP operations are valuable to our society, in ways both obvious and obscure. For example, the costs of a terrorist act caused by a single undetected, un-apprehended IA could be tremendous. The installation of the improved border infrastructure would allow OBP to more efficiently and effectively detect, deter and apprehend IAs, thereby reducing social costs associated with property damages, violent crimes, drug treatment and rehabilitation and entitlement programs, locally and nationally.

Due to the historical presence of Native Americans and early settlers, cultural resources are common and widely distributed throughout the region. However, no cultural resources are expected to occur within the project area. Furthermore, the reduction in IAs and apprehension activity would reduce ground disturbances in an area of the region where cultural resources are often found. Therefore, the No Action Alternative would not contribute to any potential impacts to cultural resources occurring within the region.

4.14.3.2 Alternative 2: Proposed Action Alternative

The direct impacts of the Proposed Action Alternative would contribute to the historical and ongoing degradation and loss of soils and wildlife habitat throughout the region. However, similar to the No Action Alternative, these impacts would be minimal in relation to the long-term beneficial impacts resulting from the reduction of illegal traffic under the Proposed Action Alternative. The clearing of vegetation within the security zone, in combination with historical loss of riparian habitat along the Colorado River, constitutes a cumulative impact to migratory pathways. However, the recruitment of the native species in the security zone would provide cumulative beneficial impacts to migratory pathways.

Light pollution is a growing concern in southwestern Arizona because areas that were once rural are now becoming urbanized. When combined with other projects in the region, a cumulative adverse impact would occur upon implementation of the Proposed Action Alternative. However, the OBP would attempt to reduce these impacts with the design measures described in Section 5.0.

A reduction in illegal activity would alleviate indirect impacts incurred by biological and human resources within the project area. However, as discussed previously, IAs could relocate their actions to other areas, including other states. This action could indirectly result in impacts to protected

species, cultural resources, WUS, vegetation and wildlife. These effects, or likelihood thereof, cannot be determined at the present time.

SECTION 5.0
ENVIRONMENTAL DESIGN MEASURES

5.0 ENVIRONMENTAL DESIGN MEASURES

This chapter describes those measures that will 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 the OBP on past projects. It is OBP policy to mitigate adverse impacts through the sequence of avoidance, minimization, and finally, compensation. Environmental design measures will be 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 measures will be employed:

5.1 GENERAL CONSTRUCTION ACTIVITIES

BMPs will 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 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 following accepted industry guidelines, and all vehicles will 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 will be contained immediately within an earthen dike, and the application of an absorbent (*e.g.*, granular, pillow, sock, *etc.*) will 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 (included as part of an SPCCP) 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 will be included as part of the SPCCP. A SPCCP will be in place prior to the start of construction and all personnel will be briefed on the implementation and responsibilities of this plan.

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 Federal, state, and local regulations, including proper waste manifesting procedures.

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

5.2 SOILS

Vehicular traffic associated with the construction activities and operational support activities will remain on established roads to the maximum extent practicable. Erosion control techniques, such as, straw bales, aggregate materials, wetting compounds and revegetation with native plant species, where possible, will be incorporated with the design of the Proposed Action Alternative. In addition, other erosion control measures, as required and promulgated through the SWPPP, will be implemented before and after construction activities. Furthermore, the vegetation that is removed within the security zone will be mulched on site in an effort to retard erosion upon completion of the clearing activities.

5.3 VEGETATION

Spot spraying will occur near existing native vegetation within the security zone in an effort to minimize potential impacts to native vegetation. The three camera lanes will have the salt cedar and arrow weed cut to a height of 1 foot and will be maintained at this height. No topping of willows will occur, only lateral branches will be trimmed, and no more than two-thirds of the trees' length will be trimmed from the ground upwards. Additionally, no cottonwoods will be trimmed within these lanes. The willows will be trimmed manually using saws and limb trimmers, while the salt cedar and arrow weed will be cut via Hydro-axe or similar machine.

5.4 WILDLIFE

The Migratory Bird Treaty Act requires that Federal agencies coordinate with the USFWS if a construction activity will result in the take of a migratory bird. Surveys of suitable habitat will be performed prior to construction to identify active nests. If construction activities will result in the take of a migratory bird, then consultation with the USFWS and AGFD will be conducted prior to construction or clearing activities. Another mitigation measure that will be considered is to schedule all construction activities outside nesting season (March 1 through September 1). Bird surveys will not be required if clearing activities occur outside of the nesting season.

5.5 PROTECTED SPECIES

No work will be done within the security zone during neotropical migratory bird migration (early May to early to mid September) in an effort to further minimize the potential impact to the southwestern willow flycatcher. Additionally, all naturally recruited native vegetation within the security zone will be retained in an effort to encourage the re-growth and re-establishment of these native species. On-site mitigation for the western burrowing owl will consist of passive relocation. This entails encouraging owls to move from occupied burrows within the project area to alternative locations in suitable habitat beyond 150 feet from the project disturbance. The use of one-way doors on burrows should keep owls from returning to the burrows within the project area. Relocation will only be attempted during the non-breeding season (September 1 through March 1) (California Burrowing Owl Consortium 1993).

5.6 CULTURAL RESOURCES

If any cultural material is discovered during the construction efforts, then all activities will halt until a qualified archeologist can be brought in to assess the cultural remains.

5.7 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. Effective March 10, 2003, in accordance with regulations of the EPA Phase II of the National Pollutant Discharge Elimination System stormwater program, a SWPPP will be required for stormwater runoff from construction activities greater than 1 acre and less than 5 acres. Therefore, a SWPPP will be prepared and implemented prior to the start of any construction.

5.8 AIR QUALITY

Mitigation measures will be incorporated to insure that PM-10 emission levels do not rise above the minimum threshold of 100 tons per year as required per 40 CFR 51.853(b)(1). Measures will include dust suppression methods to minimize airborne particulate matter that will be created during construction activities. Standard construction practices such as routine watering of the construction site and access routes will be used to control fugitive dust during the construction

phases of the proposed project. Additionally, all construction equipment and vehicles will be required to be kept in good operating condition to minimize exhaust emissions.

5.9 NOISE

During the construction phase, short-term noise impacts are anticipated. All Occupational Safety and Health Administration requirements will be followed. On-site activities will be restricted to daylight hours with the exception of concrete pours and emergency situations. Construction equipment will possess properly working mufflers and will be kept properly tuned to reduce backfires. Implementation of these measures will reduce the expected short-term noise impacts to an insignificant level in and around the construction site.

5.10 AESTHETICS

Security light poles will be painted to blend in with the surrounding environment. Shields will be installed on the lights to prevent backlighting or vertical lighting. The security lights' angle of elevation will be below the horizon to minimize potential light pollution.

SECTION 6.0
PUBLIC INVOLVEMENT

6.0 PUBLIC INVOLVEMENT

6.1 AGENCY COORDINATION

This chapter discusses consultation and coordination that will and has occurred during preparation of the draft versions of this document (see Appendix F). This includes contacts that are made during the development of the Proposed Action Alternative and writing of the EA. Agency correspondence/consultation letters are included in Appendix F. Formal and informal coordination has been conducted with the following agencies:

- U.S. Fish and Wildlife Service (USFWS)
- U.S. Environmental Protection Agency (USEPA)
- Natural Resource Conservation Service (NRCS)
- Arizona State Historic Preservation Office (SHPO)
- Arizona Department of Transportation (ADOT)
- Arizona Game and Fish Department (AGFD)
- Arizona Department of Environmental Quality (ADEQ)
- Arizona Department of Agriculture
- Arizona State Lands
- Bureau of Land Management (BLM)
- Bureau of Reclamation (Reclamation)
- Bureau of Indian Affairs (BIA)
- National Park Service (NPS)
- Federally Recognized Tribes

6.2 PUBLIC REVIEW

The draft SEA was made available for public review for a period of 30 days, beginning on May 8, 2006, which was the day the Notice of Availability (NOA) was published in *The Sun*. Proof of publication of the Draft NOA is included in Appendix F. A copy of the NOA to be published, announcing the availability of the Final SEA, is included as Exhibit 1.

During the public review period, two comment letters were submitted on the Draft EA. These letters were submitted by Arizona State Lands Department (ASLD) and Reclamation. The ASLD letter approved of the Proposed Action Alternative and supported the OBP in their mission. Reclamation's letter emphasized the need for coordination between Reclamation and OBP and asked that OBP provide SHPO concurrence on the project. The comments received

during the 30 day public review period and the OBP's responses to those comments are included in Appendix G.

Exhibit 1.

NOTICE OF AVAILABILITY

FINAL SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT AND

FINDING OF NO SIGNIFICANT IMPACT

FOR THE INSTALLATION OF PERMANENT

SECURITY LIGHTING AND BORDER INFRASTRUCTURE SYSTEM

OFFICE OF BORDER PATROL

YUMA SECTOR, ARIZONA

The public is hereby notified of the availability of the Final Supplemental Environmental Assessment (SEA) and Draft Finding of No Significant Impact (FONSI) for the Installation of Security Lighting and Border Infrastructure System in the Office of Border Patrol (OBP) Yuma Sector, Arizona. This SEA addresses the potential impacts from installing approximately 1.5 miles of permanent security lighting, three camera lanes, all-weather road, secondary fence and maintenance road near San Luis, Arizona. Additionally, an area approximately 900-foot wide by 1.5-miles long west of the western levee of the Bypass Drain and an area (approximately 35 acres) east of the Bypass Drain, which have been previously cleared of non-native vegetation, would be re-cleared and maintained. The objective of the proposed project is to provide deterrence to the continual influx of illegal entrants into the area through a certainty of detection and apprehension, and to increase the safety of OBP agents. The Final SEA will be available for review at the Yuma County Library in Yuma, Arizona; and the Yuma County Library (Wellton Library) in Wellton, Arizona. The Final SEA can also be viewed via the Internet at the following address: http://aerc.swf.usace.army.mil. For additional information contact Mr. Mark Doles, U.S. Army Corps of Engineers, Fort Worth District, P.O. Box 17300, Fort Worth, Texas 76102 or facsimile (817) 886-6499.

SECTION 7.0
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7.0 REFERENCES

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SECTION 8.0
LIST OF PREPARERS

8.0 LIST OF PREPARERS

The following people were primarily responsible for preparing this Environmental Assessment.

NAME	AGENCY/ORGANIZATION	DISCIPLINE/EXPERTISE	EXPERIENCE	ROLE IN PREPARING EA
Kevin Feeney	Customs and Border Protection	Environmental Planning	20 years, NEPA studies for Federal Projects	EA Review
Joseph Lamphear	Customs and Border Protection	NEPA	13 years Environmental Management and Review	Program Manager, EA review and project coordination
Patience Patterson, RPA	Architect-Engineer Resource Center	Archaeology	29 years, Professional Archeologist/Cultural Resource Manager	Project Manager, cultural resources review, and EA coordination
Mark Doles	USACE, Ft. Worth District	Biology	5 years, technical review of NEPA documents	Technical manager, EA review
Suna Adam Knaus	Gulf South Research Corporation	Forestry/Wildlife	17 years, natural resources	EA review
Chris Ingram	Gulf South Research Corporation	Biology/Ecology	29 years, NEPA studies	EA Technical review
Eric Webb, Ph.D.	Gulf South Research Corporation	Ecology/Wetlands	15 years, natural resources and NEPA studies	EA Technical review
Josh McEnany	Gulf South Research Corporation	Forestry/Wildlife	5 years, natural resources and NEPA studies	Project Manager
John Lindemuth	Gulf South Research Corporation	Archaeology	12 years, Professional Archeologist/Cultural Resources	Cultural Resources
Maria Bernard Reid	Gulf South Research Corporation	Environmental Studies	3 years, NEPA and natural resources	EA preparation
Joanna Cezniak	Gulf South Research Corporation	Wildlife/Ecology	7 years, natural resources	EA preparation
David Alford	Gulf South Research Corporation	GIS/graphics	3 years, GIS/graphics experience	GIS/graphics

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SECTION 9.0
ACRONYMS

9.0 ACRONYMS

ADEQ	Arizona Department of Environmental Quality
ADOT	Arizona Department of Transportation
ADWR	Arizona Department of Water Resources
AO	Area of operation
APS	Arizona Public Service
ASLD	Arizona State Land Department
BLM	Bureau of Land Management
BMGR	Barry M. Goldwater Range
BMP	Best Management Practice
CATEX	Categorical Exclusion
CBP	U.S. Customs and Border Protection
CDC	California Department of Conservation
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CPNWR	Cabeza Prieta National Wildlife Refuge
CRCDR	Cultural Resource Compliance Documentation Record
DHS	Department of Homeland Security
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
E.O.	Executive Order
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
FY	Fiscal Year
GYPA	Greater Yuma Port Authority
IA	Illegal Alien
IIRIRA	Illegal Immigration Reform and Immigrant Responsibility Act
INRMP	Integrated Natural Resources Management Plan
INS	Immigration and Naturalization Service
JTF-6	Joint Task Force Six
JTF-N	Joint Task Force North
LP	Light Pollution
MSDS	Material Safety Data Sheet
NEPA	National Environmental Policy Act of 1969
NRCS	Natural Resource Conservation Service
NOA	Notice of Availability
OBP	Office of Border Patrol
POE	Port of Entry
REC	Record of Environmental Consideration
Reclamation	Bureau of Reclamation
ROI	Region of Influence
ROW	Rights-of-way
SEA	Supplemental Environmental Assessment
SWPPP	Storm Water Pollution Prevention Plan
U.S.	United States
USACE	U.S. Army Corps of Engineers
USAF	U.S. Air Force
USDA	U.S. Department of Agriculture

USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WUS	Waters of the U.S.
YCDPW	Yuma County Department of Public Works

APPENDIX A
Joint Task Force-North Record of Environmental Consideration

DEPARTMENT OF DEFENSE
JOINT TASK FORCE North
FORT BLISS, TEXAS 79918-0058

REPLY TO
ATTENTION OF

CJTFN-J35/EN 9 Jan 2006
MEMORANDUM FOR RECORD

SUBJECT: Record of Environmental Consideration, Joint Task Force North (JTF-N) Support to the Office of Border Patrol (OBP) Yuma Sector in the Vicinity of San Luis, Arizona

1. **Project Title.** Border Infrastructure System OBP, Yuma Sector, Arizona, JTF-N.

2. **Project Description.** In December of 2004 the Final Environmental Assessment (EA) for the Installation of Permanent Lighting and a Border Infrastructure System was completed for the OBP, Yuma Sector. The Finding of No Significant Impact (FONSI) was signed and submitted with the Final EA on December 17, 2004. This project consisted of construction of 13 miles of infrastructure system, which included permanent security lights, a secondary fence, all-weather patrol road, maintenance road, and security fence. This infrastructure would create a 150-foot enforcement zone adjacent to and paralleling the U.S. - Mexico border near San Luis, Arizona (Figure 1). After reviewing engineering plans submitted to JTF-N it was determined that two minor deviations in the original alignment would make for a more efficient and effective infrastructure system. Therefore, as the proposed action of this Record of Environmental Consideration (REC), the JTF-N proposes to construct 2,150 feet (ft) of border infrastructure system as a deviation to the original alignment along the U.S. - Mexico border road near San Luis, Arizona in support of the Yuma Sector, OBP (Figure 2). The deviations can be broken down into two areas, the west and east deviations. The deviations are approximately 1,700 ft and 450 ft in length, respectively. The west deviation would realign the original infrastructure system by bringing the alignment south 446 ft near Bureau of Land Management Lot 14 and maintain the enforcement zone within 150 ft of the U.S. - Mexico border. The east deviation would realign the corridor by moving it north approximately 50 ft near a power supply station located near Avenue F. The power supply station is located within the previously mentioned 150-ft enforcement zone. The primary purpose

of this action is to facilitate the OBP's mission to prevent the entry of illegal traffic, drug traffic, terrorists and their weapons along the southwestern border, establish a level of deterrence through the certainty of detection and apprehension, and enhance the safety, effectiveness, and efficient environment in which to accomplish the OBP's mission. A secondary purpose of the realignment of the originally proposed infrastructure system is to provide training for JTF-N personnel.

As part of this action the military will require three approximately 200 x 200 equipment staging areas (equipment parks). Equipment Park 1 is located north of the 150-ft enforcement zone near Avenue E. Equipment Park 2 is located at the southern terminus of Seventh Street near San Luis, Arizona. Both of these equipment parks are located east of the Port of Entry at San Luis. Equipment Park 3 is located west of the Port of Entry, south of the levee within the original project footprint.

3. **Summary of Request**. This proposed action was initiated via a written support request from the OBP and approved by Border Patrol Special Coordination Center (BPSCC). As originally envisioned, the proposed action was to be constructed in three phases. Phases I and II contemplated 10 miles of border infrastructure system in the vicinity of San Luis, Arizona. JTF-N and National Guard cleared and grubbed most of the original project corridor along the U.S. - Mexico border from June through August of 2005. As mentioned previously, after reviewing engineering designs JTF-N and OBP decided that by making the aforementioned deviations a more effective and efficient infrastructure system would be achieved.

4. **Prior Environmental Consideration.** The environmental impacts, both beneficial and adverse, associated with constructing the border infrastructure system were analyzed in the EA titled Installation of Permanent Lighting and a Border Infrastructure System OBP, Yuma Sector, Arizona, published in December 2004. The Draft EA was submitted to Federal and state agencies for review; all concerns were addressed prior to preparation of the Final EA. Included in that document is an executed Finding of No Significant Impact (FONSI, 17 December 2004), which states that this proposed action has no significant adverse impact on the human or natural environment. The Final EA is tiered off of three documents:

- 1998 Final Environmental Assessment JTF-6 Fence Construction Project Yuma County, Arizona.

- 1999 Final Environmental Assessment JTF-6 Proposed Lighting Project Yuma County, Arizona and Imperial County, California.

- 2001 Supplemental Programmatic Environmental Impact Statement for Immigration Naturalization Service (INS) and Joint Task Force Six (JTF-6) Activities along the United States (U.S.)-Mexico Border.

Field surveys for cultural resources, wetlands, and protected species were performed for the entire project corridor during the preparation of the original EA.

Cultural and biological surveys were performed for the deviations to the original proposed action on November 17, 2005. These surveys resulted in a negative finding for any cultural properties or biologically sensitive species.

Biological and cultural surveys were performed for equipment parks 1 and 2 on December 16, 2005. These surveys resulted in a negative finding for any cultural properties or biologically sensitive species. Field surveys for cultural resources and protected species conducted as part of the original EA covered the area encompassed by Equipment Park 3.

In June 2005 military units were deployed to construct a portion of the original 150 ft enforcement zone (Avenue E west for approximately 3 miles). Burrowing owl surveys were completed prior to this deployment and resulted in a positive finding for the owls. Therefore, the areas where the owls were located was avoided during this deployment. Additionally, in August 2005 military units cleared and grubbed another portion of the infrastructure system previously analyzed in the December 2004 EA. Immediately prior to this deployment, burrowing owl surveys were conducted by professional biologists within the construction area that resulted in a negative finding. During this same deployment, biological monitoring for the flat-tailed horned lizard was conducted within the portion of the project area that was located within the Yuma Desert Management Area. Six flat-tailed horned lizards were observed and moved from the project area. No lizards were harmed during this deployment.

Additionally, JTF-N adheres to the requirements of Army Regulation (AR) 200-2, *Environmental Effects of Army Actions*, to guide our compliance with the National Environmental Policy Act (NEPA).

4. **Anticipated Date of Proposed Action**. The west deviation (approximately 1,700 ft) of the border infrastructure system is planned for construction west of San Luis, Arizona during the period 06 February to 30 March 2006. The east deviation (approximately 450 ft) will be constructed during the period 06 February to 30 March 2006. JTF-N envisions that the total scope of this project will be a one time effort. If for some reason this effort is not accomplished within this deployment schedule another follow up unit(s) will be required.

5. **Conclusion**. This proposed action satisfies the criteria specified in paragraphs 4-1b and 4-2a of Chapter 4 of AR 200-2. The proposed action is also covered by Categorical Exclusion A-7 of Appendix A of AR 200-2, which excludes "Construction that does not significantly alter land use, provided the operation of the project when completed would not of itself have a significant environmental impact;...". Furthermore, AR 200-2, paragraph 2-3d(1) stipulates that a Record of Environmental Consideration should be prepared if the proposed action is adequately addressed in an existing EA or EIS, or is covered by an approved categorical exclusion. Construction of these deviations will not change the conclusions reached in the FONSI that was signed on 17 December 2004.

5. **Finding**. There are no adverse impacts to the natural and human environment; specifically, there are no adverse impacts to Federally threatened or endangered species or habitat, or to cultural resources covered by Section 106 of the National Historic Preservation Act. No archeological sites were identified during field surveys conducted in 2004 or 2005. The project corridor to be constructed is in a previously disturbed area. The east deviation is located in sparsely vegetated creosote vegetation community, which is locally and regionally common for southwestern Arizona. The west deviation is located in an area that is currently used for OBP enforcement activities and is denuded of vegetation. The border infrastructure contemplated would be constructed near the U.S. - Mexico border, causing change to the existing land use. Although a land use change would occur the deviations would result in minimal and insignificant changes. No change to the cumulative effects of this action articulated in previous environmental documents is anticipated. The reduction in illegal traffic is expected to have a beneficial effect in the long term. Based on the findings in the 2004 EA for the Installation of Permanent Lights and Border Infrastructure Project and FONSI, the 1998 EA for JTF-6

Fence Construction Project and FONSI, 1999 EA for JTF-6 Proposed Lighting Project and FONSI, and the 2001 Supplemental Programmatic Environmental Impact Statement for INS and JTF-6 Activities along the U.S.-Mexico Border and Record of Decision, and the provisions of AR 200-2, I find that the provisions of AR 200-2 have been met, and no further NEPA documentation is required. A copy of this Record of Environmental Consideration with enclosures will be provided to all agencies that participated in the preparation of the December 2004 EA.

MILTON C. BLANKENSHIP, JR
Environmental Specialist
JTF North, J35/EN

DEPARTMENT OF DEFENSE
JOINT TASK FORCE North
FORT BLISS, TEXAS 79918-0058

REPLY TO
ATTENTION OF

JTFN-J35/EN 27 Jan 2006
MEMORANDUM FOR RECORD:

SUBJECT: Record of Environmental Consideration, Joint Task Force North (JTF-N) Support to the Office of Border Patrol (OBP) Yuma Sector in the Vicinity of San Luis, Arizona

1. **Project Title**. Border Infrastructure System OBP, Yuma Sector, Arizona, JTF-N.

2. **Project Description**. On 9 January 2006, a Record of Environmental Consideration (REC) was approved for the construction of 2,150 feet (ft) of border infrastructure system as a deviation to the original alignment along the U.S. - Mexico border road near San Luis, Arizona in support of the Yuma Sector, OBP (Final Environmental Assessment (EA) for the Installation of Permanent Lighting and a Border Infrastructure System was completed for the OBP, Yuma Sector, December 2004) (Figure 1).

As part of this action it was originally determined the military required three approximately 200 x 200 equipment staging areas (equipment parks). Equipment Park 1 is located north of the 150-ft enforcement zone near Avenue E. Equipment Park 2 is located at the southern terminus of Seventh Street near San Luis, Arizona. Both of these equipment parks are located east of the Port of Entry at San Luis. Equipment Park 3 is located west of the Port of Entry, south of the levee within the original project footprint. These three equipment parks, received environmental clearance in a 9 January 2006 REC. However, since the approval of the 9 January 2006 REC, it has been determined a fourth Equipment Park (Equipment Park 4) would be required to replace Equipment Park 2. Currently, land rights issues make the use of Equipment Park 2 infeasible. Therefore, as the proposed action of this Record of Environmental Consideration (REC),JTF-N proposes the temporary us of Equipment Park 4 which located immediately east and adjacent to Avenue G approximately 200 feet south of the 242 Canal (Figure 2). The equipment park will be used to stage equipment during military deployments associated with the construction OBP border infrastructure system.

3. **Summary of Request**. This proposed action was initiated via a written support request from the OBP and approved by Border

Patrol Special Coordination Center (BPSCC). As originally envisioned, only three equipment parks would be needed to complete construction of the OBP border infrastructure system. However, during the process of requesting Rights-of-Entry and land use permits it became apparent land rights for Equipment Park 2 would not be granted in time for the February through April military deployments. Equipment Park is proposed as an alternative to Equipment Park 2.

4. **Prior Environmental Consideration.** Biological and cultural surveys were performed for equipment parks 1 and 2 on 16 December 2005. These surveys resulted in a negative finding for any cultural properties or biologically sensitive species. Field surveys for cultural resources and protected species conducted as part of the original EA that covered the area encompassed by Equipment Park 3 (Final Environmental Assessment (EA) for the Installation of Permanent Lighting and a Border Infrastructure System was completed for the OBP, Yuma Sector, December 2004). A biological and cultural survey was performed on Equipment Park 4 on 19 January 2006. The survey resulted in a negative finding for any cultural properties or biologically sensitive species.

Additionally, JTF-N adheres to the requirements of Army Regulation (AR) 200-2, *Environmental Effects of Army Actions*, to guide our compliance with the National Environmental Policy Act (NEPA).

4. **Anticipated Date of Proposed Action.** Equipment Park 4 is required during the period of 27 January to 30 March 2006. JTF-N envisions that the total scope of this project will be a one time effort. If for some reason this effort is not accomplished within this deployment schedule another follow up unit(s) will be required and the use of Equipment Park 4 may be required.

5. **Conclusion.** This proposed action satisfies the criteria specified in paragraphs 4-1b and 4-2a of Chapter 4 of AR 200-2. The proposed action is also covered by Categorical Exclusion A-7 of Appendix A of AR 200-2, which excludes "Construction that does not significantly alter land use, provided the operation of the project when completed would not of itself have a significant environmental impact;...". Furthermore, AR 200-2, paragraph 2-3d(1) stipulates that a Record of Environmental Consideration should be prepared if the proposed action is adequately addressed in an existing EA or EIS, or is covered by an approved categorical exclusion. Use of Equipment Park 4 will not change the conclusions reached in the FONSI that was signed on 17 December 2004 and the REC signed on 9 January 2009.

5. **Finding.** There are no adverse impacts to the natural and human environment; specifically, there are no adverse impacts to

Federally threatened or endangered species or habitat, or to cultural resources covered by Section 106 of the National Historic Preservation Act. No archeological sites were identified during field surveys conducted in 2006. Equipment Park 4 is located in a previously disturbed area consisting of a sparsely vegetated creosote vegetation community, which is locally and regionally common for southwestern Arizona. Although a land use change would occur Equipment Park 4 would result in minimal and insignificant changes. No change to the cumulative effects of this action articulated in previous environmental documents is anticipated. The reduction in illegal traffic is expected to have a beneficial effect in the long term. Based on the findings in the 2004 EA for the Installation of Permanent Lights and Border Infrastructure Project and FONSI, the 1998 EA for JTF-6 Fence Construction Project and FONSI, 1999 EA for JTF-6 Proposed Lighting Project and FONSI, and the 2001 Supplemental Programmatic Environmental Impact Statement for INS and JTF-6 Activities along the U.S.-Mexico Border, the 9 January 2006 REC, this REC, and the provisions of AR 200-2, I find that the provisions of AR 200-2 have been met, and no further NEPA documentation is required. A copy of this REC with enclosures will be provided to all agencies that participated in the preparation of the December 2004 EA.

Milton C Blankenship JR

MILTON C. BLANKENSHIP, JR
Environmental Specialist
JTF North, J35/EN

APPENDIX B

Bureau of Land Management Categorical Exclusion

CX-AZ-320-2005-12

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Yuma Field Office
2555 East Gila Ridge Road
Yuma, AZ 85365
www.az.blm.gov

CATEGORICAL EXCLUSION (CX) FORM

CX-AZ-320-2005-012 **Case/Project No.: N/A**
PROJECT NAME: Hazardous Fuels Reduction and Emergency Safety Hazard Removal
TECHNICAL REVIEW: X= Critical Elements

(X)	Program	Reviewer	Signature	Date
	Air Quality			
	Areas of Critical Environmental Concern			
	Botanical, including T & E Species			
	Communications (Dispatch)			
X	Cultural Resources	Sandra Arnold	Karen Reichhardt for SA	
	Energy Policy			
	Environmental Justice			
	Farm Lands (Prime or Unique)			
X	Fire Management	Repass/Behrens	[illegible]	12/17/04
X	Floodplain	Karen Riechhardt	Karen Reichhardt	12/17/04
X	Hazardous Material	Stephen Fusilier	[illegible]	12/17/04
X	Lands/Realty	Stephen Fusilier	[illegible]	12/17/04
X	Land Law Examiner	Candy Holzer	Candy Holzer	12/17/04
X	Law Enforcement	Keith Dorsey	[illegible]	12/17/04
	Minerals			
X	Native American Religious Concerns	Sandra Arnold	Karen Reichhardt for SA	
X	Non-Native Invasive Species	Karen Reichhardt	Karen Reichhardt	12/17/04
	Operations			
	Recreation	Aaron Curtis	A. Curtis	12/17/04
	Soils			
	Socioeconomic			
	Standards for Rangeland Health	Roger Oyler	Roger A. Oyler	12/17/04
	Surface Protection			
	Visual Resources			
	Wastes, Hazardous or Solid			
	Water Rights			
	Water Quality, Drinking or Ground			
X	Wetlands/Riparian Zones	Jennifer Green	Jen Green	12/17/04
	Wild & Scenic Rivers			
	Wilderness			
	Wild Horses and Burros			
X	Wildlife including T & E Species	Winfred Wong	Karen Reichhardt	12/17/04

Prepared by: Karen Reichhardt Date: 12/17/04
Karen Reichhardt
Team Leader, Resources

Reviewed by: Karen Reichhardt Date: 12/17/04
Karen Reichhardt
Planning & Environmental Coordinator

Reviewed by: Karen Reichhardt Date: 12/17/04
Stephen Fusilier
Acting Assistant Field Manager, Resources, Lands and Minerals

Name of Project: Hazardous Fuels Reduction and Emergency Safety

Number: CX-AZ-320-2005-012

Case File No.: NA

Location (legal description): T. 11 S., R. 25 W., Sec. 3, Gila and Salt River Meridian, Yuma County, Arizona, Gadsden, AZ. USGS 7.5-minute topographic quadrangle, in an area approximately 1 ½ miles long and up to 300 yards wide on the southern International Boundary and the Colorado River.

Applicant: BLM Yuma Field Office

Description of Proposed Action:

An area of dense salt cedar along the International Border at the Colorado River is a fire hazard, having burned several times in the last few years. It has also become a health and public safety hazard because it is a hiding place for criminal activity which is increasing rapidly in this vicinity. As an emergency action, Bureau of Land Management Yuma Field Office is requesting Border Patrol to assist in removing the hazard. Salt cedar would be cleared from the area indicated on map 1. Existing roads and parking areas would provide access to the work sites and space for staging areas. Heavy equipment would be used to clear vegetation, which would be either mulched into the ground or placed directly into a dump truck and taken off site for disposal.

Categorical Exclusion Reference: 516 DM 2, Appendix 1, 1.12.

Required Stipulations:

1. Should cultural and/or paleontological resources be encountered during project ground-disturbing activities, work will cease in the area of the discovery and the BLM YFO authorized officer will be notified immediately. Work may resume only after continuance is authorized.

2. Wetland areas and cottonwood or willow trees will be avoided to protect higher value wildlife habitat which is not as fire-prone.

3. Saltcedar will be mulched onsite (left on the ground) or removed to an off-site location. Upon completion the area would be relatively level - free of CAT or debris piles which could cause a greater fuel hazard or criminal hiding place. The Fire Program staff at BLM is available to inspect the site and give recommendations on whether the fuel hazard is effectively completed.

4. To the extent possible the activity would minimize dust.

Compliance and Monitoring Responsibility:

1. The activity would comply with requests by U. S. Fish and Wildlife Services Ecological Services under the Endangered Species Act to avoid cottonwood,

willow, wetlands, and perform the work in the winter to avoid neotropical migratory bird migration.

2. The activity will comply with the Cultural Resource Compliance Documentation Record BLM-AZ-320-010.

Decision:

BLM has determined that the proposal conforms to the land use plan, is in accordance with the categorical exclusion criteria, and that it will not involve any significant adverse environmental effects. Therefore, it is categorically excluded from further environmental review. The Proposed Action will have no effect on the President's Energy Policy and a Statement of Adverse Energy Impact is not required. The proposed action will be implemented subject to the stipulations within the authorizing document.

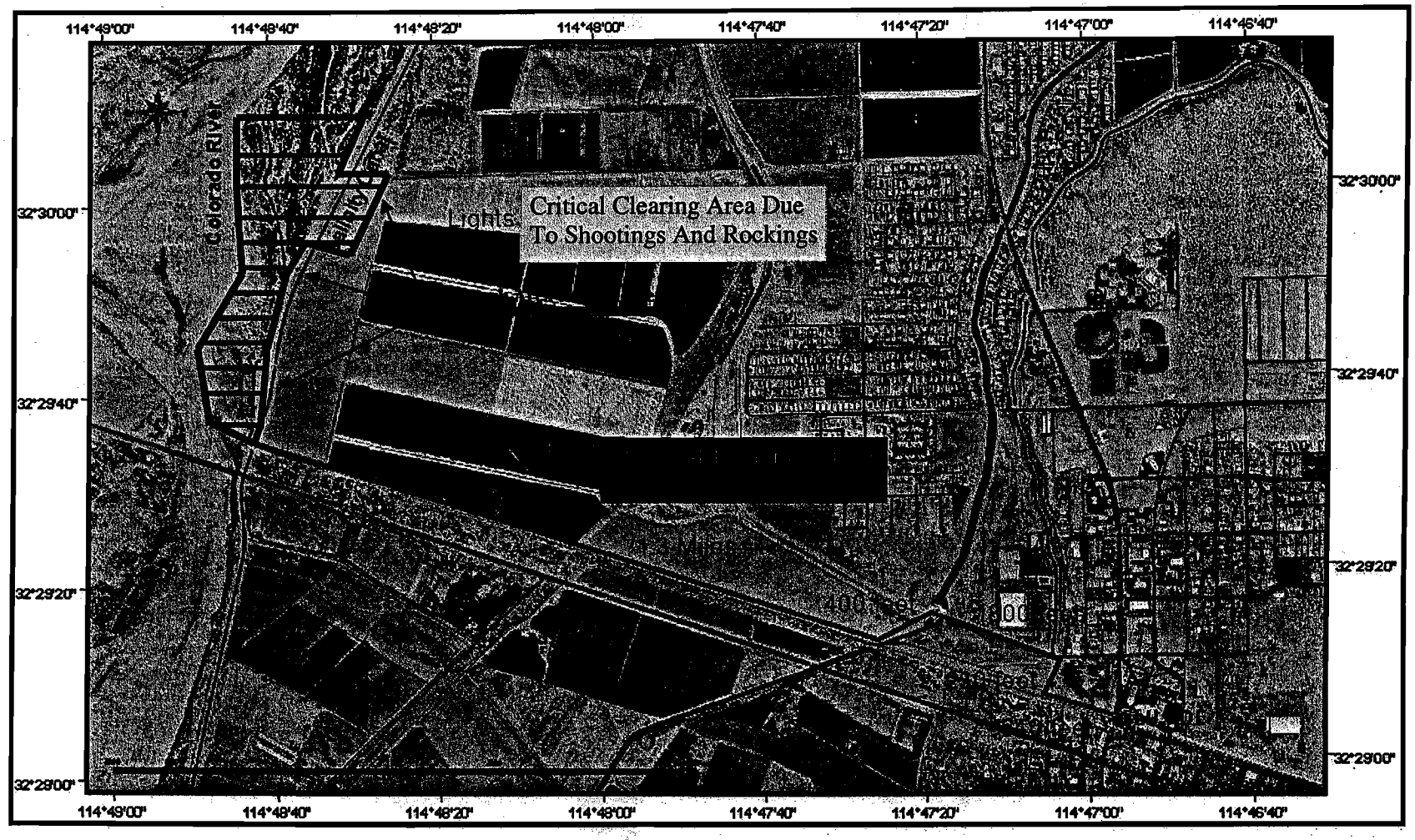
Approved by: for [signature] Date: 12/17/04

Thomas Zale
Acting Yuma Field Manager

Categorical Exclusion Review

Department of the Interior Departmental Manual 516 2.3.A(3) provides for a review of the following categorical exclusion criteria to determine if exceptions apply to this project. The following exceptions apply to individual actions within categorical exclusions (CX). Environmental documents must be prepared for actions which may:

	YES	NO
1 Have adverse effects on public health or safety.		
2 Have adverse effects on such unique geographic characteristics as historic or cultural resources, parks, recreation or refuge lands, wilderness areas, wild or scenic rivers, sole or main drinking water aquifers, prime farmlands, wetlands, floodplains, or ecologically significant or critical areas, including those listed on the Department's National Register of Natural Landmarks.	____	X
	____	X
3 Have highly controversial environmental impacts.		
4 Have highly uncertain and potentially significant environmental effects, or involve unique or unknown environmental risks.	____	X
	____	X
5 Establish a precedent for future actions or represent a decision in principle about future actions with potentially significant environmental effects.	____	X
6 Be directly related to other actions with individually insignificant but cumulatively significant environmental effects.	____	X
7 Adversely affect properties listed, or eligible for listing, on the National Register of Historic Places.	____	X
8 Adversely affect species listed, or proposed for listing, on the List of Endangered or Threatened Species, or adversely affect designated critical habitat for these species.	____	X
9 Require compliance with Executive Order 11988 (Floodplain Management), Executive Order 11990 (Protection of Wetlands), or the Fish and Wildlife Coordination Act.	____	X
10 Threaten to violate federal, state, local, or tribal law, or requirements imposed for protecting the environment.	____	X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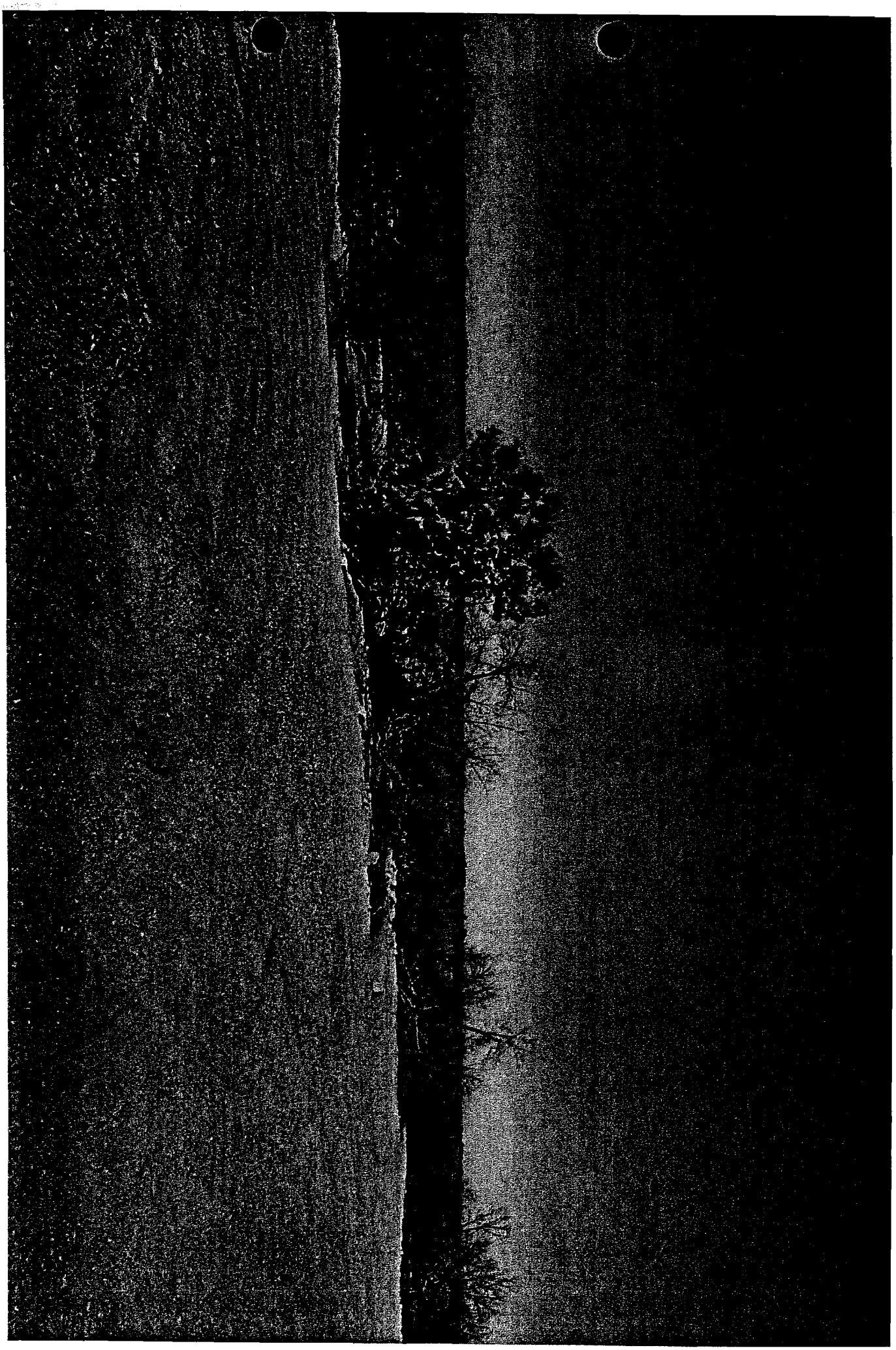
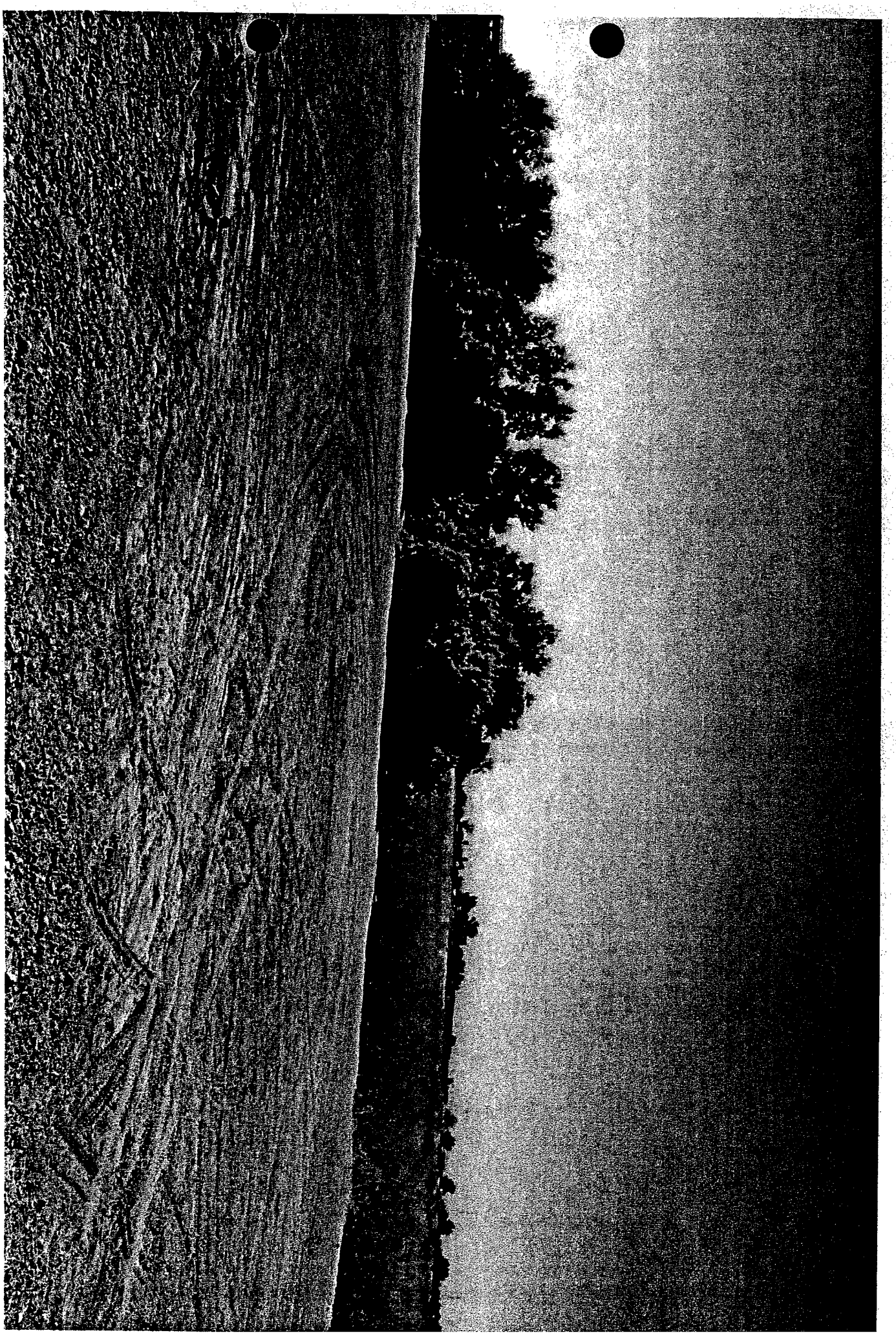
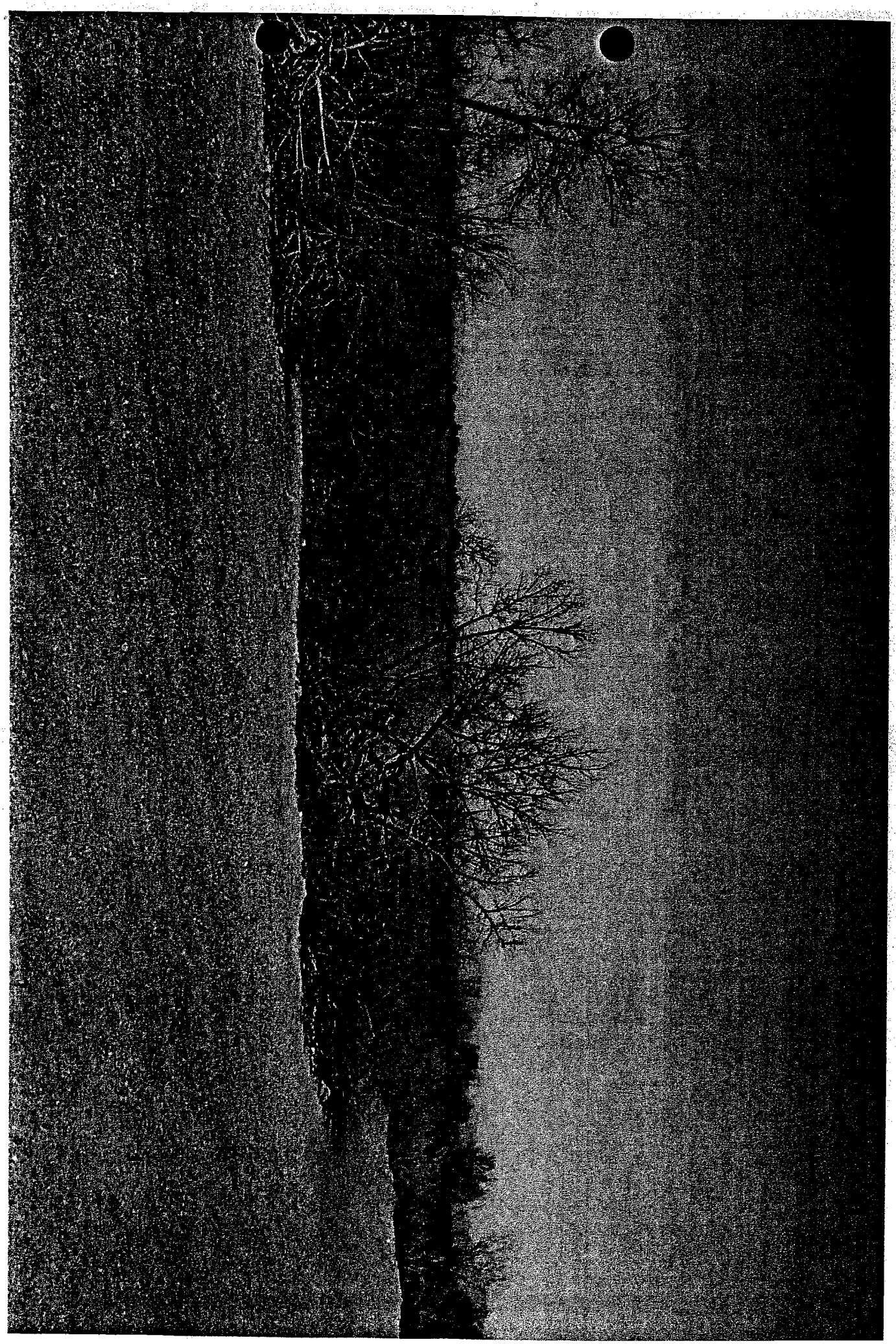
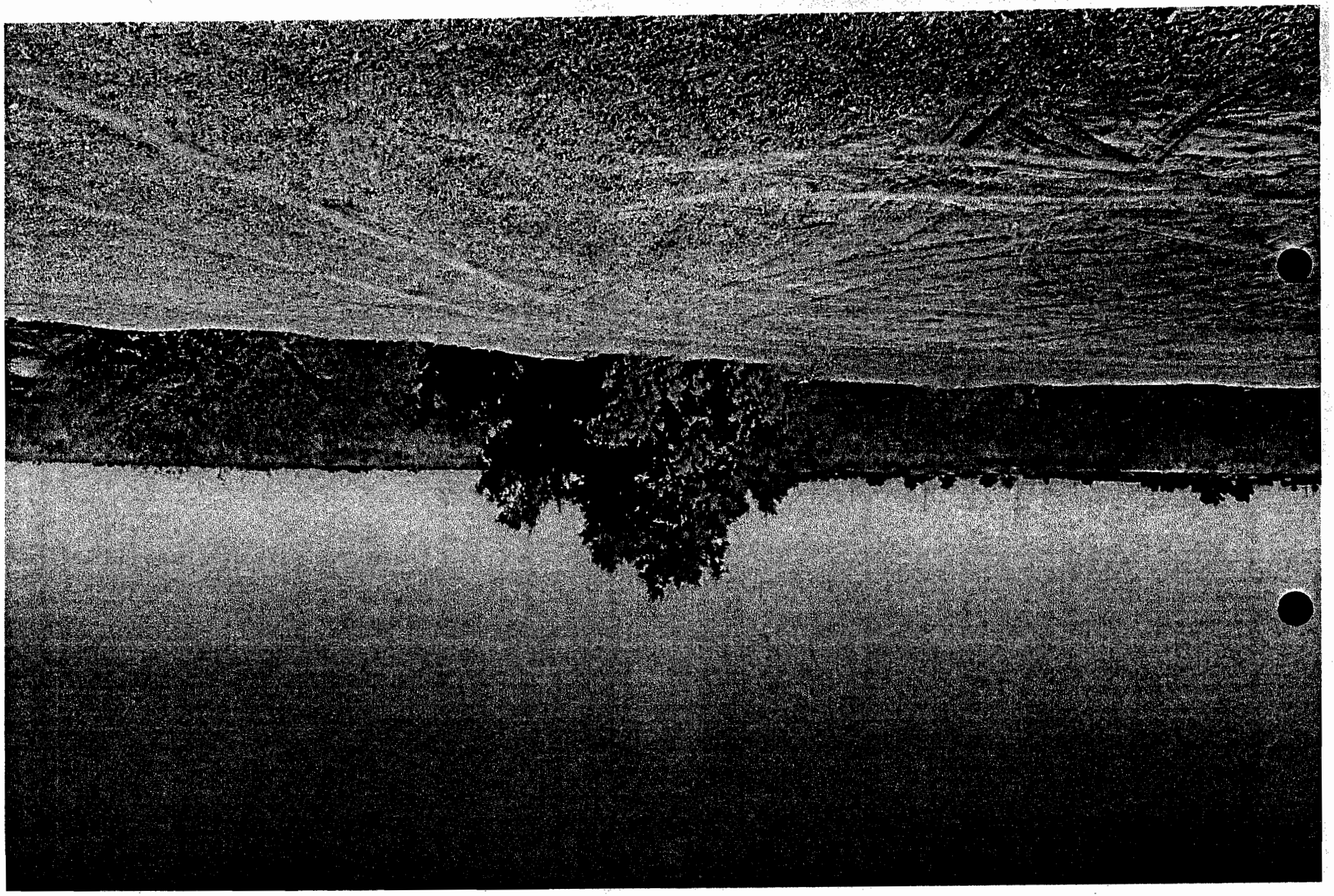
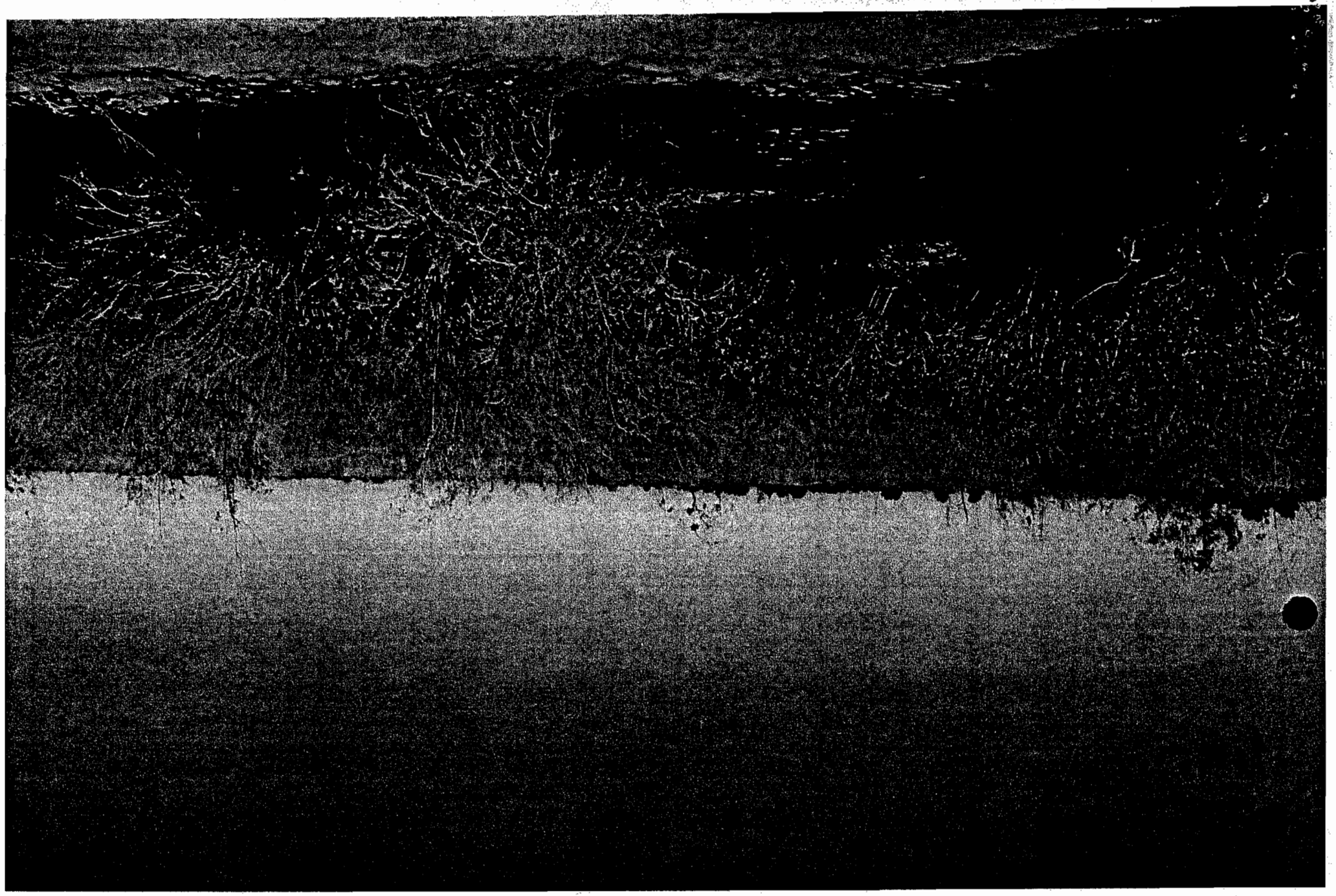
Colorado River
Lights
Critical Clearing Area Due
To Shootings And Rockings
400 feet











Form AZ-8110-5
(January 2000)

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ARIZONA STATE OFFICE

CULTURAL RESOURCE COMPLIANCE DOCUMENTATION RECORD

Project No: BLM-AZ-320-2005-010 **Project Name:** Hazardous Fuels Reduction and Emergency Safety Hazard Removal at Southern International Border.

EA, Job or Case File No.: CX-AZ-320-2005-0019 (NEPA No.)

Institution: BLM-Yuma Field Office **Cultural Resource Use Permit No:** NA

Inventory Method: __XX__ Existing Data Review _____ Class II _____ Class III

Eligibility Recommendation (for sites located):

Not-eligible sites (list site numbers): None.

Eligible sites (list site numbers): None.

Effect Recommendation (only on eligible sites from above):

__XX__ No Historic Properties Affected _____ Adverse Effect

_____ No Adverse Effect

Treatment Recommendations: (check and attach full description and map(s) as needed):

____ Avoidance (by project redesign/cancellation, etc.)

____ Physical or administrative protection measures

__XX__ Standard stipulations

____ Special stipulations

____ Data recovery (collection, excavation, detailed recording, etc.)

Consultation:

__XX__ Covered under PA, no further consultation required with SHPO or ACHP

Consultation required: ____ SHPO _____ Advisory Council _____ Native Americans

Comments

Proposed undertaking: Due to recent safety concerns, the Border Patrol has requested an emergency vegetation clearing along the southern international border. The project would affect at least 70 to 100 acres. The vegetation clearing proposed by this project would also serve to remove a hazardous fuel load of tamarisk along the Colorado River riparian corridor.

Project location: Township 11 South, Range 25 West, Section 3, Gila and Salt River Meridian, Yuma County, Arizona (location approximate). Gadsden, Ariz. USGS 7.5-minute topographic quadrangle.

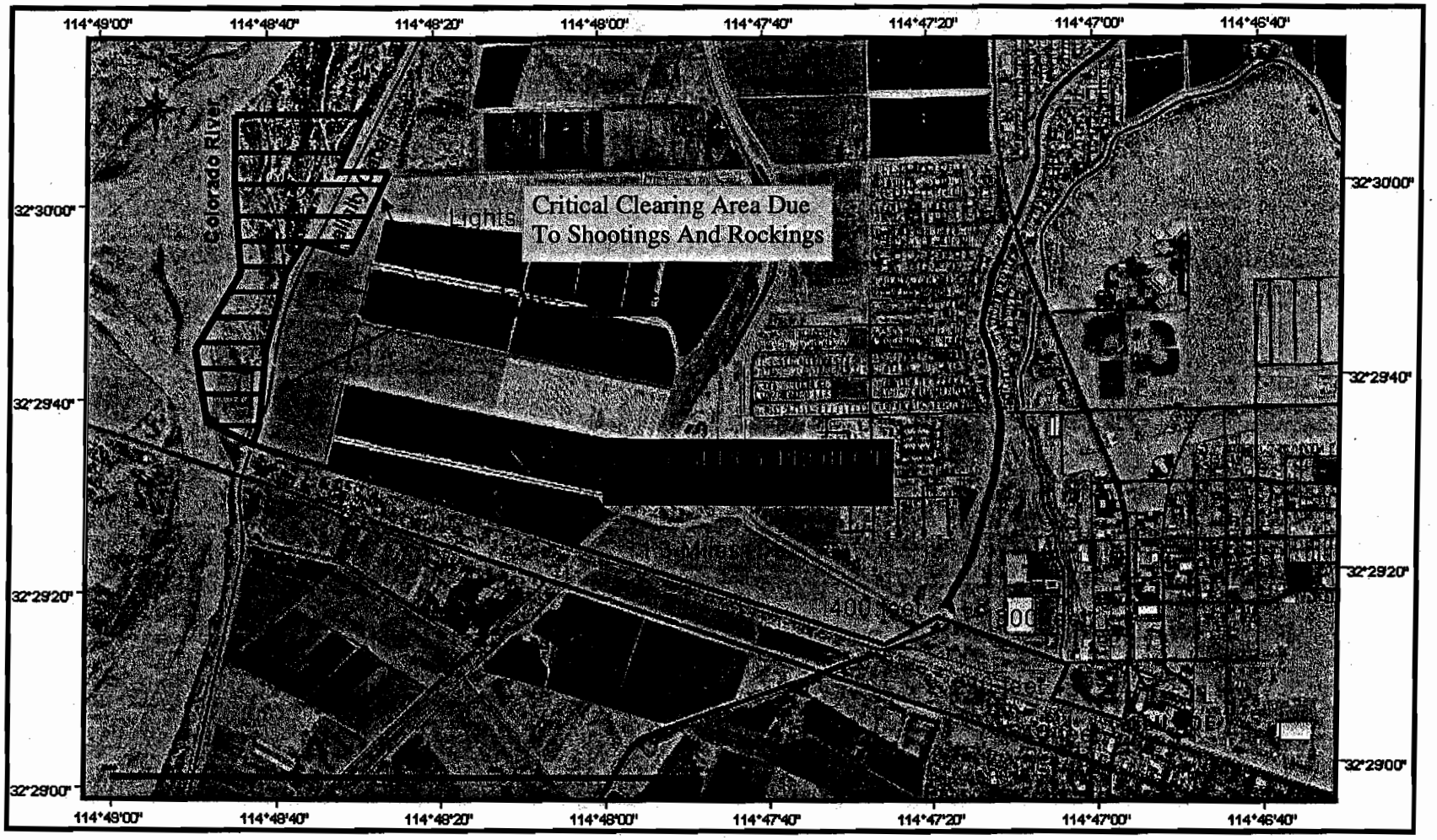
Findings: According to the AZSITE database and the BLM Yuma Field Office archaeology program data, there are no previously recorded cultural resources in the proposed project area. This action is contained entirely within the low Colorado River floodplain, and the probability of intact cultural resources is low. Pursuant to Section 106 of the National Historic Preservation Act and the regulations set forth in 36 CFR § 800, BLM has determined that this undertaking would have no effect on historic properties, and has fulfilled its obligations under Section 106.

Should cultural and/or paleontological resources be encountered during project ground-disturbing activities, work will cease in the area of the discovery and the BLM will be notified immediately. Work may not resume until written authorization to proceed is issued by BLM.

Attachments: Project map submitted by Border Patrol.

Signed (by archaeologist): Sandra Arnold Date: 12 / 16 / 2004

Sandra Arnold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32°29'40"
32°29'20"
32°29'00"
Colorado River
Lights
Critical Clearing Area Due
To Shootings And Rockings

APPENDIX C
Material Safety Data Sheets

BASF Corporation

BASF

MATERIAL SAFETY DATA SHEET

Agricultural Products Group
P.O.Box 13528,
Research Triangle Park, NC 27709
(919) 547-2000

EMERGENCY TELEPHONE NUMBERS:

BASF Corporation: 1 (800) 832-HELP

CHEMTREC: 1 (800) 424-9300

Product No.: 58A119 **Habitat ® Herbicide**

Date Prepared: 9/22/2003 **Date Revised: 1/21/2004**

SECTION I

Trade Name: **Habitat ® Herbicide**

Chemical Name: **2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-3-pyridinecarboxylic acid, salt with 2-propanamine (1:1)**

Synonyms: **Isopropylamine of imazapyr; AC252, 925;** **Formula:** **C(13)H(15)N(3)O(3).C(3)H(9)N**

Chemical Family: **Imidazolinone** **Mol Wt:** **320.4**

SECTION II - INGREDIENTS

COMPONENT	CAS NO.	%	PEL/TLV - SOURCE
Isopropylamine salt of Imazapyr	81510-83-0	28.7	0.5 mg/m3 TWA BASF recommended
Inerts	N/A	71.3	None established

SARA Title III Section 313: **Not listed**

SECTION III - PHYSICAL DATA

BOILING/MELTING POINT@760mm Hg: **N/D** **pH:** **6.6 - 7.2**

VAPOR PRESSURE mmHg @ 20°C: **N/D**

SPECIFIC GRAVITY OR BULK DENSITY: **1.04 - 1.07 g/mL**

SOLUBILITY IN WATER: **Soluble**

APPEARANCE: **Clear blue liquid** **ODOR: Ammonia** **INTENSITY:** **Slight**

SECTION IV - FIRE AND EXPLOSION DATA

FLASH POINT (TEST METHOD): **>210°F SFCC** **AUTOIGNITION TEMP: > 200° F**

FLAMMABILITY LIMITS IN AIR (% BY VOL): **LOWER: N/D** **UPPER: N/D**

NFPA 704 HAZARD CODES

HEALTH: 1 **FLAMMABLE: 1** **INSTABILITY: 0** **OTHER: N/R**

NFPA 30 STORAGE CLASSIFICATION: **Class IIIB**

EXTINGUISHING MEDIUM	**Use water fog, foam, CO(2), or dry chemical extinguishing media.**
SPECIAL FIREFIGHTING PROCEDURES	**Firefighters should be equipped with self-contained breathing apparatus and turnout gear.**
UNUSUAL FIRE EXPLOSION HAZARDS	**None known.**

SELECT ACRONYM KEY

N/A - Not available; N/D - Not determined; N/R - Not rated; N/E - Not established

SECTION V - HEALTH DATA

TOXICOLOGICAL TEST DATA:

Data for formulated product:

Rat, Oral LD50 (combined sexes) > 5000 mg/kg

Rabbit, Dermal LD50 (combined sexes) > 2000 mg/kg

Rat, Inhalation LC50 (4 hr) > 4.62 mg/L

Rat, Inhalation LC50 (1 hr calculated) > 18.48 mg/L

Rabbit, Eye Irritation - Not Irritating

Rabbit, Skin Irritation - Mildly irritating

Guinea pig, Dermal Sensitizer - Not Sensitizer

OSHA, NTP, or IARC Carcinogen: Not listed.

EFFECTS OF OVEREXPOSURE:

See Product Label and Directions For Use for additional precautionary statements.

CAUTION

Avoid contact with skin, eyes, and clothing. Avoid breathing spray mist.

Existing medical conditions aggravated by this product:

None known.

FIRST AID PROCEDURES

If on skin:	Wash with plenty of soap and water. Get medical attention if irritation persists.
If in eyes:	Flush eyes with plenty of water. Call a physician if irritation persists.
If inhaled:	Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.
If swallowed:	Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. If person is unconscious, do not give anything by mouth and do not induce vomiting.
Note to physician:	Treat symptomatically. No specific antidote.
Note:	Have the product container or label with you when calling a poison control center or doctor or going for treatment.

SECTION VI - REACTIVITY DATA

STABILITY: Stable. Do not store below 32° F or above 100° F.

CONDITIONS TO AVOID: Store in original container in cool,dry, well ventilated place away from ignition sources, heat or flame.

CHEMICAL INCOMPATIBILITY: Oxidizing agents and reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Including but not limited to oxides of carbon and nitrogen.

HAZARDOUS POLYMERIZATION: Does not occur.

CONDITIONS TO AVOID: Does not polymerize.

CORROSIVE TO METAL: Mild steel, brass **OXIDIZER:** No

SECTION VII - PERSONAL PROTECTION

Users of a pesticidal end use product should refer to the product label for personal protective equipment requirements.

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

Respiratory Protection:
Supplied air respirators should be worn if large quantities of mist/dust are generated or prolonged exposure possible.

Eye Protection:
Chemical goggles when respirator does not provide eye protection.

Protective Clothing:
Gloves and protective clothing as necessary to prevent skin contact.

Ventilation:
Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

SECTION VIII - ENVIRONMENTAL DATA

ENVIRONMENTAL TOXICITY DATA

See the product label for information regarding environmental toxicity.

SARA 311/312 REPORTING

FIRE: N PRESSURE: N REACTIVITY: N ACUTE: Y CHRONIC: N TPQ(lbs): N/R

SPILL AND LEAK PROCEDURES:

In case of large scale spillage of this product, avoid contact, isolate area and keep out animals and unprotected persons. Call CHEMTREC (800 424-9300) or BASF Corporation (800 832-HELP). For a small spill, wear personal protective equipment as specified on the label.
FOR A LIQUID SPILL: Dike and contain the spill with inert material (sand, earth, etc.) and transfer the liquid and solid diking materials to separate containers for disposal.
FOR A SOLID SPILL: Sweep solid into a drum for re-use or disposal. Remove personal protective equipment and decontaminate it prior to re-use.

HAZARDOUS SUBSTANCE SUPERFUND: No RQ(lbs): None

WASTE DISPOSAL METHOD:

Pesticide wastes are acutely hazardous. Wastes resulting from this product may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federa law. If these wastes cannot be disposed of according to label instructions, contact the state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

HAZARDOUS WASTE 40CFR261: No HAZARDOUS WASTE NUMBER:None

CONTAINER DISPOSAL:

FOR PLASTIC CONTAINERS: Triple rinse (or equivalent) and add rinsate to the spray tank. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.
FOR BULK CONTAINERS: Reusable containers should be returned to the point of purchase for cleaning and re-filling.
FOR MINIBULK CONTAINERS: Clean all tanks on an approved loading pad so rinsate can be collected and mixec into the spray solution or into a dedicated tank. Using a high pressure sprayer, rinse several times with small volumes of water to minimize rinsate.

SECTION IX - SHIPPING DATA - PACKAGE AND BULK

D.O.T. PROPER SHIPPING NAME (49CFR172.101-102):
None

HAZARDOUS SUBSTANCE (49CFR CERCLA LIST):
None
RQ(lbs): None

D.O.T. HAZARD CLASSIFICATION (CFR 172.101-102):

PRIMARY	SECONDARY
None	None

D.O.T. LABELS REQUIRED (49CFR172.101-102):	D.O.T. PLACARDS REQUIRED (CFR172.504):	POISON CONSTITUENT (49CFR172.203(K)):
None	None	None

BILL OF LADING DESCRIPTION
Compounds, tree or weed killing, NOIBN
This product is not regulated by the Department of Transportation (DOT). It does not meet the definition of DOT corrosive (49 CFR 173.136).

CC NO.: Not applicable **UN/NA CODE:**

SECTION X - ADDITIONAL INFORMATION

Habitat ® Herbicide

KEEP OUT OF REACH OF CHILDREN

CAUTION

BASF Corporation

Agricultural Products Group
P.O.Box 13528,
Research Triangle Park, NC 27709
(919) 547-2000

DISCLAIMER

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY BASF HEREUNDER ARE GIVEN GRATIS AND BASF ASSUMES NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.

NFPA HAZARD RATING	**PRODUCT NFPA HAZARD RATING**
4 – Extreme	**Health - 0**
3 – High	**Fire - 1**
2 – Moderate	**Reactivity - 0**
1 – Insignificant	

DIVISION AND LOCATION---SECTION I

Division: LUBRICANTS AND SPECIALTY PRODUCTS DIVISION
Location: BRADFORD, PENNSYLVANIA
77 N. KENDALL AVE, BRADFORD, PA, 16701
Emergency Telephone Number: (814) 368-1297
Transportation Emergency: CHEMTREC 1-(800) 424-9300 (U.S. and Canada)

CHEMICAL AND PHYSICAL PROPERTIES---SECTION II

Chemical Name: Emulsified Petroleum Resin
Formula: This product is non hazardous according to OSHA 29 CFR 1910.1200
Hazardous Decomposition Products:
carbon monoxide and carbon dioxide from burning.
Incompatibility (Keep away from),:
strong oxidizers such as hydrogen peroxide, bromine, and chromic acid.
Toxic and Hazardous Ingredients:
none
Form: liquid Odor: petroleum
Appearance : liquid Color: dark brown
Specific Gravity (water=1) : 1.03
Boiling Point: greater than 100°C (212°F)
Melting Point: less than -6°C (21°F)
Solubility in Water (by weight %) : product is not soluble but the emulsion can be suspended in water
Evaporation Rate: not data available
Vapor Pressure (mm Hg at 20°C): 0
Vapor Density (air=1) : greater than 1
pH (as is) : not applicable
Stability: Product is stable under normal conditions
Viscosity SUS at 100°F: not applicable

(Continued on next page)

FIRE AND EXPLOSION DATA---SECTION III

Special Fire Fighting Procedures:
Do not use water except as fog.

Unusual Fire and Explosion Hazards:
Do not cut, weld, braze, solder, drill, grind or expose containers, drums, tanks, etc. of product to heat, flame, sparks, static electricity or other sources of ignition; they may ignite explosively.

Flashpoint: not applicable

Flammable limits % : not applicable

Extinguishing agents:
Drychemical or Waterfog or $C0_2$ or Foam
Closed containers exposed to fire may be cooled with water.

HEALTH HAZARD DATA---SECTION IV

Permissible concentrations (air):
If used in applications where a mist may be generated, observe a TWA/PEL of 5 mg/m3 for mineral oil mist (OSHA and ACGIH).

Chronic effects of overexposure:
No data available

Acute toxicological properties:
No data available

Emergency First Aid Procedures:

Eyes: Product in minimally irritating to the eyes on direct contact. Upon contact, immediately flush eyes with large quantities of water for at least 15 minutes and call a physician..

Skin Contact: Remove excess with cloth or paper. Wash thoroughly with soap and water.

Inhalation: Remove victim to fresh air. Call a physician.

If Swallowed: Contact a physician immediately. DO NOT induce vomiting. (Vomiting may cause aspiration into lungs resulting in chemical pneumonia).

SPECIAL PROTECTION INFORMATION---SECTION V

Ventilation Type Required (Local,mechanical,special):
Local if necessary to maintain allowable PEL(permissible exposure limit) or TLV(threshold limit value)

Respiratory Protection (Specify type):
Use NIOSH/MSHA certified respirator with dual organic vapor/mist and particulates cartridge if vapor concentration exceeds permissible exposure limit.

Protective Gloves:
neoprene type

Eve Protection:
chemical safety goggles

Other Protective Equipment:
none

HANDLING OF SPILLS OR LEAKS---SECTION VI

Procedures for Clean-Up:

Transfer bulk of mixture into another container. Absorb residue with an inert material such as earth, sand, or vermiculite. Sweep up and dispose as solid waste in accordance with local, state, and federal regulations.

Waste Disposal,:

Dispose of in accordance with all applicable federal, state and local regulations.

SPECIAL PRECAUTIONS---SECTION VII

Precautions to be taken in handling and storage:

Do not handle or store at temperatures over

Maximum Storage Temperature: 49°C (120°F)

COMMENTS

This product does not contain any chemical is sufficicient quanity to be subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and CFR 40 Part 372.

The component(s) of this product are listed on the US TSCA Inventory and Canadian Domestic Substance List.

TRANSPORTATION DATA---SECTION VIII

D.O.T.: Not Regulated
Reportable Quantity: none
Freight Classification: Petroleum Oil, Dust Suppressant
Special Transportation Notes:

None

Prepared by: ROBERT M. KELLAM _____
Title: PRODUCT SAFETY & HEALTH COORDINATOR
Original Date: 06/12/85 Sent to: _____
Revision Date: 08/04/03 _____
Supersedes : 05/05/03 _____
Date Sent : _____

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind, express or implied, and we assume no responsibility for any loss, damage, or expense, direct or consequential, arising out of their use.

MATERIAL SAFETY DATA SHEET

Manufacturer

PROCESS CHEMICALS, LLC
ARR-MAZ PRODUCTS, LP Division
621 Snively Avenue
Winter Haven, Fl 33880

Emergency Phone Number
863-293-7884

PRODUCT INFORMATION

Trade Name:	**Road Oyl**
Chemical Family:	**Mixture**
HMIS RATING:	**Health Hazard 1 Slight** **Flammability Hazard 0 Minimal** **Reactivity Hazard 0 Minimal**
DOT Shipping Classification	**This product is not regulated when shipped domestically by land.**
Canadian TDG Information	**This product is not regulated when shipped domestically by land.**

PHYSICAL DATA

Boiling Point (°C):	**100°C**
Dilutable from Soluble in Water:	**Soluble**
Vapor Pressure (mmHg at 20ºC):	**< 17**
Appearance:	**Light brown watery liquid emulsion**
Odor:	**Odor of tall oil pitch**
Specific Gravity (at 25°C):	**1.0 ± 0.1**
pH:	**6 - 7**

FIRE EXPLOSION

Flash Point (PM Closed Cup °C):	**>200°C (aqueous solution)**
Extinguishing Media:	**Use carbon dioxide, dry chemical, or water spray to extinguish fires.**

Special Fire Fighting Procedures: Self contained breathing apparatus and protective clothing should be worn in fighting fires involving chemicals.

HEALTH HAZARD INFORMATION

EYE

Effect: May cause eye irritation.

First Aid: Flush eyes with low pressure water for at least 15 minutes. Seek medical attention if irritation persists.

Protection: Wear safety glasses or goggles.

SKIN

Effect: Can cause skin irritation on prolonged or repeated contact.

First Aid: Wash exposed area thoroughly with flowing water. Seek medical attention if irritation persists.

Protection: Wash affected areas with soap and running water. Do not reuse contaminated clothing without laundering.

INHALATION

Effect: None expected under normal conditions of use.

First Aid: Using proper protection, remove affected personnel to fresh air. If respiratory irritation occurs or if breathing becomes difficult, get medical attention.

Protection: None required under normal conditions of use.

INGESTION

Effect: Expected to be relatively nontoxic.

First Aid: If irritation of the digestive tract develops and persists seek medical attention.

REACTIVITY DATA

Stability: Stable

Hazardous Polymerization: Will NOT occur.

Incompatibilities: Strong oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, and trace sulfur oxides.

SPILL, LEAK, AND DISPOSAL PROCEDURES

Spills and Leaks: Treat as an oil spill. Contain spill and remove by mechanical means. Use absorbent material or pads on remaining material or on small spills.

Waste Disposal: Dispose of waste at an appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal.

CERCLA RQ: None

SPECIAL PROTECTION INFORMATION

Respiratory Protection: No respiratory protection is normally required. However, a NIOSH-approved organic respirator with dust, mist, and fume filters should be used in areas where vapor concentrations are excessive due to high temperatures or where misting occurs.

Protective Gloves: Use solvent resistant gloves.

Eye Protection: Use chemical safety glasses, goggles or a face shield.

Other Protective Equipment: Eye wash and safety shower should be easily accessible.

STORAGE AND SPECIAL PRECAUTIONS

Storage Precautions: Material is stable on storing. Do not store near open flame or sources of extreme heat.

Other Precautions: Maintain good housekeeping. Avoid skin contact, Wash contaminated clothes before wearing. Do not wear contaminated shoes or boots.

REGULATORY INFORMATION

SARA Title III: This product does not contain any chemicals subject to reporting under Section 313 of Title III of the Superfund Amendments and Reauthorization ACT and 40 CFR 372.

RCRA: **This product is not a hazardous waste as listed in 40 CFR 261.33. It does not exhibit any of the hazardous characteristics listed in 40 CFR 261, Subpart C.**

CANADIAN REGULATORY INFORMATION

WHMIS Information: **This product is not a "controlled product" under the Canadian Workplace Hazardous Materials Information System.**

DSL Information: **Components of this product are listed on the Canadian Domestic Substances List.**

DISCLAIMER OF EXPRESSED OR IMPLIED WARRANTS

This material safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in this data sheet which we received from sources outside our company. We believe that information to be correct but can not guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as a permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

APPENDIX D
Federal and State Protected Species Lists

Yuma County

COMMON NAME	SCIENTIFIC NAME	STATUS	DESCRIPTION	COUNTY	ELEVATION	HABITAT	COMMENTS
Bald eagle	*Haliaeetus leucocephalus*	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.
Cactus ferruginous pygmy-owl	*Glaucidium brasilianum cactorum*	Endangered	Small (Approx. 7inches), diurnal owl reddish brown overall with cream-colored belly streaked with reddish brown. Some individuals are grayish brown.	Cochise, Gila, Graham, Greenlee, Maricopa, Pima, Pinal, Santa Cruz, Yuma	<4000 ft	Mature cottonwood/willow, mesquite bosques, and Sonoran desertscrub.	Historical distribution in Arizona is from New River (North) to Gila Box (East) to Cabeza Prieta Mountains (West). Only a few documented sites where this species persists are known, additional surveys are needed. Species has been proposed for delisting (70 FR 44547) but still receives full protection under the ESA.
California Brown pelican	*Pelecanus occidentalis californicus*	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.

COMMON NAME	SCIENTIFIC NAME	STATUS	DESCRIPTION	COUNTY	ELEVATION	HABITAT	COMMENTS
Razorback sucker	*Xyrauchen texanus*	Endangered	Large, up to 3 feet long and up to 6 lbs, high sharp-edged keel-like hump behind the head. Head flattened on top. Olive-brown above to yellowish below.	Coconino, Gila, Graham, Greenlee, La Paz, Maricopa, Mohave, Pinal, Yavapai, Yuma	< 6000 ft	Riverine and lacustrine areas, generally not in fast moving water and may use backwaters.	Species is also found in Horseshoe reservoir (Maricopa County). Critical habitat includes the 100-year floodplain of the river through the Grand Canyon from confluence with Paria River to Hoover Dam; Hoover Dam to Davis Dam; Parker Dam to Imperial Dam. Also Gila River from Arizon/New Mexico border to Coolidge Dam; and Salt River from Hwy 60/SR77 Bridge to Roosevelt Dam; Verde River from FS boundary to Horseshoe Lake.
Sonoran pronghorn	*Antilocapra americana sonoriensis*	Endangered	Buff on back and white below, hoofed 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	*Empidonax traillii extimus*	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 Empidonax 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.
Yuma clapper rail	*Rallus longirostris yumanensis*	Endangered	Water bird with long legs and short tail. Long, slender decurved bill. Mottled brown or gray on its rump. Flanks and undersides are dark gray with narrow vertical stripes producing a barring effect.	Gila, La Paz, Maricopa, Mohave, Pinal, Yuma	< 4,500 ft	Fresh water and brackish marshes.	Species is associated with dense emergent riparian vegetation. Requires wet substrate (mudflat, sandbar) with dense herbaceous or woody vegetation for nesting and foraging. Channelization and marsh destruction are primary sources of habitat loss.

COMMON NAME	SCIENTIFIC NAME	STATUS	DESCRIPTION	COUNTY	ELEVATION	HABITAT	COMMENTS
Flat-tailed horned lizard	*Phrynosoma mcallii*	Proposed	Typical flattened body shape of horned lizards; dark vertebral stripe; lacks external ear openings; color is cryptic ranging from pale gray to light rust brown; has two rows of fringed scales on each side of body.	Yuma	500 ft	Sandy flats or areas with fine, windblown sand; creosote-white bursage series of Sonoran Desert.	Proposed rule reinstated on August 30, 2005 (Tucson Herpetological Society v. Norton, 04-75 PHX NVW, D. Ariz). Conservation Agreement finalized in May 1997. Species also found in portions of San Diego County, central Riverside County, and Imperial County, California; also Sonora and Baja California, Mexico.
Yellow-billed cuckoo	*Coccyzus americanus*	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 riparain 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.

Species in the Arizona HDMS, listed alphabetically by county, by taxon, by scientific name.
Updated April 2006

COUNTY	TAXON	SCIENTIFIC NAME	COMMON NAME	ESA	BLM	USFS	STATE
Yuma	BIRD	Ardea alba	Great Egret				WSC
Yuma	BIRD	Ardea herodias	Great Blue Heron				
Yuma	BIRD	Athene cunicularia hypugaea	Western Burrowing Owl	SC	S		
Yuma	BIRD	Bubulcus ibis	Cattle Egret				
Yuma	BIRD	Coccyzus americanus occidentalis	Western Yellow-billed Cuckoo	C		S	WSC
Yuma	BIRD	Egretta thula	Snowy Egret				WSC
Yuma	BIRD	Empidonax traillii extimus	Southwestern Willow Flycatcher	LE		S	WSC
Yuma	BIRD	Glaucidium brasilianum cactorum	Cactus Ferruginous Pygmy-owl	LE			WSC
Yuma	BIRD	Haliaeetus leucocephalus (wintering pop.)	Bald Eagle	LT,PDL		S	WSC
Yuma	BIRD	Himantopus mexicanus	Black-necked Stilt				
Yuma	BIRD	Icterus bullockii	Bullock's Oriole				
Yuma	BIRD	Ixobrychus exilis	Least Bittern				WSC
Yuma	BIRD	Lanius ludovicianus	Loggerhead Shrike	SC	S		
Yuma	BIRD	Laterallus jamaicensis coturniculus	California Black Rail	SC		S	WSC
Yuma	BIRD	Rallus longirostris yumanensis	Yuma Clapper Rail	LE			WSC
Yuma	FISH	Xyrauchen texanus	Razorback Sucker	LE		S	WSC
Yuma	MAMMAL	Antilocapra americana sonoriensis	Sonoran Pronghorn	LE		S	WSC
Yuma	MAMMAL	Antrozous pallidus	Pallid Bat				
Yuma	MAMMAL	Corynorhinus townsendii pallescens	Pale Townsend's Big-eared Bat	SC			
Yuma	MAMMAL	Euderma maculatum	Spotted Bat	SC	S		WSC
Yuma	MAMMAL	Eumops perotis californicus	Greater Western Bonneted Bat	SC			
Yuma	MAMMAL	Lasiurus xanthinus	Western Yellow Bat				WSC
Yuma	MAMMAL	Macrotus californicus	California Leaf-nosed Bat	SC	S		WSC
Yuma	MAMMAL	Myotis californicus	California Myotis				
Yuma	MAMMAL	Myotis yumanensis	Yuma Myotis	SC			
Yuma	MAMMAL	Nyctinomops femorosaccus	Pocketed Free-tailed Bat		S		
Yuma	MAMMAL	Peromyscus eremicus eremicus	Cactus Mouse				
Yuma	MAMMAL	Sigmodon hispidus eremicus	Yuma Hispid Cotton Rat	SC			
Yuma	MAMMAL	Tadarida brasiliensis	Brazilian Free-tailed Bat				
Yuma	PLANT	Allium parishii	Parish Onion		S		SR
Yuma	PLANT	Astragalus insularis	Sand Flat Milk-vetch				
Yuma	PLANT	Berberis harrisoniana	Kofa Barberry		S		
Yuma	PLANT	Calandrinia ambigua	Rock Purslane				
Yuma	PLANT	Colubrina californica	California Snakewood				
Yuma	PLANT	Croton wigginsii	Dune Croton				
Yuma	PLANT	Cryptantha ganderi	Gander's Cryptantha	SC			
Yuma	PLANT	Drymaria viscosa					

Species in the Arizona HDMS, listed alphabetically by county, by taxon, by scientific name.
Updated April 2006

COUNTY	TAXON	SCIENTIFIC NAME	COMMON NAME	ESA	BLM	USFS	STATE
Yuma	PLANT	Echinocactus polycephalus var. polycephalus	Clustered Barrel Cactus				SR
Yuma	PLANT	Echinodorus berteroi	Upright Burrhead				
Yuma	PLANT	Erigeron lobatus	Lobed Fleabane				
Yuma	PLANT	Eriogonum deserticola	Desert Wild-buckwheat				
Yuma	PLANT	Eryngium nasturtiifolium	Hierba del Sapo				
Yuma	PLANT	Eucnide rupestris	Flor de la Piedra				

APPENDIX E
U.S. Fish and Wildlife Service Consultation for BLM Categorical Exclusion

MAR 3 1 2005

6635 (320)

Memorandum

To: Field Supervisor, Arizona Ecological Services Office, Phoenix, AZ

From: Field Manager

Subject: Request for Formal Consultation for Hazardous Fuels Reduction Project on Southern International Boundary (SIB)

In accordance with Section 7(a)2 of the Endangered Species Act of 1973 as amended and 50 CFR 402.14, the Yuma Field Office, Bureau of Land Management, requests an informal consultation for the following project: CX-AZ-320-2005-012 Hazardous Fuels Reduction and Emergency Safety Hazard Removal and its effect on southwestern willow flycatcher migratory habitat and proposed critical habitat.

The proposed action described in the attached biological assessment and categorical exclusion is located on lands administered by the Yuma Field Office in T. 11 S., R. 25 W., sec. 3 Gila and Salt River Meridian, Yuma County, AZ. Refer to the vicinity map in attached categorical exclusion. The project will modify 210 acres of southwestern willow flycatcher migratory habitat on public lands.

We have analyzed the effects of the project on proposed, threatened, and endangered species or proposed critical habitat that are known to occur in the vicinity of the project. It is the conclusion of the attached biological evaluation that this project may affect but is not likely to adversely affect the endangered southwestern willow flycatcher. We request your concurrence with our finding of may affect on the southwestern willow flycatcher.

Please contact Karen Reichhardt at (928) 317-3245 for further information or questions.

Rebecca Heick
Field Manager

2 Attachments
1- Biological Assessment
2- Categorical Exclusion AZ-320-2005-012

cc: Arizona State Office (932)
U.S. Border Patrol, ATTN: Frank I. Geary, Yuma Sector Headquarters, 4035 S. Avenue A, Yuma, AZ 85365

KREICHHARDT;ps;3/25/05;c\aaa\resources\karen\borderptrIBA.cover

United States Department of the Interior
U.S. Fish and Wildlife Service
Arizona Ecological Services Field Office
2321 West Royal Palm Road, Suite 103
Phoenix, Arizona 85021-4951
Telephone: (602) 242-0210 Fax: (602) 242-2513

RECEIVED YUMA
2005 APR 13 P 12: 18
BLM YUMA FIELD OFFICE

In Reply Refer to:
AESO/SE
02-21-05-I-0349

April 12, 2005

Memorandum

To: Field Manager, Yuma Field Office, Bureau of Land Management, Yuma, AZ

From: Field Supervisor

Subject: Request for Concurrence on Hazardous Fuels Reduction Project, Yuma County, Arizona

This responds to your memorandum of March 31, 2005, requesting concurrence under the Endangered Species Act of 1973 (16 U.S.C. 1531-1544), as amended, for the implementation of the Hazardous Fuels Reduction Project, Yuma County, Arizona.

The implementation of this action began the week of December 20, 2004, based on an emergency situation defined by the U.S. Border Patrol. Representatives of the U.S. Border Patrol had contacted the Fish and Wildlife Service by phone on December 14, 2004, to discuss the project. No occupied suitable habitat for listed species on the proposed project site was identified at that time, although the use of the project area as migration habitat for the endangered southwestern willow flycatcher (*Empidonax traillii extimus*) was acknowledged. Representatives of the U.S. Border Patrol contacted the Bureau of Land Management (BLM) to provide environmental site clearances for the 210-acre project, as it is located on Bureau of Reclamation withdrawn land that is managed by the BLM. The site was cleared of non-native vegetation using a Hydro-Axe, a machine that removes trees and brush and mulches them, leaving the mulch on the ground to retard erosion and dust emissions. Native trees such as cottonwood and willow were left on site. This area had been identified by the BLM in the past as an area of concern for fire fuels.

The proposed action eliminated 210-acres of southwestern willow flycatcher migration habitat. This amount is not significant given the amount of such habitat remaining in the immediate vicinity. At the time the action was implemented, no flycatchers were present since December is outside of the migration period. Removal of the saltcedar on the site also reduces fire risk to the riparian and marsh habitats north of the site at Hunter's Hole, which provides higher quality flycatcher migration and feeding habitats, and has supported the endangered Yuma clapper rail (*Rallus longirostris yumanensis*) in the past. Any clapper rails present at Hunters Hole during the implementation of the action were not affected.

We concur with your findings that the Hazardous Fuels Reduction Project completed in December 2004, "may have affected, but did not likely adversely affect" the southwestern willow flycatcher. The site is not within the boundaries of the proposed critical habitat for the flycatcher, so there are no effects to proposed critical habitat.

Thank you for your efforts to conserve listed species. If there are any questions regarding this concurrence, please contact Jeff Whitney at 602-242-0210 (x204) or Lesley Fitzpatrick (x236).

Steven L. Spangle

cc: State Director, Arizona State Office, Bureau of Land Management, Phoenix, AZ

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Biological Assessment for BLM CX-AZ-320-2005-012

Biological Assessment for Hazardous Fuels Reduction and
Emergency Safety Hazard Removal
BUREAU OF LAND MANAGEMENT YUMA FIELD OFFICE

LOCATION:

T. 11 S., R 25 W., Sec. 3, Gila and Salt River Meridian

Yuma County, Arizona

USGS Gadsden Quadrangle

Contact Person: Karen Reichhardt Phone Number: 928-317-3245

Introduction

The purpose of this biological assessment is to review the emergency action taken by the BLM fire program in December 2004 in cooperation with the U.S. Border Patrol in sufficient detail to determine to what extent the action may affect any of the threatened, endangered, proposed, or sensitive species listed below. The action was to mechanically cut down and mulch 210 acres of salt cedar at the Southern International Boundary (SIB). This biological assessment is prepared in accordance with legal requirements set forth under Section 7 of the Endangered Species Act (16 U.S.C. 1536 (c)), and follows the standards established in Bureau of Land Management (BLM) Manual 6840 (Special Status Species Management), BLM Manual Section 1790, BLM Handbook H-1790-1, and Department Manual 516 DM 1-7.

Threatened, Endangered, Proposed Threatened or Proposed Endangered Species

southwestern willow flycatcher (*Empidonax traillii extimus*) **E**

Critical Habitat

The action addressed within this biological assessment does not fall within the proposed critical habitat for the southwestern willow flycatcher.

Consultations to Date

None

Current Management Direction

The Limitrophe Division of the Lower Colorado River is managed by BLM Yuma Field Office (YFO) under the Yuma District Resource Management Plan (RMP) dated 1987.

- BLM manages wildlife and recreation in the Limitrophe Division under DM 613 which establishes roles and responsibilities for public land withdrawn by Bureau of Reclamation.
- The RMP designated riparian areas along the Lower Colorado River as priority wildlife habitat.
- Saltcedar removal is performed by the BLM fire program under the Yuma/Lake Havasu Zone 2004 Fire Management Plan (YFO 2004).
- The action taken in December 2004 is part of the specific management actions evaluated in categorical exclusion CX-AZ-320-2005-012.

Description of Proposed Action

On December 17, 2004 the U.S. Border Patrol approached staff members of the Yuma Field Office requesting BLM support their agency in taking an emergency action at the SIB. Border Patrol was preparing to bulldoze saltcedar at the Lower Colorado River below the levee in a strip 1 ½ miles long and 300 yards wide from County 21 ½ south to the SIB. Border Patrol described the area as a health and public safety hazard; it is a hiding place for criminal gang activity including drug smuggling, homicides, robberies and rock throwing. Activity was increasing rapidly in the past month, exacerbating the need for emergency action to save lives. The categorical exclusion that was written as a result of this request including photographs is included with this submittal.

YFO staff evaluated the request and recognized it is a problem area for the fire program. The subject stand of saltcedar is a fuels moisture monitoring sampling site. However, due to the danger to YFO employees in the area, samples are not currently being taken. Several human-caused wildfires were suppressed in the area in the past few years at a risk to fire fighters because of the dangerous criminal activity. YFO staff is directed not to work in the area without planning ahead and obtaining a law enforcement escort. Therefore staff decided the area would be a suitable location for placing a firebreak under an existing hazardous fuels reduction contract. This method of fuels reduction is superior to bulldozing proposed by Border Patrol for a number of reasons. Bulldozing moves earth as well as vegetative material, leaving brush piles and berms that are a safety hazard (highly flammable, hiding places). The brush piles are usually dirty from bulldozing and cannot be as easily burned.

BLM completed a categorical exclusion on December 17, 2004 and directed the hazardous fuels contractor to begin working in the area the week of December 20, 2004. The categorical exclusion stated that native riparian vegetation would be avoided. The

contractor removed 210 acres of saltcedar using a Hydro-Axe. This equipment mulches trees with an arm that raises and lowers on the front of the wheeled vehicle. Vegetative material is left as mulch on the ground, further protecting the soil from erosion. The hydrology and other physical characteristics are unchanged.

BLM staff determined the site would be unsuitable for mitigation due to the safety risk and undesirable hydrologic condition. The site is composed of river sediments where the water table is between 5 and 36 feet below the surface. This depth to groundwater is unsuitable for mitigation because it would require irrigation to establish and maintain riparian vegetation.

As an added benefit, the action protected Hunter's Hole to the north, a wetland and riparian area below the levee ½ to ¾ mile directly north of the project. This area is high value riparian habitat which is vulnerable to fires that start in saltcedar. Cottonwoods and to a lesser extent willows are not resistant to wildfire.

Action Area

The direct action that occurred within the 210-acre project area was to mechanically cut and mulch saltcedar. Indirectly small emissions of dust were detectable for the short length of time the equipment was working adjacent to the project area.

Species Accounts and Status of the Species in the Action Area

Southwestern Willow Flycatcher (*Empidonax traillii extimus*), SWFL.

SWFL was listed as endangered without critical habitat on February 27, 1995 (USFWS 1995). SWFL is 1 of 5 subspecies of willow flycatchers that occur in North America. This small, insectivorous songbird spends its winters in Central America, and migrates to North America to breed.

During migration, SWFL may use a variety of vegetation, which may include Fremont cottonwood (*Populus femontii*), Goodding's willow (*Salix gooddingii*), seep willow (*Baccharis glutinosa*), understory and monotypic saltcedar (*Tamarix ramosissima*), saltbush (*Atriplex* spp.), irrigation ditches, and agricultural fields (Finch and others 2000).

During breeding season, SWFL prefers to nest in dense forest stands of early successional cottonwood and willow habitat along still or slow-moving watercourses. In addition, they nest in mature stands of saltcedar. These types of plants provide SWFL with the necessary structure to support and protect their nests. SWFL typically build their nests on forked branches 2 to 4 cm in width, and nests are further supported by several, vertical stems typically 1 to 2 cm in diameter (Sogge 2000).

SWFL are often victims of brood parasitism of brown-headed cowbirds (*Molothrus ater*). Female brown-headed cowbirds lay their eggs in SWFL nests, and SWFL often

unwittingly raise young cowbirds while neglecting the SWFL's own offspring. Consequently, brown-headed cowbirds are contributing to decline SWFL populations.

SWFL ranges from southern Nevada and southern Utah (and possibly southwestern Colorado) through southern California, Arizona, New Mexico, and western Texas. Historically in Arizona, this species bred along the Little Colorado River, and at the headwaters of the Little Colorado River near Eager and Greer; the upper San Francisco River near Alpine; along the middle Gila, Salt, and Verde rivers; along the Colorado River at Topock Marsh on the Havasu NWR and south of Yuma; and along the middle to lower San Pedro River.

According to the most recent surveys done under contract to Bureau of Reclamation, SWFL migrate through the area (Koronkiewicz 2004). The closest survey points in the Limitrophe Division proximal to the project area are Hunter's Hole, Gadsden and Gadsden Bend. All three areas were surveyed in 2003 and mapped as "surveyed/occupied, historically occupied" (see orthophoto titled Gadsden in appendix C of Koronkiewicz 2004). Individual SWFL detected during the 2003 surveys were determined to be migratory. No nesting sites were detected. This represents the most accurate data available.

Table 1. Migratory SWFL detections at Hunter's Hole in 2003 by Koronkiewicz (2004).

Location	*Date Detected*	*Number of Individuals*
Hunter's Hole	May 18	14
	June 1	1
	June 12	8
	June 14	2

Between 1996 and 2002, Bureau of Reclamation (BOR) contracted Robert L. McKernan from San Bernardino County Museum to conduct annual SWFL surveys in the Lower Colorado River area. In the area, McKernan (1996) and McKernan and Braden (1997, 1998, 1999, 2000) found SWFL in the region. McKernan believes that some of these sightings may represent breeding birds in the Mittry Lake area to the north of Yuma, AZ because they occurred after June 10. McKernan (personal communication) found a total of 6 potentially breeding SWFL sightings in 1996, 1999, and 2001. However, he did not find direct evidence of breeding SWFL despite repeated visits.

Effects to SWFL

SWFL use saltcedar during migration. Because the action was taken as an emergency, the specific site was not surveyed to detect the presence of SWFL. However, it is highly unlikely any SWFL were present because the action was taken during winter when SWFL are not present. The effect of the action will protect known migratory habitat to

the north at Hunter's Hole, Gadsden and Gadsden Bend by reducing the threat of wildland fire originating from the project area.

Consultations near the project area include:

- Mittry Lake Hazardous Fuels Reduction and Riparian Restoration Project, Yuma County, Arizona (AESO/SE 2-21-02-I-219). A plan to eliminate 80 acres of saltcedar, and replace with cottonwood, willow, and mesquite under flood irrigation.
- Transient Fire Rehabitilitation Biological Assessment and Categorical Exclusion, Yuma Field Office, 2004

Effects to Proposed Critical Habitat

U.S. Fish and Wildlife Service proposed critical habitat from 3.5 miles north of the Lower Colorado River and Gila River confluence northward (Federal Register Vol. 69 No. 196:60705-60786 Oct. 12, 2004). The project area is to the south of proposed critical habitat.

Cumulative Effects (State, Tribal, and private actions)

None.

Conclusion and Determination

This project may affect, is not likely to adversely affect SWFL because migratory riparian habitat was cleared during the non-migratory season. The density of saltcedar at the site is not suitable breeding habitat because cover, shade and food sources for nesting SWFL are not present at the site. The Hunter's Hole area to the north where migratory SWFL are detected will be protected from human-caused wildfire in the future.

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ENVIRONMENTAL ASSESSMENT

EA-AZ-320-2005-026

Herbicide Application within Wildland Urban Interface, Hazardous Fuels Reduction, Recreation Sites, and Revegetation Projects in the Yuma Field Office

Bureau of Land Management
Yuma Field Office
2555 E. Gila Ridge Road
Yuma, AZ 85365

January 2005

I. Introduction

A. Background

The Bureau of Land Management (BLM), Yuma Field Office (YFO) proposes to utilize herbicide to control regrowth of weeds, specifically: tamarisk (*Tamarix ramosissima*) (*Tamarix aphylla*), cane (*Phragmites communis*), giant reed (*Arrundo donax*) and ravenna grass (*Erianthus ravennae*) within wildland urban interface (WUI), hazardous fuels reduction (HFR), recreation sites, and riparian revegetation projects. There are three purposes for this project. One is to reduce risk of a wildfire encroaching upon popular recreation sites and residential areas. The second purpose is to protect the habitat of several species of birds, other wildlife, and native plants. The third purpose is to promote fire resistant riparian communities and inhibit the proliferation of invasive weeds. The scope of this document is limited to follow-up treatments after wildfire, prescribed fire or mechanical treatments. This EA would also be used in conjunction with revegetation plans covered under site specific NEPA documents.

Historically, lands adjacent to the lower Colorado River (LCR) were periodically flooded, which provided the conditions necessary to germinate native riparian vegetation such as cottonwood *(Populus fremontii*), Gooding's willow (*Salix gooddingii*), coyote willow (*Salix exigua*), honey mesquite (*Prosopis glandulosa*) and screwbean mesquite (*Prosopis pubescens*). The creation of Hoover Dam in 1936 ended the natural cycle of floods. With the reduction of flood threats, farming of the rich alluvial soils increased and seedbeds were no longer formed. Consequently, the life cycle of cottonwoods and willows was irreversibly changed. Around 1870 tamarisk (*Tamarix ramosissima*) was introduced as a soil stabilizer and ornamental. It soon spread into the LCR valley. Tamarisk found optimal ecological conditions as it spread and eventually dominated the floodplain. Currently much of the historic LCR floodplain is dominated by the invasive weeds, or leased for agricultural purposes. Only a small percentage of the riparian zone is native vegetation (USDI, FWS and BOR 1994).

Tamarisk has also proven over the years to be a dangerous wildland fire fuel risk with a mean fire return interval of 5-10 years (USDI, BOR 2000). As encountered in the LCR floodplain, tamarisk dominates native cottonwood, willow, and mesquite bosques enormously increasing the flammability and radiant heat generated by a wildfire (Weisenborn 2001). This increased flammability poses great danger, not only to the public, but also to native plant communities and animal habitat along the LCR. Tamarisk resprouts vigorously after wildfire and after repeated fire events tends to dominate riparian areas.

B. Need for and Purpose of Proposed Action

This environmental assessment evaluates the impacts of utilizing herbicide to control weeds for WUI, HFR, recreation, and revegetation projects where previous NEPA documentation has been completed. The purpose of this document is to provide a follow-up

treatment option for projects that authorize mechanical or prescribed means for controlling the target weeds. This would include but not be limited to the following current and future projects as listed in Table 1. This programmatic document would follow any restrictions or best management practices outlined in individual project level NEPA. A map of the projects listed in Table 1 is located in Appendix A.

Table 1. Current Project areas where herbicide will be utilized to control weeds.

Project Name	NEPA Number	Acreage (Approximate)	Legal Description	Designation
Yuma Face	CX-AZ-050-2004-0050	15	T. 5 S., R. 22 W., Secs 29 and 30 Gila and Salt River Meridian, Yuma County, Arizona.	WUI
Ferguson	CX-AZ-050-2004-0049	4	T. 14 S., R. 23 E., Secs. 1 and 12 San Bernardino Meridian, Imperial County, California.	WUI
Oxbow	CX-AZ-050-2004-0029	40	T. 1 N., R. 24 W., Secs. 23, 24, 25, 26, 35, 36, Gila and Salt River Meridian, La Paz County, Arizona; T. 9 S., R. 21 E., Secs. 11, 13, 24, Imperial County, California.	WUI
Yuma Lakes	CX-AZ-050-2004-0065	30	T. 8 S., R. 22 W., Sec. 11, SE ¼; Sec. 12 , SW¼; Sec. 14, NW¼; Gila and Salt River Meridian, Yuma County Arizona	WUI
Fortuna Pond	CX-AZ-050-2003-0051	2	T. 8. S., R. 21. W., Sec. 19: SW¼ SW¼ NE¼, SE¼ SE¼ NW¼ (within) Gila and Salt River	WUI

			Meridian, Yuma County, Arizona	
Mittry Jetties	DNA-AZ-050-2004-0034	10	T. 7 S., R. 22 W., Sec. 13 and 14, of the Gila and Salt River Meridian, Yuma County, Arizona	WUI
Border Patrol	CX-AZ-320-2005-012	220	T. 11 S., R. 25 W., Sec. 3, Gila and Salt River Meridian, Yuma County, Arizona	WUI
Pratt Ag Lease	AD-AZ-050-99-021	12	T. 7 S., R. 22W., Sec. 14, portions of lots 2,5, and 6, portion of $NE^1/_4SW^1/_4$ and $NW^1/_4SE^1/_4$ Gila and Salt River Meridian , Yuma County, Arizona	WUI
Paradise Cove Transient Fire	CX-AZ-050-2004-0071	20	T. 16 S., R. 22 E., Sec. 28, San Bernardino Meridian, Yuma County, Arizona	WUI
Mittry BAER	EA-AZ-050-2003-0039 CX-AZ-050-2004-0021	450	T. 6 S., R. 21 W., Secs. 30,31, Gila Salt River Meridian; T. 7 S., R. 21 W., Secs. 5,6,7,8,18,19, Gila and Salt River Meridian, Yuma County, Arizona; T. 6 S., R. 22 W. Secs. 25,26 Gila and Salt River Meridian; T. 15 S., R. 24 E., Secs. 16,17,20,21 San	WUI

			Bernardino Meridian, Imperial County, California	
Betty's Kitchen	EA-AZ-055-95-031	10	T. 7 S., R. 22 W., Sec. 14, Gila and Salt River Meridian, Yuma County, Arizona	WUI
Cibola Site	AZ-050-2003-0011	10	T. 1 N., R. 24 W. SW ¼ Section 25 and NW ¼ Section 36 Gila and Salt River Meridian, La Paz County, Arizona	WUI
Mittry South	AZ-050-2002-0002	80	T. 7 S., R. 22 W., Sec. 14 Gila and Salt River Meridian, Arizona, Yuma County, Arizona	WUI
Paradise Cove and Confluence Fuel Breaks	EA-AZ-050-2002-0021	11	Lot 2, Sec. 28, T. 16 S., R. 22 E., San Bernardino Meridian, Yuma County Arizona (Paradise Cove) and Lot 6, Sec. 19, T.8 S., R. 22 W., Gila and Sal River Meridian, Yuma County Arizona (Confluence).	WUI

Funding for these projects would be drawn from WUI, HFR, riparian, wildlife, range, weed, and recreation project funds allocated for these projects. Management and supervision of the projects would be performed by qualified YFO fire and resources staff that has been through the federal pesticide applicator course.

Most of these projects are within or adjacent to BLM recreation sites or high use areas. They are designated as high priority WUI fuels projects (Appendix A). All these projects have high potential for fire occurrence based on past fire history (DOI – BLM 1202 Record 2004).

C. <u>Conformance with Land Use Plan</u>

The proposed action would be in conformance with the Yuma District Resource Management Plan (RMP) (May 1986 and February 1987), as amended. The plan designates all of the remaining riparian areas along the LCR to be managed as priority wildlife areas. BLM would also discourage the introduction of "exotic" species on public lands. The proposed project would provide for the conservation of federally listed threatened and endangered wildlife species and their habitat, as well as other special status species.

D. Related Documents

This EA incorporates by reference the following:

- The *Fire Management Plan* identifies the project area as a hazardous fuel priority. It further calls on consideration of fuels modification to prevent destruction of endangered species habitat and maintain riparian habitat values and conditions (USDI, BLM 2004)

- The Healthy Forests Initiative and the Healthy Forests Restoration Act (2004)

- The U.S. Fish and Wildlife Service's *Southwestern Willow Flycatcher Recovery Plan* seeks in part to protect, reestablish, mimic, and/or mitigate for the loss of the natural processes that establish, maintain, and recycle riparian ecosystems. Additionally, this plan advocates management of exotic plant species and continuing research to refine management practices and knowledge of ecology (USDI, USFWS 2002)

- Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management (March 2004). This amendment to Arizona resource management plans states that "chemical herbicides would be applied to reduce fuel loads in a variety of habitats." This amendment also states "Herbicide applications would be scheduled and designed to minimize potential affects to non target plants, as well as fish and wildlife species"

- Lower Colorado River Multi-Species Conservation Plan (LCR MSCP), a partnership of Federal, state and local agencies, Native American Tribes, and other non-governmental participants (BOR 2004)

- The Sikes Act (16 USC 670a-670o, 74 Stat. 1052), as amended, Public Law 86-797, approved September 15, 1960

- Thirteen State Vegetation Management Environmental Impact Statement "Vegetation Treatment on BLM Lands in Thirteen Western States – Final EIS, May 1991"

E. Environmental Compliance

1. A Section 7 Consultation with the U.S. Fish and Wildlife Service will be added to the project file upon completion
2. The project is in conformance with the Biological Opinion for Yuma District Resource Management Plan and Amendments (March 1998)
3. The project is in compliance with the Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management (March 2004).
4. The project is in compliance with the Thirteen State Vegetation Management Environmental Impact Statement "Vegetation Treatment on BLM Lands in Thirteen Western States – Final EIS, May 1991"

II. Proposed Action

A. Proposed Action

The proposed project would allow the use of Environmental Protection Agency (EPA) registered, BLM approved herbicides to control weeds. The herbicides would include, but are not limited to Garlon, Pathfinder or Remedy (active ingredient Triclopyr) on sites where there is no standing water and Aquamaster/Aquatic Roundup (Glyphosate) or Habitat (Imazapyr) on sites within standing water. Basal bark, foliar, and/or cut stump methods of application would be used to treat tamarisk. Foliar applications would be used to treat cane, giant reed and ravenna grass. Pesticide use proposals would be completed prior to project implementation and included as part of the final project file. A programmatic pesticide use proposal for the proposed project sites is found in Appendix B. Applications would be accomplished on foot with a backpack pump unless individual project NEPA documentation has analyzed the use of motorized equipment within the project boundaries. Any restriction to the use of motorized equipment will be followed during herbicide application. Project components include: 1) site selection; 2) treatment with herbicides; 3) maintenance; 4) following standard procedures to mitigate disturbance; 5) monitoring.

Site Selection. The proposed action would occur at the sites described in Table 1. Future WUI, HFR, wildfire rehabilitation and revegetation projects would potentially be treated with herbicides to limit regrowth of invasive weeds.

Herbicide Use and Application. Weeds would be treated using EPA registered, BLM approved herbicides following label guidelines. Re-sprouts of tamarisk would be treated with Garlon, Remedy, Pathfinder (Triclopyr), Aquamaster, Roundup (Glyphosate), Habitat (Imazapyr) or other suitable herbicides. Generally, re-sprouts would be treated after reaching a height of 3 to 6 feet using a basal bark application. Other techniques include a foliar treatment, where leaves of the entire plant are sprayed, or a cut stump treatment, where a chainsaw is used to cut down mature plants and then herbicide is

brushed or sprayed onto the exposed cambium. A certified applicator would supervise this work. Herbicides would be applied and disposed of following labeled instructions. Under either application method herbicides would be used sparingly, so that they would not contaminate contact with aquatic habitats. A Spill Contingency Plan is included (Appendix C) to address actions in the event of an accidental chemical spill. If a cultural site is documented within the project area, herbicide crews will use existing access roads and trails to avoid damaging cultural resources.

Maintenance. Weeds would be chemically treated by approved herbicides to prevent reestablishment. Treatments would happen on an annual basis. No one project area would be treated more then three times during the calendar year. These treatments would promote desired native vegetation components and fulfill fire management objectives.

Standard Procedures. Standard procedures would be followed to mitigate disturbance during project operations. The specifics of these procedures are detailed in Appendix D. These procedures include transporting garbage off-site and disposing of it in accordance with the Solid Waste Disposal Act. All refueling, oil changes, and lubrication would be done in a manner to prevent spills. Should cultural and/or paleontological resources be encountered during project activities, work will cease in the area of the discovery and the BLM will be notified immediately. All survey markers would be protected against damage or destruction. As an extra precaution to protect the SWFL, bald eagle, and YBCU, all terrain vehicle or tractor-mounted herbicide applications would be timed to occur outside the, April through October, SWFL nesting season. Herbicide will be marked with colored dye to identify areas treated. A buffer of 15 feet will be used any time Garlon herbicide is applied near a sensitive water source (pool, open water, surface water, and drainage) to guarantee no effects to YCR and RBS. Sensitive water sources in the vicinity will be tested for active herbicide to determine environmental fates of herbicides. Pedestrian backpack foliar treatments and cut-stump applications would be permissible throughout the year. Any future vegetation removal projects within SWFL and YBCU habitat would have site specific surveys to determine SWFL presence or absence before any treatment occurs. All personnel working with or in the vicinity of the herbicide application will have daily briefings that would inform them of federally listed species concerns.

Monitoring. Monitoring will be an integral part of this project. The monitoring will focus on herbicide treatment effectiveness and non-target species effects. Herbicide application monitoring protocol, developed for the Mittry BAER project will be utilized for this project. This protocol will be part of a fuels monitoring plan being developed for the Yuma Field Office. This monitoring plan will be developed with the assistance of Arizona Western College's (AWC) Biology Department. AWC will also provide some student labor to assist with the monitoring of this project.

B. <u>No Action Alternative</u>

Under the no action alternative, chemical treatment of invasive weeds would not occur

and tamarisk, cane and giant reed would have to be treated mechanically, which could involve more expense and increased surface disturbance. Fuel created from cutting resprouts would accumulate increasing the possibility of wildfire or have to be physically hauled off the site.
Weeds would accumulate within project areas and increase the potential of wildfire. Native vegetation communities would suffer from encroachment by weeds and biological diversity would decline.

III. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES.

Section III summarizes potential impacts to various elements of the human environment including the "critical elements" listed in BLM Manual H-1790-1, Appendix 5, as amended. Those elements not present or not affected by the proposed action are listed in the next paragraph. In addition to the critical elements of the human environment as identified by BLM, additional environmental concerns have been identified as being potentially impacted by the project alternatives and therefore are discussed in the text of this section.

A review of the existing environment shows that the following list of critical elements of the human environment are not present or would not be affected by this proposed action(s); therefore they will not be addressed in this EA: Areas of Critical Environmental Concern, Farm Lands (Prime or Unique), Native American Religious Concerns, Wild and Scenic Rivers, and Wilderness.

A. Topography and Soils

The project areas are located on floodplains made up of alluvial soils. The soils are nearly level to gently sloping, may be well drained to poorly drained, and range from silt loams to clays (USDA, Soil Conservation Service 1980). Three soil types are present: Holtville clay, Indio silt loam, and Salorthids. These are the floodplain soils of the Gila and Colorado Rivers. These soils are deep, poorly drained, strongly saline, and are found throughout floodplains of the Gila and Colorado Rivers. Salorthids are generally saturated with very salty groundwater at shallow to moderate depths. The majority of the project area is mapped as Salorthids. Most if not all of these projects would have previously disturbed soil to some extent due to proximity to the floodplain, and previous mechanical treatments.

1. Effects of Proposed Action. Soils may be potentially disturbed by any motorized equipment utilized to haul the herbicide. Impacts of herbicide treatment would be minimal, potentially leaving some vehicle trails if motorized treatment is implemented. A spill Prevention Plan will be in place to mitigate any contamination to the soils. Although herbicides would not alter a soil's physical properties, there may be indirect effects on soil microorganisms. Triclopyr is minimally soluble and Glyphosate is strongly bound to soil making them unavailable to soil microbes. Imazapyr is moderately soluble but rapidly photodegrades in solution. Triclopyr and Glyphosate based herbicides decompose

rapidly in sunlight and would be inactive on the soil in a few hours after application. The half-life for Glyphosate and Triclopyr is considered "moderately persistent" at 47 days. The half-life for Imazapyr is also considered "moderately persistent" with a range of 25-141 days. Sunlight, temperature, soil and water pH, microbial activity and other soil characteristics may affect the breakdown of herbicides.yt (DOI, BLM 1991).

2. Effect of No Action. Soils would continue to be disturbed by annual maintenance mowing or cutting of tamarisk resprouts.

B. Surface and Ground Water Quality

Surface runoff from storm events is drained into the Colorado and Gila rivers. The U.S. Geological Survey (USGS) regularly collects Colorado River water samples at Imperial Dam. The river water is high in sodium and calcium and conductivity ranges from 1,100 to 1,700 S/cm (microseimens). That water quality is somewhat constant. On the other hand, water quality of the Gila River varies over a wide range. During flooding, the river water is very good quality with lower sodium, calcium, and conductivity. But during low flow, the drainage ditches add water from the farmland to the river, bringing the conductivity up as high as 9,000 S/cm and adding fertilizer and pesticide residues to the water. Groundwater in the area is typically sodium chloride or sodium fluoride (salt) rich. The groundwater near the Colorado River has high sulfate concentrations, but still meets primary and secondary Federal drinking standards, except for fluoride (DOD, U.S. Army Yuma Proving Ground 2001).

1. Effects of Proposed Action. Herbicides may enter surface water bodies during treatment through accidental direct application, through drift or after treatment through surface or subsurface runoff. To pollute the water, they must be present in the water at concentrations high enough to impair water quality at a point of use. Surface water will be protected by adhering to a 10-foot (ground-hand) buffer when using herbicides not approved for aquatic use. To minimize drift, herbicides will only be applied when wind speeds are less than 10 miles per hour.

2. Effects of No Action. Surface water would not be affected as result of this alternative. Ground water is likely to further recede due to the high use from tamarisk.

C. Vegetation.

The proposed project area is located within the Lower Colorado Valley Subdivision of the Sonoran Desert. This is the most arid and largest region of the Sonoran Desert. Uplands are chiefly vegetated with creosote bush (*Larrea tridentata*) in plant

communities containing a variety of other species. Facultative and obligate riparian trees and shrubs characterize uncultivated floodplains. Within the proposed project area, the dominated vegetation is the nonnative tamarisk. Arrowweed, seep willow (*Baccharis salicifolia*), and quail bush (*Atriplex spp.*) are also present in several disturbed openings. The tamarisk found within the site range in size, age class, and density. Few athel tamarisk (*Tamarisk aphylla*) occur within the proposed project area.

1. Effects of Proposed Action. Only weeds such as tamarisk, cane, ravenna grass and giant reed in the project areas would be treated. Care will be taken to ensure that herbicide is not negatively impacting desirable native vegetation such as cottonwood, willow, mesquite discovered during project operations. The use of herbicide would reduce the need for mechanical maintenance and reduce the fire hazard produced by resprouts.

2. Effects of No Action. Weeds would have to be mechanically or manually cut and would result in a higher fire hazard in between cutting treatments. Resprouts would potentially inhibit the recruitment of desirable native species.

D. Wildlife.

A list of the most common wildlife species within YFO riparian zones, including those species designated as Threatened, Endangered, Sensitive, and Candidate, can be found in Appendix E.

1. **Effects of Proposed Action.**

Direct impacts. While spraying weeds, wildlife could be disturbed or less mobile animals such as rodents, lizards, or snakes could be crushed by pedestrian traffic or motorized equipment if allowed.

Indirect impacts. The loss of tamarisk habitat, though relatively small in size, may negatively affect animals within and adjacent to the project area initially. Animals living in the area would be potentially displaced into poorer habitats, or forced to encroach into the territories of other individuals adjacent to the project area. Consequently, displaced and encroached upon individuals would have more difficulty finding food, seeking shelter, and attracting mates because of higher animal densities and competition for limited resources.

The immediate benefit of utilizing herbicide to control tamarisk reprouts would be to protect habitat from destruction by wildfire. Use of herbicide would also encourage the establishment of native vegetation within revegetation projects because of reduced competition. Native vegetation provides better quality and more complex structure for wildlife. Many studies have found higher bird species diversity and abundance in native cottonwood, willow, and mesquite stands compared to tamarisk stands (Anderson et al. 1977; Cohan et al. 1979, cited in

Dudley 2000; Anderson and Ohmart 1985; Schroeder 1993, cited in Dudley 2000).

In conclusion, negative, short-term effects (potentially killing and displacing individuals) are overshadowed by positive, long-term effects (reduction of fire hazard to adjacent habitat and improved opportunities for native vegetation establishment).

2. Effects of No Action. Besides failing to support high diversity and abundance of wildlife within the project area, allowing tamarisk to exist in the project area has far-reaching negative impacts beyond the borders of the project area.

Fire. Tamarisk in the project area would continue to pose a fire hazard threat to priority wildlife habitat within and adjacent the project areas between mechanical treatments.

Seed source. Tamarisk resprouts in the project area would continue to remain a seed and pollen source to infect and degrade cottonwood-willow habitat elsewhere.

E. Threatened and Endangered Wildlife and Plants.

Federally listed threatened/endangered species occur in or near project areas. They are endangered razorback sucker, threatened American bald eagle (*Haliaeetus leucocephalus*), endangered Yuma clapper rail, endangered brown pelican (*Pelicanus occidentalis)* and endangered SWFL. A query of the Arizona Game and Fish Department's Heritage Data Management System (HDMS) for special status species also revealed the potential for the following species to occur: great egret (*Ardea alba*), California black rail (*Laterallus jamaicensis coturniculus*), California leaf-nosed bat (*Macrotus californicus*), and pocketed free-tailed bat (*Nyctinomops femorosaccus*). Herbicide use described in this EA is to be used as a follow-up treatment to wildfire, prescribed fire, mechanical and/or hand treatment of weeds. Concurrence from FWS will be required for any project that BLM determines "may affect" threatened or endangered species.

American bald eagle is a commonly seen winter resident along the LCR. They have been historically seen using mature willow and cottonwoods as perches along the LCR and Gila River. The Yuma clapper rail is found in the cattail marshes along the LCR. The brown pelican is typically found on the Pacific Coast and is an uncommon transient in Arizona on the LCR.

The SWFL is found during spring and fall migration along the LCR and has been sighted regularly throughout the riparian zone. Territorial or resident SWFL (those which elicited calls after June 15) have been recorded in or adjacent to several of the proposed project locations. No nests have been located south of the Bill Williams River, Arizona,

in over 65 years (Unitt 1987), though northbound and southbound migrant willow flycatchers use the riparian corridor. Factors contributing to the decline of flycatchers on the breeding grounds include loss, degradation and/or fragmentation of riparian habitat; invasion by nonnative plants; and brood parasitism by Brown-headed Cowbirds (USFWS 1995, Marshall and Stoleson 2000).

Some of the projects that would be covered under this analysis are directly adjacent to "suitable" SWFL habitat as defined and surveyed by Bob Mckernan of San Bernardino County Museum and Bureau of Reclamation between 1996 and 2000. McKernan and Braden (2000) identified the "suitable" areas where surveys revealed migrant and territorial SWFL. Tamarisk accounted for 40.9 percent of the known nest substrates for SWFL during 2000 (McKernan and Braden 2001). McKernan and Braden (2001) concluded in their 2000 report that at that time, based on nest success of SWFL in tamarisk along the LCR, there is no valid reason to view tamarisk-dominated areas as inappropriate or unproductive SWFL habitat. However, in recommendations following the conclusions of McKernan's 2000 report he advocated "identifying areas of the LCR which are known as having high potential for breeding SWFL and determine if habitats and/or sites can be managed or enhanced through vegetation restoration or surplus water delivery" (McKernan and Braden 2001). The U.S. Fish and Wildlife service has recently issued proposed critical habitat for the SWFL. The Parker-Southerly International Border Management Unit, and Hoover-Parker / Bill Williams / Parker-Southerly International Border Management Units would both be impacted by the use of herbicide.

USFWS is considering proposing the western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) (WYBC) for listing as a "threatened" species because populations of WYBC have dropped precipitously. For example, over 15,000 pairs once occurred in California less than 100 years ago, but now California has less than 30 pairs (Hughes 1999). Habitat loss and fragmentation in the west has contributed to their rapid decline (Laymon and Halterman 1989; Hughes 1999).

In the Sonoran desert, WYBC occurs in mature cottonwood-willow and dense mesquite (Rosenberg et al. 1991; Hughes 1999), but rarely occurs in tamarisk. In the LCR valley, Hunter and others (1985) found only 2.4 percent of the WYBC population occurred in tamarisk relative to native habitat such as cottonwood-willow (68.3 percent), honey mesquite (19.5 percent), and screwbean mesquite (9.8 percent).

1. Effects of Proposed Action. The proposed action would strive to protect the habitat quality for wildlife including threatened and endangered species in the project areas. Herbicidal maintenance of fire breaks, hazardous fuels reduction areas, and other areas of concern within the Wildland Urban Interface would protect the riparian corridor from wildfire and further fragmentation and degradation. The herbicides discussed in this environmental assessment would not have a negative effect on wildlife if applied according to the label. The spill contingency plan (Appendix C) would ensure that herbicide did not contaminate its aquatic environment. Cottonwoods and willows in and near the project areas will not be disturbed as part of the proposed action. Special status species

including great egret, California black rail, California leaf-nosed bat, and pocketed free-tailed bat would not be negatively affected. All project areas will have been previously affected by mechanical treatment, fire, or recreational improvements.

2. Effects of No Action. Threatened and endangered species numbers would continue to be threatened by wildfire as a result of the no action alternative.

F. <u>Climate and Air Quality.</u>

The LCR valley challenges the Mohave Desert's Death Valley as the hottest and driest place in North America. The temperature extremes range from 32 degrees Fahrenheit to 120 degrees Fahrenheit. The amount and seasonality of rainfall are defining characteristics of the Sonoran Desert. Much of the area has a bi-seasonal rainfall pattern. A brief summer rainy season and widespread winter rains deliver 3 inches of rainfall on the average (Phillips 2000).

Yuma County and a small portion of the Laguna Region are considered nonattainment areas for PM_{10}, airborne particulate matter 10 microns or less in diameter. Air Quality Standards were exceeded within the nonattainment area in August 2002. In February 2004, ADEQ completed a Natural Events Action Plan for the Yuma Nonattainment Area. The major sources of air pollution are vehicular travel on improved and unimproved surfaces and agricultural activities. Air quality is otherwise excellent except during times of high winds. (USDOD, Army, YPG 2001).

1. Effects of Proposed Action. Small amounts of herbicide would be released into the atmosphere at the point of the spray nozzle. However, the affects would be temporary. PM10 particles require winds in excess of 15 mph to remain airborne. Herbicides would not be used in winds exceeding 15 mph. Herbicide applications would not contribute to PM 10. Residual scent from herbicide applications would linger in the project area for as long as two months.

2. Effects of No Action. Air quality would not be affected if the project does not take place.

G. <u>Recreation.</u>

The project areas are located within the YFO boundaries along the Colorado and Gila rivers. The year-round use for recreation is high in this area. During the period from September to April the primary users of the area are winter visitors who are camping with recreational vehicles (RVs) and local residents picnicking and fishing. During the period from May until October the primary users are water sport enthusiasts.

1. Effects of Proposed Action. During the proposed herbicide applications, the project would be closed off and access restricted. Within 24 hours following the herbicide application, there would no longer be any possible human health

hazards from herbicides and recreational access would be re-opened.

2. Effects of No Action. The Implementation of the proposed action would not impact any of the recreation sites' classifications in the BLM's Recreation Opportunity Spectrum. Recreating visitors within the YFO boundaries would not be better protected from the existing high risk of wildfires.

H. Floodplains.

Floodplains are strips of flat land adjacent to the channel that in former times were subject to flooding. The project area is within the 100-year-floodplain of the Colorado River. Although flooding is rare, past floods have been associated with rapid snowmelt in the upper portions of the Colorado River watershed. These floodplains once harbored a rich native seed bank, but are currently dominated by nonnative tamarisk.

1. Effects of Proposed Action. Implementation of the proposed action would not impact the integrity of the Colorado River floodplain or the U.S. Bureau of Reclamation's management of the river's flow. The proposed action would comply with Section 7 of the Colorado River Floodway Protection Act, Public Law 99-450 (October 8, 1986). The Final Report of the Colorado River Taskforce allows for public roads, fish and wildlife enhancement projects, public recreational developments, and a minimal amount of permanent facilities within the floodway (Section 7).

2. Effects of No Action. Implementation of the no action alternative would not impact the Colorado River floodplain or the U.S. Bureau of Reclamation's management of the river's flow. The no action alternative would comply with Colorado River Floodway Protection Act, Public Law 99-450.

I. Wetland/Riparian Zones.

The project areas are within riparian areas associated with the Colorado and Gila rivers. Currently the riparian zone is dominated by monotypic nonnative vegetation. Southwestern riparian ecosystems are one of the most critically endangered habitats in North America (USDI, USFWS 2001).

1. Effects of Proposed Action. The proposed herbicide applications are expected to protect current and future riparian restorations, wildlife habitat, and reduce fire hazard within WUI and HFR project areas. Removal of tamarisk resprouts would lower the risk of wildfire events, thus allowing for maintenance of the native riparian habitat that is being created. Herbicides would be used in a restricted manner that would not allow them to enter the surface water of the Colorado or Gila rivers.

2. Effects of No Action. Fire hazard would continue to pose a greater threat because tamarisk resprouts would have to be annually cut mechanically or manually.

J. Land Use and Ownership.

The proposed projects either occur on BLM managed land or occur on lands with which we have an agreement to implement the proposed action. By specific Department of the Interior directive, Departmental Manual 613, the Yuma Field Office of the BLM (formerly the Lower Colorado River Land Use Office and Yuma District Office) has full management responsibility for the administration of federal lands not being managed by the USFWS along the LCR. This includes all Bureau of Reclamation lands that have been acquired or withdrawn for reclamation purposes under U.S. Bureau of Reclamation law.

1. Effects of Proposed Action. There would be no change in land status.

2. Effects of No Action. There would be no change in land status.

K. Cultural Resources.

Cultural resources are abundant near YFO riparian zones because people historically lived along the rivers. Campsites, milling stations, artifact scatters, trails, petroglyphs, geoglyphs, and other cultural resource sites are likely to be found adjacent to proposed planting sites. It is a requirement that all federal undertakings comply with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended. Each project-level NEPA analysis would include compliance with NHPA and other applicable cultural resource laws before the action is approved by the Field Manager. Herbicide application as covered under this analysis would abide by any restrictions or stipulations laid forth in the individual project level NEPA documents and PUPs.

1. Effects of Proposed Action. Disturbance of cultural resources would be allowed only to the degree allowed under project level NEPA documentation. Applicators would only access the work sites using existing roads and trails. Cut-stump treatments would impact cultural resources due to falling limbs and branches. Pedestrian application would be used where required to minimize impacts to cultural resources.

2. Effects of No Action. No cultural resources would be disturbed.

L. Human Health and Safety.

Any land management activities undertaken on public lands must be done with human health and safety in mind. In particular, if herbicide use is proposed, all applicable

guidelines must be followed in the use of these products.

1. Effects of Proposed Action. Triclopyr, Imazapyr, and Glyphosate fall into the "slight" toxicity category and carry a "caution" warning label. They are harmful if swallowed, inhaled, or absorbed through skin. Applicators must be licensed and apply chemicals according to label restrictions. Herbicides would be applied to the project area, but under strict restrictions and guidelines. A certified pesticide applicator would supervise all herbicide applications.

2. Effects of No Action. Human health and safety would not be affected.

M. Wild Horses and Burros.

The Yuma Field Office is responsible for management of wild horses and burros. These animals often water in the riparian zone and travel the associated washes. Wild horses and burros do not generally use tamarisk or any of the other target weeds as forage.

1. **Effects of Proposed Action.** Wild horses and burros could be indirectly affected by changes in forage supply and herbicide exposure. The risk of direct toxic effects to these animals is negligible, based on the LD50 for all of the proposed herbicides.

2. **Effects of No Action.** There would be no impact to wild horses and burros.

N. Wastes, Hazardous and Solid.

A site-specific clearance for hazardous materials would be required prior to project implementation.

1. **Effects of Proposed Action.** All chemical (herbicide) containers would be properly disposed of according to label instructions. The spill contingency plan can be found in Appendix C. Stipulations pertaining to hazardous wastes can be found in Appendix D.

2. **Effects of No Action.** No wastes, hazardous and solid, would be used which could affect the environment in the project area as a result of this alternative.

O. Environmental Justice.

Title VI of the Civil Rights Act of 1964 ensures that individuals are not excluded from participation in, denied the benefit of, or subjected to discrimination under any program or activity receiving federal assistance on the basis of race, color, or national origin. Executive Order 12898 on Environmental Justice directs that programs, policies, and

activities not have a disproportionately high and adverse human health and environmental effect on minority and low-income populations.

1. Effects of Proposed Action. No negative impacts are anticipated to low income or minority communities as a result of the proposed action. No indigents or campsites occupy the proposed project sites. The proposed action would benefit such residents, as it would protect their campsites from the threat of wildfire.

2. Effects of No Action. Indigent home sites and persons would continue to be threatened by wildfire.

P. Invasive, Nonnative Species

In accordance with Executive Order 13112 signed February 3, 1999, all federal agencies whose actions may affect the status of invasive species shall: prevent the introduction of invasive species and provide for the restoration of native species and habitat conditions in ecosystems that have been invaded. There are hundreds of exotic plant species in the riparian west. Many riparian exotics have become regionally widespread and locally dominate channels or floodplains. Tamarisk, a highly invasive species of vegetation, constitutes the main structural layer within the project area. Generally when plant species diversity declines, ecosystem functions, such as provision of animal habitat, decline as well. Among the habitat suitability factors that can differ between the native and exotic-dominated vegetation types are presence of suitable branching structure for nest placement, quality and quantity of the insect food base, thermal environment (microclimate), and abundance of parasites or predators (USDI, FWS 2001).

Functions can be reduced as monotypic stands replace more diverse mosaics and mixes of species. River regulation and flood suppression reduce channel dynamics and can result in a simplified community dominated by dense tamarisk thickets with little understory vegetation. Tamarisk has a high rate of seed production; the plant produces as many as 600,000 seeds per plant from April through October. The long period of seed production allows tamarisk to germinate well into fall, which is when most native trees are no longer producing viable seeds. Furthermore, monotypic stands of tamarisk pose great danger as a hazardous fuel. Wildfires in tamarisk tend to burn with great intensity and produce extreme fire behavior. These fires can be difficult to suppress and because of the high radiant heat they produce and tend to kill most native trees such as cottonwood, willow and mesquite.

1. **Effects of Proposed Action.** The proposed action would reduce the threat of wildfire within the WUI and protect native riparian restorations along the LCR. Precautions including cleaning would be taken to assure that all equipment is clean of mud, dirt, and plant parts prior to moving equipment onto the project area. Stipulations pertaining to weeds can be found in Appendix D.

2. **Effects of No Action.** Nonnative vegetation communities would continue to persist and expand. Fire danger from hazardous fuel buildup would increase. No hazardous fuel reduction/restoration projects would be maintained with herbicide. Weeds in the project area would continue to be a seed source for proliferation into adjacent lands.

Q. <u>Energy Policy</u>

The area contains no features related to energy development, production, supply, or distribution.

IV. Cumulative Impacts.

Cumulative effects on wildlife, habitat, and recreation were analyzed for the immediate geographic scope of the Yuma Field Office herbicide treatment projects.

1. Cumulative impacts of vegetation control will be analyzed under project level NEPA documents. Projects not specifically listed in this document are required to have site specific NEPA documentation. Project-level concurrence from the FWS is additionally required.

2. The proposed use of herbicides would assist in reclaiming areas burned by wildfire, maintaining functional fire breaks, assist in maintenance of recreation areas, reduce hazardous fuel loadings within the WUI, and assist in revegetation efforts.

V. LIST OF AGENCIES, ORGANIZATIONS, AND PERSONS CONTACTED

A. List of Preparers

Yuma Field Office BLM

Mike Behrens	YFO/LHFO --- Fuels Specialist
Project Lead	
Jennifer Green	Natural Resources Specialist
Karen Reichhardt	Resources Team Leader
Sandra Arnold	Archaeologist
Candy Holzer	Land Law Examiner
Steve Fusilier	Lands and Minerals Team Leader
Aaron Curtis	Outdoor Recreation Planner
Roger Oyler	Range Conservationist
David Repass:	YFO/LHFO --- Fire Biologist
Winfred Wong	Wildlife Biologist

B. Persons and Agencies Contacted

Lesley Fitzpatrick	US Fish and Wildlife Service

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Appendix A-Site Map

Appendix B-Pesticide Use Proposal

Appendix C-Spill Contingency Plan

Appendix D – Standard Procedures

U.S. DEPARTMENT OF INTERIOR

BLM PESTICIDE USE PROPOSAL

PROPOSAL NUMBER: AZ-PUP-320-05-0002

EA NUMBER: EA-AZ-320-2005-026

STATE: Arizona, California
DISTRICT: Yuma Field Office
RESOURCE AREA: Yuma Field Office
COUNTY: Yuma, Arizona
Imperial, California

DATE: November 21, 2005

LOCATION: This is a programmatic Pesticide Use Proposal to cover all of the locations in the following table.

Project Name	NEPA Number	Acreage (Approximate)	Legal Description	Designation
Yuma Face	CX-AZ-050-2004-0050	15	T. 5 S., R. 22 W., Secs. 29 and 30 Gila and Salt River Meridian, Yuma County, Arizona.	WUI
Ferguson	CX-AZ-050-2004-0049	4	T. 14 S., R. 23 E., Secs. 1 and 12 San Bernardino Meridian, Imperial County, California.	WUI
Oxbow	CX-AZ-050-2004-0029	40	T. 1 N., R. 24 W., secs. 23, 24, 25, 26, 35, 36, Gila and Salt River Meridian, La Paz County, Arizona; T. 9 S., R. 21 E., secs. 11, 13, 24, Imperial County, California.	WUI
Yuma Lakes	CX-AZ-050-2004-0065	30	T. 14 S., R. 23 E., Secs. 1 and 12 Gila	WUI

			and Salt River Meridian	
Fortuna Pond	CX-AZ-050-2003-0051	2	Gila and Salt River Meridian, Yuma County, Arizona T. 8. S., R. 21. W., Sec. 19: SW¼ SW¼ NE¼, SE¼ SE¼ NW¼ (within)	WUI
Mittry Jetties	DNA-AZ-050-2004-0034	10	T. 7 S., R. 22 W., sec. 13 and 14, of the Gila and Salt River Meridian, Arizona.	WUI
Border Patrol	CX-AZ-320-2005-012	220	T. 11 S., R. 25 W., sec. 3, Gila and Salt River Meridian	WUI
Pratt Ag Lease	AD-AZ-050-99-021	12	T. 7 S., R. 22W., sec. 14, portions of lots 2,5, and 6, portion of $NE^1/_4SW^1/_4$ and $NW^1/_4SE^1/_4$ Gila and Salt River Meridian	WUI
Paradise Cove Transient Fire	CX-AZ-050-2004-0071	20	T. 16 S., R. 22 E., sec. 28, San Bernardino Meridian	WUI
Mittry BAER	EA-AZ-050-2003-0039 CX-AZ-050-2004-0021	450	T. 6 S., R. 21 W., secs. 30, 31, Gila Salt River Meridian; T. 7 S., R. 21 W., secs. 5, 6,7,8,18,19, Gila and Salt River Meridian; T. 6 S., R. 22 W. secs. 25, 26 Gila and Salt River Meridian; T. 15 S., R. 24 E., secs. 16,17,20,21 San Bernardino Meridian	WUI
Betty's Kitchen	EA-AZ-055-95-031	10	T. 7 S., R. 22 W., sec. 14, Gila and Salt River Meridian	WUI
Cibola Site	AZ-050-2003-	10	T. 1 N., R. 24 W. SW ½	WUI

	0011		Section 25 and NW ¼ Section 36	
Mittry South	AZ-050-2002-0002	80	T. 7 S., R. 22 W., sec. 14 Gila and Salt River Meridian, Arizona	WUI
Paradise Cove and Confluence Fuel Breaks	EA-AZ-050-2002-0021	11	Lot 2, Sec. 28, T. 16 S., R. 22 E., San Bernardino Meridian, AZ (Paradise Cove) and Lot 6, Sec. 19, T.8 S., R. 22 W., Gila and Salt River Meridian, AZ (Confluence).	WUI

DURATION OF PROPOSAL: Three years

I. PESTICIDE APPLICATION (including mixtures and surfactants and colorants):

TRADE NAME(s):
Pathfinder II,
Garlon 4 mixed with Mor-Act Adjuvant
Hi-Lite

COMMON NAME(s):
Pathfinder II and Garlon 4 = triclopyr
Mor-Act Adjuvant = Oil/Diesel substitute
Hi-Lite blue marker dye

EPA REGISTRATION NUMBER(s):
Pathfinder: 62719-176
Garlon 4 = EPA Reg. No. 62719-40
Mor-Act = 2935-50098

MANUFACTURER(s):
Pathfinder and Garlon = Dow Agroscience
Mor-Act= Wilbur Ellis
Hi-Lite = Becker Underwood

FORMULATION: Liquid \ XX \ Dry \ \

METHOD OF APPLICATION:
Backpack sprayer, vehicle-mounted spray tank, boat mounted spray tank, foliar, cut stump, basal bark, injection or sponge.

MAXIMUM RATE OF APPLICATION: All materials will be used according to labeled instructions or "Final Environmental Impact Statement Vegetation Treatment on BLM Lands in Thirteen Western States, May 1991" – which ever is lower.

All materials will be used according to rate listed in "Final EIS – Vegetation Treatment on BLM Land in Thirteen Western States, 1991"
Rates from Vegetation Treatment on BLM Land in Thirteen Western States, 1991:
Triclopyr: 1.5 lbs. a.i./acre for rangelands

USE UNIT ON LABEL:

Pathfinder II = premixed solution
Garlon 4 = 1-8 qt./acre
Mor-act = 1-4 pints per acre in combination with the recommended herbicide (8-16 gallons Mor-Act per 100 gallons of finished spray)
Hi-Lite = ½ oz. per gallon

Note: All basal bark treatments may be used to treat susceptible woody species on range and permanent pasture land provided that no more than 1.5 quarts of Garlon 4 are applied per acre.

POUNDS ACTIVE INGREDIENT/ACRE:
For both Pathfinder and Garlon = 1.5lbs a.i./acre

INTENDED RATE OF APPLICATION:

All materials will be used according to label. Pathfinder II label does not have application rate per acre on label. The acid equivalent of triclopyr in Pathfinder II is 9.81% or 0.75 lb/gal.

Garlon 4 (Low volume foliar treatment) – 20 quarts of Garlon 4 in 10 to 100 gallons of finished spray. Use sufficient spray volume to obtain uniform coverage of target plants including the surfaces of all foliage, stems and root collars.

Garlon 4 (Basal Bark treatment) – mix 20 to 30 gallons of Garlon 4 in enough oil to make 100 gallons of spray mixture. Spray the basal parts of brush and tree trunks in a manner which thoroughly wets the lower stems, including the root collar area but not to the point of runoff.

Garlon 4 (Cut stump treatment) – Apply undiluted Garlon 4 to wet the cambium and adjacent wood around the entire circumference of the cut stump and root collar.

APPLICATION DATE(S): Fall 2005 – Fall 2007

NUMBER OF APPLICATIONS: Twice/year/site with two spot follow-up applications on resprouts. No applications or combinations of applications will exceed 1.5 lbs. of active ingredient per acre, per year.

II. PEST (List specific pest(s) and reason(s) for application):
Salt cedar (*Tamarix* spp.) Ravenna grass (*Erianthus ravennae)*, cane (*Phragmites communis*), giant reed (*Arrundo donax*). All of these plant species are invasive along the Colorado river, outcompete native plants, reduce native plant diversity and increase hazard fuel load.

III. MAJOR DESIRED PLANT SPECIES
Cottonwood (*Populus fremontii*), willow (*Salix gooddingii)* and mesquite (*Prosopis* spp.) trees are the desired major plant species.

IV. TREATMENT SITE: (Describe land type or use, size, stage of growth of target species, slope and soil type).
Treatment site is within the riparian corridor of the Yuma Field Office. Most sites will be within the floodplain of the Colorado or Gila River. Soils are level alluvial deposits composed of silt, clay and sand. Treatment is to control invasive plants from dominating the floodplain in areas that have been previously treated for hazardous fuels, fuel breaks, riparian restoration projects, recreation areas, or regenerating following wildfire.

ESTIMATED ACRES: 914

V. SENSITIVE ASPECTS AND PRECAUTIONS: (Describe sensitive areas [e.g., marsh, endangered, threatened, candidate and sensitive species habitat] and distance to treatment site. List measures taken to avoid impact to sensitive areas).
No plant species listed as sensitive by the BLM are present in the affected area of the Lower Colorado River. Federally listed animals are: southwestern willow flycatcher (SWFL), bald eagle, Yuma clapper rail. Yuma clapper rail habitat is in cattail and bullrush marsh. No marsh vegetation (cattail and bulrush) will be directly sprayed. SWFL habitat (dense inundated tamarisk or mixed native woodland with a moist understory) will not be treated. The lands being treated under this PUP have been previously cleared mechanically, burned by wildfire, and/or are designated recreation areas.

VI. NONTARGET VEGETATION: (Describe impacts to nontarget vegetation in the project area).
Nontarget vegetation in order of prevalence is willow, cottonwood, arrowweed, cattail, bulrush, seep willow, quailbush and mesquite. These non-target effects will be minimized by utilizing spot application methods, monitoring wind conditions, by ensuring temperatures are below the herbicide's volatilization point, and ensuring applicators will be able to identify nontarget vegetation accurately.

VII. INTEGRATED WEED MANAGEMENT: (Describe other aspects of the IWM program that are being used in addition to this chemical application in the project area).

The herbicide treatments detailed in EA-320-2005-026 are a follow-up maintenance treatment for areas that have been previously cleared as riparian restoration, wildland urban interface, healthy forest restoration act, firebreaks, recreations sites or other similar projects. The treatment is to manage for invasive species within the riparian zone. Sites have been previously cleared mechanically, burned in wildfire, or are established recreation sites.

Originator's Signature:_____ Date:_____ Telephone Number: 928-317-3234

Originator's Company Name: YFO-BLM

Certified Pesticide Applicator's Signature:_____Date:_____

BLM Office Weed\Pesticide Coordinator's Signature: _____ Date:_____

BLM Manager's Approval:_____ Date:_____

State Coordinator's Signature _____ Date: _____

Deputy State Director's Approval:_____ Date:_____

___ CONCUR OR APPROVED ___ NOT CONCUR OR DISAPPROVED
___ CONCUR OR APPROVED WITH MODIFICATIONS: Any changes to this proposal by the State Pesticide Coordinator will be listed in an attached memo to the Manager requesting approval from the Deputy State Director.

APPENDIX F
Correspondence

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

Reply to
Attention of

December 29, 2005

Planning, Environmental, and Regulatory Division

SUBJECT: Supplemental Environmental Assessment for Installation of Border Security Infrastructure Near San Luis, Arizona, Office of Border Patrol Yuma Sector, Arizona

Mr. Steve Spangle
U.S. Fish and Wildlife Service
2321 W. Royal Palm Road, Suite 103
Phoenix, Arizona 85021-4951

Dear Mr. Spangle,

The U.S. Army Corps of Engineers (USACE), Fort Worth District, on the behalf of the Department of Homeland Security, Customs and Border Protection (CBP), is preparing a Supplemental Environmental Assessment (SEA) for the installation of border security infrastructure near San Luis, Arizona (Figure 1). This SEA will evaluate the reconfiguration of infrastructure components addressed in the EA completed in December 2004.

Since finalization of the EA and FONSI events have transpired to change the existing condition of the area and present an opportunity for the Office of Border Patrol (OBP) to alter their enforcement strategy along the Colorado River. In December 2004, the Bureau of Land Management (BLM), Yuma field office, cleared nearly 200 acres of Salt Cedar trees under Categorical Exclusion (Cat Ex) CX-AZ-320-2005-12 Hazardous Fuels Reduction and Emergency Safety Hazard Removal. This action cleared non-native vegetation within an area approximately 900 feet (ft) wide and extended north 1.5 miles from the International Border between the Colorado River and the western Salinity Canal levee, near San Luis. In light of this development the OBP is now able to observe illegal aliens (IAs), smugglers, and other criminals near the Colorado River, which in turn affords the OBP the opportunity to detect and deter these IAs and criminals closer to the border.

The proposed project includes construction of approximately 1.5 linear miles border infrastructure system along the Salinity Canal from the International Border northward. The 1-mile of stadium style lights along the levee north of the San Luis wastewater treatment facility, as presented in the original Final EA, would not be constructed (Figure 2). Permanent security lights, however, would be installed along the western toe of the west levee of the Salinity Canal. The lights would be designed to provide 5 foot-candles of illumination at the western most edge of the cleared area. An all-weather road surface would be applied to both the existing west and east levee road within the 1.5 mile corridor. A Sandia-style, pedestrian fence would be built along the eastern toe of the east levee and a maintenance road would be constructed along its eastern edge. A security fence (8 ft chain link fence) would be built along the eastern edge of the maintenance road (Figure 3). Additionally, the area that was cleared by the BLM under their Cat Ex would be controlled to prevent the re-establishment of non-native vegetation.

In addition to the change described above the OBP proposes to install two vehicle bridges across the Sanchez Canal and Canal One west of the San Luis Port of Entry and near the International Border. These bridges would increase the efficiency or access to the border enforcement zone and provide an improved line of sight. These components were not included in the original EA

We are currently in the process of gathering the most current information available regarding Federally and state listed species potentially occurring within this area of Yuma County. We respectfully request that your agency provide a list of the protected species for Yuma County along with a description of the sensitive resources (e.g., rare or unique plant communities and threatened, endangered, and candidate species) that you believe may be affected by the proposed OBP activities. Any information you may have regarding these species would be greatly appreciated.

We intend to provide your agency with a copy of the Draft SEA once it 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 SEA.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Mr. Mark Doles at (817) 886-1693.

Sincerely,

for Mark E. S

William Fickel, Jr.
Chief, Planning, Environmental
and Regulatory Division

Enclosure

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

Reply to
Attention of

December 29, 2005

Planning, Environmental, and Regulatory Division

SUBJECT: Supplemental Environmental Assessment for Installation of Border Security Infrastructure Near San Luis, Arizona, Office of Border Patrol Yuma Sector, Arizona

Ms. Rebecca Davidson
Project Evaluation Program Supervisor
Arizona Game and Fish
2221 West Greenway Road
Phoenix, AZ 85023

Dear Ms. Davidson,

The U.S. Army Corps of Engineers (USACE), Fort Worth District, on the behalf of the Department of Homeland Security, Customs and Border Protection (CBP), is preparing a Supplemental Environmental Assessment (SEA) for the installation of border security infrastructure near San Luis, Arizona (Figure 1). This SEA will evaluate the reconfiguration of infrastructure components addressed in the EA completed in December 2004.

Since finalization of the EA and FONSI events have transpired to change the existing condition of the area and present an opportunity for the Office of Border Patrol (OBP) to alter their enforcement strategy along the Colorado River. In December 2004, the Bureau of Land Management (BLM), Yuma field office, cleared nearly 200 acres of Salt Cedar trees under Categorical Exclusion (Cat Ex) CX-AZ-320-2005-12 Hazardous Fuels Reduction and Emergency Safety Hazard Removal. This action cleared non-native vegetation within an area approximately 900 feet (ft) wide and extended north 1.5 miles from the International Border between the Colorado River and the western Salinity Canal levee, near San Luis. In light of this development the OBP is now able to observe illegal aliens (IAs), smugglers, and other criminals near the Colorado River, which in turn affords the OBP the opportunity to detect and deter these IAs and criminals closer to the border.

The proposed project includes construction of approximately 1.5 linear miles border infrastructure system along the Salinity Canal from the International Border northward. The 1-mile of stadium style lights along the levee north of the San Luis wastewater treatment facility, as presented in the original Final EA, would not be constructed (Figure 2). Permanent security lights, however, would be installed along the western toe of the west levee of the Salinity Canal. The lights would be designed to provide 5 foot-candles of illumination at the western most edge of the cleared area. An all-weather road surface would be applied to both the existing west and east levee road within the 1.5 mile corridor. A Sandia-style, pedestrian fence would be built along the eastern toe of the east levee and a maintenance road would be constructed along its eastern edge. A security fence (8 ft chain link fence) would be built along the eastern edge of the maintenance road (Figure 3). Additionally, the area that was cleared by the BLM under their Cat Ex would be controlled to prevent the re-establishment of non-native vegetation.

In addition to the change described above the OBP proposes to install two vehicle bridges across the Sanchez Canal and Canal One west of the San Luis Port of Entry and near the International Border. These bridges would increase the efficiency or access to the border enforcement zone and provide an improved line of sight. These components were not included in the original EA

We are currently in the process of gathering the most current information available regarding sensitive resources potentially occurring within this area of Yuma County. We respectfully request that your agency provide a description of the sensitive resources (e.g., rare or unique plant communities and threatened, endangered species and cultural resources) that you believe may be affected by the proposed OBP activities.

We intend to provide your agency with a copy of the Draft SEA once it 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 SEA.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Mr. Mark Doles at (817) 886-1693.

Sincerely,

Mark P. S

for William Fickel, Jr.
Chief, Planning, Environmental
and Regulatory Division

Enclosure

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

Reply to
Attention of

December 29, 2005

Planning, Environmental, and Regulatory Division

SUBJECT: Supplemental Environmental Assessment for Installation of Border Security Infrastructure Near San Luis, Arizona, Office of Border Patrol Yuma Sector, Arizona

Mr. Steve Fusilier
Bureau of Land Management
2555 East Gila Ridge Road
Yuma, AZ 85023

Dear Mr. Fusilier,

The U.S. Army Corps of Engineers (USACE), Fort Worth District, on the behalf of the Department of Homeland Security, Customs and Border Protection (CBP), is preparing a Supplemental Environmental Assessment (SEA) for the installation of border security infrastructure near San Luis, Arizona (Figure 1). This SEA will evaluate the reconfiguration of infrastructure components addressed in the EA completed in December 2004.

Since finalization of the EA and FONSI events have transpired to change the existing condition of the area and present an opportunity for the Office of Border Patrol (OBP) to alter their enforcement strategy along the Colorado River. In December 2004, the Bureau of Land Management (BLM), Yuma field office, cleared nearly 200 acres of Salt Cedar trees under Categorical Exclusion (Cat Ex) CX-AZ-320-2005-12 Hazardous Fuels Reduction and Emergency Safety Hazard Removal. This action cleared non-native vegetation within an area approximately 900 feet (ft) wide and extended north 1.5 miles from the International Border between the Colorado River and the western Salinity Canal levee, near San Luis. In light of this development the OBP is now able to observe illegal aliens (IAs), smugglers, and other criminals near the Colorado River, which in turn affords the OBP the opportunity to detect and deter these IAs and criminals closer to the border.

The proposed project includes construction of approximately 1.5 linear miles border infrastructure system along the Salinity Canal from the International Border northward. The 1-mile of stadium style lights along the levee north of the San Luis wastewater treatment facility, as presented in the original Final EA, would not be constructed (Figure 2). Permanent security lights, however, would be installed along the western toe of the west levee of the Salinity Canal. The lights would be designed to provide 5 foot-candles of illumination at the western most edge of the cleared area. An all-weather road surface would be applied to both the existing west and east levee road within the 1.5 mile corridor. A Sandia-style, pedestrian fence would be built along the eastern toe of the east levee and a maintenance road would be constructed along its eastern edge. A security fence (8 ft chain link fence) would be built along the eastern edge of the maintenance road (Figure 3). Additionally, the area that was cleared by the BLM under their Cat Ex would be controlled to prevent the re-establishment of non-native vegetation.

In addition to the change described above the OBP proposes to install two vehicle bridges across the Sanchez Canal and Canal One west of the San Luis Port of Entry and near the International Border. These bridges would increase the efficiency or access to the border enforcement zone and provide an improved line of sight. These components were not included in the original EA

We are currently in the process of gathering the most current information available regarding sensitive resources potentially occurring within this area of Yuma County. We respectfully request that your agency provide a description of the sensitive resources (e.g., rare or unique plant communities and threatened, endangered species and cultural resources) that you believe may be affected by the proposed OBP activities.

We intend to provide your agency with a copy of the Draft SEA once it 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 SEA.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Mr. Mark Doles at (817) 886-1693.

Sincerely,

for

William Fickel, Jr.
Chief, Planning, Environmental
and Regulatory Division

Enclosure

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

Reply to
Attention of

December 29, 2005

Planning, Environmental, and Regulatory Division

SUBJECT: Supplemental Environmental Assessment for Installation of Border Security Infrastructure Near San Luis, Arizona, Office of Border Patrol Yuma Sector, Arizona

Ms. Cindy Hoeft
Director Resource Management Office
Bureau of Reclamation
7301 Calle Agua Salada
Yuma, AZ 85364

Dear Ms. Hoeft,

The U.S. Army Corps of Engineers (USACE), Fort Worth District, on the behalf of the Department of Homeland Security, Customs and Border Protection (CBP), is preparing a Supplemental Environmental Assessment (SEA) for the installation of border security infrastructure near San Luis, Arizona (Figure 1). This SEA will evaluate the reconfiguration of infrastructure components addressed in the EA completed in December 2004.

Since finalization of the EA and FONSI events have transpired to change the existing condition of the area and present an opportunity for the Office of Border Patrol (OBP) to alter their enforcement strategy along the Colorado River. In December 2004, the Bureau of Land Management (BLM), Yuma field office, cleared nearly 200 acres of Salt Cedar trees under Categorical Exclusion (Cat Ex) CX-AZ-320-2005-12 Hazardous Fuels Reduction and Emergency Safety Hazard Removal. This action cleared non-native vegetation within an area approximately 900 feet (ft) wide and extended north 1.5 miles from the International Border between the Colorado River and the western Salinity Canal levee, near San Luis. In light of this development the OBP is now able to observe illegal aliens (IAs), smugglers, and other criminals near the Colorado River, which in turn affords the OBP the opportunity to detect and deter these IAs and criminals closer to the border.

The proposed project includes construction of approximately 1.5 linear miles border infrastructure system along the Salinity Canal from the International Border northward. The 1-mile of stadium style lights along the levee north of the San Luis wastewater treatment facility, as presented in the original Final EA, would not be constructed (Figure 2). Permanent security lights, however, would be installed along the western toe of the west levee of the Salinity Canal. The lights would be designed to provide 5 foot-candles of illumination at the western most edge of the cleared area. An all-weather road surface would be applied to both the existing west and east levee road within the 1.5 mile corridor. A Sandia-style, pedestrian fence would be built along the eastern toe of the east levee and a maintenance road would be constructed along its eastern edge. A security fence (8 ft chain link fence) would be built along the eastern edge of the maintenance road (Figure 3). Additionally, the area that was cleared by the BLM under their Cat Ex would be controlled to prevent the re-establishment of non-native vegetation.

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We are currently in the process of gathering the most current information available regarding sensitive resources potentially occurring within this area of Yuma County. We respectfully request that your agency provide a description of the sensitive resources (e.g., rare or unique plant communities and threatened, endangered species and cultural resources) that you believe may be affected by the proposed OBP activities.

We intend to provide your agency with a copy of the Draft SEA once it 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 SEA.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Mr. Mark Doles at (817) 886-1693.

Sincerely,

for William Fickel, Jr.
Chief, Planning, Environmental
and Regulatory Division

Enclosure

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

Reply to
Attention of

December 29, 2005

Planning, Environmental, and Regulatory Division

SUBJECT: Supplemental Environmental Assessment for Installation of Border Security Infrastructure Near San Luis, Arizona, Office of Border Patrol Yuma Sector, Arizona

Mr. Anthony Van Ravenway
San Luis Port of Entry
Interim Port Director
Highway 95 and International Border
San Luis, Az 85349

Dear Mr. Van Ravenw,

The U.S. Army Corps of Engineers (USACE), Fort Worth District, on the behalf of the Department of Homeland Security, Customs and Border Protection (CBP), is preparing a Supplemental Environmental Assessment (SEA) for the installation of border security infrastructure near San Luis, Arizona (Figure 1). This SEA will evaluate the reconfiguration of infrastructure components addressed in the EA completed in December 2004.

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The proposed project includes construction of approximately 1.5 linear miles border infrastructure system along the Salinity Canal from the International Border northward. The 1-mile of stadium style lights along the levee north of the San Luis wastewater treatment facility, as presented in the original Final EA, would not be constructed (Figure 2). Permanent security lights, however, would be installed along the western toe of the west levee of the Salinity Canal. The lights would be designed to provide 5 foot-candles of illumination at the western most edge of the cleared area. An all-weather road surface would be applied to both the existing west and east levee road within the 1.5 mile corridor. A Sandia-style, pedestrian fence would be built along the eastern toe of the east levee and a maintenance road would be constructed along its eastern edge. A security fence (8 ft chain link fence) would be built along the eastern edge of the maintenance road (Figure 3). Additionally, the area that was cleared by the BLM under their Cat Ex would be controlled to prevent the re-establishment of non-native vegetation.

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We are currently in the process of gathering the most current information available regarding sensitive resources potentially occurring within this area of Yuma County. We respectfully request that your agency provide a description of the sensitive resources (e.g., rare or unique plant communities and threatened, endangered species and cultural resources) that you believe may be affected by the proposed OBP activities.

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Sincerely,

Mark E. S

for William Fickel, Jr.
Chief, Planning, Environmental
and Regulatory Division

Enclosure

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

Reply to
Attention of

December 29, 2005

Planning, Environmental, and Regulatory Division

SUBJECT: Supplemental Environmental Assessment for Installation of Border Security Infrastructure Near San Luis, Arizona, Office of Border Patrol Yuma Sector, Arizona

Mr. James P. Chessum
Administrator, Greater Yuma Port Authority
502 S. Orange Avenue
Yuma, Arizona 85364

Dear Mr. Chessum,

The U.S. Army Corps of Engineers (USACE), Fort Worth District, on the behalf of the Department of Homeland Security, Customs and Border Protection (CBP), is preparing a Supplemental Environmental Assessment (SEA) for the installation of border security infrastructure near San Luis, Arizona (Figure 1). This SEA will evaluate the reconfiguration of infrastructure components addressed in the EA completed in December 2004.

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We are currently in the process of gathering the most current information available regarding sensitive resources potentially occurring within this area of Yuma County. We respectfully request that your agency provide a description of the sensitive resources (e.g., rare or unique plant communities and threatened, endangered species and cultural resources) that you believe may be affected by the proposed OBP activities.

We intend to provide your agency with a copy of the Draft SEA once it 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 SEA.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Mr. Mark Doles at (817) 886-1693.

Sincerely,

for William Fickel, Jr.
Chief, Planning, Environmental
and Regulatory Division

Enclosure

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

Reply to
Attention of

December 29, 2005

Planning, Environmental, and Regulatory Division

SUBJECT: Supplemental Environmental Assessment for Installation of Border Security Infrastructure Near San Luis, Arizona, Office of Border Patrol Yuma Sector, Arizona

Mr. Alex Ruiz
City of San Luis
P.O. Box 1170
San Luis, AZ 85349

Dear Mr. Ruiz,

The U.S. Army Corps of Engineers (USACE), Fort Worth District, on the behalf of the Department of Homeland Security, Customs and Border Protection (CBP), is preparing a Supplemental Environmental Assessment (SEA) for the installation of border security infrastructure near San Luis, Arizona (Figure 1). This SEA will evaluate the reconfiguration of infrastructure components addressed in the EA completed in December 2004.

Since finalization of the EA and FONSI events have transpired to change the existing condition of the area and present an opportunity for the Office of Border Patrol (OBP) to alter their enforcement strategy along the Colorado River. In December 2004, the Bureau of Land Management (BLM), Yuma field office, cleared nearly 200 acres of Salt Cedar trees under Categorical Exclusion (Cat Ex) CX-AZ-320-2005-12 Hazardous Fuels Reduction and Emergency Safety Hazard Removal. This action cleared non-native vegetation within an area approximately 900 feet (ft) wide and extended north 1.5 miles from the International Border between the Colorado River and the western Salinity Canal levee, near San Luis. In light of this development the OBP is now able to observe illegal aliens (IAs), smugglers, and other criminals near the Colorado River, which in turn affords the OBP the opportunity to detect and deter these IAs and criminals closer to the border.

The proposed project includes construction of approximately 1.5 linear miles border infrastructure system along the Salinity Canal from the International Border northward. The 1-mile of stadium style lights along the levee north of the San Luis wastewater treatment facility, as presented in the original Final EA, would not be constructed (Figure 2). Permanent security lights, however, would be installed along the western toe of the west levee of the Salinity Canal. The lights would be designed to provide 5 foot-candles of illumination at the western most edge of the cleared area. An all-weather road surface would be applied to both the existing west and east levee road within the 1.5 mile corridor. A Sandia-style, pedestrian fence would be built along the eastern toe of the east levee and a maintenance road would be constructed along its eastern edge. A security fence (8 ft chain link fence) would be built along the eastern edge of the maintenance road (Figure 3). Additionally, the area that was cleared by the BLM under their Cat Ex would be controlled to prevent the re-establishment of non-native vegetation.

In addition to the change described above the OBP proposes to install two vehicle bridges across the Sanchez Canal and Canal One west of the San Luis Port of Entry and near the International Border. These bridges would increase the efficiency or access to the border enforcement zone and provide an improved line of sight. These components were not included in the original EA

We are currently in the process of gathering the most current information available regarding sensitive resources potentially occurring within this area of Yuma County. We respectfully request that your agency provide a description of the sensitive resources (e.g., rare or unique plant communities and threatened, endangered species and cultural resources) that you believe may be affected by the proposed OBP activities.

We intend to provide your agency with a copy of the Draft SEA once it 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 SEA.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Mr. Mark Doles at (817) 886-1693.

Sincerely,

for William Fickel, Jr.
Chief, Planning, Environmental
and Regulatory Division

Enclosure

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

Reply to
Attention of

December 29, 2005

Planning, Environmental, and Regulatory Division

SUBJECT: Supplemental Environmental Assessment for Installation of Border Security Infrastructure Near San Luis, Arizona, Office of Border Patrol Yuma Sector, Arizona

City of San Luis
Economic Development Commission
Attn: Ms. Jenny Torres
P.O. Box 1170
San Luis, AZ 85349

Dear Ms. Torres,

The U.S. Army Corps of Engineers (USACE), Fort Worth District, on the behalf of the Department of Homeland Security, Customs and Border Protection (CBP), is preparing a Supplemental Environmental Assessment (SEA) for the installation of border security infrastructure near San Luis, Arizona (Figure 1). This SEA will evaluate the reconfiguration of infrastructure components addressed in the EA completed in December 2004.

Since finalization of the EA and FONSI events have transpired to change the existing condition of the area and present an opportunity for the Office of Border Patrol (OBP) to alter their enforcement strategy along the Colorado River. In December 2004, the Bureau of Land Management (BLM), Yuma field office, cleared nearly 200 acres of Salt Cedar trees under Categorical Exclusion (Cat Ex) CX-AZ-320-2005-12 Hazardous Fuels Reduction and Emergency Safety Hazard Removal. This action cleared non-native vegetation within an area approximately 900 feet (ft) wide and extended north 1.5 miles from the International Border between the Colorado River and the western Salinity Canal levee, near San Luis. In light of this development the OBP is now able to observe illegal aliens (IAs), smugglers, and other criminals near the Colorado River, which in turn affords the OBP the opportunity to detect and deter these IAs and criminals closer to the border.

The proposed project includes construction of approximately 1.5 linear miles border infrastructure system along the Salinity Canal from the International Border northward. The 1-mile of stadium style lights along the levee north of the San Luis wastewater treatment facility, as presented in the original Final EA, would not be constructed (Figure 2). Permanent security lights, however, would be installed along the western toe of the west levee of the Salinity Canal. The lights would be designed to provide 5 foot-candles of illumination at the western most edge of the cleared area. An all-weather road surface would be applied to both the existing west and east levee road within the 1.5 mile corridor. A Sandia-style, pedestrian fence would be built along the eastern toe of the east levee and a maintenance road would be constructed along its eastern edge. A security fence (8 ft chain link fence) would be built along the eastern edge of the maintenance road (Figure 3). Additionally, the area that was cleared by the BLM under their Cat Ex would be controlled to prevent the re-establishment of non-native vegetation.

In addition to the change described above the OBP proposes to install two vehicle bridges across the Sanchez Canal and Canal One west of the San Luis Port of Entry and near the International Border. These bridges would increase the efficiency or access to the border enforcement zone and provide an improved line of sight. These components were not included in the original EA

We are currently in the process of gathering the most current information available regarding sensitive resources potentially occurring within this area of Yuma County. We respectfully request that your agency provide a description of the sensitive resources (e.g., rare or unique plant communities and threatened, endangered species and cultural resources) that you believe may be affected by the proposed OBP activities.

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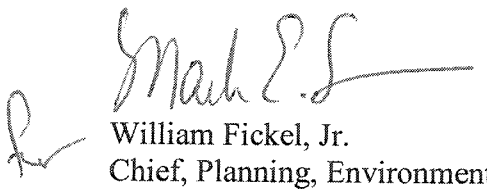
Sincerely,



William Fickel, Jr.
Chief, Planning, Environmental
and Regulatory Division

Enclosure

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

Reply to
Attention of

December 29, 2005

Planning, Environmental, and Regulatory Division

SUBJECT: Supplemental Environmental Assessment for Installation of Border Security Infrastructure Near San Luis, Arizona, Office of Border Patrol Yuma Sector, Arizona

Mr. Monty Stansbury
Yuma County
Planning and Zoning Department
2703 South Avenue B
Yuma, AZ 85364

Dear Mr. Stansbury,

The U.S. Army Corps of Engineers (USACE), Fort Worth District, on the behalf of the Department of Homeland Security, Customs and Border Protection (CBP), is preparing a Supplemental Environmental Assessment (SEA) for the installation of border security infrastructure near San Luis, Arizona (Figure 1). This SEA will evaluate the reconfiguration of infrastructure components addressed in the EA completed in December 2004.

Since finalization of the EA and FONSI events have transpired to change the existing condition of the area and present an opportunity for the Office of Border Patrol (OBP) to alter their enforcement strategy along the Colorado River. In December 2004, the Bureau of Land Management (BLM), Yuma field office, cleared nearly 200 acres of Salt Cedar trees under Categorical Exclusion (Cat Ex) CX-AZ-320-2005-12 Hazardous Fuels Reduction and Emergency Safety Hazard Removal. This action cleared non-native vegetation within an area approximately 900 feet (ft) wide and extended north 1.5 miles from the International Border between the Colorado River and the western Salinity Canal levee, near San Luis. In light of this development the OBP is now able to observe illegal aliens (IAs), smugglers, and other criminals near the Colorado River, which in turn affords the OBP the opportunity to detect and deter these IAs and criminals closer to the border.

The proposed project includes construction of approximately 1.5 linear miles border infrastructure system along the Salinity Canal from the International Border northward. The 1-mile of stadium style lights along the levee north of the San Luis wastewater treatment facility, as presented in the original Final EA, would not be constructed (Figure 2). Permanent security lights, however, would be installed along the western toe of the west levee of the Salinity Canal. The lights would be designed to provide 5 foot-candles of illumination at the western most edge of the cleared area. An all-weather road surface would be applied to both the existing west and east levee road within the 1.5 mile corridor. A Sandia-style, pedestrian fence would be built along the eastern toe of the east levee and a maintenance road would be constructed along its eastern edge. A security fence (8 ft chain link fence) would be built along the eastern edge of the maintenance road (Figure 3). Additionally, the area that was cleared by the BLM under their Cat Ex would be controlled to prevent the re-establishment of non-native vegetation.

In addition to the change described above the OBP proposes to install two vehicle bridges across the Sanchez Canal and Canal One west of the San Luis Port of Entry and near the International Border. These bridges would increase the efficiency or access to the border enforcement zone and provide an improved line of sight. These components were not included in the original EA

We are currently in the process of gathering the most current information available regarding sensitive resources potentially occurring within this area of Yuma County. We respectfully request that your agency provide a description of the sensitive resources (e.g., rare or unique plant communities and threatened, endangered species and cultural resources) that you believe may be affected by the proposed OBP activities.

We intend to provide your agency with a copy of the Draft SEA once it 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 SEA.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Mr. Mark Doles at (817) 886-1693.

Sincerely,

for William Fickel, Jr.
Chief, Planning, Environmental
and Regulatory Division

Enclosure

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

Reply to
Attention of

December 29, 2005

Planning, Environmental, and Regulatory Division

SUBJECT: Supplemental Environmental Assessment for Installation of Border Security Infrastructure Near San Luis, Arizona, Office of Border Patrol Yuma Sector, Arizona

Arizona State Land Department
Operations Division
Attn: Mr. Richard Oxford, Director
1616 West Adams Street
Phoenix, AZ 85007

Dear Mr. Oxford,

The U.S. Army Corps of Engineers (USACE), Fort Worth District, on the behalf of the Department of Homeland Security, Customs and Border Protection (CBP), is preparing a Supplemental Environmental Assessment (SEA) for the installation of border security infrastructure near San Luis, Arizona (Figure 1). This SEA will evaluate the reconfiguration of infrastructure components addressed in the EA completed in December 2004.

Since finalization of the EA and FONSI events have transpired to change the existing condition of the area and present an opportunity for the Office of Border Patrol (OBP) to alter their enforcement strategy along the Colorado River. In December 2004, the Bureau of Land Management (BLM), Yuma field office, cleared nearly 200 acres of Salt Cedar trees under Categorical Exclusion (Cat Ex) CX-AZ-320-2005-12 Hazardous Fuels Reduction and Emergency Safety Hazard Removal. This action cleared non-native vegetation within an area approximately 900 feet (ft) wide and extended north 1.5 miles from the International Border between the Colorado River and the western Salinity Canal levee, near San Luis. In light of this development the OBP is now able to observe illegal aliens (IAs), smugglers, and other criminals near the Colorado River, which in turn affords the OBP the opportunity to detect and deter these IAs and criminals closer to the border.

The proposed project includes construction of approximately 1.5 linear miles border infrastructure system along the Salinity Canal from the International Border northward. The 1-mile of stadium style lights along the levee north of the San Luis wastewater treatment facility, as presented in the original Final EA, would not be constructed (Figure 2). Permanent security lights, however, would be installed along the western toe of the west levee of the Salinity Canal. The lights would be designed to provide 5 foot-candles of illumination at the western most edge of the cleared area. An all-weather road surface would be applied to both the existing west and east levee road within the 1.5 mile corridor. A Sandia-style, pedestrian fence would be built along the eastern toe of the east levee and a maintenance road would be constructed along its eastern edge. A security fence (8 ft chain link fence) would be built along the eastern edge of the maintenance road (Figure 3). Additionally, the area that was cleared by the BLM under their Cat Ex would be controlled to prevent the re-establishment of non-native vegetation.

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Sincerely,

for William Fickel, Jr.
Chief, Planning, Environmental
and Regulatory Division

Enclosure

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

Reply to
Attention of

December 29, 2005

Planning, Environmental, and Regulatory Division

SUBJECT: Supplemental Environmental Assessment for Installation of Border Security Infrastructure Near San Luis, Arizona, Office of Border Patrol Yuma Sector, Arizona

Arizona Public Service
Attn: Mr. Richard Vuksan
P.O. Box 98
Gadsen, AZ 85336

Dear Mr. Vuksan,

The U.S. Army Corps of Engineers (USACE), Fort Worth District, on the behalf of the Department of Homeland Security, Customs and Border Protection (CBP), is preparing a Supplemental Environmental Assessment (SEA) for the installation of border security infrastructure near San Luis, Arizona (Figure 1). This SEA will evaluate the reconfiguration of infrastructure components addressed in the EA completed in December 2004.

Since finalization of the EA and FONSI events have transpired to change the existing condition of the area and present an opportunity for the Office of Border Patrol (OBP) to alter their enforcement strategy along the Colorado River. In December 2004, the Bureau of Land Management (BLM), Yuma field office, cleared nearly 200 acres of Salt Cedar trees under Categorical Exclusion (Cat Ex) CX-AZ-320-2005-12 Hazardous Fuels Reduction and Emergency Safety Hazard Removal. This action cleared non-native vegetation within an area approximately 900 feet (ft) wide and extended north 1.5 miles from the International Border between the Colorado River and the western Salinity Canal levee, near San Luis. In light of this development the OBP is now able to observe illegal aliens (IAs), smugglers, and other criminals near the Colorado River, which in turn affords the OBP the opportunity to detect and deter these IAs and criminals closer to the border.

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Sincerely,

William Fickel, Jr.
Chief, Planning, Environmental
and Regulatory Division

Enclosure

United States Department of the Interior

U.S. Fish and Wildlife Service
Arizona Ecological Services Field Office
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
22410-2006-SL-0257
02-21-05-I-0184

February 17, 2006

Mr. William Fickel, Jr., Chief
Department of the Army
Fort Worth District, Corps of Engineers
Planning, Environmental, and Regulatory Division
Fort Worth, Texas, 76102-0300

Attn: Mr. Mark Doles

RE: Supplemental Environmental Assessment for Installation of Border Security Infrastructure Near San Luis, Arizona, Office of Border Patrol Yuma Sector, Arizona

Dear Mr. Fickel:

Thank you for your recent 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 project area. We do not have site specific information for your project area. However, the federally endangered southwestern willow flycatcher *(Empidonax trailii extimus*), Yuma clapper rail *(Rallus longirostris yumanensis*), and California brown pelican (*Pelecanus occidentalis californicus*), and threatened bald eagle (*Haliaeetus leucocephalus*) have been recorded in the general project area. So we may further assist you in determining if listed species occur within the proposed project area, we recommend you provide us with a detailed map of all native vegetation (by community type) within the proposed area of illumination (area that will be illuminated by the permanent security lights). We also suggest that your assessment contain reference to the maintenance of the area cleared in 2005 that facilitated the change in the proposed action.

Additionally, for further information the Arizona Ecological Service Field Office has posted lists of the endangered, threatened, proposed, and candidate species occurring in each of Arizona's 15 counties on the Internet. Please refer to the following web page for species information in the county where your project occurs: **http://arizonaes.fws.gov.** If you do not have access to the Internet or have difficulty obtaining a list, please contact our office and we will mail or fax you a list as soon as possible.

After opening the web page, find County Species Lists on the main page. Then click on the county of interest. The arrows on the left will guide you through information on species that are listed, proposed, candidates, or have conservation agreements. Here you will find information on

RECEIVED

the species' status, a physical description, all counties where the species occurs, habitat, elevation, and some general comments. Additional information can be obtained by going back to the main page. On the left side of the screen, click on Document Library, then click on Documents by Species, then click on the name of the species of interest to obtain General Species Information, or other documents that may be available. Click on the "Cactus" icon to view the desired document.

Please note that your project area may not necessarily include all or any of these species. The information provided includes general descriptions, habitat requirements, and other information for each species on the list. Under the General Species Information, citations for the Federal Register (FR) are included for each listed and proposed species. The FR is available at most Federal depository libraries. This information should assist you in determining which species may or may not occur within your project area. Site-specific surveys could also be helpful and may be needed to verify the presence or absence of a species or its habitat as required for the evaluation of proposed project-related impacts.

Endangered and threatened species are protected by Federal law and must be considered prior to project development. If the action agency determines that listed species or critical habitat may be adversely affected by a federally funded, permitted, or authorized activity, the action agency will need to request formal consultation with us. If the action agency determines that the planned action may jeopardize a proposed species or destroy or adversely modify proposed critical habitat, the action agency will need to enter into a section 7 conference. The county list may also contain candidate or conservation agreement species. Candidate species are those for which there is sufficient information to support a proposal for listing; conservation agreement species are those for which we have entered into an agreement to protect the species and its habitat. Although candidate and conservation agreement species have no legal protection under the Act, we recommend that they be considered in the planning process in the event that they become listed or proposed for listing prior to project completion.

If any proposed action occurs in or near areas with trees and shrubs growing along watercourses, known as riparian habitat, we recommend the protection of these areas. Riparian areas are critical to biological community diversity and provide linear corridors important to migratory species. In addition, if the project will result in the deposition of dredged or fill materials into waterways, we recommend you contact the Army Corps of Engineers which regulates these activities under Section 404 of the Clean Water Act.

The State of Arizona and some of the Native American Tribes protect some plant and animal species not protected by Federal law. We recommend you contact the Arizona Game and Fish Department and the Arizona Department of Agriculture for State-listed or sensitive species, or contact the appropriate Native American Tribe to determine if sensitive species are protected by Tribal governments in your project area. We further recommend that you invite the Arizona Game and Fish Department and any Native American Tribes in or near your project area to participate in your informal or formal Section 7 Consultation process. We are providing this letter to the Arizona Game and Fish Department and the Cocopah Tribe for their information.

Mr. William Fickel, Jr., Chief

For additional communications regarding this project, please refer to consultation number 22410-2006-SL-0257. We appreciate your efforts to identify and avoid impacts to listed and sensitive species in your project area. If we may be of further assistance, please feel free to contact Erin Fernandez (520) 670-6150 (x238), Lesley Fitzpatrick (602) 242-0524 (x236), or Jim Rorarbaugh (602) 242-0524 (x238).

Sincerely,

Steven L. Spangle
Field Supervisor

cc: Regional Supervisor, Arizona Game and Fish Department, Yuma, AZ
Chief, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ
Honorable Sherry Cordova, Chairwoman, Cocopah Tribe, Somerton, AZ
Assistant Field Supervisor, Fish and Wildlife Service, Tucson, AZ

W:\Erin Fernandez\Salinity Canal lights Feb 06 ef lf.doc:cgg

THE STATE OF ARIZONA
GAME AND FISH DEPARTMENT
2221 West Greenway Road, Phoenix, AZ 85023-4399
(602) 942-3000 • azgfd.gov

Governor
Janet Napolitano
Commissioners
Chairman, Joe Melton, Yuma
Michael M. Golightly, Flagstaff
William H. McLean, Gold Canyon
Bob Hernbrode, Tucson
W. Hays Gilstrap, Phoenix
Director
Duane L. Shroufe
Deputy Director
Steve K. Ferrell

February 15, 2006

Mr. William Fickel, Jr.
Department of the Army
Fort Worth District
Corps of Engineers
P.O. Box 17300
Fort Worth, Texas 76102-0300

Re: Supplemental Environmental Assessment for Installation of Border Security Infrastructure near San Luis, Arizona, Office of Border Patrol Yuma Sector.

Dear Mr. Fickel:

The Arizona Game and Fish Department (Department) has reviewed your request, dated December 29, 2005, regarding special status species information associated with the above-referenced project area. The Department's Heritage Data Management System (HDMS) has been accessed and current records show that the special status species listed on the attachment have been documented as occurring in the project vicinity (3-mile buffer). In addition this project does not occur in the vicinity of any Proposed or Designated Critical Habitats.

The Department's HDMS data are not intended to include potential distribution of special status species. Arizona is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity.

The Arizona Game and Fish Department (Department) appreciates the opportunity to comment on the amendments being proposed to the Final Environmental Assessment (EA) for the Installation of Permanent Lighting and a Border Infrastructure System, Office of Border Patrol (OBP), Yuma Sector, Arizona. The Department understands the proposed action would include the installation of permanent security lighting with 5 foot candles of illumination, Sandia-style pedestrian fencing, 8-foot security fencing, improvement of levee roads and construction of a maintenance road along the Salinity Canal. In addtion, the OBP propose to install two vehicle bridges across the Sanchez Canal and Canal One. The Department supports the efforts of the U.S. Customs and Border Protection (CBP) and the reduction of illegal traffic along the border where illegal traffic can be reduced as a result of project activities.

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The Department is primarily concerned with the potential loss of permeability of wildlife across the infrastructure system and the resulting fragmentation of populations that may occur with construction of fences and roads. Loss of movement and permeability across roads or other linear structures prevents wildlife from accessing resources, finding mates, reduces gene flow, and prevents wildlife from re-colonizing areas where local extirpations may have occurred. Fragmentation of wildlife habitat may also be exacerbated by the volume and speed of traffic on roads, which can increase direct mortality to species. The Department recommends incorporating the use of vehicle barriers where possible to facilitate large animal crossings and tunnels at the base of fence lines to allow small ground dwelling animals movement across the infrastructure.

We appreciate the opportunity to provide these comments on the proposed changes to the EA. We would also be interested in meeting with U.S. Customs and Border Protection, and other agencies associated with border patrol activities, one-on-one, on a project specific basis when planning future projects. In doing so, we may mitigate the needs of wildlife up-front while meeting the project needs of the border patrol agencies. If you have any questions regarding this letter, please contact me at (602) 789-3606.

Sincerely,

Ginger Ritter

Ginger Ritter
Project Evaluation Program Specialist, Habitat Branch

cc: Rebecca Davidson, Project Evaluation Program Supervisor
Russ Engel, Habitat Program Manager, Region IV

Attachment

Special Status Species within 3 Miles of T11S, R25W Sec. 3, 10, & 11 and T10S, R25W Sec. 35

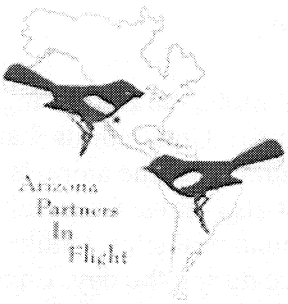
NAME	COMMON NAME	ESA	USFS	BLM	STATE
Athene cunicularia hypugaea	Western Burrowing Owl	SC		S	
Coccyzus americanus occidentalis	Western Yellow-billed Cuckoo	C	S		WSC
Empidonax traillii extimus	Southwestern Willow Flycatcher	LE	S		WSC
Pholisma sonorae	Sand Food	SC		S	HS
Rallus longirostris yumanensis	Yuma Clapper Rail	LE			WSC
Sigmodon hispidus eremicus	Yuma Hispid Cotton Rat	SC			

No Critical Habitats in project area. AGFD # M06-01194629. Proposed Installation of Border Security Infrastructure near San Luis, AZ.Wash.

Arizona Game and Fish Department, Heritage Data Management System, February 7, 2006.
Project Evaluation Program.

Burrowing Owl Artificial Nest Box Project

An Arizona Partners in Flight Habitat Substitution Project



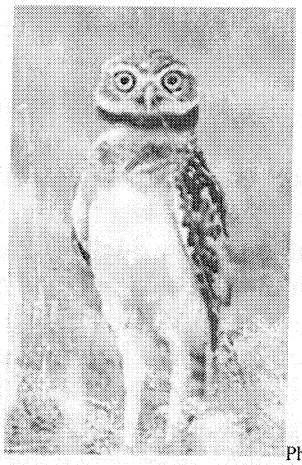


Photo by Greg Clark

Project and Problem Summary:

In the Eastern United States artificial nest boxes were built by volunteers and organizations to try to increase the populations of Bluebirds. The nest boxes replaced natural tree cavities that had been lost when the trees were lost. The effort was a huge success. The same thing can be done for Burrowing Owls, except the cavity is in the ground. If someone chops down all the trees in a forest, everyone understands that this will have a devastating effect on the wildlife. It is not as obvious that as much damage can be done to some species when holes in the ground are covered up. Efforts are under way to figure out where replacement burrows can be installed that will have the most benefit. Some burrows have been installed to replace burrows lost nearby to development, and much of the following material shows this work. However, these burrows are part of rescue work done in conjunction with Wild At Heart (a rehabilitation group in Cave Creek, Arizona). As important to the owl as rescue work is, it is different from figuring out where to install burrows to attract new populations of owls. Phase I of the project is about finding landowners who will provide burrow sites and learning which sites the Burrowing Owl prefers. We need your help finding sites and installing burrows. Surprisingly, this is not some problem to be solved in the "wilderness." The burrows need to be installed in urban areas where development is already completed . That means all around where people live. We need niche areas, like around commercial buildings or urban greenbelts, where the burrows can be installed away from trees and buildings but near possible food sources (mice and insects). There is still time to reverse the steep decline in the Burrowing Owl population, with your help. If you live in the greater Phoenix area, you can help us directly with this project. Because Arizona is the winter home for many owls that breed in Canada and the states north of Arizona, this project can affect the entire owl population of North America. We need burrow sites and help digging the holes. If you can help, or if you would like more information about how to help the owls in your area, contact Greg Clark at:

480-961-4046 (or manually type in the e-mail address b i r d i n f o @ m i r r o r - p o l e . com without spaces)

The Burrowing Owl is Federally protected by U.S. Laws pertaining to Migratory Species. If you are contemplating an operation that could destroy a burrow, or cover up a burrow with dirt, possibly killing the owl inside, this is against the law. You can find out more about this where the list of protected birds

TRIBAL STATUS

NESL **Navajo Endangered Species List** (2000)
Navajo Nation, Navajo Fish and Wildlife Department
(http://www.heritage.tnc.org/nhp/us/navajo/esl.html)

The Navajo Endangered Species List contains taxa with status from the entire Navajo Nation which includes parts of Arizona, Utah, and New Mexico. In this notebook we provide NESL status for only those taxa whose distribution includes part or all of the Arizona portion of the Navajo Nation.

Groups

- **1** Those species or subspecies that no longer occur on the Navajo Nation.
- **2** Any species or subspecies which is in danger of being eliminated from all or a significant portion of its range on the Navajo Nation.
- **3** Any species or subspecies which is likely to become an endangered species, within the foreseeable future, throughout all or a significant portion of its range on the Navajo Nation.
- **4** Any species or subspecies for which the Navajo Fish and Wildlife Department (NF&WD) does not currently have sufficient information to support their being listed in Group 2 or Group 3 but has reason to consider them. The NF&WD will actively seek information on these species to determine if they warrant inclusion in a different group or removal from the list.

MEXICAN STATUS

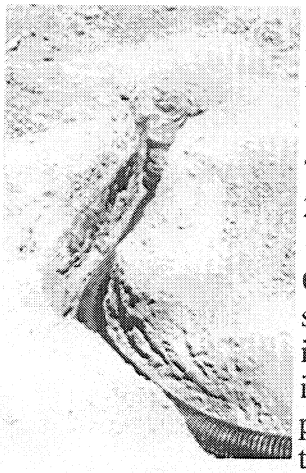
MEX **Mexican Federal Endangered Species List** (October 16, 2000)
Proyecto de Norma Oficial Mexicana PROY-NOM-059-ECOL-2000

The Mexican Federal Endangered Species List contains taxa with status from the entire Mexican Republic and waters under its jurisdiction. In this notebook we provide MEX designations for only those taxa occurring in Arizona and also in Mexico.

- **P** En Peligro de Extinción (Determined Endangered in Mexico): in danger of extinction.
- **A** Amenazada (Determined Threatened in Mexico): could become endangered if factors causing habitat deterioration or population decline continue.
- **Pr** Sujeta a Protección Especial (Determined Subject to Special Protection in Mexico): utilization limited due to reduced populations, restricted distribution, or to favor recovery and conservation of the taxon or associated taxa.
- **E** Probablemente extinta en el medio silvestre (Probably extinct in the wild of Mexico): A native species whose individuals in the wild have disappeared, based on pertinent documentation and studies that prove it. The only existing individuals of the species are in captivity or outside the Mexican territory.

[|= One or more subspecies of this species has status in Mexico, but the HDMS does not track it at the subspecies level (most of these subspecies are endemic to Mexico). Please consult the NORMA Oficial Mexicana PROY-NOM-059-ECOL-2000 for details.]

bend horizontally 90 degrees. The photograph below shows the bucket and tubing in place before being buried. The section from the buurow to the bend should be at a 4-foot depth. If you want to proceed on your own, contact us for more detailed information.



This is an example of a burrow dug by hand, rather than by backhoe. There must be at least two feet of dirt on top of the over-turned bucket. The photo shows the bucket and hose before being buried.

This burrow in Chandler became the home for owls that were displaced for a 200-home development project.

Once an area is slated for development where there are Burrowing Owls present, someone must carefully investigate all the burrows to make sure no owls are inside and then carefully collapse the burrow so no owl can return to be trapped inside. One of the first things that happens at a development site is land preparation that moves all the surface dirt around. Sadly, this can trap the owls in the burrow. Investigating these burrows is where Wild At Heart comes in. Holders of both Arizona Game and Fish and U.S. Fish and Wildlife permits for doing this type of work, Wild At Heart can investigate and safely collapse the burrows and, where necessary, relocate the owls to new sites. Follow the next link to see some burrow sites in Chandler, Arizona where the burrows had to be collapsed. Fortunately, a nearby homeowner offered to help us with our artificial burrow project and so the owls were able to relocate only a few hundred feet from where they were born, in habitat much like where they lived before.

Additional Burrow Construction Information and Protection Needed for Domestic Dog Attacks

Arizona Burrowing Owl Distribution

More Burrow Sites and Owl Photos

Red_Hawk Power_Plant_Release_Site New June, 2002. See where 25 Burrowing Owls were released.

Paseo Verde School New May, 2003. See the owls in one of the burrows using infrared video cameras.

mirror-pole.com home

Copyright Greg Clark, 2001

STATUS DEFINITIONS

ARIZONA GAME AND FISH DEPARTMENT (AGFD)
HERITAGE DATA MANAGEMENT SYSTEM (HDMS)

FEDERAL US STATUS

ESA **Endangered Species Act** (1973 as amended)
US Department of Interior, Fish and Wildlife Service (http://arizonaes.fws.gov)

Listed

- **LE** Listed Endangered: imminent jeopardy of extinction.
- **LT** Listed Threatened: imminent jeopardy of becoming Endangered.
- **XN** Experimental Nonessential population.

Proposed for Listing

- **PE** Proposed Endangered.
- **PT** Proposed Threatened.

Candidate (Notice of Review: 1999)

- **C** Candidate. Species for which USFWS has sufficient information on biological vulnerability and threats to support proposals to list as Endangered or Threatened under ESA. However, proposed rules have not yet been issued because such actions are precluded at present by other listing activity.
- **SC** Species of Concern. The terms "Species of Concern" or "Species at Risk" should be considered as terms-of-art that describe the entire realm of taxa whose conservation status may be of concern to the US Fish and Wildlife Service, but neither term has official status (currently all former C2 species).

Critical Habitat (check with state or regional USFWS office for location details)

- **Y** Yes: Critical Habitat has been designated.
- **P** Proposed: Critical Habitat has been proposed.

[\NNo Status: certain populations of this taxon do not have designated status (check with state or regional USFWS office for details about which populations have designated status)].

USFS **US Forest Service** (1999 Animals, 1999 Plants: corrected 2000)
US Department of Agriculture, Forest Service, Region 3 (http://www.fs.fed.us/r3/)

- **S** Sensitive: those taxa occurring on National Forests in Arizona which are considered sensitive by the Regional Forester.

BLM **US Bureau of Land Management** (2000 Animals, 2000 Plants)
US Department of Interior, Bureau of Land Management, Arizona State Office (http://azwww.az.blm.gov)

- **S** Sensitive: those taxa occurring on BLM Field Office Lands in Arizona which are considered sensitive by the Arizona State Office.
- **P** Population: only those populations of Banded Gila monster (*Heloderma suspectum cinctum*) that occur north and west of the Colorado River, are considered sensitive by the Arizona State Office.

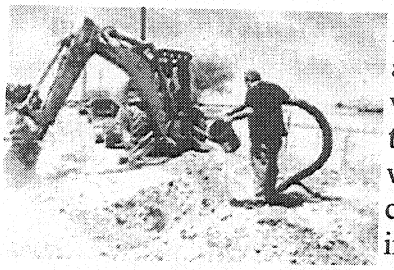
is given on a U.S. Fish and Wildlife website:

http://migratorybirds.fws.gov/intrnltr/treatlaw.html#mbta

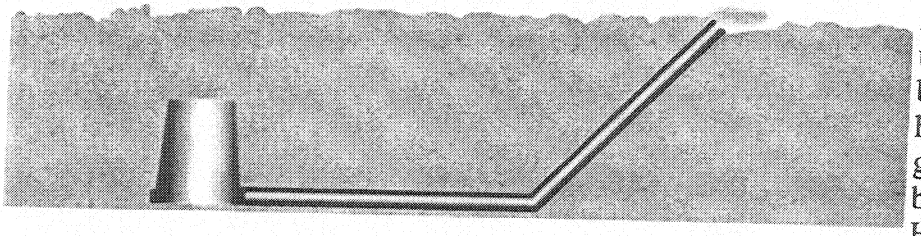
http://migratorybirds.fws.gov/intrnltr/mbta/mbtandx.html#alpha1 The list of protected birds can be found here, look under Owls to find Burrowing Owl.

More about the Burrowing Owl and artificial burrows:

One of North America's most engaging and beneficial birds, the Burrowing Owl is experiencing a decline in population as nest sites are lost to development. Unlike birds that nest in trees, the Burrowing Owl is dependent on a ground burrow dug by other animals. If the animals are displaced, and the burrows covered over, then the Burrowing Owls must also leave. Eventually, the population of owls begins to fall merely because of a lack of suitable ground nest sites. Unlike other owls that are typically most active at night, the Burrowing Owl is most active during the day. Engaging to watch, the owl also makes a wide range of intriguing sounds. Typically perched near its burrow during the day, the owl is often easy to spot and is a great educational resource for anyone interested in learning more about wildlife. Surprisingly, this owl often selects natural nest sites on bare ground in open areas with little surrounding vegetation. Many commercial and city-maintained areas in the greater Phoenix area would be ideal for artificial burrows because the open spaces around the buildings are often bare ground, free of grass and large trees. The idea that these types of spaces could be used for habitat substitution for the Burrowing Owl has led to this project and we need to find interested groups that can help us make new home sites for this owl. Working in conjunction with Wild at Heart, based in Cave Creek, Arizona, some artificial burrows have been provided to replace burrows that are being lost due to development. This work shows what is involved to install a burrow.



Here volunteer Brian DaSilva gets ready to check the depth of the hole and tunnel dug by a backhoe to see if the orange bucket and black hose will fit properly. A typical hole is dug 4 feet deep so that the average temperature in the burrow will be around 75 degrees F. The developer worked with us both to provide a site for the burrows in Peoria and to carry out the earth excavation, so that very little manual labor was involved. Burrows can also be dug by hand.



An underground burrow is built using a plastic bucket for the burrow and 4" flexible irrigation hose for the tunnel from the ground to the burrow. The orange bucket costs about 3 dollars at Home Depot and the 4" hose costs about 6 dollars for the 12 feet required for a typical burrow. This means that materials are less than 10 dollars per burrow. For protection from dogs, in locations where the burrows are not in protected areas (like in fenced-off areas) a rigid PVC pipe must be used to protect the burrow entrance. See the special link for hardening a burrow against dog attacks. Holes must be provided in the bucket and hose to allow water to escape into the ground, the flexible hose can be purchased with perforations. In addition, the hose must make a double turn between the burrow and the surface to simulate natural burrows. The simple diagram above only shows the tube bending toward the surface, but it also needs to

STATE STATUS

STATE:

Plants - NPL **Arizona Native Plant Law** (1999)
Arizona Department of Agriculture (http://agriculture.state.az.us/PSD/nativeplants.htm)

- **HS** Highly Safeguarded: no collection allowed.
- **SR** Salvage Restricted: collection only with permit.
- **ER** Export Restricted: transport out of State prohibited.
- **SA** Salvage Assessed: permits required to remove live trees.
- **HR** Harvest Restricted: permits required to remove plant by-products.

Wildlife - WSCA **Wildlife of Special Concern in Arizona** (in prep)
Arizona Game and Fish Department (http://www.azgfd.com)

- **WSC** Wildlife of Special Concern in Arizona. Species whose occurrence in Arizona is or may be in jeopardy, or with known or perceived threats or population declines, as described by the Arizona Game and Fish Department's listing of Wildlife of Special Concern in Arizona (WSCA, in prep). Species indicated on printouts as WSC are currently the same as those in **Threatened Native Wildlife in Arizona** (1988).

Revised 8/24/04, AGFD HDMS
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United States Department of the Interior

BUREAU OF RECLAMATION
Yuma Area Office
7301 Calle Agua Salada
Yuma, Arizona 85364

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
YAO-7210
ENV-9.00

FEB - 8 2006

Mr. William Fickel, Jr.
Chief, Planning, Environmental and
Regulatory Division
Department of the Army
Fort Worth District, Corps of
Engineers
P.O. Box 17300
Fort Worth, TX 76102-0300

Subject: Supplemental Environmental Assessment (SEA) for Installation of Border Security Infrastructure Near San Luis, AZ, Office of Border Patrol, Yuma Sector, AZ

Dear Mr. Fickel:

In reply to your December 29, 2005 Scoping letter concerning an SEA for the proposed new actions, including stadium lights, fences, all-weather patrol roads, and bridges over two canals near San Luis, AZ and the international border, Bureau of Reclamation (Reclamation) has these comments:

The proposed permanent structures, including bridges, fences, road improvements and lights will be constructed on, or adjacent to, Reclamation lands and facilities. These will require a right-of-use authorization from Reclamation. Reclamation requires submittal of detailed plans, design drawings, and construction plans a minimum of 120 days prior to issuance of an authorization. Early submittal of plans and drawings will facilitate our review to make sure these structures do not impede operation and maintenance of Reclamation facilities.

The Colorado River Levee embankment and Sanchez Mejorada Canal (Sanchez Canal) and most irrigation canals in the area are register-eligible historic features (Historic Yuma Project, Pfaff, et al, 1999). Reclamation requests that Department of the Army coordinate with the Arizona State Historic Preservation Office (SHPO) regarding these impacts prior to a request.

RECEIVED 13 Feb 2006

Please provide SHPO concurrence with any requests for authorization of use of Reclamation lands or facilities.

Portions of the proposed action (e.g. lights) may affect wildlife use of the Colorado River Channel. As you know, this area of the Colorado River is considered by many to be important wildlife habitat. Permanent lighting directed toward the river may alter wildlife nesting and reproduction, habitat use, predator-prey interaction, and migration patterns. Reclamation suggests you coordinate with Arizona Game and Fish Department and U.S. Fish and Wildlife Service regarding these impacts and mitigation.

Reclamation considers Reclamation project lands in this area as an essential conservation area for the Multi-Species Conservation Program (MSCP) implemented in 2005. These lands are included as conservation areas for the preservation and restoration of riparian habitats. Part of your plan is to maintain the clearing authorized by Bureau of Land Management (BLM) in the Colorado River Floodplain in a cleared condition. The means of maintaining the cleared condition are not stated. BLM authorized the clearing as a fuels reduction, a temporary measure never intended to maintain the area free of woody vegetation. The reach from river miles 0 to 8 (Southern International Boundary and upstream 8 miles) was intended to provide 770 acres of riparian habitat (Table 5-6, Chapter 5, p. 21-22, Final Habitat Conservation Plan, Lower Colorado River MSCP 2004). Please address how the proposed project impacts the MSCP plan relative to riparian habitat conservation and restoration goals. Will there be mitigation of the approximately 200 acres of riparian habitat permanently removed? Under your plan, these denuded areas are lost to the MSCP conservation area.

Reclamation invites the Corps of Engineers and Border Patrol Yuma Sector Office to discuss long-range plans in this area with our office, to insure that our mission and essential facilities are not compromised by the cumulative effects of frequent *ad hoc* projects, individually coordinated.

If you have any questions please contact Mr. Rex Wahl at telephone No. 928-343-8237.

Sincerely,

Thayer Bischi for

Cynthia Hoeft, Director
Resource Management Office

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERSS
P.O. BOX 17300, 819 TAYLOR STREET
FORT WORTH, TEXAS 76102-0300

April 28, 2006

Planning, Environmental and Regulatory Division

SUBJECT: Supplemental Environmental Assessment for Installation of Border Security Infrastructure near San Luis, Arizona, Office of Border Patrol Yuma Sector, Arizona

Mr. James Garrison, State Historic Preservation Officer
ATTN: Joanne Medley
Arizona State Parks
1300 West Washington
Phoenix, Arizona 85007

Dear Mr. Garrison:

The U.S. Army Corps of Engineers (USACE), Fort Worth District, on the behalf of the Department of Homeland Security, Customs and Border Protection (CBP), has prepared a Supplemental Environmental Assessment (SEA) for the installation of border security infrastructure near San Luis, Arizona (Figure 1). This SEA will evaluate the reconfiguration of infrastructure components addressed in the original Final EA completed in December 2004.

Since finalization of the December Final EA and Finding of No Significant Impact significant events have transpired to change the existing condition of the area and present an opportunity for the Office of Border Patrol (OBP) to alter their enforcement strategy along the Colorado River. In December 2004, the Bureau of Land Management (BLM), Yuma field office, cleared nearly 200 acres of salt cedar trees under Categorical Exclusion (Cat Ex) CX-AZ-320-2005-12 Hazardous Fuels Reduction and Emergency Safety Hazard Removal. This action cleared non-native vegetation within an area approximately 900 feet (ft) wide and extended north 1.5 miles from the International Border between the Colorado River and the western Salinity Canal levee, near San Luis. In light of this development the OBP is now able to observe illegal aliens (IA), smugglers, and other criminals near the Colorado River, which in turn affords the OBP the opportunity to detect and deter these IAs and criminals closer to the border.

The proposed project includes construction of approximately 1.5 linear miles border infrastructure system along the Salinity Canal in San Luis, Arizona from the International Border northward. Permanent security lights would be installed along the western toe of the west levee of the Salinity Canal. The lights would be designed to provide 5 foot-candles of illumination at the western most edge of the cleared area (approximately 900 feet). An all-weather road surface would be applied to both the existing west and east levee road within the 1.5 mile corridor. A, Sandia-style, pedestrian fence would be built along the eastern toe of the east levee. An existing farm road along the toe of the eastern levee would be used as a maintenance road. The area that

was cleared by the BLM under their Cat Ex would be controlled to prevent the re-establishment of non-native vegetation. Additionally, the OBP intends to trim vegetation within three camera corridors near the east bank of the Colorado River in an effort to allow a Remote Video Surveillance (RVS) camera already in place to gain a better line of sight into the security zone. The three corridors would be 80 feet wide and range from 135 feet to 220 feet deep.

In addition to the changes described above the OBP proposes to install three pre-manufactured vehicle bridges. The two foot bridges that currently cross the Sanchez Canal and Canal 242 near the U.S. - Mexico border and west of the San Luis Port of Entry (POE) would be replaced with two of the pre-manufactured bridges. The last vehicle bridge would be placed across Canal One east of the San Luis POE.

In a letter dated July 1,2 2004 from our office regarding the original project, we asked for concurrence with our determination under 36 CFR Part 800.4(d)(1). Concurrence was given by your office on August 12 2004 regarding the original undertaking. In accordance with 36 CFR Part 800.4(d)(1), in regard to the supplemental changes to the project, the proposed all-weather roads on the tops of the levee banks and the lighting will not affect historic properties. The significance of the canal systems is of an historic nature and not imbued in the physical properties of the levees and canals. The levees are constantly maintained and are periodically graded. Extant lighting along the canals creates a situation in which additional lighting or change in configuration of the lighting will not affect historic properties. If you concur with our determination please respond as soon as possible. If you have any questions, please contact Ms. Patience Patterson (817) 886-1723.

Sincerely,

William Fickel, Jr.
Chief, Planning, Environmental
and Regulatory Division

Enclosure

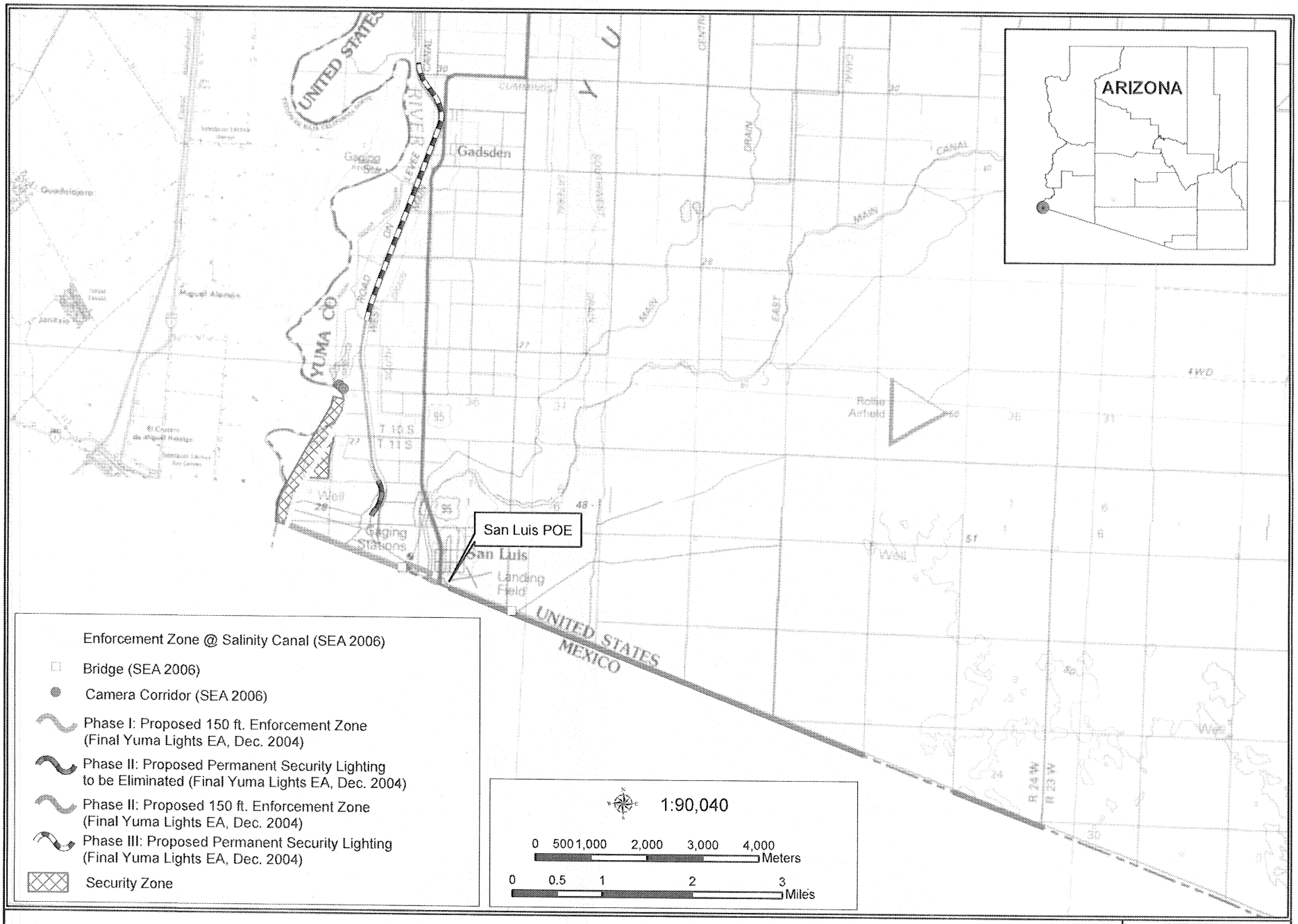

Figure 1-1: Project Location Map

GSRC

April 2006

Copy furnished w/o enclosure

Mr. Joseph Lamphear
Regional Environmental Officer
Department of Homeland Security
Administrative Center Laguna
P.O. Box 30080 Laguna Niguel, CA 92607-0080

John Fountain, Tactical Infrastructure Coordinator
Yuma Sector, Office of Border Patrol
4035 South Avenue A
Yuma, Arizona 85365

United States Department of the Interior

U.S. Fish and Wildlife Service
Arizona Ecological Services Field Office
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
22410-2006-SL-0257
02-21-05-I-0184

February 17, 2006

Mr. William Fickel, Jr., Chief
Department of the Army
Fort Worth District, Corps of Engineers
Planning, Environmental, and Regulatory Division
Fort Worth, Texas, 76102-0300

Attn: Mr. Mark Doles

RE: Supplemental Environmental Assessment for Installation of Border Security Infrastructure Near San Luis, Arizona, Office of Border Patrol Yuma Sector, Arizona

Dear Mr. Fickel:

Thank you for your recent 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 project area. We do not have site specific information for your project area. However, the federally endangered southwestern willow flycatcher *(Empidonax trailii extimus*), Yuma clapper rail *(Rallus longirostris yumanensis*), and California brown pelican (*Pelecanus occidentalis californicus*), and threatened bald eagle (*Haliaeetus leucocephalus*) have been recorded in the general project area. So we may further assist you in determining if listed species occur within the proposed project area, we recommend you provide us with a detailed map of all native vegetation (by community type) within the proposed area of illumination (area that will be illuminated by the permanent security lights). We also suggest that your assessment contain reference to the maintenance of the area cleared in 2005 that facilitated the change in the proposed action.

Additionally, for further information the Arizona Ecological Service Field Office has posted lists of the endangered, threatened, proposed, and candidate species occurring in each of Arizona's 15 counties on the Internet. Please refer to the following web page for species information in the county where your project occurs: **http://arizonaes.fws.gov.** If you do not have access to the Internet or have difficulty obtaining a list, please contact our office and we will mail or fax you a list as soon as possible.

After opening the web page, find County Species Lists on the main page. Then click on the county of interest. The arrows on the left will guide you through information on species that are listed, proposed, candidates, or have conservation agreements. Here you will find information on

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the species' status, a physical description, all counties where the species occurs, habitat, elevation, and some general comments. Additional information can be obtained by going back to the main page. On the left side of the screen, click on Document Library, then click on Documents by Species, then click on the name of the species of interest to obtain General Species Information, or other documents that may be available. Click on the "Cactus" icon to view the desired document.

Please note that your project area may not necessarily include all or any of these species. The information provided includes general descriptions, habitat requirements, and other information for each species on the list. Under the General Species Information, citations for the Federal Register (FR) are included for each listed and proposed species. The FR is available at most Federal depository libraries. This information should assist you in determining which species may or may not occur within your project area. Site-specific surveys could also be helpful and may be needed to verify the presence or absence of a species or its habitat as required for the evaluation of proposed project-related impacts.

Endangered and threatened species are protected by Federal law and must be considered prior to project development. If the action agency determines that listed species or critical habitat may be adversely affected by a federally funded, permitted, or authorized activity, the action agency will need to request formal consultation with us. If the action agency determines that the planned action may jeopardize a proposed species or destroy or adversely modify proposed critical habitat, the action agency will need to enter into a section 7 conference. The county list may also contain candidate or conservation agreement species. Candidate species are those for which there is sufficient information to support a proposal for listing; conservation agreement species are those for which we have entered into an agreement to protect the species and its habitat. Although candidate and conservation agreement species have no legal protection under the Act, we recommend that they be considered in the planning process in the event that they become listed or proposed for listing prior to project completion.

If any proposed action occurs in or near areas with trees and shrubs growing along watercourses, known as riparian habitat, we recommend the protection of these areas. Riparian areas are critical to biological community diversity and provide linear corridors important to migratory species. In addition, if the project will result in the deposition of dredged or fill materials into waterways, we recommend you contact the Army Corps of Engineers which regulates these activities under Section 404 of the Clean Water Act.

The State of Arizona and some of the Native American Tribes protect some plant and animal species not protected by Federal law. We recommend you contact the Arizona Game and Fish Department and the Arizona Department of Agriculture for State-listed or sensitive species, or contact the appropriate Native American Tribe to determine if sensitive species are protected by Tribal governments in your project area. We further recommend that you invite the Arizona Game and Fish Department and any Native American Tribes in or near your project area to participate in your informal or formal Section 7 Consultation process. We are providing this letter to the Arizona Game and Fish Department and the Cocopah Tribe for their information.

Mr. William Fickel, Jr., Chief

For additional communications regarding this project, please refer to consultation number 22410-2006-SL-0257. We appreciate your efforts to identify and avoid impacts to listed and sensitive species in your project area. If we may be of further assistance, please feel free to contact Erin Fernandez (520) 670-6150 (x238), Lesley Fitzpatrick (602) 242-0524 (x236), or Jim Rorarbaugh (602) 242-0524 (x238).

Sincerely,

Steven L. Spangle
Field Supervisor

cc: Regional Supervisor, Arizona Game and Fish Department, Yuma, AZ
Chief, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ
Honorable Sherry Cordova, Chairwoman, Cocopah Tribe, Somerton, AZ
Assistant Field Supervisor, Fish and Wildlife Service, Tucson, AZ

W:\Erin Fernandez\Salinity Canal lights Feb 06 ef lf.doc:cgg

SWLPD- 2003-2533 (28889)

WA
PER-E

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERSS
P.O. BOX 17300, 819 TAYLOR STREET
FORT WORTH, TEXAS 76102-0300

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MAY 01 2006
JM 5/3/06
ARIZONA STATE PARKS N.R.

April 28, 2006

Planning, Environmental and Regulatory Division

SUBJECT: Supplemental Environmental Assessment for Installation of Border Security Infrastructure near San Luis, Arizona, Office of Border Patrol Yuma Sector, Arizona

Mr. James Garrison, State Historic Preservation Officer
ATTN: Joanne Medley
Arizona State Parks
1300 West Washington
Phoenix, Arizona 85007

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was cleared by the BLM under their Cat Ex would be controlled to prevent the re-establishment of non-native vegetation. Additionally, the OBP intends to trim vegetation within three camera corridors near the east bank of the Colorado River in an effort to allow a Remote Video Surveillance (RVS) camera already in place to gain a better line of sight into the security zone. The three corridors would be 80 feet wide and range from 135 feet to 220 feet deep.

In addition to the changes described above the OBP proposes to install three pre-manufactured vehicle bridges. The two foot bridges that currently cross the Sanchez Canal and Canal 242 near the U.S. - Mexico border and west of the San Luis Port of Entry (POE) would be replaced with two of the pre-manufactured bridges. The last vehicle bridge would be placed across Canal One east of the San Luis POE.

In a letter dated July 1,2 2004 from our office regarding the original project, we asked for concurrence with our determination under 36 CFR Part 800.4(d)(1). Concurrence was given by your office on August 12 2004 regarding the original undertaking. In accordance with 36 CFR Part 800.4(d)(1), in regard to the supplemental changes to the project, the proposed all-weather roads on the tops of the levee banks and the lighting will not affect historic properties. The significance of the canal systems is of an historic nature and not imbued in the physical properties of the levees and canals. The levees are constantly maintained and are periodically graded. Extant lighting along the canals creates a situation in which additional lighting or change in configuration of the lighting will not affect historic properties. If you concur with our determination please respond as soon as possible. If you have any questions, please contact Ms. Patience Patterson (817) 886-1723.

Sincerely,

William Fickel, Jr.
Chief, Planning, Environmental
and Regulatory Division

Enclosure

CONCUR
no adverse effect
5/19/06
ARIZONA STATE HISTORIC PRESERVATION OFFICER
ARIZONA STATE PARKS BOARD

United States Department of the Interior

BUREAU OF RECLAMATION
Yuma Area Office
7301 Calle Agua Salada
Yuma, Arizona 85364

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
YAO-7210
ENV-9.00

JUN 05 2006

Mr. Mark Doles
Department of the Army
Corps of Engineers
Fort Worth District
P.O. Box 17300
Fort Worth, TX 76102-0300

Subject: Comments - Draft Supplemental Environmental Assessment (SEA) for Installation of Border Security Infrastructure near San Luis, Arizona, Office of Border Patrol, Yuma Sector, Arizona

Dear Mr. Doles:

In response to your May 5, 2006, request for comments concerning the Draft SEA for the proposed installation of border security infrastructure near San Luis, Arizona, and the international border, the Bureau of Reclamation (Reclamation) previously provided scoping comments on February 8, 2006. We would like to emphasize the need for coordination between our agencies in regard to the following:

The proposed permanent structures, including bridges, fences, road improvements, and lights will be constructed on, or adjacent to, Reclamation lands and facilities (conveyance channels). These will require a right-of-use authorization from Reclamation. Reclamation requires submittal of detailed plans, design drawings, and construction plans a minimum of 120 days prior to issuance of an authorization. Early submittal of plans and drawings will facilitate our review to make sure these structures do not impede operation and maintenance of our facilities.

In addition, please provide State Historic Preservation Office (SHPO) concurrence and/or cultural surveys with any requests for right-of-use authorization of Reclamation lands or facilities.

The Colorado River Levee embankment and most irrigation canals in the area are register-eligible historic features (Historic Yuma Project, Pfaff, et al, 1999), and as such require SHPO review.

If you have any questions please contact Mr. Julian DeSantiago at telephone No. 928-343-8259.

Sincerely,

Peggy Haren

for Cynthia Hoeft, Director
Resource Management Office

cc: U.S. Customs and Border Patrol
Asset Management Division
Portfolio Management Branch
Room 3.4-D
1300 Pennsylvania Avenue, N.W.
Washington, DC 20229

Mr. Ronald C. Colburn
Chief Patrol Agent
U.S. Border Patrol, Yuma Sector
4035 South Avenue A
Yuma, AZ 85365

Publisher's Affidavit of Publication

0O0

STATE OF ARIZONA }
COUNTY OF YUMA }

Julie Moreno or Lee Knapp, 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

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 MAY 08 ,2006 and the date of the last publication being MAY 08 ,2006 and that the dates when said NOTICE OF AVAILABILITY

was printed and published in said paper were MAY 08, 2006

Lee Knapp

Subscribed and sworn to before me, by the said Julie Moreno or Lee Knapp

23rd day of May, 2006

Virgen P. Perez Notary Public

My commission expires May 10, 2009

OFFICIAL SEAL
VIRGEN P PEREZ
Notary Public State of Arizona
YUMA COUNTY
My Comm. Expires MAY 10, 2009

Exhibit 1.

NOTICE OF AVAILABILITY

DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT FOR THE INSTALLATION OF PERMANENT SECURITY LIGHTING AND BORDER INFRASTRUCTURE SYSTEM OFFICE OF BORDER PATROL YUMA SECTOR, ARIZONA

The public notice is hereby notified of the availability of the Draft Supplemental Environmental Assessment (SEA) for the installation of Security Lighting and Border Infrastructure System in the Office of Border Patrol (OBP) Yuma Sector, Arizona. This EA addresses the potential impacts from installing approximately 1.5 miles of permanent security lighting, three camera lanes, all-weather road, secondary fence, and maintenance road near San Luis, Arizona. Additionally, an area approximately 900 feet wide by 1.5 miles long west of the western levee of the Salinity Canal and an area (approximately 35 acres) east of the Salinity Canal, which have been previously cleared of non-native vegetation, would be re-cleared and maintained. The objective of the proposed project is to provide a deterrence to the continual influx of illegal entrants into the area through a certainty of detection and apprehension and increase the safety of the OBP agents. The Draft SEA will be available for review on May 8, 2006 at the Yuma County Library in Yuma, Arizona; and the Yuma County Library (Wellton Library) in Wellton, Arizona. The Draft SEA can also be viewed via the internet at the following address: http://aerc.swf.usace.army.mil. Send written comments to: Mr. Mark Doles, U.S. Army Corps of Engineers, Fort Worth District, P.O. Box 17300, Fort Worth, TX 76102 or Fax 817-886-6499. Comments will be received until June 8, 2006
Daily May 8, 2006 #L32449

QUECHAN INDIAN TRIBE
Ft. Yuma Indian Reservation

P.O. Box 1899
Yuma, Arizona 85366-1899
Phone (760) 572-0213
Fax (760) 572-2102

WJ
PEQ - E MN.
PER - EC

January 8, 2007

Department of the Army
Mr. William Fickel
PO Box 17300
Fort Worth, TX 76102-0300

Dear Mr. Fickel,

Thank you for notifying us of the proposed security fence construction along the Salinity Canal in Yuma, AZ.

We have reviewed the area in which the proposal takes place and have determined that there is a potential for impact on cultural resources affiliated with the Quechan Tribe. At this time the Cultural Committee requests that the Historic Preservation Office be kept up to date on construction activities as well as on any encounters with cultural resoures.

Again, thank you for your consideration of the cultural resources in this project. If you need any further information or have any questions, please contact me at (760) 572-2423.

Sincerely,

Bridget Nash-Chrabascz

RECEIVED
16 Jan 2007

Bridget R. Nash-Chrabascz
Historic Preservation Officer

APPENDIX G
Responses to Comments Received during the Draft Environmental Assessment Public Review Period

Office of Border Patrol: Yuma Sector – Yuma Lights SEA

Revised Draft Comment Resolution

August 2006

No.	Page No	Section and Para/Line No	Reviewer	Comment	Response By	Response Clarification	Final Resp	Comment
1	1-2	First Sentence, Last Paragraph	Stephen Fusilier (BLM)	First Sentence, Last Paragraph - say "164 acres" next page (1-3) talks about "199 acres" as if it was 199 acres that was previously cleared (we need clarification here to be consistent).	JPM	The document was revised to read, "This action cleared non-native vegetation within an area (164 acres) approximately 900 feet wide and extending north 1.5 miles from the international border between the Colorado River and the western Salinity Canal levee, near San Luis. In addition, an area of approximately 35 acres east of the Salinity Canal was also cleared as part of the action that occurred under the CATEX. Therefore, the total acreage cleared was 199 acres (164 + 35 acres)."		
2	General comment		S. Fusilier	Did not see Native American Religious Concerns addressed. Sandy will probably have a comment here, we at least need to address then in the negative if they are not affected.	JPM	No Native American religious concerns have been brought to CBP's attention; therefore, we feel that our analysis on cultural resources in the area is prudent. Additionally, all applicable Native American Tribes have been coordinated with regarding the project and no comments have been received. Additionally, the Arizona State Historic Preservation Officer has concurred with our finding of no affect to historic properties.		
3	General comment		S. Fusilier	Our Critical Element regarding waste includes is Waste, Hazardous or Solid. Understand you say there is no hazardous waste but there will be at least some solid waste and you need to address how that will be handled. In addition, if you look on page 5-1, Section 5.1 General Construction	JPM	A section for Hazardous and Solid Waste was added to Section 3 and analyzed in Section 4 of the document.		

Office of Border Patrol: Yuma Sector – Yuma Lights SEA
Revised Draft Comment Resolution
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No.	Page No	Section and Para/Line No	Reviewer	Comment	Response By	Response Clarification	Final Resp	Comment
				Activities - you talk about both hazardous and solid waste (which is good and correct). You need to move some of this information to the Impacts section and address Waste, Hazardous or Solid as a Critical Element (at least for BLM) so we can be consistent.				
4	4-21	Section 4.13.2	S. Fusilier	Is Reclamation leasing the land for the POE? I thought that the land was acquired by the Port Authority. Not significant to me which way it is but do want us to be accurate.	JPM	According to Reclamation the land for the Commercial POE was acquired by the Port Authority.		
5	4-21	Section 4.13.2	S. Fusilier	Western Area Power Administration (WAPA) has had talks with Reclamation for a proposed 500kV line just east of the POE. I do not know if an application has been submitted yet but I do know there were public scoping type meetings held by the company proposing the facility so it might be good to contact WAPA and/or Reclamation and get some information on this.	JPM	WAPA has been contacted and the information regarding their proposed 500kV line has been included in the cumulative impacts section.		
6	General comment		S. Fusilier	Sandra was out of the office for two weeks and had a lot of priorities to deal with when she returned this Monday (8/21). She will get me her comments NLT COB Thursday (8/24).	JPM	Thank you for your comment.		
7	General comment		S. Fusilier	From conversations with Reclamation's Realty section I do not believe there has been adequate coordination with them. I understand there has been a good bit of coordination with the engineering section at Reclamation but that does not solve the problem that BLM needs a letter of concurrence from Reclamation to issue our authorization. (I believe I spoke to John	JPM	According to Dan Fodrini, John has already provided Reclamation with copies of the engineering drawings. However, they have requested additional data which he is also going to provide		

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No.	Page No	Section and Para/Line No	Reviewer	Comment	Response By	Response Clarification	Final Resp	Comment
				about this a few weeks ago.) That letter of concurrence will come from the Realty section at Reclamation so there probably will need to be a little more work with regard to that. In anticipation of that needed coordination I request Dan Fodrini to see about getting Anna Pinnell a copy of the engineering drawings for the infrastructure work especially along the Salinity Canal and have included Reclamation in this email.				
8	1-3		Karen Reichhardt (BLM)	Delete sentence beginning on second line beginning with "Furthermore, this area...". Replace with " Vegetative clearing is in conformance with the Yuma Field Office Resource Management Plan dated 1987 which states that exotic species would be discouraged in the planning area."	JPM	Document was changed as requested.		
9	2-12		K. Reichhardt	Delete aerial spraying as a method of treating salt cedar (see Jennifer Green's comments)	JPM	Document was changed as requested.		
10	3-1		K. Reichhardt	The EA needs to address (add) the topics of: Invasive, Non-native Species E.O. 13112, Migratory Birds E.O. 13186 and Arizona Standards and Guidelines for Rangeland Health as topic areas in order for BLM to adopt this EA. Assess impacts to these elements in chapter 4.	JPM	Non-native and invasive species was discussed in the December 2004 Final EA and was incorporated by reference into this SEA. Furthermore, in Section 4.3.1.2 the document states that due to the project allowing naturally recruited native species to be maintained CBP would be in compliance with E.O. 13112. Migratory birds are discussed in Section 4.5.2, Section 5.4, and Section 5.5 of the Draft SEA. The following statement was added to Section 3.1 of the Final SEA, “The Arizona Standards for		

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						Rangeland Health and Guidelines for Grazing Administration was approved in April 1997. The standards apply to all lands managed by the BLM. A majority of the lands managed by the BLM within the project area are previously disturbed and committed to other activities. The lands in this area are in compliance with the Arizona Standards for Rangeland Health."		
11	3-3	Section 3.4	K. Reichhardt	The riparian area along the Colorado River on managed by BLM is designated in the Yuma Field Office Resource Management Plan dated 1987 as priority wildlife habitat for its riparian values.	JPM	The document was revised to state, "This riparian area has also been designated by the BLM as priority wildlife habitat for its riparian values, which creates additional value to the areas unique and sensitive nature. "		
12	5-2	Section 5.3	K. Reichhardt	Why not state here that there wouldn't be aerial spraying	JPM	The document has been revised to state that all herbicide activities would be conducted using backpack sprayers, ATVs, or tractors.		
13	1-2		Jennifer Green (BLM)	Is the acreage of the security zone 164 acres or 199 acres??? (page 1-3 says 199 acres)		See response to comment number 1.		
14	1-2		J. Green	Delete severe fire hazard. The area had sparse vegetation and pockets of dense salt cedar.		The document was revised as requested.		
15	1-3		J. Green	Delete "Furthermore, this area is not currently addressed in BLM's land management plan" - yes it is. It is a riparian zone which our LUP currently recognizes as "priority wildlife habitat"		The document was revised as requested.		
16	1-3		J. Green	Delete "re-clearing and maintaining" add selectively clear and retreat. The intent of		The document was revised as requested.		

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				the hazardous fuels reduction was to selectively remove salt cedar and leave other vegetation such as creosote, mesquite, seep willow and white bursage. "Reclearing" makes it sound like everything would be bulldozed.				
17	1-6		J. Green	Delete "BLM's alteration of the Colorado River area" Replace with "Due to BLM's treatment of the hazardous fuels along the Colorado River"		The document was revised as requested.		
18	1-7			Add Biological Evaluation from BLM herbicide EA to Appendix E. Add Appendix G: Approved Pesticide Use Proposal for Herbicide treatment of "security zone" (BLM will send over documents to include).		Thank you for your comment the appendices will be added accordingly.		
19	2-9			Add seep willow, creosote and white bursage and big galleta grass to list of native species to be avoided.		The document was revised to state that all native species such as seep willow, creosote, and white bursage will be avoided to the greatest extent practicable.		
20	2-9			We cannot use aerial application as a way to treat the weeds on the border. This was not analyzed under the programmatic herbicide EA and related biological evaluation. Aerial application would not be feasible for the following reasons • Native vegetation would be impacted due to drift • Neighboring lands including agriculture fields could be negatively impacted due to drift • Public health and safety (IA could be hiding in brush at the time of treatment, could cause health risk) • Wildlife_ could be directly sprayed		Aerial application of pesticides has been eliminated. The BLM approved method of ATV, tractor, or hand spraying would be used in an effort to comply with BLM analyzed and approved methods of applying herbicides.		

Office of Border Patrol: Yuma Sector – Yuma Lights SEA
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No.	Page No	Section and Para/Line No	Reviewer	Comment	Response By	Response Clarification	Final Resp	Comment
				with herbicide with this method. BLM has analyzed and is permitted to use backpack sprayers and quads to do a selective foliar or basal bark treatment which would directly target tamarisk, and reduce the concerns listed above. Less chemical would be used, and the treatment would be more time intensive.				
21	3-3			Add burrowing owl to the wildlife section. This species is widespread throughout the Limitrophe due to the sparse open vegetation and proximity to water (the salinity canal).		The western burrowing owl was discussed in the original December 2004 Final EA and is incorporated by reference in this SEA.		
22	5-3			Could the OBP consider the use of artificial dwellings for burrowing owls? It may allow the enforcement/security zone to have some wildlife habitat quality.???		Thank you for your comment; however, at this time the CBP does not plan on installing artificial dwellings for the burrowing owl.		
23	General comment		Sandra Arnold	The BLM needs documentation of comments and concurrence from the Arizona State Historic Preservation Office (SHPO) for the actions proposed in this supplemental EA.		The SHPO's letter of concurrence of no affect to historic properties will be included in the Final SEA as part of the appendices		
24	General comment		S. Arnold	The supplemental EA is basing its determination of no significant impact to cultural resources on a Categorical Exclusion (CX) approved by the BLM in December 2004. The cultural evaluation for that CX was completed in the context of an emergency action. The cultural review for the emergency CX is appropriate as background material, but was not meant to be the entire basis for a finding of no effect on cultural resources for that area. In addition, there are new types of activities		See response # 23.		

Office of Border Patrol: Yuma Sector – Yuma Lights SEA
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No.	Page No	Section and Para/Line No	Reviewer	Comment	Response By	Response Clarification	Final Resp	Comment
				being proposed for this area in the EA (i.e., security style lighting, all-weather roads, pedestrian fence, etc) that were not evaluated under the emergency action. It is recommended that the Area of Potential Effects (APE) for the proposed action in the supplemental EA include an on-the-ground evaluation of the presence or absence of cultural resources, and that the cultural resources in the project's APE (including historic resources like canals) be fully identified, evaluated for their eligibility to the National Register, and evaluated for project effect on those resources				
25	General comment		S. Arnold	The existing environment and environmental consequences for Native American religious concerns need to be addressed in the EA. The EA should also address the cumulative impacts to traditional use values along the river from the various proposals that are currently under consideration and those that have already been approved (2004 EA, 2006 supplemental EA, and other proposals for selective thinning along the border and limitrophe areas). Consultation with the tribes is necessary to adequately address tribal issues and concerns in the EA. Please provide the BLM with documentation of the tribal consultations that have been completed to date.		All appropriate tribes have been coordinated with properly. A copy of the coordination letters will be included in the Final SEA. Additionally, the tribes have all received copies of the Draft SEA and have provided no comments. The only letter of comment from any Native American Tribe was in regards to the original 2004 Final EA. This comment stated that they (local tribes) defer all decisions to the Tohono O'odham. To date no comments have been provided by the Tohono O'odham. We are unaware of any Native American religious concerns, which is why no discussion regarding potential religious concerns was included in this SEA.		