

SECTION 1 PURPOSE OF AND NEED FOR THE PROPOSED ACTION

This chapter discusses the following: the mission of the International Boundary and Water Commission (IBWC); the background information on the international treaty agreements between the United States (U.S.) and Mexico; the authority and agreement between the two countries; boundary issues between the U.S. and Mexico and the responsibility of the U.S. Customs Service and the IBWC; the purpose of and need for the Proposed Action, the location of the Proposed Action, and the scope of the environmental review.

1.1 INTRODUCTION

The International Boundary and Water Commission (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 (USIBWC) and a Mexico Section (MxIBWC). The Commission was established to apply the rights and obligations the Governments of the U.S. 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 is to assure:

- Regulation and conservation of waters of the Rio Grande for use by the U.S. 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.

1.2 BACKGROUND

In 1932, an agreement was reached between the United States and Mexico to develop a coordinated plan for an international project to protect the Lower Rio Grande Valley (LRGV) in both countries against flooding from the Rio Grande. This agreement, which later resulted in the Lower Rio Grande Flood Control Project (LRGFCP), was developed by the IBWC. The USIBWC and MxIBWC sections are each responsible for meeting treaty obligations within their national boundaries.

The U.S. portion of the LRGFCP facilities are located in Hidalgo, Cameron, and Willacy Counties, Texas, with the river levee beginning near the Town of Penitas at the head of the delta, about 180 river miles (RM) from the Gulf of Mexico. The U.S. portion of the LRGFCP includes one-half of the Anzalduas Diversion Dam (completed in 1960), the Retamal Diversion Dam (completed in 1973), 168 miles of levees flanking an interior floodway system, including the natural channel of the Arroyo Colorado, and 102 miles of levees along the Rio Grande (USIBWC 1980). Retamal Diversion Dam is located at RM 129.22 and Anzalduas Diversion Dam located at RM 169.14.

The LRGFCP is designed to protect urban, suburban, and highly developed irrigated farm lands in the Rio Grande delta in both countries from floods of the Rio Grande. The LRGFCP contains a variety of features for protection of the LRGV of Texas, including the Rio Grande main stem, an interior floodway system, and two diversion dams. The LRGFCP flood levees are grass-covered earthen structures, with a distance between the U.S. and Mexican levees ranging from approximately 400 feet to 3 miles (USIBWC 1992). The U.S. portion of the LRGFCP is operated to convey excess floodwaters of the Rio Grande Valley to the Gulf of Mexico through the river and United States interior floodways. The USIBWC and MxIBWC jointly operate the two diversion dams.

Anzalduas Diversion Dam is operated to divert water as required by the Treaty of February 3, 1944, "Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande" (TS994; 59 Stat. 1219). Flood operations of the LRGFCP also involve close coordination of the USIBWC and MxIBWC in the operation of two upstream reservoirs (Amistad and Falcon) to control floodwaters reaching the LRGFCP area. The two sections work closely on the division of excess floodwaters diverted into each country's interior floodway systems. Normal operation of the LRGFCP includes daily operation of the Anzalduas Diversion Dam for diversion of Mexican irrigation waters and frequent inspection of the entire LRGFCP area to ensure flood readiness. Retamal Diversion Dam is not a daily operational structure and is only operated in the event floodwaters need to be diverted to the Mexican interior floodway.

The design flood for the LRGFCP is an approximate 100-year flood, with a flow of 250,000 cubic feet per second (cfs) at Rio Grande City. During the design flood, both Anzalduas Diversion Dam and Retamal Diversion Dam will divert 105,000 cfs into the U.S. and Mexico, respectively. Flow diversion during the design flood will limit flood flows through the Brownsville-Matamoros area to 20,000 cfs. The USIBWC and MxIBWC jointly operate Retamal Diversion Dam, diverting flows into the Mexican off-river floodway system. The USIBWC and MxIBWC coordinate the operation of these dams to ensure both dams divert equal flows into the respective countries during significant flood events.

1.3 AUTHORITY AND AGREEMENT WITH MEXICO

The U.S. and Mexico, since first establishing their boundary in 1848, consistently agreed that the middle of the Rio Grande should be their boundary in the international reach of this river. The two countries affirmed their intentions to maintain the river as the boundary in the Rectification Convention of 1933 and the Chamizal Convention of 1963. In 1970, the

U.S. and Mexico signed a comprehensive treaty to settle all pending boundary differences in such a way as to preserve the Rio Grande as the boundary, and to provide for measures to minimize the number of changes in the river channel location (USIBWC 1980).

Additionally, the Act of August 19, 1935, the Water Treaty of 1944, and Minutes 196 (1950), 212 (1961), and 238 (1970), of the IBWC conferences between both countries established guidelines on sharing of water, responsibilities of flood control, and the associated costs, including maintenance and construction expenses on the Rio Grande, *i.e.*, each country is responsible for maintenance and construction on its respective side of the border. Maintenance of the levee system, river channel, floodway, and dams is discussed in Section 3.1.

1.4 BUREAU OF IMMIGRATION AND CUSTOMS ENFORCEMENT

As an international boundary, the project and surrounding area is under constant surveillance by the newly formed Department of Homeland Security (DHS), through the Directorate of Border and Transportation Security (BTS). On March 1, 2003, functions of several border and security agencies, including the U.S. Customs Service, Federal Protective Service, and former Immigration and Naturalization Service (INS) were transferred into the BTS within the DHS. As part of the transition, these agency functions were reorganized into the Bureau of Immigration and Customs Enforcement (ICE) (ICE 2003). Although the function of the ICE has been expanded from those of the former INS, one of its primary duties is still the detection and prevention of smuggling and illegal entry of aliens into the U.S. Maintenance issues concerning the river as a boundary and demarcation of a boundary between the U.S. and Mexico are the responsibility of the USIBWC. The Rio Grande is a natural deterrent to illegal entry into the U.S. (USIBWC 2002).

1.5 PURPOSE OF AND NEED FOR ACTION

Retamal Diversion Dam was constructed by the IBWC in 1973. The dam is about 182 feet wide and 88 feet long and contains three radial gates that regulate river flows. The dam is an integral part of the LRGFCP. Its primary function is to force all flood flows in excess of the safe capacity of the channel (20,000 cfs design flow) through the Mexican Floodway of the Rio Grande between the dam and the Gulf of Mexico.

Since Retamal Diversion Dam was first constructed, sediment has been accumulating in the channel on the U.S. side of the river. Because of low-flow conditions in the Rio Grande and continued drought an island and sandbar have formed downstream of Retamal Diversion Dam and along the concrete apron downstream of the flood control gates. Additionally, during the Mexican flood in 1988 as a result of Hurricane Gilbert, sediments accumulated in the Mexican off-river floodway system upstream of Retamal Diversion Dam. To reduce the amount of sediment buildup, MxIBWC flushed the sediments from the floodway system into the Rio Grande, which eventually settled near the island and added to the problem of sediment buildup.

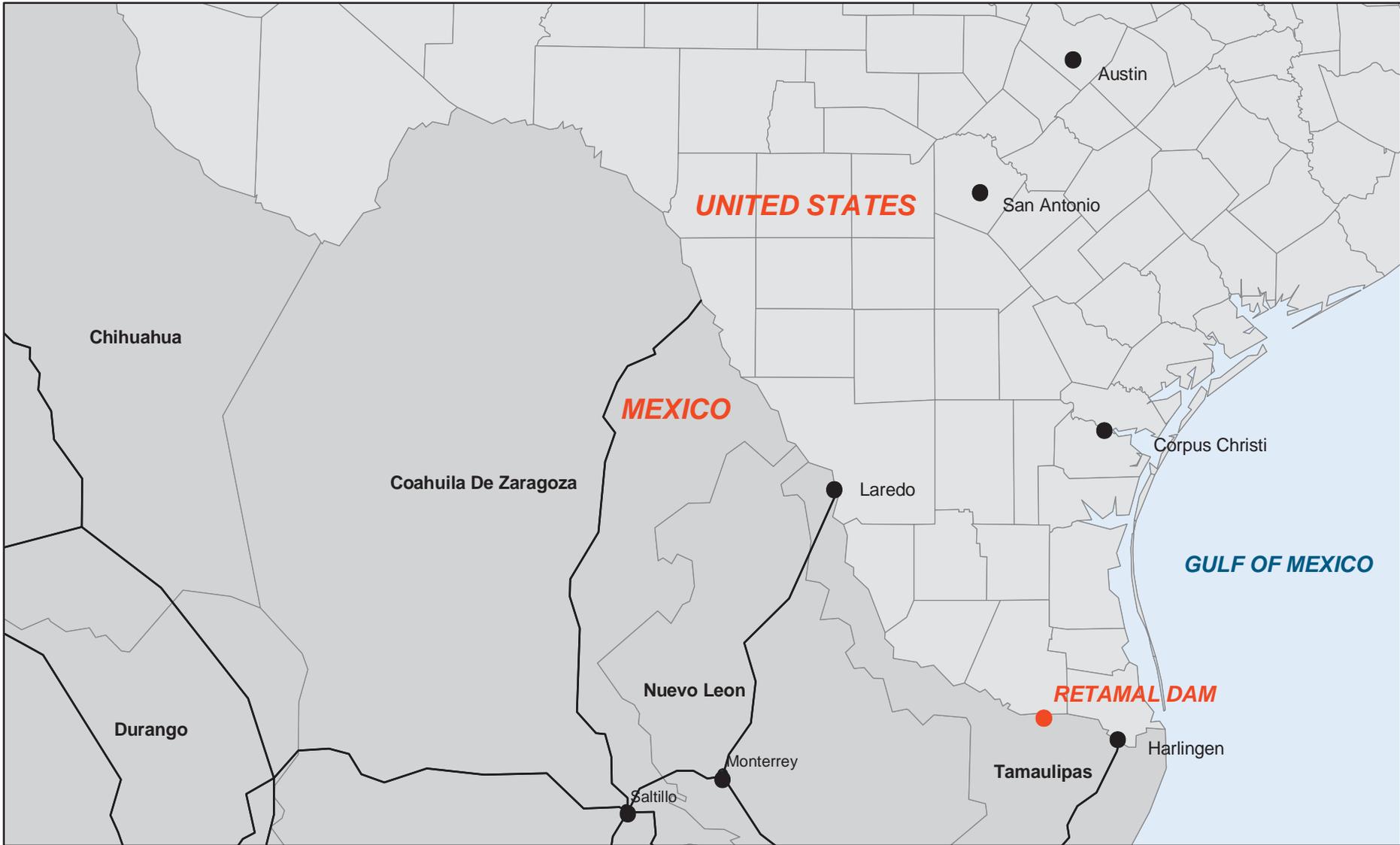
If sediment continues to build up along the concrete apron, operation of the gates that control flood flow conditions would likely be impaired. Additionally, the sediment buildup has caused the main channel in the river to shift toward the Mexican side, thus potentially changing the boundary location between the two countries. Shifting of the main channel just downstream of the dam has also caused the elevation of the river bottom to increase from about 1 foot to 7 feet from the original invert elevations. According to recommendations in the December 1997 and April 2003 Joint Report of the Technical Advisors of the International Boundary and Water Commission Regarding the Electrical, Mechanical, Geotechnical & Structural Safety of Retamal Diversion Dam, the island and sandbar should be removed to re-establish the original cross-section of the river (USIBWC 1997; 2003a).

The purpose and need of the action is to remove sediment buildup downstream of Retamal Diversion Dam to ensure that the flood control gates can continue to operate effectively and to stop the main channel from shifting toward the Mexican side of the boundary. The USIBWC proposes to remove vegetation from the island, dredge the sediment either mechanically or hydraulically, and reuse or dispose of all the material on vacant Mexican Federal Government land adjacent to the river at the dredging location.

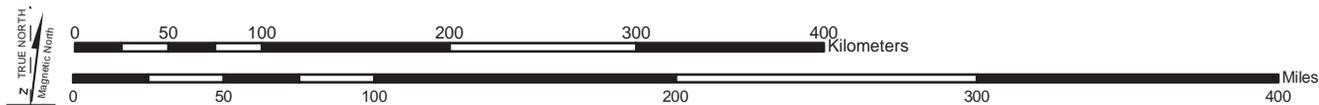
1.6 LOCATION OF THE PROPOSED ACTION

The USIBWC Proposed Action would be conducted within the LRGFCP at the site of the Retamal Diversion Dam. The Retamal Diversion Dam is located approximately 8 miles south of Weslaco in Hidalgo County, Texas at river mile (RM) 132.50. Figure 1.1 shows the general location of the Project Area. The Proposed Action is defined to include the U.S. portion of a sandbar and island that extends from the dam concrete apron and proceeds downstream approximately 1,407 feet.

The island varies in width from about 35 to 120 feet and is heavily vegetated. The height of the island varies from about 2 to 10 feet above the water level. A sandbar has developed on the upstream and downstream side of the island. The size of the sandbar and island is approximately 4.94 acres and includes an estimated 53,652 cubic yards (cy) of sediment material. A U.S. Contractor would remove the sediment material from the whole width of the river and place it on vacant Mexican Federal Government land adjacent to the river at the dredging location. The U.S. Contractor would be working on both the U.S. and the Mexican sides of the Rio Grande. The middle of the Rio Grande is considered the international boundary between the U.S. and Mexico. A Mexican Contractor would be responsible for hauling the sediment material to a reuse or permanent disposal site located in Mexico.



SCALE 1 : 4,000,000



PARSONS

Figure 1.1 General Location of Study Area

THIS PAGE INTENTIONALLY LEFT BLANK

1.7 SCOPE OF THE ENVIRONMENTAL REVIEW

Federal agencies are required to take into consideration the environmental consequences of proposed and 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 (CEQ) issued regulations to implement NEPA that include provisions for both the content and procedural aspects of the required environmental analysis. In 1978, the CEQ issued regulations implementing the process (40 CFR 1500-1508). The USIBWC was mandated to have agency regulations for implementing NEPA which are entitled "*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*" (46FR44083, September 2, 1981) (Appendix 501-A). 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 CEQ regulations require that an environmental assessment (EA):

- Briefly provide evidence and analysis to determine whether the Proposed Action might have significant effects that would require preparation of an environmental impact statement (EIS). If analysis determines that the environmental effects would not be significant, a finding of no significant impact (FONSI) will be prepared;
- Facilitate the preparation of an EIS, when required; or
- Aid an agency's compliance with NEPA when no EIS is necessary.

This EA identifies, describes, and evaluates the potential environmental impacts that may result from implementation of the Proposed Action and the No Action Alternative. It also identifies required environmental permits relevant to the Proposed Action and the No Action Alternative. As appropriate, the affected environment and the environmental consequences of the Proposed Action and the No Action Alternative are discussed in site-specific descriptions or regional overview. Finally, the EA, if required, identifies mitigation measures to prevent or minimize impacts to environmental resources.

The following biophysical resources will be assessed in the EA: water rights, river hydrology, water and sediment quality, soils and geology, wetlands, vegetation, wildlife, threatened and endangered species, aquatic resources, air quality, noise, cultural resources, hazardous and toxic wastes, socioeconomic; and environmental justice.

The EA will not assess potential environmental impacts associated with the placement of dredged materials on the Mexican sides of the Rio Grande nor the permanent disposal site for the materials. The MxIBWC has agreed that the USIBWC will perform the work using a U.S. Contractor to remove and place the sediment material in temporary dewatering holding cells on the Mexican side of the riverbank. The MxIBWC has agreed to transport the material from the temporary holding cells using a Mexican Contractor to a permanent disposal site located in Mexico.

THIS PAGE INTENTIONALLY LEFT BLANK