

**SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT
FOR
LAND ACQUISITION AND TRANSFER FOR THE MISSION REACH ECOSYSTEM
RESTORATION AND RECREATION PROJECT**

Bexar County, Texas



Prepared by:



**U.S. Army Corps of Engineers
Fort Worth District**

APRIL 2009

**DRAFT FINDING OF NO SIGNIFICANT IMPACT
SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT
FOR
LAND ACQUISITION AND TRANSFER FOR THE MISSION REACH ECOSYSTEM
RESTORATION AND RECREATION PROJECT**

BEXAR COUNTY, TEXAS

1. NAME OF THE ACTION

The proposed action is entitled Land Acquisition and Transfer for the Mission Reach Ecosystem Restoration and Recreation Project. This Supplemental Environmental Assessment (SEA) is a supplement to the General Reevaluation Report and Integrated Environmental Assessment and can be found at <http://www.swf.usace.army.mil/pubdata/notices/sanantonio-rcip-grr/index.asp>.

2. DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

The proposed action involves the acquisition of land adjacent to the San Antonio Missions National Historical Park (SAAN) that has historical significance to the SAAN. The acquisition would be made by San Antonio River Authority (SARA), which would then transfer the property to the National Park Service (NPS) SAAN. If the acquisition and transfer occur, the land would likely be incorporated into a demonstration farm at Mission San Juan at some later date (James Oliver 2008). This would serve to preserve and protect the historic landscape by restoring the lower San Juan Acequia and reestablishing Spanish colonial irrigated agricultural farmlands along the San Antonio River.

The land proposed for acquisition includes nine individual properties and totals 55.4 acres. The area of the proposed action was historically an important part of Mission San Juan. It is adjacent to Mission San Juan and served as the *labores*, or irrigated farmlands, providing crops for food, trade, and fibers. The lower San Juan Acequia runs through the properties and provided water to the historic farmlands along the San Antonio River since its construction in the eighteenth century. The existing parcels, or *porciones*, date back to Spanish colonial times and have remained predominantly in agricultural use. This land is located in a unique setting nestled between Mission San Juan to the north and Mission Espada to the south and west (Prewitt 2008), and has been identified by the NPS as an area of interest for future park expansion. There are five landowners within the proposed project area, three private and two public (City of San Antonio and Bexar County). For the proposed action, properties owned by private entities would be purchased at fair market value and properties owned by public entities would be donated.

In addition to the proposed action and the No Action Alternative, three other alternatives were considered, but were eliminated from further consideration because they do not meet the purpose and need of the proposed action. These are:

Alternative One

SARA would acquire approximately 50 acres of land located on the west bank of the San Antonio River, approximately 0.4 miles south of Loop 410, and adjacent to the southern boundary of Mission Espada.

Alternative Two

SARA would acquire approximately 65 acres located across Ashley Road from Stinson Municipal Airport, approximately 0.8 miles north of Loop 410, on the west side of the San Antonio River.

Alternative Three

SARA would acquire approximately 60 acres north of Loop 410 and east of Villamain Road.

3. SUMMARY OF ENVIRONMENTAL EFFECTS OF THE PROPOSED ACTION

Based on the findings within this SEA, there would be few direct impacts on the human or natural environment associated with the acquisition and transfer of the subject properties. Direct impacts would include changing the land use from privately and publicly owned property to federally owned property, requiring the displacement and relocation of two households, but also incurring long-term beneficial impacts to cultural resources.

Indirect impacts would be expected due to the anticipated expansion of the SAAN's demonstration farm or *labores* (irrigated farmlands), and restoration of the lower San Juan Acequia). The land would be cleared of most structures and non-native vegetation and would be farmed by utilizing historic farming practices associated with the Spanish colonial missions. An interpretive trail would be constructed adjacent to the lower San Juan Acequia for use by park visitors. Long-term, insignificant beneficial impacts would be anticipated for land use, aesthetics and visual resources, waters of the U.S., floodplains, soils, prime farmland, and environmental justice. Short-term insignificant adverse impacts to water quality, air quality, vegetation, fish and wildlife, and noise would be anticipated during restoration and/or construction, however, appropriate Best Management Practices (BMPs) would be implemented. The expansion of the SAAN's demonstration farm would have no impacts, either direct or indirect, to geology or topography, groundwater, threatened or endangered species, hazardous and toxic materials, children, or transportation and utilities.

4. MITIGATION

This proposed action is, in itself, compensatory mitigation for land losses to the SAAN resulting from ecosystem restoration efforts associated with the San Antonio Channel Improvement Project. No additional compensatory mitigation is necessary due to implementation of the proposed land acquisition and transfer. No significant, adverse direct or indirect impacts to the human or natural environment would take place.

5. PUBLIC COMMENT/REVIEW

The SEA and draft Finding of No Significant Impact (FONSI) will be available on April 10, 2009 for public comment and review for a period of 30 days. This document is available for review at the USACE Fort Worth District website <http://www.swf.usace.army.mil>, or at the San Antonio Central Library 600 Soledad San Antonio, TX 78205, (210) 207-2500 on 6th Floor in Texana Department, or copies may be requested in writing at the address below or by telephone at (817) 886-1713.

Comments may be submitted no later than May 9, 2009 to Mr. William Haferkamp, CESWF-PER-EE, P.O. Box 17300, Fort Worth, TX 76102-0300, or by e-mail at William.W.Haferkamp@usace.army.mil.

6. CONCLUSION

On the basis and findings of this SEA, no significant impact is anticipated from the proposed project to the human or natural environment. A Finding of No Significant Impact is appropriate for this proposed action, and a Notice of Intent to prepare an Environmental Impact Statement is not warranted.

Christopher W. Martin
Colonel, Corps of Engineers
District Commander

Date

**SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT
FOR
LAND ACQUISITION AND TRANSFER FOR THE MISSION REACH ECOSYSTEM
RESTORATION AND RECREATION PROJECT**

BEXAR COUNTY, TEXAS

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April 2009

**EXECUTIVE SUMMARY
SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT
FOR
LAND ACQUISITION AND TRANSFER FOR THE MISSION REACH ECOSYSTEM
RESTORATION AND RECREATION PROJECT**

This Supplemental Environmental Assessment (SEA) has been prepared in compliance with the National Environmental Policy Act of 1969 (NEPA), to address the potential effects, beneficial or adverse, associated with the proposed acquisition of approximately 55.4 acres of land adjacent to the San Antonio Missions National Historical Park (SAAN). The acquisition would be made by the San Antonio River Authority (SARA), with the land then deeded to the SAAN to compensate for land loss due to ecosystem restoration activities associated with the San Antonio Channel Improvement Project (SACIP) within the Mission Reach of the San Antonio River. This SEA is a supplement to the NEPA analysis contained within the SACIP General Reevaluation Report and Integrated Environmental Assessment completed by the U.S. Army Corps of Engineers in September 2004.

1. PURPOSE AND NEED

The purpose of the proposed action is for SARA to acquire a 55.4-acre parcel of land that possesses historical significance and is situated directly adjacent to the SAAN and to transfer ownership of that parcel to the National Park Service (NPS). Construction associated with the Mission Reach Ecosystem Restoration and Recreation Project required the removal of 49.4 acres of land from the SAAN, including portions of undisturbed *labores* (irrigated farmland). The proposed action would satisfy a mitigation requirement to compensate the SAAN for the loss of land associated with the ecosystem restoration project.

PROPOSED ACTION

The proposed action involves the acquisition of land adjacent to the SAAN that has historical significance to the SAAN. The acquisition would be made by SARA, which would then transfer the property to the NPS SAAN. If the acquisition and transfer occur, the land would likely be incorporated into a demonstration farm at Mission San Juan at some later date (James Oliver 2008). This would serve to preserve and protect the historic landscape by restoring the lower San Juan Acequia and reestablishing Spanish colonial irrigated agricultural farmlands along the San Antonio River.

The land proposed for acquisition includes nine individual properties and totals 55.4 acres. SARA would be required to purchase the privately owned property, while the publicly owned property would be donated. The donation of 15.1 acres, or approximately 25 percent of the land, would substantially decrease the cost of the acquisition. The area of the proposed action was historically an important part of Mission San Juan. It is adjacent to Mission San Juan and served as the *labores*, or irrigated farmlands, providing crops for food, trade, and fibers. The lower San Juan Acequia runs through the properties and provided water to the historic farmlands along the San Antonio River since its construction in the eighteenth century. The existing parcels, or *porciones*, date back to Spanish colonial times and have remained predominantly in agricultural use. This land is located in a unique setting nestled between Mission San Juan to the north and

Mission Espada to the south and west (Prewitt 2008), and has been identified by the NPS as an area of interest for future park expansion. There are five landowners within the proposed project area, three private and two public (City of San Antonio and Bexar County). For the proposed action, properties owned by private entities would be purchased at fair market value and properties owned by public entities would be donated.

2. ALTERNATIVES TO THE PROPOSED ACTION

ALTERNATIVE ONE

Alternative One would be for SARA to acquire approximately 50 acres of land located on the west bank of the San Antonio River, approximately 0.4 miles south of Loop 410, and adjacent to the southern boundary of Mission Espada. This land would meet the criteria set by the NPS as mitigation to compensate for the acreage lost to the SACIP Ecosystem Restoration and Recreation Project: It is adjacent to existing SAAN land, has historical significance to the missions, is somewhat undeveloped and served as *labores*, or irrigated farmlands. A branch of the Espada Acequia forms the eastern boundary of the area. There are approximately ten to twelve landowners, none of which are public entities.

Though there are similarities between this alternative and the proposed action, including number of acres, geographic connection to existing SAAN land, historical significance, and existing land use, this alternative was eliminated from further consideration. There would be many more landowners to negotiate sales with and to be relocated, thus complicating the real estate action. Since these properties are all privately owned, the cost of acquisition would be much greater than that of the proposed action. In addition, this area has not been identified by the NPS as an area to be acquired for future use.

ALTERNATIVE TWO

Alternative Two would be for SARA to acquire approximately 65 acres located across Ashley Road from Stinson Municipal Airport, approximately 0.8 miles north of Loop 410, on the west side of the San Antonio River. This property meets some of the criteria set forth by the NPS to be considered as mitigation to compensate for the acreage lost to the SACIP Ecosystem Restoration and Recreation Project: It is adjacent to existing SAAN land and is undeveloped. It is unclear if this area was part of the *labores*, associated with one of the historic missions; however, there is no acequia associated with the property, and it has none of the characteristics of Spanish colonial *porciones* (parcels). This property is owned by the City of San Antonio.

This alternative was eliminated from further consideration because of its proximity to Stinson Municipal Airport. Developing this property as a demonstration farm could create a bird airstrike hazard for the airport. Additionally, this property would not bring historically valuable land into the SAAN.

ALTERNATIVE THREE

Alternative Three would be for SARA to acquire approximately 60 acres north of Loop 410 and east of Villamain Road. This property meets some of the criteria set forth by the NPS to be considered as mitigation to compensate for the acreage lost to the SACIP Ecosystem Restoration

Project: It is adjacent to existing SAAN land (only a small portion at the northern end), but separated from the Mission San Juan boundary by Villamain Road and the Union Pacific railway; additionally, it is somewhat undeveloped, but has not been used for agricultural purposes for a very lengthy period of time. It is near Mission San Juan and served as *labores*. The upper San Juan Acequia (Acequia Madre) would form the eastern boundary for this alternate property. However, this area is heavily wooded and has not been farmed in the recent past. There are four private landowners associated with this property.

This alternative was eliminated from further consideration for this SEA. While this property could be a valuable addition to the SAAN at some future time, it would not be the optimal property for acquisition at present. Although this property is in close proximity to the SAAN, it would not be directly adjacent to SAAN property, but would be separated by Villamain Road and the Union Pacific railway. These transportation features would present problems with restoration of the San Juan Acequia by impeding historic irrigation flow patterns. Selection of this alternative would not provide for a park connection between Mission San Juan and Mission Espada and would leave private residences on an “island” surrounded by NPS property. Additionally, the cost of acquisition for this property would be much greater than that of the proposed action since the entire area is in private ownership.

NO ACTION ALTERNATIVE

The President’s Council on Environmental Quality’s regulations and U.S. Army Corps of Engineers’ Engineering Regulation 200-2-2, *Procedures for Implementing NEPA*, require that a No Action Alternative be evaluated. Under the No Action Alternative, SARA would not acquire land adjacent to the SAAN; therefore, no land transfer would take place, as is required to mitigate for the NPS SAAN loss of 49.4 acres of land to the Mission Reach Ecosystem Restoration and Recreation Project. Selection of the No Action Alternative would mean that SARA would not meet their obligation to the NPS.

3. ENVIRONMENTAL CONSEQUENCES

Based on the findings within this SEA, there would be few direct impacts on the human or natural environment associated with the acquisition and transfer of the subject properties. Direct impacts would include changing the land use from private and public ownership to being federally owned, requiring the displacement and relocation of two households, but also incurring long-term beneficial impacts to cultural resources.

Indirect impacts would be expected due to the anticipated expansion of the SAAN’s demonstration farm or *labores*. The *labores* would be expanded southward, and the lower San Juan Acequia (historic irrigation ditch) would be restored. The land would be cleared of most structures and non-native vegetation and would be farmed by utilizing historic farming practices associated with the Spanish colonial missions. An interpretive trail would be constructed adjacent to the lower San Juan Acequia for use by park visitors. Long-term, insignificant beneficial impacts would be anticipated for land use, aesthetics and visual resources, waters of the U.S., floodplains, soils, prime farmland, and environmental justice. Short-term insignificant adverse impacts to water quality, air quality, vegetation, fish and wildlife, and noise would be anticipated during restoration and/or construction, however, appropriate BMPs would be implemented. The expansion of the SAAN’s demonstration farm would have no impacts, either

direct or indirect, to geology or topography, groundwater, threatened or endangered species, hazardous and toxic materials, children, or transportation and utilities.

4. CONCLUSION

The proposed action consists of the purchase of the subject property by SARA and subsequent transfer of the property to the SAAN. The environmental impacts of the proposed action have been assessed, and it has been determined that the proposed action would have no significant adverse impacts upon land use, visual and aesthetic resources, geological and soil resources, water resources, biological resources (including endangered or threatened species), cultural resources, hazardous and toxic materials, noise, air quality, socioeconomic resources, children, or transportation and utilities. A Finding of No Significant Impact is appropriate for this proposed action, and a Notice of Intent to prepare an Environmental Impact Statement is not warranted.

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LIST OF ACRONYMS AND ABBREVIATIONS

ASTM	American Standard for Testing and Materials
BMP	Best Management Practice
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
dB	decibel
DNL	day-night average sound level
EA	Environmental Assessment
EAC	Early Action Compact
E.O.	Executive Order
EPA	Environmental Protection Agency
GRR	General Reevaluation Report
IH	Interstate Highway
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NRCS	Natural Resources Conservation Service
NPS	National Park Service

SACIP	San Antonio Channel Improvement Project
SARA	San Antonio River Authority
SAAN	San Antonio Missions National Historic Park
SART	San Antonio River Tunnel
SEA	Supplemental Environmental Assessment
TCEQ	Texas Commission on Environmental Quality
TPWD	Texas Parks and Wildlife Department
U.S.	United States
USACE	U.S. Army Corps of Engineers
USC	United States Code
USFWS	U.S. Fish and Wildlife Service

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1. INTRODUCTION

This Supplemental Environmental Assessment (SEA) has been prepared in compliance with the National Environmental Policy Act of 1969 (NEPA), to address the potential effects, beneficial or adverse, associated with the proposed acquisition of approximately 50 acres of land adjacent to the San Antonio Missions National Historical Park (SAAN). The acquisition would be made by the San Antonio River Authority (SARA), with the land then deeded to the SAAN to compensate for land loss due to ecosystem restoration activities associated with the San Antonio Channel Improvement Project (SACIP) within the Mission Reach of the San Antonio River. This SEA is a supplement to the NEPA analysis contained within the SACIP General Reevaluation Report (GRR) and Integrated Environmental Assessment (EA) (GRR/EA) completed by the U.S. Army Corps of Engineers (USACE) in September 2004.

1.1. LOCATION

The proposed project area is located in southeastern San Antonio, Texas, and is bisected by Interstate Highway (IH) 410, just west of IH-37. It is bounded by Villamain Road on the east and the San Antonio River on the west. **Figure 1** portrays the proposed project vicinity, and **Figure 2** portrays the proposed project area. Project photographs are located in **Appendix A**.

1.2. BACKGROUND

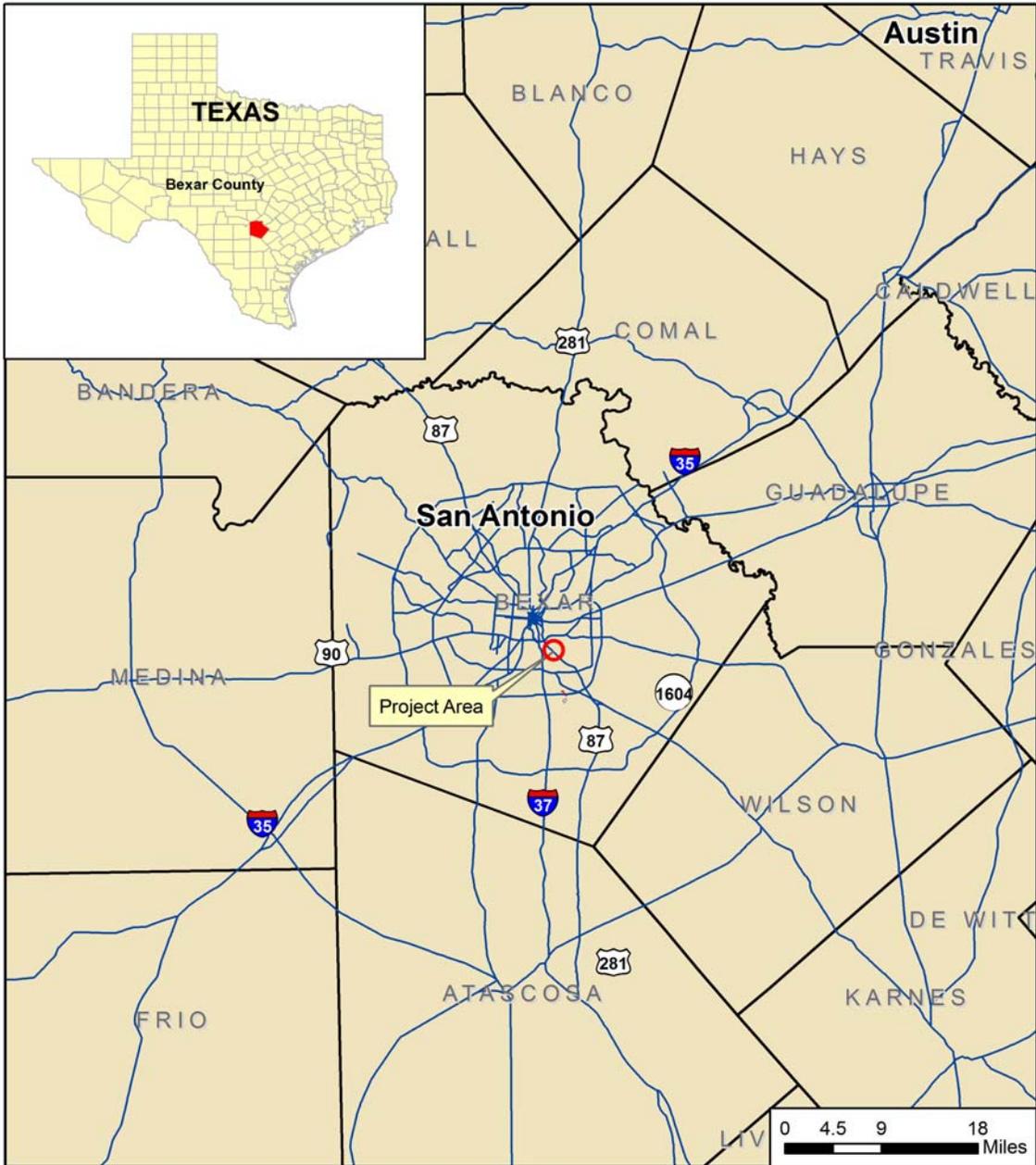
The SACIP involved realignment and channelization of the river system to provide an efficient river channel that would move flood waters quickly away from urbanized areas. The SACIP was originally authorized under section 203 of the Flood Control Act of 1954 as part of a comprehensive plan for flood protection on the Guadalupe and San Antonio Rivers. The project was subsequently modified in section 103 of the Water Resources Development Act of 1976, and again in section 335 of the Water Resources Development Act of 2000 to include ecosystem restoration and recreation as authorized project purposes.

The SACIP GRR/EA, an all-inclusive study of the beneficial and adverse impacts of the project, was initiated at the request of SARA in May 2003. The purpose of the SACIP GRR/EA was to document the many investigations, studies, and analyses pertaining to the feasibility of implementing the remaining segment of the authorized flood damage reduction project, as well as adding ecosystem restoration to the completed project (Park and Mission Reaches). The GRR/EA was completed and a Finding of No Significant Impact (FONSI) signed in September 2004. This SEA is a supplement to the original GRR/EA completed in September 2004 and revised in February 2006. Additional information pertaining to restoration efforts associated with the San Antonio River can be viewed at <http://www.sanantonioriver.org/overview.html>.

1.3. PURPOSE AND NEED FOR PROPOSED ACTION

The purpose of the proposed action is for SARA to acquire a 55.4-acre parcel of land that possesses historical significance and is situated directly adjacent to the SAAN and to transfer ownership of that parcel to the National Park Service (NPS). Construction associated with the Mission Reach Ecosystem Restoration and Recreation Project required the removal of 49.4 acres

Figure 1. Project Vicinity

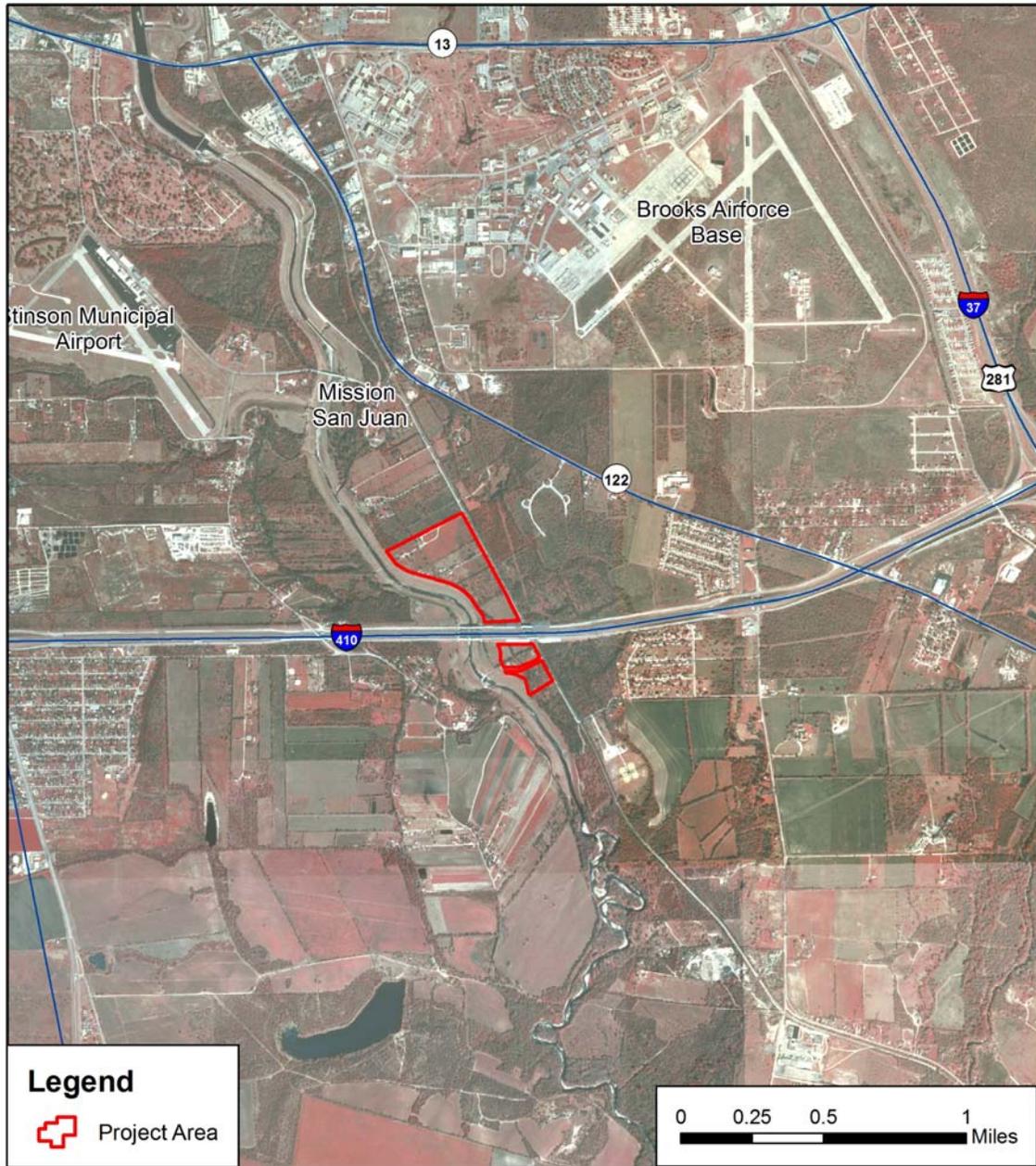


Mission Reach Land Acquisition and Transfer
Background Image: Texas County Boundaries,
Texas Commission on Environmental Quality
Map Author: Environmental Research Group, LLC.



Scale: 1:800,000
Date: January 9, 2009

Figure 2. Location of Project Area (Aerial Background)



Mission Reach Land Acquisition and Transfer	N ▲	Scale: 1:30,000
Background Image: 1996 TOP 1m CIR DOQQ		Date: March 10, 2009
Map Author: Environmental Research Group, LLC.		

of land from the SAAN, including portions of undisturbed *labores*, or irrigated farmlands. The proposed action would satisfy a mitigation requirement for the loss of the 49.4 SAAN acres by having SARA acquire 55.4 acres of land directly adjacent to the SAAN and transferring it to the NPS for their use. **Figures 3 and 4** illustrate the properties or parcels within the proposed project area. There are five landowners within the proposed project area, three private and two public.

1.4. APPLICABLE ENVIRONMENTAL STATUTES AND REGULATIONS

This SEA is being prepared in accordance with requirements of NEPA, as amended since 1969. NEPA requires federal agencies to consider the environmental consequences of all proposed actions in their decision-making process. The intent of NEPA is to protect, restore, or enhance the environment through a well-informed decision-making process. The Council on Environmental Quality (CEQ) was established under NEPA to implement and oversee federal policy in this process. The USACE Engineering Regulation 200-2-2, *Procedures for Implementing NEPA*, implements the CEQ regulations within the USACE. **Table 1** summarizes the pertinent environmental requirements that guided the development of this SEA.

1.5. AUTHORITY FOR THE PROPOSED ACTION

The SACIP was originally authorized under the authority of section 203 of the Flood Control Act of 1954 as part of a comprehensive plan for flood protection on the Guadalupe and San Antonio Rivers, which reads as follows:

Sec. 203. San Antonio Channel, San Antonio, Texas.

“The project for flood protection on the Guadalupe and San Antonio Rivers, Texas, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in House Document Numbered 344, Eighty-Third Congress at an estimated cost of \$20,254,000.”

The project was subsequently modified to include flood control measures to protect the Espada Aqueduct, in section 103 of the Water Resources Development Act of 1976, which reads as follows:

SEC. 103. San Antonio Channel, San Antonio, Texas.

“The flood control project for San Antonio Channel Improvement, Texas, authorized by section 203 of the Flood Control Act of 1954 (68 Stat. 1260) as part of the comprehensive plans for flood protection on the Guadalupe and San Antonio Rivers, Texas, is hereby modified to authorize and direct the Secretary of the Army, acting through the Chief of Engineers, to construct such additional flood control measures as are needed to preserve and protect the Espada Acequia Aqueduct, located in the vicinity of Six Mile Creek, at an estimated cost of \$2,050,000. Construction of such flood control measures shall be subject to the same conditions of local cooperation as required for the existing flood control project.”

Figure 3. Existing Parcel Information (Aerial Background)

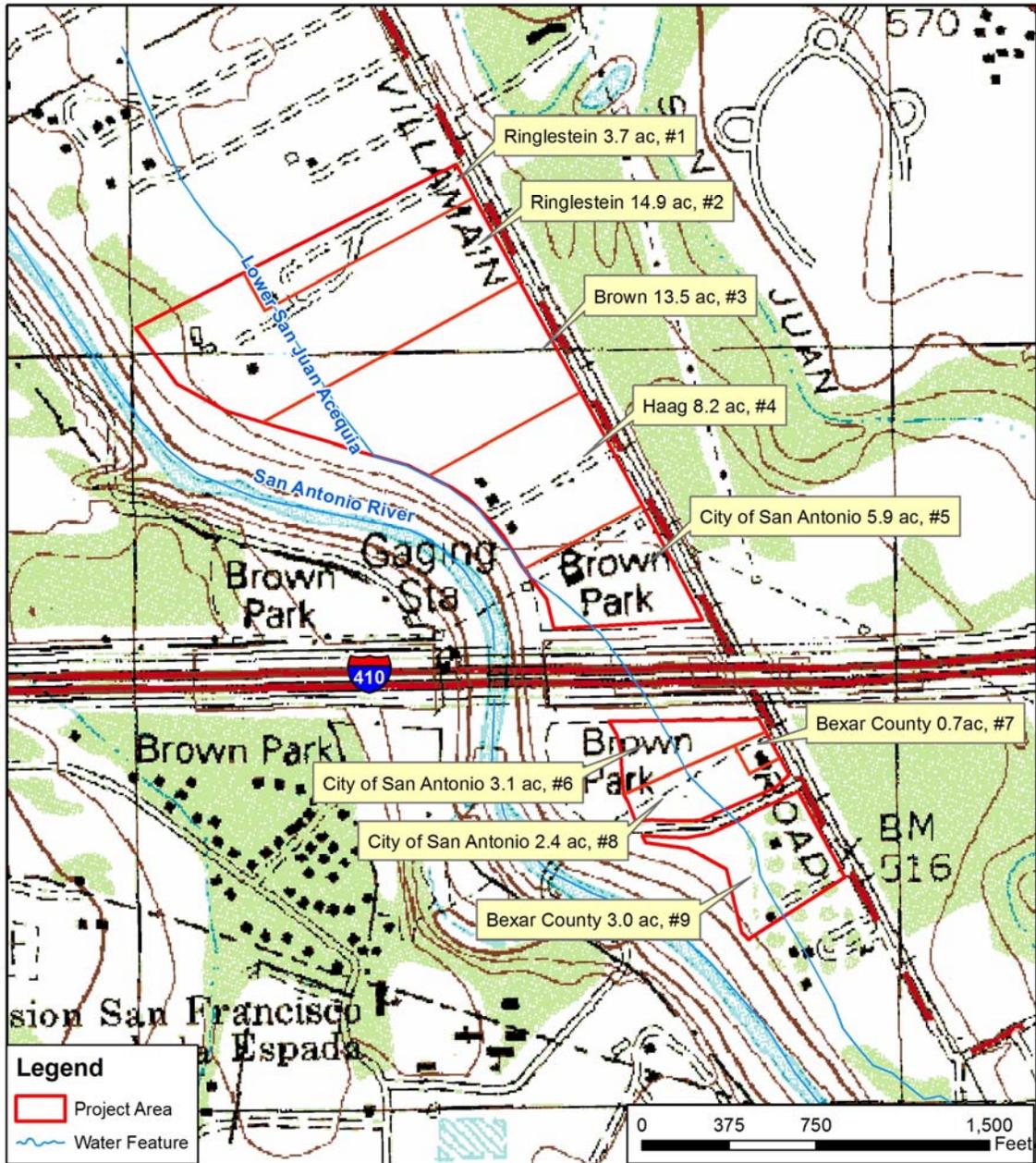


Mission Reach Land Acquisition and Transfer
 Background Image: 1996 TOP 1m CIR DOQQ
 Map Author: Environmental Research Group, LLC.



Scale: 1:7,000
 Date: March 10, 2009

Figure 4. Existing Parcel Information (U.S. Geological Survey Topographic Quadrangle Background)



Mission Reach Land Acquisition and Transfer
 Background Image: 1992 U.S. Geological Survey
 Topographic Quadrangle
 Map Author: Environmental Research Group, LLC.

N

Scale: 1:7,000
 Date: January 9, 2009

Table 1. Applicable Environmental Statutes and Regulations

Resource	Statutes and Regulations
Land	<ul style="list-style-type: none"> ▪ <i>Farmland Protection Policy Act</i> of 1980 and 1995
Water	<ul style="list-style-type: none"> ▪ <i>Federal Water Pollution Control Act</i> of 1972 (PL 92-500) and Amendments ▪ <i>Clean Water Act</i> of 1977 (PL 95-217) ▪ <i>Water Quality Act</i> of 1987 (PL 100-4)
Wetlands and Floodplains	<ul style="list-style-type: none"> ▪ Sections 401 and 404 of the <i>Federal Water Pollution Control Act</i> of 1972 (PL 92-500) ▪ Floodplain Management – 1977 (Executive Order [E.O.] 11988) ▪ Protection of Wetlands – 1977 (E.O. 11990) ▪ <i>Emergency Wetlands Resources Act</i> of 1986 (PL 99-645)
Biological	<ul style="list-style-type: none"> ▪ <i>Migratory Bird Treaty Act</i> of 1918 ▪ <i>Fish and Wildlife Coordination Act</i> of 1958 (PL 85-654) ▪ <i>Endangered Species Act</i> of 1973 (PL 93-205) and Amendments ▪ <i>Fish and Wildlife Conservation Act</i> of 1980 (PL 96-366)
Air	<ul style="list-style-type: none"> ▪ <i>Clean Air Act</i> of 1970 (PL 95-95), as amended in 1977 and 1990 (PL 91-604)
Noise	<ul style="list-style-type: none"> ▪ <i>Noise Control Act</i> of 1972 (PL 92-574) and Amendments of 1978 (PL 95-609)
Cultural	<ul style="list-style-type: none"> ▪ <i>National Historic Preservation Act</i> of 1966 (16 USC 470 et seq) (PL 89-665) and Amendments ▪ Protection and Enhancement of the Cultural Environment – 1971 (E.O. 11593) ▪ <i>Archaeological and Historic Preservation Act</i> of 1974 ▪ <i>Antiquities Act</i> of 1906 ▪ <i>Archaeological Resources Protection Act</i> of 1979 (PL 96-95) ▪ <i>Native American Graves Protection and Repatriation Act</i> of 1990 (PL 101-601)
Environmental Justice	<ul style="list-style-type: none"> ▪ Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations (E.O. 12898) ▪ Protection of Children from Environmental Health Risks and Safety Risks (E.O. 13045)
Hazardous and Toxic Materials	<ul style="list-style-type: none"> ▪ <i>Resource Conservation and Recovery Act</i> of 1976 (PL 94-5800), as Amended ▪ <i>Comprehensive Environmental Response, Compensation, and Liability Act</i> of 1980 (42 USC 9601) (PL 96-510) ▪ <i>Toxic Substances Control Act</i> (PL 94-496) ▪ <i>Federal Insecticide, Fungicide, and Rodenticide Control Act</i> (40 CFR 162-180) ▪ <i>Emergency Planning and Community Right-to-Know Act</i> (40 CFR 300-399)

Legend: PL – Public Law, USC – United States Code, CFR – Code of Federal Regulations

The project was subsequently modified a third time to include environmental restoration and recreation, in section 335 of the Water Resources Development Act of 2000, which reads as follows:

SEC. 335. San Antonio Channel, San Antonio, Texas.

“The project for flood control, San Antonio Channel, Texas, authorized by section 203 of the Flood Control Act of 1954 (68 Stat. 1259) as part of the comprehensive plan for flood protection on the Guadalupe and San Antonio Rivers in Texas, and modified by section 103 of the Water Resources Development Act of 1976 (90 Stat. 2921), is further modified to include environmental restoration and recreation as project purposes.”

1.6. PRIOR REPORTS AND STUDIES ON THE SAN ANTONIO CHANNEL IMPROVEMENT PROJECT

The following is a summary of the USACE and local studies and reports conducted for the SACIP.

Report of Survey of Guadalupe and San Antonio Rivers and Tributaries, Texas, for Flood Control and Allied Purposes (October 1950). This study by the USACE used data on major flooding events to establish flood estimates within the basin, analyzed the viability of providing flood control, and considered potential flood control measures.

Guadalupe and San Antonio Rivers, Texas - Chief of Engineers Report (February 1954). This USACE report served as the decision document for the authorized project (House Document Numbered 344, Eighty-Third Congress, 2d Session). The report concluded, in part, “that a serious flood problem exists within the city of San Antonio, an important military center and distribution point for a vast area in southwest Texas, and that a flood-protection project for this city to eliminate the flood menace is economically justified.” Further, the report recommended “that a channel improvement project in San Antonio, Texas, be authorized at this time for construction by the federal Government, substantially as outlined in this report, at an estimated first cost to the United States of \$12,906,900, provided that the local interests shall furnish assurances satisfactory to the Secretary of the Army . . .”

San Antonio River and Tributaries, Texas, San Antonio Channel Improvement, Design Memoranda 1-8 (1955-1985). The purpose of the Design Memoranda was to present design and cost data serving the basis for preparation of the contract plans and specifications for construction of the proposed improvements of the San Antonio River Channel Improvement Project. The Design Memoranda also served to document revisions to the authorized plan based on additional detailed engineering, economic, and environmental investigations and analyses.

Environmental Impact Statement for the SACIP (1971). This NEPA documentation prepared by the USACE addressed the overall impacts of clearing, widening, deepening, and straightening the river channel and its tributaries. The document states “along the San Antonio mainstream, natural beauty will be given up for flood protection benefits.” It concluded that the SACIP would make the river and its tributaries cleaner and safer, and that adverse environmental effects would consist of minor tree and rock outcrop removal.

Environmental Resource Evaluation of Unit 7 of San Pedro Creek and 8-3 Units of the SACIP (1979). This USACE document provided existing baseline data that was incorporated into later NEPA documentation. The report characterizes San Pedro Creek and the San Antonio River as being highly impacted by urbanization. However, the document states that remnants of bottomland forest existed along the San Antonio River with native vegetation consisting of live oak, pecan, sycamore, American elm, mesquite, and Arizona ash. Also noted were pool and riffle habitats within the San Antonio River.

Supplement to the Final Environmental Impact Statement for the SACIP (1981). This NEPA documentation, prepared by the USACE, provided environmental analysis of three alternatives to the flooding problem in Unit 8-3-2 of the SACIP. Three alternatives were assessed: Without Project (No Action), Nonstructural (evacuation), and Structural (channel modification). The document clearly states that implementation of the recommended plan (channel modification) meant “destroying the aquatic and riparian habitat,” and that “productivity of the river would be diminished.”

Water Quality Assessment of the San Antonio River Tunnel. (1994). This study modeled the potential for water quality impacts to the San Antonio River from discharges of the San Antonio River Tunnel (SART). It was undertaken at the request of SARA out of concern that the lack of aeration facilities in the tunnel (under construction at the time) would, during storm events, significantly degrade water quality downstream of the SART outlet. The study concluded that water quality standards for the segment would not channel flow and local runoff to dilute any poor-quality water being discharged from the SART outlet. However, the study also concluded that a low probability of a fish kill existed that could occur under worst-case conditions (tunnel discharge without local runoff).

Water Quality Reassessment of the San Antonio River Tunnel (March 1997). The water quality issue for the SART was revisited based on the probability of a storm occurrence in which an isolated storm, upstream of the SART inlet, would cause a discharge of poor-quality tunnel water into the San Antonio River at a time when no storm flow in the channel or local runoff would be present. Using the QUALTX model (in-stream water quality model), the study concluded that under these conditions, water quality standards would not have been violated, but water quality in the river would decline (during the discharge event) in the reach just downstream of the SART outlet. A field verification of the model revealed that air entrainment from the cascade of water out of the SART outlet prevented any violation of water quality standards for the segment.

San Antonio Channel Improvements Project Concept Design, Design Guidelines (July 2001). In 1998, Bexar County, the city of San Antonio, and the San Antonio River Authority formed the San Antonio River Oversight Committee. The Committee comprises a diverse group of citizens whose objective is the restoration and preservation of the San Antonio River. The design vision is to restore the San Antonio River to a more natural condition, while maintaining the existing flood damage reduction capability. In July 2001, the document “San Antonio River Improvements Project Concept Design, Design Guidelines” was completed by the SWA Group for the Committee. The purpose of the design guidelines was to establish the major framework in which future designs will be undertaken. The guiding design principles are broken down into three major components: hydrology, nature, and people.

SACIP General Reevaluation Report and Integrated Environmental Assessment (September 2004). In November 2001, the USACE initiated the SACIP feasibility study. Due to the feasibility study, the SACIP GRR was initiated in May 2003. The

purpose of the SACIP GRR was to document the many investigations, studies, and analyses pertaining to the feasibility of implementing the remaining segment of the authorized flood damage reduction project (Park Reach), as well as adding ecosystem restoration to the completed project (Park and Mission Reaches). The GRR describes the characteristics of the existing- and future-without project conditions, water and related land resource problems and opportunities, planning objectives and constraints, evaluation of measures and alternatives, the methodology of analyses, the identification of the federal project, and the recommended plan.

1.7. PARTICIPANTS

This SEA was initiated due to mitigation required of SARA for the taking of SAAN land for the Mission Reach Project. In addition to the Fort Worth District USACE and SARA, the SEA has been a multi-disciplinary effort among other participants, including the NPS, U.S. Fish and Wildlife Service (USFWS), Texas Parks and Wildlife Department (TPWD), Texas Commission on Environmental Quality (TCEQ), Natural Resources Conservation Service (NRCS), and the Environmental Protection Agency (EPA).

2. ALTERNATIVES CONSIDERED

This section describes the alternatives considered during the development of this SEA, which addresses the Proposed Action, Alternative One, Alternative Two, Alternative Three, and the No Action Alternative. **Figure 5** identifies the proposed action and proposed alternatives.

Criteria for the acquisition of real property were determined by the NPS. The real property to be acquired and transferred to the SAAN should meet the following conditions:

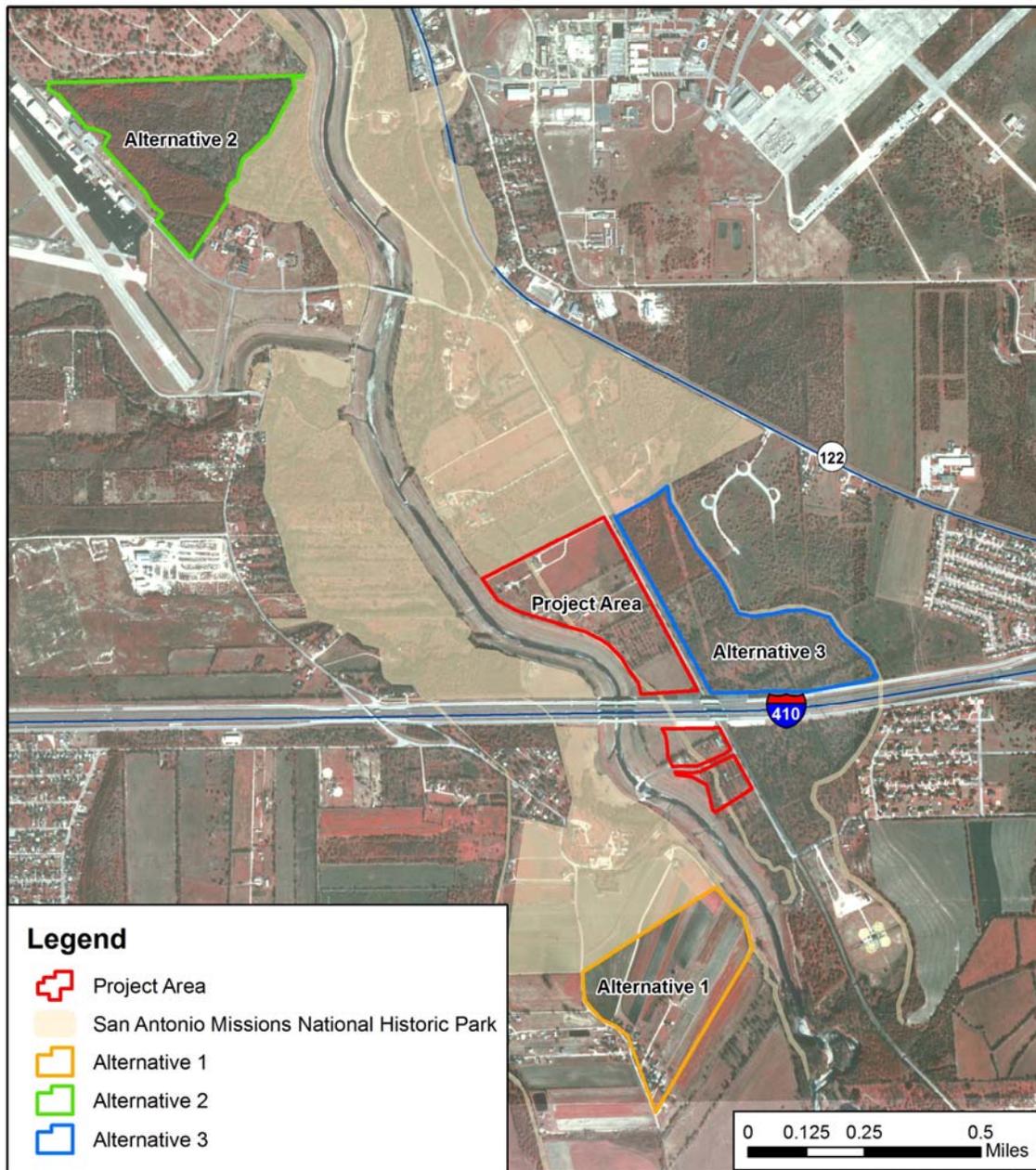
- The acreage acquired should be comparable in size to what was removed from the SAAN;
- It should be adjacent to existing SAAN land;
- It should have historical significance to the SAAN and its mission; and
- Should either be undeveloped or somewhat undeveloped.

2.1 PROPOSED ACTION

The proposed action involves the acquisition of land adjacent to the SAAN that has historical significance to the SAAN. The acquisition would be made by SARA, which would then transfer the property to the NPS SAAN. If the acquisition and transfer occur, the land would likely be incorporated into a demonstration farm at Mission San Juan at some later date (James Oliver 2008). This would serve to preserve and protect the historic landscape by restoring the lower San Juan Acequia and reestablishing Spanish colonial irrigated agricultural farmlands along the San Antonio River.

The land proposed for acquisition includes nine individual properties and totals 55.4 acres. SARA would be required to purchase the privately owned property, while the publicly owned property would be donated. The donation of 15.1 acres, or approximately 25% of the land, would substantially decrease the cost of the acquisition. The area of the proposed action was historically an important part of Mission San Juan. It is adjacent to Mission San Juan and served

Figure 5. Alternative Project Areas



Mission Reach Land Acquisition and Transfer
Background Image: 1996 TOP 1m CIR DOQQ
Map Author: Environmental Research Group, LLC.

N
Scale: 1:18,500
Date: March 10, 2009

as the *labores*, providing crops for food, trade, and fibers. The lower San Juan Acequia runs through the properties and provided water to the historic farmlands along the San Antonio River since its construction in the eighteenth century. The existing parcels, or *porciones*, date back to Spanish colonial times and have remained predominantly in agricultural use. This land is located in a unique setting nestled between Mission San Juan to the north and Mission Espada to the south and west (Prewitt 2008), and has been identified by the NPS as an area of interest for future park expansion. There are five landowners within the proposed project area, three private and two public (City of San Antonio and Bexar County).

2.2 ALTERNATIVE ONE

Alternative One would be for SARA to acquire approximately 50 acres of land located on the west bank of the San Antonio River, approximately 0.4 miles south of Loop 410, and adjacent to the southern boundary of Mission Espada. This land would meet the criteria set by the NPS as mitigation to compensate for the acreage lost to the SACIP Ecosystem Restoration Project: It is adjacent to existing SAAN land, has historical significance to the missions, is somewhat undeveloped, and served as *labores*. A branch of the Espada Acequia forms the eastern boundary of the area. The area comprises approximately ten to twelve landowners, none of which are public entities.

Though there are similarities between this alternative and the proposed action, including number of acres, geographic connection to existing SAAN land, historical significance, and existing land use, this alternative was eliminated from further consideration. There would be many more landowners to negotiate a sale with and to be relocated, thus complicating the real estate action, and increasing the acquisition cost. In addition, this area has not been identified by the NPS as an area to be acquired for future use.

2.3 ALTERNATIVE TWO

Alternative Two would be for SARA to acquire approximately 65 acres located across Ashley Road from Stinson Municipal Airport, approximately 0.8 miles north of Loop 410, on the west side of the San Antonio River. This property meets some of the criteria set forth by the NPS to be considered as mitigation to compensate for the acreage lost to the SACIP Ecosystem Restoration Project: It is adjacent to existing SAAN land and is undeveloped. It is unclear if this area was part of the *labores* associated with one of the historic missions; however, there is no acequia associated with the property, and it has none of the characteristics of Spanish colonial *porciones* (parcels). This property is owned by the City of San Antonio.

This alternative was eliminated from further consideration because of its proximity to Stinson Municipal Airport. Developing this property as a demonstration farm could create a bird airstrike hazard for the airport. Additionally, this property would not bring historically valuable land into the SAAN.

2.4 ALTERNATIVE THREE

Alternative Three would be for SARA to acquire approximately 60 acres north of Loop 410 and east of Villamain Road. This property meets some of the criteria set forth by the NPS to be considered as mitigation to compensate for the acreage lost to the SACIP Ecosystem Restoration

Project: It is adjacent to existing SAAN land (only a small portion at the northern end), but separated from the Mission San Juan boundary by Villamain Road and the Union Pacific railway; it is somewhat undeveloped, but has not been used for agricultural purposes for a very lengthy period of time. It is near Mission San Juan and served as *labores*. The upper San Juan Acequia (Acequia Madre) would form the eastern boundary for this alternate property. However, this area is heavily wooded and has not been farmed in the recent past. There are four private landowners associated with this property.

This alternative was eliminated from further consideration for this SEA. While this property could be a valuable addition to the SAAN at some future time, it would not be the optimal property for acquisition at present. Although this property is in close proximity to the SAAN, it would not be directly adjacent to SAAN property, but would be separated by Villamain Road and the Union Pacific railway. These transportation features would present problems with restoration of the San Juan Acequia by impeding historic irrigation flow patterns. Selection of this alternative would not provide for a park connection between Mission San Juan and Mission Espada and would leave private residences on an “island” surrounded by NPS property.

2.5 NO ACTION ALTERNATIVE

The President’s CEQ regulations and USACE Engineering Regulation 200-2-2 for implementing NEPA require that a No Action Alternative be evaluated. Under the No Action Alternative, SARA would not acquire land adjacent to the SAAN; therefore, no land transfer would take place, as is required to mitigate for the NPS SAAN loss of 49.4 acres of land to the Mission Reach Ecosystem Restoration and Recreation Project. Selection of the No Action Alternative would mean that SARA would not meet their obligation to the NPS.

3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL EFFECTS OF THE PROPOSED ALTERNATIVE

The existing affected environment is the baseline against which potential impacts caused by the proposed property acquisition and transfer are assessed. In compliance with NEPA and CEQ regulations, this section focuses on those resources and conditions that would be affected by activities resulting from the transfer of land from the City of San Antonio, Bexar County, and private landowners to the NPS SAAN. Those resources present within the properties proposed for transfer that have potential to be impacted by the proposed action are included in this analysis.

This section assesses the direct and indirect impacts of the proposed land acquisition and transfer. Direct impacts are caused by the action and occur at the same time and place. For the purposes of this SEA, direct impacts are those caused by the immediate real estate action of SARA acquiring both publicly owned and privately owned property and transferring it to the SAAN. Indirect impacts are caused by the action but occur later in time or are farther removed in distance, but are still reasonably foreseeable. Indirect impacts would be caused by the SAAN’s anticipated conversion of the property from its current farming, ranching, and residential uses to a historical agricultural use associated with Mission San Juan.

For the purposes of this SEA, *short-term* impacts are defined as those impacts which would occur prior to or during any future restoration of the property (by the SAAN). *Long-term* impacts are those expected to last beyond the duration of any restoration activities.

The following terminology is used in this SEA to describe the levels of significance of impacts that would result from the Proposed Action:

- The proposed action is considered to have *no impact* if the analysis concludes that the proposed action would not affect a particular resource topic;
- An impact is considered *insignificant* (less than significant) if the analysis concludes that the proposed action would cause no substantial adverse change to the environment and that impacts would not require mitigation;
- An impact is also considered *insignificant* if the analysis concludes that, with the inclusion of mitigation measures, the proposed action would cause no substantial adverse change to the environment; and
- An impact is considered *significant* if the analysis concludes that the proposed action would cause substantial or potentially substantial adverse changes to the physical environment in the area affected by the Proposed Action even with the inclusion of mitigation measures.

3.1 LAND USE

3.1.1 Affected Environment

The land that would be included in the acquisition consists of nine parcels and five landowners (**Table 2**). The total area of the parcels is 55.4 acres. The current uses of the parcels are agricultural (farming and ranching), residential, and public parkland (Brown Park). The San Antonio River runs adjacent to the proposed project area on the west side. The surrounding land use comprises undeveloped forested land, recreational, transportation, agricultural, and residential.

3.1.2 Environmental Effects of the Proposed Action

Under the proposed action, insignificant long-term direct impacts to land use would result from the conversion of private residential and ranching property to public lands associated with the SAAN. The land would be removed from private ownership and placed in federal ownership for public recreation and education. Indirect impacts associated with restoration of the property to its historical farming land use would be long-term but insignificant.

3.1.3 Environmental Effects of the No Action Alternative

Under the No Action Alternative, the property acquisition and transfer would not occur, and land use would remain unchanged. There would be no impacts, either beneficial or adverse, to land use, as a result of the No Action Alternative.

Table 2. Parcel Data

Property No.	Owner	Land Use	Occupancy
1 & 2	Ringelstein	Residential/Agricultural	Occupied
3	Brown	Residential/Agricultural	Occupied
4	Haag	Abandoned Orchard	Vacant
5	City of San Antonio	City Park (Brown Park)	No Improvements/Facilities
6	Bexar County	Unknown	Vacant
7	City of San Antonio	City Park (Brown Park)	No Improvements/Facilities
8	City of San Antonio	Unknown	Vacant
9	Bexar County	Unknown	Vacant

3.2 AESTHETICS AND VISUAL RESOURCES

3.2.1 Affected Environment

The area proposed for acquisition is bounded by the San Antonio River on the west, the SAAN on the north, an undeveloped forested area on the east, and by other undeveloped or agricultural parcels on the south. The proposed project area is bisected by IH-410. The San Antonio River is channelized at this location and contains non-native maintained grassy side slopes devoid of trees. Aesthetics and visual resources of the property (proposed for acquisition) are typical of many rural areas: scattered housing interspersed with broad agricultural and grazing lands.

3.2.2 Environmental Effects of the Proposed Action

Under the proposed action, no direct impacts to aesthetics and visual resources would result from the proposed property acquisition and transfer because no restoration or construction activities would take place. Indirect impacts would cause the aesthetics and visual resources to change from rural agricultural to historic irrigated farmland. Indirect impacts to the area of the proposed action would be long-term but insignificant.

3.2.3 Environmental Effects of the No Action Alternative

Under the No Action Alternative, the property acquisition and transfer would not occur. There would be no impacts, either beneficial or adverse, to aesthetics and visual resources, as a result of the No Action Alternative.

3.3 GEOLOGY, TOPOGRAPHY, AND SOIL

3.3.1. Geology and Topography

3.3.1.1 Affected Environment

The proposed project area geology is mapped as Quaternary fluvial terrace deposits by the Texas Bureau of Economic Geology (Prewitt 2008). The proposed project area exists on the upper edge of the Gulf Coastal Plain, just south of the Edwards Plateau. The two physiographic regions are separated by the Balcones Escarpment, a series of subparallel faults, which allowed the Gulf Coast Plain to sink. The formations on the Coastal Plain as well as the Coastal Plain itself slope slightly to the southeast. These formations are relatively young and originate from the Cenozoic Era. It was formed as streams flowed into the sea and deposits occurred in shallow offshore water, in bars and deltas at the mouths of rivers, or in mudflats along streams. These

rocks are composed of layers of sandstone and clay. A layer of gravel was deposited on the northern edge of the Coastal Plain from ancient streams in the more northern Edwards Plateau. Step-like terraces have been formed by the San Antonio River. These terraces represent different ages at different levels (Cooper et al, 2005). The topography of the proposed project area is flat, to nearly flat. The floodway for the San Antonio River is located on the western edge of the proposed project area, where the land quickly slopes downward to the river.

3.3.1.2 Environmental Effects of the Proposed Action

Under the proposed action, no direct or indirect impacts to geology and/or topography would result from the proposed property acquisition and transfer because there would be no construction or soil-disturbing activities.

3.3.1.3 Environmental Effects of the No Action Alternative

Under the No Action Alternative, the property acquisition and transfer would not occur. There would be no impacts, either beneficial or adverse, to geology and topography, as a result of the No Action Alternative.

3.3.2 Soils

3.3.2.1 Affected Environment

Soil types within the proposed project areas were determined using the U.S. Department of Agriculture – NRCS Bexar County Soil Survey (1962). Frio clay loam was identified as the only soil type within the proposed project area. Frio clay loam occurs mainly on the flood plains of the Medina River and San Antonio River and their chief tributaries, or on low terraces bordering the flood plains. It is occasionally flooded. This soil is poorly to moderately well-drained. Permeability is moderate. The capacity to hold water is good. Frio clay loam is a hydric soil.

3.3.2.2 Environmental Effects of the Proposed Action

Under the proposed action, there would be no direct impacts to soils resulting from the property acquisition and transfer because no construction or soil-disturbing activities would take place. Indirect impacts would be caused by clearing and grubbing activities in preparation for the anticipated historic farming practices and the removal of existing structures, potentially over the entire 55.4 acres. However, these effects would be minimized by the use of appropriate Best Management Practices (BMPs) for controlling runoff, erosion, and sedimentation. Recommended BMPs to reduce soil erosion and sedimentation include, but are not limited to, silt fences, straw bale (containing native grass species) dikes, diversion ditches, rip-rap channels, water bars, and water spreaders. Indirect impacts to soils would be short-term and insignificant.

3.3.2.3 Environmental Effects of the No Action Alternative

Under the No Action Alternative, the property acquisition and transfer would not occur. There would be no impacts, either beneficial or adverse, to soils, as a result of the No Action Alternative.

3.3.3 Prime Farmlands

3.3.3.1 *Affected Environment*

As required by Section 1541(b) of the Farmland Protection Policy Act of 1980 and 1995, 7 United States Code (USC) 4202(b), federal and state agencies, as well as projects funded with federal monies, are required to (a) use the criteria to identify and take into account the adverse effects of their programs on the preservation of farmland, (b) consider alternative actions, as appropriate, that could lessen adverse effects, and (c) ensure that their programs, to the extent practicable, are compatible with state and units of local government and private programs and policies to protect farmland. The NRCS was contacted regarding prime farmland soils within Bexar County; they have identified Frio clay loam, 0 to 2 percent slopes, occasionally flooded, association in Bexar County as a prime farmland soil.

The NRCS evaluates the relative value of farmland that has a maximum score of 100 points. Based on Farmland Protection Policy Act regulations, if a combined score of the assessment and the relative value of farmland is 260 or more, the proposed project site should be given more consideration for protection.

3.3.3.2 *Environmental Effects of the Proposed Action*

Under the proposed action, no direct impacts to prime farmlands would result from the proposed property acquisition and transfer because there would be no removal of lands from active farming. However, there are prime farmland soils within the proposed project area. An assessment was completed with the NRCS's Farmland Conversion Impact Rating Form AD-1006 for the proposed action. Initial coordination with the NRCS was completed, and the assessment totaled 108 points out of a maximum of 260 points. Based on Farmland Protection Policy Act regulations, if a combined score of the total area assessment and the relative value of farmland is 260 or more, the proposed project site should be given more consideration for protection. Because the assessment totaled less than 260 points, no further coordination with the NRCS is warranted, and there would be no direct impacts to prime, unique, or other farmlands of statewide or local importance. Beneficial indirect impacts would be caused by the anticipated removal of existing structures and returning the lands to historic farming practices. Effects to soils would be minimized by the use of appropriate BMPs for controlling runoff, erosion, and sedimentation. Under the proposed action, indirect impacts to prime farmland soils would be long-term but insignificant.

3.3.3.3 *Environmental Effects of the No Action Alternative*

Under the No Action Alternative, the property acquisition and transfer would not occur. There would be no impacts, either beneficial or adverse, to prime farmland soils, as a result of the No Action Alternative.

3.4 WATER RESOURCES

3.4.1 Groundwater

3.4.1.1 Affected Environment

The proposed project area lies within the Carrizo-Wilcox Aquifer. The Edwards Aquifer Authority and Evergreen Underground Water Conservation District manages, enhances, and protects the Carrizo-Wilcox Aquifer. The Carrizo-Wilcox Aquifer is composed mainly of sand interbedded with gravel, silt, clay, and lignite. It extends from the Rio Grande in South Texas northeastward into Arkansas and Louisiana, passing through southern Bexar, Wilson, and Atascosa counties. In some places the water has high iron content, and hydrogen sulfide and methane also occur. It lies approximately 4.7 miles southeast of the Edwards Aquifer artesian zone (Edwards Aquifer Authority, 2006).

The Edwards Aquifer consists of three limestone formations and is the main groundwater source for the San Antonio area. Infiltration of rainwater and surface rivers help to recharge the aquifer, but the bulk of the water comes from the underflow of streams on the Edwards Plateau. The surface water recharge zone is highly susceptible to contamination due to the highly porous materials within the zone. The Edwards Aquifer is layered between the Glen Rose Formation below and the Del Rio Formation above (Cooper et al, 2005). The recharge zone is 15 to 20 miles northwest of the proposed project area; thus, the proposed project area does not lie within the Edwards Aquifer recharge zone.

3.4.1.2 Environmental Effects of the Proposed Action

Under the proposed action, no direct or indirect impacts to groundwater would result from the proposed property acquisition and transfer because there would be no development that would adversely alter rainwater infiltration. No coordination with the Edwards Aquifer Authority or the Evergreen Underground Water Conservation District is required.

3.4.1.3 Environmental Effects of the No Action Alternative

Under the No Action Alternative, the property acquisition and transfer would not occur. There would be no impacts, either beneficial or adverse, to groundwater, as a result of the No Action Alternative.

3.4.2 Water Quality

3.4.2.1 Affected Environment

The objective of the Water Quality Act of 1965 is to develop water quality standards for establishing water quality goals for interstate waters in the U.S. The TCEQ is the implementing agency for the Water Quality Act in Texas. The TCEQ is responsible for conducting Section 401 certification reviews of USACE Section 404 permit applications for the discharge of dredged or fill material into waters of the U.S., including wetlands. The purpose of these certification reviews is to determine whether a proposed discharge will comply with state water quality standards.

In compliance with Sections 305(b) and 303(d) of the Clean Water Act, the TCEQ evaluates water bodies in the state of Texas and identifies those that do not meet uses and criteria defined in the *Texas Surface Water Quality Standards*. Guidance developed by the EPA directs each state to document and submit the results of its evaluation to the EPA biennially, in even-numbered years. The TCEQ also publishes the results on its website as the *Texas Water Quality Inventory and 303(d) List*, prepared by the TCEQ and submitted biennially to the EPA.

To better assess these water bodies, the TCEQ divides water bodies into segments. TCEQ has divided the Upper San Antonio River into eleven segments. The Upper San Antonio River (from a point 1,968 ft downstream of Farm-to-Market 791 at Mays Crossing, near Falls City in Karnes County, to a point 328 ft upstream of Hildebrand Avenue at San Antonio, in Bexar County) is listed as Section 1911 in the Draft 2008 Texas Water Quality Inventory Water Bodies. The segment is listed on the TCEQ 2008 303(d) draft list of impaired waters (TCEQ 2008). The segment is impaired for fish community.

3.4.2.2 Environmental Effects of the Proposed Action

Under the proposed action, no direct impacts to water quality would result from the proposed property acquisition and transfer because there would be no restoration or construction activities. No further coordination with TCEQ is required in association with the proposed action. Indirect impacts to both the San Antonio River and the lower San Juan Acequia could result from soil-disturbing activities associated with demolition or clearing and grubbing activities used to prepare the property for the anticipated historic farming practices.

Prior to any construction or clearing activities that would disturb five or more acres of surface area, the NPS would comply with the requirements of the TCEQ Texas Pollutant Discharge Elimination System General Permit Number TXR150000. To comply with Texas Pollutant Discharge Elimination System General Permit Number TXR150000 for Construction Activities, a Notice of Intent would be filed with TCEQ stating that the NPS or its contractor would have a Storm Water Pollution Prevention Plan in place during construction of this project. Impacts would be minimized by avoiding work with construction equipment directly in stream channels and/or adjacent areas. Appropriate BMPs for controlling runoff, erosion, and sedimentation would be utilized during any construction or clearing activities. Recommended BMPs to reduce soil erosion and sedimentation include, but are not limited to, silt fences, straw bale (containing native grass species) dikes, diversion ditches, rip-rap channels, water bars, and water spreaders. Provided that BMPs are followed, indirect impacts to water quality would be short-term and insignificant.

3.4.2.3 Environmental Effects of the No Action Alternative

Under the No Action Alternative, the property acquisition and transfer would not occur. There would be no impacts, either beneficial or adverse, to water quality, as a result of the No Action Alternative.

3.4.3 Waters of the U.S. and Wetlands

3.4.3.1 Affected Environment

The objective of the Clean Water Act is to maintain and restore the chemical, physical, and biological integrity of the waters of the U.S. Section 404 of the Clean Water Act authorizes the

Secretary of the Army, acting through the Chief of Engineers, to issue permits for the discharge of dredged or fill material into waters of the U.S., including deepwater habitats, special aquatic sites, and wetlands. The USACE has the authority to make decisions regarding the jurisdictional status of waters of the U.S.

Waters of the U.S., or jurisdictional waters, include all waters which are used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; all interstate waters, including interstate wetlands; and all other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, natural ponds, or drainage ditches leading to regulated waters of the U.S., the degradation or destruction of which could affect interstate or foreign commerce.

The 1953 U.S. Geological Survey Southton 7.5-minute topographic quadrangle identified two waters in the vicinity of the proposed project area, the San Antonio River and the lower San Juan Acequia. The 1992 U.S. Geological Survey Southton 7.5-minute topographic quadrangle does not identify the lower San Juan Acequia. This is probably due to the fact that it is currently a non-functioning irrigation ditch. No wetlands were identified during the site investigation.

The proposed project area is located within the Upper San Antonio River watershed, within the San Antonio River basin. The San Antonio River, a perennial waterway, flows into the Guadalupe River near Matagorda Bay. The lower San Juan Acequia is a historic irrigation ditch constructed in the eighteenth century to irrigate crops. The acequia is an ephemeral waterway; however, it is no longer functional and is dry. Both the San Antonio River and the lower San Juan Acequia are considered jurisdictional waters of the U.S.

When the San Juan Acequia was originally constructed in 1731, water from the San Antonio River was diverted into it by the San Juan Dam, and the water flowed south for more than four miles before reconnecting to the San Antonio River. Water from the San Juan Acequia was split between an upper branch (Acequia Madre) and a lower branch. The lower San Juan Acequia, which traverses the proposed project area, transported water from north to south and is approximately 3,500 ft long (Prewitt 2008). When the San Antonio River channelization project began in the 1970s, the acequia was irrevocably altered and was essentially dewatered. The lower San Juan Acequia no longer carries water from the San Antonio River but remains intact through each of the nine parcels within the proposed project area.

3.4.3.2 Environmental Effects of the Proposed Action

Under the proposed action, no direct impacts to waters of the U.S and/or wetlands would result from the proposed property acquisition and transfer because there would be no construction activities. Indirect impacts to the lower San Juan Acequia would include restoration activities, such as removal of accumulated sediments and installation and removal or repair of water control structures. Additional indirect impacts to both the San Antonio River and the lower San Juan Acequia could result from soil-disturbing activities associated with demolition or clearing and grubbing activities used to prepare the property for the anticipated historic farming practices. These effects would be minimized by the use of appropriate BMPs for controlling runoff, erosion, and sedimentation. Recommended BMPs to reduce soil erosion and sedimentation

include, but are not limited to, silt fences, straw bale (containing native grass species) dikes, diversion ditches, rip-rap channels, water bars, and water spreaders. Indirect impacts to waters of the U.S. from restoration activities of the lower San Juan Acequia would be a beneficial long-term, significant impact, provided regulations included in Section 404 of the Clean Water Act are followed. Indirect impacts to waters of the U.S. from soil-disturbing activities would be short-term and insignificant, provided that BMPs are followed.

Prior to any restoration efforts of the lower San Juan Acequia, coordination with USACE and/or the TCEQ should be carried out to determine if a permit is required under Section 401 or Section 404 of the Clean Water Act.

3.4.3.3 Environmental Effects of the No Action Alternative

Under the No Action Alternative, the property acquisition and transfer would not occur. There would be no impacts, either beneficial or adverse, to waters of the U.S. and/or wetlands, as a result of the No Action Alternative.

3.4.4 Floodplains

3.4.4.1 Affected Environment

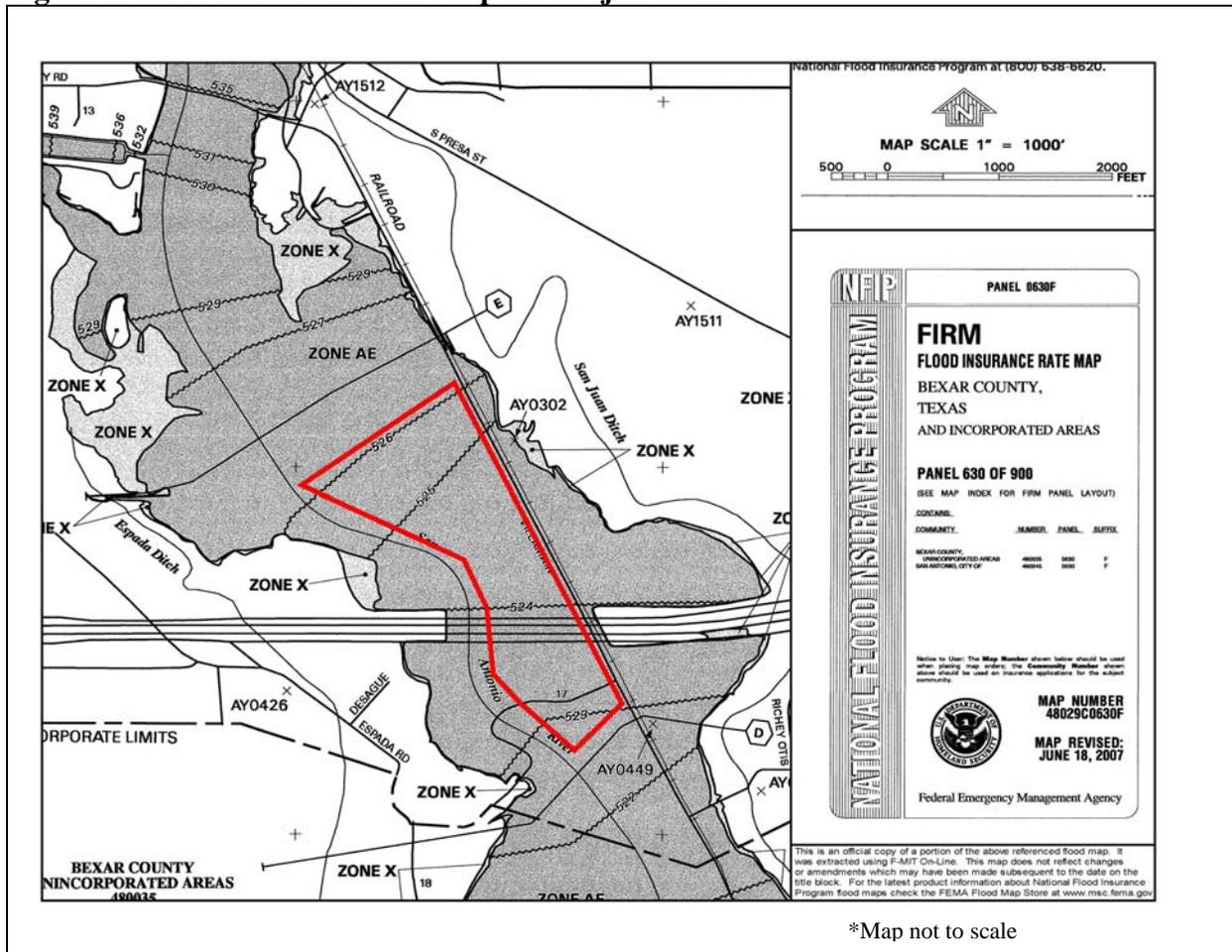
Floodplains are areas of low elevation present along a river or stream channel. Such lands may be subject to periodic or infrequent inundation due to rain. Risk of flooding typically hinges on local topography, the frequency of precipitation events, and the size of the watershed above the floodplain. Flood potential is evaluated by the Federal Emergency Management Agency, which determines the floodplain for 100- and 500-year flood events. Federal, state, and local regulations often limit floodplain development to passive uses, such as recreational and preservation activities, to reduce the risks to human health and safety.

Executive Order (E.O.) 11988, "Floodplain Management," was enacted May 24, 1977, in order to set guidelines to avoid 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. The City of San Antonio and Bexar County are participants in the National Flood Insurance Program. According to the Federal Emergency Management Agency's Flood Insurance Rate Maps for Bexar County (Community Map Panel No. 48029C 0630 F, dated June 2007), the proposed project area is located within Zone AE (**Figure 6**). Zone AE is defined as areas subject to inundation by the one-percent-annual chance flood event and is within the 100-year flood zone.

3.4.4.2 Environmental Effects of the Proposed Action

No direct impacts to floodplains would result from the proposed property acquisition and transfer because there would be no activities taking place within the floodplain associated with the proposed action. Indirect impacts to the floodplain could result from soil-disturbing activities associated with demolition of structures or clearing and grubbing activities used to prepare the property for the anticipated historic farming practices. All work in a floodplain must meet all state and local floodplain regulations. Once impacts to the floodplain have been determined, mitigation measures must be developed to minimize harm to lives and property. If the proposed project would affect flooding on the San Antonio River, mitigation for floodplain impacts would be necessary.

Figure 6. Flood Insurance Rate Map for Project Area



If all local and state floodplain regulations are satisfied, indirect impacts would be long-term but insignificant. The NPS would be responsible for coordinating with the appropriate floodplain manager and completing any additional NEPA requirements prior to undertaking any activities within the floodplain.

3.4.4.3 Environmental Effects of the No Action Alternative

Under the No Action Alternative, the property acquisition and transfer would not occur. There would be no impacts, either beneficial or adverse, to floodplains, as a result of the No Action Alternative.

3.5 BIOLOGICAL RESOURCES

3.5.1 Vegetation

3.5.1.1 Affected Environment

The proposed project area lies at the convergence of the South Texas Plains and Edwards Plateau ecological regions of Texas in south central Bexar County, and lies within the “Brush Country” natural subregion. According to the TPWD’s *Vegetation Types of Texas* (McMahan et al, 1984),

vegetation of the proposed project area would be considered Urban. Historically, prior to urbanization, the proposed project area was within the Mesquite–Live Oak–Bluewood Parks vegetation type. Commonly associated plants within the Mesquite–Live Oak–Bluewood Parks vegetation community are huisache (*Acadia smallii*), lotebush (*Ziziphus obtusifolia*), black-brush (*Acacia rigidula*), desert yaupon (*Schaefferia cuneifolia*), Texas prickly pear (*Opuntia engelmannii*), Mexican persimmon (*Diospyros texana*), purple three-awn (*Aristida purpurea*), two-leaved senna (*Senna roemeriana*), and mat euphorbia (*Chamaesyce serpens*).

The majority of the vegetation found within the proposed project area did not closely resemble the Mesquite–Live Oak–Bluewood Parks plant community, as defined by the TPWD's *The Vegetation Types of Texas*. This is due to previous disturbance, such as development for residences, ranch and farming activities, and linear transportation, such as railroads and roadways. A vegetation survey of each parcel was conducted on July 29 and 30, 2008. **Table 3** lists the parcels, land use, size, and vegetation associated with each parcel.

3.5.1.2 Environmental Effects of the Proposed Action

Under the proposed action, no direct impacts to vegetation would result from the proposed property acquisition and transfer because there would be no vegetation disturbing activities such as construction or restoration efforts. Indirect impacts to vegetation would be caused by the eventual restoration of the area to historic farmland. If 100 percent of the area were converted back to historic farmland, the result would be 55.4 acres of vegetation removal, including approximately 15.9 acres of woodland and 39.5 acres of grassland. Considering that the majority of the vegetation is non-native and/or associated with rural farming and ranching practices, the indirect impact to vegetation would be long-term but insignificant.

3.5.1.3 Environmental Effects of the No Action Alternative

Under the No Action Alternative, the property acquisition and transfer would not occur. There would be no impacts, either beneficial or adverse, to vegetation, as a result of the No Action Alternative.

3.5.2 Fish and Wildlife

3.5.2.1 Affected Environment

The parcels within the proposed project area are primarily maintained, undeveloped public land and privately owned agricultural land. The parcels contain fallow agricultural fields, maintained grasslands, and a fallow pecan orchard. Mammals commonly associated with urban and suburban development may be present, such as white-tailed deer (*Odocoileus virginianus*), Virginia opossum (*Didelphis virginia*), nine-banded armadillos (*Dasypus novemcinctus*), raccoons (*Procyon lotor*), striped skunks (*Mephitis mephitis*), and feral pigs (*Sus scrofa*). Birds present during the site investigation included northern mockingbirds (*Mimus polyglottos*), boat-tailed grackles (*Quiscalus mexicanus*), barn swallows (*Hirundo rustica*), red-bellied woodpeckers (*Melanerpes carolinus*) and rock doves (*Columba livia*).

Table 3. Land Use Type and Vegetation

Property No.	Owner	Acres	Land Use	Vegetation
1 & 2	Ringelstein	18.6	Fallow Agricultural, ¹ Residential	Pecan (<i>Carya illinoensis</i>), Sugarberry (<i>Celtis laevigata</i>), and Silverleaf Nightshade (<i>Solanum elaeagnifolium</i>)
3	Brown	13.5	Improved Pasture, ² Residential	Sugarberry, Pecan, Bermudagrass (<i>Cynodon dactylon</i>), and Honey Mesquite (<i>Prosopis glandulosa</i>).
4	Haag	8.2	Abandoned Pecan Orchard	Pecan, Sugarberry, Bermudagrass, Giant Ragweed (<i>Ambrosia trifida</i>), Johnsongrass (<i>Sorghum halepense</i>), and Chinaberry (<i>Melia azedarach</i>)
5	City of San Antonio	5.9	Maintained, Undeveloped ³	Sugarberry, Johnsongrass, Chinaberry, Erect Dayflower (<i>Commelina erecta</i>), Mustang Grape (<i>Vitis mustangensis</i>), and Flameleaf Sumac (<i>Rhus lanceololata</i>)
6	Bexar County	0.7	Maintained, Undeveloped	Pecan, Sugarberry, and Bermudagrass
7	City of San Antonio	3.1	Maintained, Undeveloped	Johnsongrass, Bermudagrass, Silverleaf Nightshade, Sugarberry, Pecan, Giant Ragweed, Chinaberry, Erect Dayflower, and Saw Greenbrier (<i>Smilax bona-nox</i>)
8	City of San Antonio	2.4	Maintained, Undeveloped	Pecan, Sugarberry, and Bermudagrass
9	Bexar County	3.0	Maintained, Undeveloped	Pecan, Johnsongrass, Bermudagrass, Sugarberry, Giant Ragweed, Honey Mesquite, Inland Sea Oats (<i>Uniola paniculata</i>), Giant Cane (<i>Arundo donax</i>), and Turk's Cap (<i>Malvaviscus arboreus</i> var. <i>drummondii</i>)

Source: Environmental Research Group, LLC (2008)

1-Agricultural fields that are allowed to lie idle during the growing season and contain pioneer herbaceous species and farming/ranching-related structures

2-Pasture containing a mono-culture of non-native herbaceous vegetation for grazing animals and farming/ranching-related structures

3-Mowed, maintained herbaceous fields with no structural improvements

3.5.2.2 Environmental Effects of the Proposed Action

Under the proposed action, no direct impacts to fish and wildlife would result from the proposed property acquisition and transfer because there would be no restoration or construction activities. Indirect impacts to fish and wildlife could result from the eventual restoration of the area to historic farmland. If 100 percent of the area were converted back to historic farmland, the result would be 55.4 acres of vegetation removal, including approximately 15.9 acres of woodland and 39.5 acres of non-native grassland. The area of the proposed action has been in continuous use as farmland or ranchland for over 275 years. The transition of vegetation from its current state back to all farmland would not likely result in harm to native wildlife populations in the area. Fish and other aquatic species within the San Antonio River could potentially be impacted by runoff from active farming practices (either chemical or sediment), and BMPs would be needed

to prevent harm to aquatic populations. Assuming that BMPs would be used to protect aquatic species, the indirect impact of the proposed action on fish and wildlife communities would be long-term but insignificant.

Prior to any change to the vegetation community, coordination with the USFWS and the Federal Aviation Administration would be conducted by the SAAN to address concerns regarding potential changes in wildlife communities and the impact that might affect the bird airstrike hazard at two nearby airfields (Stinson Municipal Airport and Brooks Air Force Base).

3.5.2.3 Environmental Effects of the No Action Alternative

Under the No Action Alternative, the property acquisition and transfer would not occur. There would be no impacts, either beneficial or adverse, to fish and wildlife, as a result of the No Action Alternative.

3.5.3 Threatened and Endangered Species

3.5.3.1 Affected Environment

The Endangered Species Act [16 USC 1532 et seq] of 1973, as amended, was enacted to provide a program for the preservation of endangered and threatened species and to provide protection for the ecosystems upon which these species depend for their survival. All federal agencies are required to implement protection programs for designated species and to use their authorities to further the purposes of the act.

One of the primary threats to many species is the destruction or modification of essential habitat by uncontrolled land and water development. The USFWS is the primary agency responsible for implementing the Endangered Species Act for all terrestrial and aquatic species. The USFWS's responsibilities under the Endangered Species Act include (1) the identification of threatened and endangered species; (2) the identification of critical habitats for listed species; (3) implementation of research on, and recovery efforts for, these species; and (4) consultation with other federal agencies concerning measures to avoid harm to listed species. Federally listed threatened or endangered species, candidate species, and species of concern for Bexar County are listed in **Table 4**. Currently, there is no designated critical habitat within or near the proposed project area.

Table 4. Federal and State Listed Threatened and Endangered Species of Bexar County

Common Name	Scientific Name	Federal Status	State Status
Amphibians			
Cascade Caverns Salamander	<i>Eurycea latitans complex</i>	-	T
Comal Blind Salamander	<i>Eurycea tridentifera</i>	-	T
San Marcos Salamander	<i>Eurycea nana</i>	T	-
Texas Blind Salamander	<i>Typhlomolge rathbuni</i>	E	-
Arachnids			
Braken Bat Cave Meshweaver	<i>Cicurina venii</i>	E	-
Cokendolpher Cave Harvestma	<i>Texella cokendolpheri</i>	E	-
Government Canyon Bat Cave Meshweaver	<i>Cicurina vespera</i>	E	-
Government Canyon Bat Cave Spider	<i>Neoleptoneta microps</i>	E	-
Madla's Cave Meshweaver	<i>Cicurina madla</i>	E	-
Robber Baron Cave Meshweaver	<i>Cicurina baronia</i>	E	-
Birds			
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	-	E
Arctic Peregrine Falcon	<i>Falco peregrinus tundrius</i>	-	T
Black-Capped Vireo	<i>Vireo atricapillus</i>	E	E
Golden-Cheeked Warbler	<i>Dendroica chrysoparia</i>	E	E
Interior Least Tern	<i>Sterna antillarum</i>	-	E
Peregrine Falcon	<i>Falco peregrinus</i>	-	E
White-Faced Ibis	<i>Plegadis chihi</i>	-	T
Whooping Crane	<i>Grus americana</i>	E	E
Wood Stork	<i>Mycteria americana</i>	-	T
Zone-Tailed Hawk	<i>Buteo albonotatus</i>	-	T
Crustaceans			
Peck's Cave Amphipod	<i>Stygobromus pecki</i>	E	-
Insects			
A Ground Beetle	<i>Rhadine exilis</i>	E	-
A Ground Beetle	<i>Rhadine infernalis</i>	E	-
Comal Springs Dryopid Beetle	<i>Stygoparnus comalensis</i>	E	-
Comal Springs Riffle Beetle	<i>Heterelmis comalensis</i>	E	-
Helotes Mold Beetle	<i>Batrisodes venyivi</i>	E	-
Fishes			
Fountain Darter	<i>Etheostoma fonticola</i>	E	-
San Marcos Gambusia	<i>Gambusia georgei</i>	E	-
Toothless Blindcat	<i>Trogloglanis pattersoni</i>	-	T
Widemouth Blindcat	<i>Satan eurystomus</i>	-	T

Table 4. Continued

Common Name	Scientific Name	Federal Status	State Status
Reptiles			
Indigo Snake	<i>Drymarchon corais</i>	-	T
Texas Horned Lizard	<i>Phrynosoma cornutum</i>	-	T
Texas Tortoise	<i>Gopherus berlandieri</i>	-	T
Timber/Canebrake Rattlesnake	<i>Crotalus horridus</i>	-	T
Plants			
Texas Wild--Rice	<i>Zizania texana</i>	E	-

Source: USFWS (2008), TPWD (2008)

Legend: E-Endangered, T-Threatened

A search of the TPWD's Texas Natural Diversity Database was conducted for the proposed project area in July 2008. An occurrence of the Guadalupe bass was reported at the San Antonio River and the IH-410 crossing in November 1978, which is adjacent to, but outside of, the proposed project area.

As described in **Section 3.5.1**, the proposed project area is composed primarily of agricultural, maintained, and residential land uses. There is little contiguous native vegetation that would support threatened and endangered species. No critical habitat is located within the proposed project area. The only federally listed species with the potential to occur within the project area is the whooping crane, however, it's occurrence in the vicinity would be limited to times of migration, and would be rare. No federally listed or candidate species were observed during the site investigation.

3.5.3.2 Environmental Effects of the Proposed Action

Coordination was undertaken with both the USFWS and the TPWD (**Appendix B**). The USACE Fort Worth District has determined that implementation of the proposed action would not likely adversely affect any federally listed threatened or endangered species or their critical habitat. Thus, no direct or indirect impacts to federal- or state-listed threatened or endangered species would result from the proposed property acquisition and transfer. The USFWS concurred with this determination on August 27, 2008 (**Appendix B**).

3.5.3.3 Environmental Effects of the No Action Alternative

Under the No Action Alternative, the property acquisition and transfer would not occur. There would be no impacts, either beneficial or adverse, to federally listed threatened and endangered species, as a result of the No Action Alternative.

3.6 CULTURAL RESOURCES

3.6.1 Affected Environment

Cultural resources are defined by the National Historic Preservation Act of 1966, amended in 2000, as prehistoric and historic sites, structures, districts, or any other physical evidence of human activity considered important to a culture, a subculture, or a community for scientific,

traditional, religious, or other reasons. Depending on the condition and historic use, such resources may provide insight into living conditions in previous civilizations and/or may retain cultural and religious significance to modern groups.

The EA process and the consultation process described in Section 106 of the National Historic Preservation Act requires an assessment of the potential impact of an undertaking on historic properties that are within the proposed project's Area of Potential Effect, which is defined as the geographic area(s) "within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist." In accordance with E.O. 12372, "Intergovernmental Review of Federal Programs," determinations regarding the potential effects of an undertaking on historic properties is presented to the State Historic Preservation Office.

The entire proposed project area is located within the historic *labores* on the east side of the San Antonio River. These farmlands were divided into individual *porciones*, or *suertes* (parcels), that were irrigated by using water diverted into acequias from the San Antonio River. The lower San Juan Acequia runs through the proposed project area. It provided water to the historic farms and dairies along the river and was probably in continuous use from the mid-eighteenth century until the 1950s. The upper branch of the San Juan Acequia, which is also called the Acequia Madre, is located to the east of the proposed project area (Prewitt 2008).

Prewitt and Associates, Inc. conducted a pedestrian archeological survey with backhoe trenching of the 55.4 acre proposed project area. The ensuing report, titled *Archeological Survey of 55 Acres for Transfer to the National Park Service in Conjunction with the San Antonio River Channel Improvement Project, Bexar County, Texas*, documents six archeological sites that were recorded during the survey. Four (41BX1780, 41BX1782, 41BX1783, and 41BX1784) are historic sites, and two (41BX1781 and 41BX1785) have historic and prehistoric components.

The prehistoric components consist of surface artifacts and deeply buried remains found in the late Holocene alluvium. Five of the six sites are agricultural properties that contain features and artifacts dating to the early twentieth century. The sixth site (41BX1872) is a portion of the lower San Juan Acequia that is part of an agricultural irrigation system dating to Spanish colonial times, and reflects continuity in irrigated agriculture to the entire area of the proposed action for more than two-and-a-half centuries. The lower San Juan Acequia system meets the criteria for designation as a State Archeological Landmark under the Antiquities Code of Texas and is eligible for listing in the National Register of Historic Places. None of the other five sites would be eligible for listing in the National Register of Historic Places. However, it is recommended that the entire proposed project area be eligible for listing in the National Register of Historic Places (Prewitt 2008).

3.6.2 *Environmental Effects of the Proposed Action*

Coordination was undertaken with the State Historic Preservation Office. Under the proposed action, a beneficial, long-term impact would result by the parcels being transferred to federal ownership and having protection under federal laws and regulations (see **Table 1**). This would ensure that the cultural resources identified by the archeological survey would have long-term federal protection. Indirect impacts may occur to cultural resources due to construction or soil-

disturbing activities. However, if deemed necessary by the NPS, a subsequent archeological survey could be completed for the area to identify and record any additional cultural resources prior to any soil-disturbing activities. The USACE Fort Worth District has determined that implementation of the proposed action would have no adverse effect on historic or archeological properties. Concurrence with this determination was received from the State Historic Preservation Office on February 18, 2009 (**Appendix B**).

3.6.3 *Environmental Effects of the No Action Alternative*

Under the No Action Alternative, the property acquisition and transfer would not occur. Without federal protection, and without restoration efforts of the lower San Juan Acequia, there would likely be further degradation and continued decline in Spanish colonial irrigated agricultural farmlands along the San Antonio River. There would be long-term but insignificant adverse impacts to cultural resources, as a result of the No Action Alternative.

3.7 AIR QUALITY

3.7.1 *Affected Environment*

In accordance with Federal Clean Air Act requirements, the air quality in a given region or area is measured by the concentration of various pollutants in the atmosphere. The measurements of these “criteria pollutants” in ambient air are expressed in units of parts per million or in units of micrograms per cubic meter. The air quality in a region is a result not only of the types and quantities of atmospheric pollutants and pollutant sources, but also surface topography, the size of the topological “air basin,” and the prevailing meteorological conditions.

The EPA developed numerical concentration-based standards, or National Ambient Air Quality Standards (NAAQS) (both primary and secondary NAAQS), for pollutants that have been determined to impact human health and the environment. NAAQS are currently established for six criteria air pollutants, including ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, respirable particulate matter, or PM (including particulates equal to or less than 10 microns in diameter [PM₁₀] and particulates equal to or less than 2.5 microns in diameter [PM_{2.5}]), and lead. The primary NAAQS represent maximum levels of background air pollution that are considered safe, with an adequate margin of safety to protect public health. Secondary NAAQS represent the maximum pollutant concentration necessary to protect vegetation, crops, and other public resources, along with maintaining visibility standards. The State of Texas has adopted the NAAQS and has titled them the Texas Ambient Air Quality Standards. **Table 5** presents the primary and secondary NAAQS and Texas Ambient Air Quality Standards that apply to the air quality in Texas.

General conformity regulations are designed to ensure that federal actions do not impede local efforts to achieve or maintain attainment with the NAAQS. The General Conformity Rule and the promulgated regulations found in Code of Federal Regulations (CFR) 40 Part 93 exempt certain federal actions from conformity determinations (e.g., contaminated site cleanup and natural emergency response activities). Other federal actions are assumed to conform if total indirect and direct proposed project emissions are below *de minimis* levels presented in 40 CFR Part 93.153. According to Title 40 CFR Part 93, “Determining Conformity of Federal Actions to State or Federal Implementation Plans,” transfers of ownership, interests, and titles in land, facilities, and real and personal properties, regardless of the form or method of the transfer, are

Table 5. National and Texas Ambient Air Quality Standards

Pollutant	Standard Value		Standard Type
Carbon Monoxide			
8-Hour Average	9 ppm	10 mg/m ³	Primary
1-Hour Average	35 ppm	40 mg/m ³	Primary
Nitrogen Dioxide			
Annual Arithmetic Mean	0.053 ppm	100 µg/m ³	Primary & Secondary
Ozone			
1-Hour Average	0.12 ppm	235 µg/m ³	Primary & Secondary
8-Hour Average	0.08 ppm	157 µg/m ³	Primary & Secondary
Lead			
Quarterly Average	-	1.5 µg/m ³	Primary & Secondary
Particulate < 10 micrometers (PM₁₀)			
Annual Arithmetic Mean	-	50 µg/m ³	Primary & Secondary
24-Hour Average	-	150 µg/m ³	Primary & Secondary
Particulate < 2.5 micrometers (PM_{2.5})			
Annual Arithmetic Mean	-	15 µg/m ³	Primary & Secondary
24-Hour Average	-	35 µg/m ³	Primary & Secondary
Sulfur Dioxide			
Annual Arithmetic Mean	0.03 ppm	80 µg/m ³	Primary
24-Hour Average	0.14 ppm	365 µg/m ³	Primary
3-Hour Average	0.5 ppm	1,300 µg/m ³	Secondary

Source: (2008)

Legend: ppm – parts per million, mg/m³ – milligrams per cubic meter, µg/m³ – micrograms per cubic meter

exempt from air quality analysis. The threshold levels (in tons of pollutant per year) depend on the non-attainment status that the EPA has assigned to a non-attainment area. Once the net change in non-attainment pollutants is calculated, the federal agency must compare them to the *de minimis* thresholds.

On December 9, 2002, the Alamo Area Council of Governments, a voluntary association of cities, counties, and special governmental districts, signed an Early Action Compact (EAC). An EAC allows a region to submit an enforceable State Implementation Plan, outlining steps the region will take to maintain compliance with the ozone standard. In return, the EPA deferred any potential non-attainment designation and gave the area until 2007 to demonstrate attainment of the standard. On March 31, 2004, a final EAC plan was submitted to the TCEQ for incorporation into the State Implementation Plan, so the area attains and maintains compliance with the new 8-hour ozone standard. On April 2, 2008, the EPA issued final action to designate thirteen EAC areas (including San Antonio) as attainment for the eight-hour ozone standard, as they met all milestones of the EAC program and demonstrated attainment of the eight-hour ozone standard by December 31, 2007. The effective date of this final action was April 15, 2008. Additionally, the EPA will revoke the one-hour ozone standard for each of the thirteen EAC areas one year after the effective date of their attainment designation. Designating the San Antonio area as attainment for eight-hour ozone means that there are no further State Implementation Plan requirements for the existing standard as long as the area continues to monitor attainment of this standard.

3.7.2 Environmental Effects of the Proposed Action

Under the proposed action, no direct impacts to air quality would result from the proposed property acquisition and transfer because there would be no construction or soil disturbing activities. Indirect impacts would be caused by anticipated construction vehicles clearing vegetation and removing structures. These activities may temporarily degrade air quality with dust and exhaust gases associated with construction equipment. However, procedures to control and mitigate fugitive dust would be included in any plans associated with this future activity. Roadway resurfacing completed by the Texas Department of Transportation (TxDOT) in the foreseeable future may involve the use of asphalt. Asphaltic overlay may cause unfavorable odors to be present within the project area. However, any unfavorable odors associated with resurfacing would not persist but would be dispersed by the prevailing winds and would be temporary and short-term in nature. Indirect and cumulative impacts to air quality would be short-term and insignificant. There would be no long-term adverse impacts to air quality.

3.7.3 Environmental Effects of the No Action Alternative

Under the No Action Alternative, the property acquisition and transfer would not occur. There would be no impacts, either beneficial or adverse, to air quality, as a result of the No Action Alternative.

3.8 HAZARDOUS AND TOXIC MATERIALS

3.8.1 Affected Environment

A Phase I Environmental Site Assessment was conducted by Tetra Tech, Inc., in July 2008 (Tetra Tech 2008). The assessment was conducted to document the previous ownership and uses of the subject properties or parcels, consistent with good commercial or customary practice as defined in the Comprehensive Environmental Restoration, Compensation, and Liability Act, 42 USC 9601(35)(B), and was designed to meet the American Standard for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (Standard E 1527-05) in compliance with the EPA's All Appropriate Inquiries Final Rule (40 CFR Par 312).

The objective of this Phase I Environmental Site Assessment is to identify, to the extent feasible, recognized environmental conditions in connection with the property. Recognized environmental conditions are “. . . the presence or likely presence of any hazardous substances or petroleum products on the property under conditions that indicate an existing release, a past release, or a material threat of release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.” Conditions determined to be *de minimis* are not recognized environmental conditions (Jorgeson 2008).

The Phase I Environmental Site Assessment revealed no evidence of hazardous substances in connection with the properties and that no additional investigation of the nine properties is required.

The ASTM Standard Practice for Environmental Site Assessments and EPA's All Appropriate Inquiries Final Rule limit the life of the Phase I Environmental Site Assessment to one year from the initial site reconnaissance survey to the completion of the real estate transaction. However,

some information contained within the assessment, such as regulatory records review, site visit, interviews, and environmental liens should be completed no more than six months prior to the completion of the real estate transaction.

Because this information contained within the project's Phase I Environmental Site Assessment would exceed the six month rule, the assessment is required to be updated prior to land acquisition. If any significant changes are documented during the additional assessment, this SEA would be updated. The Phase I Environmental Site Assessment Report is on file at the USACE Fort Worth District Office.

3.8.2 Environmental Effects of the Proposed Action

Under the proposed action, no direct or indirect impacts due to hazardous or toxic materials would result from the proposed property acquisition and transfer.

3.8.3 Environmental Effects of the No Action Alternative

Under the No Action Alternative, the property acquisition and transfer would not occur. There would be no impacts, either beneficial or adverse, due to hazardous and toxic materials, as a result of the No Action Alternative.

3.9 NOISE

3.9.1 Affected Environment

Noise is described as unwanted sound, which is measured and perceived by its characteristic amplitude and frequency. Amplitude is a measure of the strength of the sound and is directly measured in terms of changes in the pressure of a sound wave. Frequency, commonly perceived as pitch, is the number of times per second the sound causes air molecules to oscillate. Sound is represented on a logarithmic scale in decibel (dB) units. The threshold of human hearing is approximately 0 dB, and the threshold of pain is around 120 dB.

Frequency of measured sound is adjusted to correspond to the frequency sensitivity of the human ear, if measuring community response to noise. Sound levels that have been adjusted are referred to as A-weighted sound levels (represented as dBA units). Noise levels are computed over a 24-hour period and adjusted for nighttime annoyances to produce the day-night average sound level (DNL).

DNL is the community noise metric recommended by the EPA and has been adopted by most federal agencies (EPA 1972; Federal Interagency Committee on Noise 1992). A DNL of 65 dB is the level most commonly used for noise planning purposes and represents a compromise between community impact and the need for activities that do cause noise. Areas exposed to DNL above 65 dB are generally not considered suitable. A DNL of 55 dB was identified by the EPA as a level below which there is effectively no adverse impact (EPA 1972).

With regard to the proposed project area, the majority of the surrounding area is undeveloped and sparsely populated. However, Mission San Juan and Mission Espada are located approximately 0.4 miles and 0.2 miles, respectively, from the proposed project area. A residential subdivision is located approximately 0.2 miles east of the proposed project area.

3.9.2 Environmental Effects of the Proposed Action

Under the proposed action, no direct impacts to noise-sensitive receptors would result from the proposed property acquisition and transfer because there would be no noise producing activities. Indirect impacts to noise receivers could be caused by noise associated with clearing and grubbing activities in preparation for the anticipated historic farming practices and the removal of existing structures. Construction activities would increase noise levels temporarily at locations immediately adjacent to the project area. Noise levels created by construction equipment would vary greatly, depending on factors such as the type of equipment, the specific model, the operation being performed, and the condition of the equipment. The equivalent sound level of the construction activity also depends on the fraction of time that the equipment is operated over the time period of the construction. Heavy equipment, such as backhoes, would cause short-term, localized, insignificant increases in noise levels during construction. Construction would occur only during daylight hours, thus reducing the DNLs and the chances of causing annoyances. Since construction would only occur during daylight hours, these short-term increases are not expected to substantially affect adjacent noise-sensitive receptors. The use of BMPs, such as keeping equipment in good operating condition, property training, and providing appropriate health and safety equipment, will minimize the potential noise impacts associated with the proposed action. Any impacts to noise-sensitive receptors would be short-term and insignificant.

3.9.3 Environmental Effects of the No Action Alternative

Under the No Action Alternative, the property acquisition and transfer would not occur. There would be no impacts, either beneficial or adverse, to noise receivers, as a result of the No Action Alternative.

3.10 ENVIRONMENTAL JUSTICE AND SOCIOECONOMIC ISSUES

3.10.1 Affected Environment

E.O. 12898 is intended to promote a review of the distribution of minority and low-income communities in the region of influence (physical area that bounds the economic feature of interest for the purpose of analysis) to determine whether or not these areas would be disproportionately affected by a proposed project. The intent of assessing environmental justice is to identify and thereby avoid, minimize, or mitigate significant and adverse environmental effects of proposed federal actions on minority communities and low-income communities. For purposes of this SEA, 2000 U.S. Census data have been used to identify areas with high minority concentrations and low incomes.

Census data obtained from the census tracts and block groups that encompass the region of influence were analyzed to determine race and income characteristics in the proposed project area. A total of 4,800 persons were recorded in two census tracts: census tract 1417, block group 1; and census tract 1518, block group 1. Demographic, language, and economic information is included in **Table 6**.

Table 6. Demographic, Economic, and Language Information for the Proposed Project Area

Characteristic	Bexar County	Census Tract 1417	Block Group 1	Census Tract 1518	Block Group 1
Population Data					
Total Population	1,392,931	3,875	1,331	925	925
Racial Characteristics					
White	68.9%	80.2%	74.5%	60.8%	60.8%
Black or African American	7.2%	2.5%	2.1%	3.7%	3.7%
American Indian and Alaska Native	0.8%	0.3%	0.3%	0.2%	0.2%
Asian	1.6%	0.3%	0.3%	1.4%	1.4%
Native Hawaiian/Other Pacific Islander	0.1%	0.0%	0.1%	0.0%	0.0%
Hispanic*	54.3%	47.7%	56.9%	81.6%	81.6%
Income Characteristics					
Median Family Income	\$43,724	\$35,508	\$31,792	\$30,556	\$30,556
Median Household Income	\$38,328	\$34,504	\$31,613	\$26,184	\$26,184
Persons Below Poverty Level	16%	14%	18%	24%	24%
Language Characteristics					
Population Over 5 Years of Age	1,283,614	3,643	1,283	882	882
Speak Only English	72%	66%	46%	48%	48%
Speak English "Not Well"	4%	2%	2%	5%	5%
Speak English "Not At All"	2%	1%	2%	1%	1%

Source: US Census (2000)

* People of Hispanic origin may be of any race. Hispanics can choose one or more race categories, including White, Black or African American, American Indian and Alaska Native, Asian, and Native Hawaiian and Other Pacific Islander.

3.10.2 Environmental Effects of the Proposed Action

Approximately 70 percent of the population within the region of influence is of Hispanic origin. The average median household income within the proposed project area is \$28,898, and the average population living below the poverty level is 21 percent.

Schools, hospitals, churches, other public facilities, and services near the proposed project area would not be affected by the proposed action. Community cohesion, neighborhood character, access, and community circulation patterns would be unchanged by the proposed action.

Although there are minorities and low-income populations living within the region of influence, under the proposed action, no direct impacts to low-income communities or minority populations would result from the proposed property acquisition and transfer.

Direct impacts from the proposed project would result in the displacement and relocation of several persons (two households) living in the proposed project area. Relocation assistance is available to all individuals, families, businesses, and non-profit organizations displaced by federal projects, in accordance with Title VIII of the Civil Rights Act of 1968, Title VI of the Civil Rights Act of 1964, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (amended in 1987), and the Housing and Urban Development Amendment Act of 1974. Relocation benefits and assistance are available to persons without regard to race, color, religion, national origin, sex, age, or handicap. Indirect impacts could result in additional job opportunities within the community associated with the restoration of the site to historic farmland (involving construction, maintenance, and operation). The construction of a “demonstration farm” also increases the educational and recreational opportunities associated with the SAAN. Indirect impacts to local socioeconomic conditions would be long-term but insignificant.

3.10.3 Environmental Effects of the No Action Alternative

Under the No Action Alternative, the property acquisition and transfer would not occur. There would be no impacts, either beneficial or adverse, to low-income communities, minorities, or populations with limited English-speaking capabilities, as a result of the No Action Alternative.

3.11 PROTECTION OF CHILDREN FROM HEALTH AND SAFETY RISKS

3.11.1 Affected Environment

E.O. 13045, “Protection of Children from Environmental Health Risks,” dated April 21, 1997, requires federal agencies to identify and address the potential to generate disproportionately high environmental health and safety risks to children. This E.O. was prompted by the recognition that children, who are still undergoing physiological growth and development, are more sensitive to adverse environmental health and safety risks than are adults.

3.11.2 Environmental Effects of the Proposed Action

Under the proposed action, no direct impacts to children would result from the proposed property acquisition and transfer action. Indirect impacts with the potential to affect children could be expected from possible future demolition or construction activities. Because construction sites and equipment can be enticing to children, demolition or construction activities could create an increased safety risk. The risk to children would be slight, since the area of the proposed action is not located near densely populated areas. However, the area is located adjacent to an existing SAAN facility that receives many visitors. During any demolition or construction activities, safety measures would be followed to protect the health and safety of nearby residents, SAAN visitors, and construction workers. Barriers and “No Trespassing” signs would be placed around demolition or construction sites to deter children from playing in these areas, and construction vehicles and equipment would be secured when not in use. Since these areas would be flagged or otherwise fenced, issues regarding protection of children are not anticipated.

3.11.3 Environmental Effects of the No Action Alternative

Under the No Action Alternative, the property acquisition and transfer would not occur. There would be no impacts, either beneficial or adverse, to children, as a result of the No Action Alternative.

3.12 TRANSPORTATION AND UTILITIES

3.12.1 *Affected Environment*

Transportation corridors that serve the proposed project area are IH-410, IH-37, United States Highway 281, and State Highways 122, 536, and 1937. Local arterial roads serving the proposed project area are Villamain Road, Old Corpus Christie Road, Southton Road, and East Ashley Road. The Union Pacific railway is adjacent to Villamain Road in the vicinity of the proposed project area.

Aerial transmission lines are located on some of the parcels. No utility adjustments or relocations are anticipated as a result of the proposed action. However, if needed in the future, the adjustment and relocation of any utilities would be handled so that no substantial interruptions would take place while these adjustments are being made. If required, plans for relocating any utilities would be provided by the appropriate utility company.

3.12.2 *Environmental Effects of the Proposed Action*

Under the proposed action, no direct or indirect impacts to transportation or utilities would result from the proposed property acquisition and transfer. Utilities already exist on the site, and there would be no change (either immediate or future) to either utility services or transportation routes in the area resulting from implementation of the proposed action.

3.12.3 *Environmental Effects of the No Action Alternative*

Under the No Action Alternative, the property acquisition and transfer would not occur. There would be no impacts, either beneficial or adverse, to transportation or utilities, as a result of the No Action Alternative.

4. CUMULATIVE IMPACTS

CEQ regulations implementing the procedural provisions of NEPA require federal agencies to consider the cumulative impacts of a proposal (40 CFR 1508.25(c)). A cumulative impact on the environment is the impact that results from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions (40 CFR 1508.7). This type of assessment is important because significant cumulative impacts can result from several smaller actions that, by themselves, do not have significant impacts.

Ongoing or future USACE projects or investigations within the San Antonio River Basin and their estimated completion dates are:

- Mission Reach Ecosystem Restoration and Recreation Project (2012)
- Leon Creek Watershed Study (April 2010)
- Olmos Creek Ecosystem Restoration Project (date unknown)

These types of projects would restore aquatic habitat and the associated riparian community to benefit the variety of resident and migratory wildlife that utilize the study area. Unavoidable adverse impacts to the human or natural environment would be conditional on the application of

effective mitigation practices so as to avoid, minimize, and compensate for those impacts. Thus, it would be expected that USACE restoration projects might result in significant cumulative beneficial impacts.

There would be an insignificant beneficial cumulative impact to cultural resources resulting from implementation of the proposed action by placing 55.4 acres of historic *labores* into ownership of the NPS SAAN and from future restoration of historic farmland and the lower San Juan Acequia. Any future demolition or construction would cause temporary adverse impacts to noise, transportation, water quality, waters of the U.S., and fish and wildlife. However, these impacts would be temporary and would be mitigated through enforcement of local, state, and federal regulations.

TxDOT has three projects scheduled within the proposed project vicinity, all of which involve roadway resurfacing. Roadway resurfacing would take place within the existing right-of-way, and may involve the use of asphalt. Asphaltic overlay may cause unfavorable odors to be present within the project area. However, any unfavorable odors associated with resurfacing would not persist but would be dispersed by the prevailing winds. Other work associated with resurfacing would be contained within the existing right-of-way and would have no impacts to the human and natural environment. For projects that may be constructed outside the existing right-of-way, TxDOT would perform NEPA analyses to document impacts to the human and natural environment; thus, any reasonably foreseeable impacts would be mitigated through enforcement of local, state, and federal regulations. As a result, adverse cumulative impacts would be expected to be insignificant.

There are several U.S. military facilities in the vicinity of San Antonio, Texas. Each is independently responsible for work, training, and housing for thousands of U.S. military personnel within the region. Military actions do not usually affect the general population, as they are carried out within the boundaries of an existing federal facility. Noise-generating activities such as training, construction, and aircraft operations may be the most common impacts to neighboring businesses and residences. Actions involving construction and training could have adverse impacts to natural and cultural resources within the limits of the military installation. However, all federal installations are required by law to prepare and follow natural and cultural resource management plans and perform NEPA analyses for future projects to document impacts to the human and natural environment. Reasonably foreseeable impacts would be mitigated through enforcement of local, state, and federal regulations. Thus, adverse cumulative impacts are expected to be insignificant.

Private development, including construction for residential subdivisions and commercial and retail developments, would be expected to occur in the San Antonio region. The cumulative impacts of private development would be expected to have a more substantial adverse impact on the human and natural environment, because these organizations are not subject to the same level of environmental analysis (as federal entities). However, to curb inappropriate development within the riparian zone and beyond of the San Antonio River from Hildebrand Street to the most southern corporate limits of San Antonio, the City has developed River Improvement Overlay (RIO) Districts. The project area is within RIO District 6, which mandates that development must:

- Maintain the historic rural Texas character while encouraging development of new and mixed-use nodes; and
- Maintain the natural quality at the top of the riverbank using native plants and minimizing formally landscaped areas and maintain natural character of river.

Thus, it would be expected that private development, if it adheres to the City's zoning regulations, would not result in significant adverse cumulative impacts within the project's vicinity.

The end result from implementation of the proposed action would be a valuable contribution to the NPS SAAN and, ultimately, to the public's understanding of Spanish colonial (mission) influence on the development of society in the San Antonio region. The proposed action, including the anticipated expansion of the demonstration farm, would be in accordance with the mission of the SAAN, which states that the SAAN will preserve, restore, and protect in perpetuity the resource of San Antonio Missions National Historical Park. The SAAN provides a great understanding and appreciation of the Spanish colonial influence in the world through interpretation of the historical and architectural values of the San Antonio Missions. The overall cumulative impact from implementation of the proposed action, including the additional USACE projects in the area, would be long-term and beneficial.

5. COORDINATION

This proposed action and preparation of this SEA has been coordinated with appropriate federal and state agencies. The following agencies have received a copy of this SEA:

U.S. Department of the Interior, Fish and Wildlife Service
 U.S. Environmental Protection Agency, Region VI
 Texas Parks and Wildlife Department
 Texas Commission on Environmental Quality
 Texas State Historic Preservation Office

As discussed in **Sections 3.5.3** and **3.6**, coordination with the USFWS and the State Historic Preservation Office has been undertaken; corresponding documentation is provided in **Appendix B**.

6. MITIGATION

This proposed action is, in itself, compensatory mitigation for land losses to the SAAN resulting from ecosystem restoration efforts associated with the SACIP. No additional compensatory mitigation is necessary due to implementation of the proposed land acquisition and transfer. No significant, adverse direct or indirect impacts to the human or natural environment would take place.

7. COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS

Environmental compliance for the proposed action would be achieved upon coordination of this SEA and Finding of No Significant Impact with appropriate agencies, organizations, and individuals for their review and comments; USFWS concurrence that the proposed action would not be likely to adversely affect any endangered or threatened species; receipt of TPWD letter designating a point of contact; and receipt of the Texas State Historic Preservation Office concurrence for the Determination of No Affect on cultural resources. The Finding of No Significant Impact would be signed once the proposed action achieves environmental compliance with applicable laws and regulations.

8. CONCLUSION

The purpose of this section is to compare and contrast the environmental effects of the alternatives. Potential impacts to the human or natural environment resulting from the proposed action and the No Action Alternative are briefly described below.

8.1 PROPOSED ACTION

There would be few direct impacts on the human or natural environment associated with the acquisition and transfer of the subject properties. Direct impacts would include changing the land use from privately and publicly owned property to federally owned property, incurring long-term beneficial impacts to cultural resources, and requiring the displacement and relocation of two households.

8.2. NO ACTION ALTERNATIVE

Under the No Action Alternative, the property acquisition and transfer would not occur. No impacts, either beneficial or adverse, are anticipated to the human or natural environment under the No Action Alternative.

8.3. FINDING OF NO SIGNIFICANT IMPACT

The proposed action consists of the purchase of the subject property by SARA and the subsequent transfer of the property to the SAAN. The environmental impacts of the proposed action have been assessed, and it has been determined that the proposed action would have no significant adverse impacts upon land use, visual or aesthetic resources, geological or soil resources, water resources, biological resources (including endangered or threatened species), cultural resources, hazardous and toxic materials, noise, air quality, socioeconomic resources, or transportation and utilities. A Finding of No Significant Impact is appropriate for this proposed action, and a Notice of Intent to prepare an Environmental Impact Statement is not warranted.

9. LIST OF PREPARERS

Table 7 lists the preparers of relevant sections of this report. The point of contact for this SEA is Mr. William Haferkamp, Environmental Resource Specialist. Mr. Haferkamp can be reached at the U.S. Army Corps of Engineers, Fort Worth District, CESWF-PER-EE, P.O. Box 17300, Fort Worth, TX 76102-0300.

Table 7. Environmental Assessment Preparation Team

SEA Contribution	Team Member
Environmental Manager	William Haferkamp - CESWF-PER-EE
SEA Project Manager	John MacFarlane - Environmental Research Group, LLC
Cultural Resources Report	Douglas Boyd - Prewitt and Associates
Hazardous, Toxic, and Radioactive Waste Report	Eric Jorgeson - Tetra Tech NUS
Physical, Biological, and Socioeconomic Resources and Impacts; Document Preparation	John MacFarlane - Environmental Research Group, LLC Linda Ashe - Environmental Research Group, LLC
Technical Review	Steve Smith - Environmental Research Group, LLC Mike Schulze - Environmental Research Group, LLC

10. REFERENCES

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U.S. Geological Survey. 1992. Digital Southton, Texas. 7.5-Minute Topographic Quadrangle Map. Downloaded from the Texas Natural Resource Information System website: <<http://www.tnris.state.tx.us>>. Austin, Texas.

Appendix A
Report Photographs



Photo 1: Ringelstein, property #1 & 2



Photo 2: Ringelstein, property #1 & 2



Photo 3: Brown, property #3



Photo 4: Brown, lower San Juan Acequia, property #3

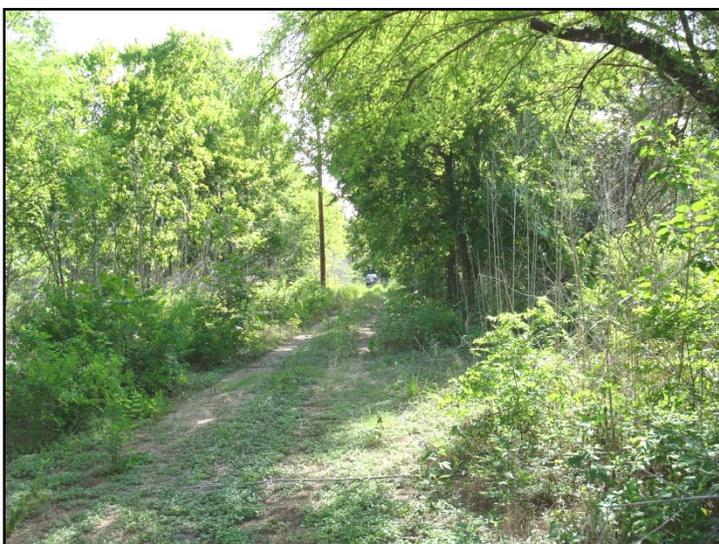


Photo 5: Haag, property #4



Photo 6: Haag, abandoned house; property #4



Photo 7: City of San Antonio, property #5



Photo 8: City of San Antonio, lower San Juan Acequia gate, property #5



Photo 9: City of San Antonio, property #6



Photo 10: City of San Antonio, property #6



Photo 11: Bexar County, property #7



Photo 12: City of San Antonio, property #8



Photo 13: Bexar County, property #9



Photo 14: Bexar County, property #9

Appendix B
Agency Coordination Letters



REPLY TO
ATTENTION OF

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

August 19, 2008

Planning, Environmental, and Regulatory Division

Mr. Adam Zerrenner, Field Supervisor
U.S. Fish and Wildlife Service
Texas Ecological Services Field Office, Austin
10711 Burnet Rd, Compass Bank Bldg, Ste 200
Austin, Texas 78758

Dear Mr. Zerrenner,

This letter is to inform you that the U.S. Army Corps of Engineers (USACE) is preparing an Environmental Assessment (EA) for a land acquisition and transfer for the San Antonio Channel Improvement Project (SACIP) in compliance with the National Environmental Policy Act of 1969 (NEPA). The non-Federal sponsor for the study is the San Antonio River Authority (SARA).

The project area is in the general vicinity of southeast San Antonio, along the San Antonio River, and is located on the Southton United States Geological Survey 7.5 Minute quadrangle map, Bexar County (see attached map). A portion of the Mission Reach Ecosystem Restoration Project, which is part of the SACIP, will require the taking of approximately 50 acres of National Park Service (NPS) land associated with the San Antonio Missions National Historic Park (SAAN). The mitigation action required for the loss of land from the SAAN is acquisition of 55.4 acres of land (by the local sponsor, SARA) located adjacent to the SAAN boundary. That land would then be transferred to the NPS for their use. The EA will evaluate the impacts, either beneficial or adverse, of the land acquisition and transfer, on the human environment.

Habitat for most federally listed Threatened or Endangered species (for Bexar County) does not exist on the site; the current and historic land use is agricultural. The only listed species with the potential to occur within the project area is the whooping crane, however, it would only (potentially) be in the project vicinity during migration. Based on the fact that the proposed action would occur on previously disturbed areas and implementation of the proposed action would result in minimal to no effect to the human environment, it is the conclusion of the project team that the alternatives under consideration will have no adverse effect on threatened and endangered species.

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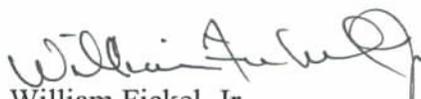
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We are asking you to concur with this conclusion and that you assign a technical point of contact in order to continue the coordination for the National Environmental Policy Act process. In addition, if your agency has any information that may be pertinent to the study we ask that you provide it at this time. If you have any additional questions or comments, please feel free to contact Mr. William Haferkamp at 817-886-1713 or by mail at CESWF-PER-EE, PO Box 17300, 819 Taylor St, Fort Worth, Texas 76102-0300. Thank you for your cooperation in this matter.

Sincerely,


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

Enclosure

We concur with your determination that the proposed action is not likely to adversely affect any federally listed species.

Date Aug. 27, 2008

Consultation # 2145D-2008-I-0242

Approved by: 

Adam Zerrener, Field Supervisor

U.S. FISH & WILDLIFE SERVICE, AUSTIN, TEXAS

We concur with your determination that the proposed action is not likely to adversely affect any federally listed species.

Date _____

Consultation # _____

Approved by: _____

Adam Zerrener, Field Supervisor

U.S. FISH & WILDLIFE SERVICE, AUSTIN, TEXAS



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

SEP 08 2008

William Haferkamp
CESWF-PER-EE
P. O. Box 17300
819 Taylor Street
Fort Worth, TX 76102-0300

Dear Mr. Haferkamp:

Thank you for your letter dated August 19, 2008 regarding the San Antonio Channel Improvement Project (SACIP). At this time, our information indicates that the project area borders an impaired stream segment of the San Antonio River. There may also be issues related to ozone nonattainment, floodplains, wetlands, wildlife habitat, and environmental justice.

You requested a technical point of contact be assigned to continue coordination for the NEPA process. The technical point of contact for this project will be

Sharon L. Osowski, Ph.D.
Ecologist
US EPA 6EN-XP
1445 Ross Ave
Dallas, TX 75202

214-665-7506
osowski.sharon@epa.gov

Thank you for the opportunity to participate.

Sincerely,

A handwritten signature in cursive script that reads "Cathy Gilmore".

Cathy Gilmore
Chief, Office of Planning
and Coordination



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

REPLY TO
ATTENTION OF

August 19, 2008

Planning, Environmental, and Regulatory Division

Mr. Adam Zerrenner, Field Supervisor
U.S. Fish and Wildlife Service
Texas Ecological Services Field Office, Austin
10711 Burnet Rd, Compass Bank Bldg, Ste 200
Austin, Texas 78758

Dear Mr. Zerrenner,

This letter is to inform you that the U.S. Army Corps of Engineers (USACE) is preparing an Environmental Assessment (EA) for a land acquisition and transfer for the San Antonio Channel Improvement Project (SACIP) in compliance with the National Environmental Policy Act of 1969 (NEPA). The non-Federal sponsor for the study is the San Antonio River Authority (SARA).

The project area is in the general vicinity of southeast San Antonio, along the San Antonio River, and is located on the Southton United States Geological Survey 7.5 Minute quadrangle map, Bexar County (see attached map). A portion of the Mission Reach Ecosystem Restoration Project, which is part of the SACIP, will require the taking of approximately 50 acres of National Park Service (NPS) land associated with the San Antonio Missions National Historic Park (SAAN). The mitigation action required for the loss of land from the SAAN is acquisition of 55.4 acres of land (by the local sponsor, SARA) located adjacent to the SAAN boundary. That land would then be transferred to the NPS for their use. The EA will evaluate the impacts, either beneficial or adverse, of the land acquisition and transfer, on the human environment.

Habitat for most federally listed Threatened or Endangered species (for Bexar County) does not exist on the site; the current and historic land use is agricultural. The only listed species with the potential to occur within the project area is the whooping crane, however, it would only (potentially) be in the project vicinity during migration. Based on the fact that the proposed action would occur on previously disturbed areas and implementation of the proposed action would result in minimal to no effect to the human environment, it is the conclusion of the project team that the alternatives under consideration will have no adverse effect on threatened and endangered species.



We are asking you to concur with this conclusion and that you assign a technical point of contact in order to continue the coordination for the National Environmental Policy Act process. In addition, if your agency has any information that may be pertinent to the study we ask that you provide it at this time. If you have any additional questions or comments, please feel free to contact Mr. William Haferkamp at 817-886-1713 or by mail at CESWF-PER-EE, PO Box 17300, 819 Taylor St, Fort Worth, Texas 76102-0300. Thank you for your cooperation in this matter.

Sincerely,

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

Enclosure

Mr. Haferkamp, ext. 1713
GODFREY, CESWF-PER-EE
HARBERG, CESWF-PER-E
FICKEL, CESWF-PER



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

REPLY TO
ATTENTION OF

August 19, 2008

Planning, Environmental, and Regulatory Division

Mr. Mark Fisher
Texas Commission on Environmental Quality
12100 Park Circle 35, Building F MC-150
Austin, Texas 78711

Dear Mr. Fisher,

This letter is to inform you that the U.S. Army Corps of Engineers (USACE) is preparing an Environmental Assessment (EA) for a land acquisition and transfer for the San Antonio Channel Improvement Project (SACIP) in compliance with the National Environmental Policy Act of 1969 (NEPA). The non-Federal sponsor for the study is the San Antonio River Authority (SARA).

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We are asking that you assign a technical point of contact in order to continue the coordination for the National Environmental Policy Act process. In addition, if your agency has any information that may be pertinent to the study we ask that you provide it at this time. If you have any additional questions or comments, please feel free to contact Mr. William Haferkamp at 817-886-1713 or by mail at CESWF-PER-EE, PO Box 17300, 819 Taylor St, Fort Worth, Texas 76102-0300. Thank you for your cooperation in this matter.

Sincerely,

Mr. Haferkamp, ext. 1713
William Fickel, Jr. GODFREY, CESWF-PER-EE
Chief, Planning, Environmental, and Regulatory Division
HARBURG, CE
FICKEL, CESWF-PER

Enclosure



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

REPLY TO
ATTENTION OF

August 19, 2008

Planning, Environmental, and Regulatory Division

Ms. Ronda Smith
Office of Planning and Coordination
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Mail Stop 6ENXP
Dallas, Texas 75202

Dear Ms. Smith:

This letter is to inform you that the U.S. Army Corps of Engineers (USACE) is preparing an Environmental Assessment (EA) for a land acquisition and transfer for the San Antonio Channel Improvement Project (SACIP) in compliance with the National Environmental Policy Act of 1969 (NEPA). The non-Federal sponsor for the study is the San Antonio River Authority (SARA).

The project area is in the general vicinity of southeast San Antonio, along the San Antonio River, and is located on the Southton United States Geological Survey 7.5 Minute quadrangle map, Bexar County (see attached map). A portion of the Mission Reach Ecosystem Restoration Project, which is part of the SACIP, will require the taking of approximately 50 acres of National Park Service (NPS) land associated with the San Antonio Missions National Historic Park (SAAN). The mitigation action required for the loss of land from the SAAN is acquisition of 55.4 acres of land (by the local sponsor, SARA) located adjacent to the SAAN boundary. That land would then be transferred to the NPS for their use. The EA will evaluate the impacts, either beneficial or adverse, of the land acquisition and transfer, on the human environment.

We are asking that you assign a technical point of contact in order to continue the coordination for the National Environmental Policy Act process. In addition, if your agency has any information that may be pertinent to the study we ask that you provide it at this time. If you have any additional questions or comments, please feel free to contact Mr. William Haferkamp at 817-886-1713 or by mail at CESWF-PER-EE, PO Box 17300, 819 Taylor St, Fort Worth, Texas 76102-0300. Thank you for your cooperation in this matter.

Sincerely,

Mr. Haferkamp, ext. 1713
William Fickel, Jr. GODFREY, CESWF-PER-EE
Chief, Planning, Environmental, and Regulatory Division
HARBERG, CESWF-PER-E
FICKEL, CESWF-PER

Enclosure



REPLY TO
ATTENTION OF

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

August 19, 2008

Planning, Environmental, and Regulatory Division

Ms. Kathy Boydston
Texas Parks and Wildlife Department
Wildlife Diversity Program
4200 Smith School Road
Austin, Texas 78744

Dear Ms. Boydston,

This letter is to inform you that the U.S. Army Corps of Engineers (USACE) is preparing an Environmental Assessment (EA) for a land acquisition and transfer for the San Antonio Channel Improvement Project (SACIP) in compliance with the National Environmental Policy Act of 1969 (NEPA). The non-Federal sponsor for the study is the San Antonio River Authority (SARA).

The project area is in the general vicinity of southeast San Antonio, along the San Antonio River, and is located on the Southton United States Geological Survey 7.5 Minute quadrangle map, Bexar County (see attached map).. A portion of the Mission Reach Ecosystem Restoration Project, which is part of the SACIP, will require the taking of approximately 50 acres of National Park Service (NPS) land associated with the San Antonio Missions National Historic Park (SAAN). The mitigation action required for the loss of land from the SAAN is acquisition of 55.4 acres of land (by the local sponsor, SARA) located adjacent to the SAAN boundary. That land would then be transferred to the NPS for their use. The EA will evaluate the impacts, either beneficial or adverse, of the land acquisition and transfer, on the human environment.

Habitat for most federally listed Threatened or Endangered species (for Bexar County) does not exist on the site; the current and historic land use is agricultural. The only listed species with the potential to occur within the project area is the whooping crane, however, it would only (potentially) be in the project vicinity during migration. Based on the fact that the proposed action would occur on previously disturbed areas and implementation of the proposed action would result in minimal to no effect to the human environment, it is the conclusion of the project team that the alternatives under consideration will have no adverse effect on threatened and endangered species.



We are asking that you assign a technical point of contact in order to continue the coordination for the National Environmental Policy Act process. In addition, if your agency has any information that may be pertinent to the study we ask that you provide it at this time. If you have any additional questions or comments, please feel free to contact Mr. William Haferkamp at 817-886-1713 or by mail at CESWF-PER-EE, PO Box 17300, 819 Taylor St, Fort Worth, Texas 76102-0300. Thank you for your cooperation in this matter.

Sincerely,

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

Enclosure

Haferkamp/1713
GODFREY, CESWF-PER-EE
HARBERG, CESWF-PER-E
FICKEL, CESWF-PER



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

REPLY TO
ATTENTION OF:

January 22, 2009

W
PER-EMJ
RECEIVED - EC

JAN 23 2009

TEXAS HISTORICAL COMMISSION

Planning, Environmental and Regulatory Division

SUBJECT: Cultural Resources Draft Report for the National Parks Service Mitigation Lands for San Antonio River Ecosystem Restoration and Recreation Project, San Antonio, Texas.

Mr. F. Lawrence Oaks
State Historic Preservation Officer
ATTN: Mr. Mark Denton
Texas Historical Commission
P.O. Box 12276, Capitol Station
Austin, Texas 78711

Dear Mr. Oaks:

In a Programmatic Agreement signed by your office, the U.S. Army Corps of Engineers, Fort Worth District, the National Park Service (NPS) and the San Antonio River Authority in May, 2006, the Corps of Engineers agreed to provide particular parcels of land for inclusion in the San Antonio Missions National Historical Park (SAMNHP) as mitigation for impacts to existing National Park lands resulting from construction of the San Antonio River Ecosystem Restoration Project. In partial satisfaction of the Corps of Engineers responsibility under Section 106 of the National Historic Preservation Act, we have conducted a cultural resources survey of those mitigation lands prior to providing them to the NPS for inclusion in the park boundaries.

Enclosed is a copy of the draft report *Archaeological Survey of 55 Acres for Transfer to the National Park Service in Conjunction with the San Antonio River Channel Improvement Project, Bexar County, Texas* for your review and comment. The survey located six archaeological sites; four are historic and two have historic and prehistoric components. The survey identified the entire project area as a historic landscape eligible for the National Register of Historic Places (NRHP). The prehistoric components could not be evaluated for the NRHP without further investigation.

RECEIVED
23 Feb 2009

The current undertaking is to acquire and transfer this land to the NPS for inclusion in the SAMNHP. No impacts to the archaeological sites will result from this action and no further work will be conducted as the sites will be preserved in place. Further, it is our determination that this undertaking will not adversely impact the historic landscape. In accordance with 36 CFR Part 800, we ask for your concurrence with this determination.

If you have any questions, please feel free to contact Ms Nancy Parrish at 817-886-1725 or via email at Nancy.A.Parrish@swf02.usace.army.mil.

Sincerely,


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

Enclosure

CONCUR	
by	
for F. Lawrence Oaks State Historic Preservation Officer	
Date	2-18-09
Track#	200903872

DRAFT REPORT ACCEPTABLE	
Please submit 20 final report copies	
by	
for F. Lawrence Oaks State Historic Preservation Officer	
Date	2-18-09
Track#	200903872



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Carter P. Smith
Executive Director

March 04, 2009

MAR 10 2009

WJ
PER E
Cy To PER-F
Also scan cy &
elec. send to
Charissa

Mr. William Fickel, Jr.
Chief, Planning, Environmental, and Regulatory Division
Department of the Army
Fort Worth District, Corps of Engineers
P.O. Box 17300
Forth Worth, TX 76102-0300

RE: Request for Point of Contact, Environmental Assessment (EA) for land acquisition and transfer for the San Antonio Channel Improvement Project (SACIP), Bexar County

Texas Parks and Wildlife Department (TPWD) has received your letter requesting a technical point of contact for the proposed U.S. Army Corps of Engineers EA for land acquisition and transfer for the SACIP in compliance with the National Environmental Policy Act. I have been designated the technical point of contact due to my involvement in the San Antonio River project over the past years. I may be contacted by email at tom.heger@tpwd.state.tx.us or by telephone at (512) 389-4583.

TPWD would like to offer the following recommendations for information to assist in early project planning for this project. Although the proposed action would occur on previously disturbed areas, rare and endangered species and migratory birds tolerant of disturbed areas may have potential to be present within the action area. TPWD's "Rare Resources (Including Threatened and Endangered Species) Review Requests" forms may be obtained from TPWD at http://www.tpwd.state.tx.us/publications/pwdforms/media/pwd_1059_w7000_rare_resources_review_requests.pdf. The most current Texas Parks and Wildlife Annotated List of Rare Species for Bexar County may be found at http://gis.tpwd.state.tx.us/Tpw_EndangeredSpecies/DesktopDefault.aspx. This list contains state- and federally-listed species and Species of Concern for the County and gives the preferred known habitat for these species. These habitat descriptions can be used to identify species that may potentially occur on the project. Because federally-listed species' status are subject to change, please contact the U.S. Fish and Wildlife Service website to verify the most current listing of federally listed species for Bexar County.

Mr. William Fickel, Jr.
Page Two
March 04, 2009

TPWD appreciates the opportunity to recommend a point of contact to assist you in the preparation of the EA. Please contact me if I may be of further assistance.

Sincerely,



Thomas G. Heger
Natural Resource Specialist
Texas Parks & Wildlife Department