E N C O N INTERNATIONAL, INC.

Engineering, Environmental & Technical Services

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FINAL
ENVIRONMENTAL ASSESSMENT FOR
"Replacement of the Old American Canal"
Located in El Paso, Texas

Prepared for:
United States Section, International Boundary and Water Commission
Contract No. IBM 99-27

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ENCON Project #127-00

NOTICE OF AVAILABILITY

UNITED STATES SECTION
INTERNATIONAL BOUNDARY AND WATER COMMISSION
Replacement of the Old American Canal, Located in El Paso, Texas; Notice of Final Finding of No Significant Impact

AGENCY: United States Section, International Boundary and Water Commission, United States and Mexico

ACTION: Notice of Availability of a Final Finding of No Significant Impact and a Final Environmental Assessment

SUMMARY: Based on the Draft Environmental Assessment (EA) and the public comments received, the United States Section, International Boundary and Water Commission (USIBWC), finds that the proposed action of replacement of the existing American Canal is not a major federal action that would have a significant adverse effect on the quality of the human environment. An Environmental Impact Statement will not be prepared for the project. The Final Finding of No Significant Impact (FONSI) and Final EA have been forwarded to the United States Environmental Protection Agency and various Federal, State and local agencies and interested parties for information only. No comments are requested. The final FONSI and EA are also available on the USIBWC Home Page at *http://www.ibwc.state.gov* under "What's New," and at the reference desk at The University of Texas at El Paso Library and the El Paso Main Library. A limited number of copies of these documents are available upon request from Mr. Fox at USIBWC, 4171 North Mesa Street #C-310, El Paso, TX 79902; Telephone: (915) 832-4736; E-mail: stevefox@ibwc.state.gov.

The proposed replacement and enlargement of the 1.98-mile-long American Canal involves demolishing the deteriorating concrete open channel segments of the canal and replacing them with reinforced concrete-lined canal segments. The USIBWC is authorized under the Rio Grande American Canal Extension Act of 1990 ("RGACE" or the Act of 1990), Public Law 101-438, dated October 15, 1990, to construct, operate, and maintain an extension of the existing American Canal in El Paso, Texas; which would provide for a more equitable distribution of waters between the United States and Mexico, reduce water losses, and minimize many hazards to public safety.

Water for both irrigation and domestic use in El Paso County is diverted into the American Canal at the American Dam located on the Rio Grande approximately 3 miles upstream from downtown El Paso. The American Dam and American Canal were constructed from 1937 to 1938, within United States territory to divert United States waters away from the Rio Grande, and to allow into the international reach of the Rio Grande only those waters assigned to the Republic of Mexico under the Convention of 1906. This ensured that United States waters diverted at the American Dam would be completely retained within the United States.

In the Act of 1990, the United States Congress also authorized the negotiation of international agreements for the RGACE to convey Mexican waters authorized under the 1906 Convention. In

view of the conveyance water losses and the safety issues inherent in Mexico's existing canal system, the RGACE was designed to accommodate Mexico's annual 60,000 acre-foot allotment of water at 335 cubic feet per second (cfs), should Mexico request its allotment delivered at this location.

Alternatives Considered:
Five alternatives were considered during the preparation of the environmental assessment, including the Open Channel Alternative (the Proposed Action Alternative) and the No Action Alternative. All four action alternatives include 1) increasing the canal capacity to 1535 cfs, 2) demolition of existing canal structures and open channel concrete lining, 3) reconstructing and enlarging the 400-foot open channel segment immediately downstream from the headgates and the 100-foot open channel segment upstream from the gaging station, 4) not repairing or replacing the two closed conduit segments under West Paisano Drive, 5) installing fences to minimize entrance into the canal, 6) installing safety equipment to reduce canal drownings, 7) removing the Smelter Bridge and the abutments of Harts Mill Bridge, and 8) providing mitigation for the loss of the Smelter Bridge by preparing Historic American Engineering Record (HAER) Level III documentation of the structure (including existing and original construction drawings, captioned photographs, and written data). The alternatives are summarized below:

Alternative 1 - Closed Conduit Alternative: All existing open channel segments (Upper, Middle, and Lower) between the American Dam and International Dam would be replaced with closed conduits, with the two excepted open reaches in the Upper Open Channel segment. This Alternative would be the most expensive to construct and would lose the historic predominantly open visual character of the canal.

Alternative 2 - Closed Conduit/Open Channel Alternative A: The Middle Open Channel segment would be replaced with a closed conduit. The Upper and Lower Open Channel segments would be reconstructed and enlarged. This alternative would accomplish all the stated objectives, but would lose some of the historic predominantly open visual character of the canal. Choosing this alternative would likely both reduce the number of drownings in the canal, but increase the number of pedestrian traffic fatalities on nearby highways. If final engineering design studies determine the necessity of a closed conduit for the middle canal segment, this alternative would become the preferred alternative.

Alternative 3 - Closed Conduit/Open Channel Alternative B: The Middle and Lower Open Channel segments would be replaced with closed conduits. The Upper Open Channel segment would be reconstructed and enlarged. This alternative would accomplish all the objectives, but at a cost second highest among the action alternatives. It would also likely triple the number of pedestrian traffic deaths on nearby highways.

Alternative 4 - Open Channel Alternative (the Proposed Action Alternative): The Upper, Middle, and Lower Open Channel segments would be reconstructed and enlarged. This Alternative would accomplish all the necessary objectives at the lowest construction cost. It would result in the lowest number of pedestrian traffic fatalities on nearby highways. Though the original canal lining would be replaced, this Alternative would preserve the historic predominantly open visual character of the canal. (It should be noted that if final engineering design studies for the replacement of the old

American Canal determine the necessity of a closed conduit for the middle canal segment, the proposed action alternative would become Alternative 2.)

Alternative 5 - No Action Alternative: The three open channel segments would be left untouched, with no replacements, enlargements, or repairs of any canal segments. While this alternative preserves intact the historic Smelter Bridge, it does not accomplish any of the stated objectives. The annual number of drownings in the Canal would not be reduced. Without reconstruction or major repair of the canal, a serious canal failure is likely within the next five years, especially during the peak irrigation period with the highest canal flow. Such a canal failure would likely close the American Canal for at least one month during costly emergency repairs. If the canal flow was disrupted for just one month due to repairs, the El Paso Water Utilities production of potable water would be reduced by 80 to 120 million gallons per day, and over a thousand El Paso County farmers could lose their crops, likely resulting in up to 500 bankruptcies. The No Action Alternative is not considered to be a viable alternative.

The preliminary engineering design studies for the replacement of the old American Canal indicate that a closed design may become the preferred alternative for the middle canal segment. Limited right-of-way constraints and existing infrastructure restrictions will dictate the proper design and construction methods to minimize the adverse effects to the public and adjacent landowners along the project. The reported project conditions will remain the same, but the aesthetics of the predominantly open canal will change. The USIBWC will consult with the Texas State Historic Preservation Officer should the preliminary canal design study recommend that the subject portion of the open canal be replaced with pre-cast box culvert.

The Draft FONSI and Draft EA were distributed November 21, 2000. The Notice of Draft FONSI for the Draft EA was published in the Federal Register on November 29, 2000. The Legal Notice of the Draft FONSI and Draft EA was published in the El Paso Times on December 2, 2000. The Public Comment period extended from November 21, 2000 through January 2, 2001. Public comments received were compiled into the Final EA, dated October 31, 2001. The Final EA finds that the proposed action does not constitute a major federal action that would cause a significant local, regional, or national adverse impact on the environment, because the Proposed Action Alternative would:

1. Improve structural stability of the American Canal, providing a reliable conveyance structure to transport flows of allocated water from the Rio Grande to El Paso County farms and to existing and planned El Paso Water Utilities water treatment facilities. The Rio Grande will be unchanged from existing conditions under USIBWC jurisdiction;

2. Minimize seepage loss through the cracks in the canal lining;

3. Provide the full design capacity (1535 cfs) influent into the RGACE;

4. Improve safety and reduce the risk of accidental drownings in the American Canal by installing fences and safety equipment;

5. Preserve the historic predominantly open channel character of the Canal; and

6. Preserve historical and photographic documentation of the historic Smelter Bridge per HAER Level III Standard.

Based on the Final Environmental Assessment and the implementation of the proposed historical mitigation, it has been determined that the proposed action will not have a significant adverse effect on the environment, and an Environmental Impact Statement is not warranted.

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Mario Lewis Date
General Counsel

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APPENDICES: