

STATEMENT OF FINDINGS

January 29, 2004

TO ALL INTERESTED GOVERNMENT AGENCIES AND PUBLIC GROUPS:

Applicant: Brownsville Public Utilities Board (PUB)
City of Brownsville, Cameron County, Texas

Proposed Project: FY-2002 Special Appropriations Act Funding for the Proposed
Brownsville Weir and Reservoir Project

Project Description. The Brownsville Public Utilities Board (PUB) of the City of Brownsville, Texas, was selected to receive special Congressional funding through the Environmental Protection Agency's (EPA) Appropriations Act for Fiscal Year 2002 for construction of a weir on the Rio Grande. The project is referred to as the Brownsville Weir and Reservoir Project. The project will impound a water reservoir approximately 42 river-miles long, extending from river mile (RM) 48 to RM 90. The reservoir will be located within the existing riverbanks and inside the levees that parallel the banks of the river. The impounded water will be confined within these existing levees at a surface elevation of 26 feet above mean sea level (MSL) for the length of the reservoir. The reservoir will store 6000 acre-feet (2 billion gallons) at the maximum pool elevation, and will average 110 feet in width over its entire length, covering a surface area of 600 surface acres, an increase of approximately 100 acres over the existing conditions. The project is expected to provide PUB with a firm yield of approximately 20,000 acre feet per year, an increase of approximately 50% over its existing water supply capacity.

Finding. Pursuant to Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act, the PUB applied to the U.S. Army Corps of Engineers (COE) for permits necessary to construct the project. The COE prepared a Environmental Assessment and Statement of Findings finding that the project would have no significant impacts on the quality of the human environment. The document also summarized consultations required by other Federal statutes, e.g., the Endangered Species Act. The COE issued the permit on December 13, 2003.

EPA has reviewed the evaluations and findings of the COE and of the State and Federal agencies with which it consulted. It now adopts the COE findings. No further environmental review is required prior to grant ward for construction of the project.

Responsible Official,

Gerald Fontenot, P.E.
Acting Director
Compliance Assurance and
Enforcement Division

**ENVIRONMENTAL ASSESSMENT
ADOPTED FROM THE U.S. ARMY CORPS OF ENGINEERS
ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED PERMIT**

Project Description. The Brownsville Public Utilities Board (PUB) proposes to construct a weir on the Rio Grande to impound a water reservoir approximately 42 river-miles long, extending from river mile (RM) 48 to RM 90. The reservoir will be located within the existing riverbanks and inside the levees that parallel the banks of the river at a surface elevation of 26 feet above mean sea level (MSL) for the length of the reservoir. The reservoir will store 6000 acre-feet (2 billion gallons) at the maximum pool elevation, and will average 110 feet in width over its entire length, covering a surface area of 600 acres, an increase of approximately 100 acres over the existing conditions. The project is expected to provide the PUB with a firm yield of approximately 20,000 acre-feet of water per year, an increase of approximately 50 percent over their existing water supply capacity.

The weir structure will contain low-flow outlets and six 35-foot-wide radial gates (Tainter gates) that will allow passage of non-project water and flood flows. The gates will open from an elevation near the existing river bottom, which will facilitate the passage of aquatic organisms. During the construction phase, temporary cofferdams would be installed upstream and downstream of the project site, and river water will be diverted into a temporary diversion channel. After project construction is completed, all materials needed for the cofferdams will be removed from the river and the diversion channel will be restored to pre-project conditions. In addition, the existing rock weir at the project site will be removed, and 15,000 cubic yards (CY) of riprap will be placed around the structure for slope protection. The project can be found on the U.S.G.S. quadrangle map entitled: East Brownsville, Texas. Approximate UTM Coordinates: Zone 14; Easting: 654700; Northing: 2863000. The weir will be located at RM 48.7, about 8 river miles downstream of the Gateway Bridge between Brownsville, Texas, and Matamoros, Tamaulipas, Mexico and about 4 miles southeast of Brownsville, Cameron County, Texas.

The proposed project will provide a more reliable source of drinking water for the city of Brownsville and enable water supply service to colonias. The project is designed to develop an additional supply of water from the Lower Rio Grande to meet the future municipal and industrial water needs of the PUB and other water purveyors located in southern and southeastern Cameron County, Texas. Water demands for the City of Brownsville are projected to increase from approximately 30,000 acre-feet to 50,000 acre-feet by the year 2050. Existing municipal and industrial water supply sources for the PUB cannot satisfy the projected water needs for the region. The construction of the weir will allow impoundment and storage of these waters so that diversions can be made when the water is needed. The storage and utilization of these flows in the Brownsville Reservoir will help conserve water stored in Falcon and Amistad reservoirs by reducing the need for future releases for water users in the Brownsville area.

Alternatives Considered. A key provision of the 404(b)(1) guidelines is the “practicable alternative test” which requires that “no discharge of fill material shall be permitted if there is a practicable alternative to the proposed fill which would have a less adverse impact on the aquatic ecosystem.” The applicant must demonstrate that there are no less damaging sites available and that all onsite impacts to waters of the United States have been avoided to the maximum practicable extent possible. For an alternative to be considered “practicable”, it must be available and capable of being done after taking into consideration cost, existing technology, and logistics in light of the overall project purpose. In the “Updated Environmental Assessment”, written in July 1999, the applicant provided a summary of the alternatives that they identified for consideration.

(1) No-Action Alternative. Under the No-Action Alternative, the project would not be built, and the PUB would have to develop water conservation measures and additional water sources to meet the projected water needs of its municipal customers. The No-Action Alternative would not address the increasing loss of base flow in the Rio Grande or the corresponding detrimental effects to the riverine ecosystem of the Rio Grande that result from low flows. This alternative involves permit denial and is not preferred by the applicant because it would not efficiently meet the future water needs of the area.

(2) Ground Water. The PUB investigated using fresh-water wells from the Gulf Coast Aquifer, the Lower Rio Grande Aquifer, and other minor, localized water bearing strata. Fresh ground water is not widely available, although one area containing ground water of marginal quality has been located, and the PUB is in the process of developing a well field to supply 10 million gallons per day (mgd) from ground water sources. However, concentrations of sulfides and chlorides make ground water unsuitable for human consumption without extensive treatment. While the PUB has acquired rights to develop and use this ground water, this water source does not provide a reliable long-term supply and is already being utilized by other nearby water purveyors. The applicant does not advocate using ground water to solve their supply problems because the discharge of the effluent left over from this treatment process could potentially involve discharges into the Rio Grande that would degrade the riverine ecosystem, and they believe ground water to be only an emergency, short-term supplemental supply.

(3) Desalinization. Southmost Regional Water Authority (which includes PUB as a major partner) is currently pursuing a regional brackish ground water desalination facility, using reverse osmosis to treat the water in the Brownsville area. The plant will use brackish ground water, and is designed to produce 12 mgd of freshwater. The PUB is pursuing the development of this source of supply with other water suppliers in southern Cameron County. The salinity levels of the source ground water likely will increase as pumping continues over the next 20 years, thus limiting the long-term utility of this supply. The treatment required to provide a usable potable supply from brackish ground water typically includes some type of reverse osmosis or electro-dialysis system, both of which are relatively expensive to construct and operate. The cost of seawater desalinization is estimated at \$1,300 per acre-foot. The cost of the proposed water

reservoir project is estimated at \$438 per acre-foot. The applicant does not prefer using desalinization to solve their supply problems because the discharge of the saline effluent left over from this treatment process could potentially involve discharges into the Rio Grande that could degrade the riverine ecosystem. Because of environmental concerns, the uncertainties regarding the extent of the available ground water resources, and the relatively high cost of desalinization, the PUB is not pursuing this option at this time.

(4) Purchase Existing Water Rights. The Brownsville PUB is actively pursuing the acquisition of existing irrigation water rights on the Rio Grande and their conversion to municipal use. However, such water rights are expensive to purchase (typically \$2,000/acre-foot) and have not been available in the quantities required to satisfy the PUB's future municipal demands. This alternative would not result in the development of any additional water for the Lower Rio Grande Valley.

(5) Inter-basin Water Transfers. The PUB considered acquisition of water from other basins (Lavaca, Guadalupe and San Antonio), but they rejected the idea because of high operation costs, and the need for federal and state support. The existing agriculture water distribution system is open to the air and subject to high evaporation losses due to the semi-arid environment and the permeability of the soils in the irrigation channels. The conveyance system losses throughout the Lower Rio Grande Valley could be reduced through actions such as lining of irrigation canals and replacement of canals with pipelines. Inter-basin transfers would require a large and expensive program. Full implementation will involve a complex institutional process and many years to complete. In addition, the construction of new water transmission facilities could impact significant amounts of wetland and upland habitat, and further fragment ecosystems. This is not an action that could be pursued by the PUB alone.

(6) Water Conservation. Water conservation measures have been identified as a potential method for increasing the efficiency of the existing municipal water supply system, in order to reduce the need for the project. There are a number of conservation measures, both existing and proposed, for the agricultural users in the area. The City of Brownsville has an Emergency Water Conservation and Drought Contingency ordinance in place to address extreme weather conditions. These conservation measures are considered inadequate to meet the projected demands of the project area. The Rio Grande is experiencing an invasion of hydrilla, a water plant that has been blamed for removing large amounts of water from the river system through evapotranspiration. The Region M Planning Group, in cooperation with TPWD cooperation, is implementing hydrilla control that includes the release of approximately 20,000 triploid Asian grass carp (fish that are unable to reproduce) into the lower Rio Grande to eat the hydrilla. The PUB also has a current Water Conservation Plan, with a goal to reduce system losses by half and to reduce per capita consumption by five percent by 2014. The PUB has stated that water conservation plans alone will not supply enough water to meet their projected needs and has identified the proposed project as their preferred alternative to increase their water supply.

(7) Wastewater Reuse. Non-potable reuse is being pursued in Brownsville for agricultural and industrial purposes. The PUB considered the use of treated wastewater, or gray water, to extend water supplies for irrigation. The PUB has studied using gray water for the Brownsville Municipal Golf Course and has an on-going study on the use of treated effluent for industrial uses at the Port of Brownsville. This will not provide the quantities of water necessary for supporting PUB's municipal use demands in the future. Direct potable reuse of wastewater for public consumption has not been studied in the Brownsville area, because it would require significant treatment, and is expected to meet strong public resistance.

(8) Alternate Reservoir Locations. The International Boundary and Water Commission (IBWC) identified a number of potential alternate reservoir sites on the lower Rio Grande. Several candidate locations were evaluated, including two sites downstream of Brownsville and others upstream of Brownsville, upstream of Anzalduas Dam, and at Retamal Diversion Dam. The Retamal Dam location was also evaluated and was recommended in tandem with the Brownsville site, but it was noted that Mexico would be entitled to use half the storage developed, since the dam is jointly owned by the United States and Mexico. The Cardena Tributary on the Mexican side of the Rio Grande was also identified as a potential reservoir site. However, all water in all Mexican tributaries in the lower Valley belongs to Mexico under the 1944 Treaty between the U.S. and Mexico, and the PUB could not construct a reservoir or obtain water from this source. The applicant has also noted that the construction of large new reservoir projects will necessitate large impacts to wetlands and other sensitive ecological habitat in the region. Therefore, the applicant does not prefer alternate reservoir locations.

(9) Resaca Restoration. The PUB and the U.S. Army Corps of Engineers (COE) are currently pursuing a Resaca Restoration Project to dredge sediments from resacas in Brownsville and increase their storage capacity. The goal of this project is primarily ecosystem restoration, but in addition, increased storage in Resaca de la Guerra resulting from dredging will have some water supply benefit to PUB. That resaca has historically been used to transport and store water pumped from the Rio Grande, but is not currently used since the installation of a raw water pipeline. This type of system would require a large pumping station to move significant quantities of water during times of higher flow in the Rio Grande. The amount of increased storage that could result is not considered to be sufficient to meet the long-term needs of the PUB. In addition, the pumping station and pipeline network could impact large areas of wetland and other sensitive ecological habitat in the region. Therefore, the applicant does not consider resaca restoration program sufficient to meet their water supply needs.

(10) Offsite Reservoirs. The PUB's Water Use Permit No. 1838 authorizes a total of 26,500 acre-feet storage capacity in off-channel reservoirs. The environmental impacts and costs of construction of such reservoirs would be significant. Large scale reservoirs would displace significant acres of wetlands and sensitive ecological habitat. In addition, a major river pumping station using large amounts of energy and a large pipeline would have to be constructed to deliver the available Rio Grande water to the reservoirs during times of high river flows.

Therefore, the PUB is not pursuing off-channel reservoirs because of the large environmental impacts and high economic costs associated with this option.

Potential Impacts and Proposed Mitigation. The proposed alternative was selected as the preferred alternative because it will fulfill the purpose and need of the project and stabilize the riverine environment of this portion of the Rio Grande. The proposed construction site for the 42 mile-long, 600-acre, 6,000 acre-feet reservoir will have relatively low environmental impacts, is low cost and is downstream of the last major diversion point on the river, and it has the highest potential yield. This location will allow much of the excess river flows to be captured and stored in the project reservoir. The conditions in the water rights permit will establish minimum flow levels that will bring stability to the riverine ecosystem downstream of the project area. The project will increase the PUB's ability to capture water that would otherwise be lost and will decrease the need for, and frequency of, water releases requested by the applicant. The project will result in a decrease in the withdrawals from Falcon Reservoir and provide environmental benefits in the form of water conservation to the region downstream of the Falcon Reservoir. The conditions in the water rights permit establish maximum salinity levels downstream of the weir. This will prevent the salt water wedge from moving upstream and will result in the protection of the freshwater riverine ecosystem downstream of the project area.

The construction of the weir, the associated structures, and the upstream flooding of the reservoir will impact a total of 65 acres of jurisdictional riverine habitat and wetlands on the U.S. side of the river. The project will also impact approximately 65 acres of wetlands on the Mexico side of the river. To offset the impacts to jurisdictional areas on the U.S. side, the applicant is proposing to create 130 acres of wetland mitigation that will be a combination of wetland creation, wetland enhancement, and enhancement of upland buffer around the mitigation area. The mitigation site is at Rincon Banco, approximately 25 river miles downstream of the proposed weir site. Rincon Banco is an oxbow that no longer receives floodwater from the Rio Grande. The southeastern portion of the oxbow, and approximately 10 acres adjacent to the oxbow, is currently under cultivation. The mitigation plan proposes to restore 11.5 acres of wooded/herbaceous wetlands within the old oxbow and create a mosaic of herbaceous wetland across the remainder of the 130-acre site. The applicant proposes to preserve the remaining riparian frontage along the Rio Grande to serve as a seed source for the site and surrounding areas. The applicant also proposes to purchase and protect approximately 280 acres of land that would form a corridor between the U.S. Fish and Wildlife Service's (FWS) Laguna Atascosa Wildlife Refuge and FWS's property at Boca Chica that will allow wildlife to travel between the two National Wildlife Refuges.

Comments Received and Responses.

(1) Federal Agencies.

U.S. Fish and Wildlife Service, Lower Rio Grande Valley National Wildlife Refuge (NWR). In a

letter dated October 23, 2000, the NWR stated that the project would impact the river volume, water quality, and salinity of 25 miles of their river front property. The NWR stated that the construction of the Amistad and Falcon dams have reduced flooding and caused a degradation of the remnant riparian woodlands.

The project would provide a higher and more stable water level that would be beneficial to this riparian habitat. NWR stated concerns over the fragmentation of wildlife travel corridors, downstream flow, saltwater intrusion, and the uncertain quantities and quality of runoff and treatment plant return flows.

U.S. Fish and Wildlife Service, Ecological Services Office in Corpus Christi (ESOCC). In a letter dated October 26, 2000, the ESOCC commented that the project is likely to affect federally listed threatened and endangered species. In a letter dated November 17, 2000, the ESOCC commented that the project might result in substantial and unacceptable impacts to aquatic and terrestrial resources of national importance. The ESOCC objected to the issuance of the COE permit as proposed because the project would affect FWS refuge system tracts above and below the project, would affect federally listed species, and the proposal did not include sufficient alternative analysis. The ESOCC recommended that the COE initiate formal consultation under Section 7 of the endangered Species Act, and address the need for an Environmental Impact Statement (EIS) under National Environmental Policy Act (NEPA) guidelines. for the project. FWS also requested that the COE coordinate with Mexico with regard to Mexican resources. The ESOCC provided a list of 40 federally listed threatened/endangered species, candidate species, and species of concern for Cameron County.

Formal Section 7 consultation was initiated with the FWS on January 2, 2001. A draft biological opinion (BA) was submitted on April 4, 2001. FWS submitted comments on the BA in November 2001. A revised BA was submitted to FWS on June 20, 2002. The FWS issued a Final Biological Opinion (BO) on May 15, 2003, determining that the project would not result in an adverse impact to the endangered species. The BO included an incidental take authorization.

Other issues of concern to the ESOCC included the following:

- The mitigation plan does not adequately address the permanent inundation of riparian wetlands, conversion of shallow water to deep water, and the loss of travel corridors for the ocelot.
- The lack of coordination with Mexico regarding the impact of flooding and species on the international CITES list.
- The applicant has not adequately address the impact of the 25 cfs low flow condition on the aquatic environment downstream of the project site.

- The project compounds the cumulative impact analysis of the riverine habitat. FWS notes that the activities of the IBWC and the Border Patrol to clear, mow, and control the riverside vegetation is the subject of separate environmental impact studies, and that the goals and needs of the IBWC, the Border Patrol, FWS, and the PUB should be addressed in the COE documentation.

Environmental Protection Agency. The Environmental Protection Agency (EPA), in a letter dated October 25, 2000, requested a 30-day extension of time to comment. In a letter dated November 28, 2000, EPA stated that the project would reduce the median flow of the river by 33 percent. EPA believes that this is a substantial decrease and the long-term effects of this reduced flow should be studied further. EPA stated that the 130 acres of stream bank vegetation (common reed) is sometimes considered undesirable, but here it represents the primary riparian vegetation in the project area. EPA had several comments designed to improve the mitigation proposal.

National Marine Fisheries Service (NMFS). The National Marine Fisheries Service (NMFS) in a letter dated November 15, 2000, commented that they anticipate that any adverse effects that might occur on marine and anadromous fishery resources would be minimal, and did not object to the issuance of the permit.

(2) State and Local Agencies.

Texas Parks and Wildlife Department. The Texas Parks and Wildlife Department in a letter dated November 22, 2000, commented that 130 acres of vegetated stream banks are valuable habitat for aquatic and avian species, particularly, waterfowl, herons, and egrets. TPWD stated that there is an undetermined amount of habitat that will be impacted by the reduced median flows. The project will restrict the mobility of three state listed aquatic species (opossum pipefish, river goby, and blackfin goby) and the freshwater prawn when the gates are completely closed. TPWD stated that the minimum flows of 25cfs would occur less frequently after the project is constructed. TPWD stated that many native species would be adversely impacted by the lack of periodic flooding. TPWD believes the project may affect the salinity regime in the lower Rio Grande. The movement of the salt-water wedge could produce large areas of intermediate marsh with lower species diversity and production than either freshwater or estuarine marshes. TPWD stated that the documentation provided does not adequately address the type or width of the various habitat types present in the project area. After further discussions, TPWD in a letter dated 20 December 2000, stated that its concerns had been addressed.

Texas Historical Commission. The Texas Historical Commission in a letter dated October 13, 2000, commented that the project may affect properties eligible for the National Register of Historic Places. In addition, the project areas owned or controlled under easement by the PUB will require review and permitting under the Antiquities Code of Texas.

Texas Coastal Coordination Council. The Texas Coastal Coordination Council in a letter dated November 3, 2000, commented that the project is consistent with the Coastal Management Program goals and policies, and that it had no significant unresolved consistency issues with respect to the project.

Texas Commission on Environmental Quality (TCEQ, formerly Texas Natural Resource Conservation Commission). The TCEQ in a letter dated November 28, 2000, commented that insufficient information was contained in the public notice to complete a water quality certification. TCEQ had a number of issues that they wanted addressed by the applicant prior to their 401 water quality permit decision.

(3) Individual and Organized Groups.

Brownsville Irrigation District. The Brownsville Irrigation District in a letter dated 23 October 2000, commented that the project is vitally important to agriculture in Cameron County, and will provide a needed water supply for almost 250,000 acres, and provide long-term economic growth of a currently depressed region.

Rio Grande Valley Audubon Society (Audubon). The Audubon Society in a letter dated October 20, 2000, commented that the COE should prepare an EIS for the project, and believed that the project would obstruct the river and cause flooding. Audubon thought the mitigation plan did not adequately address the impacts to riverbank wetlands, potential flooding of the Jeronimo Banco Tract of the Lower Rio Grande National Wildlife Refuge. Audubon thought the project could raise the groundwater table and displace people on both sides of the river. Audubon thought the project could flood some natural areas and deprive others of freshwater inflows. Audubon questioned the effect of the project on the salt-water wedge, sewage plants and pollution in the river.

(4) Responses to Comments. The COE initiated formal consultation under Section 7 of the Endangered Species Act in a letter to the FWS dated December 12, 2000. By letter dated December 20, 2000, the COE transmitted the objection raised during the Public Notice comment period to the PUB, and requested additional information to respond to the issues. In a letter dated March 19, 2001, the PUB responded to the objections with the following comments:

- The PUB conducted modeling and determined that salinity will be not significantly changed by the project. The PUB concludes that this is supported by their Texas water rights permit, which states that they cannot impound water if the salinity in the river downstream of the project, at RM 23.6, rises above 2,250 microsemens.
- The PUB stated that the lower reach of the Rio Grande does not have a commercial fishery, so the project will not have an adverse impact on fisheries.

- There will be no impact to downstream irrigators since the project is designed to release the 25 cfs that is allocated to the downstream users.
- The project will have no impact to the Sabal Palm Sanctuary since that area is under tidal influence and backwater conditions, not downstream flows.
- The PUB modeled dissolved oxygen (DO) and concluded that the project will not change the DO conditions upstream or downstream of the project.
- The PUB conducted hydraulic flood plain modeling. The modeling showed that the project would not impact the design-flood elevation in this portion of the Rio Grande. The model was approved by the IBWC on May 17, 2001.
- The PUB stated that the issue of decreased sediment transport downstream of the proposed weir is not significant since there are no marshes associated with the estuary, and no riverbank flooding of significance occurs.
- The PUB stated that nutrient loading in the river will be slightly higher and that will be beneficial.
- The PUB concludes that the project will facilitate birding activity in the project area.
- The PUB provided a detailed alternative analysis.
- The PUB stated that they intend to follow the recommendations of the Texas Historical Commission (THC) to conduct surveys in the river, pedestrian surveys along the U.S. side of the river, and further coordinate with the THC on the possible impact to cultural resources that might be uncovered by water level fluctuations.

U.S. Army Corps of Engineers. The proposed project will not significantly alter the wetlands or aquatic habitat above or below the weir site. Two hundred years of water withdraws along the entire length of the Rio Grande have contributed to the decrease in river flows to the point where the river does not provide the same environmental functions as a natural riverine system. The natural environment has been extensively modified, leveed and controlled along its entire length to prevent flooding impacts. The project will not affect the adjacent floodplain or the adjacent uplands. The proposed reservoir will be entirely within the existing levee system and the project will have a minor impact on the aquatic environment of the river. The project will provide environmental restoration benefits by providing a steady discharge of freshwater that will be an improvement over the occasional low flow conditions that exist during drought years. The applicant has provided adequate wetland mitigation to offset the wetland impacts, and has provided an upland travel corridor that will offset potential impacts to endangered species.

The request for an EIS was considered by COE. However, Department of the Army guidance ER 200-2-2 (Environmental Quality Procedures for implementing NEPA, Section 6.) and 33 CFR Part 230.6 state that actions that normally require an EIS include feasibility reports for authorization and construction of major projects. However, Section 6 also states District commanders may consider the use of an EA on these types of actions if early studies and coordination show that a particular action is not likely to have a significant impact on the quality of the human environment. Section 7.a. of the guidance further states that most (regulatory) permits will normally require only an EA. The EPA agrees that an EIS is not required.

Findings. An extensive environmental assessment has been conducted to address the environmental and social impacts of the project, and a public hearing was conducted to present the project to the citizens of both Brownsville and Matamoros. There are positive economic and quality of life benefits that will result from the proposed work. The project will permanently converted 10 miles of riverine habitat to reservoir habitat, and another 32 miles will experience an increased frequency of flooding. These changes will occur within the existing river banks and are not significant. The project will increase the water surface by approximately 100 acres, but that is not a significant change from the current condition. The decreased flow should not materially affect the aquatic biota in the river. The depth will increase in some areas by 15 feet, enhancing recreational fishing opportunities. The impacts to the downstream estuary will not be significant since moving the salt-water wedge upstream will allow use by estuarine species without displacing a significant freshwater fisheries community.

The project will impact approximately 130 acres of wetland habitat on both sides of the Rio Grande, including 65 acres of wetlands on the U.S. side of the river. To offset the unavoidable impacts to wetlands on the U.S. side, the applicant will create a 130 acre wetland mitigation area. The potential impacts to endangered species habitat have been offset by the proposed establishment of a 280 acre wildlife corridor. Overall, the project will result in minimal environmental impacts, and minimal impacts on fish and wildlife values. The project may reduce requirement for daily releases from Falcon Reservoir and cause minor changes in the normal flow regime from Falcon Reservoir to the Gulf of Mexico. The potential impacts to two historic sites on the National Register, and potential eligible sites along the lower portion of the Rio Grande will be addressed by appropriate surveys.

This project has been the subject of a number of studies and extensive agency coordination, which conclude that the project is minor in scope and has minor impact on the quality of the human environment. The studies include: hydrology (flood) modeling; salinity modeling; fisheries sampling; a biological assessment, an endangered species evaluation, a wetland mitigation plan, and a study of Outfall Structures and Ground water Impacts in Matamoros, Mexico.

The applicant has obtained the required water rights permit from the TCEQ, that includes a requirement for the release of a minimum of 25 cfs of freshwater, which will be an

improvement over existing low flow conditions, and will stabilize the aquatic environment downstream of the project site. The low flow situations have occurred during drought years, however the Texas Water Rights Permit requires the applicant to release a minimum of 25 cfs from the weir to maintain stream flow to the Gulf of Mexico and bring stability to the riverine ecosystem downstream of the project. The cumulative impacts of the project on the riverine habitat of the Rio Grande have been addressed.

Given the combination of the minor impact of the project on the human environment, the extensive studies that were completed on this project, the level and extent of mitigation provided, the agency support that has been shown, and the public and environmental benefits that will occur as a result of the project. The formal Section 7 consultation between the Corps, FWS, and the applicant resulted in the formation of a wildlife travel corridor that compensates for the potential impact of the project on threatened and endangered species. The concerns of the FWS have been resolved.

The following special conditions will be added to the authorization:

- (1) The permittee understands and agrees that, if future operations by the U.S. require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the COE, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the U.S. No claim shall be made against the U.S. on account of any such removal or alteration.
- (2) Prior to the start of construction, archeological survey procedures regarding the investigation of the weir construction site, the downstream mitigation area, and along the northern bank of the Project reservoir from the weir structure to the Barreda Pump Bend (approximately 24 river miles upstream, in the vicinity of River Mile 72), shall be coordinated with the SHPO and approved by the COE. All archeological surveys must be completed prior to construction, and in the event historic properties are identified the site assessment and data recovery procedures, and resulting reports must be reviewed and approved by the USACE, in consultation with the SHPO. All sites that cannot be avoided will be assessed for potential National Register Eligibility. All sites that are potentially eligible and cannot be avoided will be mitigated according to procedures approved by the COE, in consultation with the SHPO.
- (3) All construction of mitigation, including planting, must be complete within 12 months after start of construction within jurisdictional areas. The permittee will notify COE, Unit Leader, Corpus Christi Office Regulatory Branch, in writing when the work begins in jurisdictional areas. Monitoring and maintenance will proceed according to the mitigation plan.
- (4) The mitigation success criteria, as indicated in the mitigation plan must be achieved for the

mitigation requirement to be considered complete. Should mitigation be determined to be unsuccessful by COE personnel at the end of the monitoring period, the permittee will be required to take necessary corrective measures, as approved by the COE. Once the corrective measures are completed, the permittee will notify the COE and a determination will be made regarding success of the mitigation.

Public Participation. Early in the process the applicant coordinated this project with all of the appropriate State, and Federal agencies, who are now in support of the project. The formal evaluation process began with publication of a 30-day public notice on September 25, 2000. At the request of the public, the comment period was extended to November 26, 2000. Copies of the public notice were forwarded to concerned Federal, State, and local agencies, organized groups, individuals and navigation districts.

A Public Hearing was conducted in Brownsville on July 15, 2002, in response to multiple requests from the general public. Approximately 270 people signed in at the meeting and 36 people made statements, including federal and state elected officials and the Mayors of Brownsville and Matamoros. Public comments on the project were received through August 15, 2002. The majority of the commenters suggested that water conservation measures should be implemented and an EIS should be prepared. Entities receiving notice and participating in the process included, but are not limited to the following:

- U.S. Fish and Wildlife Service
- National Marine Fisheries Service
- Environmental Protection Agency
- U.S. Coast Guard
- Texas Natural Resource Conservation Commission
- Texas Parks and Wildlife Department
- Texas Historical Commission
- Texas Coastal Coordination Council
- General Land Office
- National Ocean Survey, Atlantic Marine Center
- American Waterways Operators
- Adjacent Property Owners