Environmental Impact Statement

Flood Control Improvements and Partial Levee Relocation USIBWC Presidio Flood Control Project

Presidio, Texas

February 2010

United States Section
International Boundary and Water Commission
El Paso, Texas

ENVIRONMENTAL IMPACT STATEMENT
FLOOD CONTROL IMPROVEMENTS AND PARTIAL LEVEE RELOCATION
USIBWC PRESIDIO FLOOD CONTROL PROJECT
PRESIDIO, TEXAS

Lead Agency

UNITED STATES SECTION
INTERNATIONAL BOUNDARY AND WATER COMMISSION
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February 2010

Cover Sheet

FLOOD CONTROL IMPROVEMENTS AND PARTIAL LEVEE RELOCATION

USIBWC PRESIDIO FLOOD CONTROL PROJECT
PRESIDIO, TEXAS

( ) Draft (X) Final

Lead Agency

United States Section, International Boundary and Water Commission (USIBWC)
El Paso, Texas

Abstract

The USIBWC anticipates the need for flood control improvements and partial levee relocation to improve flood control capabilities of the Presidio Flood Control Project (FCP). In response to September 2008 flooding damage, the USIBWC developed engineering alternatives for long-term improvement of the Presidio FCP. The USIBWC compared the following six action alternatives to the No Action Alternative (Alternative 1):

- Rehabilitate the levee system along the current alignment to repair structural damages, and to ensure the original 25-year design criteria is met along the entire levee system (Alternative 2);
- Raise the levee system along the entire Presidio FCP to provide protection from a 100-year flood event at the current alignment (Alternative 3) or by adding a partial levee realignment in the downstream section (Alternative 4); and,
- Raise the upstream section of the levee system to provide a 100-year flood protection to the City of Presidio, while retaining the 25-year flood protection of agricultural lands in downstream section. To connect the raised, upstream section of the levee to elevated terrain south of the City of Presidio, a spur levee would be constructed. Three spur levee alignments are under consideration (Alternatives 5, 6, and 7).

This EIS evaluates potential environmental consequences of alternatives under consideration for the improvement of the Presidio FCP.

The USIBWC has selected Alternative 2 as the preferred action alternative.

Other Requirements Served

This EIS is intended to serve other environmental review and consultation requirements pursuant to 40 CFR 1502.25(a).

Date of Final EIS availability to USEPA and the Public:

February 19, 2010

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EXECUTIVE SUMMARY

This document summarizes the Environmental Impact Statement (EIS) for Flood Control Improvements and partial levee relocation for the United States Section, International Boundary and Water Commission (USIBWC) Presidio Flood Control Project (FCP). The EIS incorporates comments received on the Draft EIS for improvements and partial levee relocation of the Presidio FCP. The Presidio FCP lies within the Presidio-Ojinaga Valley, in southern Presidio County, Texas. It extends approximately 13.1 river miles along the Rio Grande in the Texas-Mexico border. The length of the levee system in the United States (north levee of the Presidio FCP) is approximately 15.3 miles, and includes the downstream section of Cibolo Creek, a tributary of the Rio Grande north of the City of Presidio. Figure ES-1 shows the location of the Presidio FCP.

This Environmental Impact Statement (EIS) evaluates potential environmental effects of six proposed alternatives for improvement of the Presidio Flood Control Project (Presidio FCP). Improvements under consideration include structural rehabilitation in downstream segments of the levee system while retaining the current 25-year flood protection; raising the levee system to provide a 100-year flood protection; 100-year flood protection with partial levee relocation; and constructing a spur levee to provide 100-year flood protection to the City of Presidio.

Figure ES-1 Presidio Flood Control Project, Presidio, Texas

Project Description

The Presidio FCP lies within the Presidio-Ojinaga Valley in southern Presidio County, Texas. It is formed by the Rio Grande, from Haciendita to the confluence with Brito Creek, approximately 13 river miles downstream. The Rio Conchos, the largest tributary to the international section of the Rio Grande from Mexico, enters the Rio Grande approximately 2 miles upstream of the City of Presidio. Cibolo Creek joins the Rio Grande just north of the City of Presidio. Downstream of the Presidio FCP, Alamito Creek joins the Rio Grande from Presidio County.

In the United States, the levee system extends for approximately 15 miles thorough Presidio. The system includes parallel spur levees along the lower reach of Cibolo Creek. The levees were designed to contain a 25-year flood with 4 feet of freeboard. Downstream of the confluence of the Rio Conchos with the Rio Grande, the design flow is 42,000 cubic feet per second (cfs). In 1979, the levees downstream of the end of the river relocation were raised 4 feet following a September 1978 flood.

Figure ES-2 shows main geographic features and the current alignment of the Presidio FCP levee system. The levee mile notation throughout this document refers to the distance along the north levee, from the upstream point near Haciendita (levee mile 0). For the evaluation of alternatives, the Presidio FCP levee system was divided into three sections, as follows:

- The *upper reach* of the levee extends approximately 4.5 miles downstream, to the end of the Cibolo Creek north levee;
- The *middle reach* of the Presidio FCP begins with the south levee of Cibolo Creek, and continues to levee mile 9; and
- The *lower reach* of the levee extends from levee mile 9 to the downstream end of the system, at levee mile 15.3.

0 2,000 4,000 8,000 Feet

0 750 1,500 3,000 Meters

Mile Markers

Levee Centerline

Rio Grande

Major Roads

Figure ES-2
Current Levee Alignment
(Alternatives 1, 2, and 3)
Presidio Flood Control Project
International Boundary and Water Commission
United States Section

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Purpose of and Need for Action

During September 2008, the Presidio FCP experienced severe flooding conditions due to water releases from the Rio Conchos watershed in Mexico. The flooding caused substantial damage to the Presidio FCP, including levee breaches, overtopping, piping/sand boils, under-seepage, and severe surface and slope erosion. The flooding also compromised integrity of the levee foundation at several levee segments, primarily at locations of old resacas (river meanders). Emergency responses during the flooding event included filling over 25,000 sand bags and placing the bags on the existing levee to add support, and using Department of Defense helicopters to fill bridge openings with larger sand bags in existing railroad right-of-ways to create secondary levees. The sandbags and secondary levees prevented the City of Presidio from more extensive flooding.

In response to the September 2008 flooding damage, the USIBWC developed engineering alternatives for long-term improvement of the Presidio FCP flood containment capacity. The EIS evaluates a No Action Alternative and six Action Alternatives for levee rehabilitation and relocation that would allow USIBWC to minimize potential environmental impacts and fulfill the project goal of flood protection. These alternatives were formulated to achieve the following goals relative to the No Action Alternative (Alternative 1):

- Rehabilitate the levee system along the current alignment as needed to repair structural damages and to ensure the original 25-year design criteria is met along the entire levee system (Alternative 2).
- Raise the levee system along the entire Presidio FCP to provide protection from a 100-year flood event. Increasing levee height along the existing alignment and a partial downstream realignment are under consideration (Alternatives 3 and 4, respectively).
- Raise the upstream section of the levee system to provide a 100-year flood protection to the City of Presidio, while retaining the 25-year flood protection of agricultural lands in the downstream section. To connect the raised, upstream section of the levee to elevated terrain south of the City of Presidio, a spur levee would be constructed. Three spur levee alignments are under consideration (Alternatives 5, 6, and 7).

The no action and six action alternatives are summarized in Table ES-1.

Table ES-1 Summary of Flood Control Improvement Alternatives under Consideration

Alternative	Main Features
ALTERNATIVE 1 (No Action)	• Retains current levee alignment and footprint. • No further structural levee repairs beyond emergency repairs already completed.
Levee rehabilitation to assure 25-year flood protection along the entire Presidio FCP per original design criteria	
ALTERNATIVE 2 Rehabilitation to 25-year design criteria	• Retains current alignment, footprint, and original design specifications to provide protection from a 25-year flood along the entire Presidio FCP. • Current levee height raised by 4 feet along a1-mile segment (levee miles 13.1 to 14.1) • Structural repairs (placement of slurry trenches) along approximately 3,000 feet of levee north of Cibolo Creek • Structural repairs (levee reconstruction and/or placement of slurry trenches) along the levee section between miles 9.2 and 15.3. • Potential placement of overflow weir and one or more outlet gate(s) in the levee system lower reach.
Levee construction to achieve 100-year flood protection along the entire Presidio FCP	
ALTERNATIVE 3 100-year flood protection along current alignment	• Levee height increase along the entire Presidio FCP to provide 100-year flood protection, retaining current alignment; height increase results in a lateral expansion of the levee. • Structural repairs along approximately 3,000 feet of levee north of Cibolo Creek. • Structural repairs along the levee between levee miles 9.2 and 15.3.
ALTERNATIVE 4 100-year flood protection with downstream offset alignment	• Height increase along the upper and middle reaches of the levee system to provide 100-year flood protection, retaining current alignment, and structural repairs as needed north of Cibolo Creek. • Relocation of lower reach of the levee system approximately 500 feet to the landside from existing levee to provide protection from a 100-year flood. • The offset levee would be approximately 3.4 miles long (from levee mile 9.2 to mile 13.2). • Structural repairs of the existing levee from levee mile 13.2 to 15.3.
Levee construction to achieve 100-year flood protection limited to the upstream reach of the Presidio FCP	
ALTERNATIVE 5 Upstream 100-year flood protection with Mile 9.2 spur levee	• Height increase along the along the upper and middle reaches of the levee system to provide 100-year flood protection, retaining current alignment (from levee miles 0 to 9.2), and structural repairs as needed north of Cibolo Creek. Increased flood protection provided to the City of Presidio and adjacent agricultural lands. • The lower reach of the existing levee would be rehabilitated in place to retain the 25-year design flood protection for the downstream agricultural lands. • Potential placement of overflow weir and one or more outlet structures in the levee system lower reach. • A new spur levee, approximately 1.3 miles long, would be constructed at levee mile 9.2 to connect raised levee segment to elevated terrain south of the City of Presidio. • The spur levee would be constructed nearly perpendicular to the existing levee, running in a northeast direction to reach Ranch Road 170.
ALTERNATIVE 6 Upstream 100-year flood protection with Mile 8.5 spur levee	• Height increase along the upper and middle reaches of the levee system to provide 100-year flood protection, retaining current alignment (from levee miles 0 to 8.5), and structural repairs as needed north of Cibolo Creek. Increased flood protection provided to the City of Presidio and adjacent agricultural lands. • The lower reach of the existing levee would be rehabilitated in place to retain the 25-year design flood protection for the downstream agricultural lands. • Potential placement of overflow weir and one or more outlet structures in the levee system lower reach. • A new spur levee, approximately 1.3 miles long, would be constructed to connect the raised levee segment to elevated terrain south of the City of Presidio. • The spur levee would extend north from the levee, around a resaca, continuing in a northeast direction to reach Ranch Road 170.

Alternative	Main Features
ALTERNATIVE 7 *Upstream 100-year flood protection with railroad spur levee*	• Height increase along the levee system upper reach, retaining current alignment (from levee miles 0 to 7.3), and structural repairs as needed north of Cibolo Creek, to provide 100-year flood protection to the City of Presidio. • The middle and lower reach of the existing levee would be rehabilitated in place to retain the 25-year design flood protection to all agricultural lands along the Presidio FCP. • Potential placement of overflow weir and one or more outlet structures in the levee system lower reach. • A new spur levee, approximately 2.9 miles long, would be constructed to connect the raised levee segment to elevated terrain south of the City of Presidio. • The spur levee would extend west adjacent to a curved railroad embankment, and then turn southeast to reach Ranch Road 170.

Potential Effects of the Alternatives

Six resource areas were evaluated to assess the potential effects of the action alternatives relative to the no-action alternative. For each resource area, evaluation criteria were identified and applied to the various alternatives under consideration.

The resource areas evaluated include: *Biological resources* (vegetation, terrestrial wildlife, aquatic wildlife, threatened, endangered, and special status species); *Cultural resources* (archaeological resources, architectural resources, and traditional cultural properties); *Water resources* (flood control and floodplain management, surface water quality, and groundwater resources); *Land use* (developed lands and agricultural lands); *Socioeconomic resources and transportation* (population, employment and income, agricultural economics, environmental justice, and transportation; and, *Environmental health* (air, noise, public health and environmental hazards).

Table ES-2 presents a summary of potential environmental consequences of each of the Action Alternatives for the Presidio FCP, relative to Alternative 1 (No Action).

Preferred Alternative

Taking into consideration environmental concerns about the proposed new levee locations, comments received from public hearings, meetings with stakeholders, engineering considerations, and preliminary cost assessments, the USIBWC has selected Alternative 2 for implementation. This selection is consistent with the core project mission of flood control, and does not negatively affect agricultural areas in the area, and will avoid or minimize impacts to environmental and cultural resources in the area. Alternative 2 is also the environmentally preferred alternative.

Table ES-2 Summary of Engineering Features and Potential Environmental Consequences of the Presidio FCP Improvement Alternatives

	ALTERNATIVE 2 **In-Place Rehabilitation of Existing Levee**	**ALTERNATIVE 3** **Levee Raised in Place Over Entire Length of the Presidio FCP**	**ALTERNATIVE 4** **Entire Levee System Raised with Downstream Offset Alignment**	**ALTERNATIVE 5** **Levee Raised Upstream Adding Spur Levee at Mile 9.2**	**ALTERNATIVE 6** **Levee Raised Upstream Adding Spur Levee at Mile 8.5**	**ALTERNATIVE 7** **Levee Raised Upstream Adding Spur Levee Along Railroad Track**
ENGINEERING FEATURES						
Objective	Rehabilitation to Original 25-year Flood Protection Design	100-Year Flood Protection by Raising Levee Along the Entire Presidio FCP for Protection of the City of Presidio and Downstream Agricultural Lands		100-Year Protection in Upper and Middle Reaches by Raising Levee in Combination with New Spur Levee Reaching the City of Presidio; 25-Year Flood Protection Retained in Lower Reach in combination with conservation/flood easements		
Elements	• Levee alignment retained along entire length of the Presidio FCP • No modifications to the upper and middle reaches; 1 mile in the lower reach of current levee raised by 1 to 4 feet, with a 1.2- acre footprint expansion • Structural repairs in 3,000 feet of levee north of Cibolo Creek. • Structural repairs in lower reach from levee miles 9 to 15.3 • Potential addition of downstream overflow weir and one or more outfall gate(s) • Levee material volume of approximately 7,000 cubic yards, to be obtained entirely from the USIBWC borrow site currently in operation	• Levee alignment retained along entire length of the Presidio FCP • The upper and middle reaches of levee system raised up to 8 feet • The lower reach of the current levee system raised by up to 10.5 feet • Up to 48 acres footprint expansion resulting from levee height increase • 1 mile in the lower reach of current levee raised by 1 to 4 feet, as in Alternative 2 • Levee material volume of 0.36 million cubic yards, requiring development of new commercial borrow sites	• Levee alignment retained in upper and middle reaches of the Presidio FCP • 11.2 miles along current alignment raised by up to 8 feet, resulting in a 20-acre footprint expansion • 3.6 miles of downstream re-alignment ranging in height from 18 to 22 feet • Up to 60 acres of additional footprint along new offset alignment • Potential removal of existing levee along the 3.6-mile realigned segment • Levee material volume of 1.3 million cubic yards, requiring development of new commercial borrow sites	• Levee alignment retained along entire length of the Presidio FCP • 11.3 miles of current levee raised by up to 6 ft along current alignment, resulting in a 22-acre footprint expansion • 1.3 miles of new spur levee, ranging in height from 18 to 22 feet, and 21 acres of additional levee footprint • 1 mile in the lower reach of current levee raised by 1 to 4 feet, structural repairs from levee mile 9 to 15.3, and potential addition of downstream overflow weir and one or more outfall gate(s), as in Alternative 2 • Levee material volume of 0.55 million cubic yards, requiring development of new commercial borrow sites • Conservation/flood easements	• Levee alignment retained along entire length of the Presidio FCP • 11.2 miles of current levee raised by up to 6 ft along current alignment, resulting in a 22-acre footprint expansion • 1.3 miles of new spur levee, ranging in height from 14 to 18 feet, and 19 acres of additional levee footprint • 1 mile in lower reach of current levee raised by 1 to 4 feet, structural repairs from levee mile 9 to 15.3, and potential addition of downstream overflow weir and one or more outfall gate(s), as in Alternative 2 • Levee material volume of 0.47 million cubic yards, requiring development of new commercial borrow sites • Conservation/flood easements	• Levee alignment retained along entire length of the Presidio FCP • 10.6 miles of current levee raised by up to 6 ft along current alignment, resulting in a 19-acre footprint expansion • 2.9 miles of new spur levee, ranging in height from 10 to 22 feet, and 44 additional acres of levee footprint • 1 mile in lower reach of current levee raised by 1 to 4 feet, structural repairs from levee mile 9 to 15.3. and potential addition of downstream overflow weir and one or more outfall gate(s), as in Alternative 2 • Levee material volume of 0.88 million cubic yards, requiring development of new commercial borrow sites • Conservation/flood easements

	ALTERNATIVE 2 In-Place Rehabilitation of Existing Levee	ALTERNATIVE 3 Levee Raised in Place Over Entire Length of the Presidio FCP	ALTERNATIVE 4 Entire Levee System Raised with Downstream Offset Alignment	ALTERNATIVE 5 Levee Raised Upstream Adding Spur Levee at Mile 9.2	ALTERNATIVE 6 Levee Raised Upstream Adding Spur Levee at Mile 8.5	ALTERNATIVE 7 Levee Raised Upstream Adding Spur Levee Along Railroad Track
SUMMARY OF IMPACTS RELATIVE TO ALTERNATIVE 1 (NO ACTION)						
BIOLOGICAL RESOURCES						
Vegetation	• Potential impacts minor and of short duration • Repairs to the existing levee, installation of overflow weir and one or more outfall gate(s) would not increase the existing levee footprint	• Potential impacts minor and of short duration • In upper and middle reaches removal by footprint expansion of 17.4 acres of grassland, 9.9 acres of agricultural lands and 8.6 acres of desert scrub/woodlands. Re-seeding used to rapidly recolonize grassland areas • In the lower reach, removal of 17.4 acres of grasslands, 13.3 acres of agricultural lands, and 10.1 acres of desert scrub/woodlands. • In middle reach, impacts to 3.7 acres of desert scrub/woodland to be avoided by shifting footprint expansion alignment	• Potential impacts minor and of short duration in upper and middle reaches • In the lower reach, removal of 56.2 acres of agricultural lands and 1.5 acres of desert scrub/woodland along new 3.6 mile long offset levee • Impacts to desert scrub/woodland in middle reach to be avoided by shifting footprint expansion alignment	• No impacts along the lower reach of the levee system • Minimum impacts in upper and middle reaches, as in Alternative 3 • New 1.3 mile long spur levee to remove 23.1 acres of agricultural lands • No impacts to desert scrub/woodland in middle reach, as in Alternative 4	• No impacts along the lower reach of the levee system • Minimum impacts in upper and middle reaches, as in Alternative 3 • New 1.3 mile long spur levee to remove 7.2 acres of agricultural lands and 16.7 acres of desert scrub/woodlands • New levee crosses historic river channel and removes 1.1 acres of wetland/riparian areas	• No impacts along the lower reach of the levee system • Minimum impacts in upper and middle reaches, as in Alternative 3 • New 2.9 mile long levee to remove 32.4 acres of agricultural areas and 14.7 acres of desert scrub/woodlands, • New levee crosses historic river channel and removes 1.4 acres of wetland/riparian vegetation
Terrestrial Wildlife	• Minimum impacts anticipated, and only during construction	• Minimum impacts anticipated. Removed grassland and agricultural land are low-quality habitat	• Minimum impacts as only low-quality habitat would be removed	• Minimum impacts as only low-quality habitat would be removed	• Minimum impacts as only low-quality habitat would be removed	• Minimum impacts as only low-quality habitat would be removed
Aquatic Wildlife	• Minimum impacts anticipated. • Best management practices (BMP) used to control release of construction-generated sediment	• Moderate and temporary impacts anticipated. • BMPs used to control release of construction-generated sediment. • Wetlands disturbance in middle reach to be minimized with adjustment of levee expansion alignment, as needed	• Potential impacts to be avoided by BMP use, levee alignment adjustment as needed, as in Alternative 3 • Wetlands avoided in lower reach during design of new levee	• Potential impacts to be avoided by BMPs use and adjusted levee alignment, as in Alternative 3 • Wetlands avoided in lower reach during design of new levee	• Potential impacts to be avoided by BMPs use and adjusted levee alignment, as in Alternative 3 • Spur levee would remove 1.1 acres of wetlands in historic river channel	• Potential impacts to be avoided by BMPs use and adjusted levee alignment, as in Alternative 3 • Spur levee would remove 1.4 acres of wetlands in historic river channel
Threatened, Endangered, and Special Status Species (T&E Species)	• No significant impacts anticipated. • Sediment control during construction minimizes impacts to Rio Grande silvery minnow and 3 other T&E fish species	• No significant impacts anticipated. • Sediment control during construction minimizes impacts to Rio Grande silvery minnow and 3 other T&E fish species • Southwestern willow flycatcher and Western yellow-billed cuckoo suitable habitat is not present in the project area • State-listed reptile and additional bird species potentially present near the project are mobile and would avoid construction areas	• No significant impacts anticipated due to BMPs use, lack of habitat, and mobile-species avoidance of construction areas	• No significant impacts, as in Alternative 2	• No significant impacts, as in Alternative 3	• No significant impacts, as in Alternative 3

	ALTERNATIVE 2 In-Place Rehabilitation of Existing Levee	ALTERNATIVE 3 Levee Raised in Place Over Entire Length of the Presidio FCP	ALTERNATIVE 4 Entire Levee System Raised with Downstream Offset Alignment	ALTERNATIVE 5 Levee Raised Upstream Adding Spur Levee at Mile 9.2	ALTERNATIVE 6 Levee Raised Upstream Adding Spur Levee at Mile 8.5	ALTERNATIVE 7 Levee Raised Upstream Adding Spur Levee Along Railroad Track
CULTURAL RESOURCES						
Archaeological Resources	• Alternative may adversely affect archaeological resources; construction would incorporate best management practices and mitigation measures • One NRHP-eligible archaeological site (41PS86) occurs in the upper reach of the existing levee alignment ROW • Use of construction equipment may affect Site 41PS86 along the levee alignment and in staging areas	• Alternative may adversely affect archaeological resources; construction would incorporate best management practices and mitigation measures • One NRHP-eligible archaeological site (41PS86) occurs in the upper reach of the existing levee alignment ROW • Use of construction equipment may affect Site 41PS86 along the levee alignment and staging areas • Excavation in previously unused/ undisturbed borrow areas may adversely affect archaeological resources	• Entire current alignment, potential adverse effects for footprint expansion as in Alternative 3 • Removal of existing levee in the lower reach may expose previously unidentified archaeological resources	• In-place raising along upper and middle reaches may have adverse effects, as in Alternative 3	• In-place raising along upper and middle reaches may have adverse effects, as in Alternative 3 • One potentially NRHP-eligible archaeological site (41PS1101) occurs along new levee alignment's ROW • Use of construction equipment may affect Site 41PS1101 along the 1.4 mile long spur levee alignment and in staging areas • Potential burial of Site 41PS1101 by fill material placement for creation of new levee • Capping may be beneficial by preserving archaeological resources in place if conducted in accordance with best management practices and mitigation measures to avoid adverse effects from soil compaction	• In-place raising along upper and middle reaches may have adverse effects, as in Alternative 3 • One potentially NRHP-eligible archaeological site (41PS1101) occurs along new levee alignment's ROW • Use of construction equipment may affect Site 41PS1101 along the 2.9 mile long spur levee alignment and in staging areas • Potential burial of Site 41PS1101 by fill material placement for creation of new levee
Architectural Resources	• No NRHP-eligible architectural resources will be affected	• No NRHP-eligible architectural resources will be affected	• No NRHP-eligible architectural resources will be affected	• No NRHP-eligible architectural resources will be affected	• No NRHP-eligible architectural resources will be affected	• No NRHP-eligible architectural resources will be affected
Native American Resources	• No Native American resources will be affected	• No Native American resources will be affected	• No Native American resources will be affected	• No Native American resources will be affected	• No Native American resources will be affected	• No Native American resources will be affected
WATER RESOURCES						
Flood control, surface water quality and groundwater	• Repairs to levee and improvements to meet 25-year flood design will protect adjacent properties from moderate flood event • Water Quality in area not altered • No impacts to groundwater resources	• Increased flood protection for the City of Presidio and all downstream agricultural areas (from 25-year storm to 100-year storm event) • Minimum impacts on surface water quality by BMPs use to control release of construction-generated sediment • Water quality in area not altered • No impacts to groundwater resources	• Increased flood protection along entire Presidio FCP, as in Alternative 3 • No impacts to water quality or groundwater resources	• Increased flood protection limited to the City of Presidio and agricultural lands along the middle reach of levee • Downstream agricultural areas will not have increased flood protection • No impacts to water quality or groundwater resources	• Increased flood protection limited to the City of Presidio and agricultural lands along the middle reach of levee • Downstream agricultural areas will not have increased flood protection • No impacts to water quality or groundwater resources	• Increased flood protection limited to City of Presidio • Adjacent and downstream agricultural areas will not have increased flood protection • No impacts to water quality or groundwater resources

	ALTERNATIVE 2 In-Place Rehabilitation of Existing Levee	ALTERNATIVE 3 Levee Raised in Place Over Entire Length of the Presidio FCP	ALTERNATIVE 4 Entire Levee System Raised with Downstream Offset Alignment	ALTERNATIVE 5 Levee Raised Upstream Adding Spur Levee at Mile 9.2	ALTERNATIVE 6 Levee Raised Upstream Adding Spur Levee at Mile 8.5	ALTERNATIVE 7 Levee Raised Upstream Adding Spur Levee Along Railroad Track
LAND USE						
Residential, agricultural, and other land uses	• No land uses will be altered by action • No impacts on agricultural land use; development of new levee materials borrow sites is not required	• 74 acres of agricultural land, and 6 acres of developed area would be affected by levee footprint expansion • Encroached areas would represent 3% of 3,262 acres within land use corridor • Likely need to use over 10 acres of agricultural land for development of new levee materials borrow sites	• 3% encroachment of 3,028 acres within land use corridor (89 acres of agricultural and 11 acres of developed areas) • Likely need to use over 40 acres of agricultural land for development of new levee materials borrow sites	• 3% encroachment of 2,376 acres within the land use corridor (49 acres of agricultural and 11 acres of developed areas) • Likely need to use over 15 acres of agricultural land for development of new levee materials borrow sites	• 2.5% encroachment of2,445 acres land use corridor (52 acres of agricultural and 10 acres of developed areas) • Likely need to use over 15 acres of agricultural land for development of new levee materials borrow sites	• 3% encroachment of 89 acres within the land use corridor (72 acres of agricultural and 17 acres of developed areas) • Likely need to use over 25 acres of agricultural land for development of new levee materials borrow sites
SOCIOECONOMIC RESOURCES						
Regional economics, environmental justice, and transportation	• Moderate but temporary, limited to construction period, beneficial impact on minority and low income populations • Moderate increase in road utilization during construction period • Irrigation features would not be disrupted and irrigable land would not be lost.	• 57% and 14% estimated increases in sales volume and income relative to County annual values, respectively • Moderate but temporary, limited to construction period, beneficial impact on minority and low income populations • Moderate increase in road utilization during construction period • Irrigation features would not be disrupted and irrigable land would not be lost.	• Relative to County, temporary sales and income increases (54% percent and 14%, respectively) • Moderate impacts on minority populations and road utilization. • Irrigation features in up to 753 acres of land might be disrupted, and approximately 19% of irrigable land of the of the total agricultural lands (3,924 acres) may be lost from production	• Relative to County, temporary sales and income increases (48% percent and 12%, respectively) • Moderate impacts on minority populations and road utilization • Irrigation features in up to 967 acres of land might be disrupted, and approximately 25% of irrigable land of the total agricultural lands (3,924 acres) may be lost from production •	• Relative to County, temporary sales and income increases (46.5% percent and 11.8%, respectively) • Moderate impacts on minority populations and road utilization • Irrigation features in up to 584 acres of land might be disrupted, and approximately 15% of irrigable land of the total agricultural lands (3,924 acres) may be lost from production •	• Relative to County, temporary sales and income increases (51.8% percent and 13.2%, respectively) • Moderate impacts on minority populations and road utilization • Irrigation features in up to 584 acres of land might be disrupted, and approximately 15% of irrigable land of the total agricultural lands (3,924 acres) may be lost from production •
ENVIRONMENTAL HEALTH						
Air quality, noise, and public health and environmental hazards	• No impacts to regional air quality, noise levels, or hazardous materials or waste storage sites	• Moderate impacts on air quality limited to the construction period • Air emissions below 10% of annual county inventory for carbon monoxide, volatile organic compounds, and particulate matter. • Sulfur oxide and nitrogen dioxide emissions moderately above that threshold (18.7% and 10.3%, respectively) • Limited noise impacts limited to the construction period • No hazardous materials or waste storage sites reported within the proposed project area or its vicinity	• As in Alternative 3, moderate temporary impacts • Sulfur oxides and nitrogen dioxides air emissions moderately above 10% of the Presidio County inventory	• As in Alternative 3, moderate temporary impacts • Sulfur oxide air emissions moderately above 10% of the Presidio County inventory	• As in Alternative 3, moderate temporary impacts • Sulfur oxide air emissions moderately above 10% of the Presidio County inventory	• As in Alternative 3, moderate temporary impacts • Sulfur oxide air emissions moderately above 10% of the Presidio County inventory

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ACRONYMS AND ABBREVIATIONS

ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effect
AQCR	Air Quality Control Region
AST	above-ground storage tanks
BMP	Best Management Practices
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFR	Code of Federal Regulations
cfs	cubic feet per second
CPB	Customs and Border Protection
CWA	Clean Water Act
EIS	Environmental Impact Statement
dBA	average-weighted decibel level
DNL	Day-night sound level
EO	Executive Order
EPCM	El Paso Centennial Museum
ERNS	Emergency Response Notification System of Spills
ESA	Endangered Species Act
FCP	Flood Control Project
FEMA	Federal Emergency Management Agency
GENS	RCRS-registered small quantity generator of hazardous waste
GPS	Global Positioning System
HAER	Historic American Engineering Record
IBWC	International Boundary and Water Commission
IH	Interstate Highway
INS	Immigration and Naturalization Service
IOP	Innocent Owner/Operator Program
LUST	leaking underground storage tank
MBTA	Migratory Bird Treaty Act
mg/L	milligram per liter
mg N/L	milligrams nitrogen per liter
MxIBWC	Mexican Section, International Boundary and Water Commission
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NFRAP	No Further Remedial Action Plan
NHPA	National Historic Preservation Act
NLCD	National Land-Cover Database
NPL	National Priority List
NRCS	National Resources Conservation Service
NRHP	National Register of Historic Places
O&M	operations and maintenance
P.L.	public law
RCRA	Resource Conservation and Recovery Act

RMA	Regional Mobility Authority
ROW	Right-of-way
SDWA	Safe Drinking Water Act
SHPO	State Historic Preservation Officer
SWL	solid waste landfills
T&E	threatened and endangered
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TGPC	Texas Groundwater Protection Committee
THC	Texas Historical Commission
TMDL	Total Maximum Daily Loads
TPWD	Texas Parks and Wildlife Department
TSD	Transport, Storage, and Disposal
TxDOT	Texas Department of Transportation
TXPF	Texas - Pacifico Transportation, Ltd.
TWC	Texas Water Code
TWDB	Texas Water Development Board
USACE	U.S. Army Corps of Engineers
USBP	U.S. Border Patrol
USC	U.S. Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USIBWC	United States Section, International Boundary and Water Commission
UST	underground storage tanks
UTEP	University of Texas at El Paso
VCP	Voluntary Cleanup Program

SECTION 1
BACKGROUND, PURPOSE OF, AND NEED FOR ACTION

This Environmental Impact Statement (EIS) evaluates potential environmental effects of proposed alternatives for improvement of the Presidio Flood Control Project (Presidio FCP) operated by the United States Section, International Boundary and Water Commission (USIBWC) along the Rio Grande in Presidio, Texas. Improvements under consideration include structural rehabilitation in downstream segments of the levee system while retaining the current 25-year flood protection; raising the levee system to provide a 100-year flood protection; partial levee relocation; and constructing a spur levee to provide 100-year flood protection to the City of Presidio. This section of the EIS gives a summary description of the project; describes the purpose of and need for the action, and scope of the environmental evaluation; identifies regulatory compliance requirements; and presents the EIS organization.

1.1 BACKGROUND

The Presidio FCP lies within the Presidio-Ojinaga Valley, in southern Presidio County, Texas. It extends approximately 13.1 river miles along the Rio Grande in the Texas-Mexico border. The length of the levee system in the United States (north levee of the Presidio FCP) is approximately 15.3 miles, and includes the downstream section of Cibolo Creek, a tributary of the Rio Grande north of the City of Presidio. Figure 1-1 shows the location of the Presidio FCP.

Figure 1-1 Presidio Flood Control Project, Presidio, Texas

The Presidio FCP was constructed in 1975 to protect productive agricultural lands in the Presidio-Ojinaga valley from frequent flooding, and to establish the international boundary as per the Boundary Treaty of 1970. For many years, insufficient levees resulted in repeated flood damage in the area during the early and mid-1900s. The situation was addressed by ratification of the Boundary Treaty of 1970, which provided for excavation of channels to relocate the Rio Grande in the Presidio Valley. Subsequent to the Boundary Treaty of 1970, an IBWC report on flood control (dated June 1971) paved the way for an international agreement of collaborative flood control efforts in the Presidio-Ojinaga Valley. Based primarily on this report, Title II of Public Law 92-549 (signed October 25, 1972) authorized construction, operation, and maintenance efforts with Mexico for providing flood control to the Presidio Valley. The timing of the signing of the international flood control agreement allowed for 15.3 miles of levee to be built concurrently with the channel relocation (as provided by the Boundary Treaty of 1970).

The Presidio FCP provided flood protection by augmenting the capacity of the river channel through construction of cleared berms and levees on both sides of the river. Rectification also took place at the time of project construction, reducing the channel length by 6.3 miles. In the United States, the levee system extends for 15.3 miles thorough Presidio, Texas. The system includes parallel spur levees along Cibolo Creek and its confluence with the Rio Grande. The levees were designed to contain a 25-year flood with 4 feet of freeboard. Downstream of the confluence of the Rio Conchos with the Rio Grande, the design flow is 42,000 cubic feet per second (cfs). In 1979, levees downstream of the end of the river relocation were raised 4 feet following a September 1978 flood. After Hurricane Katrina struck New Orleans in 2005, the Federal Emergency Management Agency (FEMA) instituted a policy that levees provide protection from a 100-year flood event. If the levees meet this requirement, as certified by independent surveyors or federal agencies, homeowners will not be required to purchase additional flood insurance.

1.2 PURPOSE OF AND NEED FOR ACTION

During September 2008, the Presidio FCP experienced severe flooding conditions due to water releases from the Rio Conchos watershed in Mexico. The flooding caused substantial damage to the Presidio FCP, including levee breaches, overtopping, piping/sand boils, under-seepage, and severe surface and slope erosion. The flooding also compromised integrity of the levee foundation at several levee segments, primarily at locations of old resacas (river meanders). Emergency responses during the flooding event included filling over 25,000 sand bags and placing the bags on the existing levee to add support, and using Department of Defense helicopters to fill bridge openings with larger sand bags in existing railroad right-of-ways to create secondary levees. The sandbags and secondary levees prevented the City of Presidio from more extensive flooding.

Emergency rehabilitation was required at two locations north of Cibolo Creek due to the substantial damage to Presidio FCP levees following the September 2008 flooding. Emergency structural levee repairs were conducted in two reaches of approximately 1,000 feet and 2,000 feet, located at levee miles 3.8 and 4.4, respectively. The existing levee was repaired, to the extent possible, to protect the City of Presidio from subsequent damage during the 2009 flood season. Repairs consisted of embankment material placement along the levee slopes where erosion occurred to re-establish pre-flood levee conditions and minimize the potential for under seepage. Emergency rehabilitation was completed before June 1, the traditional start of

the flood season. Potential environmental effects of the emergency repairs were evaluated by the USIBWC in the April 2009 document, *Final Environmental Assessment: Emergency Levee Repairs to the Presidio Flood Control Project, Station 7+000* (USIBWC 2009a).

In response to the September 2008 flooding damage, the USIBWC developed engineering alternatives for long-term improvement of the Presidio FCP flood containment capacity. These alternatives were formulated to achieve the following goals relative to the No Action Alternative (Alternative 1):

- Rehabilitate the levee system along the current alignment as needed to repair structural damages and to ensure the original 25-year design criteria is met along the entire levee system (Alternative 2).
- Raise the levee system along the entire Presidio FCP to provide protection from a 100-year flood event. Increasing levee height along the existing alignment and a partial downstream realignment are under consideration (Alternatives 3 and 4, respectively).
- Raise the upstream section of the levee system to provide a 100-year flood protection to the City of Presidio, while retaining the 25-year flood protection of agricultural lands in the downstream section. To connect the raised, upstream section of the levee to elevated terrain south of the City of Presidio, a spur levee would be constructed. Three spur levee alignments are under consideration (Alternatives 5, 6, and 7).

1.3 SCOPE OF ENVIRONMENTAL REVIEW

This EIS was prepared by the USIBWC as the lead agency to evaluate potential environmental effects of a range of proposed alternatives for levee height increase and partial relocation along the Presidio FCP. Federal agencies are required to take into consideration environmental consequences of proposed alternative actions in the decision-making process under the National Environmental Policy Act (NEPA) of 1969, as amended. The President's Council on Environmental Quality issued regulations to implement NEPA that include provisions for both the content and procedural aspects of the required environmental analysis. In 1978, the Council on Environmental Quality issued regulations implementing the process (40 Code of Federal Regulations [CFR] 1500-1508).

The USIBWC regulations for implementing NEPA are specified in Operational Procedures for Implementing Section 102 of the National Environmental Policy Act of 1969, Other Laws Pertaining to Specific Aspects of the Environment and Applicable Executive Orders (46 Federal Register 44083, September 2, 1981). These federal regulations establish both the administrative process and substantive scope of the environmental impact evaluation designed to ensure that deciding authorities have a proper understanding of the potential environmental consequences of a contemplated course of action.

The EIS evaluates a No Action Alternative and six Action Alternatives for levee rehabilitation and relocation that would allow USIBWC to minimize potential environmental impacts and fulfill the project goal of flood protection. In compliance with NEPA, the USIBWC integrated the environmental evaluation process with other planning at the earliest possible time to ensure that planning and decisions reflect environmental values, to avoid delays later in the process, and to avert potential conflicts.

The environmental documentation and analyses provided in this EIS are based on site-specific and project-specific alternatives. Potential impacts are evaluated for the following environmental resources: biological resources, cultural resources, water resources, land use, socioeconomic resources and transportation, environmental health issues (air quality, noise, public health, and environmental hazards), and cumulative impacts.

No changes in levee, floodway, and river channel maintenance are anticipated because of improvement alternatives under consideration for the Presidio FCP. Current maintenance practices to be retained, regardless of which alternative is adopted, include mowing vegetation from the levee slopes, selectively removing woody vegetation, and dredging the river and mouths of Cibolo and Alamito Creeks. The impacts evaluation of individual alternatives in Section 4 addresses levee rehabilitation, expansion, or levee relocation, but not maintenance practices. These maintenance practices have been previously evaluated in the 2008 *Final Programmatic Environmental Impact Statement, Improvements to the USIBWC Rio Grande Flood Control Projects along the Texas-Mexico Border* (USIBWC 2008).

1.4 USIBWC AUTHORITY

The IBWC, which before 1944 was known as the International Boundary Commission, was created by the Convention of 1889, and consists of a United States Section (the USIBWC) and a Mexican Section (MxIBWC). The IBWC was established to apply the rights and obligations the Governments of the United States and Mexico assumed under the numerous boundary and water treaties and related agreements. Application of the rights and obligations are accomplished in a way that benefits the social and economic welfare of the people on both sides of the boundary and improves relations between the two countries. The mission of the USIBWC has a number of components, including the following:

- Regulation and conservation of waters of the Rio Grande for use by the United States and Mexico through joint construction, operation, and maintenance of international storage dams and reservoirs and plants for generating hydroelectric energy at the dams, and regulation of the Colorado River waters allocated to Mexico;
- Distribution of waters of the Rio Grande and the Colorado River between the two countries;
- Protection of lands along the Rio Grande from floods through levee and floodway projects and solution of border sanitation and other border water quality problems;
- Preservation of the Rio Grande and Colorado River as the international boundary; and,
- Demarcation of the land boundary.

1.5 COMPLIANCE WITH APPLICABLE LAWS AND REGULATIONS

This EIS is subject to and consistent with applicable federal, state, and tribal laws, regulation, policies, and interstate and international compacts and treaties. Applicable regulations are summarized below.

1.5.1 Federal Environmental and Cultural Resources Laws

National Environmental Policy Act

This document is prepared in accordance with NEPA 1969, as amended (Public Law [P.L.] 91-910, 42 United States Code [USC] 4321-4347). Written responses to comments are presented in Appendix B. A Notice of Availability will be published in the Federal Register announcing the availability of the Final EIS. A Record of Decision will be issued following a 30-day review period of the Final EIS.

Endangered Species Act

Passed in 1973 and reauthorized in 1988, the Endangered Species Act (ESA) regulates a wide range of activities affecting plants and animals designated as endangered or threatened. By definition, an endangered species is an animal or plant listed by regulation as being in danger of extinction. A threatened species is any animal or plant likely to become endangered within the near future. A species must be listed in the Federal Register as endangered or threatened for the provisions of the ESA to apply.

The ESA prohibits the following activities involving endangered species:

- Importing into or exporting from the United States.
- Taking (includes harassing, harming, pursuing, hunting, shooting, wounding, trapping, killing, capturing, or collecting) within the United States and its territorial seas.
- Taking on the high seas.
- Possessing, selling, delivering, carrying, transporting, or shipping any such species unlawfully taken within the United States or on the high seas.
- Delivering, receiving, carrying, transporting, or shipping in interstate or foreign commerce in the course of a commercial activity.
- Selling or offering for sale in interstate or foreign commerce.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 implemented the 1916 convention between the United States and Great Britain for the protection of birds migrating between the United States and Canada. Similar conventions between the United States and Mexico (1936), Japan (1972) and the former U.S.S.R (1976) further expanded the scope of international protection of migratory birds. Each new treaty has been incorporated into the MBTA as an amendment, and the provisions of the new treaty are implemented domestically. These four treaties and their enabling legislation, the MBTA, established federal responsibilities for the protection of nearly all species of migratory birds, their eggs, and nests. The MBTA was amended in 2004 to exclude nonnative migratory bird species from the application of that Act.

Cultural Resources Federal Regulations

Archaeological, architectural, and Native American resources are protected by a variety of laws and their implementing regulations: the Archeological and Historic Preservation Act of 1974; the Archaeological Resources Protection Act of 1979; the American Indian Religious Freedom Act of 1978; the Native American Graves Protection and Repatriation Act of 1990; and the National Historic Preservation Act (NHPA) of 1966, as amended in 2006. The Advisory Council on Historic Preservation (ACHP) further guides treatment of archaeological and architectural resources through the implementing regulations for the NHPA, 36 CFR 800, Protection of Historic Properties. Section 106 of the NHPA, as amended (16 USC 470) requires federal agencies to take into account the effects of their undertakings, including licensing and approvals, on historic properties and to afford the ACHP and other interested parties a reasonable opportunity to comment. As defined broadly by the regulations implementing Section 106 (36 CFR 800), a historic property is defined as "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP) maintained by the Secretary of the Interior."

Resources that qualify for inclusion in the NRHP must meet at least one of the following four criteria:

Criterion A: be associated with events that have made a significant contribution to the broad patterns of our history;

Criterion B: be associated with the lives of persons significant in our past;

Criterion C: embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or

Criterion D: have yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

Properties that qualify for the NRHP must also possess integrity, defined by the following seven aspects: location, design, setting, materials, workmanship, feeling, and association.

Clean Water Act

Federal laws regulating water quality include the Clean Water Act (CWA) (33 USC 1251 *et seq.*) and the Safe Drinking Water Act (SDWA) (42 USC 300f *et seq.*). The CWA was enacted by Congress to restore and maintain the chemical, physical, and biological integrity of waters of the United States. The primary provisions are designed to restore the chemical, physical and biological integrity of the nation's waters and to make the waters both "fishable and swimmable" by eliminating pollutant discharges.

Runoff is addressed in Section 319 of the CWA, which establishes a national program to control nonpoint sources of pollution. Funding is available under Section 319(h) of this section for protection or restoration of wetland and riparian areas to reduce non-point source pollution.

Section 401 of the Clean Water Act gives a State the option of reviewing, approving, conditioning, or denying all federal permits or licenses that might result in a discharge to State

waters, including wetlands. In Texas, the Texas Commission on Environmental Quality (TCEQ) provides review and certification under Section 401 of the CWA. For impaired water bodies, the CWA directs each state to develop Total Maximum Daily Loads (TMDL), the amounts of pollutants that can be assimilated by a body of water without exceeding water quality standards. Based on the developed TMDLs, TCEQ or the U.S. Environmental Protection Agency (USEPA) can limit any discharge of pollutants to a level sufficient to ensure compliance with state water-quality standards.

Section 404 (Dredge and Fill) of the CWA regulates the discharge of dredge and fill material into waters of the United States, including some wetlands deemed jurisdictional under the CWA. Activities regulated under this program include water resource projects (such as dams, levees, etc.), infrastructure development, fills for development, and conversion of wetlands to uplands for farming and forestry. The program is administered by the U.S. Army Corps of Engineers (USACE), 33 USC 330 and 403, and 33 USC subpart U, and it administers the day-to-day program, including individual permit decisions and jurisdictional determinations. In addition, resource agencies such as USFWS and the Texas Parks and Wildlife Department (TPWD) act in advisory capacities.

Natural Resources Conservation Service Prime Farmland

The Natural Resources Conservation Service (NRCS), formerly the Soil Conservation Service, was established in 1935 to provide leadership in a partnership effort to help America's private landowners and managers conserve their soil, water, and other natural resources. The NRCS developed a web soil survey that provides mapped soil data and natural resources information for specific map units and areas. In addition to other soil properties, the web soil survey identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland.

Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and that is available for these uses. It has the combination of soil properties, growing season, and moisture supply needed to produce sustained high yields of crops in an economic manner if it is treated and managed according to acceptable farming methods. In general, prime farmland has an adequate and dependable water supply from precipitation or irrigation, a favorable temperature and growing season, an acceptable level of acidity or alkalinity, an acceptable content of salt or sodium, and few or no rocks. Its soil is permeable to water and air. Prime farmland is not excessively eroded or saturated with water for long periods, and it either does not flood frequently during the growing season or is protected from flooding, and is not in areas of water or urban or built-up land.

Executive Order to Address Environmental Justice

Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations*, encourages federal facilities to achieve “environmental justice” by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations. Accompanying EO 12898 was a Presidential transmittal memorandum that referenced existing federal statutes and regulations to be used in conjunction with EO 12898. One of the items in that memorandum was the use of the policies and procedures of NEPA, specifically that, “Each Federal agency shall analyze the environmental

effects, including human health, economic, and social effects, of Federal actions, including effects on minority communities and low-income communities, when such analysis is required by the NEPA 42 USC Section 4321, *et seq*."

Clean Air Act

The Clean Air Act (42 USC 7407) states that Air Quality Control Regions (AQCR) shall be designated in interstate and major intrastate areas as deemed necessary or appropriate by a federal administrator for attainment and maintenance of concentration-based standards called National Ambient Air Quality Standards (NAAQS). The USEPA classifies the air quality within an AQCR according to whether the concentration of criteria air pollutants in the atmosphere exceeds primary or secondary NAAQS, and evaluates the project for General Conformity (40 CFR Part 93 and Title 30 TAC 5-101.30). All areas within each AQCR are assigned a designation of attainment, nonattainment, unclassifiable attainment, or not designated attainment for each criteria air pollutant. An attainment designation indicates that air quality within an area is as good as or better than the NAAQS. Nonattainment indicates that air quality within a specific geographical area exceeds applicable NAAQS. Unclassifiable and not designated indicates that air quality cannot be or has not been classified based on available information as meeting or not meeting the NAAQS and is therefore, treated as attainment. Before a nonattainment area is eligible for reclassification to attainment status, the state must demonstrate compliance with NAAQS in the nonattainment area for three consecutive years and demonstrate, through extensive dispersion modeling, that attainment status can be maintained in the future even with community growth.

Comprehensive Environmental Response, Compensation, and Liability Act

Hazardous materials are those substances defined by the Comprehensive Environmental Response, Compensation, and Liability Act (42 USC 9601 *et seq*.), as amended by the Superfund Amendments and Reauthorization Act, and the Toxic Substances and Control Act. Hazardous waste is defined under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA). In general, both hazardous substances and waste include substances that, because of their quantity, concentration, and physical, chemical, or infectious characteristics, may present a danger to public health and/or welfare and to the environment when released or improperly managed.

1.5.2 State Laws and Regulations

Texas Parks and Wildlife Department Threatened and Endangered Species Listing

In 1973, the Texas legislature authorized the TPWD to establish a list of threatened and endangered (T&E) animals in the state. Endangered species are those species that the Executive Director of the Texas Parks and Wildlife Department has named as being "threatened with statewide extinction." Threatened species are those species that the TPWD has determined are likely to become endangered in the future. Laws and regulations pertaining to endangered or threatened animal species are contained in Chapters 67 and 68 of the Texas Parks and Wildlife Code and Sections 65.171 – 65.176 of Title 31 of the Texas Administrative Code (TAC).

In 1988, the Texas legislature authorized TPWD to establish a list of T&E plant species for the state. An endangered plant is one "in danger of extinction throughout all or a significant portion of its range." A threatened plant is one that is likely to become endangered within the near future. Laws and regulations pertaining to endangered or threatened plant species are contained in Chapter 88 of the Texas Parks and Wildlife Code and Sections 69.01 – 69.9 of the TAC.

Antiquities Code of Texas

Originally passed in the 1969, the Antiquities Code of Texas, established by Senate Bill No. 58, Chapter 442, Government Code of Texas, was initially written to prevent looting of historic shipwrecks in state waters. However, it applies to all sites on land or under waters controlled by the state or political subdivisions of the state (*e.g.*, cities, counties, river authorities). It was later redefined as the Texas Natural Resource Code of 1977, a formal revision of the statutes relating to the public domain. Title 9, Chapter 191 of the Resource Code pertains to the Antiquities Code of Texas. Further revisions were added culminating in the latest amendment, dated September 1, 1997.

Under the Antiquities Code, a political subdivision is required to notify the Texas Historical Commission (THC) if its project meets at least one of the following conditions: (1) is 5 or more acres in extent; (2) will involve excavation of at least 5,000 cubic yards of material; (3) is in a known historic district; or (4) contains a recorded archeological site. The THC issues Antiquities Permits for archeological studies to professional archeologists who meet the definition of principal investigator found in the Rules of Practice and Procedure (Title 14, Chapter 26, of the TAC). Any person who plans to carry out work involving ground disturbance on state-owned land in Texas must first obtain an Antiquities Permit from the State Historic Preservation Officer (SHPO). These permits are issued either for archaeological or historic buildings and structures investigations. In general, the state review process parallels the federal process under Section 106 of the NHPA.

Texas Groundwater Protection Committee

State guidance regulating the use and protection of groundwater resources in Texas is provided in the Texas Groundwater Protection Strategy. The State Legislature recognized the importance of groundwater use in the State and, in 1989, created the Texas Groundwater Protection Committee (TGPC), composed of nine State agencies and the Texas Alliance of Groundwater Districts (TGPC 2003). Three overarching principles guide state groundwater management: (1) the policy of non-degradation of groundwater quality established in the State's Groundwater Goal and Policy (Texas Water Code [TWC] Section 26.401); (2) stakeholder and regionally based planning for ground and surface water that is the cornerstone of the State's water planning effort; and (3) local control of groundwater quantity management through groundwater conservation districts (TWC, Section 36.0015).

These regulations provide a means to protect groundwater resources in the State. Groundwater conservation districts are the State's preferred method of groundwater management. The Far West Texas Alliance of Groundwater Districts was established in 2004, and includes the Presidio County Underground Water Conservation District. Evaluation of the desired future conditions of the groundwater has not been completed, including the evaluations of irrigation efficiency and data acquisition and compilation.

1.6 EIS ORGANIZATION

Section 1 provides information on the EIS objectives and a description of the flood control project.

Section 2 presents an overview of alternatives and actions for evaluation in the EIS, as well as the process followed for initial formulation of alternatives.

Section 3 provides a description of existing conditions, or affected environment.

Section 4 evaluates environmental consequences of the No-Action alternative and the proposed action alternatives for levee improvement.

Section 5 discusses Best Management Practices and Mitigation.

Section 6 discusses environmental coordination, including information on EIS preparation and review.

Section 7 presents a glossary of terms used in the document and a list of cited references.

SECTION 2
DESCRIPTION OF ALTERNATIVES

This section describes the Presidio Flood Control Project, the formulation process followed to arrive at the alternatives evaluated in the EIS, and describes the flood control improvements under consideration.

2.1 FLOOD CONTROL PROJECT DESCRIPTION

The Presidio FCP lies within the Presidio-Ojinaga Valley in southern Presidio County, Texas. It is formed by the Rio Grande, from Haciendita to the confluence with Brito Creek, approximately 13 river miles downstream. The Rio Conchos, the largest tributary to the international section of the Rio Grande from Mexico, enters the Rio Grande approximately 2 miles upstream of the City of Presidio. Cibolo Creek joins the Rio Grande just north of the City of Presidio. Downstream of the Presidio FCP, Alamito Creek joins the Rio Grande from Presidio County.

In the United States, the levee system extends for approximately 15 miles thorough Presidio. The system includes parallel spur levees along the lower reach of Cibolo Creek. The levees were designed to contain a 25-year flood with 4 feet of freeboard. Downstream of the confluence of the Rio Conchos with the Rio Grande, the design flow is 42,000 cubic feet per second (cfs). In 1979, the levees downstream of the end of the river relocation were raised 4 feet following a September 1978 flood.

Figure 2-1 shows main geographic features and the current alignment of the Presidio FCP levee system. The levee mile notation throughout this document refers to the distance along the north levee, from the upstream point near Haciendita (levee mile 0). For the evaluation of alternatives, the Presidio FCP levee system was divided into three sections, as follows:

- The *upper reach* of the levee extends approximately 4.5 miles downstream, to the end of the Cibolo Creek north levee;
- The *middle reach* of the Presidio FCP begins with the south levee of Cibolo Creek, and continues to levee mile 9; and
- The *lower reach* of the levee extends from levee mile 9 to the downstream end of the system, at levee mile 15.3.

The levee height varies from 12 to more than 20 feet, with the higher levees at the southern end of the Presidio FCP. The existing levee is a raised trapezoidal compacted-earth structure with an average crown width of 12 feet in the upper reach, and 8 to 10 feet average width in the lower reach. The side slope ratio of the levees is approximately 2.5:1 or 3:1 (units of horizontal run in feet per foot of vertical rise). The average levee height is 12 to 15 feet in the upper reach and a height of 20 plus feet in the lower reach. The levee crown is an unpaved service road with limited public access. The existing levee footprint (from the landside toe to the riverside toe of the levee) typically ranges from 70 to 150 feet, depending on location. Levees along the north and south sides of Cibolo Creek are each 145 feet wide.

2.2 ALTERNATIVES AND BASIS FOR FORMULATION

Potential actions to improve flood containment capacity of the Presidio FCP were initially identified by the Engineering, Operations, and Environmental Divisions of the USIBWC, and subsequently grouped into alternatives. A summary description of those actions and alternatives was provided for comment to agencies, State and local governments, organizations, and other potential stakeholders as part of a public scoping process. A public scoping meeting was held in the City of Presidio on March 10, 2009.

Findings and conclusions of the scoping process, described in Section 6, were compiled in the document, *Scoping Meeting Summary, Presidio Environmental Impact Statement, Presidio Flood Control Project* (USIBWC 2009b). Comments and recommendations submitted during the scoping process were then incorporated into a No Action Alternative and three Action Alternatives (USIBWC 2009c).

After the initial scoping meeting and presentation of alternatives developed by the USIBWC, representatives of the local landowners, the Environmental Defense Fund, and the Trans-Pecos Water Trust, met with the USIBWC Commissioner and personnel from the Engineering and Environmental Divisions to discuss impacts of the proposed alternatives on agricultural lands. Two additional alignments of a new spur levee were proposed, and subsequently developed in detail by the USIBWC for evaluation as additional alternatives in the EIS (USIBWC 2009d).

These action alternatives would improve the flood containment capacity of the Presidio FCP relative to the No Action Alternative (Alternative 1) to achieve the following goals:

- Rehabilitate the levee system along the current alignment as needed to repair structural damages and ensure the 25-year design criteria is met along the entire levee system (Alternative 2).
- Increase levee height along the entire Presidio FCP levee system to increase flood protection from a 100-year flood event. Two options under consideration are increasing levee height along the existing alignment (Alternative 3), and partial downstream realignment (Alternative 4).
- Raise the upstream section of the levee system to provide a 100-year flood protection to the City of Presidio, while retaining the 25-year flood protection of agricultural lands in downstream section. To connect the raised, upstream section of the levee to elevated terrain south of the City of Presidio, a spur levee would be constructed. Three spur levee alignments are under consideration (Alternatives 5, 6, and 7).

Table 2-1 summarizes primary features of the no action and six action alternatives under consideration. These alternatives are discussed individually below. Detailed descriptions are provided in the *Formulation of Alternatives Report* (USIBWC 2009d), available at the USIBWC website [www.ibwc.state.gov/Organization/Environmental/ reports_studies.html]. Figures 2-1 to 2-4 illustrate current and modified levee alignments under consideration.

Table 2-1 Summary of Flood Control Improvement Alternatives under Consideration

Alternative	Main Features
ALTERNATIVE 1 (No Action)	• Retains current levee alignment and footprint. • No further structural levee repairs beyond emergency repairs already completed.
Levee rehabilitation to assure 25-year flood protection along the entire Presidio FCP per original design criteria	
ALTERNATIVE 2 Rehabilitation to 25-year design criteria	• Retains current alignment, footprint, and original design specifications to provide protection from a 25-year flood along the entire Presidio FCP. • Current levee height raised by 4 feet along a1-mile segment (levee miles 13.1 to 14.1) • Structural repairs (placement of slurry trenches) along approximately 3,000 feet of levee north of Cibolo Creek • Structural repairs (levee reconstruction and/or placement of slurry trenches) along the levee section between miles 9.2 and 15.3. • Potential placement of overflow weir and one or more outlet gate(s) in the levee system lower reach.
Levee construction to achieve 100-year flood protection along the entire Presidio FCP	
ALTERNATIVE 3 100-year flood protection along current alignment	• Levee height increase along the entire Presidio FCP to provide 100-year flood protection, retaining current alignment; height increase results in a lateral expansion of the levee. • Structural repairs along approximately 3,000 feet of levee north of Cibolo Creek. • Structural repairs along the levee between levee miles 9.2 and 15.3.
ALTERNATIVE 4 100-year flood protection with downstream offset alignment	• Height increase along the upper and middle reaches of the levee system to provide 100-year flood protection, retaining current alignment, and structural repairs as needed north of Cibolo Creek. • Relocation of lower reach of the levee system approximately 500 feet to the landside from existing levee to provide protection from a 100-year flood. • The offset levee would be approximately 3.4 miles long (from levee mile 9.2 to mile 13.2). • Structural repairs of the existing levee from levee mile 13.2 to 15.3.
Levee construction to achieve 100-year flood protection limited to the upstream reach of the Presidio FCP	
ALTERNATIVE 5 Upstream 100-year flood protection with Mile 9.2 spur levee	• Height increase along the along the upper and middle reaches of the levee system to provide 100-year flood protection, retaining current alignment (from levee miles 0 to 9.2), and structural repairs as needed north of Cibolo Creek. Increased flood protection provided to the City of Presidio and adjacent agricultural lands. • The lower reach of the existing levee would be rehabilitated in place to retain the 25-year design flood protection for the downstream agricultural lands. • Potential placement of overflow weir and one or more outlet structures in the levee system lower reach. • A new spur levee, approximately 1.3 miles long, would be constructed at levee mile 9.2 to connect raised levee segment to elevated terrain south of the City of Presidio. • The spur levee would be constructed nearly perpendicular to the existing levee, running in a northeast direction to reach Ranch Road 170.
ALTERNATIVE 6 Upstream 100-year flood protection with Mile 8.5 spur levee	• Height increase along the upper and middle reaches of the levee system to provide 100-year flood protection, retaining current alignment (from levee miles 0 to 8.5), and structural repairs as needed north of Cibolo Creek. Increased flood protection provided to the City of Presidio and adjacent agricultural lands. • The lower reach of the existing levee would be rehabilitated in place to retain the 25-year design flood protection for the downstream agricultural lands. • Potential placement of overflow weir and one or more outlet structures in the levee system lower reach. • A new spur levee, approximately 1.3 miles long, would be constructed to connect the raised levee segment to elevated terrain south of the City of Presidio. • The spur levee would extend north from the levee, around a resaca, continuing in a

Alternative	Main Features
	northeast direction to reach Ranch Road 170.
ALTERNATIVE 7 *Upstream 100-year flood protection with railroad spur levee*	• Height increase along the levee system upper reach, retaining current alignment (from levee miles 0 to 7.3), and structural repairs as needed north of Cibolo Creek, to provide 100-year flood protection to the City of Presidio. • The middle and lower reach of the existing levee would be rehabilitated in place to retain the 25-year design flood protection to all agricultural lands along the Presidio FCP. • Potential placement of overflow weir and one or more outlet structures in the levee system lower reach. • A new spur levee, approximately 2.9 miles long, would be constructed to connect the raised levee segment to elevated terrain south of the City of Presidio. • The spur levee would extend west adjacent to a curved railroad embankment, and then turn southeast to reach Ranch Road 170.

2.3 ALTERNATIVE 1 - NO ACTION

Under Alternative 1 (No Action), no further structural levee repairs or levee improvements would be made to the existing levee beyond the emergency repairs north of Cibolo creek already completed to protect the City of Presidio following the September 2008 flood. No repairs to the existing levee would be made to pre-flood conditions in areas where the levee breached or was severely eroded.

Operation and maintenance of the Presidio FCP includes the levee system, the floodway, and the river channel. These maintenance practices, described below, would continue as currently conducted.

Levee System Maintenance. The USIBWC annually grades and resurfaces the maintenance road on the levee, mows the grass, and removes woody vegetation from the levee slopes. In areas where erosion has occurred, levees are reinforced with riprap. Levee side slopes are frequently mowed, and mesquite and salt cedar trees are removed from the levees. The levee crest and approach ramps are graded as needed. A flex base material is applied to the levee crest and ramps as needed to eliminate rutting. Mowers are used for mowing, a backhoe and dozer are used for grubbing, and a water truck compactor and grader are used for crest grading and dust control.

Floodway Maintenance. The area between the boundary line and the levees is maintained clear and free of vegetation to allow floodwaters to pass unobstructed. For this purpose, USIBWC controls vegetation in the levees and floodways, mows 400 acres semi-annually, and removes mesquite and salt cedar. Grubbing is done year round, while mowing is done three times a year.

A 25-foot wide, 1-mile long strip of land between the confluence of the Rio Conchos and Cibolo Creek is not mowed or cleared. This strip is located in the floodway, starting about 16 feet from the toe of the levee. The strip had not been mowed since the levee was constructed. The USIBWC re-evaluated the vegetative strip and has since removed it due to erosion in the area during flooding.

0 2,500 5,000 10,000 Feet

0 500 1,000 2,000 Meters

Mile Markers

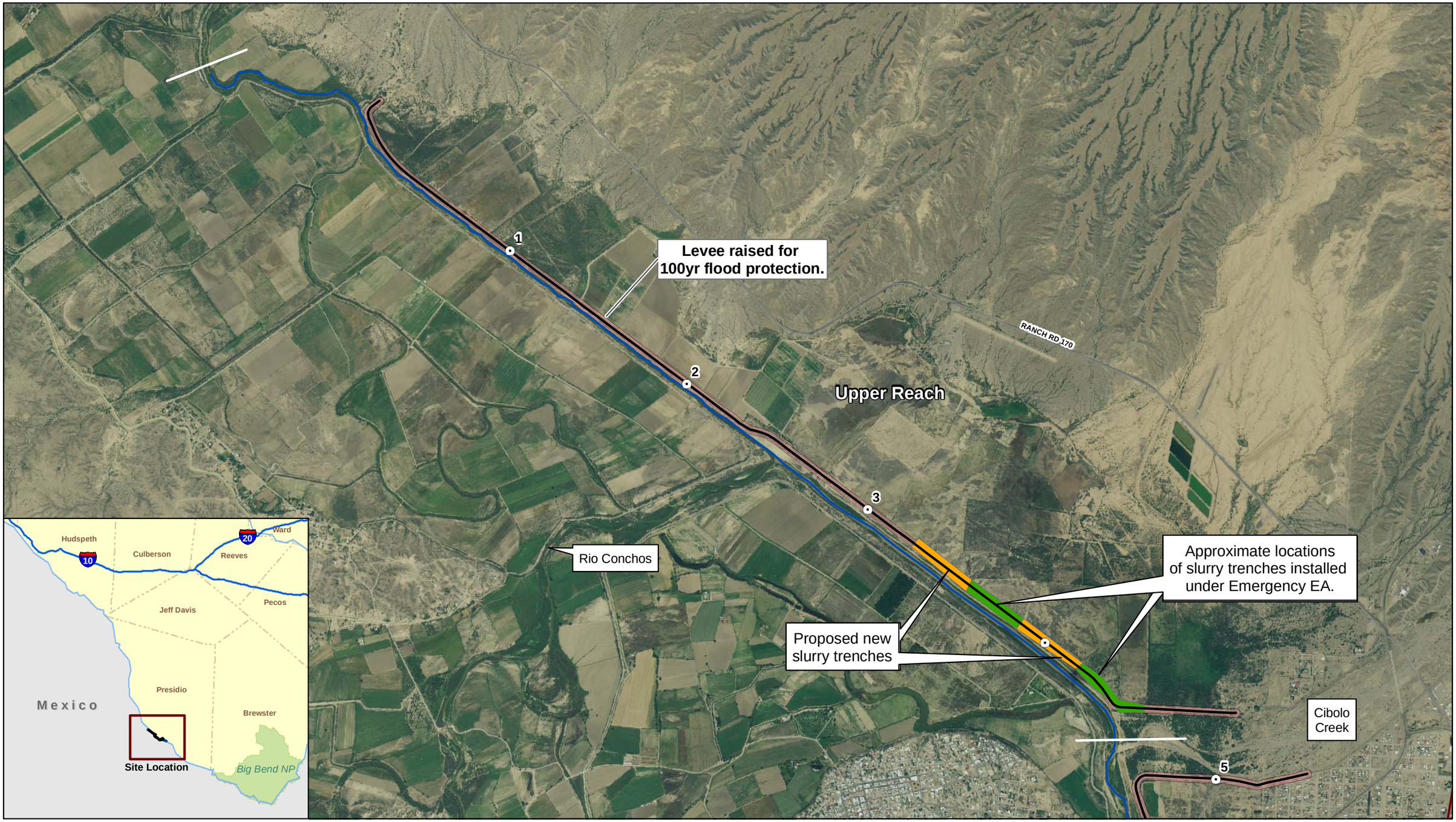
Levee Centerline

Rio Grande

Major Roads

J:\746\746706 Presidio EIS\GIS\mxd\EIS\RD\Presidio_EIS_Current_Levee_Alignment.mxd - 11/2/2009 @ 3:46:49 PM

Figure 2-1
Current Levee Alignment
(Alternatives 1, 2, and 3)
Presidio Flood Control Project
International Boundary and Water Commission
United States Section



0 1,250 2,500 5,000 Feet

0 250 500 1,000 Meters

Mile Markers
Levee Centerline
Rio Grande
Highways
Major Roads
Existing Levee Footprint

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Figure 2-2
Levee Improvements in Upper Reach
(Alternatives 3-7)
Presidio Flood Control Project
International Boundary and Water Commission
United States Section

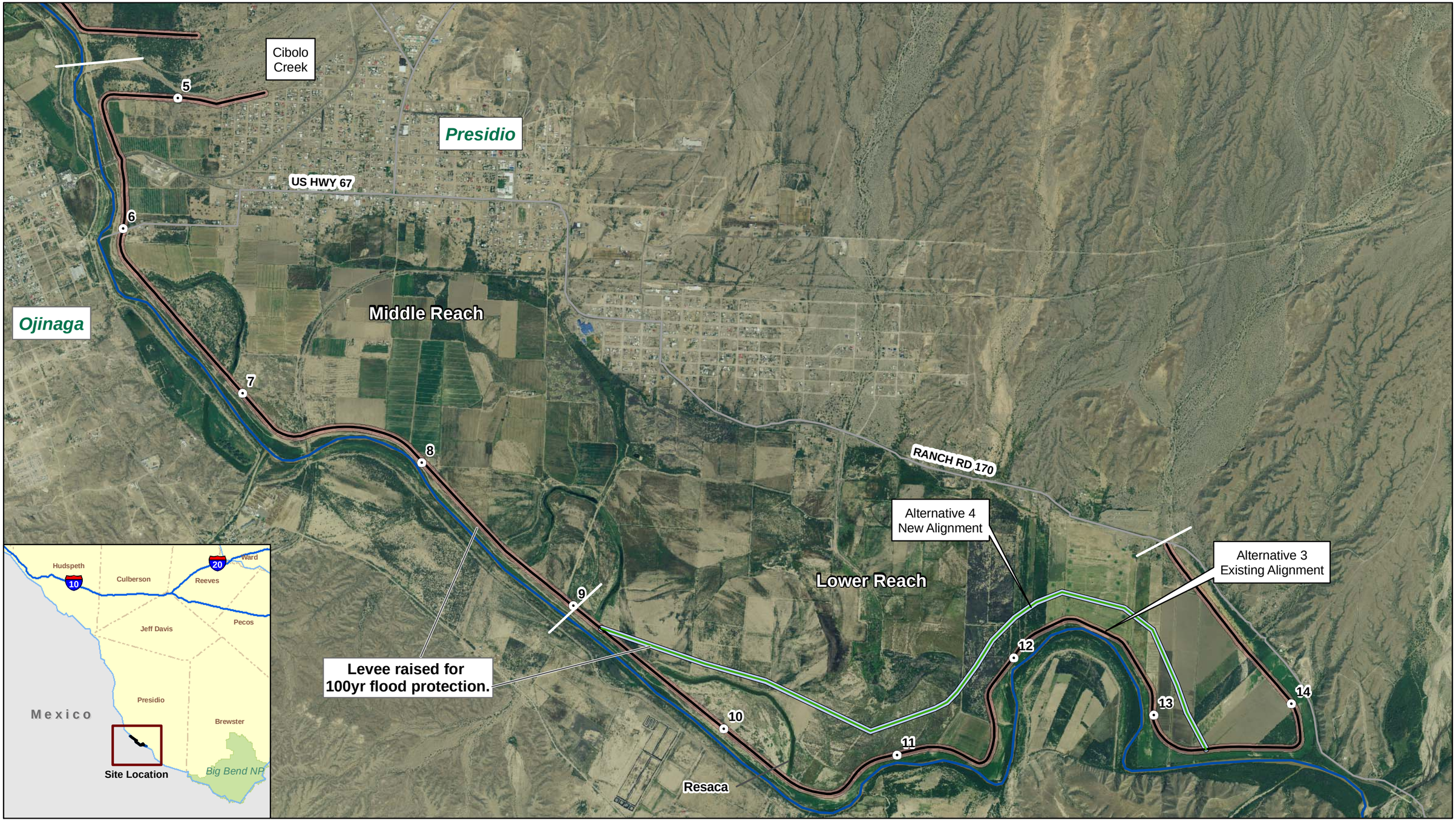

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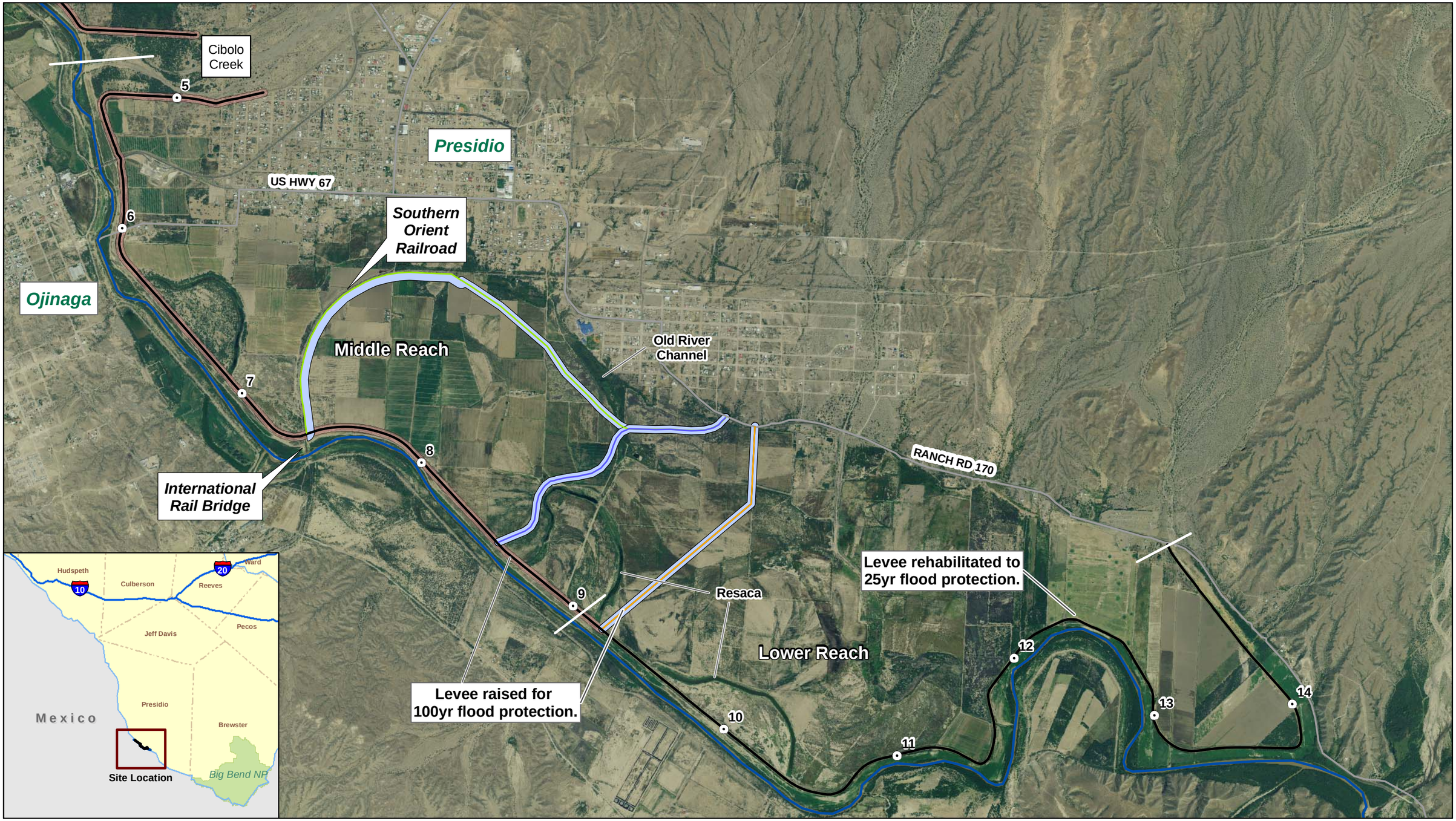
Figure 2-3
Levee Improvements in Middle and Lower Reaches (Alternatives 3 and 4)
Presidio Flood Control Project
International Boundary and Water Commission
United States Section



0 1,250 2,500 5,000 Feet

0 250 500 1,000 Meters

Mile Markers
Rio Grande
Levee Centerline
Roads
Alternative 5 - Spur Levee 9.2
Alternative 6 - Spur Levee 8.5
Alternative 7 - Railroad Spur Levee
Spur Levee Footprint
Existing Levee Footprint

Note: For each alternative, main levee upstream height increase extends to start of each Spur Levee

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Figure 2-4
Spur Levee Alignments in Middle and Lower Reaches (Alternatives 5, 6, and 7)
Presidio Flood Control Project
International Boundary and Water Commission
United States Section

The U.S. Border Patrol (USBP) drags tires both in the floodplain and on the landside of the U.S. levee to track illegal entry. Dragging is done at the toe of the levee and in some instances adjacent to the riverbank. This dragging sometimes appears to cause erosion in the floodplain during river overbank flooding.

River Channel Maintenance. The USIBWC maintains the Presidio FCP river channel, either routinely or on an as-needed basis. River channel maintenance includes removing sediment from the main channel and drains to maintain conveyance capacity and diversion requirements, and stabilizing riverbanks with rocks where erosion has occurred. When required, Cibolo Creek and Alamito Creek are excavated to maintain channel grade and conveyance and to remove sediment plugs. Scrapers and bulldozers are used, as needed, to remove debris and move silt from the river channel to eroded banks. Sediment is disposed on floodways, uplands, and on federal lands. Silt is also removed from the mouth of Cibolo Creek to the extent allowed by the USIBWC jurisdiction only.

2.4 ALTERNATIVE 2 - 25-YEAR FLOOD PROTECTION ALONG ENTIRE LEVEE SYSTEM

Current alignment of the Presidio FCP would be retained along the entire length of the levee system for Alternative 2 (Figure 2-1), as in the No Action Alternative. Under this alternative, three improvement measures are under consideration:

- Structural rehabilitation may be required in two sections north of Cibolo creek to complete the repairs started under the emergency repairs action (USIBWC 2009a). The two sections are located adjacent to the slurry trenches already completed. One 2,000-foot section of slurry trench is proposed to extend north of the 1,000-foot slurry trench installed under the emergency repairs at levee mile 3.8 (USIBWC 2009a), and approximately 1,500 feet of slurry trench between the slurry trenches installed under the emergency repairs (USIBWC 2009a). See Figure 2-2 for locations of slurry trenches installed under the Emergency Actions and the location of the proposed new slurry trenches north of Cibolo Creek;

- Structural rehabilitation may be required in sections of the levee from levee mile 9 to levee mile 15.3, approximately 5.3 miles. It is not expected that this entire reach will require structural repair, but preliminary geotechnical studies (ERDC 2008) indicated several structural problems in this area. Additional geotechnical studies will determine the extent of required structural repairs in the lower reach.

- Raising the levee along an approximately 1-mile segment of the levee system, where the original design criteria for 25-year protection are not currently met due to long-term erosion; and,

- Potential placement of an overflow weir in the lower reach (at approximately levee mile 9.2) of the Presidio FCP to facilitate levee overtopping when flood conditions exceed the 25-year design criteria; the overflow weir would be coupled with one or more downstream outfall gate(s) to more rapidly drain flooded areas.

Structural repairs to the existing levee would be made to pre-flood conditions along levee miles 9.2 to approximately mile 15.3, where the levee breached or was severely eroded. Those sections may be shored with riprap, embankment material, or with sheet metal piles where the erosion was too severe to place riprap. Subsequent repairs to other sections of the levee may be required, as determined by results of additional geotechnical studies.

In areas of the lower reach where the levee foundation is compromised due to under-seepage, a slurry trench or sheet piles in certain levee reaches may be required at the toe of the levee. The slurry trench, or trenches, would be similar to the slurry trenches constructed under the emergency repairs (USIBWC 2009a). The slurry trench consists of constructing a slurry trench cut-off wall with a backhoe, trencher, or excavator, and filling the trench during excavation with a slurry mixture. The slurry mixture consists of approximately 94 percent water and six percent bentonite. This technique requires a high water table to be effective. Hydrostatic pressure of the slurry forces the bentonite particles into the trench walls forming a cake layer and preventing additional groundwater intrusion. As trench excavation proceeds, the backfilling operation follows. The slurry trench would be approximately 3 feet wide and 20 feet deep and of a length sufficient to cover areas where previous under seepage occurred. Installation of metal sheet piles requires a similar sized trench where metal panels are inserted to create a barrier for water. After the metal panels are placed, the trench is backfilled.

The levee system would be raised from 2 to 4 feet in an approximately 1-mile segment in the lower reach of the Presidio FCP (levee miles 12.5 to 13.5). Along this segment, the original design criteria for 25-year protection are not currently met due to long-term erosion. An approximate 0.7 mile of levee in the lower reach would have to be raised 2 feet, resulting in a lateral expansion of the footprint of 0.5 acre; the remaining 0.3 mile would be raised between 2 and 4 feet, with a 0.7 acre of footprint increase.

For additional protection of the levee system, rehabilitation of the lower reach would potentially include placement of an upstream overflow weir that would facilitate levee overtopping when flood conditions exceed the 25-year design criteria. An overflow weir is defined as a concrete dam built across an area that will slow the flow of water that passes over the top of the structure, to prevent damage to the levee. The upstream overflow weir would be coupled with one or more downstream outfall gate(s) that could be regulated to more rapidly drain flooded areas. The location of the outfall gate(s) would be determined by engineering modeling to determine the most efficient way to drain flooded fields. These functionality improvements in levee overtopping and draining of flooded areas would be along the current levee alignment, and would not expand the current levee footprint.

The estimated requirement for levee material under Alternative 2 would be approximately 6,650 cubic yards (USIBWC 2009e). Levee material for levee rehabilitation under Alternative 2 would be obtained from an approximately 15-acre borrow site operated by the USIBWC north of the City of Presidio. Use of commercially sourced, borrow sites for material, unlike other action alternatives under consideration, would not be required.

Construction activities under Alternative 2 would occur in two phases. In construction phase I, the USIBWC would rehabilitate the upper and middle reaches (levee mile 0 to levee mile 9) of the existing levee to provide 25-year flood protection, including installation of additional slurry trenches north of Cibolo Creek. Construction phase II would include

temporary repair of the lower reach, including temporary repair of breaches in the existing levee. The temporary repairs would be made so that geotechnical surveys could be conducted to determine where additional levee foundation repairs are required. Once the location of required repairs is determined in the lower reach, the USIBWC will go through appropriations to secure additional funding to complete the repairs to the lower reach, to provide 25-year flood protection to the lower reach of the Presidio FCP and adjacent farmlands.

Two common elements among all action alternatives under consideration, including Alternative 2, are the use of staging areas outside the floodplain for storage of equipment, vehicles, and materials; and utilization of existing farm roads as haul roads, some of which may require leveling, grading, or filling to improve their current condition.

For all action alternatives under consideration, heavy construction equipment would be used to haul, move, remove, and pack materials required to build or repair the levees. Heavy construction equipment, hereafter referred to as construction equipment, would include at least backhoe tractors, scrapers, bulldozers, excavators, dump trucks, and earth compactors. Other construction equipment required based on site-specific conditions would be of a similar size and weight.

2.5 ALTERNATIVES 3 AND 4: 100 YEAR FLOOD PROTECTION ALONG ENTIRE LEVEE SYSTEM

Two alternatives are under consideration to increase protection from a 25-year flood to a 100-year flood along the entire Presidio FCP levee system. Under Alternative 3, the levee system would be raised in-place, keeping the current levee alignment (Figures 2-2 and 2-3). Under Alternative 4, current alignment would be retained in the upper and middle reaches of the levee system (Figure 2-2), but in the lower reach the levee would be partially relocated along a new offset alignment (Figure 2-3). These two alternatives are discussed below. Table 2-2 presents the calculated increase in levee height under Alternatives 3 and 4, as well as the expected footprint expansion associated with levee raising under both alternatives.

2.5.1 Alternative 3 – Raising Entire Levee along the Current Alignment

Current alignment of the Presidio FCP would be retained along the entire length of the levee system for Alternative 3 (Figure 2-1), as in the No Action Alternative. To improve flood control of the Presidio FCP under this alternative, the current levee would be raised in place to obtain a 100-year flood design. Hydraulic modeling results indicate that the levee would require a height increase between 4 and 7 feet in the upper and middle reaches of the Presidio FCP (USIBWC 2009e). In the lower reach, the levee would be raised by up to 10.5 feet, and repairs would be made for structural damages. The estimated requirement for levee material under Alternative 3 is approximately 0.36 million cubic yards (USIBWC 2009fe).

Table 2-2 presents a comparison of requirements to provide 100-year flood protection along the entire levee system under Alternatives 3 and 4. Required levee height increases are summarized in 2-foot intervals. Data are presented for each interval on the length of levee to be raised and the levee lateral footprint expansion because of the height increase.

Table 2-2 Length and Footprint Increase Associated with Levee Raising for 100-year Flood Protection under Alternatives 3 and 4

Height (feet)	Modified Length (miles)		Expansion Area (acres)	
	Alternative 3	Alternative 4	Alternative 3	Alternative 4
Existing levee height increase				
0 - 2	1.4	4.4	1.0	3.2
2 - 4	5.0	6.7	10.8	14.5
4 - 6	7.4	2.0	26.8	7.2
6 - 8	1.1	0.2	5.6	1.0
8 – 10+	0.3		1.7	
Subtotal	15.2	13.3	45.9	26.0
New offset levee				
18 – 20		0.4		6.2
20 – 22		2.6		44.2
22 – 24		0.6		10.6
Subtotal		3.6		61.0
Total by Alternative	15.2	16.9	45.9	87.0

Footprint expansion of the levee would occur on both sides of the levee where there is sufficient ROW ("centered expansion"). In some sections of the levee, if there were insufficient ROW to use a centered expansion, the expansion would be primarily toward the riverside of the levee. Where the levee is raised 6 feet, the footprint would be expanded to retain the levee slope ratio of 3:1. Using a centered expansion would increase the footprint by approximately 18 feet on either side of the existing levee. Using a riverside expansion, the levee footprint would expand 36 feet on the riverside of the existing levee. Table 2-2 shows the expected footprint expansion associated with levee raising under Alternative 3.

2.5.2 Alternative 4 – Raising the Levee with Partial Downstream Relocation

Under Alternative 4, the upper and middle reaches of the Presidio FCP (levee mile 0 to approximately levee mile 9) would be raised in place to provide 100-year design flood protection, as described for Alternative 3 (Figure 2-2). In the lower reach, however, the levee alignment would be offset relative to the current alignment, away from the Rio Grande (Figure 2-3).

The lower reach of the Presidio FCP sustained the most damage, including several levee breaches and severe erosion on both sides of the levee. Preliminary surveys and analyses indicate that the levee foundation may be compromised (ERDC 2008) and, until additional geotechnical studies are completed, the alternative considered partially relocating the lower reach of the Presidio FCP. Alternative 4 would relocate the levee, to approximately 500 feet to the landside of the centerline of the existing levee, and the levee would be constructed to provide 100-year flood protection (Figure 2-3). The location of the proposed offset levee under

Alternative 4 was designed to avoid sensitive biological and cultural resources. The offset levee would start at approximately levee mile 9.2 and connect back to the existing levee at approximately levee mile 13.2, and would be approximately 3.6 miles long. This alternative levee location would affect agricultural fields owned and managed by at least seven property owners.

Table 2-2 shows the levee height increases required for the upper and middle reaches to provide 100-year flood protection, and the required height of the offset levee to provide 100-year flood protection (USIBWC 2009e). Expansion areas required for the upper and middle reaches, and the area required to construct the offset levee are presented in Table 2-2. It is assumed that for a newly constructed levee segment, the top of the levee would include a 15-foot wide access road, and adjacent to the riverside toe of the levee, a maintenance road would be present. It is assumed the maintenance road would be approximately 20 feet wide and would be used for maintenance of the levee (*e.g.*, erosion repair) and floodway maintenance (*e.g.*, mowing operations). Areas calculated for construction of a new levee segment include the 20-foot wide maintenance road.

Construction of the offset levee under Alternative 4 may utilize materials from the existing levee; essentially removing the existing levee from approximately levee mile 9.2 to levee mile 13.2 in the lower reach of the Presidio FCP. From levee mile 13.2 to levee mile 15.3, the levee would be raised in place. The estimated requirement for levee material under Alternative 4 is approximately 1.32 million cubic yards (USIBWC 2009e). If the levee foundation is damaged below levee mile 13.2, slurry trenches or sheet piles may be required to stabilize the levee foundation, as described for Alternative 2.

2.6 ALTERNATIVES 5, 6 AND 7 – 100 YEAR FLOOD PROTECTION LIMITED TO THE UPSTREAM SECTIONS OF THE LEVEE SYSTEM

Three alternatives are under consideration to raise the levee system along the upstream sections of the levee for protection from a 100-year flood (Figure 2-2), while retaining the current 25-year design for flood protection in the lower reach of the Presidio FCP. The three alternatives require construction of a spur levee connecting the raised levee section to elevated terrain south of the City of Presidio. Figure 2-4 illustrates spur levee alignment under Alternatives 5, 6 and 7. The three proposed spur levees will serve to protect the City of Presidio from a 100-year flood, but will not protect the agricultural lands in the lower reach from a 100-year flood. Therefore, common elements of the three proposed spur levees include the use of flood easements to provide funding for the loss of crops if the agricultural fields are flooded in the lower reach, rather than levee protection.

Several landowners and organizations (including the Trans-Pecos Water Trust and Environmental Defense Fund) have proposed the use of flood easements to compensate landowners if the levee were overtopped in the lower reach. The USIBWC does not have the legal authority to purchase flood easements, according to Public Law 92-549 (October 25, 1972).

However, there are several federal agencies that may be able to provide this opportunity to landowners, including the USDA Natural Resources Conservation Service, FEMA, or other agencies. Coordination to obtain flood easements would require voluntary enrollment, and the

easements would require the land remain undeveloped. The land could be used for agricultural purposes without interruption. Further, flood easements require the landowner to continue paying taxes on the land, and the easements be attached to the deed, which may affect future sale of the property. Although the USIBWC does not have the authority to purchase flood easements, for purposes of evaluation of the three proposed spur levees, flood easements are considered a component of Alternatives 5, 6, and 7.

The alternatives 5, 6, and 7 are discussed individually below. Table 2-3 presents the calculated increase in levee height under Alternatives 5, 6 and 7, and Table 2-4 the expected footprint expansion associated with levee raising under those alternatives. The potential use of commercial materials borrow sites is discussed in Section 5.2.

2.6.1 Alternative 5 – Upstream Reach Raised and Spur Levee at Mile 9.2

Under Alternative 5, the upper reach of the levee would be raised in place to provide 100-year flood protection, as previously described for Alternative 3 (See Figure 2-2). The levee would also be raised in-place in the middle reach of the levee system retaining the current alignment (Figure 2-4). In the lower reach, increased flood protection in the lower reach would be provided by constructing a new spur levee at approximately levee mile 9.2 to provide 100-year flood protection. Figure 2-4 shows location of the Alternative 5 spur levee, along with other spur levee alignments discussed in Alternatives 6 and 7.

Table 2-3 Levee Height Increase Required for 100-year Flood Protection, Alternatives 5, 6, and 7

	Length (miles)		
Increase (feet)	**Alternative 5**	**Alternative 6**	**Alternative 7**
Existing Levee			
0 – 2	3.8	3.7	5.3
2 - 4	6.4	6.3	4.2
4 - 6	1.9	2	1.9
6 - 8	0.1	0.1	0.1
Total existing levee (miles)	12.2	12.1	11.5
New Levee			
10 - 12			0.2
12 – 14			0.3
14 – 16		0.2	0.4
16 – 18		0.6	0.2
18 – 20	0.6	0.4	0.3
20 – 22	0.5	0.1	1.0
22 – 24	0.2		0.5
Total for spur levees (miles)	1.3	1.3	2.9
Total modified length (miles)	13.5	13.4	14.4

Table 2-4 Footprint Increase Associated with Levee Raising for 100-year Flood Protection, Alternatives 5, 6, and 7

	Expansion (Acres)		
Increase (feet)	**Alternative 5**	**Alternative 6**	**Alternative 7**
Existing Levee			
0 – 2	2.7	2.7	3.8
2 - 4	13.9	13.7	9.1
4 - 6	6.9	7.2	6.9
6 - 8	0.5	0.5	0.5
Total existing levee (acres)	24.0	24.1	20.3
New Levee			
10 - 12			1.9
12 – 14			3.4
14 – 16		2.5	5.1
16 – 18		8.5	2.8
18 – 20	9.3	6.2	4.7
20 – 22	8.5	1.7	17.0
22 – 24	3.5		8.9
Total for spur levees (acres)	21.4	18.9	43.6
Total area increase (acres)	45.4	43.0	64.0

Approximately two-thirds of the spur levee would affect agricultural fields in a northeast direction, and then continue north along an existing farm road until it reaches a high ground location at its intersection with Highway 170 (Figure 2-4). The spur levee would affect agricultural fields owned and managed by a single property owner.

Hydraulic modeling indicates that existing levee in the upper and middle reaches would be raised by up to 8 feet to provide 100-year flood protection (USIBWC 2009e). The spur levee 9.5 would be up to 22 feet tall for most of the length, and up to 24 feet tall in one 0.2-mile section to provide 100-year flood protection (Table 2-3). The area required for the spur levee 9.2 is shown in Table 2-4. Areas calculated for construction of a new levee segment include the 20-foot wide maintenance road. Table 2-4 also provides a comparison of levee height increases and expansion area for the Alternative 5 spur levee relative to spur levees under consideration for Alternatives 6 and 7. The estimated requirement for levee material under Alternative 5 is approximately 0.55 million cubic yards (USIBWC 2009e).

The levee system in the lower reach of the Presidio FCP would be rehabilitated to provide 25-year flood protection as described in Alternative 2. Improvements may also include installation of an overflow weir and one or more outfall gate(s) to protect the levee from flood stage erosion, and installation of slurry trenches or sheet pile as needed to stabilize the levee foundation.

2.6.2 Alternative 6 - Upstream Reach Raised and Spur Levee at Mile 8.5

Under Alternative 6, the upper reach of the levee would be raised in place to provide 100-year flood protection, as previously described for Alternative 3 (Figure 2-2). The levee

would also be raised in the middle reach of the levee system retaining the current alignment (Figure 2-4).

Increased flood protection in the lower reach would be provided by a new spur levee located at approximately levee mile 8.5. The spur levee would be constructed to a height that would provide 100-year design flood protection to the City of Presidio. The spur levee would start at approximately levee mile 8.5, circle around the central resaca, turn east, and then northeast to a high ground location on Highway 170 (Figure 2-4). Spur levee 8.5 would affect agricultural fields owned by at least three property owners.

Hydraulic modeling indicates that the upper and middle reaches would be raised by up to 8 feet, and the spur levee 8.5 would be up to 22 feet tall (USIBWC 2009e). Table 2-3 presents the extent of required height increases. The areas required to raise the levee in the upper and middle reaches and the area required to construct the spur levee 8.5 are shown in Table 2-4. Areas calculated for the construction of a new levee segment include the 20-foot wide maintenance road. Table 2-4 also provides a comparison of levee height increases and expansion area for the Alternative 6 spur levee relative to spur levees under consideration for Alternatives 5 and 7. The design of the spur levee under Alternative 6 is slightly different than the spur levee under Alternative 5 (*e.g.,* the levee required is not as high), and therefore, the acreage required for the spur levee under Alternative 6 is less than the acreage required for the spur levee under Alternative 5. The estimated requirement for levee material under Alternative 6 is approximately 0.47 million cubic yards (USIBWC 2009e).

The levee system in the remainder of the middle reach and the lower reach of the Presidio FCP would be rehabilitated to provide 25-year flood protection as described in Alternative 2. Improvements may also include installation of an overflow weir and one or more outfall gate(s) to protect the levee from flood stage erosion, and installation of slurry trenches or sheet pile as needed to stabilize the levee foundation.

2.6.3 Alternative 7 - Upstream Reach Raised and Spur Levee at Mile 7.4

Under Alternative 7, the upper reach of the levee would be raised to provide 100-year flood protection, as previously described for Alternative 3 (Figure 2-3). A portion of the middle reach, to the railroad bridge at approximately levee mile 7.4, would also be raised to provide 100-year flood protection, as described for Alternative 2 (Figure 2-4).

Increased flood protection in the middle reach would be provided by a new spur levee constructed adjacent to the embankment of the railroad bridge at approximately levee mile 7.4. The spur levee would follow the curve of the railroad bridge until reaching the City of Presidio, then the levee would curve south of Presidio High School to a point that would intersect the proposed levee for Alternative 6, run in an easterly direction, and then northeast to a high ground location on Highway 170 (Figure 2-4). The railroad spur levee would be placed to the east of the existing rail track, likely outside the railroad right-of-way, and would cross the edges of several properties owned by at least five property owners, and then south of the high school, would cross lands owned by at least two property owners.

Hydraulic modeling indicates that the upper and middle reaches would be raised by up to 8 feet, and the railroad spur levee would be up to 29 feet tall (USIBWC 2009e). Table 2-3

presents the extent of required height increases. The areas required to raise the levee in the upper and middle reaches and the area required to construct the railroad spur levee are shown in Table 2-4. Areas calculated for construction of a new levee segment include the 20-foot wide maintenance road. Tables 2-3 and 2-4 provide a comparison of levee height increases and expansion area for the Alternative 7 railroad spur levee relative to spur levees under consideration for Alternatives 5 and 6. The estimated requirement for levee material under Alternative 7 is approximately 0.88 million cubic yards (USIBWC 2009e).

The levee system in the lower reach of the Presidio FCP would be rehabilitated to provide 25-year flood protection as described in Alternative 2. Improvements may also include installation of an overflow weir and one or more outfall gate(s) to protect the levee from flood stage erosion, and installation of slurry trenches or sheet pile as needed to stabilize the levee foundation.

2.7 OTHER ACTIONS WITH POTENTIAL CUMULATIVE IMPACTS

2.7.1 U.S. Border Patrol Activities

Regional Plans

Cumulative impacts considered for the Presidio FCP include greater restrictions to public use and/or access of the floodway due to increased USBP operations and designation of restricted use zones. Anticipated changes in future USBP operations were evaluated in terms of potential environmental consequences in an updated Programmatic EIS prepared by USACE for the Immigration and Naturalization Service (INS) and Joint Task Force-North (formerly known as Joint Task Force-Six) in 1994 and updated in 2001 (USACE 1994 and 2001).

Regional plans for installation of tactical infrastructure in three discrete sections in Hudspeth and Presidio counties were assessed in a Draft Environmental Assessment (U.S. Customs and Border Patrol, 2008).

Local Plans

Customs and Border Protection (CBP) proposes to construct, operate, and maintain tactical infrastructure consisting of primary pedestrian fence, patrol roads, access roads, and lights along the U.S./Mexico international border in the Marfa Sector, Texas (U.S. Customs and Border Patrol, 2008). Congress has appropriated funds for the construction of the proposed tactical infrastructure. Construction of additional tactical infrastructure might be required in the future as mission and operational requirements are continually reassessed.

There would be no change in overall USBP Marfa Sector operations. The Marfa Sector operations would provide a law enforcement resolution to illegal cross-border activity. Fence maintenance would initially be performed by USBP Sector personnel, but would eventually become a contractor-performed activity.

CBP is also proposing to construct and operate permanent lighting within the Presidio operational area. Light poles would be constructed approximately every 50 yards. CBP is working closely with local landowners and others potentially affected by the proposed tactical infrastructure. Gates and ramps would be constructed to allow USBP, USIBWC, and other

landowners' access to land, the Rio Grande, water resources, and infrastructure. In agricultural areas, gates would be wide enough to allow access for necessary farming equipment. In other cases, gates would be situated to provide access to existing recreational amenities; water resources, including pump houses and related infrastructure; grazing areas; existing parks; and other areas. On a case-by-case basis, USACE might purchase the land between the fence and the Rio Grande on behalf of USBP, if operationally necessary.

The CBP, within the Department of Homeland Security, has proposed some alternatives to local landowners and to the USIBWC for improved flood control and improved border protection. However, the EIS for improvements of the Presidio FCP does not assess the impacts associated with construction of border fence segments that may (or may not) use the existing or new levee footprint. On April 1, 2008, the Secretary of Homeland Security implemented a waiver for various environmental laws, provided in Section 102(c), Illegal Immigration Reform and Immigrant Responsibility Act of 1996 as amended by the REAL ID Act of 2005, by the Secure Fence Act of 2006, and the Department of Homeland Security Appropriations Act of 2008. Therefore, any proposed plans from agencies within the Department of Homeland Security are not evaluated under the NEPA evaluation provided in the EIS.

2.7.2 Removal of Salt Cedar Plug in Rio Grande Below Presidio FCP

A dense growth of salt cedar is located downstream of the Presidio FCP that extends into the Rio Grande main river channel from both the United States and Mexico riverbanks, just upstream of Alamito Creek. During flood events, the salt cedar growth appears to redirect flows around the plug, eroding the riverbanks, and backing up water into the flood control project, potentially increasing flood water level elevation and extent of upstream flooding. During the EIS scoping process, landowners expressed concern that the downstream salt cedar growth and sediment deposition formed a bottleneck that increased the severity of the damage in Presidio during the September 2008 flooding.

Because the salt cedar growth is located outside the USIBWC's Flood Control Project and include a large portion in Mexico, its removal would be require further coordination with the MXIBWC. A joint agreement could be reached between the USIBWC and the MXIBWC with other parties interested in cooperating in the evaluation and removal of the salt cedar plug, such as the USFWS, the U.S. Department of Agriculture, and the National Park Service. Removal of the salt cedar plug would be evaluated under NEPA regulations by the lead agency when the joint agreements are completed. Given the current extent of the salt cedar growth, the vegetation removal would directly affect at least one landowner with property along the United States riverbank.

2.7.3 Expansion of Existing International Bridge

In March 2009, Presidio County submitted an application to the Texas Department of Transportation (TxDOT) seeking the establishment of a regional mobility authority (RMA) under Texas Transportation Code, Chapter 370. The application is pending. If approved, the RMA would have significant authority under Texas law to develop transportation projects. The applicant desires to create an RMA to improve the local transportation infrastructure, provide multimodal infrastructure, foster economic development in the region, protect the environment,

and protect critical infrastructure from flooding. The applicant proposes as its initial project to acquire and expand the existing international bridge and commercial inspection facilities at U.S. 67. It proposes to construct a new bridge structure parallel to the existing bridge, approaches to and from the new bridge to existing U.S. 67, expansion of the existing inspection facilities, and the addition of toll facilities. This proposal is not under the jurisdiction of the USIBWC and would be evaluated under NEPA regulations when the RMA proposal is accepted. Therefore, this proposal is not evaluated in this EIS. Further, a Presidential Permit issued from the Department of State would be required for construction and expansion of the international bridge facilities. The Department of State would require USIBWC approval before the permit is issued.

2.7.4 Inspection and Repairs of Presidio County Cibolo Creek Levees

The Cibolo Creek levees are managed by two separate agencies. The downstream reach at the confluence with the Rio Grande, approximately 0.5 miles on each side of Cibolo Creek, is managed by the USIBWC as part of the Presidio FCP. Presidio County owns and manages the levees along Cibolo Creek upstream of the USIBWC jurisdiction.

Under the proposed alternatives, the USIBWC would repair the levees under its jurisdiction to be consistent with the remaining USIBWC levees in the Presidio FCP. Recently (January 2010), the USIBWC and USACE met to discuss the need for improvement and repairs of the County-managed levees north of the USIBWC project on Cibolo Creek. The USACE is now in the process of securing appropriations to conduct studies on the existing County levees on Cibolo Creek. Following the assessments, the USACE will determine the repairs and rehabilitation required on the Cibolo Creek levees north of the USIBWC project levees. Any repairs to the Cibolo Creek levees would occur in coordination with the USIBWC and the MxIBWC, and would be evaluated under NEPA regulations prior to construction.

2.8 SUMMARY COMPARISON OF ALTERNATIVES BY RESOURCE AREA

Table 2-5 presents a summary of potential environmental consequences of each of the Action Alternatives for the Presidio FCP, relative to Alternative 1 (No Action). The resource areas are described in detail in Section 3.

2.9 PREFERRED ALTERNATIVE

Alternative 2 was selected as the preferred alternative. Taking into consideration environmental concerns about the proposed new levee locations, comments received from public hearings, meetings with stakeholders, engineering considerations, and preliminary cost assessments, the USIBWC has selected Alternative 2 for implementation. This selection is consistent with the core project mission of flood control, and does not negatively affect agricultural areas in the area, and will avoid or minimize impacts to environmental and cultural resources in the area. Alternative 2 is also the environmentally preferred alternative.

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Table 2-5 Summary of Engineering Features and Potential Environmental Consequences of the Presidio FCP Improvement Alternatives

	ALTERNATIVE 2 **In-Place Rehabilitation of Existing Levee**	**ALTERNATIVE 3** **Levee Raised in Place Over Entire Length of the Presidio FCP**	**ALTERNATIVE 4** **Entire Levee System Raised with Downstream Offset Alignment**	**ALTERNATIVE 5** **Levee Raised Upstream Adding Spur Levee at Mile 9.2**	**ALTERNATIVE 6** **Levee Raised Upstream Adding Spur Levee at Mile 8.5**	**ALTERNATIVE 7** **Levee Raised Upstream Adding Spur Levee Along Railroad Track**
ENGINEERING FEATURES						
Objective	Rehabilitation to Original 25-year Flood Protection Design	100-Year Flood Protection by Raising Levee Along the Entire Presidio FCP for Protection of the City of Presidio and Downstream Agricultural Lands		100-Year Protection in Upper and Middle Reaches by Raising Levee in Combination with New Spur Levee Reaching the City of Presidio; 25-Year Flood Protection Retained in Lower Reach in combination with conservation/flood easements		
Elements	• Levee alignment retained along entire length of the Presidio FCP • No modifications to the upper and middle reaches; 1 mile in the lower reach of current levee raised by 1 to 4 feet, with a 1.2- acre footprint expansion • Structural repairs in 3,000 feet of levee north of Cibolo Creek. • Structural repairs in lower reach from levee miles 9 to 15.3 • Potential addition of downstream overflow weir and one or more outfall gate(s) • Levee material volume of approximately 7,000 cubic yards, to be obtained entirely from the USIBWC borrow site currently in operation	• Levee alignment retained along entire length of the Presidio FCP • The upper and middle reaches of levee system raised up to 8 feet • The lower reach of the current levee system raised by up to 10.5 feet • Up to 48 acres footprint expansion resulting from levee height increase • 1 mile in the lower reach of current levee raised by 1 to 4 feet, as in Alternative 2 • Levee material volume of 0.36 million cubic yards, requiring development of new commercial borrow sites	• Levee alignment retained in upper and middle reaches of the Presidio FCP • 11.2 miles along current alignment raised by up to 8 feet, resulting in a 20-acre footprint expansion • 3.6 miles of downstream re-alignment ranging in height from 18 to 22 feet • Up to 60 acres of additional footprint along new offset alignment • Potential removal of existing levee along the 3.6-mile realigned segment • Levee material volume of 1.3 million cubic yards, requiring development of new commercial borrow sites	• Levee alignment retained along entire length of the Presidio FCP • 11.3 miles of current levee raised by up to 6 ft along current alignment, resulting in a 22-acre footprint expansion • 1.3 miles of new spur levee, ranging in height from 18 to 22 feet, and 21 acres of additional levee footprint • 1 mile in the lower reach of current levee raised by 1 to 4 feet, structural repairs from levee mile 9 to 15.3, and potential addition of downstream overflow weir and one or more outfall gate(s), as in Alternative 2 • Levee material volume of 0.55 million cubic yards, requiring development of new commercial borrow sites • Conservation/flood easements	• Levee alignment retained along entire length of the Presidio FCP • 11.2 miles of current levee raised by up to 6 ft along current alignment, resulting in a 22-acre footprint expansion • 1.3 miles of new spur levee, ranging in height from 14 to 18 feet, and 19 acres of additional levee footprint • 1 mile in lower reach of current levee raised by 1 to 4 feet, structural repairs from levee mile 9 to 15.3, and potential addition of downstream overflow weir and one or more outfall gate(s), as in Alternative 2 • Levee material volume of 0.47 million cubic yards, requiring development of new commercial borrow sites • Conservation/flood easements	• Levee alignment retained along entire length of the Presidio FCP • 10.6 miles of current levee raised by up to 6 ft along current alignment, resulting in a 19-acre footprint expansion • 2.9 miles of new spur levee, ranging in height from 10 to 22 feet, and 44 additional acres of levee footprint • 1 mile in lower reach of current levee raised by 1 to 4 feet, structural repairs from levee mile 9 to 15.3. and potential addition of downstream overflow weir and one or more outfall gate(s), as in Alternative 2 • Levee material volume of 0.88 million cubic yards, requiring development of new commercial borrow sites • Conservation/flood easements

	ALTERNATIVE 2 In-Place Rehabilitation of Existing Levee	ALTERNATIVE 3 Levee Raised in Place Over Entire Length of the Presidio FCP	ALTERNATIVE 4 Entire Levee System Raised with Downstream Offset Alignment	ALTERNATIVE 5 Levee Raised Upstream Adding Spur Levee at Mile 9.2	ALTERNATIVE 6 Levee Raised Upstream Adding Spur Levee at Mile 8.5	ALTERNATIVE 7 Levee Raised Upstream Adding Spur Levee Along Railroad Track
SUMMARY OF IMPACTS RELATIVE TO ALTERNATIVE 1 (NO ACTION)						
BIOLOGICAL RESOURCES						
Vegetation	• Potential impacts minor and of short duration • Repairs to the existing levee, installation of overflow weir and one or more outfall gate(s) would not increase the existing levee footprint	• Potential impacts minor and of short duration • In upper and middle reaches removal by footprint expansion of 17.4 acres of grassland, 9.9 acres of agricultural lands and 8.6 acres of desert scrub/woodlands. Re-seeding used to rapidly recolonize grassland areas • In the lower reach, removal of 17.4 acres of grasslands, 13.3 acres of agricultural lands, and 10.1 acres of desert scrub/woodlands. • In middle reach, impacts to 3.7 acres of desert scrub/woodland to be avoided by shifting footprint expansion alignment	• Potential impacts minor and of short duration in upper and middle reaches • In the lower reach, removal of 56.2 acres of agricultural lands and 1.5 acres of desert scrub/woodland along new 3.6 mile long offset levee • Impacts to desert scrub/woodland in middle reach to be avoided by shifting footprint expansion alignment	• No impacts along the lower reach of the levee system • Minimum impacts in upper and middle reaches, as in Alternative 3 • New 1.3 mile long spur levee to remove 23.1 acres of agricultural lands • No impacts to desert scrub/woodland in middle reach, as in Alternative 4	• No impacts along the lower reach of the levee system • Minimum impacts in upper and middle reaches, as in Alternative 3 • New 1.3 mile long spur levee to remove 7.2 acres of agricultural lands and 16.7 acres of desert scrub/woodlands • New levee crosses historic river channel and removes 1.1 acres of wetland/riparian areas	• No impacts along the lower reach of the levee system • Minimum impacts in upper and middle reaches, as in Alternative 3 • New 2.9 mile long levee to remove 32.4 acres of agricultural areas and 14.7 acres of desert scrub/woodlands, • New levee crosses historic river channel and removes 1.4 acres of wetland/riparian vegetation
Terrestrial Wildlife	• Minimum impacts anticipated, and only during construction	• Minimum impacts anticipated. Removed grassland and agricultural land are low-quality habitat	• Minimum impacts as only low-quality habitat would be removed	• Minimum impacts as only low-quality habitat would be removed	• Minimum impacts as only low-quality habitat would be removed	• Minimum impacts as only low-quality habitat would be removed
Aquatic Wildlife	• Minimum impacts anticipated. • Best management practices (BMP) used to control release of construction-generated sediment	• Moderate and temporary impacts anticipated. • BMPs used to control release of construction-generated sediment. • Wetlands disturbance in middle reach to be minimized with adjustment of levee expansion alignment, as needed	• Potential impacts to be avoided by BMP use, levee alignment adjustment as needed, as in Alternative 3 • Wetlands avoided in lower reach during design of new levee	• Potential impacts to be avoided by BMPs use and adjusted levee alignment, as in Alternative 3 • Wetlands avoided in lower reach during design of new levee	• Potential impacts to be avoided by BMPs use and adjusted levee alignment, as in Alternative 3 • Spur levee would remove 1.1 acres of wetlands in historic river channel	• Potential impacts to be avoided by BMPs use and adjusted levee alignment, as in Alternative 3 • Spur levee would remove 1.4 acres of wetlands in historic river channel
Threatened, Endangered, and Special Status Species (T&E Species)	• No significant impacts anticipated. • Sediment control during construction minimizes impacts to Rio Grande silvery minnow and 3 other T&E fish species	• No significant impacts anticipated. • Sediment control during construction minimizes impacts to Rio Grande silvery minnow and 3 other T&E fish species • Southwestern willow flycatcher and Western yellow-billed cuckoo suitable habitat is not present in the project area • State-listed reptile and additional bird species potentially present near the project are mobile and would avoid construction areas	• No significant impacts anticipated due to BMPs use, lack of habitat, and mobile-species avoidance of construction areas	• No significant impacts, as in Alternative 2	• No significant impacts, as in Alternative 3	• No significant impacts, as in Alternative 3

	ALTERNATIVE 2 **In-Place Rehabilitation of Existing Levee**	**ALTERNATIVE 3** **Levee Raised in Place Over Entire Length of the Presidio FCP**	**ALTERNATIVE 4** **Entire Levee System Raised with Downstream Offset Alignment**	**ALTERNATIVE 5** **Levee Raised Upstream Adding Spur Levee at Mile 9.2**	**ALTERNATIVE 6** **Levee Raised Upstream Adding Spur Levee at Mile 8.5**	**ALTERNATIVE 7** **Levee Raised Upstream Adding Spur Levee Along Railroad Track**
CULTURAL RESOURCES						
Archaeological Resources	• Alternative may adversely affect archaeological resources; construction would incorporate best management practices and mitigation measures • One NRHP-eligible archaeological site (41PS86) occurs in the upper reach of the existing levee alignment ROW • Use of construction equipment may affect Site 41PS86 along the levee alignment and in staging areas	• Alternative may adversely affect archaeological resources; construction would incorporate best management practices and mitigation measures • One NRHP-eligible archaeological site (41PS86) occurs in the upper reach of the existing levee alignment ROW • Use of construction equipment may affect Site 41PS86 along the levee alignment and staging areas • Excavation in previously unused/ undisturbed borrow areas may adversely affect archaeological resources	• Entire current alignment, potential adverse effects for footprint expansion as in Alternative 3 • Removal of existing levee in the lower reach may expose previously unidentified archaeological resources	• In-place raising along upper and middle reaches may have adverse effects, as in Alternative 3	• In-place raising along upper and middle reaches may have adverse effects, as in Alternative 3 • One potentially NRHP-eligible archaeological site (41PS1101) occurs along new levee alignment's ROW • Use of construction equipment may affect Site 41PS1101 along the 1.4 mile long spur levee alignment and in staging areas • Potential burial of Site 41PS1101 by fill material placement for creation of new levee • Capping may be beneficial by preserving archaeological resources in place if conducted in accordance with best management practices and mitigation measures to avoid adverse effects from soil compaction	• In-place raising along upper and middle reaches may have adverse effects, as in Alternative 3 • One potentially NRHP-eligible archaeological site (41PS1101) occurs along new levee alignment's ROW • Use of construction equipment may affect Site 41PS1101 along the 2.9 mile long spur levee alignment and in staging areas • Potential burial of Site 41PS1101 by fill material placement for creation of new levee
Architectural Resources	• No NRHP-eligible architectural resources will be affected	• No NRHP-eligible architectural resources will be affected	• No NRHP-eligible architectural resources will be affected	• No NRHP-eligible architectural resources will be affected	• No NRHP-eligible architectural resources will be affected	• No NRHP-eligible architectural resources will be affected
Native American Resources	• No Native American resources will be affected	• No Native American resources will be affected	• No Native American resources will be affected	• No Native American resources will be affected	• No Native American resources will be affected	• No Native American resources will be affected
WATER RESOURCES						
Flood control, surface water quality and groundwater	• Repairs to levee and improvements to meet 25-year flood design will protect adjacent properties from moderate flood event • Water Quality in area not altered • No impacts to groundwater resources	• Increased flood protection for the City of Presidio and all downstream agricultural areas (from 25-year storm to 100-year storm event) • Minimum impacts on surface water quality by BMPs use to control release of construction-generated sediment • Water quality in area not altered • No impacts to groundwater resources	• Increased flood protection along entire Presidio FCP, as in Alternative 3 • No impacts to water quality or groundwater resources	• Increased flood protection limited to the City of Presidio and agricultural lands along the middle reach of levee • Downstream agricultural areas will not have increased flood protection • No impacts to water quality or groundwater resources	• Increased flood protection limited to the City of Presidio and agricultural lands along the middle reach of levee • Downstream agricultural areas will not have increased flood protection • No impacts to water quality or groundwater resources	• Increased flood protection limited to City of Presidio • Adjacent and downstream agricultural areas will not have increased flood protection • No impacts to water quality or groundwater resources

	ALTERNATIVE 2 In-Place Rehabilitation of Existing Levee	ALTERNATIVE 3 Levee Raised in Place Over Entire Length of the Presidio FCP	ALTERNATIVE 4 Entire Levee System Raised with Downstream Offset Alignment	ALTERNATIVE 5 Levee Raised Upstream Adding Spur Levee at Mile 9.2	ALTERNATIVE 6 Levee Raised Upstream Adding Spur Levee at Mile 8.5	ALTERNATIVE 7 Levee Raised Upstream Adding Spur Levee Along Railroad Track
LAND USE						
Residential, agricultural, and other land uses	• No land uses will be altered by action • No impacts on agricultural land use; development of new levee materials borrow sites is not required	• 74 acres of agricultural land, and 6 acres of developed area would be affected by levee footprint expansion • Encroached areas would represent 3% of 3,262 acres within land use corridor • Likely need to use over 10 acres of agricultural land for development of new levee materials borrow sites	• 3% encroachment of 3,028 acres within land use corridor (89 acres of agricultural and 11 acres of developed areas) • Likely need to use over 40 acres of agricultural land for development of new levee materials borrow sites	• 3% encroachment of 2,376 acres within the land use corridor (49 acres of agricultural and 11 acres of developed areas) • Likely need to use over 15 acres of agricultural land for development of new levee materials borrow sites	• 2.5% encroachment of2,445 acres land use corridor (52 acres of agricultural and 10 acres of developed areas) • Likely need to use over 15 acres of agricultural land for development of new levee materials borrow sites	• 3% encroachment of 89 acres within the land use corridor (72 acres of agricultural and 17 acres of developed areas) • Likely need to use over 25 acres of agricultural land for development of new levee materials borrow sites
SOCIOECONOMIC RESOURCES						
Regional economics, environmental justice, and transportation	• Moderate but temporary, limited to construction period, beneficial impact on minority and low income populations • Moderate increase in road utilization during construction period • Irrigation features would not be disrupted and irrigable land would not be lost.	• 57% and 14% estimated increases in sales volume and income relative to County annual values, respectively • Moderate but temporary, limited to construction period, beneficial impact on minority and low income populations • Moderate increase in road utilization during construction period • Irrigation features would not be disrupted and irrigable land would not be lost.	• Relative to County, temporary sales and income increases (54% percent and 14%, respectively) • Moderate impacts on minority populations and road utilization. • Irrigation features in up to 753 acres of land might be disrupted, and approximately 19% of irrigable land of the of the total agricultural lands (3,924 acres) may be lost from production	• Relative to County, temporary sales and income increases (48% percent and 12%, respectively) • Moderate impacts on minority populations and road utilization • Irrigation features in up to 967 acres of land might be disrupted, and approximately 25% of irrigable land of the total agricultural lands (3,924 acres) may be lost from production •	• Relative to County, temporary sales and income increases (46.5% percent and 11.8%, respectively) • Moderate impacts on minority populations and road utilization • Irrigation features in up to 584 acres of land might be disrupted, and approximately 15% of irrigable land of the total agricultural lands (3,924 acres) may be lost from production •	• Relative to County, temporary sales and income increases (51.8% percent and 13.2%, respectively) • Moderate impacts on minority populations and road utilization • Irrigation features in up to 584 acres of land might be disrupted, and approximately 15% of irrigable land of the total agricultural lands (3,924 acres) may be lost from production •
ENVIRONMENTAL HEALTH						
Air quality, noise, and public health and environmental hazards	• No impacts to regional air quality, noise levels, or hazardous materials or waste storage sites	• Moderate impacts on air quality limited to the construction period • Air emissions below 10% of annual county inventory for carbon monoxide, volatile organic compounds, and particulate matter. • Sulfur oxide and nitrogen dioxide emissions moderately above that threshold (18.7% and 10.3%, respectively) • Limited noise impacts limited to the construction period • No hazardous materials or waste storage sites reported within the proposed project area or its vicinity	• As in Alternative 3, moderate temporary impacts • Sulfur oxides and nitrogen dioxides air emissions moderately above 10% of the Presidio County inventory	• As in Alternative 3, moderate temporary impacts • Sulfur oxide air emissions moderately above 10% of the Presidio County inventory	• As in Alternative 3, moderate temporary impacts • Sulfur oxide air emissions moderately above 10% of the Presidio County inventory	• As in Alternative 3, moderate temporary impacts • Sulfur oxide air emissions moderately above 10% of the Presidio County inventory

SECTION 3
AFFECTED ENVIRONMENT

This chapter describes the resources in the existing environment that would be impacted by the No Action Alternative and the Action Alternatives. The resources presented include the following:

1. Biological resources - vegetation, terrestrial wildlife, aquatic wildlife, threatened, endangered, and special status species;

2. Cultural resources - archaeological resources, architectural resources, and traditional cultural properties;

3. Water resources - flood control and floodplain management, surface water quality, and groundwater resources;

4. Land use - developed lands and agricultural lands;

5. Socioeconomic resources and transportation - population, employment and income, agricultural economics, environmental justice, and transportation; and,

6. Environmental health - air, noise, public health and environmental hazards.

3.1 BIOLOGICAL RESOURCES

3.1.1 Definition of Resource

The EIS evaluates potential impacts to the following biological resource areas (1) vegetation communities (discussed in subsection 3.1.2), terrestrial wildlife (discussed in subsection 3.1.3), aquatic wildlife (discussed in subsection 3.1.4), and threatened, endangered, and special status species (discussed in subsection 3.1.5). Wetlands and other aquatic habitats are important to many species within the Presidio FCP. These habitats are discussed within an ecological context in subsection 3.1.4, while wetlands and other regulated waters are discussed in a regulatory context within subsection 3.3 (Water Quality).

3.1.2 Vegetation Communities

Regional Vegetation Classification

The Trans-Pecos region of the Chihuahuan Desert is historically a mosaic of grasslands and desert shrublands (MacMahon 1988; McClaran and Van Devender 1995). The grassland areas are dominated by tobosa, black grama, and other grass species. The dominant desert shrub species are creosote bush, tarbush, or a mixture of the two. Other shrub species and succulents are also present in this area. In areas where washes or rivers are present, willows, cottonwood, and mesquite dominate riparian vegetation. In the recent past, riparian areas have been degraded, and the invasive salt cedar has attained dominance in many locations.

Based on literature review and field surveys, the following four vegetation communities were identified as occurring within the vegetation survey corridor: Desert scrub/woodland community; herbaceous community; wetland/riparian community; and agricultural/rangeland areas, as described below. For the analyses, the broad categories are used (*e.g.,* wetland and riparian areas are combined into a single category).

Desert Scrub Community

Mixed desert scrub - The upland areas from the Rio Grande are characterized by vegetation dominated by creosote bush and in some places tarbush. Other species may occur in the vegetation type, including mesquite, yucca, lotebush, ocotillo, javelina bush, catclaw, white-thorn acacia, whitebrush, ceniza, althorn, guayacan, pricklypear, pitaya, and tasajillo (McMahan, *et al.* 1984). In areas where grazing or other disturbance has occurred, snakeweed and Russian thistle (tumbleweed) are present. All scientific names are in the *Updated Biological Resources Evaluation*, prepared in support of this EIS (USIBWC 2010).

Woodland – Woodlands in the area are characterized by larger woody species, generally dominated by mesquite, salt cedar, and retama (palo verde). Historically, there may have been other species in the woodland areas but changes in water (*e.g.*, lowered water tables) and agriculture (*e.g.*, clearing wooded areas for agriculture) has reduced the extent of this vegetation in the area and altered the species composition.

Herbaceous Community

Non-native grassland – Historically, the landscape was characterized by large areas of grasslands, and included such species as chino grama, black grama, fluffgrass, range ratany, skeletonleaf goldeneye, and mariola (McMahan, *et al.* 1984). At present, the levee slopes are frequently mowed to prevent encroachment of woody species, and the only woody species generally found on the levee slopes are stunted Russian thistle, occasionally stunted salt cedar. The levee slopes and floodway are currently dominated by herbaceous species. In the project area, the dominant non-native grass is Bermuda grass.

Wetland/Riparian Community

Wetlands – Wetlands in the area are generally characterized by herbaceous species with woody species present on the fringes of the wetlands. Wetlands are often located within and adjacent to resacas (river channels that have been cut off from the main river channel) and within historic river channels. The emergent wetland areas are characterized by common reed, cattail, some sedges, and occasionally, Johnsongrass. The fringes of the wetlands in the region generally include mesquite and salt cedar (McMahan, *et al.* 1984). The scrub-shrub wetlands are characterized by woody vegetation less than 20 feet tall (Cowardin, *et al.* 1979), and species present may include mesquite, desert willow, and salt cedar.

Riparian communities – Riparian areas in the region historically included cottonwood, willow, desert willow, fourwing saltbush, and acacia (MacMahon 1988). Two species of the invasive salt cedar have gained dominance in many riparian areas, and one species (*Tamarix ramosissima*) generally is of smaller stature and very close to water sources, and the second species, Athel tamarisk (*Tamarix aphylla*) are often the largest trees in the landscape and tend to me in more upland areas.

Agricultural / Rangeland

Active Agricultural Fields – Areas currently subject to cultivation of crops. Common crops in the area include alfalfa and small grains.

Fallow Agricultural Fields – Areas that have been cultivated in the past, but are not currently being used for agricultural purposes. Due in part to the recent flooding, many fallow fields have been invaded by exotic plant species, in particular, Russian thistle (tumbleweed).

Vegetation Survey and Preliminary Analyses

Vegetation communities along the Presidio FCP were delineated from color infrared orthoimagery, and field verified. Positional data were captured using a global positioning system (GPS) to associate spectral signatures within the imagery and field observations. The vegetation classification used for the evaluation was adapted from Diamond (1993), and the 1996 National Vegetation Classification System, in use by the U.S. Fish and Wildlife Service (USFWS) and TPWD. Information on baseline vegetation typical in the area was obtained from several sources (MacMahon 1988; McClaran and Van Devender 1995; McMahan, *et al.* 1984; USIBWC 2008).

Field surveys of the Presidio FCP vegetation were conducted on March 10 through March 12, July 6 through July 9, August 10 through August 12, and September 29 through October 2, 2009. Vegetation surveys were conducted within a 300-foot wide vegetation survey corridor centered on the existing levee. Vegetation communities were determined within the 300-foot survey corridor along the entire length of the existing levee. Further, vegetation communities in the approximate locations of the proposed alternative levee locations were determined by a combination of aerial photography and visual field inspection. The 300-foot wide vegetation survey corridor includes the levee slopes.

Based on the field survey information, vegetation communities were photo-interpreted and data entered into a Geographic Information System (GIS). In addition to the four plant communities described above, open water and developed areas were mapped. Developed areas include roads, ranch houses or barns, and other impervious cover, and the golf course southeast of Presidio. The existing levee footprint is separated from the vegetation classes, and the vegetation on the levees is dominated by non-native grasses. Analyses of the resulting vegetation maps for the Presidio FCP and proposed alternatives indicate that non-native grassland and agricultural areas were the dominant vegetation types immediately adjacent to the existing levee and in the floodway between the levee and the Rio Grande. Agricultural fields were the dominant vegetation type in the locations of the proposed offset levee and the proposed spur levees.

Table 3-1 presents the distribution of vegetation communities along the upper and middle reaches of current levee alignment. The upper and middle reaches of the survey corridor includes approximately 331.8 acres, distributed as follows:

- In the upper reach, 180.2 acres are present, including non-native grasslands (40.7 acres), agricultural areas (44.7 acres), and desert scrub/woodlands (29.2 acres). The desert scrub/woodlands in the upper reach is near Haciendita, and is dominated by creosote bush. Because the floodway is relatively narrow in the upper reach, and

the vegetation survey corridor may extend to the Rio Grande, the open water category includes portions of the river.

- In the middle reach, 158.9 acres are present, including non-native grasslands (48.6 acres), agricultural areas (21.7 acres), and desert scrub/woodlands (30.1 acres). In the middle reach, the desert scrub/woodland vegetation type occurs within the c-shaped segment between the ends of the resacas.

Table 3-1 Vegetation Communities in the Survey Corridor along the Current Presidio FCP Levee System

Vegetation Community	Acres Within the Vegetation Survey Corridor	
	Upper Reach (levee miles 0 to 4.5)	Middle Reach (levee miles 4.5 to 9)
Desert scrub/ woodlands	29.2	30.2
Non-native grasslands	40.7	48.6
Wetlands / Riparian	0.0	1.6
Agricultural	44.7	21.7
Open Water	5.2	2.8
Developed lands	0.1	2.9
Existing levee footprint	60.3	51.1
Total	180.2	158.9

Table 3-2 presents the vegetation communities in survey corridors along the lower reach of the Presidio FCP where raising the levee in-place (for 25-year flood protection or for 100-year flood protection; Alternatives 2 and 3) or placement of an offset levee (Alternative 4) is under consideration. The vegetation community distribution for those two potential levee alignments is as follows:

- In the lower reach, along the existing levee, 208.0 acres are present, including non-native grasslands (50.7 acres), agricultural areas (47.4 acres), and desert scrub / woodlands (32.3 acres). The desert scrub/woodlands vegetation occurs within the c-shaped segments between the ends of the resacas.

- Within the survey corridor along the proposed offset levee (Alternative 4), 132.7 acres are present, including agricultural areas (111.7 acres), developed land (16.2 acres), and desert scrub/woodland (3.0 acres). Developed land includes a golf course adjacent to the proposed offset levee.

Table 3-2 Vegetation Communities within Survey Corridors along Existing or Relocated Levee Alignments in the Lower Reach of the Presidio FCP

Vegetation Community	Acres Within the Lower Reach Survey Corridors	
	Lower Reach (levee miles 9 to 15.3) (Alternative2 and 3)	Offset Levee Relocation (Alternative 4)
Desert scrub/ woodlands	32.3	3.0
Non-native grasslands	50.7	0.5
Wetlands / Riparian	0.7	0.1
Agricultural	47.4	111.7
Open Water	1.1	0.0
Developed lands	6.3	16.2
Existing levee footprint	69.5	1.3 [(a)]
Total	208.0	132.7

(a) The existing levee footprint is the portion of the newly constructed levee that intersects the existing levee at an approximately perpendicular angle at levee mile 9.2.

Table 3-3 presents the vegetation communities within the survey corridors for the three spur levee locations. The vegetation community distribution is as follows:

- In the lower reach, along the corridor for the spur levee at levee mile 9.2 (Alternative 5), 46.5 acres are present, almost entirely agricultural (45.8 acres).

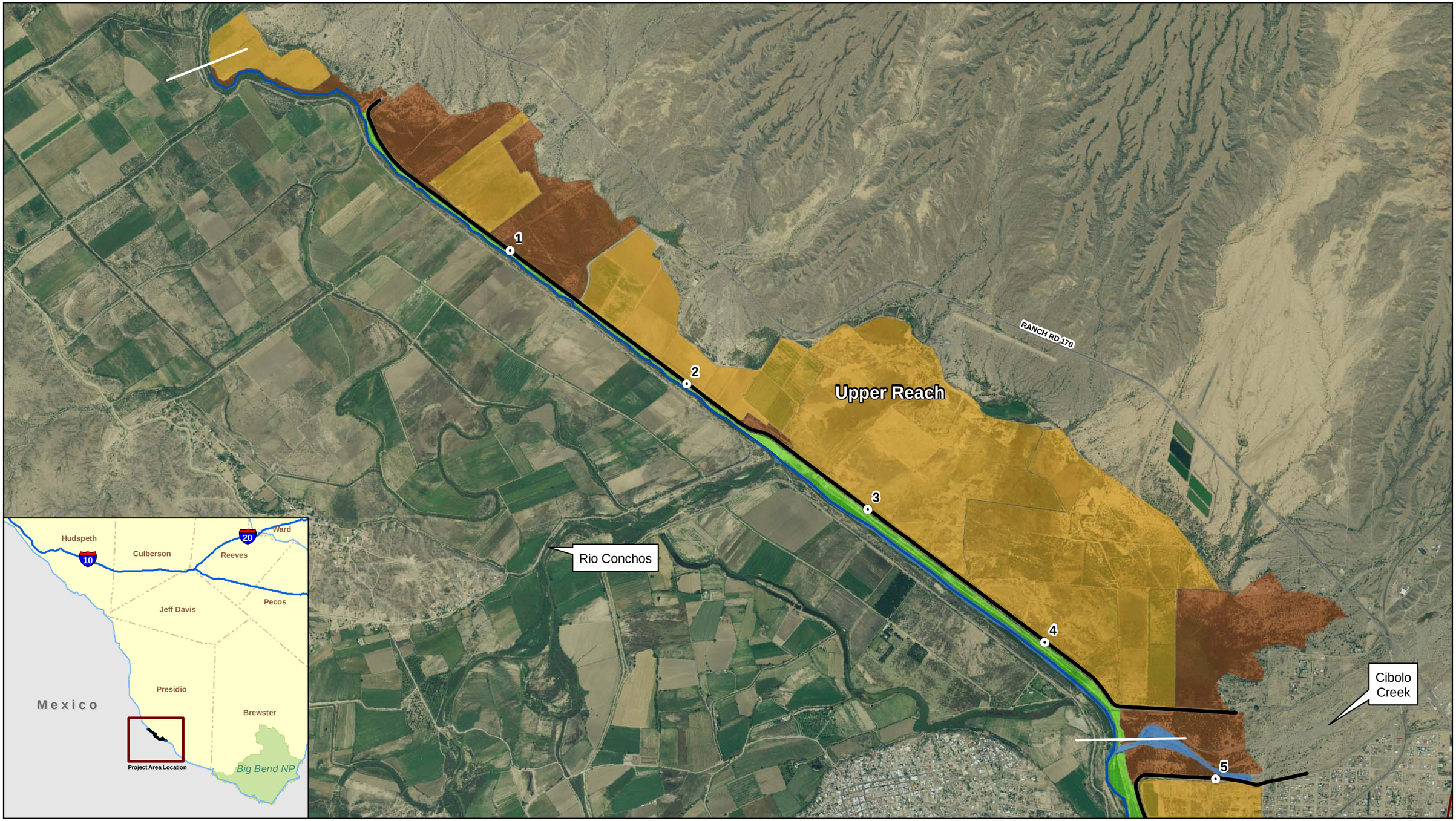
- In the middle reach, along the corridor for the proposed spur levee at mile 8.5 (Alternative 6), 49.9 acres are present, including desert scrub/woodlands (32.7 acres) and agricultural areas (14.6 acres). The woody vegetation occurs adjacent to a central resaca, and within the historic river channel.

- In the middle reach, along the corridor for the proposed the railroad spur levee (Alternative 7), 103.4 acres are present, including agricultural land (67.1 acres) and desert scrub/woodlands (29.1 acres). The woody vegetation for the proposed railroad spur levee is adjacent to the railroad and within an historic river channel.

Table 3-3 Vegetation Communities within Survey Corridors along Three Spur Levee Alignments in the Middle and Lower Reaches of the Presidio FCP

Vegetation Community	Acres Within the Lower Reach Survey Corridors		
	Alternative 5 Spur Levee at Mile 9.2	Alternative 6 Spur Levee at Mile 8.5	Alternative 7 Railroad Spur Levee
Desert scrub/ woodlands	0.7	32.7	29.1
Non-native grasslands	<0.01	0.3	0.4
Wetlands / Riparian	0.1	2.6	2.9
Agricultural	45.8	14.6	67.1
Open Water	0.0	0.0	<0.01
Developed lands	0.0	0.0	3.6
Existing levee footprint [(a)]	0.04	0.04	0.3
Total	46.5	49.9	103.4

(a) The existing levee footprint is the portion of the newly constructed levee that intersects the existing levee at an approximately perpendicular angle.



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Vegetation

- Agricultural
- Desert scrub/woodlands
- Non-native grasslands
- Open Water

- Mile Markers
- Levee Centerline
- Rio Grande

- Highways
- Major Roads

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Figure 3-1
Vegetation Communities- Upper Reach
Presidio Flood Control Project
International Boundary and Water Commission
United States Section

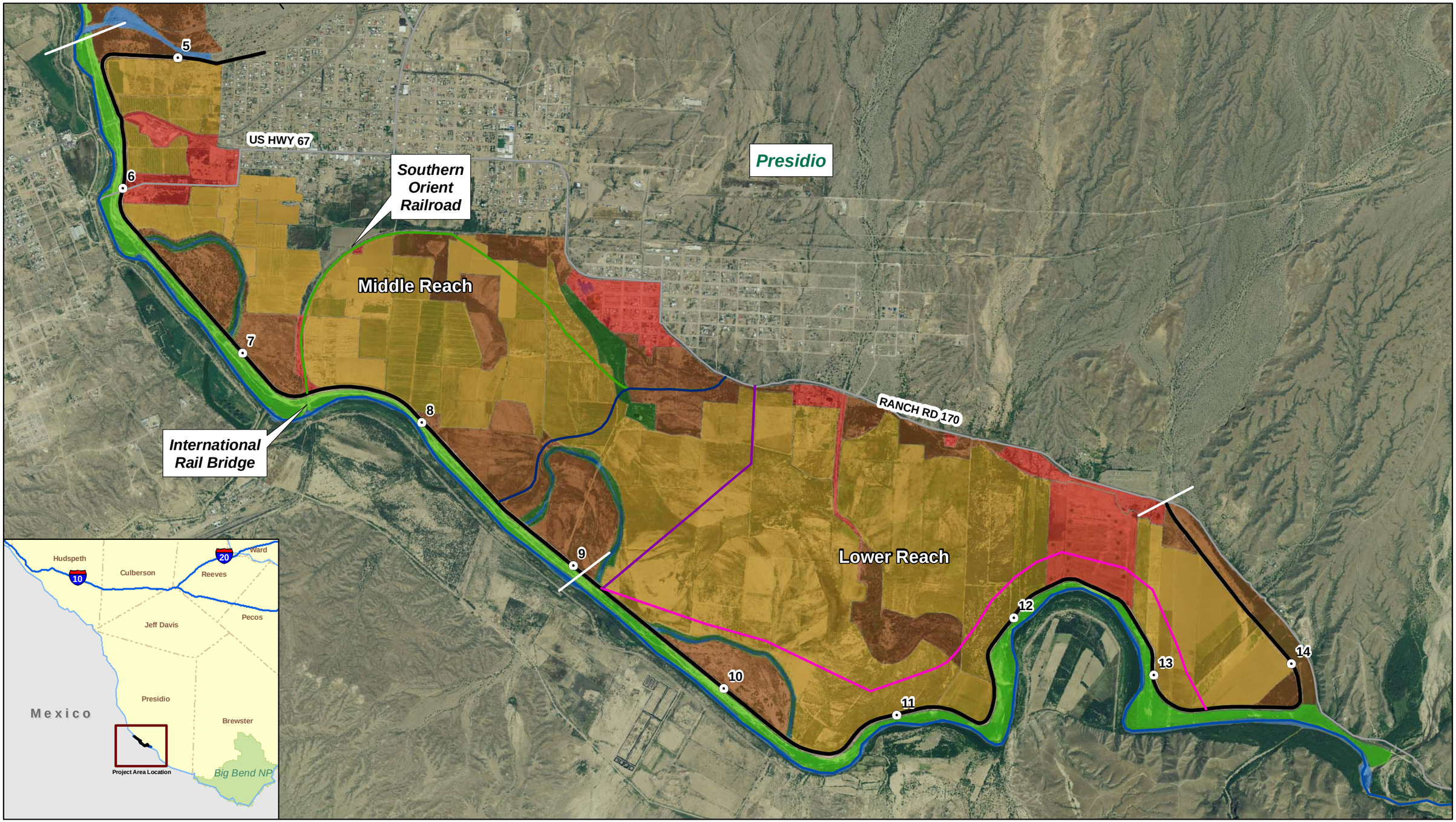

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Figure 3-2
Vegetation Communities - Middle and Lower Reaches
Presidio Flood Control Project
International Boundary and Water Commission
United States Section

3.1.3 Terrestrial Wildlife Communities

Regional Wildlife Classification

A number of wildlife species are present in the region. The Rio Grande is a major migratory flyway for numerous bird species, particularly waterfowl, shore birds, and those associated with riparian habitats. The cleared floodplain also provides suitable hunting areas for raptors.

Of the variety of birds found in the area, some common species include the Gambel's quail, red-winged blackbird, western kingbird, gadwall, mourning dove, scaled quail, and turkey vulture. Scientific names of species are included in the *Biological Resources Evaluation* (USIBWC 2010), prepared in support of this EIS.

The mule deer and pronghorn antelope are large game animals known to occur in the region. Other non-game mammals include the coyote, western spotted skunk, striped skunk, desert cottontail, black-tailed jackrabbit, porcupine, raccoon, ringtail, badger, and several species of bats. Furbearing mammals include the bobcat, mountain lion, kit fox, gray fox, long-tailed weasel, beaver, nutria, and muskrat.

Small rodents may include desert pocket gopher, yellow-faced pocket gopher, kangaroo rats, woodrats, pocket mice, and Texas antelope squirrel.

Reptiles and amphibian species have not been well studied in the area. Reptile species that may occur in the area include Texas banded gecko, reticulated gecko, greater earless lizard, spiny lizards, whiptail lizards, Trans-Pecos ratsnake, western hooknose snake, whipsnakes, and western diamondback rattlesnake. Amphibian species that may occur in the area include tiger salamander, several toad species, Couch's spadefoot, western spadefoot, plains spadefoot, and Great Plains narrowmouth toad.

Wildlife Survey

Field surveys of the Presidio FCP vegetation were conducted on March 10 through March 12, July 6 through July 9, August 10 through August 12, and September 29 through October 1, 2009. The field surveys of vegetation largely determined wildlife habitats for common species that may occur in the area. Focused bird surveys were conducted for this project on July 7 and 8, and September 29 through October 1, 2009. The species observed during the bird surveys are included in the *Updated Biological Resources Evaluation* (USIBWC 2010).

3.1.4 Aquatic Wildlife Communities

Regional Aquatic Communities

The aquatic ecosystems are restricted to the Rio Grande and the tributaries that flow into the Rio Grande (including the Rio Conchos from Mexico). Above the confluence with the Rio Conchos, the Rio Grande is seasonally dry due to extensive irrigation practices upstream. Downstream of the confluence with the Rio Conchos, the Rio Grande becomes a permanent water body. In this region of the Rio Grande and its tributaries, the fish fauna include common species such as common carp, river carpsuckers, characins, bullhead and channel catfishes,

gizzard shad, red shiner, and green sunfish (CDM 2005; USACE 1999). Aquatic macro-invertebrates in the Rio Grande and tributaries near the Presidio FCP include mayfly and dragonfly larvae, beetles, insects from the order diptera, and caddisflies (CDM 2005).

Aquatic habitats in the area are likely affected by the levee, because levees contribute to floodplain constriction and habitat degradation for aquatic and riparian communities because of changes in flow regime. Levees functionally disconnect the river from most of the floodplain and associated wetlands. Constriction of the river and disconnection from the floodplain results in the elimination of shallow, low, and no velocity habitats required by many aquatic and riparian species. The effects of levees on these habitats and species within this project area extend both upstream and downstream of the levees. Other factors may also constrict the floodplain, such as invasion of riparian areas by salt cedar and sedimentation, and these factors also alter the flow regime, and therefore, may alter the aquatic communities.

Wetlands in the Presidio FCP were found in resacas and the more deeply carved historic river channels. The Rio Grande was historically a braided river, and the main river channel moved across the floodplain over time. At the time of the levee construction, recent river channels, defined as resacas, were likely active river channels, and the connection between the Rio Grande and the resaca was severed during levee construction. The resaca wetlands within the Presidio FCP are considered primarily palustrine wetland systems. Palustrine wetlands systems are non-tidal fresh-water wetlands dominated by trees, shrubs, and other vegetation. The resacas in the Presidio FCP measure from 1 to 6 feet deep and 30 to 150 feet wide. Flood water contributions to resacas from the Rio Grande within the Presidio FCP are generally restricted by levees (designed to hold 25-year flood events); although some resacas retain waters received either through groundwater or from agricultural tail waters (surplus surface flows from irrigated fields). Sedimentation and siltation in resacas may pose a threat to long-term viability of the wetland resources in resacas (Ramirez 1986). The vegetation surrounding the resacas within the Presidio FCP is composed primarily of mesquite, salt cedar, common reed, and retama.

Historic river channels in the Presidio FCP are those river channels that have not been active for much of the last 75 or more years and typically are not farmed due to topographic relief and poor drainage. The historic river channel in the Presidio FCP is south of the Presidio High School, running southeast through the floodplain. The historic river channel is between 150 feet and 600 feet wide, based on aerial imagery and field observations, and is dry most of the year. The isolation of the historic river channel has created a palustrine system within the former banks. Within the historic river channel, aquatic beds support common reed, which then transitions up gradient through non-persistent herbaceous vegetation and shrub vegetation. The historic river channel in the Presidio FCP generally receives waters from rainwater, and possibly from storm water runoff from the city of Presidio, and waters will remain in the channel until waters seep to groundwater or evaporate. There is no surface connection between the historic river channel and the resacas or the Rio Grande.

Wetland Surveys

Field surveys of the Presidio FCP wetlands were conducted on August 10 through August 12, 2009 and on September 29 through October 1, 2009. Three resacas were identified within the survey corridor from aerial imagery, and field verified. Based on preliminary evaluations, the resacas were the wetlands most likely to be affected if the levees were raised in place to

provide improved flood protection. The historic river channel is also a wetland area that would be affected if one of the proposed spur levees (Alternatives 6 or 7) were constructed across the historic river channel.

All three resacas (Resacas A, B, and C) may be broadly considered palustrine wetlands, as defined in the Cowardin wetland classification system (Cowardin, *et al.* 1979). Resacas A and B contain semi-permanent open water habitat.

Each resaca intercepted the current levee survey corridor at two ends; therefore, six wetland areas were assessed (two for each resaca). Each resaca was designated with a letter (Resacas A, B, and C) (Figure 3-3), and each wetland area was designated with a number indexed to the resaca. Therefore, the six wetland areas assessed in the field were designated Wetland A-1, A-2, B-1, B-2, C-1, and C-2.

The historic river channel is classified as palustrine wetlands, as defined in the Cowardin wetland classification system. The historic river channel does hold water during some periods, and the presence of trees and shrubs, and some emergent vegetation, classifies this area as palustrine.

The historic river channel boundaries were identified from aerial imagery, and field verified (Figure 3-3). Based on preliminary analyses, two of the alternatives presented in this EIS would cross the boundaries of the historic river channel. The wetlands boundaries within the historic river channel were primarily defined by the presence of hydrophytic vegetation and topography. Throughout the historic river channel, the edge of the river channel was characterized by steep breaks between the river channel and the upland areas. The historic river channel was designated as wetland letter D. The portion of the historic river where the proposed new levee for Alternative 6 would cross the channel is designated as wetland D-1, and the portion of the historic river where the proposed new levee for Alternative 7 would cross the channel is designated as wetland D-2. Both proposed new levees cross at the same location on the eastern side of the historic river channel, designated as wetland D-3.

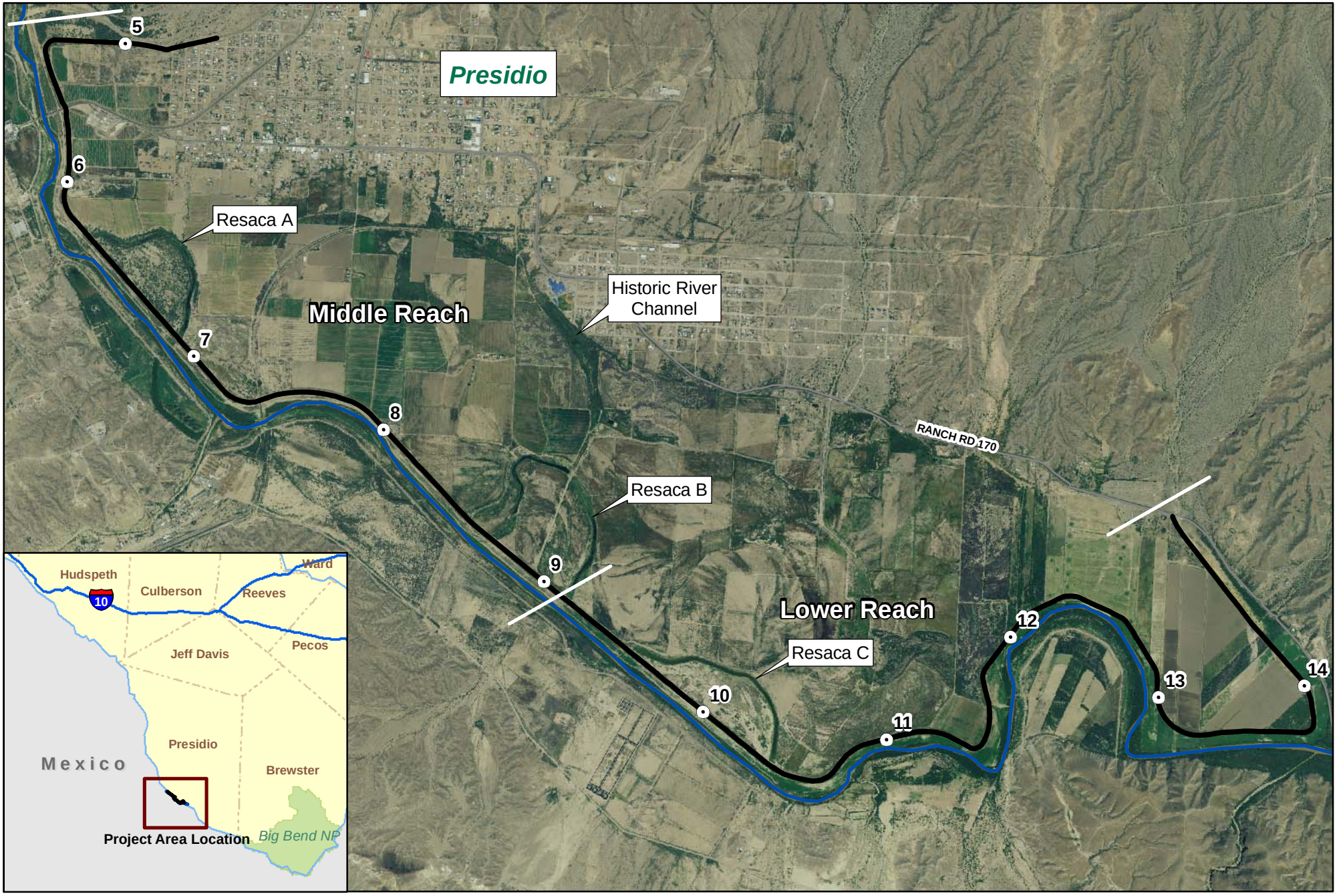
3.1.5 Threatened, Endangered and Special Status Species

The potential presence of special status species habitat was analyzed based on vegetation survey data and habitat requirements of species potentially occurring in the project area that are protected under federal and state regulatory frameworks or otherwise considered of conservation concern. This information was used to assess the likelihood of special status species occurrence based on the following assumptions:

1. The likelihood of a species occurring within the project area can be substantially determined from agency contacts, species life history descriptions, and literature reviews.

2. Analyses of plant community types are sufficient for determining whether suitable special status species habitat occurs in the project area.

3. Although there is a very small likelihood of actually observing a rare species in the course of a survey, suitable habitat can be identified in the field.



0 1,250 2,500 5,000 Feet

0 250 500 1,000 Meters

Mile Markers
Levee Centerline
Rio Grande
Major Roads

Figure 3-3
Wetland Areas Identified in the Presidio FCP
Presidio Flood Control Project

International Boundary and Water Commission
United States Section

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Habitat requirements and life history for each special status species potentially occurring along the Presidio FCP levee corridor were identified through literature review. Sources of information included species fact sheets published by natural resource agencies, species recovery plans, and scientific literature.

Preferred habitat types for each special status species potentially occurring in Presidio County was compared to the habitat types identified during field surveys to evaluate their likelihood of occurrence.

Based on literature review and field surveys, the list of Special Status Species, including federal and state listed T&E species, within Presidio county was consolidated to include a list of species with potential habitat in the area, species that are extant, or species that have been observed in the area. The *Biological Resources Evaluation* (USIBWC 2010) provides additional information on species habitats and presence in the Presidio FCP area. The federal and state listed T&E species that may occur in the area of the Presidio FCP are shown in Table 3-4. Also presented is the likelihood of occurrence based on available descriptions of likely habitat utilized and field observations of habitat present. The likelihood of occurrence is defined as:

- Present in project area (species was observed during field surveys);
- Potentially present in area (suitable habitat is present in the area); and
- Not known if habitat present (the habitat requirements are not well understood, and therefore, the species may be present).

Descriptions of Federal Listed Species

Rio Grande silvery minnow. The Rio Grande silvery minnow is a federal and state listed endangered species that historically inhabited the Rio Grande and Pecos River systems. The Rio Grande silvery minnow occurs in waters with slow to moderate flow in perennial sections of the Rio Grande, and may occur in associated irrigation canals. Threats to the Rio Grande silvery minnow include habitat degradation and flow modifications, including dewatering, channelization, water regulation, diversion of river flow for irrigation, and reduced water quality due to urbanization. Other threats can include interactions with non-native fish, and lack of adequate refuge during periods of low or no flow. The Rio Grande silvery minnow is considered extirpated in the Presidio FCP area. However, the USFWS has recently introduced a non-essential experimental population of Rio Grande silvery minnow near Big Bend National Park, downstream of the project area. See *Updated Biological Resources Evaluation* (USIBWC 2010) for additional details on this species.

Northern aplomado falcon. The northern aplomado falcon is a federal and state listed endangered species that nests in trees or shrubs, laying eggs between March and June. The general habitat requirements include open desert terrain with scattered trees, relatively low ground cover, an abundance of small to medium-sized birds as a food source (supplemented with insects, small snakes, lizards, and rodents), and a supply of previously constructed nests, and above ground nesting substrate such as yucca and mesquite. The reasons for declining

populations of northern aplomado falcons are not well known. Within the project area, there is some suitable foraging habitat, and the presence of nesting habitat is unknown.

Table 3-4 Special Status Species That May Occur Within the Presidio FCP

Common Name (*Scientific Name*)	Federal Regulatory Status [(a)]	State Regulatory Status [(a)]	Likelihood of Occurrence
FISH			
Chihuahua shiner (*Notropis Chihuahua*)		T	Potentially present in area
Conchos pupfish (*Cyprinodon eximius*)		T	Not known if habitat present
Mexican stoneroller (*Campostoma ornatum*)		T	Not known if habitat present in Rio Grande, possibly present in Rio Conchos
Rio Grande silvery minnow (*Hybognathus amarus*)	LE	E	No suitable habitat in area; Experimental Population established downstream in State Park and Big Bend areas
REPTILES			
Chihuahuan Desert lyre snake (*Trimorphodon vilkinsonii*)		T	Not known if habitat present
Chihuahuan mud turtle (*Kinosternon hirtipes murrayi*)		T	Not known if habitat present
Reticulated gecko (*Coleonyx reticulates*)		T	Not known if habitat present
Texas horned lizard (*Phrynosoma cornutum*)		T	Not known if habitat present
Trans-Pecos black-headed snake (*Tantilla cucullata*)		T	Not known if habitat present
BIRDS			
American Peregrine Falcon (*Falco peregrinus anatum*)	DL	E	Potential migrant, no suitable breeding habitat
Arctic Peregrine Falcon (*Falco peregrinus tundrius*)	DL	T	Potential migrant, no suitable breeding habitat
Common Black-Hawk (*Buteogallus anthracinus*)		T	Potentially present in area
Gray Hawk (*Asturina nitida*)		T	Potentially present in area
Northern Aplomado Falcon (*Falco femoralis septentrionalis*)	LE	E	Potential foraging habitat, no suitable breeding habitat
Southwestern Willow Flycatcher (*Empidonax traillii extimus*)	LE	E	Historical occurrence in area, no suitable breeding habitat in area
Western Yellow-billed Cuckoo (*Coccyzus americanus occidentalis*)	Candidate Species		Present in project area
Zone-tailed Hawk (*Buteo albonotatus*)		T	Present in project area
Brown Pelican (*Pelecanus occidentalis*)	DL [(b)]	E	Observed in project area [(b)]

(a) Only special status species with regulatory status are included in the table. Regulatory status is defined as:

- *LE/LT (federal listed as endangered or threatened)*
- *DL (federal de-listed as an endangered species)*
- *Candidate species are under consideration for possible addition to the List of Endangered and Threatened Species)*

- *E/T (state-listed as endangered or threatened)*

(b) Incidental observation of juvenile in March 2009.

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Southwestern willow flycatcher. The southwestern willow flycatcher is a federal and state listed endangered bird species that typically breeds in dense riparian habitats along rivers, streams, or other wetlands. Suitable foraging and nesting vegetation can be dominated by dense growth of willows, seepwillow, or other shrubs and medium sized trees, including salt cedar, box elder, and Russian olive. All nesting habitat trees and shrubs have to have a specific plant and twig structure, regardless of species. The major threats to the southwestern willow flycatcher include habitat loss and degradation, and cowbird parasitism is a problem in some areas. Although salt cedar does exist along the riverbanks in the Presidio FCP, these plant communities do not meet the minimum patch size and density requirements for the southwestern willow flycatcher. In addition, the status of the population in Texas has not been recently quantified (USFWS 2002). There are historical records of the species occurring in the Big Bend National Park, but there are no accurate surveys of the population in the area of the Presidio FCP (USFWS 2002).

Brown pelican. The brown pelican is a federal and state listed endangered bird species that typically nest on small, isolated coastal islands where they are safe from predators such as raccoons and coyotes. Foraging habitat for brown pelicans is deep, clear water for diving. Threats to brown pelicans historically were DDT poisoning, but populations have recovered to the extent that the brown pelican is proposed for federal de-listing. Brown pelican populations have recovered to the extent that the brown pelican was federally delisted in November 2009. The brown pelican is not expected to occur in the Presidio FCP area; however, a transient juvenile brown pelican was observed after the September 2008 flooding, before the flood waters had receded. The waters of the Rio Grande are not clear enough or deep enough to support brown pelicans.

Western yellow-billed cuckoo. The Western Yellow-billed Cuckoo is federal listed as a candidate species when west of the Pecos River drainage. The western yellow-billed cuckoo nests and forages in riparian habitat with dense understory foliage and associated drainages. Threats to the western yellow-billed cuckoo include habitat loss, habitat degradation and replacement of native riparian vegetation with salt cedar. Flood control practices include channelization and bank stabilization may contribute to decline of the species. The area is within the former known range of the western subspecies. However, there are few areas within the Presidio FCP area that have suitable habitat. During the July 2009 bird survey a species of yellow-billed cuckoo was detected at least twice, but the subspecies could not be determined. See *Updated Biological Resources Evaluation* (USIBWC 2010) for additional details on this species.

Descriptions of State Listed Species

Chihuahua shiner. The Chihuahua shiner is considered by the USFWS as a species of concern and state listed as endangered. The Chihuahua shiner inhabits channels of large creeks and small to medium rivers, typically in clear, cool water that is often associated with nearby springs. The Chihuahua shiner often occurs in pools with slight current or riffles over a gravel or sand bottom where vegetation may be present. Threats to the species include damming and irrigation practices, and intermittent dewatering of streams. The species is known from the Rio Grande drainage from near the mouth of the Rio Conchos, and from several small tributaries to

the Rio Conchos (Edwards *et al.* 2002). There is possible suitable habitat for the species in the Presidio FCP area.

Conchos pupfish. The Conchos pupfish is considered by the USFWS as a species of concern and state listed as threatened. The species is widely distributed in the upper Rio Conchos and the upper portions of Alamito creek (Edwards *et al.* 2002). The Conchos pupfish inhabits sloughs, backwaters, marshes, and margins of larger streams, and mouths of creek tributaries to larger rivers. Threats to the species include destruction, modification, or reduction of habitat or range (Edwards *et al.* 2002). It is not known if suitable habitat is present in the Presidio FCP area.

Mexican stoneroller. The Mexican Stoneroller is considered by the USFWS as a species of concern and state listed as threatened. The Mexican Stoneroller inhabits small to medium sized streams with shallow riffles, runs, and pools of clear to slightly turbid waters. Larger adults may be found in pools over sand or gravelly bottoms, or in flowing segments of pools or along undercut banks or other cover. Threats to the species include displacement by the introduced Plains killifish, habitat loss and degradation due to historic overgrazing, erosion, water diversion, and aquifer pumping (Edwards *et al.* 2002). The species is known from the Rio Conchos above the confluence with the Rio Grande, and from the Big Bend area (Edwards *et al.* 2002), but it is not known if suitable habitat exists in the Presidio FCP area.

Chihuahuan desert lyre snake. The Chihuahuan Desert lyre snake is state listed as threatened. The snake occurs most commonly in dry, rocky terrain of mountains, canyons, hills and arroyos in areas with desert plants such as ocotillo, white thorn, yucca, lechuguilla, prickly pear, and grasses, or occasionally occurs on desert flats dominated by creosote bush. This is a secretive snake, and the life history and current threats to the species are not well known. It is not known if suitable habitat exists within the Presidio FCP area or nearby areas.

Chihuahuan mud turtle. The Chihuahuan mud turtle is state listed as threatened. This small turtle occurs primarily in lakes, rivers, streams, and ponds in areas of mesquite and grassland. Specific threats to the subspecies have not been well studied, but related species in the genera are subject to the effects of drought, pollution from sewage and industrial waste, and they are considered a pest by some landowners and killed. The species has been documented from the Alamito watershed, but current presence in Presidio County is unknown, and it is not known if suitable habitat exists within the project area.

Reticulated gecko. The Reticulated gecko is a state listed threatened species. Little is known about the life history of the species; however, the nocturnal reticulated gecko inhabits limestone canyons and other rocky areas in desert regions. Because little is known about the species, specific threats to the species have not been identified. They are known to occur in the Big Bend region of Texas and adjacent Mexico, but it is unknown if there are populations or suitable habitat within the Presidio FCP area.

Texas horned lizard. The Texas horned lizard is a state listed threatened species. Horned lizards generally have a small home range, and the primary prey is Harvester ants (of the genera *Pogonomyrmex*). The species generally inhabits open, arid, and semi-arid regions with sparse vegetation. Threats to the horned lizard are loss of habitat and suitable prey (prey includes several species of harvester ants, which are displaced by red imported fire ants); use of

insecticides to kill harvester ants, and in the past, the species was over-collected for the pet trade. Suitable habitat for Texas horned lizards may be present in the fallow agricultural fields, but no reptile surveys have been conducted in the Presidio FCP area.

Trans-Pecos black-headed snake. The Trans-Pecos black-headed snake is a state listed threatened species. The Trans-Pecos black-headed snake is a small, fossorial species, inhabits steep-sided rocky canyons, hilly grasslands with juniper and cholla, and streamside woodlands with creosote bush, acacia, yucca, and grasses. Because this snake is nocturnal, fossorial, and secretive, little is known about the threats to the species. The species is known from the Big Bend area, but no reptile surveys have been conducted in the Presidio FCP area.

American and Arctic peregrine falcon. The American Peregrine Falcon is state listed as endangered. The Arctic Peregrine Falcon is state listed as threatened. Both subspecies were federal listed, but have recovered to the extent that they have been delisted. Both subspecies may be present in west Texas as migrants across the state from northern breeding areas, and both subspecies winter along coastlines farther south. Additionally, some individuals of American peregrine falcon may establish year-round breeding colonies in west Texas. The Peregrine Falcon occupies a wide range of habitat during migration, including urban areas, landscape edges such as lakeshores and barrier islands. Both subspecies are considered low-altitude migrants. Nesting often occurs on cliff ledges, large tree hollows, or other areas with undisturbed wide views close to plentiful prey. Prey for the peregrine falcon are generally other birds. Historical threats to peregrine falcons have been due to pesticide poisoning, but populations have been recovering throughout most of the range. The Peregrine falcon may occur as a migrant in the Presidio FCP area, but there are limited areas for nesting near the project area.

Common black hawk, gray hawk, zone-tailed hawk. The Common Black Hawk, the Gray Hawk, and the Zone-tailed Hawk are state-listed as threatened. The three hawks occur irregularly along the U.S.-Mexico border in the area of the Presidio FCP. The Zone-tailed hawk was recorded during the July bird survey (USIBWC 2010). These hawk species tend to nest in mature riparian woodlands, and tend to forage in open, arid country. There are limited areas within the Presidio FCP area that would be considered mature riparian woodlands. The mature riparian woodlands that may be present are generally in Mexico.

Special Status Species Protected under the MBTA

All native birds present within the Presidio FCP are protected under the MBTA. Focused bird surveys were conducted in the Presidio FCP on July 7 through July 8 and September 29 through October 1, 2009. The focused bird survey identified 84 bird species, as described in the *Updated Biological Resources Evaluation* (USIBWC 2010). The MBTA allows for legal hunting of certain species protected under the MBTA, 12 of which were identified within the Presidio FCP (mallard, gadwall, green-winged teal, common moorhen, American coot, Gambel's quail, scaled quail, rock dove, white-winged dove, mourning dove, Inca dove, and common ground-dove). Three non-native species (Eurasian collared dove, house sparrow, and rock dove [feral pigeon]) were identified during the bird surveys, and these species are not protected under the MBTA.

3.2 CULTURAL RESOURCES

3.2.1 Definition of Resource

Cultural resources are prehistoric and historic sites, structures, districts, artifacts, or any other physical evidence of human activity considered important to a culture, subculture, or community for traditional, religious, scientific, or any other reason. Cultural resources are discussed in this EIS in terms of (1) the affected environment (discussed in subsection 3.2.2), (2) the previous cultural resources studies (discussed in subsection 3.2.3), (3) archaeological sites (discussed in subsection 3.2.4), which include both prehistoric and historic occupations, (4) architectural resources (discussed in subsection 3.2.5), and (5) locations and resources of concern to Native Americans, including Traditional Cultural Properties (discussed in subsection 3.2.6).

Archaeological resources include prehistoric and historic locations or sites where human actions have resulted in detectable changes. Archaeological resources can have a surface component, a subsurface component, or both. Prehistoric resources are physical properties resulting from human activities predating written records. These archaeological sites are the loci of human behavior as indicated by concentrations of artifacts, features, or floral and faunal remains. Prehistoric land use patterns were more closely related to local environmental conditions than are most modern settlements. Historic resources are physical properties that postdate the existence of written records and include features such as trails, roadbeds, foundations, and refuse concentrations. They may include subsurface features such as wells, cisterns, or privies. Submerged cultural resources include prehistoric cultural remains and submerged historic materials.

Architectural resources are elements of the built environment. These resources include existing buildings; dams; bridges; and other structures of historic, engineering, or artistic importance. These resources consist of residential buildings (*e.g.*, farmhouses, plantation manors and associated outbuildings including sheds and barns), industrial structures such as dams and levees, commercial buildings (*e.g.*, stores, banks, and other business related office buildings), and transportation structures such as bridges.

Native American resources can include, but are not limited to, archaeological sites, cultural items, burial sites, ceremonial areas, caves, mountains, water sources, trails, plant habitat or gathering areas, or any other natural area important to a culture for religious or heritage reasons. Traditional cultural resources are resources associated with beliefs and cultural practices of a living culture, subculture, or community. These beliefs and practices must be rooted in the group's history and must be important in maintaining the cultural identity of the group.

3.2.2 Affected Environment

An integral part of the Section 106 process is the delineation of the area within which archaeological and architectural resources would be affected or are likely to be affected. The Area of Potential Effect (APE) as defined by 36 CFR 800.16(d) represents:

> the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties [*i.e.*,

> NRHP-eligible resources], if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

For the purposes of assessing effects through the Section 106 review process, direct effects include, but are not limited to, areas of construction resulting in the partial or complete demolition of NRHP-eligible buildings or structures or the physical disturbance of NRHP-eligible archaeological resources. Indirect effects include, but are not limited to, visual, audible, or atmospheric effects that alter the character or use of any of the physical aspects of integrity that contribute to the resource's ability to meet the criteria for listing in the NRHP.

The APE for the Presidio FCP consists of the existing USIBWC ROW, including the current levee alignment, and an easement of approximately 35 feet from both the north (landside) and south (riverside) toes of the existing levee, and 200 foot-wide, linear reaches covering a partial downstream levee realignment under Alternative 4 (Figure 2-3), and three spur levees considered under alternatives 5, 6, and 7 (Figure 2-4). Any staging areas (including equipment yards and soil storage areas) needed for construction activities will be located outside of the floodplain in areas owned or leased by the USIBWC. Heavy vehicles will access the project area using existing paved or gravel farm or levee access roads, some of which may require leveling, grading or filling to improve their current condition. Because all of the potential sources for borrow material have not yet been identified, a set of criteria for their selection was developed (Section 5.2).

3.2.3 Previous Cultural Resources Studies

Three previous cultural resources investigations were conducted to identify resources specifically in the Presidio FCP area and have primarily focused on the identification of archaeological resources (Holliday and Ivey 1974; Parsons, *et al.* 2004; Gibbs, *et al*. 2005). The earliest of these, conducted in 1973 and 1974 was a cultural resources evaluation to determine potential impacts of relocating the channel as part of the flood control project design (Holliday and Ivey 1974). The survey identified or revisited several previously documented sites in the area and test excavations were conducted at three of the sites (41PS15, 41PS16, and 51PS86) but no sites were identified within the channel relocation area (Holliday and Ivey 1974).

Investigations that are more recent included a cultural resource reconnaissance of the existing levee alignment that included literature review and archival research of previously recorded archaeological resources in the Presidio vicinity, and an initial study of the geoarchaeological potential of selected portions of the existing alignment (Parsons, *et al.* 2004). Eleven areas of higher probability for cultural resources were identified (designated F-1, F-2, F-3, F-4, F-4a, F-4b, and F-5 through F-9) along and near the existing levee alignment (Parsons, *et al*. 2004), as well as the location of a previously recorded archaeological site (41PS86) that has suffered increased damage from erosion because of USIBWC channelization of the mouth of Cibolo Creek (Parsons, *et al.* 2004). No further archaeological fieldwork was required for most of these locations; however, additional investigations for four of these areas (F-1, F-4b, F-7, and 41PS86) along with additional geoarchaeological investigations was recommended. Although the focus of that survey was largely on archaeological resources, additional investigations were recommended for three areas containing architectural resources.

These resources included irrigation canals and a former international bridge at the former Presidio Land Port of Entry.

The final cultural resources study of the current project area was conducted in support of a Programmatic EIS for several USIBWC flood control projects. The study was an overview including literature review and site files search only (Gibbs, *et al*. 2005). No systematic archaeological survey of the entire current project area has been conducted previously.

3.2.4 Archaeological Resources

The Texas Archeological Sites Atlas (2009), the Texas Historic Sites Atlas (2009), and previous investigations of the project area were consulted for information about known archaeological sites that occur in the project area. To determine site potential within the project area and to provide data on the prehistoric and historic settlement pattern as documented in the Presidio vicinity, a broad area extending from the present levee to the valley wall was also reviewed in the sites atlases.

Three previously recorded archeological sites, 41PS86 and 41PS87; both in the La Junta de los Rios Archeological District, and 41PS363, have been recorded in or immediately adjacent to the existing project Right-of-Way (ROW) (Table 3-5). Three additional loci in the current ROW have been recommended for further investigation because of reconnaissance survey (Parsons, *et al.* 2004). These include the Haciendita Canal (Parsons, *et al.* 2004: Area F-1), possibly associated with Site 41PS363, and areas that may contain buried cultural material (Parsons, *et al.* 2004; Areas F-4b and F-7) for which pedestrian survey, shovel testing, and geoarchaeological testing, if subsurface impacts are expected, are recommended. Geoarchaeological testing of two additional areas in the current ROW (Parsons, *et al.* 2004: Areas F-4a and F-9) documented the potential for deeply buried surfaces that may require additional investigation if subsurface disturbance is required, but where shovel testing is not viable for site identification.

The four proposed new alignment alternatives were selected, in part, to avoid any previously recorded archaeological sites; intensive archaeological survey of these linear corridors has been completed to identify archaeological sites (Mangum *et al.* 2009).

La Junta De Los Rios Archeological District. The La Junta de los Rios district encompasses a roughly triangular area surrounding the confluence of the Rio Grande and Rio Conchos from Ruidosa to Redford, Texas and to Cuchillo Parado, Chihuahua. The confluence of these two rivers served as a reliable water source for Native Americans throughout history in the otherwise arid Chihuahuan Desert; this geography provided adequate resources for the establishment of mixed agricultural lifeways and the settlement of villages. Spanish explorers entered the area in 1535 to find active farming communities residing in multiple roomed adobe structures. These communities where then used as sites for Spanish missions and forts along the western frontier.

Table 3-5 Previously Recorded Archaeological Sites or Areas of Archaeological Potential in the Vicinity of the Project Area

Site/Area Number (Site Name)	Site Type	Temporal Association [(a)]				Site Designations	Recorded By/ Institution [(b)]	Date
		Prehistoric period (if any)	HIS	MC	UN			
41PS86	surface scatter	Late Prehistoric				La Junta de los Rios NRHP Archeological District	Jelks; Holliday and Ivey; Parsons	1969; 1974: 2004
41PS87	surface scatter	Late Prehistoric				La Junta de los Rios NRHP Archeological District	Jelks; Holliday and Ivey; Parsons	1969; 1974: 2004
41PS363 (Blas Sosa House)	dwelling		X			Potential for SAL	EPCM/UTEP; Parsons	1977; 2004
Area F-1 (Haciendita Canal)	irrigation structure		X			Possibly associated with 41PS363and Haciendita Ranch	Parsons	2004
Area F-4a					X	La Junta de los Rios Archaeological District	Parsons	2004
Area F-4b					X	La Junta de los Rios Archaeological District	Parsons	2004
Area F-7					X	unknown	Parsons	2004
Area F-9					X	unknown	Parsons	2004

(a) Temporal association: Prehistoric, Historic (HIS), Multiple Component (MC), Unknown (UN)
(b) SAL: State Archeological Landmark; TPWD: Texas Parks and Wildlife Department; THC: Texas Historical Commission; TARL: Texas Archaeological Research Laboratory; THSC: Texas Historic Sites Committee; EPCM: El Paso Centennial Museum; UTEP: University of Texas at El Paso

The La Junta de los Rios Archeological District was first discussed by Kelly, *et al.* (1940) as a region encompassing several large village complexes near the confluence of the two rivers. Kelly *et al.* (1940) conducted extensive excavations at several sites in the area recovering multiple roomed pithouses, complex human internments, evidence of widely practiced agriculture, and remnants of Spanish Colonial missions. Further research was carried out by Jelks (1969) and Holliday and Ivey (1974). The La Junta de los Rios Archeological District was listed on the NRHP in 1978. The majority of the current project area roughly parallels the district in the area surrounding Presidio, Texas. The current project area overlaps only a small portion of the district, including two sites, 41PS86 and 41PS87, discussed below.

41PS86 and 41PS87. 41PS86 and 41PS87 are described as Late Prehistoric surface scatters of burned rocks, with several concentrations of ashy soil; cultural materials include lithic debris, biface fragments, and a mix of Majolica and Conchos ceramics. Both sites were first recorded by Jelks (1969) when he conducted survey and surface collection of much of the La Junta de los Rios Archaeological District. Holliday and Ivey revisited the sites in 1973 and carried out surface collection in support of the Presidio-Ojinaga Survey for USIBWC. Holliday and Ivey (1974) note the possibility of buried pithouses existing at 41PS86, and that 41PS86 and 41PS87 may be part of one larger site. Therefore, while the center point of 41PS87 does not fall within the footprint of the current project area, the site boundaries, along with 41PS86,

may extend into the current project area. Lopez Garcia Group, under contract to Parsons, revisited the sites in 2003 and reported that channelization and levee construction along Cibolo Creek had resulted in severe erosion of the intact portion of 41PS86 (Parsons, *et al.* 2004). The report recommended archeological testing to ascertain the sites' NRHP eligibility status.

41PS363 and Haciendita Canal (Parsons F-1). 41PS363 is the adobe ruin of the Blas Sosa house, a late 19th- early 20th-century farmstead including two collapsed adobe structures and a scatter of historic artifacts associated with the Haciendita Ranch. The site was first recorded in 1977 by the El Paso Centennial Museum (EPCM) and the University of Texas at El Paso (UTEP) and was revisited by the Lopez Garcia Group in 2003 in support of the Presidio-Ojinaga Flood Control Project reconnaissance survey (Parsons, *et al.* 2004). Lopez Garcia also recorded a portion of the Haciendita Canal as being visible in the eastern bank of Arroyo Chillon and designated it as an area requiring additional investigation (Parsons, *et al.* 2004: Area F-1). This irrigation canal may be associated with 41PS363 and other previously recorded sites (41PS359-364) in conjunction with the historic Haciendita Ranch (Parsons, *et al.* 2004). Site 41PS363 is unevaluated for NRHP eligibility but may potentially be a State Archaeological Landmark.

Intensive Survey of the APE. An intensive archaeological survey of the current project area and limited testing of previously identified sites, including backhoe trenching, has been conducted to systematically identify archaeological sites in the project area and provide preliminary determinations of their NRHP eligibility (Mangum *et al.* 2009). Findings of the survey and testing of all alignments are documented in a separate cultural resources technical report, submitted to THC for review. Intensive archaeological survey was conducted in selected high probability areas along the existing levee system (Alignment 1) and along all of the proposed alternative levee alignments (Alignments 2-5), within constraints imposed by private landowner permission and field conditions. Evaluation of two previously identified cultural resources near the existing levee alignment – a multi-component archaeological site (41PS86) and a possible historic canal and well (eventually designated as site 41PS1100) was also conducted.

No prehistoric and no definitely historic cultural resources were encountered anywhere in the floodplain during this survey. In contrast, in three of the four small areas adjacent to the floodplain that were examined – at the northern end of Alignment 4/5, in High Probability Areas F-1 and F-4b, and at 41PS86 – historic and/or prehistoric cultural resources were encountered, including a previously unreported prehistoric site (41PS1101).

Three archaeological sites were identified or re-located and evaluated: 41PS86, containing a stratified deposit representing multiple occupations from as early as the late prehistoric period to the late 19th or early 20th century; 41PS1100, a late 19th or early 20th century site consisting of the remains of a canal used to divert seasonal flow from an arroyo for purposes of irrigation and a well used to obtain drinking water from the subsurface flow of the same arroyo; and 41PS1101, a ceramic prehistoric artifact scatter with the possibility of containing buried features. Two of the three archaeological sites identified in the project area (41PS86 and 41PS1101) are recommended as potentially eligible for the NRHP or as contributing resources to an NRHP-listed archaeological district. One of these sites (41PS86) occurs on or near the existing levee alignment (Alignment 1). Site 41PS86 is a multi-component site recommended as a contributing resource to the La Junta de los Ríos Archeological District. The other NRHP-eligible archaeological site is located along the shared

portion of Alignments 4 and 5. Site 41PS1101 is recommended as potentially eligible to the NHRP on its own merits, but it may also be a contributing resource to the already-listed La Junta de los Rios Archeological District. The third site identified in the survey (41PS1100) does not appear to retain sufficient integrity to convey its significance.

Forty-four geoarchaeological backhoe trenches were excavated on the floodplain surface along the existing levee and three of the proposed alternative alignments. No prehistoric cultural resources were encountered but two cultural features were identified: one modern and the other, a trash pit dating post-1951, based on a diagnostic glass bottle found in the feature. Although the geoarchaeological testing did not identify preserved cultural resources, it did yield 10 sets of dateable charcoal samples. The radiocarbon results derived from charcoal or charred wood are consistently recent in comparison. Two samples date after the 1950s. Nine samples yielded dates between 20 (+/- 40 years B.P.) and 280 (+/- 40 years B.P.) but had 2-sigma calibrated range intercepts with upper dates of either A.D.1950, A.D.1960, or "beyond 1960". Therefore, all of these samples may date to the 20th century. Thus, no evidence was found for deposits with the possibility of containing preserved cultural resources near the modern ground surface on the floodplain or in the buried alluvial fans.

Preliminary concurrence with the determination of eligibility for archaeological resources identified or re-located in the APE was received from the THC via email on February 1, 2010 (Beene 2010).

3.2.5 Architectural Resources

Thirty-two (32) historic-age architectural resources were identified within the APE during architectural survey conducted July 6-8 and September 29 - October 1, 2009 in support of this EIS (Table 3-6). One previous survey identified three architectural resources, irrigation canals and a former international bridge and port of entry that would likely require further investigation (Parsons *et al.* 2004). The canals were documented in the current investigation but the former international bridge was determined to be outside of the project APE (Mangum et al. 2009). The majority of resources identified in the 2009 survey include irrigation/drainage systems (n=30) including elements such as ditches and channels, pumps and wells, most of which intersect the Presidio-Ojinaga FCP levee, constructed in the 1970s. Additional resources include a small berm (n=1), likely related to water control, a railroad bridge and a portion of railbed and tracks (n=1).

The USIBWC began administering the Presidio FCP after a treaty between the United States and Mexico, signed on November 23, 1970, agreed upon a relocation of the Rio Grande's channel to provide flood control and restore the international boundary. By 1977, the river relocation and resultant property exchanges had been fully executed (IBWC Minute 257 1977). Engineering drawings and maps as well as interviews with USIBWC representatives indicate that levees and associated water control structures were built soon thereafter, with construction activities on these improvements complete in 1978. The levee and associated structures were compromised in major flooding from August to October 1978, and initial repairs and improvements to the system were planned later that year and into the next. Portions of the system were again severely damaged during a flood in 2008 that resulted from heavy rains and subsequent releases of water into the Rio Conchos, a tributary to the Rio Grande that flows from Mexico.

Table 3-6 Previously Recorded and Currently Identified Architectural Resources in the Project Area

Historic-age Resource Designation	Historic Resource Type	Associated FCP Structure Name/ Survey Point	FCP Structure Type(s)	Function	Ownership	NRHP Eligible?
Resource 1-A	ditch	Structure 1	gatewell, screw gate, 2 culverts	drain	USIBWC	No
		Structure 2	gatewell, screw gate, 1 culvert	drain	USIBWC	No
Resource 1-A-1	ditch	Structure 3	gatewell, screw gate, 1 culvert	irrigation	USIBWC	NO
Resource 1-B	ditch	Structure 5	gatewell, screw gate, 1 culvert, diversion box	irrigation	USIBWC	NO
Resource 1-C	ditch	Structure 6	gatewell, screw gate	drain	USIBWC	NO
Resource 1-D	ditch	Structure 7	gatewell, screw gate	irrigation	USIBWC	No
Resource 1-E	ditch	Structure 8	gatewell, screw gate, culvert	drain	USIBWC	No
Resource 1-F	ditch	Structure 9	double gatewell, 2 screw gates	drain	USIBWC	No
Resource 1-G	ditch	Structure 10	gatewell, screw gate	irrigation	USIBWC	No
		Structure 11	gatewell, screw gate	drain	USIBWC	No
Resource 1-H	ditch	Structure 12	gatewell, screw gate, 1 culvert	drain	USIBWC	No
Resource 1-I	ditch	Structure 14	gatewell, screw gate, 1 culvert	irrigation	USIBWC	No
Resource 1-J	ditch	Structure 16	gatewell, screw gate, 1 culvert, diversion box	irrigation	USIBWC	No

Historic-age Resource Designation	Historic Resource Type	Associated FCP Structure Name/ Survey Point	FCP Structure Type(s)	Function	Ownership	NRHP Eligible?
Resource 1-K	ditch	Structure 17	gatewell, screw gate, pump, diversion box, pipe	irrigation	USIBWC	No
Resource 1-L	ditch	Structure 20	gatewell, screw gate, pump	irrigation	USIBWC	No
Resource 1-M	ditch	Structure 21	double gatewell, 2 screw gates	drain	USIBWC	No
Resource 1-N	ditch	Structure 22	gatewell, screw gate, concrete structure	irrigation	USIBWC	No
		Survey Point 2F	culvert	irrigation/drainage	private	No
Resource 1-O	ditch	Structure 24	gatewell, screw gate	drain	USIBWC	No
Resource 1-P	ditch	Structure 25	standpipe, probable location of gatewell lost in flood	irrigation	USIBWC	No
Resource 1-Q	ditch	Structure 26	gatewell, screw gate	irrigation	USIBWC	No
		Survey Point 2E		irrigation/ drainage	private	No
Resource 1-R	ditch	Structure 27	pump, pipe, probable location of gatewell lost in flood	irrigation		No
		Survey Point 2D		irrigation/ drainage	private	No

Historic-age Resource Designation	Historic Resource Type	Associated FCP Structure Name/ Survey Point	FCP Structure Type(s)	Function	Ownership	NRHP Eligible?
Resource 1-S	ditch	Structure 28	gatewell, screw gate, standpipe, pipe	irrigation		No
		Structure 29	gatewell, screw gate, standpipe, pipe	irrigation		No
		Survey Point 2A		irrigation/ drainage	private	No
Resource 1-T	ditch	Structure 30	pipe, probable location of gatewell lost in flood	irrigation		No
		Survey Point 2B	pump, pipe	irrigation/ drainage	private	No
Resource 1-U	ditch	Structure 31	gatewell, screw gate, pump, pipe, ditch	irrigation		No
		Structure 32	gatewell, screw gate, pump, pipe, ditch	irrigation		No
		Structure 34	gatewell, screw gate, ditch	irrigation		No
		Survey Point 2C	ditch	Irrigation / drainage	private	No
Resource 2-G	ditch	Survey Point 2G	ditch	irrigation / drainage	private	No
Resource 2-H	ditch	Survey Point 2H	ditch	irrigation/ drainage	private	No
Resource 3-A	ditch	Survey Point 3A	ditches, 2 culverts, diversion box	irrigation/ drainage	private	No
Resource 3-B	ditch	Survey Point 3B	ditch	irrigation/ drainage	private	No
Resource 3-C	ditch	Survey Point 3C	ditch	irrigation/ drainage	private	No

Historic-age Resource Designation	Historic Resource Type	Associated FCP Structure Name/ Survey Point	FCP Structure Type(s)	Function	Ownership	NRHP Eligible?
Resource 4-A	ditch, an abandoned pump, former levee	Survey Point 4A	pipes, 3 sheds with pumps,	irrigation/ drainage	private	No
Resource 5-A	ditch	Survey Point 5A		irrigation/ drainage	private	No
Resource 4-5-A	berm	Survey Point 4-5A		flood control	private	No
Resource 4-5-B	ditch	Survey Point 4-5B		irrigation/ drainage	private	No
Atchison Topeka & Santa Fe Railroad (AT&SF RR) Trestle Bridge	bridge	N/A		transportation	TXDOT	No

Construction of the Presidio-Ojinaga FCP earthen levee was one part of the overall flood control project that also included relocation of the river channel. When the earthen levee was constructed, concrete gatewells and related structures were installed as components of the levee to maintain the flow of water to or from the river in existing irrigation and drainage channels that would have been impeded by the construction of the levee. Resources comprising the flood control project, including the levee (n=1), the gatewell complexes - gatewells, pipes, culverts, and screwgates – (n=34), and several associated concrete diversion structures, a gaging station (n=1), and a grade control structure (n=1) date to its original construction in the mid to late 1970s, or are replacements or modifications to the original structures as a result of flood damage. These structures do not meet the age requirements to be considered eligible for the NRHP under Criteria A-D. The flood control project as a whole does not meet the age criteria to be considered an historic district.

There is not an organized irrigation district in the Presidio area proper, although in areas downstream around Redford and to some extent upstream near Ruidosa, irrigation districts are in place. Also, until fairly recently, around the mid-20th century, irrigation for farming diverted seasonal runoff from the arroyos rather than relying only on river water. Wells and pumps were also used on the floodplain, but seasonal flooding was important, to the extent that some of the older farmers viewed the construction of the levees as harmful to their farming practice. Therefore, architectural features associated with irrigation and drainage are largely informal constructions and may or may not be formally documented except where they intersect the USIBWC levee. In addition, because of the frequent changes in the river course large investments in irrigation were likely not made and structures may not have been designed for permanence.

The Presidio-Ojinaga FCP structures are integrated with elements of local irrigation systems that existed prior to the development of the flood control project, many of which are of historic age. Thirty of these elements such as ditches and channels, pumps and wells, most of which intersect the Presidio-Ojinaga FCP levee, constructed in the 1970s, were identified in the archaeological survey of the APE (Mangum *et al.* 2009). Irrigation-related features were constructed and maintained as the property of individual landowners. As such, the components are individualized systems tailored to the needs of individual landowners/farmers and are subject to frequent modifications in the form of locational shifts and/or the update or replacement of materials. Although many do share similarities in their original design and construction, they have been so significantly fragmented and altered since their original construction that they are not considered individually NRHP-eligible and do not comprise an NRHP-eligible historic district.

A railroad bridge and a portion of the railbed and tracks identified in the project area are part of the AT&SF railroad, the first railroad in this portion of Texas, constructed in the first half of the 1900s. The railroad system, as a whole, is older than 50 years and thus, considered an historic-age resource. However, the particular segment of the linear resource in the APE, the timber trestle bridge and buried tracks, does not retain sufficient integrity to contribute to the potential eligibility of the overall, linear resource.

None of the architectural resources in the APE is considered individually eligible for the NRHP. Collectively, the resources do not comprise an historic district eligible for the NRHP (Mangum *et al.* 2009). Preliminary concurrence with the determination of eligibility for architectural resources identified in the APE was received from the THC via email on February 1, 2010 (Henderson 2010).

3.2.6 Native American Resources

Native American resources are sites, areas, and materials important to Native Americans for religious or heritage reasons. Resources may include prehistoric sites and artifacts, contemporary sacred areas, traditional use areas (*e.g.*, native plant or animal habitat), sources used in the production of sacred objects and traditional implements, or traditional cultural properties. Sacred places important to religion may also be present and include mountain peaks, springs, and burial sites. Traditional rituals may prescribe the use of particular native plants, animals, or minerals from specific places. Therefore, activities that may affect sacred areas, their accessibility, or the availability of materials used in traditional practices may be of concern.

Six Native American groups that may have historical ties to the project area have been identified (Table 3-7). The USIBWC initiated formal consultation with these Native American groups, pursuant to 36 CFR 800.2, by notifying them of the proposed project and providing copies of the Draft EIS. The USIBWC will conclude consultation with them on this project by notifying them of the results of the intensive cultural resources survey, including determinations of NRHP eligibility, determinations of effect for any NRHP-eligible resources, and THC concurrence with the findings. Consultation ensures that any sites of traditional cultural value are identified and adequately considered.

Table 3-7 Native American Groups Identified for Presidio FCP

State	Tribal Name
Texas	Ysleta del Sur Pueblo
Texas	Kickapoo Traditional Tribe of Texas
Oklahoma	Comanche Nation
	Kiowa Indian Tribe of Oklahoma
Arizona	White Mountain Apache Tribe
New Mexico	Mescalero Apache Tribe

To date, only one group has responded to requests for information regarding the project or potential impacts to resources. The White Mountain Apache Tribe indicates they do not anticipate adverse effects from the proposed project to the Tribe's Cultural Heritage Resources and/or historic properties; however, they recommend monitoring of ground disturbance activities in areas where artifacts are believed to occur (Altaha 2009).

Extensive cultural resources surveys conducted in support of this EIS preparation have not indicated the potential presence of human remains and/or funerary objects in the project area.

3.3 WATER RESOURCES

3.3.1 Definition of Resource

The EIS evaluates potential impacts to the following water resources (1) the flood control mission of the Presidio FCP and floodplain management (discussed in subsection 3.3.2), surface water quality (discussed in subsection 3.3.3), and groundwater resources (discussed in subsection 3.3.4).

3.3.2 Flood Control and Floodplain Management

The existing Presidio FCP levees were designed to contain a 25-year flood event with four feet of freeboard. The Presidio FCP has low upstream flow contributions, but baseline flow becomes more stable downstream of the Rio Conchos. The 25-year design flow is 42,000 cfs. During September 2008, the Presidio FCP experienced flood flows up to 53,678 cfs. As a result, the Presidio FCP sustained substantial damage that included levee breaches, overtopping, piping/sand boils, under-seepage, and severe surface and slope erosion. After the floodwaters subsided and the geotechnical work on the upper reach was completed, emergency repairs to 3,000 feet of the levee near Cibolo Creek were completed in 2009. The emergency repairs included installing a slurry trench cut-off wall (as described in subsection 2.4). Prior to construction, the emergency repairs to this reach of the levee were evaluated in the *Final Environmental Assessment, Emergency Levee Repairs to the Presidio Flood Control Project, Station 7+000* (USIBWC 2009a).

3.3.3 Surface Water Quality

The Presidio FCP is located within water quality management Segments 2306 and 2307 of the Rio Grande, as defined by TCEQ. Segment 2307 extends from the Riverside Diversion

Dam in El Paso County to the confluence of the Rio Conchos in Presidio County, and Segment 2306 extends from the confluence of the Rio Conchos to the International Amistad Reservoir in Val Verde County. The designated uses of the two segments are high aquatic life, contact recreation, and public water supply. The most recent surface-water quality data from TCEQ are for 2008, the 303(d) list. For each segment, surface water quality is monitored and evaluated. Above the confluence of the Rio Grande and Rio Conchos (upstream of Presidio and Ojinaga) (Segment ID 2307, Area 05) water quality information indicates that chloride and total dissolved solids exceed surface water quality and drinking water supply standards. Below the confluence of the Rio Grande and Rio Conchos, through Presidio and Ojinaga, to Alamito Creek (Segment ID 2306, Area 01), water quality information compiled in March 2008 indicates that bacteria (fecal coliform) concentrations exceed surface water quality and drinking water standards (TCEQ 2008).

During the September 2008 flooding, the Ojinaga wastewater treatment lagoons were compromised and flooded. This compromise in the wastewater treatment lagoon system likely affected bacteria levels in the Rio Grande. The wastewater treatment lagoon system is currently being repaired.

Wetlands have been identified as being of particular interest because they perform valuable functions in restoring and maintaining the quality of the nation's waters. These functions include floodwater storage, sediment trapping, nutrient removal, chemical detoxification, shoreline stabilization, aquatic food chain support, fish and wildlife habitat, and groundwater recharge.

Within the Presidio FCP, the wetlands are generally associated with resacas. Resacas within the Presidio FCP store waters and cycle nutrients that contribute to the overall water quality of the floodplain that contains the Presidio FCP and downstream portions of the Rio Grande. Periodic flooding from the Rio Grande, subsurface groundwater contributions, agricultural tail water flows, and surface runoff pooling in the resaca scars are the primary water contribution pathways for the resacas within the Presidio FCP. Resacas can contribute to the overall water quality of the Rio Grande in two ways (Mitsch and Gosselink 2007; Brinson, *et al.* 1981):

- Resaca flooding provides an adequate water supply for woody upland and woody and herbaceous wetland vegetation. Increased vegetation in these resacas can cycle pollutants from upstream portions of the Rio Grande as well as upland portions of the floodplain.
- Resacas can cycle nutrients contributed by periodic flooding and favorably alter soil chemistry. These soil alterations include nitrification, sulfate reduction, and nutrient mineralization.

Wetlands within the Presidio FCP are also associated with the historic river channels in the area. While the historic river channel is not directly connected to the Rio Grande, it may serve some of the same water quality functions as the resacas, in particular providing water for upland woody species and nutrient cycling.

3.3.4 Groundwater Resources

Groundwater has been developed along the floodplain of the Rio Grande, where it is used mostly for irrigation; in other parts of the basin, groundwater is pumped only for livestock watering and domestic use. Large-diameter irrigation wells in the floodplain of the Rio Grande at the southern end of the basin yield from 300 to 800 gallons per minute. Specific-capacity data indicate a transmissivity of about 5,000 to 21,000 feet squared per day for the alluvial aquifer in the Rio Grande Valley. Recharge to the basin fill is mainly along the bordering mountains where small streams enter the basin. Groundwater flows from the basin margins to the Rio Grande, where it is discharged either by evapotranspiration or by seepage to the river (USGS 1996).

The groundwater source in the project area is the West Texas Bolsons Aquifer, a minor aquifer located in several basins in far west Texas. It is an important source for irrigation and public water supply, including the city of Presidio (Texas Water Development Board [TWDB] 2007). This unconfined system consists of sand, gravel, silt, and clay and ranges in depth from 100 to 1,000 feet but may extend to depths of more than 3,000 feet. The most common sources for potential groundwater contamination include: 1) increased chloride/sulfate concentrations along the Rio Grande that exceed Secondary Drinking Water Standards; 2) higher levels of total dissolved solids with levels exceeding 3,000–10,000 milligrams per liter (mg/L); 3) natural or human-caused levels of nitrate and fluoride that continually exceed federal drinking water standards. For Presidio County, 41-60 percent exceedances of the nitrate standard (0.002 milligrams nitrogen per liter [mg N/L]) have been reported, and up to three percent exceedances of the 4 mg/L fluoride standard (USACE 2001).

The groundwater supply for the West Texas Bolsons aquifer for 2010 was estimated at 62,000 acre-feet per year (TWDB 2007). The reported groundwater use is 29,000 acre-feet per year. The overall water need for Presidio County for 2010 was estimated at 3,546 acre-feet per year, largely for agricultural use (TWDB 2007).

Water levels of the West Texas Bolsons aquifer tend to be very shallow. Based on shallow groundwater wells near the Rio Grande, groundwater irrigation wells used by farmers and the golf course are typically between 10 and 20 feet below ground surface (TWDB 1980; TPWD Groundwater Database, 2009). Further, away from the river, groundwater wells are much deeper, and water levels may be more than 100 feet below ground surface (TWDB 1980).

3.4 LAND USE

3.4.1 Definition of Resource

This section characterizes land uses in the immediate and general vicinity where the project will occur. The EIS evaluates the land use corridor (defined in subsection 3.4.2), and potential impacts to the following land use areas (1) previous development (discussed in subsection 3.4.3), and, (2) agricultural use (discussed in subsection 3.4.4).

3.4.2 Land Use Corridor

This section includes a description of the existing public and private land uses in this portion of the Rio Grande valley of the United States. General land use categories were

identified through National Land-Cover Database (NLCD) categories, or based on aerial photograph interpretation.

Land use within the Presidio FCP land use corridor was defined by the area that extends 0.25 mile beyond each side of the ROW, or proposed ROW, limited to the land within the United States. This land use corridor was analyzed by geographically quantifying acreage by general land use within the corridor. An estimated 5,368 acres make up the 0.25-mile Land Use Corridor along each side of the ROW (limited to land within the United States), including the proposed new levees associated with Alternatives 4, 5, 6 and 7. According to the NLCD, land uses include agricultural areas, developed areas of commerce and residences, particularly in the city of Presidio (NLCD 2001).

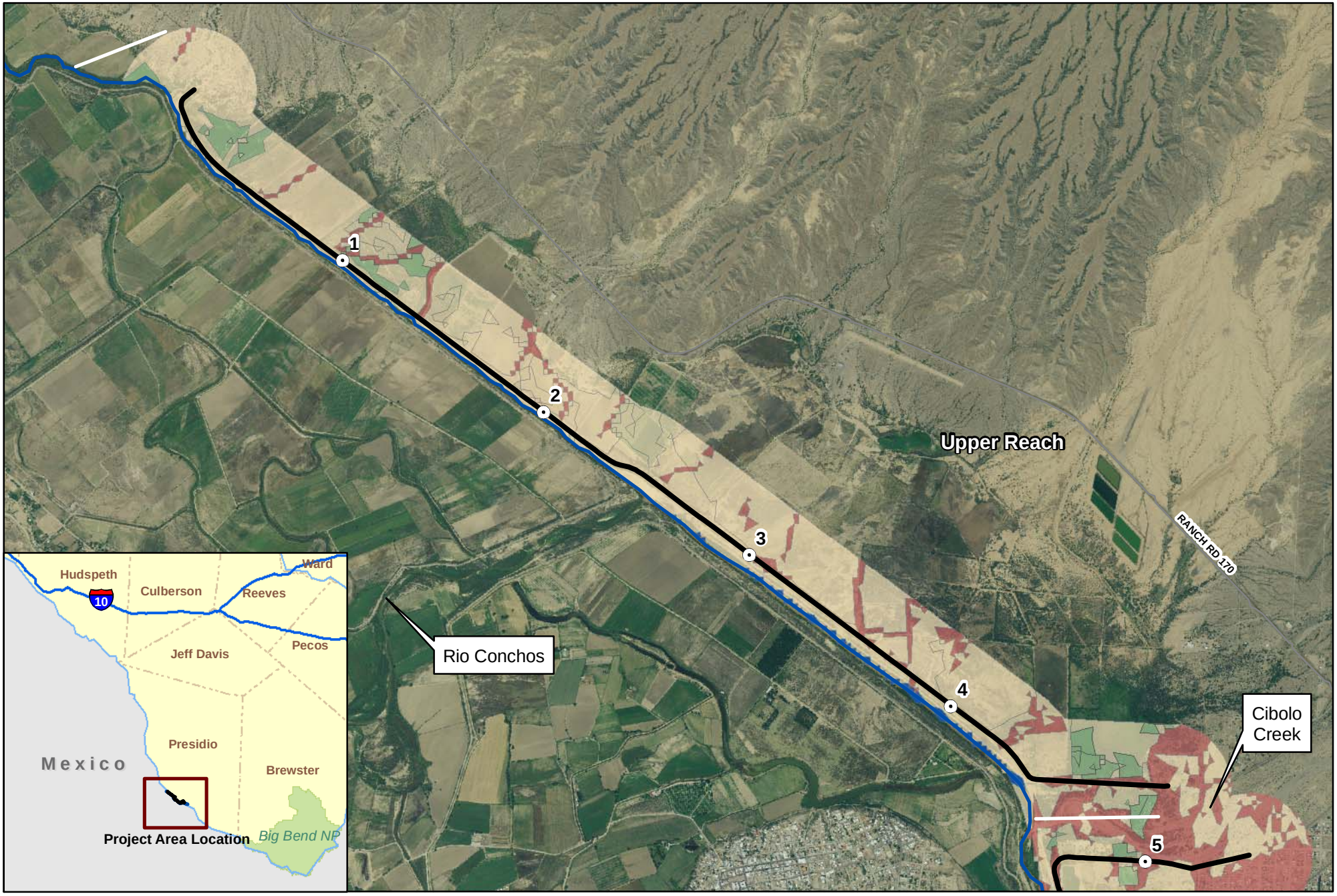
Table 3-8 below summarizes the land use types and acreage within the Presidio FCP land use corridor, as it relates to each proposed alternative. Land use types are divided between two primary land use categories, as identified by the NLCD, including agricultural land and previously developed land. Additionally, miscellaneous land is quantified within Table 3-8. Land use corridors are illustrated by category (agricultural, developed and miscellaneous use) in Figure 3-4 for the upper reach of the Presidio FCP, and Figure 3-5 for the middle and lower reaches.

Table 3-8 Land Use Types within the Presidio FCP Land Use Corridor

Land Use Type [(a)]	Land Use Corridor (acres) [(b)]	Alternative 3 (acres)	Alternative 4 (acres)	Alternative 5 (acres)	Alternative 6 (acres)	Alternative 7 (acres)
Agriculture	4,403	2,740	2,531	1,934	1,942	2,308
Previously Developed	678	358	335	329	338	444
Miscellaneous	287	164	162	113	165	174
Total	5,368	3,262	3,028	2,376	2,445	2,926

(a) Land use types are identified by the NLCD (NLCD 2001).
(b) The land use corridor is the total area within a 0.25 mile from the existing and the proposed new levees.

Agricultural land use is the dominant land use, comprising 82 percent of the land use corridor. Specific land uses within this classification include agricultural farming, such as crops, and rangeland for livestock. Developed areas comprise approximately 13 percent of the land use corridor, with the greatest proportion in the city of Presidio. Land uses within this classification include a mixture of residential units, vacant land, commercial office parks, shopping centers, wholesale and retail trade, central business districts, areas of planned commercial use, as well as churches and cemeteries. The remaining five percent of the land use corridor is classified as miscellaneous. These are minor quantities of undeveloped areas identified by the NLCD as wetlands, deciduous forest, open water, or areas unidentifiable.



0 1,250 2,500 5,000 Feet

0 250 500 1,000 Meters

Mile Markers
Levee Centerline
Rio Grande
Major Roads

Landcover
Agriculture
Developed
MISC
Open Water

Figure 3-4
Land Use Corridor - Upper Reach
Presidio Flood Control Project
International Boundary and Water Commission
United States Section

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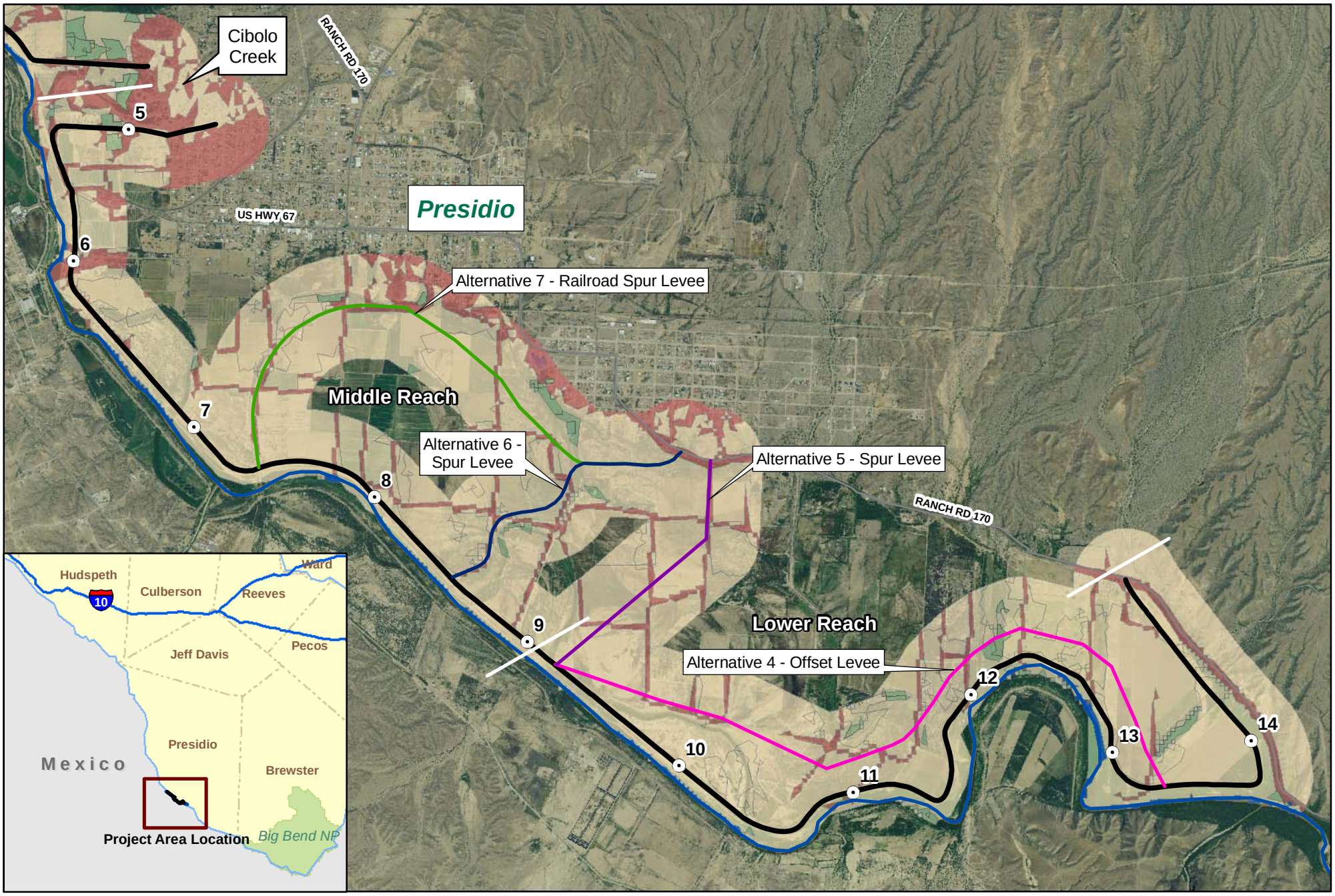

0 1,250 2,500 5,000 Feet

0 250 500 1,000 Meters

Mile Markers
Levee Centerline
Rio Grande
Major Roads

Landcover
Agriculture
Developed
MISC
Open Water

Figure 3-5
Land Use Corridor - Middle and Lower Reaches
Presidio Flood Control Project
International Boundary and Water Commission
United States Section

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3.4.3 Previous Development

Much of the immediate project vicinity is undeveloped rural farmland and rangeland for cattle (FWT-WPG 2006). Scattered industrial, commercial, vacant, and residential uses begin on the western edge of Presidio, as well as irrigation facilities. These are located approximately 3 miles west of Presidio, adjacent to the Rodriguez Arroyo (GoogleEarth 2006-2007). This small city had a population of 4,167 at the 2000 U.S. census (FWT-WPG 2006). Several different types of land uses are located within the immediate project vicinity, including residential, commercial, industrial, and vacant. Based on aerial photography, it appears the majority of these residents are located within the immediate project vicinity (GoogleEarth 2006-2007). The majority of residential lands are low intensity areas where single-family and multi-family homes, mobile homes, and housing developments are dispersed along the project area.

There are no significant areas of residential population in the United States beyond the Presidio urban area. The next populated area along the project corridor is the town of Redford (population 132, per the 2000 U.S. census), more than 8 miles east of the project limits on the United States - Mexico border. The Chihuahuan Desert to the north has prevented much settlement; the small town of Shafter is located about 20 miles north of Presidio on U.S. 67, but is little more than a tourist stop at a ghost town destination (Presidio Chamber of Commerce 2007).

3.4.4 Agricultural Use

The general project vicinity corridor, except for the developed area of the city of Presidio, contains primarily agricultural land, including range and farmland (NLCD 2001, GoogleEarth 2006-2007). Agricultural land use in Presidio County consists primarily of rangeland that varies in quality from good to poor, depending on rainfall, soil conditions, and past history of overgrazing. Along the river, irrigation allows farming of vegetables, grains, and cotton. Dominant farm crops in the past include cantaloupe, onions, wheat, oats, barley, and sorghum. At present, dominant farm crops include alfalfa and small grains. Irrigated farmland in Presidio County is generally found in the Rio Grande Valley between Candelaria and Redford, but occasionally cropland is removed from production due to drought conditions (FWT-WPG 2006). Recent conditions on the Rio Grande above the city of Presidio have triggered such measures. There is no prime farmland, as protected under the Farmland Protection Policy Act, within the project vicinity corridor (NRCS 2009). Most of the income in the county comes from cattle, sheep, wool, angora goats and mohair, and alfalfa (Handbook of Texas 2008, Presidio Chamber of Commerce 2007).

3.5 SOCIOECONOMIC RESOURCES AND TRANSPORTATION

3.5.1 Definition of Resource

Socioeconomics is defined as the basic attributes and resources associated with the human environment. Depending on local economic and demographic characteristics, the proposed action at the Presidio FCP would potentially influence socioeconomic activity within the surrounding region of influence. Impacts on these fundamental socioeconomic components can also influence other issues such as housing availability.

The socioeconomic region of influence for the proposed project includes Presidio County, with particular emphasis on the City of Presidio. Socioeconomic characteristics described for the region of influence would not vary between site alternatives for the Presidio FCP; therefore, the following discussion is applicable to all the alternatives.

The EIS evaluates potential impacts to the following socioeconomic resource areas (1) regional economics (population, employment and income, housing, agricultural economics) (discussed in subsection 3.5.2), (2) environmental justice (discussed in subsection 3.5.3), and (3) transportation (discussed in subsection 3.5.4).

3.5.2 Regional Economics

Population

Population characteristics, including populations in 2000, as well as estimated populations for 2008, 2020, and 2030 are shown in Table 3-9 for Presidio County. The total county population for Presidio County is projected to increase 150 percent between 2000 and 2030.

Table 3-9 Population Growth in Presidio County Adjacent to the Presidio FCP

Jurisdiction	Estimated 2000 [(a)]	Estimated 2008 [(a)]	Estimated 2020 [(b)]	Estimated 2030 [(b)]	Estimated Percent Change 2000-2030
Presidio County	7,304	7,467	15,008	18,268	150%

(a) U.S. Census Bureau 2009. Census data are only collected every ten years; therefore, the 2008 data are estimated.
(b) TWDB 2002

Employment, Income, and Agricultural Economics

The economy of Presidio County is based on agriculture, public administration, social services, and retail sales sectors of the economy. The 2008 reported gross sales for Presidio County are $63,168,642 (Texas Comptroller 2008). The estimated total of employed workforce for Presidio County in 2008 was 3,026 (Texas Workforce Commission 2009). The median household income for Presidio County in 2007 was $27,251, and the per capita income was $9,558 (based on 1999 estimates). Approximately 24.4 percent of all families in Presidio County were reported to be below the poverty level for 2007 (U.S. Census Bureau 2009).

Economics Associated With Flood Control

The Presidio FCP was implemented in 1975 to protect productive agricultural lands in the Presidio-Ojinaga Valley and the city of Presidio from frequent flooding, as well as to establish the international boundary in accordance with the Boundary Treaty of 1970. Much of the land in the Presidio Valley is undeveloped rural land, farmland, and rangeland for cattle (FWT-WPG 2006), but also includes developed areas associated with the southern portions of the City of Presidio (GoogleEarth 2006-2007). A 2004 study for IBWC titled *Estimated Benefits of IBWC Rio Grande Flood-Control Projects in the United States* estimates the costs of flood damage to the Presidio Valley from potential flood-control failure at approximately

$12,569,000. This damage estimate includes baseline property and crop damage, vehicle damage, damage to roads and utilities, and emergency costs (USIBWC 2004).

In addition to the direct damage estimates from potential flood control failure, construction of new levees the in-place irrigation system of pumps, irrigation drains, and access roads may be disrupted. If the irrigation system were disrupted, the indirect effects related to loss of irrigation would affect a much larger area than the physical area removed for levee construction. To determine the indirect effects of disrupted agriculture, the middle and lower reaches of the project area were separated into "affected agricultural units," labeled agricultural units A, B, and C, on Figure 3-6. Table 3-10 presents the acreages associated with each of the areas where construction of a new levee might potentially disrupt agricultural practices, using the vegetation categories defined in Subsection 3.1.0

Table 3-10 Affected Agricultural Area, Middle and Lower Reach, Presidio FCP

Vegetation Type	Affected Area A (acres)	Affected Area B (acres)	Affected Area C (acres)
Agricultural	584	967	753
Desert scrub / Woodlands	97	--	--
Developed Lands (a)	--	--	124
Total	681	967	877

(a) Developed lands include only the golf course southeast of Presidio.

If flood easements are pursued by landowners to provide some compensation if crops in the lower reach are lost if the levee were overtopped by flood flows, that funding mechanism would provide some additional funding to local landowners.

3.5.3 Environmental Justice

In developing statistics for the 2000 Census of Population and Housing, the U.S. Department of Commerce, Bureau of the Census, identified small subdivisions used to group statistical census data. In metropolitan areas, these subdivisions are known as census tracts. Relevant data regarding environmental justice were obtained from the analysis of census tracts that would be affected by alternatives being considered for the Presidio FCP. Analysis of the demographic data was conducted to derive information on the approximate locations of low-income and minority populations in the community of concern.

Since the analysis considers disproportionate impacts, two areas must be defined to facilitate comparison between the area actually affected and a larger regional area that serves as a basis for comparison and includes the area actually affected. The larger regional area is defined as the smallest political unit that includes the affected area and is called the community of comparison.

The percentages of the population represented by minorities and the poverty rate for each of the selected census tracts in the project area are shown on Table 3-11. The minority

population in Presidio County is approximately 85 percent. Minority populations of Hispanic origin dominate in the potential region of influence.

Table 3-11 Minority Populations and Poverty Rates in Presidio County

Ethnic Composition [(a)]	Presidio County	Percent
White	1,120	15
Hispanic or Latino (of any race)	6,198	83
Black	97	1.3
Asian	15	0.2
American Indian	22	0.3
Total Population	7,467	100
Total Minority	6,347	85
Poverty Levels [(b)]		
Individuals below poverty level	1,549	24.4

(a) Based on 2008 values presented in U.S. Census Bureau, does not include persons reporting two races, accessed 2009.
(b) Based on 2000 values and percentages presented in U.S. Census Bureau, accessed 2009.

3.5.4 Transportation

The levee system for the Presidio FCP extends approximately 15 miles along the southern portions of Presidio County where numerous agricultural areas adjacent to the Rio Grande are accessed by unimproved county and local roadways.

The major artery for highway traffic is IH 67, which connects Presidio to Marfa. Also important is Ranch Road 170, which traverses the county along the Rio Grande from southeast to northwest connecting Presidio to La Junta and Ochoa. Ranch Road 170 also traverses the southwest portion of Big Bend State Park, which is approximately 50 miles southeast of Presidio.

The project area is located in a remote area of southwest Texas near the Rio Grande where traffic is not a major issue. The city has an international bridge (US 67), the Presidio Bridge, spanning the Rio Grande to Mexico that allows traffic to flow between the United States and Mexico.

The State of Texas owns 382 miles of railroad from Coleman, Texas to Presidio Texas ending at the International Boundary. This railroad has vital interchanges with Class I rail carriers to transport rail traffic to all portions of the United States. The Texas - Pacifico Transportation, Ltd. (TXPF) has a Lease and Operating Agreement with the State of Texas acting by and through TxDOT to maintain and operate this railroad.

TxDOT has ownership of the South Orient rail line (SORR) on behalf of the State of Texas. When TxDOT purchased the SORR, the rail line had suffered from deferred maintenance and required significant rehabilitation to make it competitive with trucks and other railroads in Texas. After purchase of the SORR, TxDOT leased the line to TXPF. The TxDOT and TXPF are working cooperatively to secure funding for rehabilitation of the rail line, and have secured over $22 million for rehabilitation of the rail line. Rehabilitation of the SORR will enable the line to become operationally competitive and provide rail-related development opportunities to communities along the line.

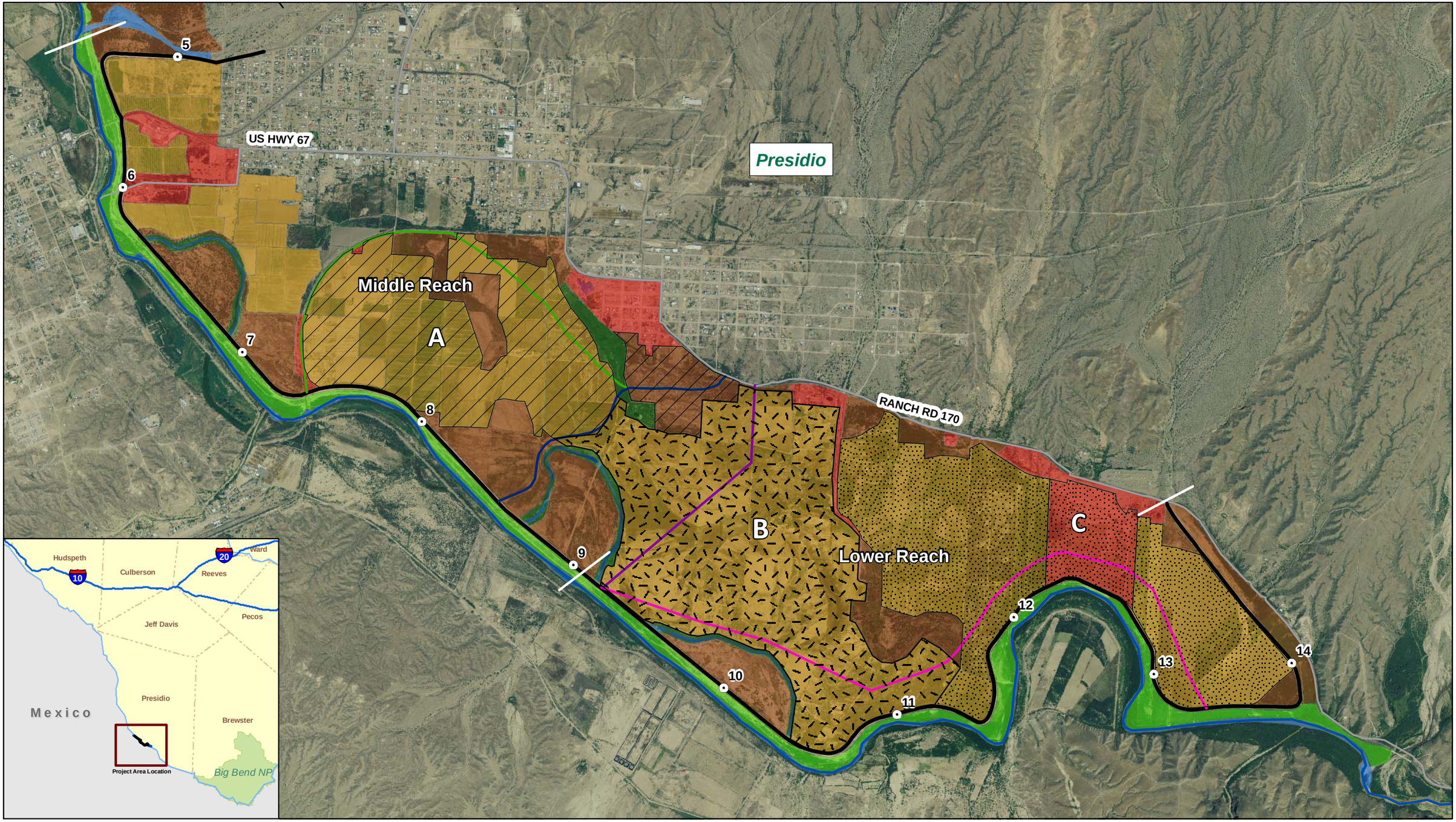

Figure 3-6
Affected Agriculture Communities - Middle and Lower Reaches
Presidio Flood Control Project
International Boundary and Water Commission
United States Section

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A portion of the International Rail Bridge south of the levee at Presidio burned to the ground on February 29, 2008 (the span crossing the river), and a section of the International rail bridge north of the USIBWC levee burned on March 1, 2009. Because of these fires, most of the old wooden structure between Presidio and Ojinaga was destroyed. TXPF is actively engaged in reconstructing the bridge. The present phase of this reconstruction is the design and permitting, which is scheduled for completion by July 2011. Actual reconstruction of the bridge is scheduled to be complete by July 2014. The entire railroad is in service between Coleman and Presidio and there is no intention to discontinue service or abandon any portion of this line.

In March 2009, Presidio County submitted an application to TxDOT seeking the establishment of an RMA under Texas Transportation Code, Chapter 370. The application is pending. If approved, the RMA would have significant authority under Texas law to develop transportation projects. The applicant desires to create an RMA to improve the local transportation infrastructure, provide multimodal infrastructure, foster economic development in the region, protect the environment, and protect critical infrastructure from flooding. The applicant proposes as its initial project to acquire and expand the existing international bridge and commercial inspection facilities at U.S. 67. It proposes to construct a new parallel bridge structure to the existing border crossing, approaches to and from the new bridge to existing U.S. 67, expansion of the existing inspection facilities, and the addition of toll facilities. This proposal is not under the jurisdiction of the USIBWC, and would have to be evaluated under NEPA regulations at a later date. Further, a Presidential Permit issued from the Department of State would be required for construction and expansion of the international rail bridge facilities. The Department of State will require USIBWC approval before the permit is issued.

3.6 ENVIRONMENTAL HEALTH

3.6.1 Definition of Resource

The EIS evaluates potential impacts to the following environmental health resource areas (1) air quality (discussed in subsection 3.6.2), noise (discussed in subsection 3.6.3), and (3) public health and environmental hazards (discussed in subsection 3.6.4).

3.6.2 Air Quality

The levee system for the Presidio FCP area traverses the southern portions of Presidio County, and is located within AQCR 153, or the El Paso-Las Cruces-Alamogordo Interstate AQCR. This AQCR includes Doña Ana, Lincoln, Sierra, and Otero Counties in New Mexico, and Brewster, Culbertson, El Paso, Hudspeth, Jeff Davis, and Presidio Counties in Texas. As of April 2005, the USEPA designated air quality within all counties of AQCR 153 to be in attainment status for all criteria pollutants, with the exception of El Paso County (USEPA 2009a). A review of the project for General Conformity impact indicates Presidio County is in attainment status, and therefore, General conformity does not apply.

The TCEQ identified no contributors of point source emissions in Presidio County. The area source emission inventory for Presidio County for calendar year 2002, based on the latest available data from USEPA National Emission Inventory as of September 2009 (USEPA 2009b), is as follows:

- Carbon monoxide, 2,086 tons per year;

- Volatile organic compounds, 379 tons per year;
- Nitrogen dioxide, 749 tons per year;
- Sulfur oxides, 45 tons per year;
- PM_{10}, 2,206 tons per year; and
- $PM_{2.5}$, 284 tons per year.

Existing maintenance activities by USIBWC personnel includes routine inspections of levees and access roads. Periodic maintenance activities at the levees, channels and floodway results in the use of construction equipment, but is typically limited to once every three months or less and does not represent a significant source of air pollutants.

3.6.3 Noise

Noise is defined as sound that is undesirable because it interferes with speech and hearing, is intense enough to damage hearing, or is otherwise annoying. Noise levels are commonly reported in decibels, using an average-weighted level (dBA). Noise levels often change with time. To compare sound levels over different time periods, several descriptors have been developed that take into account this time-varying nature. These descriptors are used to assess and correlate the various effects of noise on humans. The day-night sound level (DNL) is a measure of the total community noise environment. DNL is an accepted unit for quantifying annoyance to humans by general environmental noise, including aircraft noise, and represents noise exposure events over a 24-hour period. The Federal Interagency Committee on Urban Noise developed land use compatibility guidelines for noise (U.S. Department of Transportation 1980). Potential adverse effects of noise include annoyance, speech interference and hearing loss.

Noise Components

Annoyance. The USEPA defines noise annoyance as any negative subjective reaction to noise by an individual or group. Typically 15 to 25 percent of persons exposed on a long-term basis to DNL of 65 to 70 dBA would be expected to be highly annoyed by noise events, and over 50 percent at DNL greater than 80 (National Academy of Sciences 1977).

Speech Interference. In a noisy environment, understanding speech is diminished when speech signals are masked by intruding noises. Based on a variety of studies, DNL 75 dBA indicates there is good probability for frequent speech disruption. This level produces ratings of “barely acceptable” for intelligibility of spoken material. Increasing the level of noise to 80 dB reduces the intelligibility to zero, even if the people speak in loud voices.

Hearing loss. Hearing loss is measured in decibels, and refers to a permanent auditory threshold shift of an individual’s hearing. The USEPA (USEPA 1974) has recommended a limiting daily equivalent energy value of equivalent sound level of 70 dBA to protect against hearing impairment over a period of 40 years. Hearing loss projections must be considered conservative as the calculations are based on an average daily outdoor exposure of 16 hours.

Existing Regional Noise Levels

Land-use and zoning classifications surrounding the project areas provide an indication of potential noise impact. Land use in the Presidio FCP area is predominantly agricultural with

a small percentage of residential and commercial land use areas. No sensitive noise receptors are located immediately adjacent to the levees (*i.e.,* within 100 feet). Typical existing outdoor noise sources near the levee system include vehicles, pickup trucks, diesel tractor mowers, and other farm machinery. Noise sources such as mowers at 100 feet, and diesel truck or scrapers used to grade levee roads at 50 feet are approximately 70 dBA and 89 dBA, respectively (CERL 1978).

Existing maintenance activities by USIBWC personnel consists of routine inspections of levees and access roads. Periodic maintenance activities at the levees, channels and floodway results in the use of construction and maintenance equipment but is typically limited to once every three months or less and does not represent a significant source of noise.

3.6.4 Public Health and Environmental Hazards

Waste disposal activities at or near the proposed levee improvement area were reviewed to identify areas where industrial processes occurred, solid and hazardous waste were stored, disposed, or released; and hazardous materials or petroleum or its derivatives were stored or used. Banks Information Systems, Inc. (2009) conducted a data search on waste storage and disposal sites along the Presidio FCP Levee System. The search extended along major portions of the potential levee expansion area, up to 1 mile from the levee corridor centerline. The identification of hazardous and toxic waste disposal and the storage sites near the project area included the following databases:

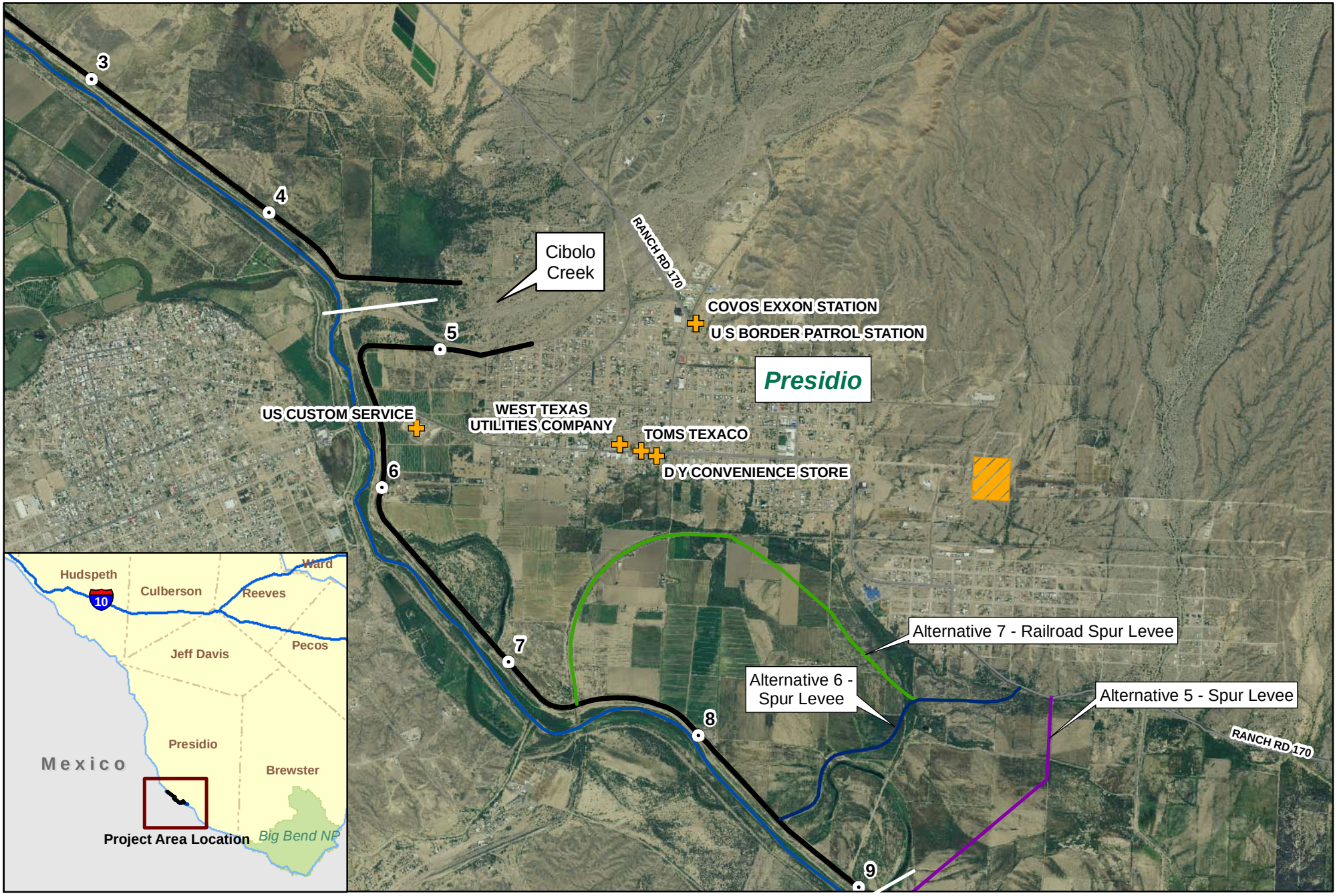
- The National Priority List (NPL);
- State equivalent Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) list;
- CERCLIS No Further Remedial Action Plan (NFRAP) List;
- RCRA Corrective Actions and associated Transport, Storage, and Disposal (TSD) list;
- RCRA-registered small quantity generator of hazardous waste (GENS);
- Emergency Response Notification System of Spills (ERNS) list;
- Sites permitted as solid waste landfills (SWL), incinerators, or transfer stations;
- Emergency response actions listed within the TCEQ database;
- Listing of all sites with the Voluntary Cleanup Program (VCP) and the Innocent Owner/Operator Program (IOP);
- Registered above-ground storage tanks (AST), underground storage tanks (UST), and leaking USTs (LUST); and
- Sites currently or formerly under review by the USEPA.

Results of the data search along the Presidio FCP by individual database (up to 1 mile), are shown in Table 3-12. No hazardous materials or waste storage, disposal sites, or spill sites, were identified within the immediate Presidio FCP area (1/8 mile from existing or proposed levees). However, one UST associated with USBP was reported within one-quarter mile from the project area. Five other USTs were reported within 1 mile of the Presidio FCP area, including two associated with a USBP Station and the other three associated with convenience store fuel stations. One leaking LUST, associated with the Covos Exxon Station, was reported within 1 mile of the Presidio FCP area. Two solid waste landfills, both of which can be

identified as the city of Presidio Landfill, are reported within 1 mile of the Presidio FCP area. The West Texas Utilities Company was identified within 1 mile both as a small quantity generator of hazardous materials (RCRA GENS) and "Other," but is only labeled as a small quantity generator within the detailed summary of the site. Locations of all these sites are shown in Figure 3-7.

Table 3-12 Summary Search Report for the Presidio FCP Vicinity

Database	Database Updated	Search Radius	Levee Corridor	1/8 Mile	1/4 Mile	1/2 Mile	>1/2 Mile	Total
NPL	06-12-09	1.00	0	0	0	0	0	0
CERCLIS	05-27-09	1.00	0	0	0	0	0	0
NFRAP	05-27-09	1.00	0	0	0	0	0	0
RCRA TSD	05-13-08	1.00	0	0	0	0	0	0
RCRA COR	05-13-08	1.00	0	0	0	0	0	0
RCRA GENS	05-13-08	1.00	0	0	0	1	0	1
ERNS	06-16-09	1.00	0	0	0	0	0	0
SWL	12-17-08	1.00	0	0	0	0	2	2
State Spills	05-01-09	1.00	0	0	0	0	0	0
VCP/IOP	01-02-09	1.00	0	0	0	0	0	0
Regular UST/AST	05-01-09	1.00	0	0	1	2	3	6
Leaking UST	02-29-09	1.00	0	0	0	0	1	1
Brownfields	11-17-08	1.00	0	0	0	0	0	0
Other	03-04-09	1.00	0	0	0	1	0	1
Total Sites			0	0	1	4	6	11



0 1,250 2,500 5,000 Feet

0 250 500 1,000 Meters

Environmental Sites

City of Presidio Landfill

Mile Markers

Levee Centerline

Rio Grande

Major Roads

Figure 3-7
Hazardous and Toxic Waste Disposal and Storage Sites
Presidio Flood Control Project
International Boundary and Water Commission
United States Section

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SECTION 4
ENVIRONMENTAL CONSEQUENCES

This section provides analyses of the environmental consequences of the No Action Alternative and six action alternatives considered in the EIS for the Presidio FCP.

4.1 EFFECTS DETERMINATION

4.1.1 Biological Resources

Biological resources analyses used the following evaluation criteria to assess impacts of the alternatives.

- *No significant impacts* - no changes made to existing vegetation communities, and any vegetation, terrestrial wildlife habitat, aquatic wildlife habitat or habitat for threatened, endangered, or special status species removed.
- *Minor impacts* - Some vegetation or terrestrial wildlife habitat removed during construction activities, but that the effects would be for short duration and the overall habitats would recover after the construction was complete.
- *Significant impact* - A large portion, relative to the amount available in the project area, of vegetation or terrestrial wildlife habitat was permanently removed; or transit corridors were interrupted; or construction activities degraded existing vegetation to a lower-quality habitat for a long period of time (*e.g.*, an entire breeding season).

To determine the project area, the extent of agricultural fields approximately coincides with the 100-year floodplain, except in the City of Presidio, where the 100-year floodplain extends to at least the center of the city. The total project area is approximately 6,452 acres, divided into the vegetation types shown in Table 4-1, and the percent of vegetation removed is compared to the vegetation present in the project area for the effects determination.

Table 4-1 Acreage of Project Area, Presidio Flood Control Project

Vegetation Type	Area within Project Area (acres)
Agricultural	3,924
Desert scrub/woodlands	1,329
Developed Lands	354
Existing Levee Footprint	181
Non-native grasslands	394
Open Water	178.0
Wetlands/Riparian	92
Total	6,452

4.1.2 Cultural Resources

Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties (*i.e.,* NRHP-eligible resources). An undertaking has an effect on a cultural resource when that action "may alter the characteristics of the property that may qualify the property for inclusion in the National Register" (36 CFR 800.5 (a) (1)). An undertaking is considered to have an adverse effect when the effect "may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association." Adverse effects as defined by Section 106 of the NHPA include, but are not limited to:

1. Physical destruction, damage, or alteration of all or part of the property;
2. Isolation of the property from or alteration of the character of the property's setting when that character contributes to the property's qualification for the NRHP;
3. Introduction of visual, audible, or atmospheric elements out of character with the property or alter its setting;
4. Neglect of a property resulting in its deterioration or destruction; and
5. Transfer, lease, or sale of the property (36 CFR 800.5 (a)(2)).

For purposes of this EIS, a significant impact under NEPA is defined as an "unresolvable" adverse effect under Section 106 of the NHPA.

Impacts to archaeological sites include: physical disturbance through surface grading; building excavation and construction; road construction; trenching for drainage or utility lines; use of staging areas for construction equipment and supplies; borrow pit excavations; and, vandalism of archaeological materials. Any ground-disturbing action in the area of an NRHP-eligible or potentially eligible archaeological site, or modification to such a site, can affect the physical integrity of that cultural resource, resulting in alteration or destruction of those characteristics or qualities that make it potentially eligible for inclusion in the NRHP and thus, would be an adverse effect under Section 106 of the NHPA.

Impacts to architectural resources include: demolition; alteration of architectural traits; structural instability through vibration; short-term audio intrusions during construction; and visual intrusions to historic settings and cultural landscapes. Any visual or audio intrusions to the setting or demolition or alteration of architectural traits can affect the integrity of an NRHP-eligible or potentially eligible architectural resource, resulting in alteration or destruction of those characteristics or qualities that make it potentially eligible for inclusion in the NRHP and thus, would be an adverse effect under Section 106 of the NHPA.

Impacts to Native American resources include: destruction of traditional resources, burials and sacred sites, and destruction of plant or animal habitat through ground-disturbing activities and construction of buildings and roads. Audio and visual intrusion may adversely affect the visual and audio landscape or the viewshed of these resources. These types of physical disturbances may disturb or destroy unidentified Native American resources and thus, would be an adverse effect under Section 106 of the NHPA. Native American consultation has been initiated with the Comanche Nation, the Kiowa Indian Tribe of Oklahoma, the Mescalero Apache Tribe, the White Mountain Apache Tribe, the Kickapoo Tribe of Texas, and the Ysleta del Sur Pueblo Tribe to identify any Native American resources or concerns.

4.1.3 Water Resources

Impacts to water resources would be considered significant if any of the following were to occur: substantial flooding or erosion; adverse effects on any significant water body (such as stream, lake, or bay); exposure of people to reasonably foreseeable hydrologic hazards such as flooding; or adverse effects to surface or groundwater quality or quantity.

Impacts on water quality would be considered significant when concentrations of indicator parameters exceeded regulatory values, including federal freshwater quality criteria for the Rio Grande. Impacts to wetlands would be considered significant if water quality in wetlands regulated under the CWA were altered or degraded.

4.1.4 Land Use

Impacts to land use would be considered significant if implementation of the alternative would result in substantial changes in agricultural or previously developed land within the land use corridor. Land use analysis is limited to lands outside USIBWC jurisdiction. Potential changes in land use would be associated with levee footprint expansion or new levee construction. A significant impact would a loss of 10 percent or more of agricultural lands or developed lands for levee expansion or new levee construction within the designated land use corridor.

4.1.5 Socioeconomic Resources and Transportation

A socioeconomic impact would be considered significant if the local expenditures resulting from the federal action resulted in substantial change in the local economy and labor force. Local expenditures were compared with the applicable 2008 values for Presidio County, and a significant impact defined as a change greater than 10 percent relative to county values. In addition, if levees are not certified to provide 100-year flood protection, then homeowners will be required to purchase flood insurance coverage. An impact to transportation resources would be considered significant if increases in traffic exceeded capacity of the existing roadways.

In addition to direct changes in the local economy, indirect costs to landowners are estimated where levee construction may disrupt the network of irrigation drains, pumps, and access roads in the area. To determine the indirect effects, the percentage of land that would be potentially affected by loss of irrigation is compared to the total amount of agricultural land in the project area (as described in subsection 4.1.1). An indirect agricultural impact would be considered significant if there were a loss of 10 percent or more of the lands in the project area that may have disrupted irrigation for agricultural uses.

4.1.6 Environmental Health

Potential impacts on environmental health issues would be considered significant if implementation of an alternative would result in the following:

- Generate air emissions that cause or contribute to a violation of any national, state, or local ambient air quality standard; represent 10 percent or more of the emissions inventory for the affected AQCR counties to be considered regionally significant; or cause non-conformance with the USEPA General Conformity requirements.

- Noise generation by construction activities above ambient noise levels; cause annoyance, speech interference, or hearing loss; or noise-sensitive and non-construction receptors are located near the noise source.
- Regarding public health and environmental hazards, violation of federal or state regulations for hazardous waste usage, storage, or disposal; use of materials that would not be accommodated by existing guidance; human exposure to hazardous waste or materials; or hazardous waste generation that would not be accommodated by current waste management practices.

4.2 ALTERNATIVE 1 (NO ACTION)

Under Alternative 1 (No Action), the levees would not be repaired and no levee improvements beyond the emergency repairs already completed would be made. There will be no changes to the levee alignment or footprint. This alternative would continue current maintenance practices.

4.2.1 Biological Resources

Vegetation

The levee slopes would continue to be maintained as described in Section 2 on an as-needed basis. The levee slopes would remain primarily invasive grasses that rapidly re-grow after disturbances such as mowing, and establishment of native plant species on the levee slopes is not expected.

Terrestrial Wildlife

No additional changes to the vegetation would occur. The on-going maintenance of levee slopes and river channel as described in Section 2 would continue. The levee maintenance actions would maintain the vegetation on levee slopes as primarily invasive grasses, and therefore, this habitat would be relatively low quality for wildlife use except as transit corridors.

Aquatic Wildlife

Sediment removal would continue on an as-needed basis, which may temporarily improve aquatic habitats by improving flow regimes. The resacas adjacent to the levees will not be affected by expansion of the levee footprint, or other operations that would inhibit wetland function. Mowing operations do not affect wetlands.

Threatened, Endangered and Special Status Species

The on-going maintenance of levee slopes and river channel will not be changed, and no impacts on federal or state listed T&E species or special status species are expected.

4.2.2 Cultural Resources

Under Alternative 1 (No Action), the levees will not be modified or relocated to improve flood protection and Operations and Maintenance (O&M) would continue. Cultural resources would continue to be managed in accordance with Sections 106 and 110 of the NHPA and USIBWC Directives.

Archaeological Resources

In general, no effects to archaeological resources differing from the baseline condition would be expected. Existing conditions and natural degradation of archaeological resources would continue from increased flooding and erosion potential along the Rio Grande floodplain where archaeological sites occur. Archaeological investigations revealed that prior channelization and levee construction along Cibolo Creek resulted in severe erosion of the intact portion of Site 41PS86, a contributing site in an NRHP-listed archaeological district. Maintaining the current levee configuration may result in continued destruction of this and other NRHP-eligible sites through natural degradation.

Architectural Resources

In general, no impacts to cultural resources differing from the baseline condition would be expected. Existing conditions and natural degradation of architectural resources would continue from increased flooding and sedimentation, which reduces the structural integrity of water control structures that intersect the levee (*e.g.*, gatewells, siltation of ditches and channels, and collapse of the levee over channels).

Native American Resources

No Native American resources in the Presidio FCP were identified as a result of consultation with Tribes as part of this NEPA process.

4.2.3 Water Resources

Flood Control and Floodplain Management

Under Alternative 1 (No Action), additional levee repairs would not be made, and levee improvements would not be made. Due to breaches along the lower reach of the levee, agricultural fields adjacent to the existing levee are not protected from flooding when water stages cause the river to overtop the riverbanks. The City of Presidio was also in danger of flooding during the September 2008 flood, as water backed up on the landside of the levee. Current containment capacity is insufficient to control Rio Grande flooding under severe storm events, with risks to personal safety and property.

Surface Water Quality

No changes in water quality management of Segments 2306 and 2307 are expected. There would be no changes to the designated used of the two segments, and any exceedances of water quality standards would continue as under present conditions.

Wetlands protected under the CWA would not be affected by Alternative 1 (No Action). Current levee maintenance practices do not affect wetlands.

Groundwater Resources

Under Alternative 1 (No Action), no changes to the current groundwater irrigation would occur.

4.2.4 Land Use

Under Alternative 1 (No Action), agricultural and previously developed land use within the Presidio FCP land use corridor would not change from the current management practices of USIBWC. Due to the levee breaches in the lower reach of the levee system, agricultural lands and previously developed lands adjacent to the lower reach would be subject to flooding at nearly all flood stages. There would potentially be adverse effects on agricultural or previously developed areas.

4.2.5 Socioeconomic Resources and Transportation

Regional Economy

No additional equipment or personnel would be required if current O&M practices were continued. Thus, Alternative 1 (No Action) would not result in any additional construction or operation costs. There would be no impact on cropland and production or on labor due to additional construction or operation costs. Since there would not be a need for additional workers, there would be no effects on population or employment rates. Alternative 1 (No Action) would not result in relocations to or from the area and, consequently, housing and community services would not be impacted.

Because the levees would not be repaired, there would be no changes to the existing irrigation systems in the area, and agricultural economics are not expected to be affected by the action.

Due to levee breaches in the lower reach of the Presidio levee system, there is potential for flooding of agricultural and previously developed lands in these areas if no repairs are made. As summarized in subchapter 3.5.2, the total potential damage to the Presidio Valley from flood control failure is estimated at approximately $12,569,000. Flooding in the lower reach of the levee system, would likely cause damage to agricultural and developed lands, vehicles, roads and utilities, as well as create emergency services costs (USIBWC 2004).

Because the levees would be not be repaired or improved to provide 25-year flood protection, FEMA would not accredit the levees and therefore, homeowners would have to contact their insurance company to determine the need for flood insurance. Flood insurance rates of homeowners in Presidio County may range from $200 per year to more than $400 per year depending on coverage (Texas Flood Insurance 2009). Some local residents have obtained flood insurance policy rate quotes from FEMA, and estimated flood insurance rates may actually be in the range of thousands of dollars per year. For the estimated 4,167 persons living in the City of Presidio, assuming that flood insurance could be obtained at a cost of $400 per year, the cost of flood insurance may be prohibitive for some individuals who earn less than the average per capita income of $9,558 per year. If flood insurance rates are higher, flood insurance policies will not be an economic option for a larger proportion of the residents in the area.

Environmental Justice

Under Alternative 1 (No Action), current condition of minority and low-income populations for Presidio County would remain unchanged, as improvements to the levee system would not occur.

Transportation

Under Alternative 1 (No Action), current maintenance of the levee using local farm roads would not change. Alternative 1 would not alter local traffic patterns or volumes on local roads. No changes to maintenance roads adjacent to the existing levee would occur, nor would changes to the traffic flow across the international bridge. Alternative 1 (No Action) would not result in any impacts to transportation.

4.2.6 Environmental Health

Air Quality

Under Alternative 1 (No Action), the current configuration of the levee system would be retained. Existing air emissions from current practices are established in the emissions inventory for Presidio County. The existing levee would not be repaired or improved under Alternative 1, and the current configuration of the levee system would be retained. Alternative 1 would not contribute to a violation of any national, State, or local ambient air quality standard, and would not raise the emissions within Presidio County beyond 10 percent of the county's current estimated emissions inventory. Air emissions would not be expected to increase beyond the established emissions inventory in the project area.

Noise

Under Alternative 1 (No Action), no repairs or improvements to the existing levee would occur, and the current configuration of the levee system would be retained. For the purposes of this assessment, it is estimated the shortest distance between an equipment noise source and a receptor in a rural area would be a person(s) 100 feet offsite. Given the rural nature and low population density of the area, it is unlikely a person other than a construction worker would be within 100 feet of the site boundary during project activities. As stated under the affected environment, no sensitive noise receptors (*i.e.,* schools, churches, and medical facilities) are located immediately adjacent to the levees (*i.e*., within 100 feet). Therefore, there would be no significant impacts due to noise from current levee maintenance activities.

Public Health and Environmental Hazards

Hazardous material practices of the USIBWC comply with applicable standards under the current O&M practices. Storage of diesel fuel and refueling of vehicles and equipment is performed in compliance with applicable State and federal standards. No hazardous materials sites are currently affected by O&M activities. Therefore, current USIBWC practices would not affect hazardous materials handling, nor any facilities or sites in the project area.

The Presidio FCP would continue to implement current maintenance practices such as resurfacing roadways of the levee system and floodway maintenance activities. Alternative 1 would not result in exposure to any contamination on the site, and there are no remediation activities ongoing at the Presidio FCP. For these reasons, impacts to public health and environmental hazards would not occur.

4.3 ALTERNATIVE 2 (25-YEAR FLOOD PROTECTION, IN-PLACE CONSTRUCTION)

Under Alternative 2, repairs would be made to the levee breaches to pre-flood conditions, and rehabilitation of some sections to meet 25-year design specifications would occur. Under Alternative 2, no expansion of the existing footprint would occur. If an overflow weir and one or more outfall gate(s) were added to the existing levee during repairs and rehabilitation of the existing levee, there would be no changes to the levee alignment or footprint. Slurry trenches may be required in a total of 3,000 feet north of Cibolo Creek to complete the repairs started under the Emergency Repair Action (USIBWC 2009a). In the lower reach, slurry trenches or sheet pile may be installed to stabilize the levee foundation and prevent levee deterioration, and this would occur within the existing levee footprint. Excavation for the installation of slurry trenches or sheet piles would require a trench approximately 20 feet deep and 3 feet wide (as described in Section 2). Installation of slurry trenches or sheet piles would occur within the footprint of the existing levee, and the length and exact location of slurry trenches would be determined with geotechnical evaluations of the existing levee between levee miles 9.2 and 15.3.

4.3.1 Biological Resources

Vegetation

Levee slopes would continue to be maintained as described in Section 2 on an as-needed basis. In areas where levee breaches were repaired, and in areas where the levee was raised to provide 25-year flood protection, after completion of construction, native grass species would be seeded along the levee slopes. Native grass species may include sideoats grama, Arizona cottontop, plains bristlegrass, sand dropseed, black grama, blue grama, green sprangletop, alkali sacaton, and cane bluestem. In areas where no levee improvements are required to provide 25-year flood protection, the levee slopes would remain primarily invasive grasses that rapidly re-grow after disturbances such as mowing, and establishment of native plant species in these areas is not expected.

Terrestrial Wildlife

No additional changes to the vegetation would occur. The on-going maintenance of levee slopes and river channel as described in Section 2 would continue. Levee maintenance actions would maintain the vegetation on levee slopes as primarily invasive grasses, with some areas seeded in native species, and therefore, this habitat would remain as relatively low-quality habitat for wildlife use, except as transit corridors.

Aquatic Wildlife

Sediment removal would continue on an as-needed basis, which may temporarily improve aquatic habitats by improving flow regimes. In areas where levee breaches would be repaired or areas where the levee would be raised to provide 25-year flood protection, the levee is not expected to be expanded into resacas adjacent to the existing levee.

During construction activities associated with Alternative 2, Best Management Practices (BMP) would be used to prevent sediment, silt, or debris from being transported to resacas or the Rio Grande. Prevention of sediment transport to resacas or the river will prevent aquatic

habitats from being altered. Therefore, under Alternative 2, no aquatic wildlife habitats would be negatively affected.

Under Alternative 2, if the flood flows were greater than the levee, the levee could be overtopped, and the adjacent farmlands flooded. In areas where wetlands restoration has been initiated, occasionally flooding those areas may have the long-term effect of improving those habitats for aquatic wildlife by allowing establishment of wetlands vegetation. The connectivity between the floodplain and the river would be intermittent and occur only at high water stages.

Threatened, Endangered, and Special Status Species

The ongoing maintenance of levee slopes and river channel would not be changed, and no impacts on federal or State-listed T&E species or special status species are expected.

4.3.2 Cultural Resources

Under Alternative 2, the levees would be repaired and raised to provide 25-year flood protection. Levee maintenance would be as described in Section 2. Cultural resources would continue to be managed in accordance with Sections 106 and 110 of the NHPA and USIBWC Directives.

Under Alternative 2, the effects of the proposed construction activities are described below for each resource type.

Archaeological Resources

Proposed rehabilitation of the existing Presidio FCP levee system under Alternative 2 may adversely affect one NRHP-eligible prehistoric archaeological site (41PS86) which occurs immediately adjacent to the existing levee alignment in the upper reach of the Presidio FCP.

The use of construction equipment to aid in the addition and movement of soil for the levee rehabilitation could result in ground disturbance from the creation of track and tire ruts extending several inches below ground surface. Site 41PS86 may be adversely affected by the use of heavy mechanical equipment in the APE and along access routes.

Improvements to the lower reach of the existing levee would also include installation of slurry trenches or sheet piles to stabilize the levee foundation and prevent deterioration of the levee. Excavation for installation of slurry trenches or sheet piles may be required in segments parallel to the existing levee along the riverside toe of the levee. The excavation of deep (20 foot) trenches or excavation for burial of sheet piles will not result in adverse effects to NRHP-eligible archaeological resources.

Under Alternative 2, water control features, including an overflow weir and one or more outfall gate(s) may be installed. Because no archaeological sites were identified in the lower reach of the existing levee alignment, no additional impacts in the lower reaches should occur from construction requiring excavation below the modern ground surface. Excavation for these features will not result in adverse effects to NRHP-eligible archaeological resources.

Architectural Resources

Proposed improvements to the Presidio FCP levee system under Alternative 2 will have no adverse effect to architectural resources that are eligible for the NRHP or are contributing to an NRHP-eligible historic district.

Native American Resources

No Native American resources in the Presidio FCP were identified as a result of consultation with Tribes as part of this NEPA process. Proposed improvements to the Presidio FCP levee system under Alternative 2 will have no adverse effect to Native American Resources.

4.3.3 Water Resources

Flood Control and Floodplain Management

Under Alternative 2, the levee would be repaired and raised to meet the 25-year design flood specifications, but the levee would not be raised to provide 100-year flood protection. Under severe storm events, current containment capacity is insufficient to control Rio Grande flooding, with risks to personal safety and property.

Surface Water Quality

No changes in water quality management of Segments 2306 and 2307 are expected. There would be no changes to the designated used of the two segments, and any exceedances of water quality standards would continue as under present conditions.

Wetlands protected under the CWA would not be affected by Alternative 2. Construction activities associated with levee repair and levee raising to meet 25-year design specifications would not occur adjacent to wetlands. Current levee maintenance practices do not affect wetlands.

Groundwater Resources

Under Alternative 2, no changes to the current groundwater irrigation would occur.

4.3.4 Land Use

Under Alternative 2, agricultural and previously developed land use within the Presidio FCP land use corridor would not change from the current management practices of USIBWC. Under Alternative 2, levee repairs would be made to pre-flood conditions, and rehabilitation of other sections would be made to meet 25-year flood-control design specifications. Following levee repairs and rehabilitation, agricultural lands and previously developed lands subject to flooding under current conditions, would be protected from a 25-year flood event. There would be no adverse effects on agricultural or previously developed areas.

4.3.5 Socioeconomic Resources and Transportation

Regional Economy

The analysis of impacts of Alternatives 2 on the regional economy was based on estimated changes in baseline levels of income and business volume, which could potentially

be affected by the proposed levee improvements. Construction costs for the levee could be in excess of $2 million based on the most conservative estimated costs, assuming 1 mile of raised levee at a cost of approximately $2 million per mile. These construction costs do not include costs for slurry trench installation or other features that may be required based on final construction design.

Because levee construction would require most of the labor and materials to be brought from outside Presidio County, only a fraction of the construction cost would actually represent local expenditures in the Presidio area. Local employment would not be expected to significantly increase from baseline levels, because a workforce from outside Presidio County would be utilized for construction activities.

In terms of economic influx, only a fraction of construction costs would actually represent local expenditures. For the impacts evaluation, it was assumed that 10 percent of the total construction cost, or $200,000, would be associated with local expenditures, and have a potential for increased sales volume and income. Table 4-2 illustrates the magnitude of the economic influx relative to reference values for Presidio County. Table 4-2 presents a comparison of potential economic impacts under Alternative 2. The anticipated increase in sales and income was calculated based on a unit ratio of sales and income increases as a function of local expenditures from levee construction of the USIBWC Rio Grande Canalization Project (Parsons 2003). Annual sales volume were estimated from the gross sales for Presidio County in 2008 (Texas Comptroller 2008); income values were based on a 1999 estimated per capita income of $9,558 and an estimated 2008 Presidio County population of 7,467 (U.S. Census Bureau 2009).

Table 4-2 Potential Economic Impacts from Alternative 2 for Presidio County

	Sales / Income Increase Ratio[(a)]	Estimated Value
		Alternative 2
Project Expenditures		
Construction	n/a	$2,000,000
Local expenditures [(b)]	1.00	$200,000
Sales Volume Increase		
Direct plus indirect increases	3.38	*$676,000*
Presidio County annual value	-	*$63,168,642*
Increase relative to county sales	-	1.07%
Increase in Income		
Direct plus indirect increases	1.01	*$202,000*
Presidio County annual value [(c)]	-	*$74,296,650*
Increase relative to county income	-	0.27%

(a) Based on information from Parsons (2003)
(b) Local expenditures were estimated at 10% of construction costs
(c) Calculated as the per capita income multiplied by the population size

On the basis on a local expenditure value of $200,000, the potential for increase in sales volume would not be significant, equivalent to 1.07 percent of the annual value for Presidio County. The potential increase in local income would also not be significant, an estimated 0.27 percent of the annual county value. These increases would be associated with local services and supplies, but limited to the construction period.

The levees under Alternative 2 would be repaired in-place to provide 25-year flood protection. Levee repairs would not disrupt or damage existing irrigation systems in the area, and agricultural economics would not be affected by the action.

Because the levees would be repaired and improved to provide 25-year flood protection, FEMA would not accredit the levees and, therefore, homeowners would have to contact their insurance company to determine the need for flood insurance. Flood insurance rates for homeowners in Presidio County may range from $200 per year to more than $400 per year depending on coverage (Texas Flood Insurance 2009). For the estimated 4,167 persons living in the City of Presidio, assuming that flood insurance could be obtained at a cost of $400 per year, the cost of flood insurance may be prohibitive for some individuals who earn less than the average per capita income of $9,558 per year. If flood insurance rates were in the range of thousands of dollars per year, as has been quoted for some individuals, the number of people who would not be able to afford flood insurance would increase.

Environmental Justice

Data indicate that Presidio County has a disproportionately high minority (approximately 85%) and low-income populations (approximately 24%). However, construction activities associated with Alternative 2 would not occur in residential or workplace areas associated with these populations. A small but positive economic input to the local community would occur because of the levee improvements. Therefore, under Alternative 2, no impacts to the disproportionately high minority and low-income populations are expected.

Transportation

Construction activities associated with Alternative 2 would include the transport of construction equipment to the levee, and the transport of fill materials from borrow pits outside the City of Presidio to the levee. Construction equipment and fill materials would be transported to the levee using existing paved and unpaved roads that intersect the levee. Under Alternative 2, no impacts on traffic patterns in the City of Presidio and surrounding areas are expected. Alternative 2 would not affect traffic patterns across the international bridge.

4.3.6 Environmental Health

Air Quality

Improvements to the levee system under Alternative 2 would affect air quality through excavation and levee raising activities. Potential impacts would be a slight increase in criteria air pollutants within Presidio County. Table 4-3 summarizes the additional estimated criteria pollutants associated with Alternative 2, as well as the percent increase above the existing Presidio County emissions inventory. Estimates were calculated for 1 mile of construction activities associated with Alternative 2. Unit air emissions estimates for these activities followed common construction practices and methods (Means 2008) and emission factors

reported by USEPA (USEPA 1996) as applied to a similar levee expansion project in an upper reach of the Rio Grande (Parsons 2003).

Table 4-3 Air Emissions for Alternative 2 Levee Improvements

Parameter	Emissions (tons per year)					
	Sulfur Oxides	Nitrogen Dioxides	Carbon Monoxide	Volatile Organic Compounds	Particulate Matter (PM_{10})	Particulate Matter ($PM_{2.5}$)
Unit emissions per mile of levee height increase [(a)]	0.55	5.05	2.11	0.4	5.61	0.95
Alternative 2, levee height increase (1 mile)	0.55	5.05	2.11	0.4	5.61	0.95
Presidio emissions inventory[(b)]	45	749	2,086	379	2,206	284
Emissions as a Percent of Presidio County Emissions	1.22%	0.67%	0.10%	0.11%	0.25%	0.33%

(a) Unit data for levee construction from the USIBWC Rio Grande Canalization Project EIS (Parsons 2003: Table 4.11-2).
(b) USEPA (2009b), the most recent available data as of September 2009.

Based on the estimated emissions for Alternative 2, none of the criteria pollutant emissions is above the threshold of 10 percent of the county emissions inventory. Therefore, there are no impacts to air quality associated with Alternative 2.

Noise

Improvements to the levee system under Alternative 2 would increase ambient noise levels with trucks to bring additional fill material to the site and fill activities associated with the levee improvement project. It is estimated that the shortest distance between an equipment noise source and a non-construction receptor would be a person(s) 50 feet off-site, or less. Typical noise levels generated by construction activities range from 75 to 89 dBA at 50 feet from the source (CERL 1978). Given the primarily rural nature of the area, it is unlikely anyone other than a construction worker would be within 50 feet of the site boundary during activities. Although unlikely, if a non-construction receptor were within this distance, the person could be exposed to noise as high as 75 to 89 dBA. This level of noise could cause disruption of speech during the noise event (U.S. Department of Transportation 1992). Construction workers would be required to utilize appropriate hearing protection during construction activities.

The potential for hearing loss involves direct exposure on a regular, continuing, long-term basis to noise levels above 75 dBA. Hearing loss projections are based on an average daily outdoor exposure of 16 hours over a 40-year period. It is anticipated that construction activities during Alternative 2 would occur between 7:30 a.m. and 5:00 p.m., five days per week for the duration of the project. However, potential non-construction receptors would not be exposed during the entire noise-producing period. Under these conditions, potential receptors would not be exposed to long-term and regular noise above 75 dBA. Therefore, under Alternative 2, potential nearby non-construction receptors would not experience loss of hearing, only temporary speech disruption.

Public Health and Environmental Hazards

Under Alternative 2, hazardous and/or toxic products (*e.g.,* fuel, oil, grease, and hydraulic fluid) would be used from operating construction equipment. Implementing established industry practices for controlling releases of these substances would reduce the possibility of accidental releases of these products. Preventive maintenance and daily inspections of the equipment would ensure that any releases of these hazardous materials are minimized. All visible dirt, grime, grease, oil, loose paint, *etc*., would be removed from the equipment prior to use at the construction sites. Activities proposed under Alternative 2 would not result in noncompliance with federal or state regulations regarding hazardous materials and waste management.

No hazardous materials or waste storage, disposal, or spill sites were identified within the immediate Presidio FCP area (1/8 mile from the project area). Improvements to the levee system under Alternative 2 would not be affected by waste storage and disposal sites, nor would they affect ongoing management operations of hazardous materials and waste sites.

4.4 ALTERNATIVES 3 AND 4 (100-YEAR FLOOD PROTECTION ALONG ENTIRE LEVEE SYSTEM)

Alternatives 3 and 4 would improve flood containment capacity by increasing levee height to provide 100-year flood protection along the entire levee system. Raising the levee would result in a lateral expansion of the levee footprint. In the upper and middle reach of the levee system, the levee would be raised in place, by up to 8 feet, for both Alternatives 3 and 4. Slurry trenches may be required in a total of 3,000 feet north of Cibolo Creek to complete the repairs started under the Emergency Repair Action (USIBWC 2009a).

While the same improvements are under consideration for the upper and middle reaches of the levee system, Alternatives 3 and 4 differ in levee alignment along the lower reach of the Presidio FCP, as follows:

- Under Alternative 3, current levee alignment of the lower reach would be retained, and height increased up to 10.5 feet to provide protection from a 100-year flood event. In addition, in the lower reach, from levee mile 9.2 to 15.3, the levee would be rehabilitated by repairing damaged levee foundations and levee breaches using slurry trenches or sheet piles on the riverside toe of the levee. Exact locations of structural repairs would be based on geotechnical studies.
- Under Alternative 4, a 3.6-mile levee segment of the lower reach would be relocated approximately 500 feet toward the landside of the existing levee. Height of the new, realigned levee would be constructed up to 22 feet, as required to provide protection from a 100-year flood event. Construction of the offset levee would start at approximately levee mile 9.2 and connect back to the existing levee at approximately levee mile 13.2.

Potential impacts of the two alternatives to increase levee height to a 100-year flood protection are discussed jointly by resource area. Impacts applicable to only Alternative 3 or Alternative 4 are discussed separately, as applicable.

4.4.1 Biological Resources

Vegetation

Raising the levee under Alternatives 3 and 4 would remove vegetation on the levee slopes where the levee footprint is expanded to provide 100-year flood protection. After completion of construction, native grass species would be seeded along the levee slopes. Native grass species may include sideoats grama, Arizona cottontop, plains bristlegrass, sand dropseed, black grama, blue grama, green sprangletop, alkali sacaton and cane bluestem.

Table 4-4 presents a comparison of potential vegetation removal under Alternatives 3 and 4 resulting from a levee height increase to provide 100-year flood protection. Raising the levee would expand the footprint, removing vegetation from the footprint expansion area. The expansion corridor is that section of land adjacent to the toe of either side of the existing levee. The existing levee footprint is not included in the levee expansion area. The levee expansion area is compared to the total area of each vegetation type within the project area.

Alternatives 3 and 4 would increase the height of the upper and middle reaches of the levee to provide 100-year flood protection. Vegetation removed for levee expansion in the upper reach includes 6.6 acres of non-native grasslands, 6.2 acres of agricultural lands, and 3.4 acres of desert scrub/woodlands (Table 4-4). In the upper reach, the desert scrub/woodlands areas are near levee mile 0.

In the middle reach, vegetation removed includes 18.4 acres of non-native grasslands, 4.8 acres of desert scrub/woodlands, and 3.4 acres of agricultural land (Table 4-4). The area in the middle reach considered desert scrub/woodlands is the woody vegetation associated with the northernmost resaca and the central resaca. Impacts to the wooded areas could be avoided by altering the slope of the levee at these locations or by shifting the levee expansion from a centered expansion to a riverside expansion. After completion of construction, native grass species would be seeded along the levee slopes. Native grass species may include sideoats grama, Arizona cottontop, plains bristlegrass, sand dropseed, black grama, blue grama, green sprangletop, alkali sacaton and cane bluestem.

Alternative 3

In the lower reach, the existing footprint is approximately 50 feet wide; however, severe erosion along both sides of the levee has made the levee slopes steeper than the design of a 3:1 side slope ratio. If the levee were repaired and raised in place, it is assumed the existing levee footprint would be expanded to the design conditions; that is, approximately 100 feet wide (landside toe of levee to riverside toe of levee). Hydraulic modeling indicates that the lower reach would be raised by up to 10.5 feet to provide 100-year flood protection. In the lower reach, vegetation removed includes 18.6 acres of non-native herbaceous grassland, 11.8 acres of agricultural areas, and 6.9 acres of desert scrub/woodlands (Table 4-4). In the lower reach, the wooded areas are generally associated with the southernmost resaca and the wetland areas associated with this resaca. Impacts to the wetlands areas, wooded areas, and open water areas could be avoided by shifting the centered expansion to a riverside expansion.

Table 4-4 Acreage of Vegetation Communities along Survey Corridor and Levee Expansion Area, Alternatives 3 and 4

Vegetation Community	Levee Footprint Expansion Corridor (acres)				Vegetation Removal from Project Area	
	Along Current Alignment		Lower Reach	Total Expansion Corridor	Total in Project Area (acres)	Relative Vegetation Removal
	Upper Reach	Middle Reach				
ALTERNATIVE 3 (Alignment Retained Along Entire Levee System)						
Desert scrub/ woodlands	3.4	4.8	6.9	15.1	1,329	1.1%
Non-native grasslands	6.6	18.4	18.6	43.6	394	11.1%
Wetlands / Riparian	0.0	0.09	0.1	0.2	91.7	0.2%
Agricultural	6.2	3.4	11.8	21.4	3,924	0.5%
Open Water	0.0	0.8	0.2	1.0	178	0.6%
Developed lands	0.02	0.3	1.4	1.72	354	0.5%
Total	16.2	27.9	39.0	83.0	6,271	
ALTERNATIVE 4 (Offset Alignment in the Lower Reach)						
Desert scrub/ woodlands	3.4	4.8	1.7	9.8	1,329	0.7%
Non-native grasslands	6.6	18.4	0.1	24.3	394	6.3%
Wetlands / Riparian	0.0	0.09	0.0	0.7	91.7	0.1%
Agricultural	6.2	3.4	60.2	69.8	3,924	1.8%
Open Water	0.0	0.8	0.0	0.8	178	0.4%
Developed lands	0.02	0.3	8.4	8.72	354	2.5%
Total	16.2	27.9	70.4	114.1	6,271	

Under Alternative 3, a total of 43.6 acres of non-native grasslands, 21.4 acres of agricultural lands, and 15.1 acres of desert scrub/woodlands would be removed in the upper, middle, and lower reaches to raise the levee in-place to provide 100-year flood protection. This represents 11.1 percent of non-native grasslands in the entire project area, 0.5 percent of agricultural lands in the project area, and 1.1 percent of the desert scrub/woodlands in the project area. These effects are considered minor and are expected to be temporary during construction.

Alternative 4

Construction activities in the lower reach of the Presidio FCP would include construction of a new offset levee to provide 100-year flood protection. In the lower reach, the offset levee would be constructed between 19 and 24 feet tall. In the lower reach, vegetation removed includes 60.2 acres of agricultural land, 8.4 acres of developed land (*e.g.*, golf course), and 1.7 acres of desert scrub/woodlands (Table 4-4).

Under Alternative 4, a total of 69.8 acres of agricultural areas, 24.3 acres of non-native grasslands, and 9.8 acres of desert scrub/woodlands would be removed to raise the upper and middle reaches of the existing levee and to construct an offset levee to provide 100-year flood protection. This represents 1.8 percent of agricultural areas in the project area, 6.3 percent of non-native grasslands in the project area, and 0.7 percent of the desert scrub/woodlands present in the project area. To prevent erosion, the slopes of the offset levee would be planted with native grass species as described for Alternative 2. If the materials from the lower reach of the existing levee were used to construct the offset levee, after construction completion, the areas exposed from removal of the existing levee would be planted with native grass species as described for Alternative 2. Therefore, under Alternative 4, these effects are considered minor and are expected to be temporary during construction.

Terrestrial Wildlife

Alternative 3

Invasive grasses on the levee slopes and immediately adjacent to the levee are considered low-quality wildlife habitat, and vegetation would be removed from the levee slopes and areas of levee footprint expansion as described above. After construction is complete, the levee slopes and adjacent area would be seeded with native grass species. The native grass species along the levee slopes may provide limited areas of suitable habitat for wildlife species, but the effect is expected to be relatively small. Therefore, under Alternative 3, these effects are considered minor and are expected to be temporary during construction.

Alternative 4

Due to previous and ongoing agricultural practices in the Presidio FCP, few wildlife species utilize the agricultural fields where the new offset levee would be located. It is expected that the primary wildlife species utilizing the agricultural fields would be small rodents, possibly some snakes, and raptors that may hunt rodents. During construction, the mobile species are expected to move away from the construction areas, and re-colonize after construction is completed. After construction completion, levees of the new offset levee would be planted with native grass species as described in Alternative 2. If the materials from the existing levee were used to construct the offset levee, after construction completion, the area would be reseeded with native grass species. Native grass species may provide limited additional habitat for some wildlife species, but the effect is expected to be relatively small. Therefore, under Alternative 4, these effects are considered minor and are expected to be temporary during construction.

Aquatic Wildlife

Construction activities associated with Alternatives 3 and 4 may increase erosion and sediment loads to the Rio Grande. Use of BMPs would reduce or eliminate sediment transport to the Rio Grande. Without an increase in sediment loads in the river, no impacts to aquatic wildlife habitats are expected, either in the immediate area or in downstream sections of the Rio Grande.

Construction activities associated with Alternatives 3 and 4 may also affect the three resacas identified within the survey corridor, but would not affect the historic river channel. Each resaca is intercepted by the current levee survey corridor at two ends; therefore, six

wetland areas were assessed (two for each resaca). To avoid impacts to wetland resources, the levee alignment would be adjusted, as needed, from a centered expansion to a riverside expansion. During construction of Alternatives 3 and 4, BMPs would be utilized to prevent sediment, silt, or debris from reaching the resacas.

Alternative 3

Under Alternative 3, no impacts to aquatic wildlife habitats in resacas are expected.

Alternative 4

Construction of an offset levee under Alternative 4 would increase the amount of bare earth during construction. Staging of construction material and equipment will occur outside the floodplain. During construction activities, it is expected that additional sediment may be transported to the Rio Grande or to adjacent resacas. If material from the existing levee is used to construct the offset levee, the possibility of sediment transport to the resacas and river is increased. The use of BMPs during construction activities would reduce or eliminate sediment to the Rio Grande or to adjacent resacas.

Construction of the offset levee under Alternative 4 would occur outside of the monsoon season (June through September), which would reduce sediment transport during rain events. Therefore, under Alternative 4, no impacts on aquatic wildlife habitats are expected.

Alignment of the offset levee under consideration for Alternative 4 was selected to avoid ecologically sensitive areas (such as resacas). However, wetlands associated with resacas along the existing levee could be affected as described for Alternative 3. To avoid impacts to wetland resources, the levee alignment would be adjusted, as needed, from a centered expansion to a riverside expansion. During construction in areas adjacent to resacas, BMPs would prevent or reduce sediment transport to the resacas. Therefore, under Alternative 4, no impacts to aquatic wildlife habitats in resacas are expected.

Threatened, Endangered and Special Status Species

Vegetation in the areas associated with the existing levee or adjacent agricultural fields provide limited habitat for special status species present in the area, except as foraging habitat for raptors (in particular, the zone-tailed hawk). It is not known if grasslands or adjacent agricultural areas provide suitable habitat for reptile species.

In the lower reach, expansion of the existing levee (Alternative 3) or construction of an offset levee (Alternative 4) would remove some woody species. The special status species that may be present in the area and may utilize the woody vegetation in the area is the western yellow-billed cuckoo. Effects on this species are described below.

Western yellow-billed cuckoo. The federal listed candidate western yellow-billed cuckoo has limited habitat within the Presidio FCP, but the area is within the former known range of the western subspecies. The yellow-billed cuckoo typically nests and forages in riparian habitat with dense understory. In the lower reach, there is limited woody vegetation (Table 4-4) present, and the woody vegetation present does not have suitable understory for the western yellow-billed cuckoo. Therefore, no suitable habitat would be removed or altered by

construction activities. Therefore, no impacts to the western yellow-billed cuckoo are expected.

Other special status terrestrial species potentially present in the area and that may be affected by construction activities in the lower reach include the federal-listed brown pelican, and several State-listed species, as described below.

Brown Pelican. A juvenile brown pelican was observed in the project area shortly after the September 2008 flooding, but there is no suitable foraging habitat for pelicans, and no suitable breeding habitat protected from predators for pelicans.

The State-listed reptile species (Chihuahuan desert lyre snake, Chihuahuan mud turtle, reticulated gecko, Texas horned lizard, and Trans-Pecos black-headed snake) and bird species (American peregrine falcon, arctic peregrine falcon, common black-hawk, gray hawk, northern aplomado falcon, and zone-tailed hawk) that may occur in the Presidio FCP are expected to be mobile and move away from the area during construction activities. These species are also expected to re-colonize after construction is completed. Therefore, no impacts to the State-listed species in the area are expected.

Under Alternatives 3 and 4, most construction activities, including transport of material and equipment to the levee, would utilize access roads on the landside of the existing levee. Therefore, the transport of dust and sediment to the Rio Grande would be limited by the existing levee. In addition, during levee expansion actions associated with Alternatives 3 or 4, BMPs would be utilized to prevent sediment, silt, or debris from reaching the Rio Grande. Prevention of sedimentation in the river would prevent any aquatic habitats from being altered, both in the immediate area and in downstream sections of the Rio Grande.

Special status aquatic species potentially present in the area that may be affected by construction activities in the lower reach include the federal-listed Rio Grande silvery minnow and three fish species of concern, as described below.

Rio Grande silvery minnow. The federal listed endangered Rio Grande silvery minnow was re-introduced downstream of the Presidio FCP as part of the USFWS-sponsored recovery efforts. If some sediment is transported to the Rio Grande during construction activities under Alternatives 3 or 4, the re-introduced population of Rio Grande silvery minnow is substantially downstream (more than 30 miles), and any sediment is expected to settle prior to reaching the area where the Rio Grande silvery minnow populations are present. Under Alternatives 3 or 4, flood capacity of the Presidio FCP would be increased, which may alter downstream flows. These changes are expected to occur only during pulse flood events and not in normal flow conditions. Therefore, under Alternatives 3 or 4, because these changes are relatively small and would attenuate farther from the Presidio FCP, no impacts to the recovery efforts for the Rio Grande silvery minnow are expected.

Chihuahua shiner, Conchos pupfish, Mexican stoneroller. The USFWS identified three fish species (Chihuahua shiner, Conchos pupfish, Mexican Stoneroller) as species of concern, and these species have potential habitat within the Rio Grande adjacent to the Presidio FCP. If sediment were transported to the Rio Grande, and one or more of the special status species were present in the area, they may be affected by increased sediment. The use of BMPs during

construction activities will reduce or eliminate sediment to the Rio Grande. Therefore, under Alternatives 3 or 4, no impacts to the special status fish species are expected.

4.4.2 Cultural Resources

Archaeological Resources

Under Alternatives 3 and 4, effects of the proposed construction activities are expected to have common elements in the upper and middle reaches of the Presidio FCP. The effects of proposed construction are expected to be different for Alternatives 3 and 4 in the lower reach.

Proposed levee improvements to the existing Presidio FCP levee system may adversely affect one NRHP-eligible prehistoric archaeological site (41PS86) which occurs immediately adjacent to the existing levee alignment in the upper reach of the Presidio FCP. The use of construction equipment to aid in the addition and movement of soil for the levee footprint and height increases could result in ground disturbance from the creation of track and tire ruts extending several inches below ground surface. Site 41PS86 may be adversely affected by the use of heavy mechanical equipment in the APE and along access routes.

Alternative 3

Improvements to the lower reach of the existing levee would also include installation of slurry trenches or sheet piles to stabilize the levee foundation and prevent deterioration of the levee from approximately levee mile 9.2 to levee mile 15.3. Excavation for the installation of slurry trenches or sheet piles may be required in segments parallel to the existing levee along the riverside toe of the levee. The excavation of deep (20-foot) trenches or excavation for burial of sheet piles will not result in adverse effects to NRHP-eligible archaeological resources.

Alternative 4

Construction of the offset levee in the lower reach under Alternative 4 may also result in adverse effects to archaeological resources through their unintentional exposure by removal of the existing levee alignment in the lower reach. Materials (soil) from the existing levee may be used in construction of the offset levee, using construction equipment for removal of the existing levee and transport to the offset levee location. The existing levee could be capping previously unidentified archaeological sites, and these unidentified sites could be exposed if the soil covering them is removed. Exposed sites could be subject to damage through looting if artifacts are exposed, or erosion from wind and water. Survey of areas adjacent to the levee did not identify archaeological sites along this alignment; however, it is possible that resources under the existing levee were not identified by the current survey due to the presence of the levee.

Improvements to the lower reach of the existing levee would also include installation of slurry trenches or sheet piles to stabilize the levee foundation and prevent deterioration of the levee from approximately levee mile 9.2 to levee mile 15.3. Excavation for the installation of slurry trenches or sheet piles may be required in segments parallel to the existing levee along the riverside toe of the levee. The excavation of deep (20-foot) trenches or excavation for burial of sheet piles will not result in adverse effects to NRHP-eligible archaeological resources.

Architectural Resources

Under Alternatives 3 and 4, the effects to architectural resources are expected to have common elements in the upper and middle reaches. The effects of construction activities are expected to be different for the lower reach under Alternatives 3 and 4. Proposed improvements to the Presidio FCP levee system under Alternatives 3 and 4 will have no adverse effect to architectural resources that are eligible for the NRHP or are contributing to an NRHP-eligible historic district.

Native American Resources

No Native American resources in the Presidio FCP were identified as a result of consultation with Tribes as part of this NEPA process. Proposed improvements to the Presidio FCP levee system under Alternatives 3 and 4 will have no adverse effect to Native American Resources.

4.4.3 Water Resources

Flood Control and Floodplain Management

Under Alternatives 3 and 4, the existing levee would be repaired and raised to provide 100-year flood protection. Under severe storm events, the higher levee would protect the City of Presidio and adjacent farmlands from flooding and reduce flood risks to personal safety and property in the City of Presidio.

Surface Water Quality

Surface water quality may be affected by changes in water chemistry and changes in suspended sediment transported to the Rio Grande. Under Alternatives 3 and 4, the water quality parameters affecting water quality (*e.g.*, chloride, bacteria counts) would not be altered by construction activities. Under Alternatives 3 and 4, the water quality parameter likely to be affected by construction activities is total dissolved solids because of increased sediment loads to the Rio Grande. Under Alternatives 3 and 4, construction activities would require the use of construction equipment to raise the levees in the upper and middle reaches. Construction equipment could lead to additional sediment transport from the project area to the Rio Grande. Use of BMPs would reduce or prevent additional sediment from reaching the Rio Grande.

In Segment 2307 (above the confluence of the Rio Grande and Rio Conchos), current water quality information indicates that chloride and total dissolved solids exceed water quality standards. However, construction activities and use of BMPs would not increase the total dissolved solids within the Rio Grande or its tributaries. Construction activities would not worsen or improve the existing water quality exceedances for chloride (Segment 2307) or bacteria (Segment 2306).

Wetlands within the floodplain are subject to the provisions of the CWA. Based on findings of the wetlands field surveys, wetlands associated with resacas may be affected by levee expansion under Alternatives 3 and 4, but the historic river channel would not be affected by construction activities under Alternative 3 or 4. There are no wetlands in the upper reach of the Presidio FCP.

Alternative 3

Wetlands protected under the CWA that may be affected by construction under Alternative 3 include the wetlands in the middle and lower reaches of the Presidio FCP. There are approximately 0.2 acres of wetlands and approximately 1.0 acres of open water (which includes the water in the Rio Grande and the resacas) within the levee expansion area under Alternative 3. The USIBWC would design levee expansion areas to move toward the riverside at the location of wetlands to avoid impacts to wetlands due to construction. Construction equipment would not be staged in or adjacent to wetlands, and BMPs would be utilized to prevent or reduce sediment transport to wetlands. Therefore, under Alternative 3, no impacts on wetlands protected under the CWA are expected.

Alternative 4

Wetlands protected under the CWA that may be affected by construction of an offset levee under Alternative 4 include wetlands in the middle and lower reaches of the levee. For construction of the offset levee, approximately 0.7 acres of wetlands/riparian areas, and approximately 0.8 acres of open water (in the Rio Grande and in the resacas) would be affected by construction activities (Table 4-4). The proposed offset levee was designed to avoid sensitive environmental resources such as resacas, and the USIBWC would design levee expansion to be away from (*e.g.,* to the landside of the resacas) sensitive environmental resources. Construction equipment would not be staged in or adjacent to wetlands, and BMPs would be utilized to prevent or reduce sediment transport to wetlands and resacas. Therefore, under Alternative 4, no impacts to wetlands protected under the CWA are expected.

Groundwater Resources

Under Alternatives 3 and 4, groundwater currently used for irrigation would continue to be pumped for irrigation. Improving the flood containment capacity of the levee is not expected to alter the groundwater resources in the area.

4.4.4 Land Use

Construction activities associated with Alternatives 3 and 4 would encroach on agricultural or developed land immediately adjacent to the levee ROW. Table 4-5 summarizes the land uses within the land use corridor, and the amount of land affected by construction activities under Alternatives 3 or 4. The potential needs to develop commercial materials borrow sites, discussed in Section 5.2, would require conversion of over 10 acres of agricultural land for Alternative 3, and over 40 acres for Alternative 4.

Alternative 3

Approximately 74 acres of agricultural land, or three percent of the agriculture areas within the land use corridor, would likely be affected by levee expansion due to the increased width of the levee footprint. Approximately 6 acres of previously developed land or one percent of the previously developed land in the land use corridor would likely be affected. Less than one percent of the miscellaneous land in the land use corridor would likely be affected. Therefore, under Alternative 3, no impacts to land use are expected above the 10 percent criterion.

Table 4-5 Potentially Affected Acreage along the Land Use Corridor from Alternatives 3 and 4 Levee Footprint Expansion

Land Use Type [(a)]	Total Land Use Corridor (acres) [(b)]	Affected Acreage (acres) [(c)]	Percentage of Affected Land Use Corridor
ALTERNATIVE 3			
Agriculture	2,740	74	3%
Previously Developed	358	6	1%
Miscellaneous	164	< 1	< 1%
Total	3,262	80	3%
ALTERNATIVE 4			
Agriculture	2,531	89	4%
Previously Developed	335	11	3%
Miscellaneous	162	2	1%
Total	3,028	102	3%

(a) Land use types are identified by the NLCD (NLCD 2001).

(b) The land use corridor is the total area within a 0.25 mile from the existing levee ROW associated with Alternatives 3 and 4.

(c) The affected acreage of the land use corridor represents the area affected by the levee footprint expansion (Alternative 3) or by levee footprint expansion plus new levee construction (Alternative 4).

Alternative 4

Construction of an offset levee in the lower reach of the Presidio FCP would primarily occur in agricultural areas. Approximately 89 acres of agricultural land, or four percent of the agriculture land in the land use corridor, would likely be affected by levee expansion due to the increased width of the levee footprint in the upper and middle reaches, and construction of an offset levee footprint in the lower reach. Approximately 11 acres of previously developed land, or three percent of the previously developed land in the land use corridor would likely be affected. Approximately 2 acres of miscellaneous land, or one percent of the miscellaneous land in the land use corridor, would likely be affected. Therefore, under Alternative 4, no impacts to land use are expected above the 10 percent criterion.

4.4.5 Socioeconomic Resources and Transportation

Regional Economy

The analyses of impacts of Alternatives 3 and 4 on the regional economy were based on estimated changes in baseline levels of income and business volume, which could potentially be affected by the proposed levee improvements. Table 4-6 presents a comparison of potential economic impacts under both alternatives. The anticipated increase in sales and income was calculated based on a unit ratio of sales and income increases as a function of local expenditures from levee construction of the USIBWC Rio Grande Canalization Project (Parsons 2003). Annual sales volume were estimated from the gross sales for Presidio County

in 2008 (Texas Comptroller 2008), income values were based on a 2007 per capita income of $9,950, and an estimated 2008 Presidio County population of 7,467.

Table 4-6 Potential Economic Impacts from Alternatives 3 and 4 for Presidio County

	Sales / Income Increase Ratio [(a)]	Estimated Value (millions)	
		Alternative 3	Alternative 4
Project Expenditures			
Construction	n/a	$107.1	$100.9
Local expenditures [(b)]	1.00	$10.7	$10.1
Sales Volume Increase			
Direct plus indirect increases	3.38	$36.2	$34.1
Presidio County annual value	-	$63.2	$63.2
Increase relative to county sales	-	*57.3%*	*54.0%*
Increase in Income			
Direct plus indirect increases	1.01	$10.8	$10.2
Presidio County annual value	-	*$74.3*	*$74.3*
Increase relative to county income	-	*14.5%*	*13.7%*

(a) Ratio between sales increase and local expenditures, and income increase and local expenditures from levee construction of the USIBWC Rio Grande Canalization Project (Parsons 2003)
(b) Local expenditures were estimated at 10% of construction costs

Because levee construction would require most of the labor and materials to be brought from outside Presidio County, only a fraction of the construction cost would actually represent local expenditures in the Presidio area. This fraction was estimated as 10 percent of the construction value for the potential impacts evaluation. A workforce from outside Presidio County would be utilized for construction activities, and therefore, local employment would not significantly increase from baseline levels. Table 4-6 illustrates the magnitude of the economic influx relative to reference values for Presidio County.

Under Alternatives 3 or 4, if the levee can be certified by the USIBWC and accredited by FEMA to provide 100-year flood protection, local homeowners and landowners would be protected from river flooding. However, flooding of homeowners may occur via other pathways (*e.g.*, Cibolo Creek flooding), and homeowners would need to contact their insurance companies to determine the need for flood insurance on a case-by-case basis.

Alternative 3

Under Alternative 3, construction cost would be $107 million based on the most conservative estimated costs, assuming a 15.3 miles of raised levee in the upper, middle, and lower reaches at a cost of approximately $7 million per mile. Nearly $11 million would be associated with local expenditures, and have a potential for increased sales volume and income (Table 4-6). On the basis on a local expenditure value of nearly $11 million, the potential for increase in sales volume would be significant, equivalent to 57 percent of the annual value for Presidio County. The potential increase in local income would also be significant, an estimated 14 percent of the annual county value. These increases would be associated with local services and supplies, but limited to the construction period.

Under Alternative 3, in-place raising of the existing levee would not affect the local irrigation system and, therefore, would not have an indirect impact to local agricultural economics due to disrupted irrigation.

Alternative 4

Under Alternative 4, construction costs would be $100 million based on the most conservative estimated costs, assuming 9.2 miles of raised levee in the upper and middle reaches at a cost of approximately $7 million per mile and approximately 3.6 miles of new levee construction at a cost of $10 million per mile. Assuming that 10 percent of the total construction cost, approximately $10 million would be associated with local expenditures, and have a potential for increased sales volume and income (Table 4-6). On the basis on a local expenditure value of $10 million, the potential for increase in sales volume would be significant, equivalent to 54 percent of the annual value for Presidio County. The potential increase in local income would also be significant, an estimated 13.7 percent of the annual county value. These increases would be associated with local services and supplies, but limited to the construction period.

In the area proposed for the new levee offset, there are at least seven landowners whose land would be affected. The affected agricultural lands include lands in Subreaches B and C, and include a total of approximately 753 acres of agricultural land and 124 acres of developed land on the golf course. If the offset levee was constructed and irrigation drains, pumps, or access roads were disrupted, most of the 753 acres may not have adequate irrigation, which is approximately 19 percent of the total agricultural lands (3,924 acres) in the project area. Nineteen percent of lands potentially lost from agricultural practices is greater than the 10 percent threshold, and is considered significant. This accounts only for the loss of land, and does not include farm employees who may lose their jobs because the fields are not irrigable.

Environmental Justice

Data indicate that Presidio County has a disproportionately high minority (approximately 85%) and low-income populations (approximately 24%). However, construction activities associated with Alternatives 3 or 4 would not occur in residential or workplace areas associated with these populations. A small but positive economic input to the local community would occur because of the levee improvements. Therefore, under Alternatives 3 or 4, no impacts to the disproportionately high minority and low-income populations are expected.

Transportation

Construction activities associated with Alternatives 3 and 4 would include the transport of construction equipment to the levee, and the transport of fill materials from borrow pits outside the City of Presidio to the levee. Construction equipment and fill materials would be transported to the levee using existing paved and unpaved roads that intersect the levee. During construction, traffic flow and volumes on local paved and unpaved roads would increase, but these patterns are expected to be temporary only during levee construction. Therefore, under Alternatives 3 and 4, no long-term impacts to local traffic patterns or traffic patterns across the international bridge are expected.

Construction equipment would also be used if the materials from the existing levee in the lower reach were used to construct the offset levee (Alternative 4). Moving material from the

existing levee to the location of the new offset levee would utilize existing unpaved farm roads. Construction materials and equipment would be stored outside the floodplain.

4.4.6 Environmental Health

Air Quality

Improvements to the levee system under Alternatives 3 and 4 would affect air quality through excavation and levee raising activities. Table 4-7 presents a comparison of potential air emissions associated with levee system improvements under Alternatives 3 and 4, as well as the percent increase above the existing Presidio County emissions inventory.

Alternative 3

Potential impacts would be a slight increase in criteria air pollutants within Presidio County (Table 4-7). Estimates were calculated for 15.3 miles of construction activities associated with Alternative 3. Based on the estimated emissions for Alternative 3, both sulfur oxides and nitrogen dioxides are above the threshold of 10 percent of the county emissions inventory, at 18.7 percent and 10.3 percent, respectively. Therefore, there are potential impacts associated with Alternative 3 from the criteria pollutants sulfur oxides and nitrogen dioxides.

Alternative 4

Potential impacts would be a slight increase in criteria air pollutants within Presidio County (Table 4-7). Estimates were calculated for 9.2 miles of levee height increase and rehabilitation, and 3.6 miles of new levee construction. Additional estimates were calculated for the potential removal of the 3.6 miles of levee replaced by new levee. Based on the estimated emissions for Alternative 4, without levee removal, both sulfur oxides and nitrogen dioxides are above the threshold of 10 percent of the county emissions inventory, at 19.0 percent and 10.5 percent, respectively. The estimated emissions for Alternative 4, with levee removal, show both sulfur oxides and nitrogen dioxides even further above the threshold of 10 percent of the county emissions inventory, at 26.8 percent and 15.0 percent, respectively. Therefore, under Alternative 4, there are potential impacts from the criteria pollutants sulfur oxides and nitrogen dioxides.

Table 4-7 Air Emissions for Alternatives 3 and 4 Levee System Improvements

Parameter	Emissions (tons per year)					
	Sulfur Oxides	Nitrogen Dioxides	Carbon Monoxide	Volatile Organic Compounds	Particulate Matter (PM_{10})	Particulate Matter ($PM_{2.5}$)
Emission Reference Values						
Unit emissions per mile of levee height increase [(a)]	0.55	5.05	2.11	0.4	5.61	0.95
Unit emissions per mile of new levee construction [(a)]	0.91	8.44	3.52	0.67	11.09	1.87
Presidio emissions inventory [(b)]	45	749	2,086	379	2,206	284
ALTERNATIVE 3						
Levee height increase (15.3 miles)	8.41	77.3	32.3	6.12	85.8	14.5
Emissions as a percent of Presidio County inventory	18.7%	10.3%	1.55%	1.61%	3.89%	5.12%
ALTERNATIVE 4						
Levee height increase (9.2 miles) [(a)]	5.06	47.5	19.83	3.76	52.7	8.93
New levee construction (3.6 miles of new offset levee)	3.37	31.2	13.0	2.48	41.0	6.92
Levee removal along 3.6 miles of realigned segment in lower reach [(c)]	3.64	33.8	14.1	2.68	44.4	7.48
Emissions as a percent of Presidio County Emissions	19.0%	10.5%	1.57%	1.65%	4.25%	5.58%
Percent emissions including removal of 3.6 miles of realigned levee	26.8%	15.0%	2.25%	2.35%	6.26%	8.21%

(a) Unit data for levee construction from the USIBWC Rio Grande Canalization Project EIS (Parsons 2003: Table 4.11-2);
(b) USEPA 2009b, the most recent available data as of September 2009.
(c) The unit emissions per mile for new levee construction were used for the levee removal emissions calculations, assuming the two activities generate similar emission levels.

Noise

Improvements to the levee system under Alternatives 3 or 4 would increase ambient noise levels using construction equipment to bring additional fill material to the site and fill activities associated with the levee improvement project. It is estimated that the shortest distance between an equipment noise source and a non-construction receptor would be a person(s) 50 feet off-site, or less. Typical noise levels generated by construction activities range from 75 to 89 dBA at 50 feet from the source (CERL 1978). Given the primarily rural nature of the area, it is unlikely anyone other than a construction worker would be within 50 feet of the site boundary during activities. Although unlikely, if a non-construction receptor were within this distance, the person could be exposed to noise as high as 75 to 89 dBA. This level of noise could cause disruption of speech during the noise event (U.S. Department of Transportation 1992). Construction workers would be required to utilize appropriate hearing protection during construction activities.

The potential for hearing loss involves direct exposure on a regular, continuing, long-term basis to noise levels above 75 dBA. Hearing loss projections are based on an average daily outdoor exposure of 16 hours over a 40-year period. It is anticipated that construction activities during Alternatives 3 or 4 would occur between 7:30 a.m. and 5:00 p.m., five days per week for the duration of the project. However, potential non-construction receptors would not be exposed during the entire noise-producing period. Under these conditions, potential receptors would not be exposed to long-term and regular noise above 75 dBA. Therefore, under Alternatives 3 or 4, potential nearby non-construction receptors would not experience loss of hearing, only temporary speech disruption.

Public Health and Environmental Hazards

Under Alternatives 3 and 4, hazardous and/or toxic products (*e.g.*, fuel, oil, grease, and hydraulic fluid) would be used for operating construction equipment. Implementing established industry practices for controlling releases of these substances would reduce the possibility of accidental releases of these products. Preventive maintenance and daily inspections of the equipment would ensure that any releases of these hazardous materials are minimized. All visible dirt, grime, grease, oil, loose paint, or other debris, would be removed from the equipment prior to use at the construction sites. The activities proposed under Alternatives 3 or 4 would not result in noncompliance with federal or state regulations regarding hazardous materials and waste management.

No hazardous materials or waste storage, disposal, or spill sites were identified within the immediate Presidio FCP area (1/8 mile from the project area). Improvements to the levee system under Alternatives 3 or 4 would not be affected by waste storage and disposal sites, nor would they affect ongoing management operations of hazardous materials and waste sites.

4.5 ALTERNATIVES 5, 6, AND 7 (100-YEAR FLOOD PROTECTION ALONG UPPER PORTION OF LEVEE AND CONTRUCTION OF SPUR LEVEE)

Alternatives 5, 6, and 7 would increase flood containment capacity by increasing levee height to provide 100-year flood protection in the upper and middle reaches of the Presidio FCP. Raising the levee height, by up to 8 feet, would result in a lateral expansion of the current levee footprint to maintain the proper levee slope. Slurry trenches may be required in a total of 3,000 feet north of Cibolo Creek to complete the repairs started under the Emergency Repair Action (USIBWC 2009a). In the lower reach, an approximate 1-mile segment would be raised up to 4 feet (levee miles 13.1 to 14.1), and a second segment would be rehabilitated by repairing damaged levee foundations and levee breaches using slurry trenches along the toe of the levee (levee miles 9.2 to 15.3).

To provide a 100-year flood protection to the City of Presidio under Alternatives 5, 6, and 7, a new spur levee would be required to connect the raised levee section of the existing levee with elevated terrain south of the City of Presidio. The spur levee would originate at different locations along the existing levee (levee miles 9.2, 8.5 and 7.4 for Alternatives 5, 6 and 7, respectively):

- Under Alternative 5, a spur levee starting at levee mile 9.2 would be constructed approximately perpendicular to the existing levee. The spur levee would be 1.3 miles long, and up to 22 feet tall for most of the length, and up to 24 feet tall in one 0.2-mile section.

- Under Alternative 6, a spur levee starting at levee mile 8.5 would be constructed, approximately perpendicular to the existing levee. The spur levee would be approximately 1.4 miles long, and up to 22 feet tall.
- Under Alternative 7, a spur levee starting at approximately the railroad bridge (levee mile 7.4) would be constructed following the curve of the railroad bridge for most of the length. The railroad spur levee would be approximately 2.9 miles long, and up to 29 feet tall.

In the lower reach of the Presidio FCP for Alternatives 5, 6, and 7, the existing levee would be repaired (using slurry trenches or sheet piles) and rehabilitated to provide 25-year flood protection for the agricultural areas adjacent to the lower reach. Repairs to the lower reach may also include installation of an overflow weir and one or more outfall gate(s) to regulate waters during flooding conditions. The overflow weir and one or more outfall gate(s) would be installed within the existing levee footprint.

Potential impacts of the three spur levee alternatives to provide 100-year flood protection to the City of Presidio are discussed jointly by resource area. Impacts applicable to only Alternative 5, 6, or 7 are discussed separately, as applicable.

4.5.1 Biological Resources

Under Alternatives 5, 6, and 7 the upper reach of the existing levee would be raised to provide 100-year flood protection to the City of Presidio, and a new spur levee constructed. In addition, the levee would be raised from the start of the middle reach to the start of the spur levee under consideration. For all biological resources, raising the upper reach of the levee would have the same effects as described under Alternative 3.

Vegetation

The spur levees considered under Alternatives 5, 6, and 7 would have different heights, but the same general structure. The levee would have an access road on the top of the levee 15 feet wide, and the levee would have a maintenance road at the toe of the levee. The maintenance road would be 20 feet wide, and would be used to perform levee maintenance (*e.g.*, erosion repair) or floodway mowing operations. The area of vegetation removed for each of the spur levees considered under Alternatives 5, 6, or 7 includes the 20-foot wide maintenance road as well as the actual levee. Table 4-8 presents a comparison of potential vegetation removal under Alternatives 5, 6, and 7.

Under Alternatives 5, 6 and 7, after construction was completed, the exposed areas would be seeded with native grass species as described in Alternatives 2 and 3.

Table 4-8 Acreage of Plant Communities Removed along the Levee Expansion Areas and New Spur Levees under Alternatives 5, 6 and 7

	Levee Footprint Expansion Corridor (acres)				Vegetation Removal from Project Area	
Vegetation Community	Along Current Alignment		New Spur Levee	Total Expansion Corridor	Total in Project Area (acres)	Relative Vegetation Removal
	Upper Reach	Middle Reach				
ALTERNATIVE 5 (Spur Levee at Mile 9.2)						
Desert scrub/ woodlands	3.3	3.7	0.4	7.4	1329	0.6%
Non-native grasslands	6.4	16.4	0.0	22.8	394	5.8%
Wetlands / Riparian	0.0	0.03	0.0	0.03	91.7	0.3%
Agricultural	6.0	3.0	24.3	33.3	3924	0.8%
Open Water	0.0	0.7	0.0	0.7	178	0.4%
Developed lands	0.02	0.2	0.0	0.2	354	0.06%
Total	15.7	24.1	24.7	64.4	6,271	
ALTERNATIVE 6 (Spur Levee at Mile 8.5)						
Desert scrub/ woodlands	3.3	3.6	15.9	22.8	1329	1.7%
Non-native grasslands	6.4	13.6	0.0	20.0	394	5.1%
Wetlands / Riparian	0.0	0.02	1.0	1.0	91.7	1.1%
Agricultural	6.0	3.0	6.9	15.9	3924	0.4%
Open Water	0.0	0.7	0.0	0.7	178	0.4%
Developed lands	0.02	0.2	0.0	0.2	354	0.06%
Total	15.7	21.1	23.8	60.6	6,271	
ALTERNATIVE 7 (Railroad Spur Levee at Mile 7.4)						
Desert scrub/ woodlands	3.3	3.1	15.1	21.5	1329	1.6%
Non-native grasslands	6.4	8.5	0.1	15.0	394	3.8%
Wetlands / Riparian	0.0	<0.01	1.7	1.7	91.7	1.8%
Agricultural	6.0	2.0	32.3	40.3	3924	1.0%
Open Water	0.0	0.7	0.0	0.7	178	0.4%
Developed lands	0.02	0.06	3.2	3.2	354	0.9%
Total	15.7	14.4	52.5	82.5	6,271	

Alternative 5

Under Alternative 5, the spur levee 9.2 would be constructed primarily through agricultural lands. The spur levee 9.2 would be 1.3 miles long, and the levee would be up to 22 feet tall for most of the length, and up to 24 feet tall in one 0.2-mile section. Vegetation removed for construction of the spur levee 9.2 includes 24.3 acres of agricultural lands (Table 4-8). The lower reach would be repaired using slurry trenches or sheet piles as necessary, and the levee raised to provide 25-year flood protection. The exposed areas would be seeded with native grass species as described under Alternative 2, but no levee expansion would occur in the lower reach.

Under Alternative 5, a total of 33.3 acres of agricultural lands, 22.8 acres of non-native grasslands, and 7.4 acres of desert scrub/woodlands would be removed to raise the levee and construct a spur levee 9.2 to provide 100-year flood protection (Table 4-8). This represents 0.8 percent of agricultural lands in the project area, 5.8 percent of non-native grasslands in project area, and 0.6 percent of desert scrub/woodlands in the project area. These effects are considered minor and are expected to be temporary during construction.

Alternative 6

The spur levee 8.5 constructed under Alternative 6 would be constructed primarily through agricultural lands. Vegetation removed for construction of the spur levee 8.5 includes 6.9 acres of agricultural lands and 15.9 acres of desert scrub/woodlands (Table 4-8). In addition, Alternative 6 would cross the historic river channel, and remove approximately 1.0 acre of wetland/riparian area. The wooded areas associated with Alternative 6 spur levee 8.5 are adjacent to the central resaca. The lower reach would be repaired using slurry trenches or sheet piles as necessary, and raised to provide 25-year flood protection. The exposed areas would be seeded with native grass species as described under Alternative 2, but no levee expansion would occur from levee mile 8.5 to the end of the project area.

Under Alternative 6, a total of 15.9 acres of agricultural lands, 20.0 acres of non-native grasslands, and 22.8 acres of desert scrub/woodlands would be removed to raise the levee and construct a spur levee 8.5 to provide 100-year flood protection. This represents 0.4 percent of agricultural lands in the project area, 5.0 percent of non-native grasslands in the project area, and 1.7 percent of desert scrub/woodlands in the project area. These effects are considered minor and are expected to be temporary during construction. Under Alternative 6, 1.0 acre of wetlands would be removed, and wetlands removal would require a USACE individual permit.

Alternative 7

The railroad spur levee would be constructed primarily through agricultural lands. The railroad spur levee would be 2.9 miles long, and would be up to 29 feet tall. Vegetation removed for construction of the railroad spur levee includes 32.3 acres of agricultural lands and 15.1 acres of desert scrub/woodlands (Table 4-8). Alternative 7 would cross the historic river channel, and remove approximately 1.7 acres of wetland/riparian area. The lower reach would be repaired using slurry trenches or sheet piles as necessary, and raised to provide 25-year flood protection. The exposed areas would be seeded with native grass species as described under Alternative 2, but no levee expansion would occur from levee mile 7.4 to the end of the project area.

Under Alternative 7, a total of 40.3 acres of agricultural lands, 15.0 acres of non-native grasslands, and 21.5 acres of desert scrub/woodlands would be removed to raise the levee and construct a railroad spur levee to provide 100-year flood protection. This represents 1.0 percent of agricultural lands in the project area, 3.8 percent of non-native grasslands in the project area, and 1.6 percent of desert scrub/woodlands in the project area. These effects are considered minor and are expected to be temporary during construction. Under Alternative 7, 1.7 acres of wetlands would be removed, and wetlands removal would require a USACE individual permit.

Terrestrial Wildlife

Due to previous and ongoing agricultural practices in the Presidio FCP, few wildlife species utilize the agricultural fields. It is expected that the primary wildlife species utilizing the agricultural fields would be small rodents, possibly some snakes, and raptors that may hunt rodents. During construction, the mobile species are expected to move away from the construction areas, and re-colonize after construction is completed. Therefore, under Alternatives 5, 6, and 7, these effects are considered minor and are expected to be temporary during construction.

Aquatic Wildlife

Construction activities associated with the upper and middle reaches under Alternatives 5, 6, and 7 may increase erosion and sediment loads to the Rio Grande, and therefore affect aquatic wildlife in the river. Similarly, repair of the lower reach of the levees may increase sediment loads to the river. Use of BMPs would reduce or eliminate sediment transport to the Rio Grande. Without an increase in sediment loads in the river, no impacts to aquatic habitats are expected. Seeding with native grasses over all exposed areas after construction is completed would also reduce erosion and sediment transport.

Activities associated with construction of the spur levees under Alternatives 5, 6, or 7 would occur on the landside of the existing levee, and therefore, additional sediment from spur levee construction would not be transported to the Rio Grande. Therefore, the Rio Grande would not be affected by increased sediment, either in the immediate area or in downstream sections of the river.

Under Alternatives 5, 6, and 7, the lower reach would be rehabilitated to provide 25-year flood protection to adjacent farmlands, as described under Alternative 2. If the flood flows were greater than the levee, the levee in the lower reach could be overtopped, and the adjacent farmlands flooded. In areas where wetlands restoration has been initiated, occasionally flooding in those areas may have the long-term effect of improving those habitats for aquatic wildlife by allowing establishment of wetlands vegetation. The connectivity between the floodplain and the river would be intermittent and occur only at high water stages.

Activities associated construction of the spur levees under Alternatives 5, 6 or 7, may also affect the three resacas identified within the survey corridor. Each resaca intercepted the current levee survey corridor at two ends; therefore, six wetland areas were assessed (two for each resaca). To avoid impacts to wetland resources, the levee alignments can be moved from a centered expansion to a riverside expansion. During construction of Alternatives 5, 6, or 7, BMPs would be utilized to prevent sediment, silt, or debris from reaching the adjacent resacas.

Alternative 5

The USIBWC designed the proposed Alternative 5 levee alignment to avoid ecologically sensitive areas (such as resacas). To avoid impacts to wetland resources, the levee alignments can be moved away from the resacas. Therefore, under Alternative 5, no impacts to aquatic wildlife habitats in resacas are expected.

Alternative 6

The USIBWC designed the proposed Alternative 6 levee alignment to minimize effects on ecologically sensitive areas (such as resacas) to the extent possible. However, spur levee 8.5 would cross over the historic river channel, and therefore, would affect wetlands associated with the historic river channel. Under Alternative 6, approximately 1.0 acres of wetlands would be affected by construction activities.

Alternative 7

The USIBWC designed the proposed Alternative 7 levee alignment to minimize effects on ecologically sensitive areas (such as resacas) to the extent possible. However, construction of the railroad spur levee would cross the historic river channel, and in the process, the railroad spur levee would remove 1.7 acres of wetland/riparian vegetation. Therefore, under Alternative 7, approximately 1.7 acres of wetlands would be affected by construction activities.

Threatened, Endangered, and Special Status Species

Vegetation in the areas associated with the existing levee or adjacent agricultural fields provides limited habitat for special status species present in the area, except as foraging habitat for raptors (in particular, the zone-tailed hawk). It is not known if the grasslands or adjacent agricultural areas provide suitable habitat for reptile species.

Construction of spur levees under Alternatives 5, 6, or 7 would remove some woody vegetation. The special status species that may be present in the area and that may utilize the woody vegetation in the area is the western yellow-billed cuckoo. Effects on this species are described below.

Western yellow-billed cuckoo. The federal listed candidate western yellow-billed cuckoo has limited habitat within the Presidio FCP, but the area is within the former known range of the western subspecies. The yellow-billed cuckoo typically nests and forages in riparian habitat with dense understory. In the lower reach, there is limited woody vegetation (Table 4-8) present, and the woody vegetation present does not have suitable understory for western yellow-billed cuckoo. Therefore, no suitable habitat would be removed or altered by construction activities. Therefore, no impacts to the western yellow-billed cuckoo are expected under Alternatives 5, 6, or 7.

Other special status terrestrial species potentially present in the area and that may be affected by construction under Alternatives 5, 6 or 7 include the federal listed brown pelican, and several State-listed species, as described below.

Brown Pelican. A juvenile brown pelican was observed in the project area shortly after the September 2008 flooding, but there is no suitable foraging habitat for pelicans, and no suitable breeding habitat protected from predators for pelicans.

The State-listed reptile species (Chihuahuan desert lyre snake, Chihuahuan mud turtle, reticulated gecko, Texas horned lizard, and Trans-Pecos black-headed snake) and bird species (American peregrine falcon, arctic peregrine falcon, common black-hawk, gray hawk, northern aplomado falcon, and zone-tailed hawk) that may occur in the Presidio FCP are expected to be mobile and move away from the area during construction activities. These species are also expected to re-colonize after construction is completed. Therefore, no impacts to the State listed species in the area are expected.

Under Alternatives 5, 6, and 7, most construction activities, including transport of material and equipment to the levee, would utilize access roads on the landside of the existing levee. Therefore, the transport of dust and sediment to the Rio Grande would be limited by the existing levee. In addition, during levee expansion actions associated with the spur levee alternatives, BMPs would be utilized to prevent sediment, silt, or debris from reaching the Rio Grande. Prevention of sedimentation in the river would prevent any aquatic habitats from being altered, both in the immediate area and in downstream sections of the Rio Grande.

Special status aquatic species potentially present in the area that may be affected by construction activities in the lower reach include the federal listed Rio Grande silvery minnow and three fish species of concern, as described below.

Rio Grande silvery minnow. The federal listed endangered Rio Grande silvery minnow was re-introduced downstream of the Presidio FCP, as part of the USFWS-sponsored recovery efforts. If some sediment is transported to the Rio Grande during construction activities under Alternatives 5, 6, or 7, the re-introduced population of Rio Grande silvery minnows is substantially downstream (more than 30 miles), and any sediment is expected to settle prior to reaching the area where the Rio Grande silvery minnow populations are present. Under Alternatives 5, 6, or 7, flood capacity of the Presidio FCP would be increased, which may alter downstream flows. These changes are expected to occur only during pulse flood events and not in normal flow conditions. Therefore, under Alternatives 5, 6, or 7, because these changes are relatively small and would attenuate farther from the Presidio FCP, no impacts to the recovery efforts for the Rio Grande silvery minnow are expected.

Chihuahua shiner, Conchos pupfish, Mexican stoneroller. The USFWS identified three fish species (Chihuahua shiner, Conchos pupfish, Mexican Stoneroller) as species of concern, and these species have potential habitat within the Rio Grande adjacent to the Presidio FCP. If sediment were transported to the Rio Grande, and if one or more of the special status species were present in the area, they may be affected by increased sediment. The use of BMPs during construction activities would reduce or eliminate sediment to the Rio Grande. Therefore, under Alternatives 5, 6, or 7, no impacts to the special status fish species are expected.

4.5.2 Cultural Resources

Archaeological Resources

Under Alternatives 5, 6, and 7, the effects of the proposed construction activities on archaeological resources have common elements as described below.

Proposed levee improvements in the upper reach of existing Presidio FCP alignment may adversely affect one NRHP-eligible prehistoric archaeological site (41PS86) which occurs immediately adjacent to the existing levee alignment in the upper reach of the Presidio FCP. No archaeological sites have been identified along the proposed location of the spur levee under Alternative 5; however, one potentially NRHP-eligible archaeological site (41PS1101) occurs within the proposed alignment for Alternatives 6 and 7

The use of construction equipment to aid in the addition and movement of soil for the levee footprint and height increases and construction could result in ground disturbance from the creation of track and tire ruts extending several inches below ground surface. Site 41PS86 and 41PS1101 may be adversely affected by the use of heavy mechanical equipment in the APE and along access routes.

Site 41PS1101 may also be adversely affected by burial under a new levee footprint. This site would be capped (buried) by the addition of fill to construct an earthen levee.

In some instances, capping may provide a beneficial impact to archaeological resources. Capping archaeological sites using soil and gravel, although not permanent, may be viewed as one method to preserve archaeological resources in place and prevent their inadvertent exposure or destruction. If intentional burial is used, the THC has developed recommendations for appropriate techniques to avoid potential adverse effects to these resources (THC 1999). In accordance with Best Management Practices in Section 5, these procedures can be applied to the capping of archaeological resources that could occur because of levee construction. Commercial material, compatible in physical and chemical characteristics with the surrounding floodway would be required for construction. Activity on the levee would be restricted to avoid additional impacts (*e.g.,* soil compaction) that could result in disturbance to sites below.

In the lower reach, where the levee would be repaired to provide 25-year flood protection, slurry trenches or sheet piles may be required to stabilize the levee foundation and prevent deterioration of the levee. Slurry trenches or sheet piles would be installed parallel to the existing levee along the riverside toe of the levee. The excavation of deep (20-foot) trenches or excavation for burial of sheet piles will not result in adverse effects to NRHP-eligible archaeological resources.

In the lower reach, where the levee would be repaired to provide 25-year flood protection, an overflow weir and one or more outfall gate(s) may be installed to allow controlled flooding of the adjacent agricultural fields during flood events, and then rapidly drain the waters from the agricultural areas. Construction of the water control features in the lower reach of the existing levee would require excavation below the modern ground surface. Excavation for these features will not result in adverse effects to NRHP-eligible archaeological resources.

Architectural Resources

Under Alternatives 5, 6, and 7, effects of the proposed construction activities on architectural resources have common elements as described below. Proposed improvements to the Presidio FCP levee system under Alternatives 5, 6, and 7 will have no adverse effect to architectural resources that are eligible for the NRHP or are contributing to an NRHP-eligible historic district.

Native American Resources

No Native American resources in the Presidio FCP were identified as a result of consultation with Tribes as part of this NEPA process. Proposed improvements to the Presidio FCP levee system under Alternatives 5, 6, and 7 will have no adverse effect to Native American Resources.

4.5.3 Water Resources

Flood Control and Floodplain Management

Construction activities associated with construction of a spur levee under Alternatives 5, 6, or 7 would provide 100-year flood protection to the City of Presidio and the agricultural areas upstream of the spur levee. Improved flood control would reduce flood risks to personal safety and property in the City of Presidio. In the lower reach, the levee would be repaired to provide 25-year flood protection to adjacent agricultural areas. Farmlands adjacent to the existing levee in the areas downstream of the spur levee would be subject to flooding during severe storm events.

Surface Water Quality

Surface water quality may be affected by changes in water chemistry and by changes in suspended sediment transported to the Rio Grande. Under Alternatives 5, 6, and 7, the water quality parameters affecting water quality (*e.g.*, chloride, bacteria counts) would not be altered by construction activities. Improving the levee in the upper and middle reaches would increase the possibility that sediment would be transported to the Rio Grande, and increase the total dissolved solids in the river. Similarly, in the lower reach, where the levee was repaired to provide 25-year flood protection to the adjacent agricultural fields, there could be sediment transported to the river. Use of BMPs would reduce or prevent additional sediment from reaching the Rio Grande.

Construction of the spur levees under Alternatives 5, 6, or 7 would occur on the landside of the existing levee, and therefore additional sediment is not expected to be transported to the river during new levee construction.

In Segment 2307 (above the confluence of the Rio Grande and Rio Conchos), current water quality information indicates that chloride and total dissolved solids exceed water quality standards. However, construction activities and use of BMPs would not increase the total dissolved solids within the Rio Grande or its tributaries. Construction activities would not worsen or improve the existing water quality exceedances for chloride (Segment 2307) or bacteria (Segment 2306).

Wetlands within the floodplain are subject to the provisions of the CWA. Based on findings of the wetlands field surveys, wetlands associated with resacas and the historic river channel may be affected by levee expansion and construction of spur levees under Alternatives 5, 6, or 7, described separately below.

Alternative 5

Improvements to the existing levee in the upper and middle reaches of the Presidio FCP may affect wetlands associated with resacas subject to CWA provisions. Water quality in

wetlands may be affected by increasing sediment transport to resacas during construction. During construction, BMPs would be used to prevent or reduce sediment transport to resacas, and therefore, no impacts water quality within the resacas is expected.

Alternative 6

Improvements to the existing levee in the upper and middle reaches of the Presidio FCP would affect wetlands as described in Alternative 5. Under Alternative 6, approximately 1.0 acre of wetlands associated with the historic river channel would be filled. Filling of 1.0 acre of wetlands under Alternative 6 would require USACE formal wetlands delineation and an individual permit.

Alternative 7

Improvements to the existing levee in the upper and middle reaches of the Presidio FCP would affect wetlands as described in Alternative 5. Under Alternative 7, approximately 1.7 acres of wetlands associated with the historic river channel would be filled. Filling of 1.7 acres of wetlands under Alternative 7 would require USACE formal wetlands delineation and an individual permit.

Groundwater Resources

Under Alternatives 5, 6 or 7, groundwater currently used for irrigation would continue to be pumped for irrigation. Improving the flood containment capacity of the levee is not expected to alter the groundwater resources in the area.

4.5.4 Land Use

Construction activities associated with Alternatives 5, 6, or 7 would encroach on agricultural or developed land immediately adjacent to the levee ROW. Table 4-9 summarizes the land uses within the land use corridor, and the amount of land affected by construction activities under those alternatives. The potential need to develop commercial materials borrow sites, discussed in Section 5.2, would require conversion of over 15 acres of agricultural land for Alternatives 5 and 6, and over 25 acres for Alternative 7.

Alternative 5

Under Alternative 5, construction activities associated with raising the levee in the upper and middle reaches and with construction of the spur levee 9.2 would remove approximately 49 acres of agricultural land, or three percent of the agriculture land within the land use corridor. Approximately 11 acres of previously developed land, or three percent of the previously developed land in the land use corridor would likely be affected. Less than 1 acre of miscellaneous land, or less than one percent of the miscellaneous land in the land use corridor, would likely be affected. Therefore, under Alternative 5, no impacts greater than 10 percent to land use are expected.

Table 4-9 Potentially Affected Land Use Corridors under Alternatives 5, 6, and 7

Land Use Type [a]	Total Land Use Corridor (acres) [b]	Affected Acreage (acres) [c]	Percentage of Affected Land Use Corridor
ALTERNATIVE 5			
Agriculture	1,934	49	3%
Previously Developed	329	11	3%
Miscellaneous	113	< 1	< 1%
Total	2,376	61	3%
ALTERNATIVE 6			
Agriculture	1,942	52	3%
Previously Developed	338	10	3%
Miscellaneous	165	<1	<1%
Total	2,445	62	2.5%
ALTERNATIVE 7			
Agriculture	2,308	72	3%
Previously Developed	444	17	4%
Miscellaneous	174	<1	<1%
Total	2,926	89	3%

(a) Land use types are identified by the NLCD (NLCD 2001).
(b) The land use corridor is the total area within a 0.25 mile from the proposed and existing levee ROW associated with Alternative 5.
(c) The affected acreage of the land use corridor represents the area affected by the levee footprint expansion in the upper and middle reaches, and the new levee spur construction.

Alternative 6

Under Alternative 6, construction activities associated with raising the upper and middle reaches of the levee, and construction of the spur levee 8.5 would remove approximately 52 acres of agricultural land, or three percent of the agriculture land within the land use corridor. Approximately 10 acres of previously developed land, or three percent of the previously developed land in the land use corridor would likely be affected. None of the miscellaneous land in the land use corridor would likely be affected. Therefore, under Alternative 6, no impacts to land use greater than 10 percent are expected.

Alternative 7

Under Alternative 7, construction activities associated with raising the upper and middle reaches of the levee, and construction of the railroad spur levee would remove approximately 72 acres of agricultural land, or three percent of the agriculture land within the land use corridor. Approximately 17 acres of previously developed land, or four percent of the previously developed land in the land use corridor would likely be affected. None of the miscellaneous land in the land use corridor would likely be affected. Therefore, under Alternative 7, no impacts to land use greater than 10 percent are expected.

4.5.5 Socioeconomic Resources and Transportation

Regional Economy

Under Alternatives 5, 6, or 7, the analyses of impacts on the regional economy were based on estimated changes in baseline levels of income and business volume, which could potentially be affected by the proposed levee improvements. Table 4-10 presents a comparison of potential economic impacts under Alternatives 5, 6 and 7. The anticipated increase in sales and income was calculated based on a unit ratio of sales and income increases as a function of local expenditures from levee construction of the USIBWC Rio Grande Canalization Project (Parsons 2003). Annual sales volume were estimated from the gross sales for Presidio County in 2008 (Texas Comptroller 2008), income values were based on a 2007 per capita income of $9,950, and an estimated 2008 Presidio County population of 7,467.

Table 4-10 Potential Economic Impacts on Presidio County from Implementation of Alternatives 5, 6 and 7

	Sales / Income Increase Ratio [(a)]	Estimated Value (millions)		
		Alternative 5	Alternative 6	Alternative 7
Project Expenditures				
Construction	n/a	$89.5	$87.0	$96.9
Local expenditures [(b)]	1.00	$9.0	$8.7	$9.7
Sales Volume Increase				
Direct plus indirect increases	3.38	*$30.3*	*$29.4*	*$32.7*
Presidio County annual value	-	*$63.2*	*$63.2*	$63.2
Increase relative to county sales	-	*48.0%*	*46.5%*	*51.8%*
Increase in Income				
Direct plus indirect increases	1.01	*$9.0*	*$8.7*	*$9.8*
Presidio County annual value	-	*$74.3*	*$74.3*	*$74.3*
Increase relative to county income	-	*12.1%*	*11.8%*	*13.2%*

(a) Ratio between sales increase and local expenditures, and income increase and local expenditures from levee construction of the USIBWC Rio Grande Canalization Project (Parsons 2003)
(b) Local expenditures were estimated at 10% of construction costs

Because levee construction would require most of the labor and materials to be brought from outside Presidio County, only a fraction of the construction cost would actually represent local expenditures in the Presidio area. This fraction was estimated as 10 percent of the construction value for the potential impacts evaluation. A workforce from outside Presidio County would be utilized for construction activities, and therefore, local employment would not significantly increase from baseline levels. Table 4-10 illustrates the magnitude of the economic influx relative to reference values for Presidio County.

Under Alternatives 5, 6, or 7, if the levee can be certified by the USIBWC and accredited by FEMA to provide 100-year flood protection, local homeowners and landowners would be protected from river flooding. However, flooding of homeowners may occur via other pathways (*e.g.*, Cibolo Creek flooding), and homeowners would need to contact their insurance companies to determine the need for flood insurance on a case-by-case basis.

Under Alternatives 5, 6, and 7, the City of Presidio would be protected from a 100-year flood. In the lower reach, flood protection would be limited to 25-year flood protection. Where the levee was repaired to provide 25-year flood protection to the adjacent agricultural areas, there may be an option for landowners to obtain flood easements to provide compensation if the levees were overtopped during high water stages. The flood easements would require landowners to maintain the land for undeveloped recreational or agricultural uses. If flood easements were obtained, that compensation may provide funds to landowners whose crops are lost during high flood events.

Alternative 5

Construction activities associated with Alternative 5 include raising the upper and middle reaches of the existing levee, and construction of the spur levee at mile 9.2 at an estimated cost of $89.5 million. These construction costs assume that 9.2 miles of levee would be raised at a cost of approximately $7 million per mile, and construction of the 1.3-mile spur levee 9.2 would be $10 million per mile. In the lower reach, construction costs for the levee could be in excess of $2 million based on the most conservative estimated costs, assuming 1 mile of raised levee at a cost of approximately $2 million per mile. These construction costs do not include costs for slurry trench installation or other features that may be required based on final construction design (Table 4-10). Nearly $9 million would be associated with local expenditures, and have a potential for increased sales volume and income (Table 4-10). On the basis on a local expenditures, the potential increase in sales volume would significant, equivalent to 48 percent of the annual value for Presidio County. The potential increase in local income would also be significant, an estimated 12.1 percent of the annual county value. These increases would be associated with local services and supplies, but limited to the construction period.

In the area proposed for the new spur levee 9.2, one landowner would be affected. The affected agricultural lands include lands in Subreach B, and include a total of approximately 967 acres of agricultural land. If spur levee 9.2 were constructed, and irrigation drains, pumps, or access roads were disrupted, most of the 967 acres may not have adequate irrigation, which is approximately 25 percent of the total agricultural lands (3,924 acres) in the project area. Twenty-five percent of lands potentially lost from agricultural practices is greater than the 10 percent threshold, and is considered significant. Further, this impact would fall entirely on a single landowner. This accounts only for the loss of land, and does not include the farm employees who may lose their jobs because the fields are not irrigable.

Alternative 6

Construction activities associated with Alternative 6 include raising the upper and middle reaches of the existing levee, and construction of the spur levee at mile 8.5 at an estimated cost of $87 million. These construction costs are based on approximately 8.5 miles of levee raised in the upper and middle reaches, 1.4 miles of the new spur levee 8.5. In the lower reach, construction costs for the levee could be in excess of $2 million based on the most conservative estimated costs, assuming 1 mile of raised levee at a cost of approximately $2 million per mile. These construction costs do not include costs for slurry trench installation or other features that may be required based on final construction design (Table 4-10). Nearly $9 million would be associated with local expenditures, and have a potential for increased sales volume and income. Based on local expenditures, the potential increase in sales volume would be significant,

equivalent to 46.5 percent of the annual value for Presidio County. The increase in local income would also be significant, estimated 11.8 percent of the annual county value. These increases would be associated with local services and supplies, but limited to the construction period.

In the area proposed for the new spur levee 8.5, at least three landowners who would be affected. The affected agricultural lands include lands in Subreach A, and include a total of approximately 584 acres of agricultural land, and 97 acres of desert scrub / woodlands. If spur levee 8.5 were constructed, and irrigation drains, pumps, or access roads were disrupted, most of the 584 acres may not have adequate irrigation, which is approximately 15 percent of the total agricultural lands (3,924 acres) in the project area. Fifteen percent of lands potentially lost from agricultural practices is greater than the 10 percent threshold, and is considered significant. This accounts only for the loss of land, and does not include the farm employees who may lose their jobs because the fields are not irrigable.

Alternative 7

Construction activities associated with Alternative 7 include raising the upper and middle reaches of the existing levee, and construction of the railroad spur levee. Construction costs are based on the conservative assumptions described in Alternative 5, for 7.5 miles of levee raised in the upper and middle reaches; approximately 2.9 miles of the new railroad spur levee. In the lower reach, construction costs for the levee could be in excess of $2 million based on the most conservative estimated costs, assuming 1 mile of raised levee at a cost of approximately $2 million per mile. These construction costs do not include costs for slurry trench installation or other features that may be required based on final construction design (Table 4-10). The total construction costs under Alternative 7 would be $96.9 million. Nearly $10 million would be associated with local expenditures, and have a potential for increased sales volume and income. On the basis on a local expenditure value of nearly $10 million, the potential for increase in sales volume would be significant, equivalent to 51.8 percent of the annual value for Presidio County. The potential increase in local income would also be significant, an estimated 13.2 percent of the annual county value. These increases would be associated with local services and supplies, but limited to the construction period.

In the area proposed for new spur levee 8.5, at least five landowners would be affected. The affected agricultural lands include lands in Subreach A, and include a total of approximately 584 acres of agricultural land, and 97 acres of desert scrub / woodlands. If the spur levee 8.5 was constructed, and irrigation drains, pumps, or access roads were disrupted, most of the 584 acres may not have adequate irrigation, which is approximately 15 percent of the total agricultural lands (3,924 acres) in the project area. Fifteen percent of lands potentially lost from agricultural practices is greater than the 10 percent threshold, and is considered significant. This accounts only for the loss of land, and does not include the farm employees who may lose their jobs because the fields are not irrigable.

Environmental Justice

Data indicate that Presidio County has a disproportionately high minority (approximately 85%) and low-income populations (approximately 24%). However, construction activities associated with Alternatives 5, 6, or 7 would not occur in residential or workplace areas associated with these populations. A small but positive economic input to the local community

would occur because of the levee improvements. Therefore, under Alternatives 5, 6, or 7, no impacts to disproportionately high minority and low-income populations are expected.

Transportation

Under Alternatives 5, 6, or 7, the upper and middle reaches of the Presidio FCP would be raised in place to provide 100-year flood protection. In the middle or lower reach, a spur levee would be constructed. In the lower reach, the existing levee would be repaired and rehabilitated to provide 25-year flood protection. Construction activities would include the transport of construction equipment to the levee, and the transport of fill materials from borrow pits outside the City of Presidio to the levee. Construction equipment and fill materials would be transported to the levee using existing paved and unpaved roads that intersect the levee. During construction, traffic flow and volumes on local paved and unpaved roads would increase, but these patterns are expected to be temporary only during levee construction. Therefore, under Alternatives 5, 6, or 7, no impacts to local traffic patterns or traffic patterns across the international bridge are expected.

4.5.6 Environmental Health

Air Quality

Improvements to the levee system under Alternatives 5, 6, or 7 would affect air quality through excavation and levee raising activities, and construction of new spur levees. Table 4-11 presents a comparison of potential air emissions associated with levee system improvements under Alternatives 5, 6 and 7. Unit air emissions estimates for these activities followed common construction practices and methods (Means 2008) and emission factors reported by USEPA (USEPA 1996) as applied to a similar levee expansion project in an upper reach of the Rio Grande (Parsons 2003).

Alternative 5

Improvements to the levee system under Alternative 5 would affect air quality through excavation, fill activities, and new levee construction. Potential impacts would be a slight increase in criteria air pollutants within Presidio County. Table 4-11 summarizes the additional estimated criteria pollutants associated with Alternative 5, as well as the percent increase above the existing Presidio County emissions inventory. Estimates were calculated for 15.3 miles of levee height increase and rehabilitation, and 1.3 miles of new levee construction. Based on the estimated emissions for Alternative 5, the criteria pollutant sulfur oxide is above the threshold of 10 percent of the county emissions inventory, at 13.83 percent. Therefore, there are potential impacts associated with Alternative 5 from the criteria pollutant sulfur oxide.

Alternative 6

Improvements to the levee system under Alternative 6 would affect air quality through excavation, fill activities, and new levee construction. Potential impacts would be a slight increase in criteria air pollutants within Presidio County Table 4-11 summarizes the additional estimated criteria pollutants associated with the Alternative 6, as well as the percent increase above the existing Presidio County emissions inventory. Estimates were calculated for 8.5 miles of levee height increase and rehabilitation, and 1.4 miles of new levee construction. Based on the estimated emissions for Alternative 6, sulfur oxides are above the threshold of

10 percent of the county emissions inventory, at 13.22 percent. Therefore, there are potential impacts associated with Alternative 6 from the criteria pollutant sulfur oxide.

Table 4-11 Air Emissions Associated with Implementation of Alternatives 5, 6 and 7

Parameter	Emissions (tons per year)					
	Sulfur Oxides	Nitrogen Dioxides	Carbon Monoxide	Volatile Organic Compounds	Particulate Matter (PM_{10})	Particulate Matter ($PM_{2.5}$)
Reference Emission Values						
Unit emissions per mile of levee height increase [(a)]	0.55	5.05	2.11	0.4	5.61	0.95
Unit emissions per mile of new levee construction [(a)]	0.91	8.44	3.52	0.67	11.09	1.87
Presidio County annual emissions inventory[(b)]	45	749	2,086	379	2,206	284
ALTERNATIVE 5						
Levee height increase and rehabilitation (9.2 miles)	5.06	46.45	19.45	3.68	51.63	8.74
New spur levee construction (1.3 miles)	1.18	10.97	4.58	0.87	14.42	2.43
Emissions as a percent of Presidio County inventory	13.8%	7.67%	1.15%	1.20%	2.99%	3.93%
ALTERNATIVE 6						
Levee height increase and rehabilitation (8.5 miles)	4.68	42.93	17.9	3.40	47.7	8.08
New spur levee construction (1.4 miles)	1.27	11.8	4.93	0.94	15.53	2.62
Emissions as a percent of Presidio County inventory	13.2%	7.31%	1.10%	1.15%	2.87%	3.77%
ALTERNATIVE 7						
Levee height increase and rehabilitation (7.4 miles)	4.07	37.37	15.61	2.96	41.51	7.03
New spur levee construction (2.9 miles)	2.64	24.48	10.21	1.94	32.2	5.42
Emissions as a percent of Presidio County inventory	14.9%	8.25%	1.24%	1.29%	3.34%	4.38%

(a) Unit data for levee construction from the USIBWC Rio Grande Canalization Project EIS (Parsons 2003: Table 4.11-2).
(b) USEPA (2009b), the most recent available data as of September 2009.

Alternative 7

Improvements to the levee system under Alternative 7 would affect air quality through excavation, fill activities, and new levee construction. Potential impacts would be a slight increase in criteria air pollutants within Presidio County. Table 4-11 summarizes the additional estimated criteria pollutants associated with the Alternative 7, as well as the percent increase above the existing Presidio County emissions inventory. Estimates were calculated for 7.4 miles of levee height increase and rehabilitation, and 2.9 miles of new levee construction. Based on the estimated emissions for Alternative 7, sulfur oxides are above the threshold of 10 percent of the county emissions inventory, at 14.91 percent. Therefore, there are potential impacts associated with Alternative 7 from the criteria pollutant sulfur oxide

Noise

Improvements to the levee system under Alternatives 5, 6, or 7 would increase ambient noise levels using trucks to bring additional fill material to the site and fill activities associated with the levee improvement project. It is estimated that the shortest distance between an equipment noise source and a non-construction receptor would be a person(s) 50 feet off-site, or less. Typical noise levels generated by construction activities range from 75 to 89 dBA at 50 feet from the source (CERL 1978). Given the primarily rural nature of the area, it is unlikely anyone other than a construction worker would be within 50 feet of the site boundary during activities. Although unlikely, if a non-construction receptor were within this distance, the person could be exposed to noise as high as 75 to 89 dBA. This level of noise could cause disruption of speech during the noise event (U.S. Department of Transportation 1992). Construction workers would be required to utilize appropriate hearing protection during construction activities.

The potential for hearing loss involves direct exposure on a regular, continuing, long-term basis to noise levels above 75 dBA. Hearing loss projections are based on an average daily outdoor exposure of 16 hours over a 40-year period. It is anticipated that construction activities during Alternatives 5, 6, or 7 would occur between 7:30 a.m. and 5:00 p.m., five days per week for the duration of the project. However, potential non-construction receptors would not be exposed during the entire noise-producing period. Under these conditions, potential receptors would not be exposed to long-term and regular noise above 75 dBA. Therefore, under Alternatives 5, 6, or 7 potential nearby non-construction receptors would not experience loss of hearing, only temporary speech disruption.

Public Health and Environmental Hazards

Under Alternatives 5, 6, or 7, hazardous and/or toxic products (*e.g.*, fuel, oil, grease, and hydraulic fluid) would be used from operating construction equipment. Implementing established industry practices for controlling releases of these substances would reduce the possibility of accidental releases of these products. Preventive maintenance and daily inspections of the equipment would ensure that any releases of these hazardous materials are minimized. All visible dirt, grime, grease, oil, loose paint, *etc*., would be removed from the equipment prior to use at the construction sites. The activities proposed under Alternatives 5, 6 or 7 would not result in noncompliance with federal or state regulations regarding hazardous materials and waste management.

No hazardous materials or waste storage, disposal, or spill sites were identified within the immediate Presidio FCP area (1/8 mile from the project area). Improvements to the levee system under Alternatives 5, 6, or 7 would not be affected by waste storage and disposal sites, nor would they affect ongoing management operations of hazardous materials and waste sites.

4.6 INDIRECT AND CUMULATIVE IMPACTS

Indirect and cumulative impacts would be considered significant if the alternative would cause considerable incremental effects when evaluated in combination with relevant current and probable activities in the project area.

4.6.1 USBP Actions

Cumulative impacts considered for the Presidio FCP include greater restrictions to public use/access of the floodway due to increased USBP operations and designation of restricted use zones. The USBP has proposed tactical infrastructure in two fence sections upstream and downstream of the Presidio Port of Entry. The fence sections could encroach on privately owned land parcels. The proposed tactical infrastructure would affect an approximate 60-foot-wide corridor for fences and patrol roads. Vegetation within the corridor would be cleared and grading would occur where needed. The area that would be permanently impacted by the construction of tactical infrastructure would total approximately 78.1 acres. Unavoidable impacts on jurisdictional waters of the United States, including wetlands, would be mitigated. Wherever possible, existing roads and previously disturbed areas would be used for construction access and staging areas.

4.6.2 Removal of Salt Cedar Plug in Rio Grande Downstream of Project Area

If the salt cedar plug located downstream of the Presidio FCP were removed through a coordinated effort of the IBWC (United States and Mexico), as described in Section 2.7.2, its removal would improve floodwater flow through the Presidio valley, and reduce potential backing up of water during flood conditions. The extent and effectiveness of this potential improvement has not been determined, and its assessment would require flood water level simulation by hydraulic modeling.

While th salt cedar growth removal would be expected to improve water flow through the Presidio area, it would also increase flood stage water levels downstream of the Presidio FCP. During the Draft EIS public hearing on December 14, 2009, a concern was expressed that a faster water flow along Presidio would increase flood stage waters along the Town of Redford, located approximately 15 to 20 miles southeast of Presidio. While yet to be confirmed by detailed hydraulic modeling, initial calculations indicate that only a minor increase in water level would be expected along Redford from removal of the salt cedar plug.

4.6.3 Expansion of Existing International Road Bridge

TxDOT has proposed expansion of the existing road from Ojinaga, Mexico to Presidio, Texas, and expansion of the commercial inspection facilities at U.S. 67. Further, TxDOT proposes to construct a second parallel bridge adjacent to the existing bridge. These actions would have to be coordinated with the USIBWC for bridge height requirements and access to existing flood control levees and access roads during construction activities.

The expanded road bridge and the additional travel toll bridge would likely benefit travel and commerce on both sides of the border. The TxDOT proposal is not anticipated to have negative effects on the existing USIBWC flood control levee in the Presidio FCP.

4.6.4 Inspection and Possible Upgrade of Presidio County Cibolo Creek Levees

The USIBWC and USACE jointly initiated discussions on the repair and rehabilitation of the Presidio County-managed levees of Cibolo Creek. The time for appropriations, analysis, and construction is not known; however, if the levee along the upper reaches of Cibolo Creek were repaired and rehabilitated to be consistent with the USIBWC levees in the Presidio FCP, the City of Presidio would be better protected from flooding and levee overtopping that may occur along Cibolo Creek. Cibolo Creek runs northwest of the City of Presidio, and if the levees along Cibolo Creek were breached or overtopped (due to heavy rainfall in the mountains, flowing down Cibolo Creek), the City of Presidio would be subject to flooding.

SECTION 5
BEST MANAGEMENT PRACTICES AND MITIGATION

Section 5 describes best management practices to be implemented for each of the Action Alternatives for improved flood control in the Presidio FCP. Best management practices represent specific actions to minimize the potential for impacts to natural and cultural resources. Best management practices are organized within the engineering, natural resources, and cultural resources categories.

5.1 ENGINEERING MEASURES

Levee expansion alignment would be optimized, to the extent possible, to avoid impacts to wooded vegetation, wetlands, and other natural resources. Levee footprint expansion is not anticipated in areas with a potential to contain cultural resources areas.

Best management practices to avoid construction impacts on resources at or near levee improvement areas, include:

- Soil for levee construction would be obtained, to the extent possible, from a borrow site owned by the USIBWC near the City of Presidio. Additional construction material would be obtained from existing commercial borrow sites or new developed sites. Requirements for borrow site development are discussed in Subsection 5.2.

- Equipment staging areas would be placed at the USIBWC borrow site. If needed, secondary or temporary staging areas would be placed at locations with already disturbed terrain.

- A storm water pollution prevention plan would be developed during project design to minimize impacts to receiving water, as specified by USEPA regulations for construction projects. The plan would include construction areas along the levee system, as well as equipment staging areas. To prevent sedimentation, sediment fences and/or sediment barriers around wetlands would be installed while construction occurs in affected areas.

- During project construction, methods such as wetting the soil would be employed to prevent erosion from unvegetated slopes and/or corridors, and would be used to prevent dust and particulate emissions.

- During construction, in areas where construction would occur near water bodies (*e.g.*, wetlands, Rio Grande), silt curtains or other erosion control devices, such as temporary erosion blankets, would be used to prevent sediment from reaching water bodies.

- During project construction, existing access points to the levee road would remain in service; because no significant modifications would be made to the levee 3:1 slope ratio, lateral access to the levee road would continue as currently available.

- Waste disposal activities would be conducted in accordance with applicable local, state, and federal regulations.

5.2 UTILIZATION OF COMMERCIAL BORROW SITES

The USIBWC owns a borrow site outside Presidio that is used for levee repairs as needed. The USIBWC borrow site is approximately 15 acres in size. For construction activities associated with Alternative 2, the USIBWC borrow site would have adequate material to raise the levee in limited sections to meet the 25-year design flood criteria. In addition, there is enough material available in the USIBWC borrow site for levee repairs, including repairs of levee breaches.

Under Alternatives 3 through 7, the quantity of borrow materials would be far greater. Based on levee material volume estimates discussed in Section 2.5, and an assumed depth of 20 feet, the borrow site area needed to raise the entire levee system would be more than 10 acres for Alternative 3, and over 40 acres for Alternative 4. Levee material requirements to raise the upstream section of the levee and construct a spur levee would require development of over 15 acres for Alternatives 5 and 6, and over 25 acres for Alternative 7 based on material volumes discussed in Section 2.6, and the assumption of a borrow site depth of 20 feet.

Near the USIBWC borrow site, the City of Presidio owns approximately 15 acres that might be used for borrow materials to raise the levees. The City of Presidio borrow site is undisturbed and has not been used as a borrow site in the past, so would need to be evaluated as described below. The use of the City of Presidio borrow site would be arranged by a joint agreement between the city and USIBWC. However, the City of Presidio borrow site may not have enough material to raise the entire length of the Presidio FCP levees to provide 100-year flood protection, and the City of Presidio borrow site is not likely to have enough material for construction of a spur levee.

Therefore, it is possible that for some of the proposed construction activities (*e.g.*, construction of a new spur levee), there would not be enough material available in the USIBWC borrow site or the City of Presidio borrow site. In that case, construction contractors would need to locate and evaluate additional potential borrow sites near the construction area. New borrow sites would be developed in full compliance with NEPA requirements. New borrow sites would likely be developed in agricultural lands or sites near Presidio.

Borrow sites used for potential construction activities described in this EIS are likely to be considered Categorical Exclusions. The exclusions are categories of actions determined not to have a significant effect on the human environment, either individually or cumulatively. Under NEPA regulations, federal agencies are directed to adopt procedures that include identifying actions that are categorically excluded (*i.e.*, normally do not require preparation of an Environmental Assessment or Environmental Impact Statement).

Criteria to be considered in determining a categorical exclusion includes:

- *Endangered Species Act*: Are T&E species or special status species present at the site? Is habitat for T&E or special status species present at the site?

- *Migratory Bird Treaty Act*: Is habitat present at the site that could be utilized by bird species protected under the Act? Will construction activities occur outside the breeding season of bird species protected under the Act?

- *National Historic Preservation Act*: Are archaeological, architectural, or Native American resources present that would be protected by Section 106 and related cultural resources laws and regulations? Has there been a previous investigation conducted to determine the presence/ or absence of these resources? Has consultation with the SHPO been initiated, to determine if additional cultural resources investigations are required?

- *Clean Water Act*: Are jurisdictional wetlands present at the site? Will BMPs be used to prevent impacts to waters protected under the Act?

- *Prime Farmland*: Is prime farmland, as defined by NRCS, present at the site?

- *Environmental Justice*: Will economically disadvantaged or minority populations be affected by actions at the site?

- *Clean Air Act*: Will the actions at the site contribute to degradation of air quality in the region?

- *Hazardous Waste*: Will the actions occur on known hazardous waste sites? Will the actions increase hazardous waste at the site?

Further, additional resources to be considered in determination of potential borrow sites would include the following:

- Would land uses at the site be adversely affected?

- Are land ownership, deeds, and boundaries documented?

- Are there previous environmental liens against the proposed site?

- Will groundwater resources be affected by activities taking place at the proposed site?

5.3 NATURAL RESOURCES

For protection of vegetation and wildlife habitat along the Action Alternatives for the Presidio FCP improvement area, the following BMPs would be utilized:

After construction is complete, the expanded levee, as well as any required construction corridor, would be re-vegetated with native herbaceous vegetation as soon as possible. Rapid re-establishment of vegetation will allow native species to become established and will provide additional erosion control. The USIBWC developed lists of native plants in coordination with the USFWS for different regions of the Rio Grande. In Hudspeth County, the nearest county

with the same general vegetation communities, the USFWS recommends the following native grass species for re-vegetation: sideoats grama, Arizona cottontop, Plains bristlegrass, sand dropseed, black grama, blue grama, green sprangletop, alkali sacaton, and cane bluestem. This list may be revised slightly for Presidio County, but all these species have historically been present in Presidio County.

Bird species in the area protected under the Migratory Bird Treaty Act may nest in areas containing trees or other suitable habitat. Activities would be scheduled to occur outside the March through July migratory bird nesting season, when possible, or will not occur in vegetation utilized by Special Status species (including T&E species). If construction activities would occur during the nesting season of birds protected under the MBTA, then the areas proposed for disturbance would be surveyed for nesting birds prior to construction to avoid inadvertent destruction of nests and eggs.

Where possible, cattle grazing should be limited within the floodway and on the levee to prevent compaction, tearing of soil, and increased erosion. In particular, cattle and other livestock should be removed from the levee during re-vegetation efforts to allow plant establishment.

Prior to and during construction activities, the contractor performing the levee work will provide an environmental monitor to survey for birds protected under the MBTA to prevent destruction of nests or eggs during construction activities. In addition, the contractor would use BMPs, including a storm water pollution prevention plan.

5.4 CULTURAL RESOURCES

Mitigation measures reduce adverse effects on cultural resources. The assumed (and preferred mitigation) is avoidance. Avoidance preserves the integrity of cultural resources and protects their research potential (*i.e.*, their NRHP eligibility), and avoids costs and potential construction delays associated with data recovery.

Archaeological Sites

Historically, data recovery of archaeological sites through professional techniques such as surface collection, mapping, photography, subsurface excavation, technical report preparation, and dissemination, has been the standard mitigation measure. Under the revised Section 106 regulations (36CFR800.5(a)(2)(i)), data recovery conducted as mitigation is now considered, in and of itself, an adverse effect. If sites 41PS86 and 41PS1101 cannot be avoided, Phase II cultural resources studies should be developed in consultation with THC, and implemented to determine NRHP eligibility. If these sites are determined NRHP-eligible resources and still cannot be avoided through project redesign, data recovery investigations should be developed in consultation with THC and implemented prior to construction.

Application of appropriate techniques for intentional site burial will minimize potential adverse effects to Site 41PS1101 from capping because of deposition of material for a new levee alignment in the floodway. Material used to expand the levee should be consistent in physical and chemical make-up with existing soil comprising the levee and/or floodway, as appropriate, and should not exceed a depth of 6.6 feet above existing conditions to avoid potential adverse effects to archaeological resources. No increased traffic is anticipated after

levee improvements along the existing alignment so any change in use that could result in additional impacts (*e.g.,* soil compaction) is not anticipated; however, compaction associated with the use of a new levee alignment may result in potential adverse effects to Site 41PS1101. Capping of Site 41PS1101 along a new levee alignment would need to be designed in consultation with the THC and may require additional mitigation measures.

Archaeological resources may be exposed by removal of the existing levee alignment in the lower reaches under Alternative 4. Survey of areas adjacent to the levee did not identify archaeological sites along this alignment; however, it is possible that resources under the existing levee were not identified by the current survey due to the extent of the levee. Should any archaeological materials be encountered during construction activities, the construction contractor(s) will immediately cease work in that area, secure the location from further disturbance and possible vandalism, and notify the USIBWC immediately. Additional consultation with the THC will be required.

Architectural Resources

No NRHP-eligible architectural resources would be affected by any of the proposed Alternatives; no mitigation measures would be required.

Native American Resources

No Native American resources would be affected by any of the proposed Alternatives; no mitigation measures would be required.

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SECTION 6
PUBLIC INVOLVEMENT, CONSULTATION, AND COORDINATION

This section describes the public involvement program that included a public scoping meeting, on-going scoping and alternatives development with landowners, a public hearing to present the Draft EIS to the public, and coordination with various agencies throughout the NEPA process. The environmental review was conducted in accordance with the requirements of Section 102(2)(c) of the National Environmental Policy Act of 1969, as amended, Council on Environmental Quality Regulations (40 CFR Parts 1500-1508), other appropriate regulations, and the USIBWC procedures for compliance with these regulations. The USIBWC regulations for implementing NEPA are specified in *Operational Procedures for Implementing Section 102 of the National Environmental Policy Act of 1969, Other Laws Pertaining to Specifics Aspects of the Environment and Applicable Executive Orders* (46 FR 44083, September 2, 1981).

Copies of the Final EIS for the Presidio FCP were filed on February 19, 2010 with the Environmental Protection Agency in accordance with 40 CFR Parts 1500-1508 and USIBWC procedures, and transmitted to federal and state agencies and other interested parties for their review and comment.

6.1 PUBLIC SCOPING

6.1.1 Scoping Meeting

A public scoping meeting for the Presidio FCP was held at the Presidio Activity Center on March 10, 2009. The scoping period extended through April 10, 2009. Findings and conclusions of the scoping meeting, and comments received during the scoping period were incorporated into the June 2009 document *Scoping Meeting Summary, Environmental Impact Statement, Flood Control Improvements and partial Levee Relocation to the USIBWC Presidio Flood Control Project* (USIBWC 2009b). This document, provided in Appendix F, is an administrative record of public comments received during the March 10, 2009 through April 10, 2009 scoping period.

Full public participation by interested federal, state, and local agencies and organizations as well as the public was encouraged during the scoping process. Notification of the public meetings was made through letters to agencies, organizations, and individuals; newspaper announcements in English and Spanish; and publication of the Notice of Intent in the Federal Register. Each mailing contained a response form on which comments could be written and submitted. An address to mail comment letters was provided in all communication to potential stakeholders. Discussion was encouraged during the scoping meetings and verbal comments were noted. Comment forms were distributed during the meeting, and turned in during the meeting or mailed the USIBWC after the meeting (USIBWC 2009b).

The Notice of Intent to prepare an EIS was published in the Federal Register by the USIBWC on February 26, 2009. A copy of the Notice of Intent is included in the Scoping Meeting Summary report (Appendix A, Item 1 of the USIBWC 2009b).

Written comments received during the public comment period are summarized in Table 6-1. A summary of oral and written comments received at the Scoping Meeting and during the public scoping process are summarized in Table 6-2. Both the oral and written comments received during the public scoping process were incorporated into the Final EIS.

Table 6-1 Individuals Submitting Written Comments during Public Scoping for the Presidio FCP Levee Improvements

	Date Received	Commentator	Submitted Format
1.	March 10, 2009	White Mountain Apache Heritage Program	Letter
2.	March 11, 2009	Laurencio Brito, Brito Farms	Meeting Written Comment Sheet
3.	March 11, 2009	Terry Bishop, President Presidio Valley Farms, Inc.	Meeting Written Comment Sheet
4.	March 16, 2009	Esteban Mesa, Presidio County Water Improvement District #1	Meeting Written Comment Sheet
5.	March 16, 2009	Esteban Mesa (letter to Congressman Rodriguez with attached letter from NRCS)	email
6.	March 17, 2009	Unidentified email address	email

Table 6-2 Summary of Written Comments Received during Public Scoping for the Presidio FCP Levee Improvements

Issue Addressed	Summary
Cultural resources	The area of potential impact of levee improvements and/or levee relocations in the Presidio FCP will not have an impact on cultural resources associated with the White Mountain Apache Tribe.
Socioeconomic, environmental justice	The farmland purchased or obtained through eminent domain would remove land owned by generations of the same family, causing economic harm and removing 3rd or 4th generation land from families.
Biological resources	Alternative 4 may impact an ongoing wetlands restoration project on privately owned land
Formulation of alternatives	The bottleneck between the end of the Presidio FCP and the mouth of Alamito Creek must be removed.
Need for flood protection downstream of the Presidio FCP	Improvements to the Presidio FCP to provide 100-year flood protection would further endanger downstream farming communities, whose levees also failed during the September flooding of the Rio Grande. The downstream communities, particularly Redford, Texas, would have sustained more damage if the levees in Presidio had not failed, and better flood protection in Presidio would allow more water, at more damaging velocities to travel to downstream farming communities.

6.1.2 Notifications to Agencies, Elected Officials, Organizations, and Individuals

The USIBWC mailed a notification letter for the public scoping meetings to 99 elected officials, federal/state/local agencies, organizations, and individuals. The letter, mailed March 3, 2009, contained a description of the USIBWC flood control projects, example lists of potential alternatives, and example lists of potential criteria to be used for evaluating alternatives. Dates and times of scoping meetings, and instructions for submitting written comments were included. A copy of the letter and the mailing list for notification are included in Appendix A – Item 3 of the Scoping Meeting Summary report (USIBWC 2009b).

A Public Notice announcing the purpose, dates and locations of the scoping meetings was published in the legal section of the *Big Bend Sentinel* and *The International* on March 5, 2009. Copies of the publisher's affidavits are provided in Appendix A - Item 2 of the Scoping Meeting Summary report (USIBWC 2009b).

6.2 PUBLIC INPUT FOR ALTERNATIVES DEVELOPMENT

After the initial scoping meeting and presentation of alternatives developed by the USIBWC, representatives of the local landowners, representatives of Environmental Defense Fund, and representatives of the Trans-Pecos water trust met with the commissioner of the USIBWC and personnel from the USIBWC engineering, and environmental divisions to discuss the impacts of the proposed alternatives on their lands. One meeting was held in Presidio on August 17, 2009, and one meeting was held in El Paso at USIBWC headquarters on August 25, 2009.

Based on this input from stakeholders, two additional alignments of a new spur levee were proposed, and incorporated in EIS as alternatives. The alternatives proposed by the landowners are summarized in an addenda to the Alternatives Report (USIBWC 2009d), and were evaluated in the EIS for the Presidio FCP.

6.3 DRAFT EIS CONSULTATION

6.3.1 Notifications to Agencies, Organizations, and Individuals

The USIBWC sent copies of the Draft EIS to 58 federal and state agencies, tribal governments, organizations, and individuals. In addition, the USIBWC sent a letter announcing the availability of the Draft EIS to 122 federal and state agencies, organizations, and individuals. A list of persons receiving the Draft EIS and persons receiving a letter that the Draft EIS was available are listed in Appendix C. A Notice of Availability (NOA) was published in the Federal Register on November 27, 2009 announcing the availability of the Draft EIS for flood control improvements and partial levee relocation to the Presidio FCP (Appendix D). All letters and the NOA contained information on the 45-day public review period (November 20, 2009 to January 12, 2010), the location, date, and time of the public hearing held in Presidio, and the name and address of the USIBWC contact for comments.

6.3.2 Consultation with USFWS during NEPA Process

During development of the EIS, the USIBWC contacted the USFWS and the consultants assisting in EIS preparation, in a conference call (March 23, 2009) to begin the process of determining which special status species may be present in the area. During the Draft EIS review period, additional site overview surveys and conversations about suitable habitats within the Presidio FCP were coordinated between the USIBWC and the USFWS (December 10, 2009). Informal consultation with the USFWS was initiated on January 27, 2010 to determine the effects of the preferred alternative (Alternative 2: raise and repair the levee to provide 25-year flood protection) on two species - the federally listed Rio Grande Silvery minnow, and the federal candidate western yellow-billed cuckoo.

6.3.3 Public Hearing

A public hearing was held on December 10, 2009, from 5 to 7 p.m., at the Presidio Activities Center. A public notice announcing the purpose, date, and location of the public hearing was published in both English and Spanish, in two local weekly newspapers, *The International*, and *Big Bend Sentinel*, on November 19, November 25, and December 3, 2009. Copies of the newspaper publications and publishers affidavit are included in Appendix E.

The purpose of the public hearing was to present the EIS to the public, to receive oral and written comments, and provide a forum for the public to express comments. The USIBWC did not respond to comments during the public hearing, but addressed the comments received in the Final EIS. The written comments received and a transcript of the public hearing is presented in Appendix A. Responses to the comments received are shown in detail in Appendix B.

6.3.4 Draft EIS Public Review

Copies of the Draft EIS were distributed on November 20, 2009 to federal and state agencies, organizations, tribal governments, and individuals for a 45-day public review period ending January 12, 2010. The selection of recipients was based on a list of potential stakeholders identified during development of the *Final Programmatic Environmental Impact Statement, Improvements to the USIBWC Rio Grande Flood Control Projects along the Texas-Mexico Border* (USIBWC 2008); initial public scoping process for this EIS; written and oral comments received at the scoping meeting; and additional potential reviewers based on preliminary conversations with the USFWS and individual landowners in the area.

A total of 13 written responses were received during the Draft EIS public comment period. The written comments are summarized in Table 6-3. The written responses received are presented in Appendix A and the responses to comments are presented in Appendix B.

Table 6-3 Summary of Written Comments Received during the Draft EIS Public Comment Period

Reviewer		Primary Issues Addressed	Summary
Agencies and Organizations			
1	Texas Commission on Environmental Quality	Best Management Practices	Use appropriate BMPs for dust control, erosion control, and waste management practices.
2	Texas Historical Commission	Cultural Resources	Intensive cultural resource surveys are required, and mitigation or preservation will be required if the alternatives will affect cultural resources in the Presidio FCP.
3	Texas Department of Transportation	Transportation, rail and road	Planning for repair and rehabilitation of the railroad between Presidio and Ojinaga, Mexico, has been initiated. Planning for expansion of existing road bridges, and addition of new road bridges, between Presidio and Ojinaga, Mexico, has been initiated.
4	U.S. Department of Interior, Office of Environmental Policy and Compliance	Biological Resources;	Levees constrict the floodplain and reduce the connectivity between the river and floodplain. Description of wetlands in the area needs to include the proposed landowner initiated wetlands restoration projects in the area. Flood easements may improve both the wetlands/river connectivity, and improve aquatic habitats in the area.
5	U.S. Environmental Protection Agency	Compliance with NEPA regulations	The EPA has classified the Draft EIS as “Lack of Objections” to the proposed alternatives in the Draft EIS.
6	White Mountain Apache Tribe Heritage Program	Cultural Resources, Native American	The proposed actions will not affect the White Mountain Apache tribe’s cultural heritage resources and/or historic properties.

Reviewer	Primary Issues Addressed	Summary
7 Texas-Pacifico Transportation Ltd.	Transportation, Rail	Request better description of the existing and proposed improvements to the railroad in the Presidio area.
8 Environmental Defense Fund	Socioeconomics, environmental justice, biological resources	They would support rehabilitation of the levee to 25-year flood protection, in conjunction with the use of flood or conservation easements in the middle and lower reaches of the project area, to compensate landowners for lost crops during high water flows. The proposed spur levee alternatives do not provide an ideal scenario for both flood protection and environmental sustainability. The EDF expressed support for removal of the downstream salt cedar bottleneck, if such removal would further goals of ecological restoration.
9 City of Presidio	Socioeconomic, environmental justice, biological resources	The City is working with the TxDOT on improvements to the existing railroad would provide additional protection to the City of Presidio. The administration of the City of Presidio has been working with several other agencies to address the issue of removing the salt cedar bottleneck below the Presidio FCP. The administration of the City of Presidio requests that consideration be given to the agricultural interests in the area.

Reviewer		Primary Issues Addressed	Summary
Individuals			
10	Richard Slack	Biological resources, socioeconomics, environmental justice	The Rio Grande is a braided river, and the levees protecting the Presidio area are probably not sufficient in the lower reach of the project. Recommend raising the levee in place to protect farms in the lower reach of the Presidio FCP, but the spur levees would not be as valuable.
11	Lineaus Hooper Lorette	Socioeconomics, environmental justice	Recommend NOT taking existing farmland to construct spur levees, but repair the existing levees in-place. Recommend considering in more detail the proposals from the U.S. Border Patrol on flood and border protection.
12	Terry Bishop	Socioeconomics, environmental justice, biological resources	Object to the construction of the spur levee 9.2, as it would affect only property owned by Mr. Bishop. Construction of the spur levees would contribute to loss of jobs and irrigable land, by disrupting or destroying the irrigation systems currently in place. The levee should be repaired in place to provide 25-year flood protection. The farmers in the area support the removal of the salt cedar bottleneck downstream of the Presidio FCP.
University			
13	Sul Ross State University, William Cloud	Cultural Resources	Expressed concern about possible effects of construction activities associated with action alternatives that would affect known and recently identified archaeological sites.

During the public hearing, a total seven people spoke at the hearing, and a partial transcript from the public hearing is presented in Appendix A. The complete transcript is presented in Appendix F. The summary of oral comments given at the public hearing is presented in Table 6-4.

Table 6-4 Summary of Comments Given at the Public Hearing, December 10, 2009

Reviewer	Issue Addressed	Summary
1 Terry Bishop	Socioeconomics, environmental justice, agricultural economics	Spur levee 9.2 will affect more than 60 acres for a single landowner; spur levee 9.2 will take farmland out of production, and will result in the elimination of at least six full-time jobs. The Draft EIS stated that much of the farmland is fallow, which is not the case. The land affected by Alternatives 6 and 7 may affect proposed and ongoing wetlands restoration projects, and the wetlands restoration projects need to be considered in the Final EIS.
2 Lineaus Hooper Lorette	Socioeconomics, environmental justice	Requested additional information on the coordination between the USIBWC and MxIBWC, because Ojinaga may be adversely affected if the levees in Presidio are raised. Requested additional information on the purpose and design of an overflow weir. The U.S. Border Patrol has proposed flood and security control measures, and these measures were not evaluated in the Draft EIS.
3 Richard Slack	Socioeconomics, environmental justice, land use	Comment regarding the value of occasional flooding of farmland. Commented on the differences between protecting only the city, and protecting the farmland as well as the city, and would like consideration given to protecting the farms as well as protecting the city.

Reviewer	Issue Addressed	Summary
4 Carlos Nieto	Socioeconomics, environmental justice	Comments regarding the efforts of the local people and personnel from the IBWC during the September 2008 flood fights. Comments show appreciation for efforts made to protect life and property during the flood fights. Requested that the existing levee be repaired to provide 25-year flood protection, rather than taking working farmland in the area. Alternately, use the existing levee associated with the railroad bridge to provide better protection to the City of Presidio. Expressed concern that if the levees managed by USACE along Cibolo creek failed, the entire City of Presidio could be flooded. Expressed concern that some of the farms in the area have been owned and operated by the same family for generations, and to lose those generations-old farmlands would lose an indefinable history of the land and communities of the area. Expressed concern that local landowners had not yet seen any compensation from FEMA from the September 2008 flooding.
5 David Crum	Socioeconomics, agricultural economics	Expressed concern that loss of farmlands in an area with limited farming resources may have a long-term effect on abilities to produce food crops. Requested additional information on if the USIBWC has the legal authority to take lands for the alternatives evaluated in the Draft EIS. Requested consideration of flood easements for local farmers to assist farmers in efforts to farm the land, and to maintain the farming culture of Presidio.

Reviewer	Issue Addressed	Summary
6 Barbara Baskin	Socioeconomics, environmental justice, agricultural economics	Expressed concern that the Town of Redford was also impacted by the September 2008 flooding, but had little recourse for levee repairs or replacement, because the levees protecting Redford are owned and managed by the USDA, not the USIBWC. Questioned whether Mexico was willing to provide restitution for loss of lands due to the flooding caused by releases from the Luis Leon dam in Mexico. Questioned why the U.S. levees had not been repaired, while the levees in Mexico had at least been patched with riprap. Detailed for the meeting that most of the levees protecting Redford had been lost or breached in several locations. Expressed concern that repairing or raising the levees in Presidio would cause more water to be transported to Redford during flood stages, which would put additional pressure on the already fragile levee system in Redford. Expressed concern that the flood insurance rates cited in the Draft EIS were far too low for many people in the Presidio/Redford areas.
7 Brad Newton	Land use, cumulative effects	Expressed concern that the salt cedar bottleneck be removed. Expressing willingness to work with federal and state agencies to protect the city of Presidio and protect the farming community in the area.

6.4 PREPARATION OF THE EIS FOR THE PRESIDIO FCP

Technical personnel responsible for preparation and review of the EIS for the Presidio FCP are listed in Table 6.5.

Table 6-5 EIS Preparation Technical Personnel

Name	Organization	Role / or Resource Area	Discipline / Expertise	Experience
Daniel Borunda	USIBWC	Project Lead; EIS oversight and coordination, impacts evaluation	M.S. Fisheries and Wildlife Science	11 years Project Manager NEPA Compliance
Lisa Santana	USIBWC	Biological resources ; Document Review	Ph.D. Biology	7 years Project Manager, NEPA Compliance
Carlos Victoria-Rueda.	Parsons	Project management, scoping, impacts evaluation	Ph.D., Environmental Engineering	22 years NEPA and related environmental studies experience
James Hinson	Parsons	Biological resources, impacts evaluation; biology technical oversight	M.S. Wildlife Science	21 years of vegetation and wildlife analyses experience
Jill Noel	Parsons	Biological resources, vegetation analyses; NEPA document preparation	M.S. Plant Biology	8 years of vegetation and community field studies experience
Taylor Houston	Parsons	Wetlands, aquatic ecosystems	M.S, Geography-Environmental Resources	7 years wetlands and land use evaluation
James Patek, P.E.	Parsons	Hydraulic Model technical oversight	M.S. Civil Engineering	33 years environmental engineering and studies, and water hydrology
Monica Suarez, P.E.	Parsons	Hydraulic Modeling	M.S. Environmental Engineering	9 years water quality assessments, and water quality models
Sherrie Keenan	Parsons	Technical editor	B.A., Journalism	34 years technical editor
Justin Kirk	Parsons	Environmental health issues, Socioeconomics, Land Use	B.S., Environmental science	8 years environmental health experience
Paul Fuschille	Parsons	Bird Surveys, Field Biologist	B.S. Wildlife and Fisheries Science	16 years avian field experience
Susan Bupp	Parsons	Cultural Resources; cultural resources technical oversight	M.A., Anthropology	33 years experience in cultural resources management and NEPA
Rachael Mangum	Parsons	Cultural Resources – Archaeology and Historic Structures	M.A. Anthropology	9 years experience in cultural resources management and NEPA
Seth Wilcher	Parsons	Cultural Resources – Historic Structures	M.H.P, Historic Preservation	4 years experience in Section 106 compliance
Erin Atkinson	Parsons	Cultural Resources – Historic Structures	M.A., Geography	3 years experience in cultural resources management

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SECTION 7
GLOSSARY AND REFERENCES

7.1 GLOSSARY

Affected Agricultural Areas, the areas that may affected by altering or disrupting local irrigation networks.

Area of Potential Effect, area around the levee system, as defined in coordination with THC.

Construction Corridor, the area of the levee identified as having deficiencies, where fill would be added to the top and sidewalls of the levee to provide adequate flood protection, or the area where new alternate levees may be constructed using fill from commercial sources. Staging of equipment or materials is assumed to be outside the construction corridor. The construction corridor is assumed to be up to a 172-foot buffer from the centerline of the existing levee, or from the centerline of proposed alternate levees. Also referred to as an expansion corridor, or the area beyond the existing levee footprint.

Existing levee footprint, this is the area currently occupied by the levee, or in the case where levee breaches are present, the area of the levee present before the September 2008 flood event.

Land use corridor, the land on both sides of the levee, or on both sides of proposed alternate levees, defined by the area that extends 0.25 of a mile beyond each side of the ROW, or proposed ROW (for new levee construction), limited to the land within the U.S.

Levee breach, an area where water from the landside, riverside, or both, completely removed portions of the existing levee.

Levee expansion area, the area adjacent to the toe of the existing levee that will be covered when fill is added to the top of the existing levee. The levee expansion is based on models using recent Lidar data that indicate where the existing levee height is insufficient to contain a 100-year flood event.

Levee under seepage, an area where water was piped under the levee through existing animal burrows or levee foundation weak spots, and then the water bubbled to the landside of the toe of the levee causing a sand boil.

Overflow weir, a concrete dam built across an area that will slow the flow of water that passes over the top of the structure, to prevent damage to the levee.

Riverside/Landside; riverside refers to the side of the levee closest to the Rio Grande, and landside refers to the side of the levee away from the Rio Grande.

Vegetation Survey Corridor, the land on both sides of the levee, or on both sides of proposed alternate levees, included in visual surveys and verified with aerial imagery. The vegetation survey corridor is approximately 150 feet to each side of the levee (300-foot corridor, centered on the levee).

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APPENDIX A
WRITTEN AND PUBLIC HEARING COMMENTS ON THE DRAFT EIS

Appendix A presents comments on the Draft EIS received from agencies, organization, and individuals during a 45-day public review period ending January 12, 2010. This appendix also presents oral comments provided during a public hearing held on December 10, 2009, in Presidio, Texas. A full transcript of the hearing is provided in Appendix D.

In Appendix A, for tracking purposes, the comments are identified as Agency (AG-1); Organization (ORG-1); individuals (IND-1), and Universities (UNV-1). Oral comments were also received during the public hearing. Oral comments received at the public hearing are identified as PH-1.

Responses to all comments received are provided in Appendix B, using the tracking identification as defined above and indicated in the text of the comments.

Comments on the Draft EIS were received from the following reviewers:

AG-1: Texas Commission on Environmental Quality

AG-2: Texas Historical Commission

AG-3: Texas Department of Transportation

AG-4: U.S. Department of the Interior, Office of Environmental Policy and Compliance

AG-5: U.S. Environmental Protection Agency, Region 6

ORG-1: White Mountain Apache Tribe Heritage Program

ORG-2: Texas-Pacifico Transportation Ltd.

ORG-3: Environmental Defense Fund

ORG-4: City of Presidio

IND-1: Mr. Richard C. Slack

IND-2: Mr. Lineaus Hooper Lorette

IND-3: Mr. Terry Bishop

UNV-1: Sul Ross State University, Center for Big Bend Studies

PH-1: Mr. Terry Bishop

PH-2: Mr. Lineaus Hooper Lorette

PH-3: Mr. Richard Slack

PH-4: Mr. Carlos Nieto

PH-5: Mr. David Crum, Trans-Pecos Water Trust

PH-6: Ms. Barbara Baskin

PH-7: Brad Newton, City of Presidio

AG-1: Texas Commission on Environmental Quality

Bryan W. Shaw, Ph.D., *Chairman*
Buddy Garcia, *Commissioner*
Carlos Rubinstein, *Commissioner*
Mark R. Vickery, P.G., *Executive Director*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

December 11, 2009

Mr. Daniel Borunda
Environmental Management Division, USIBWC
4171 North Mesa, C-100
El Paso, TX 79902

Re: TCEQ Grant and Texas Review and Comment System (TRACS) #10124, City of Presidio, Presidio County – Draft Environmental Impact Statement for Flood Control Improvements and Partial Levee Relocation

Dear Mr. Borunda:

The Texas Commission on Environmental Quality (TCEQ) has reviewed the above-referenced project and offers following comments:

AG-1a

A review of the project for General Conformity impact in accordance with 40 CFR Part 93 and Title 30, Texas Administrative Code § 101.30 indicates that the proposed action is located in the City of Presidio, Presidio County, which is currently unclassified or in attainment of the National Ambient Air Quality Standards for all six criteria air pollutants. Therefore, General Conformity does not apply.

AG-1b

Although any demolition, construction, rehabilitation or repair project will produce dust and particulate emissions, these actions should pose no significant impact upon air quality standards. Any minimal dust and particulate emissions should be easily controlled by the construction contractors using standard dust mitigation techniques.

AG-1c

We do not anticipate significant long term environmental impacts from this project as long as construction and waste disposal activities are completed in accordance with applicable local, state and federal statutes and regulations. We agree with a finding of no significant impact and have no objection to the release of funds for this project. We recommend that best management practices to control runoff from construction sites be utilized to prevent impact to surface and groundwater.

Thank you for the opportunity to review this project. If you have any questions, please call Ms. Glenda Thorn at (512) 239-1980.

Sincerely,

Katherine Nelson

Katherine Nelson
Assistant Division Director
Water Quality Planning Division

P.O. Box 13087 • Austin, Texas 78711-3087 • 512-239-1000 • Internet address: www.tceq.state.tx.us

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AG-2: Texas Historical Commission

TEXAS HISTORICAL COMMISSION
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December 21, 2009

Daniel Borunda
Environmental Protection Specialist
Environmental Management Division, USIBWC
4171 N. Mesa, Suite C-100
El Paso, Texas 79902

Re: Project review under Section 106 of the National Historic Preservation Act of 1966, Draft EIS: *Flood Control Improvements and Partial Levee Relocation for the USIBWC Presidio [Presidio-Ojinaga] Flood Control Project, Presidio County, Texas* (IBWC)

Dear Mr. Borunda:

Thank you for your correspondence describing the above referenced project. This letter serves as comment on the proposed undertaking from the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission.

AG-2a

Please be consistent with the title of the above-referenced project; we have previously reviewed it as the *Presidio-Ojinaga Flood Control Project* and will continue to file all correspondence in this way. We understand that the APE consists of the current levee alignment with a 70' easement and four 200' wide alternate alignments. This also includes staging and borrow areas, various roads subjected to heavy vehicle use, and road modifications. Potential effects include partial or complete demolition of NRHP eligible buildings or structures and archeological resources as well as visual effects that alter the physical aspects or integrity of NRHP eligible resources.

AG-2b

Intensive cultural resources surveys are currently being conducted and all significant cultural resources will be avoided, mitigated, or preserved though capping in consultation with our office. The levee is likely ineligible for inclusion in the NRHP; however, we look forward to the specific resource assessments. Architectural resources at risk include irrigation systems, engineering control and levee structures, historic adobe ruins, canals, smelters, school houses, cemeteries, threshing circles, etc. Archeological resources at risk include La Junta De Los Rios National Historic District sites, buried pit houses, camp sites, rock circles, stone alignments, etc. The potential for deeply buried sites has also been identified and requires backhoe trenching.

AG-2c

Based on the current data available, Alternative #s 5, 6 and 7 have the greatest potential to damage significant cultural sites. In addition, the downstream salt cedar removal and resulting greater flood-stage waters in the village of Redford, have the potential to damage significant cultural sites as well as the historic levees protecting Redford. We look forward to receiving the cultural resource assessments upon their completion.

Thank you for your assistance in this federal review process, and for your efforts to preserve the irreplaceable heritage of Texas. **If you have any questions concerning our review or if we can be of further assistance, please contact Debra L. Beene at 512/463-5865 or Linda Henderson at 512/463-5851**

Sincerely,

for
Mark Wolfe, State Historic Preservation Officer
cc: Lisa Santana, Ph.D., Environmental Protection Specialist, IBWC

MW/dlb

RICK PERRY, GOVERNOR • JON T. HANSEN, CHAIRMAN • MARK WOLFE, EXECUTIVE DIRECTOR
P.O. BOX 12276 • AUSTIN, TEXAS • 78711-2276 • P 512.463.6100 • F 512.475.4872 • TDD 1.800.735.2989 • www.thc.state.tx.us

AG-3: Texas Department of Transportation

Texas Department of Transportation
DEWITT C. GREER STATE HIGHWAY BLDG. • 125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • (512) 463-8585

January 8, 2010

Mr. Daniel Borunda
Environmental Protection Specialist
Environmental Management Division, USIBWC
4171 North Mesa, C-100
El Paso, Texas 79902

RE: Comment on Draft Environmental Impact Statement (EIS) concerning proposed flood control improvements in Presidio, Texas

Dear Mr. Borunda:

The Texas Department of Transportation (TxDOT) respectfully submits the following comments concerning paragraph 3.5.4 (Transportation) of the above-named draft EIS. As explained below, TxDOT asks that the EIS include additional consideration of railroad and highway bridges.

Railroad Bridge

AG-3a

TxDOT has ownership and oversight of the South Orient rail line (SORR) on behalf of the state of Texas. We have reviewed this document and are concerned about possible impacts to the SORR infrastructure from the various alternatives.

AG-3b

When TxDOT purchased the SORR, the infrastructure had suffered from deferred maintenance by the prior owners and was in need of significant rehabilitation to make it competitive with trucks and other railroads in Texas. TxDOT then leased the line to Texas Pacifico Transportation, LTD (TXPF) and has been working cooperatively with TXPF to secure funding for the rehabilitation of the line. TxDOT and TXPF have invested over $13.5 million in upgrades to the track.

AG-3c

Recently, the Texas Transportation Commission approved $14.01 million in federal American Recovery and Reinvestment Act (ARRA) funds for the rehabilitation of the SORR. TXPF has contributed an additional $5.51 million towards the rehabilitation of the line. Those funds have been combined with $3 million that was appropriated by the Texas Legislature. TxDOT now has over $22 million that are being invested to rehabilitate the line. The first project is under construction and three more projects are planned this year. We believe that the funding secured for the rehabilitation of the SORR will enable the line to become operationally competitive and provide rail-related development opportunities to communities along the line. We intend to work with TXPF to provide a rail facility that meets the needs of those communities and existing and future customers.

AG-3d

A portion of the International Rail Bridge south of the levee at Presidio burned to the ground on February 29, 2008. A second section of the International Rail Bridge north of the levee at Presidio burned on March 1, 2009. This damage to the SORR was noted in the Draft EIS on page 3-36, which states "The Presidio-Ojinaga railroad bridge also crosses the Rio Grande, but the bridge is not operational and the span over the river has been removed." This is the only reference to the SORR and bridge in the document.

AG-3e

According to the lease and operating agreement between TxDOT and TXPF, TXPF is required to reconstruct the bridge. TXPF has agreed to submit the plans, specifications, engineering, and a completed environmental review by June 1, 2011. TXPF has further agreed to complete the reconstruction by June 1, 2014. TXPF's long range plans include the transportation of international freight across the SORR via this reconstructed bridge at Presidio.

AG-3f

We are concerned that the DEIS does not adequately address the existence of the SORR or the reconstruction of the rail bridge at Presidio. The Code of Federal Regulations (CFR) 40 §1506.2(d) requires that possible conflicts between a proposed action and the objectives of federal, regional, state, and local land use plans, policies and controls for the project area be considered in any National Environmental Policy Act (NEPA) analysis. The maps provided with the document fail to identify the bridge location or the rail line. The CFR 40 §§ 1508.7 and 1508.8 define the impacts and effects that must be addressed and considered by federal agencies in satisfying the requirements of the NEPA process, which includes direct, indirect and cumulative effects. The DEIS does not document consideration of possible impacts to the SORR or the bridge location from the Presidio flood control improvements and partial levee relocation. We request that appropriate studies be conducted and the document revised to include analyses of the direct, indirect, and cumulative effects to the SORR and rail bridge from each alternative under consideration, as required by NEPA and the Council on Environmental Quality (CEQ) regulations.

AG-3g

Additionally, the CEQ regulations require that mitigation of impacts be considered whether or not the impacts are significant, and agencies are required to identify and include in the action all relevant and reasonable mitigation measures that could improve the action. We request that the final flood control project selected include funding for any relocation, reconstruction, modification, alteration, or other impact to the SORR and/or the rail bridge from the flood control project.

AG-3h

While the bridge may have burned down, the line has not been abandoned nor is the line out of service. The portion of the line at the bridge is out of service only until reconstruction of the bridge. Therefore, the line and the bridge must be considered as if in place and a part of the national and international rail network.

Highway Bridge

AG-3i

Similar to the rail bridge discussed above, TxDOT requests that the EIS consider effects to current and future highway bridges. The discussion should consider that a second highway bridge may be constructed.

AG-3j

In March 2009, Presidio County submitted an application to TxDOT seeking the establishment of a regional mobility authority (RMA) under Texas Transportation Code, Chapter 370. The application is pending. If approved, the RMA would have significant authority under Texas law to develop transportation projects. The applicant desires to create an RMA to improve the local transportation infrastructure, provide multimodal infrastructure, foster economic development in the region, protect the environment, and protect critical infrastructure from flooding. The applicant proposes as its initial project to acquire and expand the existing international bridge and commercial inspection facilities at US 67. It proposes to construct a new parallel bridge structure to the existing border crossing, approaches to and from the new bridge to existing US 67, expansion of the existing inspection facilities and the addition of toll facilities. These issues need to be addressed in the evaluation of the various alternatives for the flood control project.

AG-3k

Finally, we point out that the highway and bridge described in paragraph 3.5.4 is incorrectly identified as IH 67 (it is US 67).

Conclusion

We appreciate your consideration of these comments. If you have any questions, please contact William Glavin at (512) 486-5230 or by email at wglavin@dot.state.tx.us.

Sincerely,

Amadeo Saenz, Jr., P.E.
Executive Director

cc: Hilario Gabilondo, President, TXPF
Javier Zamarippa, TXPF
Roy Williams, TXPF
John A. Barton, P.E., Assistant Executive Director, Engineering Operations, TxDOT
William Glavin, P.E., Director, Rail Division, TxDOT
Mark Tomlinson, P.E., Director, Texas Turnpike Authority Division, TxDOT
Dianna Noble, P.E., Director, Environmental Affairs Division, TxDOT

AG-4: U.S. Department of Interior, Office of Environmental Policy and Compliance

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
1001 Indian School Road NW, Suite 348
Albuquerque, New Mexico 87104

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File 9043.1

January 11, 2010

Daniel Borunda
Environmental Management Division
U.S. International Boundary and Water Commission
4171 North Mesa Street, Suite C-100
El Paso, Texas 79902

Subject: Draft Environmental Impact Statement (Draft EIS) for Flood Control Improvements and Partial Levee Relocation, United States Section, International Boundary and Water Commission (USIBWC), United States and Mexico, Presidio Flood Control Project, Presidio, Presidio County, Texas

Dear Mr. Borunda:

The U.S. Department of the Interior has reviewed the subject DEIS and offers the following comments and recommendations for your consideration as you develop the final document. The DEIS describes seven alternatives to address the need for flood control improvement in the area of Presidio, Texas. These alternatives range from no action to repairing or raising the levee in place to partially relocating the levee.

GENERAL COMMENTS

AG-4a

In general, levees contribute to floodplain constriction and habitat degradation for aquatic and riparian habitats and species. Levees functionally disconnect the river from most of the floodplain and associated wetlands. Constriction of the river and disconnection from the floodplain results in the elimination of shallow, low and no velocity habitats required by many aquatic and riparian species. The effects of levees on these habitats and species within this project area extend both upstream and downstream of the levees.

SPECIFIC COMMENTS AND RECOMMENDATIONS

AG-4b

Page 2-16 - The DEIS briefly mentions the salt cedar plug at and upstream of the confluence of Alamito Creek with the Rio Grande, which "formed a bottleneck during the September [2008] flooding, causing damage to be more severe." The DEIS states that although this area is outside the USIBWC flood control project jurisdiction, "the USIBWC and the Mexican Section, International Boundary and Water Commission (MxIBWC), along with other interested parties, may enter into a joint agreement to remove this vegetation. Removal of this vegetation is not

AG-4b, cont.

evaluated in this EIS." The Department recognizes this as a potential opportunity to improve both flood control and aquatic and riparian habitats and we recommend the U.S. Fish and Wildlife Service to be included in the group of interested parties should the USIBWC decide to pursue this project.

AG-4c

Page 3-28 - The DEIS states, "Wetlands have been identified as being of particular concern because they perform valuable functions in restoring and maintaining the quality of the nation's waters. These include flood water storage, sediment trapping, nutrient removal, chemical detoxification, shoreline stabilization, aquatic food chain support, fish and wildlife habitat, and groundwater recharge." The Department agrees that wetland habitats are extremely valuable and adds that they are particularly important in arid desert environments, such as the project area. We recommend the USIBWC consider this value when selecting an alternative.

AG-4d

Alternatives that increase the connection of the Rio Grande to its historic floodplain and associated wetlands in the lower Presidio Flood Control Project (FCP) will improve aquatic (wetland and riverine) and riparian habitats. During the public scoping for this project, several stakeholders requested that the USIBWC consider pursuing flood easements for the agricultural fields and wetland areas in the lower Presidio FCP, which would allow the Rio Grande to access a greater portion of the floodplain and associated wetlands during high water events, while still protecting the City of Presidio from flooding. Based on the public scoping period and information provided in the DEIS, it appears the USIBWC may have a unique opportunity to work with landowners and managers along the Rio Grande to improve both flood control and aquatic and riparian habitats. The Department recommends the USIBWC pursue this possibility that would meet the flood control needs of the City of Presidio while increasing opportunities to improve aquatic and riparian habitats in and along the Rio Grande, during development of the final EIS.

Thank you for allowing the Department to comment. We will provide further comments as the DEIS is updated and revised. If there are questions or you need further information, please contact me at 505-563-3572, or at Stephen_Spencer@ios.doi.gov.

Sincerely,

Stephen R. Spencer
Regional Environmental Officer

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

AG-5: Environmental Protection Agency

JAN 12 2010

Mr. Daniel Borunda
Environmental Protection Specialist
Environmental Management Division
USIBWC
4171 North Mesa, C-100
El Paso, TX 79902

Dear Mr. Borunda:

AG-5a

In accordance with our responsibilities under Section 309 of the Clean Air Act, the National Environmental Policy Act (NEPA), and the Council on Environmental Quality Regulations (CEQ) for Implementing NEPA, the U.S. Environmental Protection Agency (EPA) Region 6 office in Dallas, Texas, has completed its review of the Draft Environmental Impact Statement (DEIS) for Partial Levee Relocation for the Presidio Flood Control Project, Presidio, Texas.

EPA classified your DEIS and proposed action as "**LO**," i.e., EPA has "**Lack of Objections**". Our classification will be published in the Federal Register according to our responsibility under Section 309 of the Clean Air Act, to inform the public of our views on proposed Federal actions. If you have any questions, please contact Michael Jansky of my staff at 214-665-7451 or by e-mail at jansky.michael@epa.gov for assistance.

We appreciate the opportunity to review the DEIS. Please send our office one (1) copy of the FEIS at the same time that it is sent to the Office of Federal Activities (2251A), EPA, 1200 Pennsylvania Avenue, N.W., Washington, D.C. 20044.

Sincerely yours,

Cathy Gilmore

Cathy Gilmore, Chief
Office of Planning and
Coordination (6EN-XP)

ORG-1: White Mountain Apache Tribe

White Mountain Apache Tribe Heritage Program
PO Box 507 Fort Apache,AZ 85926
1 (928) 338-3033 Fax: (928) 338-6055

To: Mr. Daniel Borunda – USIBWC Environmental Protection Specialist
Date: December 9, 2009
Project: Draft EIS for Flood Control Improvements and Partial Levee Relocation, Presidio, Texas.

The White Mountain Apache Historic Preservation Office (THPO) appreciates receiving information on the proposed project, dated November 20, 2009 In regards to this, please attend to the checked items below.

► ***There is no need to send additional information unless project planning or implementation results in the discovery of sites and/or items having known or suspected Apache Cultural affiliation.***

ORG-1a

☐ The proposed project is located within an area of probable cultural or historical importance to the White Mountain Apache Tribe (WMAT). As part of the effort to identify historical properties that maybe affected by the project we recommend an ethno-historic study and interviews with Apache Elders. The Cultural Resource Director, ***Mr. Ramon Riley*** would be the contact person at (928) 338-4625 should this become necessary.

► Please refer to the attached additional notes in regards to the proposed project:

ORG-1b

We have received and reviewed the information regarding Draft Environmental Impact Statement for the Flood Control Improvement and Partial Levee Relocation Project at Presidio, Texas, and we've determined the proposed actions ***will not have an effect*** on the White Mountain Apache tribe's Cultural Heritage Resources and/or historic properties, however, any ground disturbance should be monitored ***if*** there are reasons to believe that human remains and/or funerary objects are present, if such remains and/or objects are encountered all construction activities are to be stopped and the proper authorities and/or affiliated tribe(s) be notified to evaluate the situation.

We look forward to continued collaborations in the protection and preservation of places of cultural and historical significance.

Sincerely,

Mark T. Altaha
White Mountain Apache Tribe
Historic Preservation Officer
Email: markaltaha@wmat.nsn.us

ORG-2: Texas-Pacifico Transportation Ltd.

Texas-Pacifico
TRANSPORTATION LTD.

210 South Main Street
Brownwood, Texas 76801

Phone 325 643 6476
Fax 325 646 3404

December 18, 2009

Carlos Pena, Jr. P. E.
Division Engineer
Environmental Management Division
International Boundary and Water Commission
The Commons, Building C, Suite 310
4171 N. Mesa Street
El Paso, Texas 79902

RE: Draft Environmental Impact Statement (EIS)

Dear:

Texas Pacifico Transportation Company (TXPF) has reviewed the Draft Environmental Impact Statement (EIS) and make the following comments.

It is noted throughout the EIS made no reference to the railroad bridge at Presidio except on page 3.36 Part 3.5.4 Transportation stating, "The Presidio-Ojinaga railroad bridge also crosses the Rio Grande, but the bridge is not operational and the span over the river has been removed."

ORG-2a

It is important that TXPF report to you of the following information to be considered with any future action or alternatives for improvement to the flood control project.

The State of Texas owns 382 miles of railroad from Coleman, Texas to Presidio, Texas ending at the International Boundary. This railroad has vital interchanges with Class I rail carriers to transport rail traffic to all portions of the United States. The Texas Pacifico Transportation has a Lease and Operating Agreement with the State of Texas acting by and through the Texas Department of Transportation (TxDOT) to maintain and operate this railroad.

ORG-2b

TXPF is actively operating the railroad to develop business to local communities in West Texas along the rail line and eventually intends to restore the interchange of rail traffic into Mexico. The entire railroad is in service between Coleman and Presidio and there is no intention to discontinuance service or abandonment of any portion of this line. .

ORG-2b, cont.

As a result of a fires on the International Railroad Bridge in February 2008 and March 2009 most of the old wooden structure between Presidio and Ojinaga was destroyed. TXPF is actively engaged in reconstructing the bridge. The present phase of this reconstruction is the design and permitting which is to be complete by July 2011. Actual reconstruction of the bridge is scheduled to be complete by July 2014.

ORG-2c

Originally TXPF was obligated only to replace the existing structure. To do so, TXPF planned to rebuild the bridge using some of the present structure north of the levy and connect with a portion of the Ferromex bridge mid-river. The height of the bridge would be at the level of the levy during the time of the 2009 floods. Through discussions with the local personal at the International Boundary and Water Commission, we were informed of possible plans to raise the height of the levy at Presidio–Ojinaga.

ORG-2d

After review of the EIS and taking into consideration that the new bridge will possibly need to be raised or flood gates installed, it is extremely important that TXPF request and receive a copy of the final EIS. Please forward to the address on this letterhead.

ORG-2e

The planning and engineering for the constructions of the new International Railroad Bridge at Presidio is a critical point. IBWC and other agencies involved in planning projects to improve flood control of the Rio Grande near Presidio – Ojinaga might have a critical affected on the design of the new railroad bridge. It is important that any information which need to be considered for the new bridge design be passed onto TXPF or TxDOT.

It is hoped that the new bridge be designed, permitted and constructed without further delay so this valuable rail line can be restored to full service to meet the rail transportation needs between the United States and Mexico.

If TXPF can be of assistance or provide other information please feel free to contact me.

Sincerely

Roy D Williams

Roy D. Williams
Vice President Operations
Texas Pacifico Transportation

ORG-3: Environmental Defense Fund

EDF ENVIRONMENTAL DEFENSE FUND™
Finding the ways that work

January 12, 2010

Mr. Daniel Borunda
Environmental Protection Specialist
USIBWC
4171 North Mesa, C-100
El Paso, TX 79902

Re: Comments on the Draft Environmental Impact Statement: Flood Control Improvements and Partial Levee Relocation USIBWC Presidio Flood Control Project

Contact: Karen Chapman, Environmental Defense Fund (740) 363-8269, kchapman@edf.org, 223 North Union St. Delaware OH 43015

Dear Mr. Borunda,

On behalf of Environmental Defense Fund (EDF), I respectfully submit these comments on the Presidio Flood Control Project Draft EIS released November 2009. Thank you for supplying me with a copy of the DEIS, and for being available to discuss information concerning the DEIS.

ORG-3a

Environmental Defense Fund has for several decades conducted outreach and policy work along the US-Mexico border - particularly in Colorado and Texas - related to freshwater resources and wildlife habitat along the Rio Grande and the Colorado River. We have formed partnerships with a number of organizations and landowners in the region, and we continue to work with them to achieve a healthier Rio Grande ecosystem. We helped establish and continue to provide support to the Trans Pecos Water Trust in its work to acquire - through lease, donation or purchase - Rio Grande surface water rights to enhance environmental flows through the Forgotten River to Amistad Reservoir reach.

ORG-3b

We understand that the flood event of September 2008 delivered the highest flows in Presidio in the past several decades, severely compromising the levee system in Presidio. We also understand the need to protect the public welfare of Presidio residents by fortifying the levee system. We have a number of concerns related to the alternatives evaluated in the draft EIS that we wanted to bring to your attention.

ORG-3c

On August 14th this year, I, Trans Pecos Water Trust Executive Director David Crum, and Presidio Valley Farms owner and operator Terry Bishop met with Commissioner Bill Ruth, Principal Engineer Al Riera, Environmental Manager Daniel Borunda, Division Engineer Jose Nuñez, and Principal Engineer John Merino in IBWC's El Paso office to discuss potential

ORG-3c cont.

alternatives to the levee repair system that might be beneficial for Presidio landowners as well as IBWC, from a cost and long-term viability perspective. We also hoped that these alternatives might be designed to enhance ecosystem values in the riparian zone of the Rio Grande.

ORG-3d

At the August meeting, we indicated to IBWC officials that we would support the purchase of agricultural conservation or flood easements on farmland in the middle to downstream portion of the levee project, in lieu of the levee improvements that would be necessary to certify the levee to the 100-year flood protection level. We also indicated that we would support the purchase of flood easements as a preferred alternative to relocating the levee 500 feet ("offset levee"). Mr. Bishop also indicated to IBWC that he had been in touch with other local landowners and was confident of their support for considering such a program. These types of solutions have been implemented successfully elsewhere and on larger scale operations. For example, the Sacramento Area Flood Control Agency purchases farmland conservation easements in the Sacramento Valley of California specifically for flood management, reasoning that "maintaining the land in farming reduces the amount of potential development in the floodplain and hence, flood risk."[1] The program considers either lump sum or annual payments to landowners.

ORG-3e

In a follow up meeting on August 20th in Presidio, IBWC officials discussed the agricultural conservation or flood easement option again with Presidio landowners, and again were informed of landowner support for such an option. In a public hearing on December 10, 2009 in Presidio, Texas, our understanding is that IBWC officials heard comments from landowners again in favor of flood easement purchase options, and against Alternatives 4 through 6.

ORG-3f

The option to purchase agricultural conservation or flood easements, however, has not been included in the DEIS as part of any of the current alternatives. We understand from IBWC officials that an internal legal analysis of authorization language for the Presidio Flood Control project led IBWC to the conclusion that the language does not allow for IBWC to purchase such easements. The language is included below (supplied via email on Tuesday, December 8, from Daniel Borunda, IBWC):

Title 22 U.S.C. Section 277d-41 authorizes the USIBWC to conclude an agreement with Mexico for a coordinated plan by the U.S. and Mexico for international flood control works for the protection of lands along the international section of the Rio Grande in the U.S. and MX in the Presidio-Ojinaga Valley. Section 277d-42 provides that pursuant to an agreement concluded under section 277d-41, the Commissioner is authorized to construct, operate and maintain such flood control works. This section authorizes such sums as may be necessary, ***but provides that "no part of any appropriation under this section shall be expended for flood control works on any land, site, or easement unless such land, site, or easement has been acquired under the treaty for other purposes or by donation …".***

As such, the interpretation of this language may be that the purchase of flood easements in the United States by IBWC in the Presidio Flood Control Project area would not be possible in the absence of an amendment to this authorizing language. However, under this same interpretation, the current authorization language would seem to also preclude consideration of Alternatives 4 through 7 which anticipate flood control works on what is currently private farmland in order to

[1] http://www.sacog.org/rucs/easements.cfm

ORG-3f, cont.

construct any one of the spur levees or the offset levee. It is curious that these options ***are*** included in the DEIS, while flood easement purchase options are not. Neither is there reference to or inclusion of Title 22 U.S.C. Section 277d-41 in Section 1-5 of the DEIS: "Compliance with Applicable Laws and Regulations."

ORG-3g

Therefore, we strongly recommend including as an alternative the potential for purchase of agricultural conservation or flood easements in Presidio, regardless of whether or not the authorizing language allows for the purchase of such easements under the current legal interpretation. In fact, we note that on page 2-9 of the DEIS, Section 2.4, Alternative 2, the third bullet anticipates flooding of farmland in the middle and lower reaches of the Presidio FCP, but does not mention the purchase of flood easements to compensate for the loss of crops as a result. We would support Alternative 2 if a conservation easement program were included or considered in this alternative.

ORG-3h

The purchase of agricultural conservation easements has long been recognized as a viable, economic means of compensating a landowner for the public good associated with that land, such as "the innate open space of farmed landscapes and such ecosystem services as groundwater recharge, nutrient cycling, wildlife habitat and flood mitigation."[2] All of these ecosystem services might be achieved by a conservation easement program in Presidio, whereas any of the existing alternatives without agriculture conservation easements would not. Such easements allow for continued farming of the land under certain restrictions on construction in the floodplain. Trans Pecos Water Trust, EDF, and private landowners have discussed options for enhancing existing wildlife and aquatic habitat on private lands, and intend to raise funds to conduct restoration projects in the Presidio area along the Rio Grande riparian zone. Agricultural conservation easements would be another step toward creating more sustainable, resilient systems in the Presidio area that rely less on engineering and more on natural processes to ameliorate flood events and enhance wildlife habitat.

ORG-3i

As far as the additional Alternatives are concerned, we note that none of the existing alternatives provides what would be an ideal scenario for both flood protection and environmental sustainability. Alternative 3 is acceptable, but if the purchase of flood easements were included for farmland in the middle and lower reaches in this alternative, the expense involved in raising the levee height in the middle reach (at least from mile 7.5 and downstream) and in the lower reach would be unnecessary, and long-term, permanent protection would be secured for the lower and middle reaches without having the high maintenance costs associated with rehabilitation of the levee to the 100 year level.

ORG-3j

We also note that while Alternatives 4 through 7 do appear to attempt to avoid crossing historic river channels marked as wetlands or riparian zones along the floodplain of the Rio Grande, these same alternatives – particularly Alternatives 4 through 6, would extensively impact existing farmland. We understand that the city of Presidio – its inhabitants and built infrastructure – must be protected, but our position is that such protection might better be achieved through ecosystem restoration rather than extensive engineering. Any alternatives should also avoid impacts to terrestrial habitat and areas marked as desert scrub/woodlands –

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[2] *Purchase of Agricultural Conservation Easements and Other FarmlandRights: Evidence on Price and Willingness to Supply;* Yuan-fang Wang and Lawrence W. Libby, http://aede.osu.edu/programs/Swank/pdfs/purchase_of_agricultural_conservation_easements.pdf.

ORG-3j, cont.

such as Alternative 6 – as there are so few acres of woodland habitat remaining in Presidio. Along these lines, we note and support Section 2.7.2 in the DEIS: "Removal of Salt Cedar Plug in Rio Grande below Presidio FCP" – at least in concept - and encourage IBWC to consider such "outside the box" solutions, especially if they are designed to achieve ecosystem restoration objectives in concert with flood attenuation.

We hope these comments are helpful and we look forward to working with you to improve Presidio's environment and public safety. Please call me if you have any questions.

Sincerely,

Karen Chapman
Land, Water and Wildlife Program

ORG-4: City of Presidio, City Administrator Brad Newton

City of Presidio

Mr. Daniel Borunda
U.S. International Water and Boundary and Water Commission
4171 North Mesa Street, C-100
El Paso Texas 79902
Re: Written Comment Presidio Flood Project
Tuesday, January 12, 2010

Dear Mr. Borunda,

Thank you for the U.S. International Water and Boundary and Water Commission holding the hearing for concerns last month here in Presidio. I gave an oral comment there for the record.

effort to improve the protection of the City of Presidio. I would like to make two points that would improve protection of the City of Presidio.

ORG-4a

1. The rail road bed is an existing barrier for back flows into the City. The rail road bed will need to raised to meet the future needs to cross the river and raised levy when the international rail bridge will be completed. Efforts to work with TDOT to raise the road bed on the existing right of way would provide the City with extra protection and help in the long term plans to restore the rail between Texas and Mexico.

ORG-4b

2. The problems with the bottleneck caused by the over growth at Alameda Creek is also a problem.

Flow is restricted at this point and causes water to back up and threaten the City. Once again working with the Texas Department of Agriculture and the Texas Forest Service. I believe they could work on a salt cedar eradication program with private land owners to rid at least the Texas side of the river of the over growth causing the bottleneck of our drainage problems.

ORG-4c

3. Please be considerate of the farms in operation not to construct obstacles that will harm our fragile agricultural base and eliminate employment on the farms.

Sincerely,

Brad Newton

Brad Newton
Presidio City Administrator

P.O. Box 1899 • Presidio, Texas 79845 • (432) 229-3517 • FAX : 229-3505

IND-1: Richard Slack

RICHARD C. SLACK

December 14, 2009

POST OFFICE DRAWER 820
501 S. CYPRESS
PECOS, TEXAS 79772
TELEPHONE (915) 445-3827
FAX NUMBER 445-2994

Mr. Daniel Borunda
Environmental Protection Specialist
Environmental Management Division
4171 N. Mesa, C-100
El Paso, Texas 79902

Dear Mr. Borunda:

IND-1a

Last week I attended the public hearing in Presidio. The meeting was well attended and well prepared for by the staff.

IND-1b

It has been my observation that both in the past and present the lower end of Presidio valley is most likely to be damaged by flood.

The Rio Grande river was, and to some extent still is, composed of many loops and turns - a sign of being geologically old. During President Lyndon B. Johnson's administration the last steps were taken to straighten the river and restore the boundary line that was established by treaty many years ago.

IND-1c

At that time the river made a large turn into the US side near Presidio. This was corrected by transferring the land involved to the US and straightening the flow of the river. The same was not done at the lower end of the valley where a long levee extended in the US side, which increased the flow time of flood waters in that area.

IND-1d

In this area is the small settlement of Loma Pelona , and is also the usually dry creek of Alamito. If a heavy local rain occurs, when the Rio is in flood, it will raise the elevation of water in the Rio substantially.

IND-1e

The only way I can think of to protect the farms in this lower end of the valley is to improve both the height and width of the levee in that area. This improvement, of course, applies to the entire levee, especially near Presidio. I can see no reason for making a stub levee in addition to the one that is already established.

This is my opinion after having lived in Presidio on a part time basis for many years and observed the floods that occurred before there was a levee. I hope and trust this may be of some value to you.

Cordially yours,

Richard C. Slack

IND-2: Lineaus Hooper Lorette

WRITTEN COMMENT SHEET

Presidio Flood Control Project
Environmental Impact Statement
Public Hearing

Thank you for attending the Public Hearing for the Draft Environmental Impact Statement. Our purpose is to briefly describe development of the Presidio Flood Control Project EIS and findings. Please provide below comments on proposed alternatives and/or identified potential effects. You may use the back of this sheet if needed.

Thank you for your interest.

Your Name (please print):	LINEAUS HOOPER LORETTE
Affiliation:	CERTIFIED PUBLIC ACCOUNTANT
Street Address:	418 E. SIERRA
City, State, ZIP:	PRESIDIO, TEXAS 79845
Phone and/or e-mail (optional):	lineaus@sbcglobal.net

Please enter your comments below and next page: **Date:** 12-18-2009

IND-2a

① Levies should NOT be built that decrease the amount of currently available farm land in Presidio County or disrupt currently operating farms in Presidio, County. Keep the levies where they are currently located.

IND-2b

② The unilateral improvement of levies on the American side of the border is destructive of the business, cultural and familial ties that exist between Ojinaga, Chihuahua and Presidio, Texas. If unilateral improvements are considered, the amount of destruction resulting in Ojinaga, Chihuahua from each option should be determined and should be a criteria in evaluating levy options.

IND-2c

③ The U.S. Border Patrol proposal in the summer, 2008 for improving the levies around Presidio, Texas should be included

Please hand in this form tonight, or mail to:

Mr. Daniel Borunda
U.S. International Boundary and Water Commission
4171 North Mesa Street, C-100
El Paso, Texas 79902

Please Note: Your letter must be post-marked no later than January 12, 2010

Written Comments, continued from previous page

as a levy option.

Please hand in this form tonight, or mail to:

Mr. Daniel Borunda
U.S. International Boundary and Water Commission
4171 North Mesa Street, C-100
El Paso, Texas 79902

Please Note: Your letter must be post-marked no later than January 12, 2010

IND-3: Terry Bishop

WRITTEN COMMENT SHEET

Presidio Flood Control Project Environmental Impact Statement Public Hearing

Thank you for attending the Public Hearing for the Draft Environmental Impact Statement. Our purpose is to briefly describe development of the Presidio Flood Control Project EIS and findings. Please provide below comments on proposed alternatives and/or identified potential effects. You may use the back of this sheet if needed.

Thank you for your interest.

Your Name (please print):	Terry Bishop
Affiliation:	Presidio Valley Farms, Inc.
Street Address:	PO Box 822
City, State, ZIP:	Presidio, Tx 79845
Phone and/or e-mail (optional):	432-229-3632 sinco@mztv.net

Please enter your comments below and next page: **Date:** 1-11-10

IND-3a

I object in the strongest terms to Alternative #5 Spur 9.2. The direct and immediate results of this choice would be the destruction of our farm that has been in our family for generations, the destruction of the crops being grown on it and the loss of six full-time jobs as well as at least six more jobs in the very near future as we are in the process of planting more acreage on this farm. By your own admission, you have at least two other alternatives that will not result in the loss of any jobs in an area that needs them badly nor in the complete destruction of anyone's farm. We urge you to select Alternatives #6 or #7, if you are going to build a spur. You are aware that, to a man, the farmers want you to repair the existing levee to the 25-year level and give the farmers each a flood

IND-3b

IND-3c

Please hand in this form tonight, or mail to:

Mr. Daniel Borunda
U.S. International Boundary and Water Commission
4171 North Mesa Street, C-100
El Paso, Texas 79902

Please Note: Your letter must be post-marked no later than January 12, 2010

Written Comments, continued from previous page

IND-3c, cont.

easement. As you have no current funding for this project, we believe Congressman Ciro D. Rodriguez can help both parties to achieve this result.

IND-3d

Irregardless, Presidio Valley Farms, Inc. would prefer either Alternative #3 or #4 to Spur Alternative #5 which would cost us our livelihood and our future. Spur Alternative #1 uses an existing levee owned by the State of Texas and would be much less expensive. Alternative #6 has an existing levee for much of its length and does not destroy any land currently being planted.

IND-3e

Whatever you do, you must do something about the bottleneck at Alamito Creek. Every farmer at every meeting has complained about it and we are right.

In summary, although we have our preferences as expressed above, Presidio Valley Farms, Inc. can live with every alternative except #5.

Please hand in this form tonight, or mail to:

Mr. Daniel Borunda
U.S. International Boundary and Water Commission
4171 North Mesa Street, C-100
El Paso, Texas 79902

Please Note: Your letter must be post-marked no later than January 12, 2010

UNV-1: Sul Ross State University, Center for Big Bend Studies, William A. Cloud

SUL ROSS STATE UNIVERSITY
ALPINE, TEXAS 79832

A Member of the Texas State University System

CENTER for BIG BEND STUDIES

Box C-71, Alpine, TX 79832, (432) 837-8179
www.sulross.edu/cbbs, fax (432) 837-8381

January 12, 2010

Mr. Daniel Borunda
Environmental Protection Specialist
Environmental Management Division, USIBWC
4171 North Mesa, C-100
El Paso, Texas 79902

Dear Mr. Borunda:

UNV-1a

This letter provides comments from the Center for Big Bend Studies (CBBS) of Sul Ross State University (SRSU) on the Draft Environmental Impact Statement (Draft EIS) for Flood Control Improvements and Partial Levee Relocation, USIBWC Presidio Flood Control Project, Presidio, Texas. As an archaeologist with a history of investigations within the La Junta archaeological district, my comments concern archaeological resources that might be impacted by the project.

UNV-1b

Although the Draft EIS is well-written and accounts for known archaeological sites in the Area of Potential Effect (APE), it is difficult to appraise the different alternatives (#1–7) in regard to sites that may have been discovered during the recent intensive survey of the proposed alternative alignments. I also found it difficult to appraise or understand potential effects to sites 41PS86 and 41PS87 for the different alignments. Clearly, protection or mitigation (data recovery) of these sites is warranted.

Please send me a copy of the final Environmental Impact Statement.

Sincerely,

William A. Cloud

William A. Cloud
Director
Center for Big Bend Studies
Sul Ross State University

"A heritage of service; a commitment to quality"

reach for Alternatives 5, 6 and 7. In all case, impacts on biological resources would likely be moderate and temporary. All alternatives may adversely impact cultural resources but it is smaller scale in the case of Alternative 2. Limited impacts on farmland are expected due to footprint expansion, construction of new levee segments, or new material borrow sites. During the construction period, moderate impacts are expected on water and air quality and socioeconomic resources. In all cases, impacts on the environmental and local land owners by construction activities would be minimized.

At this point, I return the podium to Mr. Daniel Borunda who will lead the public comment section.

MR. BORUNDA: Thank you. Thank you, Jill. Okay. As part of this analysis, we are asking for everyone's input. We're interested in hearing from you and finding out if you have any particular concerns, questions or comments on the findings that are put forth in the draft EIS. A reminder, if you choose to submit written comments, please turn them in this evening or if mailed, any comments must be postmarked by January 12th, 2010.

Again, the USIBWC will provide clarifications but will not give official responses

tonight. However, all responses to your comments will be included in the final EIS. Both oral and written comments will be considered fully in the final EIS and we will give all reviewers the opportunity to see all the comments submitted and the responses provided.

At this point, if you have filled out a speaker request card, when your name is called, come forward to the front of the room and begin your comments by stating and spelling your name and your address for the record and indicate your group or affiliation if applicable.

Okay. At this time, Mr. Bishop?

PH-1: Terry Bishop

MR. BISHOP: You bet.

MR. BORUNDA: Sure.

MR. BISHOP: My name is Terry Bishop. Do you want that spelled? Is that what you said?

MR. BORUNDA: Would you like it spelled?

MR. BISHOP: T-e-r-r-y, B-i-s-h-o-p. I'm with Presidio Valley Farms, Incorporated, Presidio, Texas P.O. Box 822. I'm going to let others talk about these other options. What I'm going to talk to you guys about today is my biggest concern and I'm going to give you the reasons that I'm concerned about it.

PH-1a

I believe on here it's option -- spur option or option number 5, spur 9.2, that goes right

PH-1a, cont.

through the middle of the family farm, one of the best and most productive farms in this area. And during your -- in your booklet there, I read you're going to take approximately 60 acres out to build this from the levee to the highway. Well, that's not just going to effect 60 acres. It's just not going to effect -- it's going to take -- because of irrigation systems that you're going to destroy and just one -- you know, just one -- every block is connected, you can't just go through the middle of the farm and take -- and do this and expect everything to be good, because it will never be right again.

PH-1b

I also read in that thing it said, Well, most of it is fallowed, it's not fallowed at least half of that is planted as we speak. And by this time next year, the entire thing is going to be planted. The immediate, and I mean immediate, affect of this thing is that six people will immediately lose their job, full-time jobs. In addition, at least six more full-time jobs that would have been created as we continue to expand -- that will be lost. So there's at least a dozen jobs in the community where there is high employment. That's just -- you know, that's just crazy to take a productive farm that's being used right now and put in a levee when you have these other

PH-1c

PH-1d

alternatives over there that really don't affect anything.

I don't have a problem with the other alternatives on the railroad spur. I don't have a problem with Alternative Number 6 or even a modified version where it goes through -- originally -- originally, you-all had come to me and said that you would like to go through the middle of those resacas up there in that one levee. I had a problem with that because you're going to go through that pond which is an environmental sensitive area. I do not have a problem if you go in through the middle of that just like before, just like you did right here, just go to the west of that pond and leave it alone, you know, but to go through the middle of that farm and destroy that farm and put people out of work. It just does not make any sense especially with today's economy and I have a real problem with that. And I would hope that the government would see that and work with us on that. And other than that, I will let everybody else deal with everything else.

Thank you.

MR. BORUNDA: Thank you, Mr. Bishop.

Okay. The next speaker is Ms. Barbara Baskin.

MS. BASKIN: Can I wait until someone else is speaking within the Presidio area?

MR. BORUNDA: Okay. Sure. Sure. I'll go ahead and --

MS. BASKIN: Thank you. I do want to hold out! And say something.

PH-2: Lineaus Hooper Lorette

MR. BORUNDA: Okay. Lineaus Hooper Lorette?

MR. LORETTE: Lineaus, L-i-n-e-a-u-s, Hooper, H-o-o-p-e-r, Lorette, L-o-r-e-t-t-e. Could you put back the -- on the board up there, the criteria you were using to evaluate --

MR. BORUNDA: Yes, sir.

MS. NOEL: The NEPA criteria, sir?

MR. LORETTE: No. It ended with the socioeconomic. Yes, the one you just left. Okay. So my comment -- and I have lots of comments -- but my first comment is nowhere on this list is the effect on OJ lists and I don't see how we can do anything without knowing how these alternatives -- how we -- how can we evaluate what you're offering without knowing what effect on Ojinaga's flood problems you're going to, you know, cause by changing the levee system.

PH-2a

I mean, this is not fair. It's not right. These communities are connected. We -- you know, this

PH-2b

is a flaw beyond all recognition. Why in world would you come to us, asking us to evaluate alternatives without telling us what you're going to do to OJ's flood problems? Does that make sense? Does that at all ring a bell? It doesn't.

PH-2c

I don't know what a wier is. What's a wier, w-i-e-r? You said there are wiers. What's a wier?

MR. BORUNDA: Yes, sir. A wier in this respect is an area on the levee itself that is constructed at a certain elevation that if the flood event actually reaches a certain height, it will allow it to overspill the levee without going --

PH-2d

MR. LORETTE: Okay. What effect are all of these levees having on the wier on the Mexican side of the levees? Don't you think we should know that? The border patrol has made proposals to building a great levee for us and would satisfy their problems with border security. And I don't see their input into you-all's process and I think that you should have their input into your process on what you're making -- what alternatives you're offering us. You're asking us to evaluate alternatives but you have not included the border patrol who has a major stake in anything you do.

Those are my comments.

MR. BORUNDA: Thank you, sir. The next speaker.

MR. LORETTE: I didn't give you my address. Do you want my address?

MR. BORUNDA: Yes, sir. If you would.

MR. LORETTE: 318 Sierra.

MR. BORUNDA: You have 418 on your card.

MR. LORETTE: What did I say?

MR. BORUNDA: You said 318.

MR. LORETTE: It's 418. I'm Dyslectic.

MR. BORUNDA: Thank you.

PH-3: Richard Slack

The next speaker is Mr. Richard Slack.

MR. SLACK: My name is Richard Slack. Next week I'll celebrate my 95th birthday, so you can see both physically and mentally I'm over the hill pretty bad so if you'll excuse me for trespassing on your time. My father came down here in about 1928. He went rope ranching during the drought in Pecos and got a job in running a cotton gin and buying cotton for some people and stayed and that was a long time ago. And I can recall the times when we didn't have any levees and about five or six years, a good flood would come along and wipe out all of the crops, but the good thing about it is it would wash out the salt and leave silt and would eliminate just about the need for poison and

PH-3a

PH-3b

1 fertilizing the crops.
2 Now, I gathered from the changes that have
3 to be made so there's going to be a big change, but my
4 idea is that when this organization here put the levee
5 in, I don't recall any need of all of these meetings and
6 so forth. My solution would be just to go down there
7 and fix the levee. We have a farm down there. It's a
8 small one about not even 100 acres is all. It's right
9 next to the McCaul's farm and it's down -- and that's
10 around by where the levee broke. The farm has had quite
11 a bit of damage, but we're cutting channels in it and
12 expenses to get it back into a farmable condition. But
13 we'd rather have it like that than have some protection
14 for the lower ends to change the levee and put it way up
15 in the savanna in the lower end and protect the city or
16 whatever they're trying to protect. And we have a farm
17 there right next to the railroad, which I suppose would
18 be protecting from that corner on down maybe. But I
19 just simply -- there's no particular reason to go
20 through all of this business when all you need to do is
21 go fix the levee and that's all I have to say about the
22 thing. I'm going to write a letter to the headquarters
23 that have given a request to write it down, that's what
24 I propose to do. And I think that would be the simplest
25 thing to do, the fairest thing to do for this whole

PH- 3c

PH- 4: Carlos Nieto

PH-4a

valley is to try to protect all of it.

Years ago, when they didn't have that and the flood went all over the farm, sometimes it will wash but most of the time the river would improve the soil by washing out the salt and leaving silt there it enhances -- and that's all I have to say.

Thank you very much.

MR. BORUNDA: Thank you, Mr. Slack.

The next speaker is Mr. Carlos Nieto.

MR. NIETO: The name is Carlos, C-a-r-l-o-s, last name, Nieto, N-i-e-t-o representing Noel Business in the family, Noel Nieto, Incorporated Miguel Nieto Department Store, and also Nieto farm and valley interest in the farming area. I would like to call your attention -- and for the record, this is a very old forgotten isolated border community established in 1683. So that makes us, Mr. Slack is 95, this community is 326 years old. And very forgotten. We're thankful to our congressman for appropriating the funds for the repairs of the levee as they exist now. We're very grateful people move fast. During the flooding, we're grateful to the responders. We're not done yet. We don't have sufficient protection in my opinion. I think we ought to continue shoring up on for a 25-year period the current levee that exists. I believe and I

PH-4b

PH-4c

PH-4d

1 am not in favor of taking anyone's farmland, productive
2 farmland, because we saved physical -- no one died from
3 the flood, but we're all in the state, Presidio and
4 Ojinaga of economic despair. This community has always
5 been an agricultural community. The fact that there's
6 tumbleweeds in our farms or -- quite frankly, a
7 challenge that this state and this country is going
8 through relative to the lack of support for agricultural
9 endeavor for ranchers and farmers throughout the state
10 and throughout the country. We don't like it anymore
11 than you do and let me tell you there's plenty of people
12 in this area that are ready to go to work. This
13 farmland has produced for generations very sweet
14 cantaloupe, sweet onions. It can be put back into
15 production so I would say let's try to save the farmland
16 and let's be mindful of the flooding for the immediate
17 community of Presidio. And I think that can be
18 accomplished and I would opt for that option with the
19 railroad spur. Currently, what, the railroad spur is
20 four to five feet below what the level of the levee is.
21 I think that the state owns that. We the taxpayers own
22 that. I think as the governor and the state have
23 intentions of restoring that railway which is very vital
24 to the economic success of this community. We can
25 partner with them to raise that levee and that would add

PH-4d, cont.

protection and with the boundaries help, we can shore that levee and that would add protection to the immediate community of Presidio, that would protect us from the southside.

I am very concerned with an area that you have no control over, but the corps of engineers and our congressmen and our mayor are very concerned about this. The elder such as my dad that were born and raised here and he's 90 years old, he's a veteran of World War II, what he fears the most that will threaten the entire business community of Presidio and hurt people is Cibolo. That Cibolo land -- levee is -- at the time it was built, it was built probably to not less than adequate specifications. Over the years because of the lack of funding from the county and state and federal government it hasn't been maintained. There in lies -- if you truly want the first priority to protect lives in the community, we need your help. We need you as partners to shore up that Cibolo Creek levee even if it's not within your jurisdiction we want you to slide on us that something needs to be done other than a good effort of a band-aide is about to take place in the amount of $300,000. We're thankful and mindful of that, but I don't think that's going to be enough to shore up Cibolo Creek. And Cibolo Creek will indeed damage the

PH-4e

1 entire community of Presidio and this is not something
2 that I've seen in my lifetime, but in my dad's lifetime
3 that is what the elders have feared the most, the ones
4 that have been native of Presidio, so I echo that
5 sentiment. And I've shared that with Congressman
6 Rodriguez and I will continue to be an advocate for
7 anything that involves a restoration, a complete
8 restoration, of the Cibolo Creek levee. So I support
9 the restoration of Cibolo Creek levee. I support the
10 railroad spur and I support a 25-year protection of the
11 current levee that exists with whatever mechanism that
12 you need to let the water go out so that it doesn't
13 destroy pecan trees or ruin farmland such as McCaul's
14 and my dad who is in that area. We don't need flood
15 plains. We don't need anymore swamp areas, put whatever
16 you want but be mindful and be respectful that not only
17 do we want to protect lives, we want to make sure in
18 protecting lives that -- floods don't happen too often
19 and when they do we're grateful that people come and
20 help us, but it's the everyday life and the future of
21 Presidio may very well rest. Many of you -- unless you
22 pull out a history book and go back in time many years,
23 believe it or not this farmland used to cultivate grapes
24 and many other productive crops.
25 I'll go back to the fact that people in

PH-4f

PH-4g

PH-4h

PH-4i

1 Presidio and south Presidio county, farmers and ranchers
2 value what this valley has produced in the past and what
3 it can produce in the future. So the ability to make a
4 living off the land is something that's noble at a time
5 when the country and the state's financial resources are
6 weak and limited, at a time when homeland security will
7 ever been lasting and we support our partners in uniform
8 but let me tell you that they have their job to do in
9 protecting us but we also have to make a living here.
10 These farmers and ranchers aren't going to be around if
11 we deny them access, an access to their crops, to
12 irrigate their crops and to make a living. And if you
13 sum total the years that this land has been in
14 production, sometimes it's very easy for some of you to
15 make assessments and say, Oh, well, they're not
16 productive. He's taking out the tumbleweed, he's
17 planting alfalfa. But the little ones also want a part
18 of it and they also want to participate. Is there
19 anything wrong with -- in this state and this country
20 where people want to work? Where all we're asking for
21 is give us an opportunity to harvest our crops and give
22 us an opportunity to work the land. And we're very
23 thankful that we're even talking 100 years, way back in
24 those days no one would be talking about 100-year
25 protection. None of us will be around to see that, but

PH-4i, cont.

in the meantime, the community of Presidio has got to be saved. The farmers and ranchers have got to have the right to make a living doing what they do best and let me tell you, they know how, all they need is a little helping hand, a little bit of consideration. I think we can all be partners in what's good to grade. With Presidio, Presidio County, this state and this country is let's not deny people the access to make a living. Let's help them do what they do best and produce for Texas and America and create a win-win scenario.

At the end of the day, again, I'm thankful for how fast the boundary, the commissioner, the congressman, how fast, in the eyes of some of our locals, might not have been fast enough but let me tell you there's one person here standing to you before today, thanking all of you for doing what you've done. Is it enough? No, not yet. But there's more to come, but as partners, we can get there. We're respectful. We're mindful, but I'm glad that you're here taking testimony because I hate for anything to ever be imposed in this community. It is so old, so forgotten and you see farmland full of tumbleweeds. As a business person downtown, and I'm sure Mr. Slack as a banker, can see the numbers. After that flood, it will take many years for us to recover. The sad story is we're in a

PH-4j

PH-4k

1 depressed situation, the community of Presidio don't
2 deny it. And too little came too late.
3 Much paperwork was filled out by FEMA but
4 none of our farmers and ranchers have seen anything. We
5 got our hopes up but the few that are trying to work
6 their property are doing it at their own expense. Is it
7 fair and right? No.
8 And it's going to take time to do those
9 repairs so I'm hoping that some kind of suggestions
10 could be set forth that could jump-start making it right
11 for the farmers in this -- in this area. One thing I
12 would want to leave my comments with one comment that
13 was made by a high ranking officials from the Texas
14 Force Service as they were here with the command center
15 and trying to save lives, number 1. Property, number
16 two, and they've been all over -- not just the state of
17 Texas, they've been at Katrina and elsewhere throughout
18 the country. They made an interesting assessment. One
19 was very general and it's -- and that was the food was
20 great in Presidio, well, we know that, but they made one
21 more powerful comment and this is the real comment I
22 want to close with and that gives you a sense and a feel
23 for what the people of Presidio and Presidio south and
24 Presidio county are like, they got an image like they've
25 never been and they're responded to disasters across the

PH-4n

country, but what they saw is 60- to 90-year-old grandmothers, kids, coaches, moms, dads, uncles filling sandbags, the concept of self-help. They were all filling sandbags trying to save their town and save their community and that's something that you don't see, or they hadn't seen. Well, I close with that comment. These people are grateful. They may be shy. But they're grateful and they're proud and we've been forgotten for too long and we just want a fair shake and we value and appreciate your consideration of our request.

Thank you.

MR. BORUNDA: Thank you, Mr. Nieto. Next speaker is Mr. David Crum.

PH-5: David Crum

MR. CRUM: I'm David Crum, it's D-a-v-i-d, C-r-u-m. I reside at Fort Davis and I'm with the Trans-Pecos Water Trust. And I would like to speak in support of the four speakers that have spoken before me. I agree completely with everything they say. Mr. Bishop, Mr. Nieto and Mr. Slack and, I'm sorry, I didn't catch your name, but they very eloquently said that that farmland that some of those alternatives would carve out, would be a disaster. You're talking about a 100-year flood, raising the levees for a 100-year flood. A 100 years from now that farmland might be needed to

PH-5a

PH-5b

1 grow food for the people in this valley so let's don't
2 get rid of it, let's save it, let's protect it. And I
3 would like a clarification on the idea of it -- if we
4 can't talk about flood easements because the IBWC does
5 not have the legal right or authority to purchase flood
6 easements, how can you purchase that land that you're
7 going to take from Mr. Bishop and these others because
8 those spur levees are going to go across? You're going
9 to have to condemn them I guess? Are you going to pay
10 them for that land? I'm not sure if you can legally do
11 that.

PH-5c

12 MR. BORUNDA: Yes. And to answer your
13 question, the NEPA process requires the USIBWC to
14 evaluate any alternative and these alternatives could
15 potentially be implemented not, you know, a year from
16 now, ten years from now or whatever and that's -- we're
17 supposed to consider any and all alternatives and that's
18 the reason for that. Things may change. We may get
19 congressional approval to acquire easements to acquire
20 land. We may get additional funding, we don't know and
21 so as part of the NEPA process, we have to have
22 everything out on the table and that's the purpose for
23 those. Eventhough we don't have the authority now.

PH-5d

24 MR. CRUM: I'd very much like flood
25 easements to be considered, that would be a way that

PH-5d, cont.

puts the money in the pocket of the farmers to help jump start their operations a little bit and it would be a good thing to preserve that farmland. It's a fine amount here in this valley. We don't need to waste it.

Thank you.

PH-6: Barbara Baskin

MR. BORUNDA: Yes, sir. Thank you, Mr. Crum. Okay. Ms. Baskin, would you like to go next?

MS. BASKIN: My name is Barbara Baskin, B-a-r-b-a-r-a, B-a-s-k-i-n and I'm from Redford, I'm not from Presidio but I feel like I have to come. I am current president of the Presidio County Water Improvement District number one, and I have to come anytime I can to say, yes, Presidio got hurt and Presidio is large and there are more people here. But Redford has been a farming community as long as Presidio has. We have a national register archeological site right there on the river. No one except Judge Agan, Ciro Rodriguez in a year and three months has still not driven down to Redford to see -- you can drive by our fields and look out right now with all of the tumbleweeds and all. It looks level, but you drive out and there are canyons. I mean, we're talking 30-feet deep, 75-feet across, going through our fields. Our levee is completely gone in the areas. We were just ready because of the water trust to feel like we could

PH-6a

PH-6a, cont.

1 really start working our fields again, more people
2 despite the pigs and all of the things that have stopped
3 us from being able to grow things like cantaloupe and
4 all. There are many other problems down here. We
5 wouldn't just be growing feed, hay, alfalfa, if we could
6 grow other things and had the labor force to help us --
7 like grapes, cause labor. We've tried everything. But
8 I would like to say that I still can't believe that IBWC
9 regulates on both the Mexican side and the U.S. side and
10 allowed a release like this without some form of
11 restitution for the damage that's done by Mexico.

PH-6b

12 I realize that you-all were now starting to
13 talk to them about conservation levels which are
14 required in the U.S. But still, now, Mexico has come in
15 in the communities across from us and they now have
16 rubble, or whatever you-all want to call it, but they do
17 have rock burns and semi levees, more protection on the
18 Mexican side now than we have.

PH-6c

19 So any flood now -- all of our breaks are
20 still -- I just walk down -- I lost at least two acres
21 of my land from the levee out to the river. It used to
22 be about 100 feet out or so and then goes about a
23 quarter mile. All of it's gone. I have a vertical drop
24 from about half the levee is left and then there are two
25 breaks on my property and more breaks and over-topping

PH-6c, cont.

and, of course, where it was trying to make the bin then the churning so the Hernandez' have two huge holes in their fields on the other side of the levee. We have been written off by NRCS. We were told that we were economically irrelevant now because we only have 600-and-something acres. The water trust is trying to keep the river flowing and help get the tamaras, the salt cedar gone. NRCS who's had a big project trying to rid the river of tamaras have now left us with salt cedar coming up everywhere and they're ready to ride off our 700 acres and just whatever we can do with it.

PH-6d

I'm trying -- I have gone -- I've called Caterpillar. I've called every, you know, machine manufacturer. We -- a normal size bulldozer won't do anything. All we wanted was help just filling in all of the breaks in the levee so that like just last months release from Mexico, it came about halfway up. Another release or a -- not even a flood, a rise in the river will then take that water back into those farms and we have no recourse that I've been able to find. I've talked to water lawyers and all. We don't have any money for that. And like I say, you-all are now talking about raising this levee which then puts more pressure on us.

You will then be making our farmland into

PH-6e

1 just an overflow flood plain. We love that silt coming
2 in from the floods but this time it was sand. We have
3 sand dunes. It's blowing like you were at the beach
4 when the winds come up. So I'm just here just, again,
5 speaking to whoever will listen to say, we need
6 you-all's help. I realize that you-all have specific
7 areas that you call now, you know, that now are under
8 your auspices but you are devastating a community. And
9 it's great that people were here filling sandbags. This
10 Sunday that the river breached into the (Spanish word),
11 the (Spanish word). I'm the first farm down from the
12 creek and when it started coming through the fields
13 before it was anywhere up near the levee, I called to
14 Marge at the judge's office to tell her what was
15 happening and started calling farmers that had their
16 cattle in the fields. And she sent sand bags unfilled
17 down to Presidio. I called -- I called two weeks later,
18 Parks and Wildlife brought the sandbags to me and I, by
19 myself, I shoveled for almost two weeks straight putting
20 a burn around my house and it's an adobe that's over 100
21 years old. And over Thanksgiving, one of the former
22 residents who's 92, came and we talked about it because
23 the water was at level of the house but it was about 15
24 feet from the front and the back of the house. I don't
25 understand, but I do know that in the 1928 flood, the

water came to the same level it came this time, same with the '58 flood, same with the '78 flood, the '92 flood didn't get nearly that high but, you know, without putting that last bit of burn there would have been water.

PH-6f

You mention that residents here would have to get flood insurance from FEMA, I already called on it. It took them three weeks to figure it out. They called me back. I could pay a premium of $5,442 a year to have flood insurance on my house after I had been told that it would be a $119 dollars a year if I qualified. The hurricane hit right after we were hit in Galveston and they're helping people rebuild on beaches that are just going to -- we know that's going to get wiped out.

So, again, I'm just trying to voice that we have been just left. And we need some help at least to fill in the breaks of the levee so that we're not completely susceptible now. And I'm sure I could say more, but I'll sit down, not to take away at all from the situation of Presidio here, but we're here, too.

MR. BORUNDA: Great. Thank you, Ms. Baskin.

The next speaker is Mr. Brad Newton.

PH-7: Brad Newton

MR. NEWTON: Hello, my name is Brad Newton,

PH-7a

PH-7b

N-e-w-t-o-n. I'm the city administrator for the city of Presidio. Welcome you-all to Presidio and thank you for this opportunity for people to vent a little bit, I guess you might say. One of my biggest concern, of course, is the protection of Presidio first and foremost and I think that there's a lot of commonsense things that could be done to improve the situation here. One of the things that I had the pleasure with working with Mr. Slack on the Red Bluff Power Water Control District over in Pecos. I was the Texas commissioner for the Pecos River and we did the salt cedar irratification program and I'm very proud to say it worked very well didn't it?

MR. SLACK: Thank you, very much.

MR. NEWTON: It was very successful. Of course, you know salt cedars do kind of create a natural plug primarily as I understand down around Alamedo Creek which tends to back up. I understand that's outside of the range of this project, however it's something that really ought to be looked at because, you know, if you've got a bottleneck, the best thing to do -- and as we all know, salt cedars are a nonnative species that have really put a big dent in our environment here and by getting rid of the salt cedars not only would you alleviate that bottleneck, but you would also probably

PH-7b, cont.

1 put more water in the river in the dry times of the
2 year, each one of those salt cedars use anywhere from
3 75- to 200-gallons of water. And with that being said,
4 there's a possibility of being able to work with the ag
5 department and everything, maybe get it back to where
6 some of these land that they've written off, you know,
7 it's easy to say, well, it's not my land, so what do I
8 care.

PH-7c

9 But, yes, Redford has a huge problem there.
10 The other thing that really impacted the city of
11 Presidio, in my opinion, was because of the flood
12 downstream starting at Redford and so, it really took
13 out a lot of FM 170, which is a huge tourist drought and
14 a lifeline for tourism from people that want to see the
15 Big Bend Ranch and take that beautiful drive, which
16 National Geographic calls it's the most scenic highway
17 in Texas. And it pretty well destroyed it for, what,
18 nine months before they got it back open.

PH-7d

19 So, you know, with that in mind, yes, we
20 have problems here but I really think that it would
21 behoove us all to take a look at the big picture, think
22 outside the box, work outside the box and repair the
23 whole problem where we have good flow, you know,
24 whenever we get these large slugs of water coming out of
25 Mexico all at once and, you know, I'm not here with all

PH-7d, cont.

of the answers, all I can say is I can identify the problems but the city of Presidio is willing to work with any government agency that the over-all protection of our city, whether it's in the city or outside of the city, is willing to work with you-all in anyway we can.

Thank you for your time.

MR. BORUNDA: Thank you, Mr. Newton.

Are there any other comments that anybody would like to make? Okay.

UNIDENTIFIED SPEAKER: Could I ask a question?

MR. BORUNDA: Yes.

UNIDENTIFIED SPEAKER: Okay. I was up at a meeting in Alpine and Jeff Bennett, I think?

MR. BORUNDA: Yes, from Big Bend National Park.

UNIDENTIFIED SPEAKER: Okay, from the national park, came up and said, Do you remember me? Blah, blah, blah. He said, Well, I just want you to know that we've been doing some studies on the volume of the water flow, et cetera, and that the volume of the water in the channel from this past, the 2008 flood, was not nearly the volume that went through in some minor floods.

And I said, How -- wait, you're going to

1 have a hard time trying to convince me of that.
2 And he said, It's just that the -- it
3 was -- the channel was so silted in that that was the
4 problem and that the volume in this flood was not really
5 all that great. How does that -- because he said he was
6 working with you-all and a bunch of people. Do you know
7 anything about it?
8 MR. BORUNDA: No, I'm sorry, I don't. That
9 would probably be our water accounting folks that he's
10 been talking to. I know here in Presidio the volume of
11 water did exceed the capacity of our flood control
12 project in this reach.
13 UNIDENTIFIED SPEAKER: And it did down
14 there, that's why I'm going -- you're going to have to
15 give me more facts before I accept.
16 MR. BORUNDA: I would think because of all
17 the salt cedar and all the sediment downstream that the
18 flood just slowed itself down and, you know, the water
19 infiltrated into the surrounding soils, that would
20 probably be my guesstimate.
21 UNIDENTIFIED SPEAKER: It took ours.
22 MR. NIETO: One last comment.
23 MR. BORUNDA: Yes, sir.
24 MR. NIETO: Carlos Nieto, I just want to
25 thank the boundary commission for dealing with what

1 could have been a loss of life or brought a defect of
2 life to this community that has already occurred in
3 south Texas, but your agents dealt with proactively and
4 that's -- the facilitation as you did -- you used your
5 biologist. It's not just the water, the damages, but
6 the quality of water that flows. And it wasn't too long
7 ago our sister city of Ojinaga was dumping raw sewage
8 into the river, creating a nightmare, a biological
9 nightmare for the human population, that was addressed
10 and I think through your intervention, through your
11 studies and through NADBank who facilitated half a
12 million dollars and a quarter of a million dollars when
13 the Chihuahua -- for engineering design of that
14 wastewater treatment facility costing four million
15 dollars that was funded by NADBank for Ojinaga.
16 We're still underway with ours at a cost of
17 12-million dollars and it's in progress but,
18 nonetheless, we're quick to ask, we're quick to point
19 out but I -- often were not quick to just also thank you
20 for helping us deal with a very complicated and
21 sensitive issue on the quality of the water that could
22 bring a defective or deformed child of this world or a
23 hurt a human being. Well, not in this area thanks to
24 your intervention. That other quarter of a million went
25 to the city of Presidio for studies and at the time,

1 they didn't know where the money came from. At that
2 time, John Lee and myself were working on that and he's
3 no longer with us, but he was a avery strong advocate.
4 He dealt with the issue delicately and sensitively and
5 it wasn't accusations. He was sensitive and that led to
6 a win-win scenario for our friends across the border and
7 for the city of Presidio, half a million dollars to be
8 able to design systems, wastewater systems that would
9 improve the quality of the water so it doesn't hurt
10 humans or wildlife. There's nothing wrong about that.
11 Thank you-all for doing that.
12 MR. BORUNDA: Thank you, Mr. Nieto.
13 Well, I would like to thank everyone for
14 coming out to the meeting tonight and as a final
15 reminder, the comment period on the draft EIS will end
16 on January 12th, 2010 so please submit your comments.
17 They must be postmarked, again, no later than January
18 12th, 2010 and you can mail your comments to me at the
19 following address on the screen. And, again, if you
20 have not signed in, please do so before leaving this
21 evening.
22 UNIDENTIFIED SPEAKER: What's the timeframe
23 after you take comments, what your verdict is? What
24 option you're going to go with and --
25 MR. BORUNDA: Yes, sir. Let me go back to

1 that.
2 UNIDENTIFIED SPEAKER: And, again, I'm sure
3 it's all dollar sensitive, how much can we get to do
4 what with?
5 MR. BORUNDA: As I said previously, this is
6 the slide that has the timetable. We hope to issue
7 the -- well, once the comment period ends on January
8 12th, we will sit down and review and respond to all
9 those comments. And we hope to have a final EIS and
10 issued by the middle to late March of 2010. Then
11 following the issuance of that final EIS, the
12 commissioner will issue a record of decision which is --
13 which usually occurs 30 days after the release of the
14 final. It's a -- it's a mandatory process that we have
15 to follow and so that will probably occur sometime in
16 April, mid to late April, depending on when the final
17 EIS is released.
18 Okay, Jill has pointed out that the
19 address, the mailing address, is also on the comment
20 forms so that in case you need it.
21 MS. NOEL: They're in your welcome packet
22 if you need those.
23 MR. BORUNDA: Again, thank you all for
24 coming here this evening.
25 And for the record, the time is now 6:19.

1 This public hearing is now formally concluded.
2 And, again, thank you for coming tonight.
3 (Public Hearing concluded.)
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APPENDIX B
RESPONSES TO WRITTEN AND PUBLIC HEARING COMMENTS ON THE DRAFT EIS

This appendix includes the responses to comments on the Draft EIS for the Presidio FCP. The responses to comments are in the same order as comments presented in Appendix A, and responses use the same identifying numbering (*e.g.* Agency: AG-1). The list of reviewers is as follows:

AG-1: Texas Commission on Environmental Quality

AG-2: Texas Historical Commission

AG-3: Texas Department of Transportation

AG-4: U.S. Department of the Interior, Office of Environmental Policy and Compliance

AG-5: U.S. Environmental Protection Agency, Region 6

ORG-1: White Mountain Apache Tribe Heritage Program

ORG-2: Texas-Pacifico Transportation Ltd.

ORG-3: Environmental Defense Fund

ORG-4: City of Presidio

IND-1: Mr. Richard C. Slack

IND-2: Mr. Lineaus Hooper Lorette

IND-3: Mr. Terry Bishop

UNV-1: Sul Ross State University, Center for Big Bend Studies

PH-1: Mr. Terry Bishop

PH-2: Mr. Lineaus Hooper Lorette

PH-3: Mr. Richard Slack

PH-4: Mr. Carlos Nieto

PH-5: Mr. David Crum, Trans-Pecos Water Trust

PH-6: Ms. Barbara Baskin

PH-7: Brad Newton, City of Presidio

RESPONSES TO WRITTEN COMMENTS RECEIVED

AG-1: Texas Commission on Environmental Quality, Katherine Nelson, Assistant Division Director, Water Quality Planning Division

AG-1a: A review of the project for General Conformity impact in accordance with 40 CFR Part 93 and Title 30, Texas Administrative Code 5 101.30 indicates that the proposed action is located in the City of Presidio, Presidio County, which is currently unclassified or in attainment of the National Ambient Air Quality Standards for all six criteria air pollutants. Therefore, General Conformity does not apply.

Response: The USIBWC appreciates your review of the Draft EIS. The USIBWC concurs with this statement, and text has been added to Sections 1.5.1 and 3.6.2 to reflect comment.

AG-1b: Although any demolition, construction, rehabilitation or repair project will produce dust and particulate emissions, these actions should pose no significant impact upon air quality standards. Any minimal dust and particulate emissions should be easily controlled by the construction contractors using standard dust mitigation techniques.

Response: The USIBWC has noted the comment. Text has been added to Section 5.1 for dust and particulate emissions control under the proposed Best Management Practices.

AG-1c: We do not anticipate significant long term environmental impacts from this project as long as construction and waste disposal activities are completed in accordance with applicable local, state and federal statutes and regulations. We agree with a finding of no significant impact and have no objection to the release of funds for this project. We recommend that best management practices to control runoff from construction sites be utilized to prevent impact to surface and groundwater.

Response: Text has been added to Section 5.1 regarding waste disposal activities. Best management practices are described in Section 5.1, including measures to control runoff and erosion from construction sites.

AG-2: Texas Historical Commission, Debra Beene

AG-2a: Please be consistent with the title of the above-referenced project; we have previously reviewed it as the *Presidio-Ojinaga Flood Control Project* and will continue to file all correspondence in this way. We understand that the APE consists of the current levee alignment with a 70' easement and four 200' wide alternate alignments. This also includes staging and borrow areas, various roads subjected to heavy vehicle use, and road modifications. Potential effects include

partial or complete demolition of NRHP eligible buildings or structures and archeological resources as well as visual effects that alter the physical aspects or integrity of NRHP eligible resources.

Response: The USIBWC appreciates your review of the Draft EIS. The Cultural resources workplans, documents, and correspondence will use the title of *Presidio-Ojinaga Flood Control Project.* The EIS is associated with improvements to the levees on the U.S. side of the Rio Grande, and therefore, the title of the EIS will be *Flood Control Improvements and Partial Levee Relocation, USIBWC Presidio Flood Control Project.*

AG-2b: Intensive cultural resources surveys are currently being conducted and all significant cultural resources will be avoided, mitigated, or preserved though [sic] capping in consultation with our office. The levee is likely ineligible for inclusion in the NRHP; however, we look forward to the specific resource assessments. Architectural resources at risk include irrigation systems, engineering control and levee structures, historic adobe ruins, canals, smelters, school houses, cemeteries, threshing circles, etc. Archeological resources as risk include La Junta De Los Rios National Historic District sites, buried pit houses, camp sites, rock circles, stone alignments, etc. The potential for deeply buried sits has also been identified and requires backhoe trenching.

Response: Resource assessments, including assessments requiring backhoe trenching, have been completed and submitted to your office for review. The final cultural resources report for the *Presidio-Ojinaga Flood Control Project* will be submitted to your office by March, 2010. Text has been added to Sections 3.2.3 and 3.2.4 indicating that the intensive cultural resources surveys have been completed.

AG-2c: Based on the current data available, Alternative #s 5, 6, and 7 have the greatest potential to damage significant cultural sites. In addition, the downstream salt cedar removal and resulting greater flood-stage waters in the village of Redford, have the potential to damage significant cultural sites as well as the historic levees protecting Redford. We look forward to receiving the cultural resource assessments upon their completion.

Response: Removal of the salt cedar below the Presidio Flood Control Project is outside the jurisdiction of the USIBWC, and will be evaluated as a separate action at a later time. During the September 2008 flooding, much of the levee protecting Redford was, unfortunately, lost. Text has been added to Section 4.6.2 indicating that much of the levee protecting Redford was lost in the flooding.

AG-3: Texas Department of Transportation, Amadeo Saenz, Jr.

AG-3a: TxDOT has ownership and oversight of the South Orient rail line (SORR) on behalf of the state of Texas. We have reviewed this document and are concerned about possible impacts to the SORR infrastructure from the various alternatives.

Response: The USIBWC appreciates your review of the Draft EIS. Text has been added to Section 2.6.3 to better describe the probable location of the USIBWC Flood Control Levee in relation to the location of the existing rail line. The flood control levee would be constructed to the east of the existing rail line, outside the rail ROW.

AG-3b: When TxDOT purchased the SORR, the infrastructure had suffered from deferred maintenance by the prior owners and was in need of significant rehabilitation to make it competitive with trucks and other railroads in Texas. TxDOT then leased the line to Texas Pacifico Transportation, LTD (TXPF) and has been working cooperatively with TXPF to secure funding for the rehabilitation of the line. TxDOT and TXPF have invested over $13.5 million in upgrades to the track.

Response: Text in Section 3.5.4 has been revised to describe the ownership and management of the SORR.

AG-3c: Recently, the Texas Transportation Commission approved $14.01 million in federal American Recovery and Reinvestment Act (ARRA) funds for the rehabilitation of the SORR. TXPF has contributed an additional $5.51 million towards the rehabilitation of the line. Those funds have been combined with $3 million that was appropriated by the Texas Legislature. TxDOT now has over $22 million that are being invested to rehabilitate the line. The first project is under construction and three more projects are planned this year. We believe that the funding secured for the rehabilitation of the SORR will enable the line to become operationally competitive and provide rail-related development opportunities to communities along the line. We intend to work with TXPF to provide a rail facility that meets the needs of those communities and existing and future customers.

Response: Text in Section 3.5.4 has been revised to describe the funding obtained for rehabilitation of the SORR.

AG-3d: A portion of the International Rail Bridge south of the levee at Presidio burned to the ground on February 29, 2008. A second section of the International Rail Bridge north of the levee at Presidio burned on March 1, 2009. This damage to the SORR was noted in the Draft EIS on page 3-36, which states "The Presidio-Ojinaga railroad bridge also crosses the Rio Grande, but the bridge is not operational and the span over the river has been removed." This is the only reference to the SORR and bridge in the document.

Response: Text is Section 3.5.4 has been revised to describe the fires and the subsequent planned rehabilitation of the rail bridge. The sentence has been replaced with a better description of the railroad in the area.

AG-3e: According to the lease and operating agreement between TxDOT and TXPF, TXPF is required to reconstruct the bridge. TXPF has agreed to submit the plans, specifications, and a completed environmental review by June 1, 2011. TXPF has further agreed to complete the reconstruction by June 1, 2014. TXPF's long range

plans include the transportation of international freight across the SORR via this reconstructed bridge at Presidio.

Response: Text in Section 3.5.4 has been revised based on this comment and comments received from TXPF indicating that the rail bridge will be reconstructed have been incorporated.

AG-3f: We are concerned that the DElS does not adequately address the existence of the SORR or the reconstruction of the rail bridge at Presidio. The Code of Federal Regulations (CFR) 40 §1506.2(d) requires that possible conflicts between a proposed action and the objectives of federal, regional, state, and local land use plans, policies and controls for the project area be considered in any National Environmental Policy Act (NEPA) analysis. The maps provided with the document fail to identify the bridge location or the rail line. The CFR 40 §§ 1508.7 and 1508.8 define the impacts and effects that must be addressed and considered by federal agencies in satisfying the requirements of the NEPA process, which includes direct, indirect and cumulative effects. The DElS does not document consideration of possible impacts to the SORR or the bridge location from the Presidio flood control improvements and partial levee relocation. We request that appropriate studies be conducted and the document revised to include analyses of the direct, indirect, and cumulative effects to the SORR and rail bridge from each alternative under consideration, as required by NEPA and the Council on Environmental Quality (CEQ) regulations.

Response: Text in Section 3.5.4 has been revised to include a better description of the SORR rail, the rail bridge, and the proposed reconstruction and rehabilitation of the SORR. Figures 2-3 and 2-4 have been revised to identify the locations of both the SORR line and the International rail bridge. Text in Section 2.6.3 has been revised to include a better description of the location of the proposed flood control levee (Railroad spur) relative to the location of the SORR.

AG-3g: Additionally, the CEQ regulations require that mitigation of impacts be considered whether or not the impacts are significant, and agencies are required to identify and include in the action all relevant and reasonable mitigation measures that could improve the action. We request that the final flood control project selected include funding for any relocation, reconstruction, modification, alteration, or other impact to the SORR and/or the rail bridge from the flood control project.

Response: Text has been added to section 3.5.4 indicating that the proposed rail bridge reconstruction is outside the USIBWC jurisdiction, and will have to be evaluated under NEPA regulations as a separate action.

Based on engineering, funding, and environmental considerations, the USIBWC has selected Alternative 2 for implementation the rehabilitation of the existing levee system for 25-year flood protection. If construction of a spur levee near the railroad bank, Alternative 7, were considered for potential implementation in the future, close coordination with TxDOT and TXPF would be required for its design, technical and funding requirements, and needed mitigation actions.

The levee segment that intersects with the rail line will have to be raised. If TXPF reconstructs the rail line across the river and through the levee at the current elevation, a stop log system will be required to prevent overtopping at this site. The existing elevation of the rail line is buried under approximately 2 feet of soil since its abandonment and the recent flood fighting operations.

AG-3h: While the bridge may have burned down, the line has not been abandoned nor is the line out of service. The portion of the line at the bridge is out of service only until reconstruction of the bridge. Therefore, the line and the bridge must be considered as if in place and a part of the national and international rail network.

Response: Text in Section 3.5.4 has been revised to indicate that the rail and the international bridge will be reconstructed, and that rail services will be available in the area after the reconstruction is completed.

AG-3i: Similar to the rail bridge discussed above, TxDOT requests that the EIS consider effects to current and future highway bridges. The discussion should consider that a second highway bridge may be constructed.

Response: An additional section 4.6.3 has been added to the cumulative impacts section of the EIS. It should be noted that TXPF would be required to obtain a Presidential Permit from the Department of State before any construction at the international boundary occurs. Department of State will require IBWC approval before the permit is issued. USIBWC will also be required to issue a permit for any work on its property (i.e. floodplain). The USIBWC has an easement where the levee intersects with the rail line (since the rail line was there before the levees.) TXPF would also be required to obtain a Section 10 and Section 404 permit from the USACE.

If a second highway bridge were constructed, or the existing bridge and inspection facilities were expanded, TxDOT would have to coordinate with USIBWC for access to existing flood control levees and access roads during bridge construction. Further, TxDOT would be responsible for the NEPA evaluation of the expanded facilities.

AG-3j: In March 2009, Presidio County submitted an application to TxDOT seeking the establishment of a regional mobility authority (RMA) under Texas Transportation Code, Chapter 370. The application is pending. If approved, the RMA would have significant authority under Texas law to develop transportation projects. The applicant desires to create an RMA to improve the local transportation infrastructure, provide multimodal infrastructure, foster economic development in the region, protect the environment, and protect critical infrastructure from flooding. The applicant proposes as its initial project to acquire and expand the existing international bridge and commercial inspection facilities at US 67. It proposes to construct a new parallel bridge structure to the existing border crossing, approaches to and from the new bridge to existing US 67, expansion of the existing inspection facilities and the addition of toll facilities. These issues need to be addressed in the evaluation of the various alternatives for the flood control project.

Response: Text describing the proposed expansion of the International bridge has been added to Section 2.7, *Other Actions with Potential Cumulative Impacts*. The proposed bridge expansion is not under USIBWC jurisdiction, and would have to be evaluated under NEPA regulations when the proposal was accepted by TxDOT. As indicated in the previous response, a Presidential Permit process will be required for the proposed bridge expansion as well.

AG-3k: Finally, we point out that the highway and bridge described in paragraph 3.5.4 is incorrectly identified as IH 67 (it is US 67).

Response: Changed as noted.

AG-4: U.S. Department of Interior, Office of Environmental Policy and Compliance.

AG-4a: In general, levees contribute to floodplain constriction and habitat degradation for aquatic and riparian habitats and species. Levees functionally disconnect the river from most of the floodplain and associated wetlands. Constriction of the river and disconnection from the floodplain results in the elimination of shallow, low and no velocity habitats required by many aquatic and riparian species. The effects of levees on these habitats and species within this project area extend both upstream and downstream of the levees.

Response: The USIBWC appreciates your review of the Draft EIS. Text has been added to Section 3.1.4 to include the above comment about floodplain constriction and alteration of aquatic habitats by the presence of levees.

AG-4b: Page 2-16 - The DEIS briefly mentions the salt cedar plug at and upstream of the confluence of Alamito Creek with the Rio Grande, which "formed a bottleneck during the September [2008] flooding, causing damage to be more severe." The DEIS states that although this area is outside the USIBWC flood control project jurisdiction, "the USIBWC and the Mexican Section, International Boundary and Water Commission (MxIBWC), along with other interested parties, may enter into a joint agreement to remove this vegetation. Removal of this vegetation is not evaluated in this EIS." The Department recognizes this as a potential opportunity to improve both flood control and aquatic and riparian habitats and we recommend the U.S. Fish and Wildlife Service to be included in the group of interested parties should the USIBWC decide to pursue this project.

Response: Text has been added to Section 2.7.2 regarding parties that may be interested in the removal of the salt cedar plug, and the downstream effects of that vegetation removal. Removal of sediment and vegetation will be evaluated at a later date when discussions and agreements with Mexico are formalized.

AG-4c: Page 3-28 - The DEIS states, "Wetlands have been identified as being of particular concern because they perform valuable functions in restoring and maintaining the quality of the nation's waters. These include flood water storage, sediment trapping, nutrient removal, chemical detoxification, shoreline stabilization, aquatic food chain support, fish and wildlife habitat, and groundwater

recharge." The Department agrees that wetland habitats are extremely valuable and adds that they are particularly important in arid desert environments, such as the project area. We recommend the USIBWC consider this value when selecting an alternative.

Response: The USIBWC concurs that wetlands provide a valuable and rare habitat in this area, and incorporated this criteria in the conceptual design of proposed alternatives to avoid or minimize impacts to wetlands.

AG-4d: Alternatives that increase the connection of the Rio Grande to its historic floodplain and associated wetlands in the lower Presidio Flood Control Project (FCP) will improve aquatic (wetland and riverine) and riparian habitats. During the public scoping for this project, several stakeholders requested that the USIBWC consider pursuing flood easements for the agricultural fields and wetland areas in the lower Presidio FCP, which would allow the Rio Grande to access a greater portion of the floodplain and associated wetlands during high water events, while still protecting the City of Presidio from flooding. Based on the public scoping period and information provided in the DEIS, it appears the USIBWC may have a unique opportunity to work with landowners and managers along the Rio Grande to improve both flood control and aquatic and riparian habitats. The Department recommends the USIBWC pursue this possibility that would meet the flood control needs of the City of Presidio while increasing opportunities to improve aquatic and riparian habitats in and along the Rio Grande, during development of the final EIS.

Response: The USIBWC appreciates the opportunity to work cooperatively with landowners and managers, and is willing to improve aquatic habitats if possible, and if flood control objectives are met.

Under Alternative 2, section 4.3.1, aquatic wildlife, text has been added to describe the benefits of occasionally flooding the proposed wetland restoration areas within the floodplain. The increased connectivity between the river and the floodplain would only occur at high water stages.

The USIBWC has no authority to purchase flood easements, however, text has been added to the socioeconomics sections for each alternative indicating options that landowners may pursue to obtain a formal flood easement agreement. Should legislative authority be granted to the USIBWC in the future, then those agreements would be considered and assessed further at that time. It also should be noted that other federal agencies, regional authorities, and private organizations may have the capability and funding for easement acquisition. Please refer to comments ORG-3d and ORG-3h by the Environmental Defense Fund.

AG-5: Environmental Protection Agency, Cathy Gilmore, Chief, Office of Planning and Coordination

AB-5a: National Environmental Policy Act (NEPA), and the Council on Environmental Quality Regulations (CEQ) for Implementing NEPA, the U.S. Environmental Protection Agency (EPA) Region 6 office in Dallas, Texas, has completed its

review of the Draft Environmental Impact Statement (DEIS) for Partial Levee Relocation for the Presidio Flood Control Project, Presidio, Texas.

EPA classified your DEIS and proposed action as "LO," i.e., EPA has "Lack of Objections." Our classification will be published in the Federal Register according to our responsibility under Section 309 of the Clean Air Act, to inform the public of our views on proposed Federal actions. If you have any questions, please contact Michael Jansky of my staff at 214-665-7451 or by e-mail at janskv.michael~epa.gov for assistance.

We appreciate the opportunity to review the DEIS. Please send our office one (1) copy of the FEIS at the same time that it is sent to the Office of Federal Activities (2251 A), EPA, 1200 Pennsylvania Avenue, N. W., Washington, D.C. 20044.

Response: The USIBWC appreciates your review of the EIS. One copy of the final EIS will be sent to your office.

ORG-1: White Mountain Apache Tribe, Mark T. Altaha, Historic Preservation Officer

ORG-1a: The proposed project is located within an area of probable cultural or historical importance to the White Mountain Apache Tribe (WMAT). As part of the effort to identify historical properties that maybe affected by the project we recommend an ethno-historic study and interviews with Apache Elders. The Cultural Resource Director, Mr. Ramon Riley would be the contact person at (928) 338-4625 should this become necessary.

Response: Thank you for reviewing the Draft EIS. If during construction, it becomes apparent that there may be sites or artifacts of importance to Native American Tribes, the elders of the White Mountain Apache Tribe and other tribes that may be affected will be contacted immediately.

ORG-1b: We have received and reviewed the information regarding the Draft Environmental Impact Statement for the Flood Control Improvement and Partial Levee Relocation Project at Presidio, Texas and we've determined the proposed actions ***will not have an effect on the*** White Mountain Apache tribe's Cultural Heritage Resources and/or historic properties, however, *any* ground disturbance should be monitored *if* there are reasons to believe that human remains and/or funerary objects are present. If **such remains** and/or objects are encountered all construction activities are to be stopped and the proper authorities and/or affiliated tribe(s) be notified to evaluate the situation.

Response: Thank you for your reply. Cultural resources along the project area will be protected according to Texas Historical Commission guidelines. Extensive surveys conducted in support of the EIS preparation have not indicated the potential presence of human remains and/or funerary objects in the project area. The need to stop construction when artifacts are encountered is specified as a Best Management Practice in the section 5.4. The same requirement is included in construction contract documentation.

ORG-2: Texas – Pacifico Transportation Ltd.

ORG-2a: It is noted throughout the EIS made no reference to the railroad bridge at Presidio except on page 3.36 Part 3.5.4 Transportation stating, "The Presidio-Ojinaga railroad bridge also crosses the Rio Grande, but the bridge is not operational and the span over the river has been removed."

It is important that TXPF report to you of the following information to be considered with any future action or alternatives for improvement to the flood control project.

The State of Texas owns 382 miles of railroad from Coleman, Texas to Presidio Texas ending at the International Boundary. This railroad has vital interchanges with Class I rail carriers to transport rail traffic to all portions of the United States. The Texas Pacifico Transportation has a Lease and Operating Agreement with the State of Texas acting by and through the Texas Department of Transportation (TxDOT) to maintain and operate this railroad.

Response: The USIBWC thanks you for your comments on the Draft EIS.

Text has been added to Section 3.5.4 with the revisions in the rail lines as noted above, and including comments from TxDOT, as noted under AG-3.

ORG-2b: TXPF is actively operating the railroad to develop business to local communities in West Texas along the rail line and eventually intends to restore the interchange of rail traffic into Mexico. The entire railroad is in service between Coleman and Presidio and there is no intention to discontinuance service or abandonment of any portion of this line.

As a result of a fires on the International Railroad Bridge in February 2008 and March 2009 most of the old wooden structure between Presidio and Ojinaga was destroyed. TXPF is actively engaged in reconstructing the bridge. The present phase of this reconstruction is the design and permitting which is to be complete by July 2011. Actual reconstruction of the bridge is scheduled to be complete by July 2014.

Response: The USIBWC was not aware of the plans to restore the rail line into Mexico. Thank you for the clarification. Per response AG-3f above, text has been added to Section 3.5.4 with the proposed plans to restore the rail line in this area.

ORG-2c: Originally TXPF was obligated only to replace the existing structure. To do so, TXPF planned to rebuild the bridge using some of the present structure north of the levy and connect with a portion of the Ferromex bridge mid-river. The height of the bridge would be at the level of the levy during the time of the 2009 floods. Through discussions with the local personal at the International Boundary and Water Commission, we were informed of possible plans to raise the height of the levy at Presidio-Ojinaga.

Response: Based on engineering, funding, and environmental considerations, the USIBWC has selected for implementation the rehabilitation of the existing levee system, Alternative 2. If Alternative 7 were considered for potential

implementation in the future, close coordination with TxDOT and TXPF would be required for its design, technical and funding requirements, and needed mitigation actions.

See also response to AG-3i, as the levee at the location of the railroad needs to be raised or a stop log barrier installed. During the last flood fight, the low area in the levee where the rail crosses the levee, the low area was filled (covering the tracks) to prevent levee overtopping. During levee design, the USIBWC will coordinate with the TxDOT and the TXPF on how to address this concern. Further, this will be addressed in the process of obtaining a presidential permit for railroad bridge construction.

ORG-2d: After review of the EIS and taking into consideration that the new bridge will possibly need to be raised or flood gates installed, it is extremely important that TXPF request and receive a copy of the final EIS. Please forward to the address on this letterhead.

Response: The agency will receive a copy of the Final EIS when it is published.

ORG-2e: The planning and engineering for the construction of the new International Railroad Bridge at Presidio is a critical point. IBWC and other agencies involved in planning projects to improve flood control of the Rio Grande near Presidio - Ojinaga might have a critical affected [sic] on the design of the new railroad bridge. It is important that any information which needs to be considered for the new bridge design be passed onto TXPF or TxDOT.

It is hoped that the new bridge be designed, permitted and constructed without further delay so this valuable rail line can be restored to full service to meet the rail transportation needs between the United States and Mexico.

Response: Based on engineering, funding, and environmental considerations, the USIBWC has selected for implementation the rehabilitation of the existing levee system, Alternative 2. The USIBWC will coordinate with TxDOT and TXPF on the levee elevations required for the selected alternative.

If construction of a spur levee near the railroad bank, Alternative 7, were considered for potential implementation in the future, close coordination with TxDOT and TXPF would be required for its design, technical and funding requirements, and needed mitigation actions.

The USIBWC concurs that re-establishment of the rail connection between Ojinaga and Presidio will be a valuable resource for communities on both sides of the river, and text has been added to Section 3.5.4 to indicate the benefits of the rail line.

ORG-3: Environmental Defense Fund, Karen Chapman

ORG-3a: Environmental Defense Fund has for several decades conducted outreach and policy work along the US-Mexico border - particularly in Colorado and Texas - related to freshwater resources and wildlife habitat along the Rio Grande and the Colorado River. We have formed partnerships with a number of organizations and

landowners in the region, and we continue to work with them to achieve a healthier Rio Grande ecosystem. We helped establish and continue to provide support to the Trans Pecos Water Trust in its work to acquire - through lease, donation or purchase – Rio Grande surface water rights to enhance environmental flows through the Forgotten River to Amistad Reservoir reach.

Response: The USIBWC thanks you for providing comments on the Draft EIS, and the USIBWC appreciates the past and ongoing outreach and policy work to enhance the interests of the landowners along the United States – Mexico border.

ORG-3b: We understand that the flood event of September 2008 delivered the highest flows in Presidio in the past several decades, severely compromising the levee system in Presidio. We also understand the need to protect the public welfare of Presidio residents by fortifying the levee system. We have a number of concerns related to the alternatives evaluated in the draft EIS that we wanted to bring to your attention.

Response: According to the modeling conducted in support of the Alternatives developed for the EIS, the flooding in September 2008 was approximately a 50-year flood, and the levee was severely compromised in several locations as described in Sections 1.2 of the EIS.

ORG-3c: On August 14th this year, I, Trans Pecos Water Trust Executive Director David Crum, and Presidio Valley Farms owner and operator Terry Bishop met with Commissioner Bill Ruth, Principal Engineer Al Riera, Environmental Manager Daniel Borunda, Division Engineer Jose Nuñez, and Principal Engineer John Merino in IBWC's El Paso office to discuss potential alternatives to the levee repair system that might be beneficial for Presidio landowners as well as IBWC, from a cost and long-term viability perspective. We also hoped that these alternatives might be designed to enhance ecosystem values in the riparian zone of the Rio Grande.

Response: The revised Alternatives Report prepared in support of the EIS included the additional alternative levee locations proposed during this meeting, and these alternatives were subsequently evaluated in the EIS as Alternatives 6 and 7.

ORG-3d: At the August meeting, we indicated to IBWC officials that we would support the purchase of agricultural conservation or flood easements on farmland in the middle to downstream portion of the levee project, in lieu of the levee improvements that would be necessary to certify the levee to the 100-year flood protection level. We also indicated that we would support the purchase of flood easements as a preferred alternative to relocating the levee 500 feet ("offset levee"). Mr. Bishop also indicated to IBWC that he had been in touch with other local landowners and was confident of their support for considering such a program. These types of solutions have been implemented successfully elsewhere and on larger scale operations. For example, the Sacramento Area Flood Control Agency purchases farmland conservation easements in the Sacramento Valley of California specifically for flood management, reasoning that "maintaining the land in farming

reduces the amount of potential development in the floodplain and hence, flood risk."1 The program considers either lump sum or annual payments to landowners.

Response: The USIBWC agrees that the purchase of flood easements similar to those described above would benefit the local landowners during times when the levees are overtopped and crops lost. However, the USIBWC does not have the legal authority to purchase flood easements.

Text has been added to Sections 3.5.1 describing flood easements that may be available through sources other than the USIBWC, including USDA-Natural Resources Conservation Service. Obtaining flood easements through alternate sources may also restrict landowners use of the land, including preventing development.

Text has been added to Sections 4.3.5, 4.4.5, and 4.5.5 indicating that if flood easements were obtained by landowners, the compensation received may partially offset the loss of crops if the levee were overtopped in high water stages.

ORG-3e: In a follow up meeting on August 20th in Presidio, IBWC officials discussed the agricultural conservation or flood easement option again with Presidio landowners, and again were informed of landowner support for such an option. In a public hearing on December 10, 2009 in Presidio, Texas, our understanding is that IBWC officials heard comments from landowners again in favor of flood easement purchase options, and against Alternatives 4 through 6.

Response: Noted, as indicated in response ORG-3d above.

ORG-3f: The option to purchase agricultural conservation or flood easements, however, has not been included in the DEIS as part of any of the current alternatives. We understand from IBWC officials that an internal legal analysis of authorization language for the Presidio Flood Control project led IBWC to the conclusion that the language does not allow for IBWC to purchase such easements. The language is included below (supplied via email on Tuesday, December 8, from Daniel Borunda, IBWC):

> *Title 22 U.S.C. Section 277d-41 authorizes the USIBWC to conclude an agreement with Mexico for a coordinated plan by the U.S. and Mexico for international flood control works for the protection of lands along the international section of the Rio Grande in the U.S. and MX in the Presidio-Ojinaga Valley. Section 277d-42 provides that pursuant to an agreement concluded under section 277d-41, the Commissioner is authorized to construct, operate and maintain such flood control works. This section authorizes such sums as may be necessary, but provides that "no part of any appropriation under this section shall be expended for flood control works on any land, site, or easement unless such land, site, or easement has been acquired under the treaty for other purposes or by donation …".*

As such, the interpretation of this language may be that the purchase of flood easements in the United States by IBWC in the Presidio Flood Control Project area

would not be possible in the absence of an amendment to this authorizing language. However, under this same interpretation, the current authorization language would seem to also preclude consideration of Alternatives 4 through 7 which anticipate flood control works on what is currently private farmland in order to construct any one of the spur levees or the offset levee. It is curious that these options are included in the DEIS, while flood easement purchase options are not. Neither is there reference to or inclusion of Title 22 U.S.C. Section 277d-41 in Section 1-5 of the DEIS: "Compliance with Applicable Laws and Regulations."

Response: The USIBWC is required under NEPA regulations to evaluate all feasible alternatives for the EIS. Further, as indicated in response ORG-3d above, language has been added to the text that includes the option of flood easements as a part of potential spur levee construction under Alternatives 5, 6 and 7.

ORG-3g: Therefore, we strongly recommend including as an alternative the potential for purchase of agricultural conservation or flood easements in Presidio, regardless of whether or not the authorizing language allows for the purchase of such easements under the current legal interpretation. In fact, we note that on page 2-9 of the DEIS, Section 2.4, Alternative 2, the third bullet anticipates flooding of farmland in the middle and lower reaches of the Presidio FCP, but does not mention the purchase of flood easements to compensate for the loss of crops as a result. We would support Alternative 2 if a conservation easement program were included or considered in this alternative.

Response: Noted, as indicated in response ORG-3d above. If the landowners were able to obtain flood easements through other funding sources, the USIBWC would support that effort, and work with the landowners to the extent possible to notify them of potential flooding, so that at least equipment could be moved out of the floodplain. To USIBWC's knowledge, legal flood easements agreements would only compensate for lost crops, not lost equipment.

ORG-3h: The purchase of agricultural conservation easements has long been recognized as a viable, economic means of compensating a landowner for the public good associated with that land, such as "the innate open space of farmed landscapes and such ecosystem services as groundwater recharge, nutrient cycling, wildlife habitat and flood mitigation."2 All of these ecosystem services might be achieved by a conservation easement program in Presidio, whereas any of the existing alternatives without agriculture conservation easements would not. Such easements allow for continued farming of the land under certain restrictions on construction in the floodplain. Trans Pecos Water Trust, EDF, and private landowners have discussed options for enhancing existing wildlife and aquatic habitat on private lands, and intend to raise funds to conduct restoration projects in the Presidio area along the Rio Grande riparian zone. Agricultural conservation easements would be another step toward creating more sustainable, resilient systems in the Presidio area that rely less on engineering and more on natural processes to ameliorate flood events and enhance wildlife habitat.

Response: Noted, as indicated in response ORG-3d above. Further, text has been added to Section 3.1.4 indicating the restrictions on the levee imposes on connectivity between the river and the floodplain.

Text has been added to Sections 4.3.1 and 4.5.1 indicating the positive effects to wetlands restoration areas if the levee in the lower reach was overtopped during high water stages.

ORG-3i: As far as the additional Alternatives are concerned, we note that none of the existing alternatives provides what would be an ideal scenario for both flood protection and environmental sustainability. Alternative 3 is acceptable, but if the purchase of flood easements were included for farmland in the middle and lower reaches in this alternative, the expense involved in raising the levee height in the middle reach (at least from mile 7.5 and downstream) and in the lower reach would be unnecessary, and long-term, permanent protection would be secured for the lower and middle reaches without having the high maintenance costs associated with rehabilitation of the levee to the 100 year level.

Response: Comment noted, as indicated in response to comment ORG-3d. At this point it does appear that purchase of flood easements would potentially be less than the cost of raising the levee; however, the USIBWC has no legal authority to purchase flood easements. If flood easements were obtained by landowners through an alternate funding vehicle (such as USDA Natural Resources Conservation Service, or private sources as you indicated in comment ORG-3d), the USIBWC would discuss with landowners the most appropriate way to assist, if possible, and whether the flood control objective was met.

ORG-3j: We also note that while Alternatives 4 through 7 do appear to attempt to avoid crossing historic river channels marked as wetlands or riparian zones along the floodplain of the Rio Grande, these same alternatives – particularly Alternatives 4 through 6, would extensively impact existing farmland. We understand that the city of Presidio – its inhabitants and built infrastructure – must be protected, but our position is that such protection might better be achieved through ecosystem restoration rather than extensive engineering. Any alternatives should also avoid impacts to terrestrial habitat and areas marked as desert scrub/woodlands – such as Alternative 6 – as there are so few acres of woodland habitat remaining in Presidio. Along these lines, we note and support Section 2.7.2 in the DEIS: "Removal of Salt Cedar Plug in Rio Grande below Presidio FCP" – at least in concept - and encourage IBWC to consider such "outside the box" solutions, especially if they are designed to achieve ecosystem restoration objectives in concert with flood attenuation.

Response: Potential impacts on farmland was a consideration by the USIBWC in selecting Alternative 2 for implementation rather spur levee construction under Alternatives 5, 6 and 7. The USIBWC took into consideration the environmental limitations of removing as little woodland or wetland habitat as possible when developing the alternatives presented in the EIS.

Text has been added to the socioeconomics sections (Sections 4.4.5 and 4.5.5) indicating how the irrigable farmland may be impacted by the Alternatives 4 through 7.

The USIBWC understands that removal of the salt cedar plug downstream of the project area may have additional benefits to the environmental (and possibly human) resources in the area. When the USIBWC and MxIBWC reach a joint agreement on the removal of the salt cedar plug, that removal will be evaluated under NEPA at a separate time.

ORG-4: City of Presidio, City Administrator Brad Newton

ORG-4a: The rail road bed is an existing barrier for back flows into the City. The rail road bed will need to raised to meet the future needs to cross the river and raised levy when the international rail bridge will be completed. Efforts to work with TDOT to raise the road bed on t he existing right of way would provide the City with extra protection and help in the long term plans to restore the rail between Texas and Mexico.

Response: The USIBWC appreciates your review of the Draft EIS. The existing rail road did provide at least a partial barrier from the September 2008 flooding. There are plans in place through TxDOT and TXFP to restore the railroad bridges and raise the track to the levee of the existing levee, as indicted above in response to comments from TxDOT (AG-3) and TXPF (ORG-2). The spur levee evaluated under Alternative 7 would be adjacent to the existing railroad, not be placed on top of the flood control levee, as re-stated in text to section 2.6.3 for clarification.

Per response to TxDOT response AG-3i, the selected Alternative 2 will require an increase in railroad bank elevation at the levee crossing. To the extent that the existing or rehabilitated railway provides protection to the City of Presidio from flooding, the USIBWC considers this a beneficial impact.

ORG-4b: The problems with the bottleneck caused by the over growth at Alameda Creek is also a problem. Flow is restricted at this point and causes water to back up and threaten the City. Once again working with the Texas Department of Agriculture and the Texas Forest Service. I believe they could work on a salt cedar eradication program with private land owners to rid at least the Texas side of the river of the over growth causing the bottleneck of our drainage problems.

Response: The USIBWC and the MxIBWC will reach a joint agreement on the removal of the salt cedar plug downstream of the Presidio FCP. The USIBWC is also willing to work cooperatively with other agencies as suggested above, along with local landowners, to arrive at a solution for the salt cedar bottleneck that is beneficial to most individuals.

ORG-4c: Please be considerate of the farms in operation not to construct obstacles that will harm our fragile agricultural base and eliminate employment on the farms.

Response: The effect of removing irrigable land from production has been included in the EIS, in the Socioeconomics section for each alternative.

IND-1: Mr. Richard Slack

IND-1a: Last week I attended the public hearing in Presidio. The meeting was well attended and well prepared for by the staff.

Response: Thank you for your attendance at the meeting, and for your comments on the Draft EIS.

IND-1b: It has been my observation that both in the past and present the lower end of Presidio valley is most likely to be damaged by flood.

Response: The USIBWC concurs with this statement.

IND-1c: The Rio Grande river was, and to some extent still is, composed of many loops and turns – a sign of being geologically old. During President Lyndon B. Johnson's administration the last step were taken to straighten the river and restore the boundary line that was established by treaty many years ago. At that time, the river made a large turn into the US side near Presidio. This was corrected by transferring the land involved to the US and straightening the flow of the river. The same was not done at the lower end of the valley where a long levee extended in the US side, which increase the flow time of flood waters in that area.

Response: The flooding in September 2008 was indeed more extensive in the lower reach of the Presidio FCP.

IND-1d: In this area is the small settlement of Lorna Pelona, and is also the usually dry creek of Alamito. If a heavy local rain occurs, when the Rio is in flood, it will raise the elevation of water in the Rio substantially.

Response: Noted. Thank you for your input.

IND-1e: The only way I can think of to protect the farms in this lower end of the valley is to improve both the height and width of the levee in that area. This improvement, of course, applies to the entire levee, especially near Presidio. I can see no reason for making a stub levee in addition to the one that is already established.

Response: This statement is consistent with Alternatives 2 and 3 as evaluated in the Draft EIS.

IND-2: Mr. Lineaus Hooper Lorette

IND-2a: Levees should NOT be built that decrease the amount of currently available farm land in Presidio county or disrupt currently operating farms in Presidio county. Keep the levees where they are currently located.

Response: Thank you for attending the public hearing, and for taking the time to review the Draft EIS and provide comments. This statement is consistent with Alternatives 2 and 3 as evaluated in the Draft EIS.

IND-2b: The unilateral improvement of levees on the American side of the border is destructive of the business, cultural and familial ties that exist between Ojinaga, Chihuahua and Presidio, Texas. If unilateral improvements are considered, the amount of destruction resulting in Ojinaga, Chihuahua from each option should be determined and should be a criteria in evaluating levee options.

Response: Agreements between the USIBWC and MxIBWC and treaties between the U.S. and Mexico, require that flood control improvements to the levees on one side of the river to be consistent with levee modifications on the opposite side of the river. That is, if one agency raises a portion of their levee to improve flood control, that improved flood control would be matched on the opposite side. The MxIBWC has begun repairing the levees near Ojinaga, along the Rio Conchos, and both the USIBWC and the MxIBWC have been in conversation about long-term plans for levee improvements in the Presidio-Ojinaga area. The criteria for improving levees on the United States side is evaluated under the NEPA process. The criteria for improving levees on the Mexico side are dictated by Mexico's own federal and state environmental regulations. It must be noted that, although the levee improvements must be consistent on both sides of the border, country-specific funding, labor, equipment, and other factors, may prevent the improvements from occurring simultaneously.

IND-2c: The U.S. Border Patrol proposal in the summer, 2009 for improving the levees around Presidio, Texas should be included as a levee option.

Response: The U.S. Border Patrol, within the Department of Homeland Security, has proposed some alternatives to local landowners and to the USIBWC for improved flood control and improved border protection. However, the Draft EIS does not assess the impacts associated with construction of border fence segments that may (or may not) use the existing or new levee footprint. On April 1, 2008, the Secretary of Homeland Security implemented a waiver for various environmental laws, provided in Section 102, Illegal Immigration Reform and Immigrant Responsibility Act of 1996. Therefore, any proposed plans from agencies within the Department of Homeland Security are not evaluated under the NEPA evaluation provided in the Draft EIS.

Text has been added to Section 2.6.2 of the EIS to clarify this point.

IND-3: Mr. Terry Bishop

IND-3a: I object in the strongest terms to Alternative #5 Spur 9.2. The direct and immediate results of this choice would be the destruction of our farm that has been in our family for generations, the destruction of the crops being grown on it and the loss of six full-time jobs as well as at least six more jobs in the very near future as we are in the process of planning more acreage on this farm.

Response: Thank you for your attendance at the meeting, and your comments on the Draft EIS. The agricultural economics evaluation in sections 4.4.5 and 4.5.5 has been expanded to better qualify those impacts. Potential impacts on farmland were

a consideration by the USIBWC in selecting Alternative 2 for implementation, rather spur levee construction under Alternatives 5, 6 or 7.

IND-3b: By your own admission, you have at least two other alternatives that will not result in the loss of any jobs in an area that needs them badly nor in the complete destruction of anyone's farm. We urge you to select Alternatives #6 or #7, if you are going to build a spur.

Response: Noted. As indicated in the response above, spur levee construction under Alternatives 5, 6 or 7 was not selected for implementation.

IND-3c: You are aware that, to a man, the farmers want you to repair the existing levee to the 25-year level and give the farmers each a flood easement. As you have no current funding for this project, we believe Congressman Ciro D. Rodriguez can help both parties to achieve this result.

Response: Your suggestion for potential funding will be taken into consideration for potential project implementation.

IND-3d: Irregardless, Presidio Valley Farms, Inc, would prefer either Alternative #3 or #4 to spur Alternative #5 which would cost us our livelihood and our future. Spur Alternative #7 used an existing levee owned by the State of Texas and would be much less expensive. Alternative #6 has an existing levee for much of its length and does not destroy any land currently being planted.

Response: Your recommendation is noted. As indicated in the response IND-3a, spur levee construction under Alternatives 5, 6, or 7 was not selected for implementation.

IND-3e: Whatever you do, you must do something about the bottleneck at Alamito Creek. Every farmer at every meeting has complained about it and we are right.

Response: While that section of the Rio Grande is outside USIBWC jurisdiction, it's importance in flood control improvement has been addressed in the EIS as an action to be evaluated in coordination with other federal agencies, and the MxIBWC.

UNV-1: Center for Big Bend Studies, Sul Ross State University, William A. Cloud

UNV-1a: This letter provides comments from the Center for Big Bend Studies (CBBS) of Sul Ross State University (SRSU) on the Draft Environmental Impact Statement (Draft EIS) for Flood Control Improvements and Partial Levee Relocation, USIBWC Presidio Flood Control Project, Presidio, Texas. As an archaeologist with a history of investigations within the La Junta archaeological district, my comments concern archaeological resources that might be impacted by the project.

Response: The USIBWC appreciates your comments on the Draft EIS.

UNV-1b: Although the Draft EIS is well-written and accounts for known archaeological sites in the Area of Potential Effect (APE), it is difficult to appraise the different alternatives (#1-7) in regard to sites that may have been discovered during the recent intensive survey of the proposed alternative alignments. I also found it

difficult to appraise or understand potential effects to sites 41PS86 and 41PS87 for the different alignments. Clearly, protection or mitigation (data recovery) of these sites is warranted.

Please send me a copy of the final Environmental Impact Statement.

Response: A more detailed description of the cultural resources identified in the project area, both previously known and recently discovered sites, is provided in the cultural resources technical report prepared in support of this EIS.

Site locational information is confidential/proprietary and not included in documents like an EIS which are available to the public. Archaeological resource information and location of sensitive historic resources are protected under the Archaeological Resource Protection Action (ARPA) of 1979, Section 7.18(a) and under Section 304 of the National Historic Preservation Act (NHPA), respectively."

As a courtesy, the USIBWC will provide Dr. Cloud a copy of the Cultural Resources technical report because he is a qualified archaeologist who would be able to access the report at THC. The report is currently under review at the THC, and will be available after the comments from THC are received and incorporated in the final report.

A copy of the Final EIS will be sent to your office, along with the final version of the Cultural Resources Technical Report.

RESPONSES TO ORAL COMMENTS AT THE PUBLIC HEARING

PH -1: Mr. Terry Bishop

PH-1a: I believe on here it's option – spur option or option number 5, spur 9 .2, that goes right through the middle of the family farm, one of the best and most productive farms in this area. And during your -- in your booklet there, I read you're going to take approximately 60 acres out to build this from the levee to the highway. Well, that's not just going to effect 60 acres. It's just not going to effect -- it's going to take -- because of irrigation systems that you're going to destroy and just one -- you know, just one -- every block is connected, you can't just go through the middle of the farm and take -- and do this and expect everything to be good, because it will never be right again.

Response: Thank you for attending the public hearing and for your comments on the Draft EIS. After the field work was completed at the site, a better understanding of the irrigation network was obtained. The USIBWC agrees that absolute land lost in a particular spur levee construction does not measure the potential land lost due to disrupted or removed irrigation structures. Text has been added to the agricultural economics Sections 4.4.5 and 4.5.5 of the EIS. The new text describes the direct effects of altered land practices due to the proposed spur itself, and also

estimates the approximate loss due to indirect effects of losing suitable irrigation structures.

Potential impacts on farmland were in fact a consideration by the USIBWC in selecting Alternative 2 for implementation, rather than spur levee construction under Alternatives 5, 6, and 7.

PH-1b: I also read in that thing it said, well, most of it is fallowed, it's not fallowed at least half of that is planted as we speak. And by this time next year, the entire thing is going to be planted. The immediate, and I mean immediate, affect of this thing is that six people will immediately lose their job, full-time jobs. In addition, at least six more full-time jobs that would have been created as we continue to expand that will be lost. So there's at least a dozen jobs in the community where there is high employment. That's just -- you know, that's just crazy to take a productive farm that's being used right now and put in a levee when you have these other alternatives over there that really don't affect anything.

Response: The text in the section 2.6.1 has been revised to indicate that land is in active agriculture, or has the potential for active agricultural use. Potential loss of irrigable land, and therefore, jobs, addressed in agricultural economics sections 4.4.5 and 4.5.5 for each alternative.

PH-1c: I don't have a problem with the other alternatives on the railroad spur. I don't have a problem with Alternative Number 6 or even a modified version where it goes through – originally, you-all had come to me and said that you would like to go through the middle of those resacas up there in that one levee.

Response: Potential environmental impacts were an important consideration in the selection of Alternative 2 for implementation, rather than spur levee construction under Alternatives 5, 6, and 7.

PH-1d: I had a problem with that because you're going to go through that pond which is an environmental sensitive area. I do not have a problem if you go in through the middle of that just like before, just like you did right here, just go to the west of that pond and leave it alone, you know, but to go through the middle of that farm and destroy that farm and put people out of work. It just does not make any sense especially with today's economy and I have a real problem with that. And I would hope that the government would see that and work with us on that. And other than that, I will let everybody else deal with everything else.

Response: The USIBWC has made every attempt to design the Alternatives to avoid sensitive environmental (and cultural) resources, including the pond you have identified as a possible wetlands restoration site. The pond area is not affected under Alternative 2, selected for implementation.

PH-2: Mr. Lineaus Hooper Lorette

PH-2a: So my comment -- and I have lots of comments -- but my first comment is nowhere on this list is the effect on OJ lists and I don't see how we can do anything without knowing how these alternatives -- how we -- how can we evaluate what

you're offering without knowing what effect on Ojinaga's flood problems you're going to, you know, cause by changing the levee system.

Response: Thank you for attending the public meeting and for providing comments on the Draft EIS.

Your concern has been addressed in the response to comment number IND-2b.

PH-2b: I mean, this is not fair. It's not right. These communities are connected. We -- you know, this is a flaw beyond all recognition. Why in world would you come to us, asking us to evaluate alternatives without telling us what you're going to do to OJ's flood problems? Does that make sense? Does that at all ring a bell? It doesn't.

Response: Your concern has been addressed in the response to comment number IND-2b.

PH-2c: I don't know what a wier is. What's a wier, w-i-e-r? You said there are wiers. What's a wier?

Response: The engineering term "weir" refers to a concrete structure that extends along a segment of a water retention dam to allow a controlled water flow over that structure, reducing potential for erosion and dam damage when elevated water levels reach the weir elevation.

Similarly, placement of a weir on top of a levee segment would allow controlled flow over a short concrete-covered section during flood conditions greater than the 25-year storm, protecting the remaining earthen levee from erosion. Under such conditions, flow over the concrete weir would reduce the potential for uncontrolled breaching that occurred in the downstream section of the levee in September 2008, when water levels exceeded the levee's height design for flood protection.

Text has been added to Section 2.4 and the glossary describing the function and design of a weir.

PH-2d: Okay. What effect are all of these levees having on the wier on the Mexican side of the levees? Don't you think we should know that? The border patrol has made proposals to building a great levee for us and would satisfy their problems with border security. And I don't see their input into you-all's process and I think that you should have their input into your process on what you're making -- what alternatives you're offering us. You're asking us to evaluate alternatives but you have not included the border patrol who has a major stake in anything you do.

Response: Per the response above, placement of a concrete weir along a Presidio levee segment would provide additional protection to the existing levee, but it would not improve or reduce its current flood containment capacity. Consequently, the weir would have no impact on the south flood control levee that runs along Ojinaga.

PH-3: Mr. Richard Slack

PH-3a: My name is Richard Slack. Next week I'll celebrate my 95th birthday, so you can see both physically and mentally I'm over the hill pretty bad so if you'll excuse me for trespassing on your time. My father came down here in about 1928. He

went rope ranching during the drought in Pecos and got a job in running a cotton gin and buying cotton for some people and stayed and that was a long time ago. And I can recall the times when we didn't have any levees and about five or six years, a good flood would come along and wipe out all of the crops, but the good thing about it is it would wash out the salt and leave silt and would eliminate just about the need for poison and fertilizing the crops.

Response: The USIBWC appreciates your attendance at the public hearing and the comments you have provided. Historical data do indicate that in some cases flooding may eliminate the current crop production, but may provide better soil for subsequent growing seasons.

PH-3b: Now, I gathered from the changes that have to be made so there's going to be a big change, but my idea is that when this organization here put the levee in, I don't recall any need of all of these meetings and so forth. My solution would be just to go down there and fix the levee. We have a farm down there. It's a small one about not even 100 acres is all. It's right next to the McCaul's farm and it's down -- and that's around by where the levee broke. The farm has had quite a bit of damage, but we're cutting channels in it and expenses to get it back into a farmable condition. But we'd rather have it like that than have some protection for the lower ends to change the levee and put it way up in the savanna in the lower end and protect the city or whatever they're trying to protect. And we have a farm there right next to the railroad, which I suppose would be protecting from that corner on down maybe. But I just simply there's no particular reason to go through all of this business when all you need to do is go fix the levee and that's all I have to say about the thing.

Response: The USIBWC selected Alternative 2 for implementation, and will begin repairs and construction as soon as possible to protect the city and farms in the lower reach.

PH-3c: Years ago, when they didn't have that and the flood went all over the farm, sometimes it will wash but most of the time the river would improve the soil by washing out the salt and leaving silt there it enhances -- and that's all I have to say.

Response: Noted. Thank you for your input.

PH-4: Mr. Carlos Nieto

PH-4a: I would like to call your attention -- and for the record, this is a very old forgotten isolated border community established in 1683. So that makes us, Mr. Slack is 95, this community 326 years old. And very forgotten. We're thankful to our congressman for appropriating the funds for the repairs of the levee as they exist now. We're very grateful people move fast. During the flooding, we're grateful to the responders. We're not done yet. We don't have sufficient protection in my opinion. I think we ought to continue shoring up on for a 25-year period the current levee that exists.

Response: Thank you for attending the public hearing, and for your comments on the Draft EIS. The USIBWC selected Alternative 2 for implementation, and will

begin repairs and construction as soon as possible to ensure 25-year flood protection is provided along the entire levee system.

PH-4b: I believe and I am not in favor of taking anyone's farmland, productive farmland, because we saved physical no one died from the flood, but we're all in the state, Presidio and Ojinaga of economic despair.

Response: The USIBWC is also grateful that no lives in Presidio were lost in the flooding.

PH-4c: This community has always been an agricultural community. The fact that there's tumbleweeds in our farms or -- quite frankly, a challenge that this state and this country is going through relative to the lack of support for agricultural endeavor for ranchers and farmers throughout the state and throughout the country. We don't like it anymore than you do and let me tell you there's plenty of people in this area that are ready to go to work. This farmland has produced for generations very sweet cantaloupe, sweet onions. It can be put back into production so I would say let's try to save the farmland and let's be mindful of the flooding for the immediate community of Presidio.

Response: The USIBWC has reassessed the agricultural economics and added text to Sections 4.4.5 and 4.5.5 to describe the impact of the proposed spur levees and agricultural practices on local workers.

PH-4d: And I think that can be accomplished and I would opt for that option with the railroad spur. Currently, what, the railroad spur is four to five feet below what the level of the levee is. I think that the state owns that. We the taxpayers own that. I think as the governor and the state have intentions of restoring that railway which is very vital to the economic success of this community. We can partner with them to raise that levee and that would add protection and with the boundaries help, we can shore that levee and that would add protection to the immediate community of Presidio, that would protect us from the southside.

Response: The Texas Department of Transportation which operates the railroad under contract with TXPF has proposed restoring the railway. However, the railroad spur levee evaluated under Alternative 7 would be mostly adjacent to the track, and only utilize part of the existing rail levee. Engineering considerations, as well as economic and environmental effects, were important criteria in the selection of Alternative 2 for implementation, rather than placement of an elevated spur levee as evaluated under Alternatives 5, 6, and 7.

PH-4e: That Cibolo land -- levee is -- at the time it was built, it was built probably to not less than adequate specifications. Over the years because of the lack of funding from the county and the state and federal government it hasn't been maintained. Therein lies --if you truly want the first priority to protect lives in the community, we need your help. We need you as partners to shore up that Cibolo Creek levee even if it's not within your jurisdiction we want you to slide on us that something needs to be done other than a good effort of a band-aide is about to take place in the amount of $300,000. We're thankful and mindful of that, but I don't think that's

going to be enough to shore up Cibolo Creek. And Cibolo Creek will indeed damage the entire community of Presidio and this is not something that I've seen in my lifetime, but in my dad's lifetime that is what the elders have feared the most, the ones that have been native of Presidio, so I echo that sentiment.

Response: The USIBWC will continue to repair the levees at the mouth of Cibolo creek that are part of the Presidio Flood Control Project. The upper section of the Cibolo Creek levees is not part of the project and, thus, outside USIBWC jurisdiction. The USIBWC is willing to support initiatives brought forward by USACE or another agency or organization for improvement of the upper section of the Cibolo Creek levees.

To this end, the USIBWC and USACE had a joint meeting in January 2010 to discuss the USACE managed levees along Cibolo Creek. The USACE is currently discussing appropriations to investigate the Cibolo Creek levees, and then decide the path forward to repair and rehabilitate the levees along Cibolo Creek. Text to this effect has been added to Section 2.7.4 and 4.6.4.

Repair and rehabilitation of the levees along Cibolo Creek would enhance the flood protection to the City of Presidio, if heavy rain occurred in the mountains and travelled down Cibolo Creek.

PH-4f: And I've shared that with Congressman Rodriguez and I will continue to be an advocate for anything that involves a restoration, a complete restoration, of the Cibolo Creek levee. So I support the restoration of Cibolo Creek levee.

Response: The USIBWC appreciates your past and on-going advocacy to repair and improve the Cibolo Creek levees.

PH-4g: I support the railroad spur and I support a 25-year protection of the current levee that exists with whatever mechanism that you need to let the water go out so that it doesn't destroy pecan trees or ruin farmland such as McCaul's and my dad who is in that area. We don't need flood plains. We don't need anymore swamp areas, put whatever you want but be mindful and be respectful that not only do we want to protect lives, we want to make sure in protecting lives that floods don't happen too often and when they do we're grateful that people come and help us, but it's the everyday life and the future of Presidio may very well rest.

Response: Construction of a downstream outfall gate is under consideration to facilitate draining of flooded land, and reduce the time water remains on flooded lands.

PH-4h: I'll go back to the fact that people in Presidio and south Presidio county, farmers and ranchers value what this valley has produced in the past and what it can produce in the future. So the ability to make a living off the land is something that's noble at a time when the country and the state's financial resources are weak and limited, at a time when homeland security will ever been lasting and we support our partners in uniform but let me tell you that they have their job to do in protecting us but we also have to make a living here. These farmers and ranchers aren't going to be around if we deny them access, an access to their crops, to irrigate their crops and to make a living.

Response: The USIBWC is aware of the long farming history in the Presidio valley and, consequently, alternatives under consideration would improve farmland protection from the types of damage that occurred after the September 2008 flooding.

PH-4i: And if you sum total the years that this land has been in production, sometimes it's very easy for some of you to make assessments and say, Oh, well, they're not productive. He's taking out the tumbleweed, he's planting alfalfa. But the little ones also want a part of it and they also want to participate. Is there anything wrong with -- in this state and this country where people want to work? Where all we're asking for is give us an opportunity to harvest our crops and give us an opportunity to work the land. And we're very thankful that we're even talking 100 years, way back in those days no one would be talking about 100-year protection. None of us will be around to see that, but in the meantime, the community of Presidio has got to be saved. The farmers and ranchers have got to have the right to make a living doing what they do best and let me tell you, they know how, all they need is a little helping hand, a little bit of consideration. I think we can all be partners in what's good to grade. With Presidio, Presidio County, this state and this country is let's not deny people the access to make a living. Let's help them do what they do best and produce for Texas and America and create a win-win scenario.

Response: The text in the EIS has been updated to indicate ongoing efforts to remove the tumbleweed, the presence of crops no present at the time of the site visit, and other agricultural uses of the land. The USIBWC appreciates the landowners willingness to work their lands and has addressed the concerns of how loss of irrigation on these lands may affect the local workers in the Agricultural economics Sections 4.4.5 and 4.5.5.

PH-4j: At the end of the day, again, I'm thankful for how fast the boundary, the commissioner, the congressman, how fast, in the eyes of some of our locals, might not have been fast enough but let me tell you there's one person here standing to you before today, thanking all of you for doing what you've done. Is it enough? No, not yet. But there's more to come, but as partners, we can get there. We're respectful. We're mindful, but I'm glad that you're here taking testimony because I hate for anything to ever be imposed in this community. It is so old, so forgotten and you see farmland full of tumbleweeds. As a business person downtown, and I'm sure Mr. Slack as a banker, can see the numbers. After that flood, it will take many years for us to recover. The sad story is we're in a depressed situation, the community of Presidio don't deny it. And too little came too late.

Response: The USIBWC appreciates the willingness of local landowners to work together to provide solutions for improving flood control in the Presidio valley.

PH-4k: Much paperwork was filled out by FEMA but none of our farmers and ranchers have seen anything. We got our hopes up but the few that are trying to work their property are doing it at their own expense. Is it fair and right? No.

Response: Unfortunately, the USIBWC is not involved in the FEMA claims process, nor is consulted on actions needed to address flood damages.

PH-4l: One thing I would want to leave my comments with one comment that was made by a high ranking officials from the Texas Force Service as they were here with the command center and trying to save lives, number 1. Property, number two, and they've been allover -- not just the state of Texas, they've been at Katrina and elsewhere throughout the country. They made an interesting assessment. … but what they saw is 60- to 90-year-old grandmothers, kids, coaches, moms, dads, uncles filling sandbags, the concept of self-help. They were all filling sandbags trying to save their town and save their community and that's something that you don't see, or they hadn't seen. Well, I close with that comment.

Response: The USIBWC understands and appreciated the willingness of local residents to team with the USIBWC, the Texas Forest Service, and other agencies to prevent more extensive damage to Presidio, or the loss of life, during the September 2008 flooding.

PH-5: Mr. David Crum, Trans Pecos Water Trust

PH-5a: And I would like to speak in support of the four speakers that have spoken before me. I agree completely with everything they say. Mr. Bishop, Mr. Nieto and Mr. Slack and, I'm sorry, I didn't catch your name, but they very eloquently said that that farmland that some of those alternatives would carve out, would be a disaster.

Response: Thank you for attending the public hearing and for your comments on the Draft EIS.

The USIBWC is required to evaluate feasible alternatives under NEPA. Text has been added to the EIS in the agricultural economics sections 4.4.5 and 4.5.5 to more accurately describe how the potential loss of agricultural land might directly and indirectly affect local landowners and local workers.

PH-5b: You're talking about a 100-year flood, raising the levees for a 100-year flood. A 100 years from now that farmland might be needed to grow food for the people in this valley so let's don't get rid of it, let's save it, let's protect it.

Response: Under Alternatives 2 and 3 as evaluated in the EIS, none, or very small amounts of total farmland would be lost from active agricultural production.

PH-5c: And I would like clarification on the idea of it -- if we can't talk about flood easements because the IBWC does not have the legal right or authority to purchase flood easements, how can you purchase that land that you're going to take from Mr. Bishop and these others because those spur levees are going to go across? You're going to have to condemn them I guess? Are you going to pay them for that land? I'm not sure if you can legally do that.

Response: As you point out, the USIBWC does not have the authority to condemn or purchase lands. However, other options may be available for easement acquisition by other federal agencies, regional authorities, and even private organizations as indicated in comment ORG-3d by the Environmental Defense Fund.

PH-5d: I'd very much like flood easements to be considered, that would be a way that puts the money in the pocket of the farmers to help jump start their operations a little bit and it would be a good thing to preserve that farmland. It's a fine amount here in this valley. We don't need to waste it.

Response: Per response 5c above, easement acquisition may be feasible for other federal agencies, regional authorities, or private organizations. Flood easements have now been incorporated as a component of Alternatives 5, 6 and 7, spur levee construction.

PH-6: Ms. Barbara Baskin

PH-6a: But Redford has been a farming community as long as Presidio has. We have a national register archeological site right there on the river. No one except Judge Agan, Ciro Rodriguez in a year and three months has still not driven down to Redford to see -- you can drive by our fields and look out right now with all of the tumbleweeds and all. It looks level, but you drive out there and there are canyons. I mean, we're talking 30-feet deep, 75-feet across, going through our fields. Our levee is completely gone in the areas. We were just ready because of the water trust to feel like we could really start working our fields again, more people despite the pigs and all of the things that have stopped us from being able to grow things like cantaloupe and all. There are many other problems down here. We wouldn't just be growing feed, hay, alfalfa, if we could grow other things and had the labor force to help us -- like grapes, cause labor. We've tried everything. But I would like to say that I still can't believe that IBWC regulates on both the Mexican side and the u.s. side and allowed a release like this without some form of restitution for the damage that's done by Mexico.

Response: Thank you for attending the public hearing, and thank you for providing comments on the Draft EIS.

The Redford levees are, unfortunately, outside the Presidio Flood Control Project and USIBWC jurisdiction. This is an important issue that is addressed in section 4.6 of the EIS as a potential cumulative effect of the project under consideration

The water release from the Luis Leon dam in Mexico was primarily to prevent dam failure along the Rio Conchos. If the dam had failed, the damage to Ojinaga, Presidio, and Redford certainly would have been more extensive. The city of Ojinaga also experienced levee breaches along the Rio Conchos and extensive flooding. The flooding that occurred in September 2008 negatively affected communities on both sides of the border.

PH-6b: I realize that you-all were now starting to talk to them about conservation levels which are required in the U.S. but still, now, Mexico has comes in the communities across from us and they now have rubble, or whatever you-all want to call it, but they do have rock burns and semi levees, more protection on the Mexican side now than we have.

Response: The MxIBWC has initiated levee repairs more rapidly because the Mexico environmental regulations allow that type of rapid response.

PH-6c: So any flood now -- all of our breaks are still -- I just walk down -- I lost at least two acres of my land from the levee out to the river. It used to be about 100 feet out or so and then goes about a quarter mile. All of it's gone. I have a vertical drop from about half the levee is left and then there are two breaks on my property and more breaks and over-topping and, of course, where it was trying to make the bin then the churning so the Hernandez' have two huge holes in their fields on the other side of the levee. We have been written off by NRCS. We were told that we were economically irrelevant now because we only have 600-and-something acres. The water trust is trying to keep the river flowing and help get the tamaras, the salt cedar gone. NRCS who's had a big project trying to rid the river of tamaras have now left us with salt cedar coming up everywhere and they're ready to ride off our 700 acres and just whatever we can do with it.

Response: The USIBWC is aware of the importance of Redford farmland and your pressing need for levee repairs and salt cedar control. While it does not have jurisdiction in that section of the Rio Grande, the USIBWC is consulting with other federal agencies on potential improvements, including salt cedar removal.

PH-6d: I'm trying -- I have gone I've called Caterpillar. I've called every, you know, machine manufacturer. We -- a normal size bulldozer won't do anything. All we wanted was help just filling in all of the breaks in the levee so that like just last months release from Mexico, it came about halfway up. Another release or a -- not even a flood, a rise in the river will then take that water back into those farms and we have no recourse that I've been able to find. I've talked to water lawyers and all. We don't have any money for that.

Response: As indicated in response PH-6a, potential effects on Redford farmland are considered in section 4.6.

PH-6e: And like I say, you-all are now talking about raising this levee which then puts more pressure on us. You will then be making our farmland into just an overflow flood plain. We love that silt coming in from the floods but this time it was sand. We have sand dunes. It's blowing like you were at the beach when the winds come up. So I'm just here just, again, speaking to whoever will listen to say, we need you-alI's help. I realize that you-all have specific areas that you call now, you know, that now are under your auspices but you are devastating a community.

Response: The flood control project, unfortunately, does not have the capability to control sediment reaching the Rio Grande in Presidio, which is generated almost entirely in upstream sections of the river and tributary basins.

PH-6f: You mention that residents here would have to get flood insurance from FEMA, I already called on it. It took them three weeks to figure it out. They called me back. I could pay a premium of $5,442 a year to have flood insurance on my house after I had been told that it would be a $119 dollars a year if I qualified . The hurricane hit right after we were hit in Galveston and they're helping people rebuild on beaches that are just going to -- we know that's going to get wiped out.

Response: The estimated flood insurance rates presented in the EIS were provided to determine the additional effect the project might have on the income of local residents. The flood insurance rates quoted in your statement is more prohibitive than the estimates presented in the EIS. The flood insurance rates presented in the EIS have been revised in section 4.2.5 to include that type of rates.

PH-7: Mr. Brad Newton, City of Presidio City Administrator

PH-7a: One of my biggest concern, of course, is the protection of Presidio first and foremost and I think that there's a lot of commonsense things that could be done to improve the situation here. One of the things that I had the pleasure with working with Mr. Slack on the Red Bluff Power Water Control District over in Pecos. I was the Texas commissioner for the Pecos River and we did the salt cedar irratification program and I'm very proud to say it worked very well didn't it?

Response: Thank you for attending the public hearing and for your comments on the Draft EIS.

One mandate of the USIBWC is to provide flood protection and, consequently, the Alternatives were designed to improve flood protection for human safety and protection of land.

As noted above, there are ongoing initiatives for salt cedar eradication.

PH-7b: It was very successful. Of course, you know salt cedars do kind of create a natural plug primarily as I understand down around Alamedo Creek which tends to back up. I understand that's outside of the range of this project, however it's something that really ought to be looked at because, you know, if you've got a bottleneck, the best thing to do -- and as we all know, salt cedars are a nonnative species that have really put a big dent in our environment here and by getting rid of the salt cedars not only would you alleviate that bottleneck, but you would also probably put more water in the river in the dry times of the year, each one of those salt cedars use anywhere from 75- to 200-gallons of water. And with that being said, there's a possibility of being able to work with the ag department and everything, maybe get it back to where some of these land that they've written off, you know, it's easy to say, well, it's not my land, so what do I care.

Response: The salt cedar bottleneck is outside the USIBWC jurisdiction. However, the USIBWC and the MxIBWC have been in conversation about actions needed to jointly remove the salt cedar plug at Alamito Creek. Cooperative agreements with other agencies may facilitate getting the plug removed. The U.S. Fish and Wildlife Service, for example, has expressed an interest in plans for salt cedar plug removal (see comment AG-4b from the U.S. Department of the Interior).

It is anticipated, as you indicate, that salt cedar removal programs will likely benefit farmers along the Rio Grande by reducing the salt cedar's high water consumption.

PH-7c: But, yes, Redford has a huge problem there. The other thing that really impacted the city of Presidio, in my opinion, was because of the flood downstream starting at

Redford and so, it really took out a lot of FM 170, which is a huge tourist drought and a lifeline for tourism from people that want to see the Big Bend Ranch and take that beautiful drive, which National Geographic calls it's the most scenic highway in Texas. And it pretty well destroyed it for, what, nine months before they got it back open.

Response: Added protection to FM 170 is one of the benefits expected from implementing flood control actions under consideration by the USIBWC.

PH-7d: … whenever we get these large slugs of water coming out of Mexico all at once and, you know, I'm not here with all of the answers, all I can say is I can identify the problems but the city of Presidio is willing to work with any government agency that the over-all protection of our city, whether it's in the city or outside of the city, is willing to work with you-all in anyway we can.

Response: The USIBWC appreciates the willingness of the City of Presidio to work with local landowners, federal and state agencies to provide better flood protection to the city.

APPENDIX C
LIST OF RECIPIENTS OF THE DRAFT EIS

The following persons were sent a hard copy of the *Draft Environmental Impact Statement, Flood Control Improvements and partial Levee Relocation, USIBWC Presidio Flood Control Project, Presidio, Texas, November 2009.* The list is divided into agencies and public entities that received a copy of the Draft EIS, private parties who received a copy of the Draft EIS, and other interested parties who received a notice that the Draft EIS was available. The addresses of all private parties are not included here, for privacy protection.

EIS RECIPIENTS:

Environmental Defense Fund	Ms. Karen Chapman 223 North Union Street Delaware, OH 43015	
Natural Resources Conservation Service	Mr. James M. Greenwade Soil Scientist Natural Resources Conservation Service Soil Survey Section, USDA/NRCS 101 South Main Temple, TX 76501	
Presidio, City	Mr. Brad Newton, City Administrator City of Presidio P.O. Box 1899 Presidio, TX 79845	
Presidio, County	Judge Jerry Agan P.O. Box 606 Marfa, TX 79843	
Rio Grande Institute	Mr. Tyrus Fain Rio Grande Institute PO Box 183 Marathon, TX 79842-0183 Ms. Emily Mahoney Rio Grande Institute PO Box 1611 Marfa, TX 79843	Ms. Jeanne Sinclair Rio Grande Institute PO Box 12 Marfa, TX 79843
Sierra Club	Ms. Fran Sage Sierra Club-Big Bend Regional Group Box 564 Alpine, TX 79831	Mr. Cyrus Reed Lone Star Chapter of Sierra Club 1202 San Antonio Austin, TX 78701

Texas Commission on Environmental Quality	Mr. Erasmo Yarrito, Jr. TCEQ Rio Grande Watermaster 1804 W. Jefferson Harlingen, TX 78550 Mr. Jose G. Luna TCEQ P.O. Box 1185 Eagle Pass, TX, 78852 Mr. David Galindo MC 150 TCEQ 12100 Park 35 Circle Austin, TX 78753 Mr. David Will TCEQ – El Paso Region 410 E. Franklin, Suite 560 El Paso, TX 79901	Mr. Jose A. Davila TCEQ Rio Grande Watermaster P.O. Box 1185 Eagle Pass, TX 78852 Ms. Gina Posada TCEQ – Border Affairs 401 E. Franklin, Suite 560 El Paso, TX 79901 Mr. Terry McMillan TCEQ – Border Affairs 401 E. Franklin, Suite 560 El Paso, TX 79901 Ms. Ida Munoz TCEQ – Border Affairs 401 E. Franklin, Suite 560 El Paso, TX 79901
Texas Department of Transportation	Mr. Tommy Mangrem Texas Department of Transportation 2400 N. Hwy 118 Alpine, TX 79830 Mr. Joe Zubiate Texas Department of Transportation P.O. Box 2048 Presidio, TX 79845	Mr. Gil Wilson Rail Specialist Texas Department of Transportation 118 E. Riverside Drive Austin, TX 78704-1205 Mr. Benjamin D. Benavidez Texas Department of Transportation P.O. Box 2048 Presidio, TX 79845
Texas Historical Commission	Texas Historical Commission Architecture Division 1511 Colorado Austin, TX 78701	Ms. Debra Beene Texas Historical Commission Archaeology Division 1511 Colorado Austin, TX 78701
Texas Parks and Wildlife Department	Ms. Linda Hedges Texas Parks and Wildlife Department PO Box 1079 Ft. Davis, TX 79734	Ms. Kathy Boydston, Director Wildlife Habitat Assessment Program Texas Parks and Wildlife Department 4200 Smith School Road Austin, TX 78744
Texas Water Development Board	Mr. J. Kevin Ward Texas Water Development Board P.O. Box 13231 Austin, TX 78711-3231	
Trans Pecos Water Trust	Mr. David Crum Trans Pecos Water Trust P.O. Box 314 601 N. State Street Fort Davis, TX 79734	

Tribes	The Honorable Wallace Coffey, Chairman Attn: Ms. Ruth Toahty Comanche Nation 584 NW Bingo Road Lawton, OK 73502 The Honorable Billy Evans Horse, Chairman Attn: Dewey Tsonetokoy Sr. Kiowa Indian Tribe of Oklahoma Kiowa Way Hwy 9 West Carnegie, OK 73015-0369 The Honorable Carleton Naiche-Palmer, President Attn: Ms. Holly Houghten Cultural Affairs Office Mescalero Apache Tribe 101 Central Avenue Mescalero, NM 88340	The Honorable Ronnie Lupe, Chairman Attn: Mr. Mark Altaha, THPO White Mountain Apache Tribe 202 East Walnut Street Whiteriver, AZ 85941 The Honorable Frank Paiz, Governor Attn: Evaristo Cruz, Environmental Management Director Ysleta del Sur Pueblo 119 South Old Pueblo Road El Paso, TX 79907-6644 The Honorable Juan Garza, Jr. Chairman Kickapoo Traditional Tribe of Texas Highway Contract Route 1, Box 9700 Eagle Pass, TX 78852
U.S. Army Corps of Engineers	Ms. Kelly E. Allen Project Manager Regulatory Division, Albuquerque District U.S. Army Corps of Engineers 4101 Jefferson Plaza NE Albuquerque, NM 87109	
U.S. Bureau of Reclamation	Mr. Mark Treviño, Area Manager Bureau of Reclamation Oklahoma-Texas Area Office 5316 Hwy 290 West, Suite 510 Austin TX 78735-8931	
U.S. Department of Agriculture	USDA – Presidio Service Center PO Box 26 Presidio, TX 79845 USDA Natural Resources Conservation Service Marfa Service Center 106 E. El Paso St. P.O. Box 185 Marfa, TX 79842	USDA – Alpine Service Center 1805 STATE HWY. 118 NORTH ALPINE, TX 79830

U.S. Department of Interior	Mr. Vijai N. Rai, Ph.D. Team Leader Natural Resources Management Team Office of Environmental Policy and Compliance Office of the Secretary U.S. Department of the Interior MS-2342-MIB 1849 C Street, Washington DC, NW 20240	
U.S. Environmental Protection Agency	Ms. Sondra McDonald Project Officer, EPA Region 6 State/Tribal Programs Section (6WQ-AT) 1445 Ross Ave., Ste. 1200 Dallas, TX 75202-2733 Mr. Michael Jansky Office of Planning and Coordination Compliance Assurance and Enforcement Division Region 6, EPA Fountain Place, 12th Floor, Suite 1200 1445 Ross Avenue Dallas, Texas 75202	Mr. Carlos Rincon Environmental Protection Agency 4050 Rio Bravo, Suite 100 El Paso, TX 79902 Mr. John Forrest Watershed Management Section Environmental Protection Agency MC-6WQ-EW 1445 Ross Ave., Suite 1200 Dallas, TX 75202 United States Environmental Protection Agency Office of Federal Activities EIS Filing Section Mail Code 2252-A, Room 7241 Ariel Rios Building (South Oval Lobby) 1200 Pennsylvania Avenue NW Washington, D.C. 20004
U.S. Fish and Wildlife Service	Ms. Aimee Roberson U.S. Fish and Wildlife 500 West Ave. H, Suite 104F, Box 3 Alpine, TX 79830	Mr. Nathan Allan / Mr. David Frederick U.S. Fish and Wildlife Service Austin Ecological Services Field Office 10711 Burnet Rd., Suite 200 Austin, Texas 78758

University	Presidio County Extension Office PO Box 581 Marfa, TX 79843-0581 Ms. Barbara Richardson Sul Ross Skyline PO Box C-112 Alpine, TX 79832-9999 Dr. Louis A. Harveson, Director Borderlands Research Institute for Natural Resource Management P.O. Box C-16 Sul Ross State University Alpine, TX 79832 Center for Big Bend Studies Sul Ross State University Attn: William A. Cloud Box C-71 Alpine, TX 79832	Rio Grande Research Center Sul Ross State University Rawles Williams Research Facilitator P.O. Box C-114 Alpine, Texas 79832 Rio Grande Research Center Sul Ross State University Kevin Urbanczyk Project Director P.O. Box C-114 Alpine, Texas 79832 Professor Paul Friesema Environmental Policy and Culture Program 304 Scott HallNorthwestern University Evanston, IL 60208-1006
World Wildlife Fund	Mr. Mark Briggs Acting Director, Las Cruces Office Chihuahuan Desert Program World Wildlife Fund 4969 N. Camino Antonio Tucson, AZ 85718	
Private Parties	Mr. Laurencio Brito Mr. Geral McCall Mr. Terry Bishop	Mr. Daniel Estrada Mr. Ramon Olivas Ms. Velia E. Urias

NOTIFICATION RECIPIENTS (the following persons received a letter indicating that the Draft EIS was available for review).

Brewster County	The Honorable Val Clark Beard Brewster County PO Box 1630 Alpine, TX 79831	The Honorable Ruben Ortega Brewster County PO Box 1630 Alpine, TX 79831
	The Honorable Kathy Kellinsworth Brewster County PO Box 1630 Alpine, TX 79831	The Honorable Matilde Pallanez Brewster County PO Box 1630 Alpine, TX 79831
	Manager Brewster County Groundwater District PO Box 465 Alpine, TX 79831	The Honorable Asa Stone Brewster County PO Box 1630 Alpine, TX 79831
Development Corporation of Presidio	Ms. Cynthia Clarke P.O. Box 190 Presidio, TX 79845	
DSHS	Ms. Dora Lopez DSHS PO Box 909 Presidio, TX 79845	
Federal Emergency Management Agency	Texas Division of Emergency Management 5805 N. Lamar PO BOX 4087 Austin, Texas 78773-0220	Gary Jones, Deputy Regional Director Federal Emergency Management Agency FRC 800 North Loop 288 Denton, TX 76209-3698
Media	Editor Big Bend Sentinel PO Box P Marfa, TX 79843-0459	Mr. Ray Hendryx KALP FM/KVLF FM P.O. Box 9650 Alpine, Texas 79831
	Editor Alpine Avalanche PO Box 719 118 N. Fifth Alpine, TX 79831	International Paper International Presidio Paper PO Box 1898 Presidio, TX 79845-1245

Presidio County	County Administrator Presidio County PO Box M Marfa, TX 79843 The Honorable Jerry Agan Presidio County Commissioners Court PO Box 606 Marfa, TX 79843 The Honorable Carlos Armendariz Presidio County Commissoner PO Box 475 Marfa, TX 79843 The Honorable Eloy Aranda Presidio County PO Box 1648 Marfa, TX 79843 The Honorable Felipe Cordero Presidio County PO Box 728 Marfa, TX 79843 The Honorable Danny Dominguez Presidio County Sheriff's Office PO Drawer V Marfa, TX 79843	Mr. Carlos Nieto Presidio Co. H. Svcs. Inc. PO Box 1929 Presidio, TX 79845 Mr. Rod Ponton Presidio County PO Box 606 Marfa, TX 79843 The Honorable Danny Watts Presidio County PO Box 691 Marfa, TX 79843 Mr. John Folwks Presidio County Attorney PO Box 606 Marfa, TX 79843
Presidio County Water Improvement District	Ms. Barbara Baskin President Presidio County Water Improvement District #1 P.O. Box 112 Redford, TX 79846	Mr. Hector Morales Presidio County Water Improvement District #1 Secretary/Treasurer P.O. Box 136 Redford, TX 79846
Presidio ISD	Dr. Sharon Morrow Presidio Independent School District P.O. Box S Presidio, TX 79845 Ms. Patt Sims Presidio High School HC67 Box 102 Shafter, TX 79845	Mr. Dennis McEntire Presidio ISD 100 Market Presidio, TX 79845 Mr. Carlos E. Nieto, MPH Presidio ISD P.O. Box 1929 Presidio TX 79845

Presidio, City	The Honorable Butch Acosta City of Presidio - City Council P.O. Box 518 Presidio, TX 79845 The Honorable Francis Hernandez City of Presidio - City Council P.O. Box 571 Presidio, TX 79845 The Honorable Lorenzo Hernandez City of Presidio Mayor P.O. Box 892 Presidio, TX 79845 The Honorable Jaime Ramirez City of Presidio - City Council P.O. Box 1125 Presidio, TX 79845	Ms. Elizabeth Bustamante City of Presidio City Secretary P.O. Box 1899 Presidio, TX 79845 Mr. John Ferguson P.O. Box 725 Presidio, TX 79845 Mr. Alcee Tavarez P.O. Box 2345 Presidio, TX 79845 Mr. Saul Pardo Presidio City EMS Administrator P.O. Box 357 Presidio, TX 79845 Mr. Marco Baeza Presidio Chief of Police P.O. Box 1899 Presidio, TX 79845
Rio Grande Council of Governments	Ms. Barbara Kauffman, Interim Executive Director Rio Grande Council of Governments 1100 N. Stanton, Suite 610 El Paso, Texas 79902	The Honorable Manuel Molinar, Chairman County Judge, Culberson County P.O. Box 927 Van Horn, Texas 79855
Texas Department of State Health	Ms. Rebecca Wainright Texas Department of State Health PO Box 909 Presidio, TX 79845	
Texas House of Representatives	The Honorable Pete P. Gallego Texas House of Representatives P.O. Box 777 Alpine, TX 79831	
U.S. Border Patrol	Mr. Ben DeLuca USBP- U.S. Border Patrol PO Box I Marfa, TX 79843 Agent Simon Garza Border Patrol-Marfa PO Box I Marfa, TX 79843	Agent Chase Snodgrass U.S. Border Patrol-Presidio P.O. Box 929 Presidio, TX 79845 Agent Gerardo Gonzalez U.S. Border Patrol – Presidio P.O. Box I Marfa, TX 79843

U.S. Customs	Mr. John Prewitt U.S. Customs-Presidio P.O. Box 1959 Presidio, TX 79845	
U.S. House of Representatives	The Honorable Ciro Rodriguez United States House of Representatives 2351 Rayburn House Office Building Washington, D.C. 20515-4323	
West Texas Utilities	Manager West Texas Utilities P.O. Box 1958 Presidio, TX 79845	
Private Parties	Ms. Rocio Gaytan Ms. Sharon Hernandez Mr. Jorge Mesa Mr. Jose Ruiz	Mr. Jesus Muñiz Mr. Rod Ponton Mr. Jacob Ramirez Ms. Angelica Rivero

The following parties were identified by the USIBWC as interested parties, and these persons received a letter indicating that the Draft EIS was available for review.

Mr. Fernando Albornoz National Wildlife Federation 44 East Ave, Suite 200 Austin, TX 78701	The Honorable Hope Andrade Office of the Secretary of State P. O. Box 12887 Austin, TX 78711-2887
The Honorable Greg Abbott Texas Attorney General PO Box 12548 Austin, TX 78711-2548	Ms. Andrea Alpine USGS - Western Region MS 150, 345 Middlefield Road Menlo Park, CA 94025
Ms. Bethany Ansell Texas Commission on Environmental Quality P. O. Box 13087,MC-234 Austin, TX 78711-3087	S. Armendariz PO Box 1167 Presidio, TX 79845
Mr. Jim Bateman Texas Commission on Environmental Quality MC 100, PO Box 13087 Austin, TX 78711-3087	Ms. Patricia Borrego Geography, Geol, Planning SWMU 2606 N Kansas El Paso, TX 79902
Ms. Billie Brauch Big Bend National Park P. O. Box 129 Big Bend National, TX 79834	Ms. Mary Bomar National Park Service U. S. Department of the Interior 1849 C Street NW Washington, DC 20240
Mr. Tom Casadevall USGS Central Region Denver Federal Center, Bldg. 810, MS-150 Denver, CO 80225	The Honorable John Cornyn U.S. Senate 600 Navarro, Suite 210 San Antonio, TX 78205
The Honorable John Cornyn U.S. Senate 517 Hart Senate Office Building Washington, DC 20510-4305	Mr. Christopher Daniels National Weather Service – Midland 2500 Challenger Road Midland, TX 79706-2606
The Honorable David Dewhurst Texas State Senate PO Box 12068 Austin, TX 78711-2068	Mr. Steve Drillette National Weather Service-Midland 2500 Challenger Dr. Midland, TX 79706

Mr. Raymond Fagen National Weather Service – Midland 2500 Challenger Road Midland, TX 79706-2606	The Honorable Oved Escontrias City of Presidio - City Council P.O. Box 1899 Presidio, TX 79845
The Honorable John Ferguson City of Presidio P. O. Box 1899 Presidio, TX 79845	Ms. Elizabeth Ferguson TRIP PO Box 13231 Austin, TX 78711-3231
The Honorable Buddy Garcia Texas Commission on Environmental Quality MC 100, PO Box 13087 Austin, TX 78711-3087	Mr. Richard Garcia Tx Commission of Environmental Quality-Region 13 14250 Judson Rd. San Antonio, TX 78233-4480
Mr. Steve Harris Rio Grande Restoration P. O. Box 1612 El Prado, NM 87529	Mr. William Gray P.B Water Barton Oaks Plaza Two, 901 MoPac Expy. South, Suite 595 Austin, TX 78746-5748
Mr. Memo Hoyer City of Presidio P. O. Box 1899 Presidio, TX 79845	Ms. Dorlene Hicks USDA PO Box 6567 Fort Worth, TX 76115
Mr. Rafael Guerrero U.S. Department of Agriculture/NRCS 501 W. Felix St. Bldng 23 PO Box 6567 Ft. Worth, TX 76115	The Honorable Kay Bailey Hutchison U.S. Senate 284 Russell Senate Office Building Washington, DC 20510-4304
The Honorable Kay Bailey Hutchison U.S. Senate 3133 General Hudnell Drive, Suite 120 San Antonio, TX 78226	The Honorable Lorenzo Hernandez City of Presidio P.O. Box 1899 Presidio, TX 79845

Mr. Michael Kovaks City of Presidio P.O. Box 1899 Presidio, TX 79845	Mr. Rex Isom Texas State Soil and Water Conservation Board PO Box 658 Temple, TX 76503
Ms. Elizabeth Jones Texas Railroad Commisson P.O. Box 12967 Austin, TX 78711	Ms. Susan Lieberman U.S. Interior Department 1849 C St NW Mail Stop 4426 Washington, DC 20240
Manager Texas Alliance of Groundwater Dis PO Box 795 Dumas, TX 79029	Mr. John Lipe National Weather Service – Lubbock 2579 S. Loop 289, Suite 100 Lubbock, TX 79423-1400
Manager TCEQ - Texas Clean Rivers Program MC 100, PO Box 13087 Austin, TX 87811-3087	Dr. Ari Michelsen Texas A & M University 1380 A & M Circle El Paso, TX 79927-5020
Ms. Jennifer Montoya U.S. Bureau of Land Management 1800 Marquess Street Las Cruces, NM 88005	Colonel John Minahan U.S. Army Corps of Engineers PO Box 17300/819 Taylor St Fort Worth, TX 76102-0300
Mr. Howard Ness National Park Service - Southwest Region PO Box 728 Santa Fe, NM 87501	Dr. Sharon Morrow Presidio Independent School District P.O. Box S Presidio, TX 79845
Mr. Alvaro Peña Director de Proteccion Civil Edificio Presidencia Municipal Ojinaga, Chihuahua 32881	Mr. Stephen Niemeyer Texas Commison on Environmental Quality MC 121, PO Box 13087 Austin, TX 78711-3087
The Honorable Jerry Patterson Texas General Land Office P. O. Box 12873 Austin, TX 78711-2873	President Southwestern Whitewater Club P.O. Box 120055 San Antonio, TX 78212

The Honorable Ciro Rodriguez U.S. House of Representatives 103 West Callaghan Street Fort Stockton, TX 79735	Mr. Robert Potts Nature Conservancy-Texas Field Office P.O. Box 1440 San Antonio, TX 78295-1440
The Honorable Ciro Rodriguez U.S. House of Representatives 208 East Losoya Street Del Rio, TX 78840	Mr. Michael Ross World Wildlife Fund 1250 24th Street NW Washington, DC 20037
The Honorable Ciro Rodriguez U.S. House of Representatives 100 South Monroe Street Eagle Pass, TX 78852	The Honorable Ciro Rodriguez U.S. House of Representatives 1313 S. W. Military Drive, Suite 101 San Antonio, TX 78214
Mr. Mike Ryan Bureau of Reclamation PO Box 36900 Billings, MT 59107-6900	Mr. Carlos Rubinstein Texas Commission on Environmental Quality MC 100, PO Box 13087 Austin, TX 78711-3087
Mr. Andrew Sansom River Systems Institute Texas State University, Clevenger House, 601 University Drive San Marcos, TX 78666	The Honorable Brian Shaw Texas Commission on Environmental Quality MC 100, PO Box 13087 Austin, TX 78711-3087
The Honorable Mark Vickery Texas Commission on Environmental Quality MC 100, PO Box 13087 Austin, TX 78711-3087	The Honorable Todd Staples Texas Agriculture Department PO Box 12847 Austin, TX 78711-2847
The Honorable Carlos Uresti Texas Senate 2530 SW Military Dr. Ste 103 San Antonio, TX 78224	Ms. Kathryn Washburn Interior Dept. International Affairs 1849 C Street NW MS 4426 Washington, DC 20240
Mr. Michael Williams Texas Railroad Commission PO Box 12967 Austin, TX 78711	Dr. Susan Watts Texas Tech University Health Sciences Center 4800 Alberta Ave. El Paso, TX 79905

Mr. Aaron Wendt Texas State soil and Water Conservation Board P. O. Box 658 Temple, TX 76503	Mr. Kevin Bixby Southwest Environmental Center 275 North Downtown Mall Las Cruces, NM 88001

APPENDIX D
NOTICE OF AVAILABILITY OF DRAFT EIS

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. CP10–19–000]

Great Lakes Gas Transmission Limited Partnership; Notice of Request Under Blanket Authorization

November 19, 2009.

Take notice that on November 13, 2009, Great Lakes Gas Transmission Limited Partnership (Great Lakes), 717 Texas Street, Houston, Texas 77002, filed in Docket No. CP10–19–000, a prior notice request pursuant to sections 157.205 and 157.216 of the Federal Energy Regulatory Commission's regulations under the Natural Gas Act for authorization to abandon a compressor unit, located in Charlevoix County, Michigan, all as more fully set forth in the application, which is on file with the Commission and open to public inspection. The filing may also be viewed on the Web at *http://www.ferc.gov* using the ''eLibrary'' link. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, contact FERC at *FERCOnlineSupport@ferc.gov* or call toll-free, (866) 208–3676 or TTY, (202) 502–8659.

Specifically, Great Lakes proposes to abandon a 4,000 horsepower compressor unit, Unit 1103, located on Great Lakes' system at the Boyne Falls Compressor Station. Great Lakes states that continued use of this compressor unit is unnecessary due to a rearrangement of station facilities whereby the remaining compressor units now operate in parallel instead of in a series. Great Lakes declares that this rearrangement was made to eliminate piping vibrations, component failures, and other operating concerns. Great Lakes avers that there is no significant impact on throughput from the proposed abandonment of Unit 1103 due in part because the other compressor units at the station have upgraded aerodynamic assemblies to accommodate parallel operation of the compressor units. Great Lakes asserts that no service to existing customers will be terminated or otherwise adversely impacted as a result of the proposed abandonment. Great Lakes proposes to maintain Unit 1103 in a salable condition for eventual resale.

Any questions regarding the application should be directed to M. Catharine Davis, Associate General Counsel, Great Lakes Gas Transmission Limited Partnership, Texas Street, Houston, Texas 77002–2761, telephone (832) 320–5509, or fax (832) 320–6509.

Any person may, within 60 days after the issuance of the instant notice by the Commission, file pursuant to Rule 214 of the Commission's Procedural Rules (18 CFR 385.214) a motion to intervene or notice of intervention. Any person filing to intervene or the Commission's staff may, pursuant to section 157.205 of the Commission's Regulations under the Natural Gas Act (NGA) (18 CFR 157.205) file a protest to the request. If no protest is filed within the time allowed therefore, the proposed activity shall be deemed to be authorized effective the day after the time allowed for protest. If a protest is filed and not withdrawn within 30 days after the time allowed for filing a protest, the instant request shall be treated as an application for authorization pursuant to section 7 of the NGA.

The Commission strongly encourages electronic filings of comments, protests, and interventions via the Internet in lieu of paper. See 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site (*http://www.ferc.gov*) under the ''e-Filing'' link.

Kimberly D. Bose,

Secretary.

[FR Doc. E9–28339 Filed 11–25–09; 8:45 am]

BILLING CODE P

ENVIRONMENTAL PROTECTION AGENCY

[ER–FRL–8985–9]

Environmental Impacts Statements; Notice of Availability

Responsible Agency: Office of Federal Activities, General Information (202) 564–1399 or *http://www.epa.gov/compliance/nepa/*.

Weekly receipt of Environmental Impact Statements

Filed 11/16/2009 through 11/20/2009

Pursuant to 40 CFR 1506.9.

EIS No. 20090398, Final EIS, BPA, WA, Chief Joseph Hatchery Program, Construction, Operation and Maintenance of a Chinook Salmon Hatchery Production Program, Confederated Tribes of the Colville Reservation (Colville Tribes), Okanogan River and Columbia River, Okanogan County, WA, Wait Period Ends: 12/28/2009, Contact: Mickey Carter 503–230–5885.

EIS No. 20090399, Final EIS, NPS, 00, PROGRAMMATIC—Servicewide Benefits Sharing Project, To Clarify the Rights and Responsibilities of Researchers and National Park Service (NPS) Management in Connection with the Use of Valuable Discoveries, Inventions, and Other Developments, across the United States, Wait Period Ends: 12/28/2009, Contact: Susan M. Mills 307–344–2515.

EIS No. 20090400, Draft EIS, AFS, WI, Twin Ghost Project, Proposes to Implement Vegetation and Transportation Management Activities, Great Divide Ranger District, Chequamegon-Nicolet National Forest, Ashland, Bayfield, Sawyer Counties, WI, Comment Period Ends: 01/11/2010, Contact: Debra Proctor 715–634–4821.

EIS No. 20090401, Final EIS, IBR, CA, Delta-Mendota Canal/California Aqueduct Intertie Project, Construction and Operation of a Pumping Plant and Pipeline Connection, San Luis Delta-Mendota Water Authority Project, Central Valley Project, Alameda and San Joaquin Counties, CA, Wait Period Ends: 12/28/2009, Contact: Erika Kegel 916–978–5081.

EIS No. 20090402, Draft EIS, NRC, MN, Generic—License Renewal of Nuclear Plants for the Prairie Island Nuclear Generating Plant, Units 1 and 2, Supplement 39, NUREG–1437, Implementation, City of Red Wing, Dakota County, MN, Comment Period Ends: 01/29/2010, Contact: Elaine M. Keegan 301–415–8517.

EIS No. 20090403, Draft EIS, IBWC, TX, Presidio Flood Control Project, Flood Control Improvements and Partial Levee Relocation, Presidio, TX, Comment Period Ends: 01/12/2010, Contact: Daniel Borunda 915–832–4767.

EIS No. 20090404, Final EIS, FAA, CA, ADOPTION—BART-Oakland International Airport Connector, extending South from the existing Coliseum BART Station, about 3.2 miles, to the Airport Terminal Area, Alameda County, CA, Wait Period Ends: 12/28/2009, Contact: Peter F. Ciesla 310–725–3612.

The U.S. Department of Transportation, Federal Aviation Administration has adopted the U.S. Department of Transportation, Federal Transit Administration's FEIS #20020140 filed 04/05/2002. Federal Aviation Administration was not a Cooperating Agency on the above FEIS. Under Section 1506.3(b) of the CEQ Regulations, the FEIS must be Recirculated for a 30-day Wait Period.

EIS No. 20090405, Draft EIS, AFS, SD, Norbeck Wildlife Project, Proposing to Manage Vegetation to Benefit Game Animals and Birds, Black Hills National Forest, Custer and

Pennington Counties, SD, Comment Period Ends: 01/11/2010, Contact: Kelly Honors 605–673–4853.

Amended Notices

EIS No. 20090378, Draft EIS, COE, MN, NorthMet Project, Proposes to Construct and Operate an Open Pit Mine and Processing Facility, Located in Hoyt Lakes—Babbitt Area of St. Louis County, MN, Comment Period Ends: 02/03/2010, Contact: Jon K. Ahlness 651–290–5381 Revision to FR Notice Published 11/06/2009: Correction to Comment Period from 02/02/2010 to 02/03/2010.

EIS No. 20090394, Draft EIS, USN, GU, Guam and Commonwealth of the Northern Mariana Islands (CNMI) Military Relocation, Proposed Relocating Marines from Okinawa, Visiting Aircraft Carrier Berthing, and Army Air and Missile Defense Task Force, Implementation, GU, Comment Period Ends: 02/17/2010, Contact: Kyle Fujimoto 808–472–1442. Revision to FR Notice Published 11/20/2009: Correction to Comment Period from 02/18/2010 to 02/17/2010.

Dated: November 23, 2009.

Robert W. Hargrove,

Director, NEPA Compliance Division, Office of Federal Activities.

[FR Doc. E9–28414 Filed 11–25–09; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[ER–FRL–8986–1]

Environmental Impact Statements and Regulations; Availability of EPA Comments

Availability of EPA comments prepared pursuant to the Environmental Review Process (ERP), under section 309 of the Clean Air Act and Section 102(2)(c) of the National Environmental Policy Act as amended. Requests for copies of EPA comments can be directed to the Office of Federal Activities at 202–564–7146 or *http://www.epa.gov/compliance/nepa/*.

An explanation of the ratings assigned to draft environmental impact statements (EISs) was published in FR dated July 17, 2009 (74 FR 34754).

Draft EISs

EIS No. 20090225, ERP No. D–AFS–J65543–ND, North Billings County Allotment Management Plan Revisions, Proposes to Continue to Permit Livestock Grazing on 43 Allotments, Medora Ranger District, Dakota Prairie Grasslands, Billings County, ND.

Summary: EPA expressed environmental concerns about impacts to riparian areas and water quality, and requested adding water quality monitoring to the adaptive management plan. Rating EC2.

EIS No. 20090230, ERP No. D–AFS–J65544–CO, North San Juan Sheep and Goat Allotments, Proposal to Permit Domestic Livestock Grazing Management, Conejos Peak Ranger District, Rio Grande National Forest, Conejos, Rio Grande and Archuleta Counties, CO.

Summary: EPA expressed environmental concerns about water quality, riparian stream bank, and forage impacts. Rating EC1.

EIS No. 20090277, ERP No. D–AFS–J65547–CO, Hermosa Park/Mitchell Lakes Land Exchange Project, Proposed Land Exchange between Federal and Non-Federal Lands, Implementation, Federal Land in LaPlata County and Non-Federal Land in San Juan County, CO.

Summary: EPA expressed environmental concerns about direct and indirect impacts from the development of the Chris Park Parcel. EPA also requested that the FEIS analyze the relative impacts of future development of the Hermosa Park, Mitchell Lake, and the Iron Clad parcels versus the proposed development of the Chris Park Parcel. Rating EC2.

EIS No. 20090279, ERP No. D–BLM–L65577–ID, Blackfoot Bridge Mine Project, Developing Three Mine Pits, Haul Roads, Water Management Structures, and Overburden Disposal Areas, Implementation, Caribou County, ID.

Summary: EPA expressed environmental objections to the Preferred Alternative because of potentially significant water quality impacts. Rating EO2.

EIS No. 20090287, ERP No. D–AFS–J65548–CO, Willow Creek Pass Fuel Reduction Project, Implementation, Hahns Peak/Bear Ears Ranger District, Medicine Bow-Routt National Forests, Routt County, CO.

Summary: While EPA has no objection to the proposed action, we requested additional information on air quality impacts and mitigation. Rating LO.

EIS No. 20090295, ERP No. D–FRC–J03023–00, Bison Pipeline Project (Docket No. CP09–161–000), Construction, Operation, and Maintenance of Interstate Natural Gas Pipeline Facilities, Application for Right-of-Way Grant and Temporary Use Permit, NPDES Permit and US COE 404 Permit, WY, MT, and ND.

Summary: EPA expressed environmental concerns about air quality, water quality and hydrostatic testing impacts. Rating EC2.

EIS No. 20090317, ERP No. D–USA–D11046–VA, Fort Monroe U.S. Army Garrison Base Realignment and Closure (BRAC) 2005 Disposal and Reuse of Surplus Nonreverting Property, Fort Monroe, VA.

Summary: EPA expressed environmental concerns about the early transfer disposal alternative that will allow the reuse of the surplus property to occur before environmental remedial action has been completed. Rating EC2.

EIS No. 20090330, ERP No. D–USN–K11125–CA, Marine Corps Base Camp Pendleton Basewide Utilities Infrastructure Construct and Operate Six Utility Infrastructure Project, San Diego County, CA.

Summary: EPA expressed environmental concerns about water resources and offered suggestions to mitigate air toxics emissions, improve energy efficiency, and generate renewable energy. Rating EC2.

EIS No. 20090345, ERP No. D–AFS–F65078–WI, Honey Creek-Padus Project, Proposes to Harvest Timber, Regenerate Stands, Plant and Protect Tree Seedlings and Manage Access on Approximately 6,702 Acres, Lakewood-Laona Ranger District, Chequamegon-National Forest, Forest County, WI.

Summary: EPA does not object to this project. Rating LO.

EIS No. 20090259, ERP No. DS–AFS–D65036–PA, Allegheny National Forest, Updated Information for the 2007 Land and Resource Management Plan, Implementation, Elk, Forest, McKean and Warren Counties, PA.

Summary: EPA continues to have environmental concerns that the proposed Standards and Guidelines may not sufficiently mitigate impacts to water quality and wildlife resources. Rating EC2.

Final EISs

EIS No. 20090289, ERP No. F–FTA–J53009–CO, Gold Line Corridor Project, Development of Fixed-Guideway Transit Improvements, from Denver Union Station to Ward Road in Wheat Ridge, Implementation, City and County of Denver, Adams, Arvada, Wheat Ridge, and Jefferson Counties, CO.

Summary: EPA expressed environmental concerns about increased

APPENDIX E
NEWSPAPER NOTIFICATIONS OF PUBLIC HEARING

PUBLISHER'S AFFIDAVIT

The State of Texas
County of Presidio

I, **ROBERT LOUIS HALPERN,** publisher of *THE BIG BEND SENTINEL,* a weekly newspaper of general circulation published at Marfa, Presidio County, Texas, do hereby and solemnly swear, the attached PUBLIC/LEGAL NOTICE: **U. S. section, IBWC, notice of public hearing in Presidio, in English and Spanish,** was duly published by *THE BIG BEND SENTINEL,* on the following date(s):

November 19, 2009

November 25, 2009

December 3, 2009

Said date(s) of publication being once each week for **three (3)** consecutive week(s).

I further swear that ***THE BIG BEND SENTINEL*** is a newspaper published in the English language of general circulation and has been continuously published for a period of not less than one year in said Presidio County.

Robert Louis Halpern

Sworn to and subscribed before me on this, the 3rd day of Dec., 2009.

Given under my hand and seal on this date.

Rosario Halpern

NOTARY PUBLIC, Presidio County, Texas

My commission expires

NOTARY PUBLIC STATE OF TEXAS
ROSARIO HALPERN
My Commission Expires
June 28, 2013

PUBLISHER'S AFFIDAVIT

The State of Texas
County of Presidio

I, *ROBERT LOUIS HALPERN,* publisher of *THE INTERNATIONAL,* a weekly newspaper of general circulation published at Presidio, Presidio County, Texas, do hereby and solemnly swear, the attached PUBLIC/LEGAL NOTICE: **U. S. section, IBWC, notice of public hearing in Presidio, in English and Spanish,** was duly published by *THE INTERNATIONAL,* on the following date(s):

November 19, 2009

November 25, 2009

December 3, 2009

Said date(s) of publications being once each week for **three (3)** consecutive week(s).

I further swear that THE INTERNATIONAL is a newspaper published in the English language of general circulation and has been continuously published for a period of not less than one year in said Presidio County.

Robert Louis Halpern

Sworn to and subscribed before me on this, the 3rd day of December 2009.

Given under my hand and seal on this date.

Rosario Halpern

NOTARY PUBLIC, Presidio County, Texas

My commission expires _____

NOTARY PUBLIC STATE OF TEXAS
ROSARIO HALPERN
My Commission Expires
June 28, 2013

Education,Sports

(photo by CHYRELL POENISCH)

The Marfa Elementary School children's choir sings for the veterans. This was their very first performance under the direction of Mrs. Lesley Vrudney.

(photo by TOM HAINES)

Team Maiya's players kick their way to a first place finish in the under 10 division.

Goal! Soccer season ends with tournament

ALPINE - Hundreds of soccer enthusiasts - fans, families and energetic players - turned out for a daylong season finale Saturday in Alpine at the Big Bend Youth Soccer Association tournament. Some 400 kids took part in four age divisions, with champions named in the three oldest leagues.

The top finishers:

U13

1st, Village Farms, Fort Davis

2nd, Ballroom Marfa, Marfa

3rd, Padre's, Marfa

U10

1st, Maiya's, Marfa

2nd, Fort Davis State Bank, Fort Davis

3rd, Mustang Field Services, Marathon

U8

1st, Petrosky Chiropractic, Alpine

2nd, McDonald's, Alpine

3rd, 4 I's Optical, Alpine

League president Chris Carlin suspects the tournament may have to become a two-day event next year so that kids can have more time to rest between games.

"We had a really good year this year," Carlin said. "I give a lot of people on our soccer board (and) all the volunteers who came out and did this a lot of credit."

Marfa 4-H seeks sponsors for food project

MARFA - Marfa 4-H Foods and Nutrition project received a group discount from OXO for kitchen utensils. The discount is available only through December 31, and to take advantage, the club seeks contributions from local businesses and individuals.

"To participate in district and regional food competitions, we need to supply our own utensil kit," said Presidio County Extension Agent Jesse Lea Schneider. "This discount makes quality tools available to us, and help from our local community would allow us to reach this goal."

Because 4-H is a 501(c)3 organization, donations are tax deductible. Contact project co-leader Hope Lafferty at 729-4197 for more information.

Marfa 4-H Christmas party Dec. 1

MARFA - Marfa 4-H Club will hold their first annual Christmas Party at the next club meeting at 5pm. Tuesday, December 1, at the Voc Agricultural Building.

Each member should bring one wrapped gift under $5 for the random gift exchange and one can of food for the West Texas Food Bank. Refreshments will be provided.

Front row, from left: Luke Carroll, Nicole Marsh, Wyatt Wilbourn, Elaine Wilbourn, Misty Wilbourn, and in front, Lauryn Carroll. Back row: Mark Carroll, J.D. Wilbourn, Dakota Wilbourn, John Johnson, David Wilbourn, and Jesse Lea Schneider.

Presidio County 4-H hops into 2010

MARFA - The Presidio County 4-H hosted a "Rabbit Workshop" on Thursday November 12 at the Marfa Ag Barn in preparation for the upcoming Presidio County Livestock Show.

Taught by Terrell County Agent Mark Carroll, the workshop was full of information on housing, feeding, and caring for 4-H show rabbits. Mr. Carroll was assisted by his son and daughter, Luke and Lauryn Carroll. The presenters brought rabbits representing two different breeds and all ages.

The Presidio County Livestock Show will be Saturday, January 23, 2010 at the Marfa Ag Barn. For more information about the Rabbit Project, please call 4-H adult leader Misty Wilbourn at 915-637-4809.

For 4-H questions, please call County Extension Agent Jesse Lea Schneider at 432-729-4746.

Iris V. Korus, DDS
announces a General Dentistry practice
in Valentine, Texas
accepting Insurance, CHIP
For an appointment, call 432.467.2064

Nationwide Premiere!
midnight Thursday
TWILIGHT: NEW MOON
(PG13)
the vampire love story continues
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6:30 & 9pm
837.5711 in ALPINE
www.rangratheatres.com
Nationwide Premiere!
starts Friday
PLANET 51
(PG) animation
held over!
2012
(PG13)

Aetna BCBS Davis Vision Eyemed Medicare Superior Vision VSP
4i's Optical
Dr. Perla Bermudez
Eye Care for the Entire Family
4i's Optical
www.drperlabermudezod.com
432-837-3699
M, W, Th 8-5
T 9-6
Saturdays by appointment
106 N. 5th Street Alpine, TX

Heart Care Close to Home.
Suresh Gadasalli, MD, FACC
& The Healthy Heart Center
Odessa, Texas
Do not hesitate to call for evaluation of chest pain, irregular heartbeat, light headedness or other possible heart conditions.
Dr. Gadasalli is now seeing patients in Alpine on the first Thursday of every month!
Big Bend Hospital • 2600 Hwy. 118 North
Please call our office to schedule an appointment. 1-800-324-5445
500 East 4th • Odessa, Texas 79761
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United States Section
International Boundary and Water Commission
NOTICE OF PUBLIC HEARING
Draft Enviornmental Impact Statement
Flood Control Improvements and Partial Levee Relocation,
USIBWC Presidio Flood Control Project, Presidio, Texas

This notice advises the public that the United States Section, International Boundary and Water Commission (USIBWC) has prepared a Draft Environmental Impact Statement (EIS) for improvements under consideration for the Presidio Flood Control Project along the Rio Grande, in the Texas-Mexico border. The EIS analyzes potential impacts of six action alternatives that address structural levee rehabilitation, and increased flood containment capacity by raising and/or partially relocating the levee system. The USIBWC has evaluated the effects of the action alternatives on biological resources, cultural resources, water resources, land use, socioeconomic resources and transportation, and environmental health.

Public comment on the Draft EIS and the evaluation of potential effects is encouraged. The public is invited to attend a public hearing on Thursday, December 10, from 5:00 p.m. to 7:00 p.m. at the Presidio Activities Center, 1400 East O Reilly Street, Presidio, Texas 79845. The Draft EIS will be available for a 45-day review period. A copy of the document will be available at the City of Presidio Public Library, 200 East O Reilly Street, and online at the USIBWC website http://www.ibwc.gov/. Written comments on the Draft EIS may be submitted at the public hearing or mailed to the USIBWC at the address below.

If you are unable to attend this public hearing and/or wish to submit written comments, or need further information, pleast contact: Mr. Daniel Borunda, Environmental Protection Specialist, Environmental Management Division, USIBWC, 4171 North Mesa Street, C-100 El Paso, Texas 79902 or e-mail: danielborunda@ibwc.gov. Written comments must be postmarked no later than January 12, 2010 for inclusion in the Final EIS.

La Comisión Internacional de Límites y Aguas, Sección Estadounidense

AVISO DE REUNION PUBLICA
Evaluacion Preliminar de Impacto Ambiental
Mejoras al Proyecto de control de inundaciones de Presidio y reubicación parcial de los diques de protección

Este aviso notifica al público que la Comisión Internacional de Límites y Aguas, Sección Estadounidense (*United States Section, International Boundary and Water Commission, USIBWC*) ha completado una Evaluacion Preliminar de Impacto Ambiental para las mejoras propuestas al Proyecto de control de inundaciones del río Grande en Presidio en el límite entre Texas y México. La evaluación cubre seis alternatives que incluyen rehabilitación estructural de los diques de contención, mejore del control de inundaciones aumentando la altura de los diques, o reubicación parcial de los diques. Los impactos analizados son los referentes a los recursos aquáticos y la calidad del agua, a los recursos biológicos y culturales, a las especies biológicas protegidas, condiciones socioeconómicas y uso del terreno.

La *USIBWC* llevará a cabo una reunión pública para recibir comentarios de la comunidad referentes al documento. La reunión pública se llevará a cabo en el Centro de Actividades de Presidio el jueves 10 de diciembre del 2009, de 5 p.m. a 7 p.m, en la siguiente dirección: Presidio Activities Center, 1400 East O Reilly Street, Presidio, Texas 79845. Copias de la Evaluación de Impactos Ambientales están disponibles en la biblioteca de Presidio (200 East O Reilly Street, Presidio), o pueden obtenerse en la página de internet de la USIBWC (www.ibwc.state.gov) por un periodo de 45 días.

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Repatriations continue at Presidio/Ojinaga port

By GUILLERMO MORALES

OJINAGA, CHIHUAHUA, MEXICO – A bus with 86 men aboard without identity papers arrived last week at the United States side of the international bridge at Presidio.

The bus, part of the Wackenhut Transportation Division (WTD), was escorted by Border Patrol agents supervising the return of the men being sent to Ojinaga from a detention center in Arizona. Counting this busload, 576 people have been attended by local authorities since the implementation of the Border Patrol´s repatriation plan.

Joaquín N., from the state of Oaxaca and one of the people who agreed to be interviewed before arriving at the National Institute for Immigration (INM) and Social Development Offices, said that another busload full of women was in front of them but that he didn´t know where it turned off or to which border port it was headed.

"The prison is full and it´s getting tough," he said of the situation in Arizona.

A Border Patrol agent asked this reporter for his identification and the news media for which he works to facilitate the work going on before the arrival of the bus, which was escorted by three patrol units ensuring the immigrants' return to Mexico.

"We had a problem a few days ago with some people taking photos," apologized the U.S. official.

José Julio Montoya Guzmán, representative for the government´s repatriate program, said that they have an initial sum of 2 million Mexican pesos that they´ve started to use since the implementation of the program on November 1st, when the three government levels decided to attend the problem created for the first time on the Mexico side of the border.

While inside international bridge facilities, it is determined that that 50 percent of the men are from the state of Chiapas, while others will return to Oaxaca, Sonora and the cities of Chihuahua and Juárez, as well as other cities in the interior of the country.

Montoya Guzmán stated that they help the illegal immigrants by letting them use a telephone to call their families and by transporting them by bus to their respective states. It should be noted that they aren´t taken to other borders since the repatriation agreement looks to avoid new attempts to cross the border into the United States illegally.

At the moment, they have only received men and do not know where the women are taken under the repatriation program. Meanwhile, the INM carries out interrogations to make sure that the men are fellow Mexican citizens and not Central Americans.

The Social Development representative stated that the number of people repatriated varies: they have received 20 on one occasion and have expected 100 on another.

"The problem is that they didn´t feed us and today they just gave us cookies," said Joaquín N., who stated that he´ll take advantage of the opportunity given to him by Ojinaga authorities and return to his family in Oaxaca.

(Translation by MIRIAM HALPERN CARDONA)

(foto de GUILLERMO M. MORALES)

Ojinaga.- Los ilegales reciben apoyo del Programa a Repatriados con transporte para regresar a sus estados de origen.
Ojinaga – The Program for Repatriates offers the illegal immigrants transport back to their homes.

Arribo autobús con 86 indocumentados

GUILLERMO M. MORALES

OJINAGA.- Un camión con 86 ciudadanos indocumentados arribó al mediodía del miércoles de la semana pasada a la desviación que existe a un costado del Puente Internacional en el lado americano con lo que suman 576 personas que han sido atendidas por las autoridades desde que se instrumento el Programa de Repatriados.

Se trata de un camión de la Wackenhut Transportation Division, escoltado por agentes de la Patrulla Fronteriza que supervisaron el regreso de un grupo de varones que fueron enviados a Ojinaga desde el centro de detención del estado de Arizona.

Joaquin N. del estado de Oaxaca y una de las personas que accedió a ser entrevistado antes de arribar a las oficinas de migración (INM) y de Fomento Social dijo que delante de ellos venía un camión repleto de mujeres pero desconocen en donde se desvió hacia otra frontera."La cárcel está llena se están poniendo muy duros", dijo.

Un agente se la Patrulla Fronteriza pide la identificación y el medio de comunicación para facilitar el trabajo que se realizo a lo largo de varias horas para esperar el camión que es vigilado desde a lo lejos por tres patrullas que garantizan que regresen a México. Hace unos días tuvimos un problema con una gente que andaba tomando fotos, excusa el oficial estadounidense.

José Julio Montoya, representante del programa de repatriados de Gobierno del estado dijo que existe una partida inicial de 2 millones de pesos que se empezaron a ejercer desde el día uno de noviembre cuando se dio la coordinación entre os tres niveles de gobierno para atender el problema que por primera vez se genera en esta frontera.

Mientras que se encuentran en las instalaciones del Puente Internacional se contabiliza que el 50 por ciento de ellos son del estado de Chiapas, también existe gente de Oaxaca, de México, de Sonora, de ciudad Chihuahua y de Juárez, entre otras varias ciudades del interior del país.

Montoya Guzmán indica que se les ayuda con la disposición de un teléfono con el que pueden comunicarse con sus familiares y se traslada el camión foráneo que va a llevarlos con los respectivos transbordos hacia el estado que ellos les señalan previamente. Cabe resaltar que no reciben apoyo para trasladarse a otra frontera ya que bajo el tratado Lateral de Repatriados busca evitarse que busquen internarse ilegalmente a territorio de los Estados Unidos.

Tan solo se han recibido varones y se desconoce el paradero de las mujeres o hacia qué frontera son trasladadas para su repatriación, en tanto el INM realiza interrogatorios para asegurar que se trata de connacionales y entre ellos no existen centroamericanos.

El representante de Fomento Social expone que la cifra de personas repatriadas es variable y en ocasiones se han recibido a unos 20 ilegales y este miércoles se esperaba la cifra de 100 ciudadanos a bordo de un camión que los traslada desde Arizona.

El problema es que no, nos dieron de comer y hoy solo nos dieron unas galletas, dice Joaquín quien afirma que piensa regresar son su familia a Oaxaca y aprovechar la oportunidad que les brindan las autoridades en Ojinaga.

Ranch Park Musical entertainment was provided by country singer Dennis Jay.

Rock art

(Continued from page 1)

example. Others not nearly so much: a series of combs and rakes, squiggly lines, circles and dots in all sorts of combinations. Researchers suspect that some of these images may represent spirits from another world. Perhaps that is why some are set next to cave-like holes in the rock wall - a portal into that spirit world?

Not even the pros know the answers. So it is better to stand back, relishing the shade the wall provides and the breeze that lifts up from Mexico, and wonder.

Visitors interested in seeing the rock art in Auras Canyon should arrange a guided tour with Nelson Rodriguez, the park's staff archaeologist and resource specialist. He can be reached at the Barton Warnock Environmental Education Center, in Terlingua, at 432-424-3327.

(photos by MARK GLOVER)

Texas Parks & Wildlife Department Executive Director Carter Smith attended the park fiesta on Saturday.

Buffalo Soldiers participated in the Park Fiesta this past weekend.

Presidio student art on display at Big Bend State Park.

United States Section
International Boundary and Water Commission
NOTICE OF PUBLIC HEARING
Draft Enviornmental Impact Statement
Flood Control Improvements and Partial Levee Relocation,
USIBWC Presidio Flood Control Project, Presidio, Texas

This notice advises the public that the United States Section, International Boundary and Water Commission (USIBWC) has prepared a Draft Environmental Impact Statement (EIS) for improvements under consideration for the Presidio Flood Control Project along the Rio Grande, in the Texas-Mexico border. The EIS analyzes potential impacts of six action alternatives that address structural levee rehabilitation, and increased flood containment capacity by raising and/or partially relocating the levee system. The USIBWC has evaluated the effects of the action alternatives on biological resources, cultural resources, water resources, land use, socioeconomic resources and transportation, and environmental health.

Public comment on the Draft EIS and the evaluation of potential effects is encouraged. The public is invited to attend a public hearing on Thursday, December 10, from 5:00 p.m. to 7:00 p.m. at the Presidio Activities Center, 1400 East O Reilly Street, Presidio, Texas 79845. The Draft EIS will be available for a 45-day review period. A copy of the document will be available at the City of Presidio Public Library, 200 East O Reilly Street, and online at the USIBWC website http://www.ibwc.gov/. Written comments on the Draft EIS may be submitted at the public hearing or mailed to the USIBWC at the address below.

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La Comisión Internacional de Límites y Aguas, Sección Estadounidense

AVISO DE REUNION PUBLICA
Evaluacion Preliminar de Impacto Ambiental
Mejoras al Proyecto de control de inundaciones de Presidio y reubicación parcial de los diques de protección

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the classifieds

Marfa Public Library Open House

(staff photos by ROBERT HALPERN)

From left, librarian assistant Maggie Marquez, a library patron, Robert Poenisch, and librarian assistant Joyce Poenisch. Robert helped install the computers.

Historic panoramic photos from the library's archives adorn the computer center nook.

Portrait of Mary Davis, chairman of the Library Board of Trustees from 1982-2001, painted by Emily Hocker of Marfa and San Antonio.

The Big Bend Sentinel

Robert Louis Halpern	Editor & Publisher
Rosario Salgado Halpern	Chief Financial Officer
Sterry Butcher	Senior reporter, Knight Fellow
Barbara Richerson	Production designer
Mark Glover	Contributor
Fred Covarrubias Jr.	Photography
Gary Oliver, Jim Bridges	Political cartoonists
Lonn Taylor, Teresa Todd	Columnists
Alex Manley, Fran Sage	Columnists
Miriam Halpern Cardona	Translations
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MOBILE HOMES

A-1 Homes Odessa

First time home buyer program. Easy financing, plus get up to $8000 cash back. A-1 Homes in Odessa on Andrews Highway Se habla espanol **432-362-1577** RB 35740

2, 3 or 4 bedroom home with land. Se habla espanol **432-362-7100** RB 35740

Abandoned double-wide. Low payments and no money out of your pocket WAC Se habla espanol **432-363-0881** RB 35740

Buy a home, put money in your pocket. Call for details. Se habla espanol A-1 Homes Odessa **432-550-4033** RB 35740

EMPLOYMENT OPPORTUNITIES

The Chinati Foundation in Marfa, Texas is accepting resumes for a full-time Collection Tours and Education Specialist. Responsibilities include the following: Develop and manage the visitor service and education programs for museum tours and other programs and events, public and private. Develop and implement new ideas for public and special tours to enhance visitor experience. Responsible for designing online projects to promote the museum and maintaining the digital archiving system. Assist artists-in-residence in installing their exhibitions at the museum and designing the invitations for their exhibitions. Maintain and analyze visitor feedback and statistical data. Supervise the work of interns, train them in their duties, and establish their schedules. Review intern applications for employment and assist in the hiring process. Coordinate and lead public and VIP/Private tours. Requires Master's degree in Fine Arts, Art History or Art Education plus 1 year of related experience. Fax resumes to 432.729.4597. The Chinati Foundation is an equal opportunity employer.
11/19,25

Marfa Community Health Clinic has a Part Time Housekeeping position available just for you. The hours are mostly late afternoon with one Saturday a month of your choice. This individual has to be responsible, able to follow a cleaning schedule and pay close attention to detail. 15-20 hours a week @ $10 per hour. Applications are available at the administration office located at 106 Texas St. in Marfa. ARRA Funding @100%.

GARAGE SALES

Vendors Needed for Final First Saturday Flea Market of 2009! December 5. Fort Davis. 8-4. 426-2742 or oldfortcountry@sbcglobal.net. 11/25b

Huge Estate Sale. December 11-12 in Marfa. Details in next week's paper. Old Fort Country. 426-2742 or oldfortcountry@sbcglobal.net. 11/25b

MOBILE HOMES

For sale – **2000 double wide** mobile 3/2 home for sale. Must be moved. $40,000. Call 817-485-7434 for appt. 31-4tp

EMPLOYMENT OPPORTUNITIES

Part-Time IT Tech wanted for Presidio County Health Services, Inc.: Experience with Networking, SQL servers, Domain Servers, Data Backup, Terminal Servers, VPN's helpful. ARRA grant funding @ 100%. Apps available at: Administrative Office 106 E. Texas St. or at the Marfa or Presidio Clinics. Ph: 432-729-1812 Fax: 432-729-4023 or email to: cfo_pchs@yahoo.com. 10/22,29

HYDROPERFECT® VILLAGE FARMS® GREENHOUSE GROWN

Greenhouse Workers

Village Farms, L.P. is recruiting individuals for full-time crop work and harvesting tomatoes in Marfa and Ft. Davis.
Starting pay ranges from $8 to $9/hr depending on experience with opportunity to earn weekly bonus.
Applications are available at Village Farms Security Station 3 Miles N. Hwy 17 Marfa, TX.

Trabajadores para invernadero – a tiempo completo

Village Farms, L.P. esta en el proceso de reclutar trabajadores para la cosecha de tomate en Marfa y Fort Davis.
El sueldo inicial es de $8 a $9 por hora, dependiendo en experiencia, con la oportunidad de ganar bonos semanales.
Las solicitudes están disponibles en la caseta de seguridad de Village Farms situada a 3 millas de Marfa

FEED

ALFALFA hay for sale from Saragosa, Texas. Large and small square bales. Kendall Holdeman, 432.923.3641. 1/29>12/31p

SAVE TIME-SAVE MONEY USE WANT ADS

REAL ESTATE

FOR SALE in Marfa:
• Corner lots near the east bank of Alamito Creek.
432.729.4208 & 432.295.0271.
10-9>tfnb

For Sale – 2 corner lots – corner of Washington and Ave F in the Sal Si Puedes neighborhood in Marfa. For info, call 432-386-7302 or 432-386-6064.
33-4tp

SERVICES

Rimfire Forge – All types of welding, custom fabrication, ornamental iron, custom forging, repairs. Onsite welding and construction. Call Buddy Knight at 432-729-4450.
11-tfn

FOR RENT

FOR RENT - One bedroom casita - nice and clean. One or two persons, non smoking and no pets. For more information please call 432-729-4752 or 432-386-5737.

Roomy, four bedroom, two bath, two-story adobe house for sale by owner. There is also a one bedroom adobe casita on the property. Both are in good condition. These houses are on two lots in Marfa. $94,500. For more information, please call 208.628.3184. 11/25p

MARFA: 1 BR 1 Bath, 650 sq ft, unfurnished duplex. Extra large living area, terrazzo tile floors, ceiling fans, all appliances, washer/dryer connections, covered, paved parking, covered porch with beautiful view, CH/CA. No pets, no smoking, $525/mo no bills. $650/mo all bills paid. 12 mo lease, plus $500 deposit. Phone 432-729-3776. tfn

WANTED

Are you looking for a job, starting a new job, or starting a business? Please share your story with KRTS for the "Back To Work" radio series. Contact Karen Bernstein: karen@marfapublicradio.org or 432-729-4578.

Hunting

Day Hunting near Candelaria, Texas in Presidio County. $100 per day, minimum 2 days. Mule Deer, Javalina, Dove, Quail. 432-229-3467or blumberg@bigbend.net.
11/19,25

United States Section
International Boundary and Water Commission
NOTICE OF PUBLIC HEARING
Draft Enviornmental Impact Statement
Flood Control Improvements and Partial Levee Relocation,
USIBWC Presidio Flood Control Project, Presidio, Texas

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Evaluacion Preliminar de Impacto Ambiental
Mejoras al Proyecto de control de inundaciones de Presidio y reubicación parcial de los diques de protección

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Obituaries

Gonzales

Jesusita D. Gonzales, 86, of Shafter, passed away Friday, November 20, 2009 at the Fort Stockton Nursing Center.

She was born March 3, 1923 in Shafter to Irineo and Micaela Gonzales, and was a lifetime Shafter resident.

Survivors include two sisters, Maria Dolores "Lola" Vasquez and her husband Fidel of Marfa and Blanca Nuñez of Pasadena.

She was preceded in death by her parents, a brother, Justo Gonzales of Odessa; sisters Manuela Nuñez, Elisa Gonzales and Paula Fuentes, all of Marfa and Maria Cortez of Presidio.

Services are pending with Alpine Memorial Funeral Home.

Services Saturday in Marfa

Former Presidio County resident dies in El Paso wreck

EL PASO – Millard "Butch" Stephens, 67, of Columbus, N.M., and formerly of Presidio and Marfa, died early Sunday morning after he drove off an unfinished roadway in Northeast El Paso, according to El Paso police as reported by the El Paso Times.

For many years, Stephens ranched in Presidio County and was a cattle broker in Presidio.

A memorial service is scheduled for 10am Saturday at St. Paul's Episcopal Church in Marfa.

Survivors include three sons, Cleat Stephens and wife Cami of Marfa and Fort Davis, Sandy Stephens and wife Diane of Prosper, and Sam Stephens and wife Angela of Midland; also a daughter, Kristi Stephens Cordeau and husband Bryan of San Antonio. Eight grandchildren survive him

Hospital district distributes funds to EMS, medical clinics

By MARK GLOVER

PRESIDIO, BREWSTER COUNTIES - The Big Bend Regional Hospital Board met last week directors approved $131,430.37 in distributions to EMS, medical clinics and community action projects in Brewster and Presidio counties. The total amount reflects the net revenue of the sale of the old hospital building that closed on October 2.

The amount included $20,000 to Marfa EMS for the refurbishment of their ambulance. Presidio County Health Services received $37,196.32.

"The total amount of the sale of the hospital building was reinvested back into the community," Hospital District Executive Secretary Maria O'Bryant said.

The $17.3 billion dollar tobacco industry settlement won by the state of Texas in 1998 continues to provide funds for indigent health care throughout Texas and the Big Bend, but next year's funding may be down from previous years.

"Due to state budget restrictions we were informed to expect about half of what we normally get," O'Bryant said.

Tobacco Settlement disbursements are based on the total un-reimbursed indigent health care expenses. Funding has run about $34,000-$39,000 per year for the last three years in the bi-county area.

Don Culberson, board member of the Big Bend Regional Hospital District, will be conducting an informal survey by radio, newspaper and email to determine the general public's thoughts on the proposed Marfa Medical Dispensary pilot project.

"It's all about what the people of Marfa want," Culberson said. "If they don't want it, I'll throw it out."

According to the proposal, the goal of the medical dispensary is "to transport and locally distribute medications that are filled from the three pharmacies in Alpine to a central distribution center in Marfa. Medication would be available for pick-up in Marfa at the downtown distribution location Monday through Friday, 2-6pm."

If a variance is granted by the Texas State Board of Pharmacy at their next board meeting in February 2010, the $40,800 proposed budget to operate the pilot project for the first year would be generated by local fund raising and grants.

"No tax funds would be used in the first year," Culbertson said. "Thereafter, the bi-county hospital district would inherit a service."

Culberson updated hospital district board members and the community on the development of the proposed project at last Friday's board meeting.

"They are interested and intrigued by our proposal," Culberson said, referring to the Texas State Board of Pharmacy. "The legalities are okay. They now need some idea of the volume of prescriptions and the number of patients."

Culberson is working with the three pharmacies in Alpine to determine the prescription flow between Alpine and Presidio County.

The hospital district postponed action on the 2009 list of approved pharmaceuticals. The last formulary was approved in 2006.

"It still needs a little work," district board member Lee Roberts said.

Mr. & Mrs. David Joel Herrera

Velasco, Herrera wed in San Antonio ceremony

Nora Granado Velasco and David Joel Herrera were united in marriage on Saturday, August 1, 2009 at Immaculate Heart of Mary Church in San Antonio.

The ceremony was performed by Father Alberto Ruiz. Church original music provided by pianist Fernando Herrera.

The bride is the daughter of Gilberto and Carolina Velasco of Presidio. She is a Presidio High School graduate. The groom is the son of Anita G. Herrera and Arthur R. Herrera, Jr. of San Antonio.

Nora received her BA degree from St. Mary's University in 1998, and her MS degree from the University of Texas at Austin in 2000. She is currently employed with the Texas Legislative Budget Board as a budget analyst.

David received his BA degree from the University of Texas at San Antonio in 1992 and his MS degree from Sam Houston State University in 2002. He is currently employed as a police officer with the Austin School District.

Matron of honor was Cynthia Meraz and maid of honor was Alma Estrello. Best men were Damien Herrera and Daniel Herrera. Bridesmaids were Natalie Herrera, Innocence Mendez, and Veronica Herrera.

Groomsmen were Ricardo Velasco, Juan Meraz and Eric Mendez. Flower girls were Gabriela Meraz, Catarina Vazquez and Lithzy Velasco.

A reception followed the ceremony at the Hilton Palacio del Rio in San Antonio. The wedding planner was Mae Escobar of aMAEzing events. The couple will reside in Austin.

Local testing dates set up for temporary Census jobs

PRESIDIO COUNTY – The national Census takes place in the spring of 2010 and testing for prospective Census workers has been set up in Marfa and Presidio.

These will be temporary, part-time jobs that begin about the first of the year and are likely to last through late spring.

Work hours are flexible and may be up to 40 hours per week in some instances.

Testing dates in Marfa are:

• 2pm on November 30, December 4 and December 8, all at the Marfa Activity Center.

Testing dates in Presidio are:

• 9am December 3 and 2pm December 7, both at the Presidio Activity Center.

According to organizers, the test covers basic clerical skills, maps and problem solving. Positions that may be open include those for recruiting and testing, office workers and field workers.

You do not have to register in advance to take the test. You must, however, bring an original Social Security card and a driver's license or a passport to the exam as proof of identity.

For more information, call toll free: 1.866.2010 or go online at: 2010censusjobs.gov.

Memorial Funeral Home
of Fort Stockton
432-336-9199 *Se habla español*
REY CHAPA
Funeral Director
600 East Dickinson in Fort Stockton

Freedom Bail Bonds

Teresa Juarez, agent
Call: (432)-729-3083

RING UP PROFITS WITH THE CLASSIFIEDS
RING UP PROFITS WITH THE CLASSIFIEDS

United States Section
International Boundary and Water Commission
NOTICE OF PUBLIC HEARING
Draft Enviornmental Impact Statement
Flood Control Improvements and Partial Levee Relocation,
USIBWC Presidio Flood Control Project, Presidio, Texas

This notice advises the public that the United States Section, International Boundary and Water Commission (USIBWC) has prepared a Draft Environmental Impact Statement (EIS) for improvements under consideration for the Presidio Flood Control Project along the Rio Grande, in the Texas-Mexico border. The EIS analyzes potential impacts of six action alternatives that address structural levee rehabilitation, and increased flood containment capacity by raising and/or partially relocating the levee system. The USIBWC has evaluated the effects of the action alternatives on biological resources, cultural resources, water resources, land use, socioeconomic resources and transportation, and environmental health.

Public comment on the Draft EIS and the evaluation of potential effects is encouraged. The public is invited to attend a public hearing on Thursday, December 10, from 5:00 p.m. to 7:00 p.m. at the Presidio Activities Center, 1400 East O Reilly Street, Presidio, Texas 79845. The Draft EIS will be available for a 45-day review period. A copy of the document will be available at the City of Presidio Public Library, 200 East O Reilly Street, and online at the USIBWC website http://www.ibwc.gov/. Written comments on the Draft EIS may be submitted at the public hearing or mailed to the USIBWC at the address below.

If you are unable to attend this public hearing and/or wish to submit written comments, or need further information, pleast contact: Mr. Daniel Borunda, Environmental Protection Specialist, Environmental Management Division, USIBWC, 4171 North Mesa Street, C-100 El Paso, Texas 79902 or e-mail: danielborunda@ibwc.gov. Written comments must be postmarked no later than January 12, 2010 for inclusion in the Final EIS.

La Comisión Internacional de Límites y Aguas, Sección Estadounidense

AVISO DE REUNION PUBLICA
Evaluacion Preliminar de Impacto Ambiental
Mejoras al Proyecto de control de inundaciones de Presidio y reubicación parcial de los diques de protección

Este aviso notifica al público que la Comisión Internacional de Límites y Aguas, Sección Estadounidense (*United States Section, International Boundary and Water Commission, USIBWC*) ha completado una Evaluacion Preliminar de Impacto Ambiental para las mejoras propuestas al Proyecto de control de inundaciones del río Grande en Presidio en el límite entre Texas y México. La evaluación cubre seis alternatives que incluyen rehabilitación estructural de los diques de contención, mejore del control de inundaciones aumentando la altura de los diques, o reubicación parcial de los diques. Los impactos analizados son los referentes a los recursos aquáticos y la calidad del agua, a los recursos biológicos y culturales, a las especies biológicas protegidas, condiciones socioeconómicas y uso del terreno.

La *USIBWC* llevará a cabo una reunión pública para recibir comentarios de la comunidad referentes al documento. La reunión pública se llevará a cabo en el Centro de Actividades de Presidio el jueves 10 de diciembre del 2009, de 5 p.m. a 7 p.m, en la siguiente dirección: Presidio Activities Center, 1400 East O Reilly Street, Presidio, Texas 79845. Copias de la Evaluación de Impactos Ambientales están disponibles en la biblioteca de Presidio (200 East O Reilly Street, Presidio), o pueden obtenerse en la página de internet de la USIBWC (www.ibwc.state.gov) por un periodo de 45 días.

Comentarios al respecto pueden presentarse durante la reunión pública, o ser enviados por correo a la siguiente dirección: Mr. Daniel Borunda, Environmental Protection Specialist, Environmental Management Division, USIBWC, 4171 North Mesa Street, C-100, El Paso, Texas 79902 ; o por correo electrónico al *e-mail: danielborunda@ibwc.gov*. Se aceptarán comentarios hasta el día enero 12 del 2010 para poder ser incluidos en la versión final de la evaluación de impacto ambiental.

La Frontera

Sully graduation

(Continued from page 1)

tee on Economic Development as Vice-Chairman, the Committee on Regulated Industries, and the Committee on Local and Consent Calendars. As a member of the Regulated Industries Committee, he chaired the Subcommittee on Energy Conservation and Efficiency. Straus also served on the Select Committee on Electric Generation Capacity and Environmental Effects, which studied the state's energy demand and expected growth for the next 50 years in order to develop long-term energy plans for Texas.

Also in 2007, Straus received the Texas Public Power Association's Public Official Award for leadership and contributions to public power. He was also given the Legislative Service Award by the Lone Star Chapter of the Sierra Club for his work in the area of energy efficiency. Additionally, Speaker Straus received the Defender of the American Dream Award in 2008 from Americans for Prosperity for his record of commitment for protecting taxpayers. In 2006, Speaker Straus was selected by the then-House Speaker to attend the National Conference of State Legislatures' annual Leadership Institute for legislators who show outstanding leadership promise and the ability to effect change.

In 2008, *Texas Monthly* selected Straus as one of the 35 Texans who will shape the future of the state. As a lifelong Republican, he has previously served on the Management Committee of the Bexar County Republican Party, as a precinct chairman, and on numerous campaign committees for federal, state, and local candidates. He served in the administration of President George H. W. Bush from 1989-1991 as deputy director of Business Liaison at the U.S. Department of Commerce and also in the Reagan administration as executive assistant to the Commissioner of Customs.

Texas Speaker of the House Joe Straus

In 1986, he was U.S. Rep. Lamar Smith's campaign manager in Smith's first Congressional race. In the Texas House, Straus serves as a member of the House Republican Caucus Policy Committee.

Straus is a principal in the insurance and executive benefits firm of Watson, Mazur, Bennett & Straus, L.L.C. He is affiliated with National Financial Partners, a leading financial services company in the insurance, investments, and benefits industry.

Straus is a graduate of Vanderbilt University with a B.A. in Political Science. He is an avid sportsman with a lifelong passion for Thoroughbred breeding. He is married to Julie Brink Straus. They have two daughters, Sara and Robyn.

The Next Read

(Continued from page 1)

noteworthy literary work across the Marfa community, we expect to demonstrate the self-discovery and enjoyment that reading brings to everyone, particularly to middle and high school students.

"This is an event that connects our community" says Next Read Chair Alice Jennings.

The Friends are looking for volunteers, partners and event sponsors. Interested persons should contact Alice Jennings, Next Read Chair via email at nextreadchair@friendsofmarfalibrary.org or at 432.729.4130.

Dirt

(Continued from page 1)

"We had told them then that they could put cement along the arroyo for erosion control," he said of the previous agreement. "They thought they had the authorization this time, but it wasn't put before commissioners. The sheriff brought it to the county attorney, and we did a cease and desist."

The property under demolition and construction is within the city limits. The city owns the compost site, though it does not typically allow cement to be dumped there by contractors.

Mayor Dan Dunlap said Monday that the city had made a barter arrangement about the cement with Buster Mills, a contractor on the Dollar General job.

"The only thing they were taking to the landfill was cement," Dunlap said. "In return, we needed some dirt work done at the recycling site. With Mr. Mills, he agreed that if we allowed the cement down there, he'd do the dirt work."

Some joggers and residents along Golf Course Road have recently witnessed truck after truck of dirt rolling past. Marge Hughes is Judge Agan's executive assistant and for the last couple years, she's overseen the sale of fill dirt from the county's land behind Vizcaino Park.

For $5 a yard, individuals or construction crews may buy dirt from the county, Hughes said. The construction crew has permission to access the dirt farm and will be expected to pay for the dirt they remove, she commented.

Five members voted onto Marfa Chamber of Commerce board of directors

By STERRY BUTCHER

MARFA - The Marfa Chamber of Commerce membership has elected five members to its board of directors.

Ballots were sent to all 136 Chamber members in November. On the ballot were names of 10 people vying for the five open slots. Chamber members circled their top five choices and returned them. The votes were tallied Monday night by the organization's executive committee.

New to the Chamber board will be Rudy Garcia of the Arcon Inn Bed & Breakfast and Robin Lambaria, a Marfa Film Festival founder. Incumbents who were re-elected were Mona Garcia of the Arcon Inn, and Kelly Sudderth of the Chinati Foundation and Kelly Sudderth CPA. Also elected was Burt Compton of Marfa Gliders. He's a past chamber president and board member.

"We received 38 ballots out of the 136 that were sent," Chamber board President Daniel Browning said on Tuesday. "That's up about 10 ballots from previous elections."

The five newly-elected board members will join these existing board members: Robert Arber, Mercer Black, Joe Cabezuela, Fairfax Dorn, Ann Christopher Dunlap, Pat Quin, Thomas Schmidt, and Joe Williams.

All five of these candidates were already Chamber members when they were nominated to appear on the ballot. Browning noted that several of the other nominees were not yet Chamber members.

Right now, the bylaws allow for non-members to be elected onto the board. Once elected to the board, non-members must join the Chamber in order to serve.

"We'll invite those folks to join as members," Browning said. "The candidates who were not voted onto the board will be talked to later about possible appointments. All general members are welcome to be on any Chamber committee."

Chamber committees include panels that deal with advertising and promotion of Marfa outside this area; an events committee; and one that reviews the organization's policies.

Browning noted that an economic development committee is planned for 2010. Election of Chamber board officers takes place in January, he added.

The Marfa Chamber of Commerce board meets at 6:30pm every third Wednesday of the month at their office in the Hotel Paisano. These meetings are open to the public as well as to the Chamber's general membership.

Christmas service is Sunday evening at Faith Alive Cowboy Church

MARFA - The Marfa Ministerial Alliance is inviting everyone in the Marfa and surrounding communities to come and enjoy our Community Christmas Service, hosted by Faith Alive Cowboy Church, at 7pm Sunday, December 6.

Everyone is invited to stay for a time of visiting and refreshments after service.

(staff photo by ROBERT HALPERN)

Marie Blazek exhibited her ceramic artistry at an artists holiday bazaar in downtown Marfa this past weekend. Please see more photos on page 8.

Alpine library friends meet Tuesday

ALPINE - Please join the Friends of the Alpine Public Library at noon on Tuesday, December 8, Southwest Room of the library, as we plan ways to help the library fulfill its mission of connecting our diverse community with information resources to promote reading and lifelong learning.

Everyone is welcome.

The Snell Law Firm, PLLC

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Attorneys

818 West 10th Street, Austin • 512.477.5291
www.snellfirm.com • jsnell@snellfirm.com

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IBWC busca comentarios sobre las mejoras propuestas para el dique durante sesión pública el 10 de diciembre

PRESIDIO – La parte estadounidense de la Comisión Internacional de Fronteras y Aguas (IBWC, sus siglas en inglés) ha programado una sesión pública respecto al anteproyecto del informe sobre el impacto medioambiental (EIS) para mejoras en el proyecto de control de inundaciones del Río Grande en Presidio.

La sesión tendrá lugar desde las 5 p.m. hasta las 7 p.m. el jueves, 10 de diciembre, en el Centro de Actividades de Presidio, en la calle 1400 East O´Reilly.

El informe sobre el impacto medioambiental analiza siete alternativas relacionadas con las reparaciones estructurales en los diques de control para inundaciones o para mejor protección frente a inundaciones.

La IBWC opera y mantiene 15 millas de diques de control para inundaciones en el Río Grande en la zona de Presidio entre Haciendita y el Arroyo Brito. Los diques, diseñados para contener la inundación de 25 años, fueron dañados durante las inundaciones del Río Grande en 2008.

Las alternativas son las siguientes:

1. No se realizarán reparaciones adicionales de los diques más allá de reparaciones de emergencia ya terminadas al norte del Arroyo Cibolo para rehabilitar los diques dañados durante las inundaciones de 2008.

2. Restaurar segmentos dañados o erosionados de los diques que pertenecen al diseño original del proyecto para inundaciones de 25 años.

3. Subir el dique existente para ofrecer protección contra las inundaciones de 100-años.

4. Subir el dique para ofrecer protección contra las inundaciones de 100-años. En el tramo superior del proyecto, el dique mantendría su alineación actual. En el tramo que ve río abajo, y que fue severamente dañado durante las inundaciones de 2008, el dique sería reubicado a terreno más estable, a 500 pies de la orilla de la actual alineación del dique.

5. Subir el dique existente en el tramo superior para ofrecer una protección contra las inundaciones de 100-años para la parte urbana de Presidio. Río abajo, en la milla 9.2 del dique, la protección contra las inundaciones de 100-años la ofrecería un nuevo dique de ramal desde las tierras que quedan inundadas durante la crecida del río hasta las tierras altas en la carretera 170. En gran parte del tramo del proyecto que va río abajo, el dique sería rehabilitado para ofrecer una protección contra las inundaciones de 25-años para tierras agrícolas adyacentes.

6. Lo mismo que la Alternativa 5, salvo que el dique del ramal estaría aún más río arriba en la milla 8.5 del dique.

7. Lo mismo que la Alternativa 5, salvo que el dique del ramal estaría en la milla 7.4 del dique y seguiría la orilla del puente ferroviario y al sur del Instituto de Presidio.

Para cada alternativa, el EIS identifica posibles impactos sobre recursos biológicos, culturales y del agua, el uso de terreno, recursos socioeconómicos, transporte y salud medioambiental.

La IBWC anima el público a asistir a la sesión, donde aceptará comentarios sobre el anteproyecto del EIS.

Una copia en papel del anteproyecto del EIS está disponible al público en la Biblioteca Municipal de Presidio. También se puede ver en ibwc.state.gov.

También anima a que hayan comentarios escritos que pueden ser enviados a:

Daniel Borunda
Environmental Protection Specialist
Environmental Management Division
4171 N. Mesa, C-100
El Paso, Texas 79902

Sigue pendiente la petición de una Autoridad Regional de Movilidad; se pide una reunión para arreglarla

Por STERRY BUTCHER

CONDADO DE PRESIDIO – La petición de formar una Autoridad Regional de Movilidad (RMA) en todo el condado sigue en manos de los oficiales del Departamento de Transporte de Texas (TxDoT).

Oficiales locales municipales y del condado han trabajado para la creación de una RMA con miras a generar ingresos eventuales de un peaje en el tráfico que cruza el puente internacional en Presidio. Las RMA también pueden vender bonos, buscar préstamos federales y solicitar subvenciones. Los ingresos generados han de ser destinados a la construcción, el diseño o el mantenimiento de proyectos relacionados con el transporte.

Oficiales de la zona esperaban que el TxDoT aprobara la petición este otoño, pero el tema no apareció en la agenda del consejo ni el mes de octubre ni el mes de noviembre, dijo el Juez de Condado Jerry Agan.

"Aún no ha sido aprobada nuestra petición," informó esta semana. "Ha pasado demasiado tiempo."

También está a la espera un plan en vías de desarrollo para la construcción de un puente en dirección sur con dos carriles que estaría adyacente al puente internacional en Presidio, propiedad del TxDoT. Han sido apartados casi 4 millones de dólares en fondos federales para el proyecto para la construcción del puente. A Agan le gustaría empezar ese proyecto, a la vez que esté pendiente la petición de una RMA. No obstante, el TxDoT está congelando esos fondos por el momento.

"Tiene 3.8 millones de dólares de nuestro dinero alocado por fondos federales para mejorar el puerto de entrada," dijo. "Queremos comenzar el proceso con el informe sobre el impacto medioambiental."

El dinero procedente de subvenciones a menudo viene con una estipulación que dice que los fondos han de ser gastados de un modo oportuno. Agan quiere asegurarse de que el dinero no se acaba esfumando.

"Deje que gastemos el dinero para que no lo perdamos," dijo. "Deje que hagamos algo para mostrar buena fe al gastar el dinero."

Los despachos del Senador estatal Carlos Uresti y del Representante estatal Pete Gallego tienen previsto pedir una reunión con el Director Ejecutivo del TxDoT Amadeo Saenz, con comisionados del TxDoT y con oficiales locales para arreglar la pendiente petición, dijo Agan. Puede que la reunión tenga lugar durante la segunda semana de diciembre.

Need a ride to a medical appointment, shopping, or visit family members out of town? Need a ride to and from your work site, or to Sul Ross State University?

Public and Medical Transportation
JARC Transportation
Provided by Big Bend Community Action

Offices to call:
Marfa 432-729-1992
Alpine 432-837-9139
Presidio 432-229-4917
Van Horn 432-283-1159

Travel destinations:
Marfa, Fort Davis, Alpine, Marathon, Terlingua, Lajitas, Study Butte, Big Bend National Park, Presidio, Pecos, Candelaria, Redford, Shafter, Valentine, Odessa, Fort Stockton, Midland, Van Horn, Sierra Blanca, Dell City, Fabens, Fort Hancock, El paso.

Presidio recibe 12.225 millones de dólares en subvenciones para la planta recicladora

Boletín de Prensa Ayuntamiento de Presidio

PRESIDIO – Ha valido la pena la iniciativa del Alcalde de Presidio Lorenzo Hernández.

El Consejo del Desarrollo de Aguas de Texas aprobó la semana pasada, a través de una resolución, una subvención en la cantidad de 12,225,000 dólares bajo la Ley de Recuperación y Reinversión Americana (ARRA, sus siglas en inglés) del 2009 a través del Programa Fondo Rotatorio para Agua Limpia para Comunidades Desfavorecidas. El dinero ha sido otorgado a la Ciudad de Presidio para financiar mejoras al sistema de aguas residuales.

Los fondos serán empleados para construir una nueva planta recicladora de aguas residuales y extender su recogida a dos zonas colonias. Las nuevas instalaciones sustituirán a la vieja planta recicladora de aguas residuales que ha alcanzado el 80 por ciento de su capacidad.

"Habíamos comenzado con una subvención en un 50 por ciento y con un préstamo en un 50 por ciento del Departamento de Agricultura de Estados Unidos (USDA, sus siglas en inglés), y estábamos a punto de seguir adelante con lo del USDA cuando el gobierno federal aprobó y anunció lo de ARRA," dijo el alcalde Hernández. "La subvención de la ARRA buscaba proyectos listos para comenzar y Presidio tenía dos. Tomé la iniciativa de buscar una financiación en un 100 por ciento. No era nada seguro para Presidio, pero con mucho trabajo duro este año pasado por parte del personal municipal de Presidio, hemos prevalecido con la subvención de la ARRA. Me alegra decir que la subvención de la ARRA salvó a los ciudadanos de Presidio el tener que devolver un préstamo de 6 millones de dólares."

Hernández añadió, "Es la mayor subvención que Presidio jamás ha recibido. 12,2225,000$ es una subvención enorme para un pueblo del tamaño de Presidio."

Dijo Hernández: "Quisiera darles las gracias al personal municipal de Presidio por su duro trabajo al hacerlo posible. También al Consejo Municipal de Presidio; a Frank Spencer y a Roberto Gill de FXSA; a nuestros ingenieros; a JoAnne Duncan y al personal del Consejo del Desarrollo de Aguas de Texas; al administrador municipal Brad Newton; a Elizabeth Bustamante, secretaria municipal; al abogado para la ciudad Steve Spurgin; y a al administrador del proyecto Roger Carlisle de CSM and Associates. Otras muchas personas ayudaron durante el camino y también quisiera darles las gracias."

El administrador municipal Brad Newton dijo: "Requiere años montar un proyecto como éste para una ciudad. El alcalde comenzó como miembro del consejo casi al mismo tiempo que comenzó el proceso para una planta recicladora de aguas residuales y líneas de alcantarillado para Colonia Pueblo Nuevo en 2002. Es una tarea masiva hacer estudios medioambientales y arqueológicos, hacer ingeniería y obtener permisos de varias agencias estatales y federales. Encontrar los medios para pagar estos proyectos monumentales sin arruinar a la Ciudad de Presidio y a sus ciudadanos es casi imposible.

Tengo que reconocerlo: el alcalde encontró una manera para evitar que Presidio tuviera muchos años de deudas al tomar la iniciativa y solicitar financiación de la ARRA cuando la cosa más fácil era tomar la financiación del USDA el pasado enero. Es algo bueno que el alcalde Hernández buscase la fi-

(Continua en pagina 4)

Felices Pascuas

Fort Davis State Bank
"Your People to People"
Bank since 1911

Christmas 2009 Celebration
The public is cordially invited to a holiday celebration!
Christmas caroling, food and raffles.
7pm Saturday, December 5
at the bank's south parking lot

Fort Davis State Bank
Invita a una celebración de Navidad.

JOY TO THE WORLD

Hábra música, comida y rifas!
Este sábado, 5 de Diciembre a las 7 de la tarde en el estacionamiento del banco.

Member FDIC

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Mejoras al Proyecto de control de inundaciones de Presidio y reubicación parcial de los diques de protección

Este aviso notifica al público que la Comisión Internacional de Límites y Aguas, Sección Estadounidense (*United States Section, International Boundary and Water Commission, USIBWC*) ha completado una Evaluacion Preliminar de Impacto Ambiental para las mejoras propuestas al Proyecto de control de inundaciones del río Grande en Presidio en el límite entre Texas y México. La evaluación cubre seis alternatives que incluyen rehabilitación estructural de los diques de contención, mejore del control de inundaciones aumentando la altura de los diques, o reubicación parcial de los diques. Los impactos analizados son los referentes a los recursos aquáticos y la calidad del agua, a los recursos biológicos y culturales, a las especies biológicas protegidas, condiciones socioeconómicas y uso del terreno.

La *USIBWC* llevará a cabo una reunión pública para recibir comentarios de la comunidad referentes al documento. La reunión pública se llevará a cabo en el Centro de Actividades de Presidio el jueves 10 de diciembre del 2009, de 5 p.m. a 7 p.m, en la siguiente dirección: Presidio Activities Center, 1400 East O Reilly Street, Presidio, Texas 79845. Copias de la Evaluación de Impactos Ambientales están disponibles en la biblioteca de Presidio (200 East O Reilly Street, Presidio), o pueden obtenerse en la página de internet de la USIBWC (www.ibwc.state.gov) por un periodo de 45 días.

Comentarios al respecto pueden presentarse durante la reunión pública, o ser enviados por correo a la siguiente dirección: Mr. Daniel Borunda, Environmental Protection Specialist, Environmental Management Division, USIBWC, 4171 North Mesa Street, C-100, El Paso, Texas 79902 ; o por correo electrónico al *e-mail: danielborunda@ibwc.gov*. Se aceptarán comentarios hasta el día enero 12 del 2010 para poder ser incluidos en la versión final de la evaluación de impacto ambiental.

APPENDIX F
DOCUMENTATION FOR EIS FOR THE PRESIDIO FCP

(Provided on CD-ROM)

F.1 Draft EIS for Flood Control Improvements and Partial Levee Relocation, USIBWC Presidio Flood Control Project – November 2009

F.2 Updated Biological Resources Evaluation for Presidio Flood Control Project – January 2010

F.3 Updated Alternatives Report for Presidio Flood Control Project – August 2009

F.4 Scoping Meeting Summary for Presidio Flood Control Project – June 2009

F.5 Complete Public Hearing Transcript - January 2010

APPENDIX G
TECHNICAL SUPPORT DOCUMENTS

(Provided on CD-ROM)

G.1 Final Programmatic Environmental Impact Statement, Improvements to the USIBWC Rio Grande Flood Control Projects along the Texas-Mexico Border – January 2008

G.2 Final Environmental Assessment, Emergency Levee Repairs to the Presidio Flood Control Project, Station 7+000 – May 2009

G.3 Biological Resources Survey, Rio Grande and Tijuana River Flood Control Projects, New Mexico, Texas, and California – August 2005.

G.4 Geotechnical Investigation, Presidio Flood Control Levee System – Phase I, Technical Memorandum, Raba-Kistner – May 2009.

G.5 Geotechnical Inspection of USIBWC Levees at Presidio, Texas, 29-30 September 2008, Letter Report – October 2008