

# International Boundary and Water Commission

## United States and Mexico

### United States Section

4191 N. Mesa, El Paso, TX 79902



## American Canal

American Canal is a 2.1 mile long concrete canal that carries U.S. waters from American Dam to the Rio Grande American Canal Extension (RGACE). American Canal was originally built in 1937-38 and was first put into service on June 2, 1938. Since then, the canal has deteriorated significantly requiring removal and replacement for continued serviceability.

### BACKGROUND

American Canal is critical to meeting water deliveries per the United States' Treaty of 1906 with Mexico (*Convention between the United States and Mexico, Equitable Distribution of the Waters of the Rio Grande*). Mexico's treaty allotment of water is allowed to flow past American Dam while the rest of the Rio Grande's water is diverted into American Canal. Prior to the construction of American Canal (*authorized by PL 074-392 in 1935*), deliveries of treaty water to Mexico were unregulated, often resulting in over delivery of water. Since American Canal has been in place it has grown to serve as more than a structure to meet treaty requirements. American Canal is the vehicle by which El Paso County Water Improvement District #1 gets their irrigation water. Their constituents farm over 58,130 acres in the El Paso Valley from American Canal water. Additionally, El Paso Water treats up to 70,000 acre-feet (*100 MGD or 155 cfs*) of Rio Grande surface water for its potable water supply (*El Paso Water's Water Conservation Plan 2019, page 60*) each year, all of which it receives from American Canal.

Failure to meet treaty requirements with Mexico could result in significant issues for our Agency, but they are probably minor compared to the economic cost and public fallout that would result if the City of El Paso lost a major drinking water source in the middle of its high demand period and from farmers throughout El Paso not being able to water their crops. Additional issues could arise if a canal failure occurred in the Middle Reach causing either Burlington-Northern Santa Fe's (BNSF) railroad tracks or Paisano Drive's roadway to fail.

### STRUCTURE

American Canal is broken into three segments based upon closed conduit sections under Paisano Drive (US85): Upper Reach, Middle Reach, and Lower Reach.

Upper Reach	from American Dam (canal headgates) to Paisano	2,335 ft
Middle Reach	between Paisano and BNSF railroad tracks, next to ASARCO	3,092 ft
Lower Reach	from Paisano to RGACE headgates past International Dam	3,197 ft



While USIBWC's work on replacing American Canal began in 1999 with a historical report that began our NEPA process and evaluated alternatives, significant work is still required since only the Upper Reach has been rebuilt.



Looking downstream in Upper Reach along new rectangular section. End of Upper Reach at closed culvert.

### Upper Reach

Rebuilt in 2020 for \$22,547,776 (*construction & CM*) Besides completely reconstructing the canal, the following features to increase O&M efficiency and safety were added:

- 17 foot wide ramp added for O&M access
- 4 sets of safety ladders
- 2 safety cables
- Handrails adjacent to the bridges and trash rack
- Vehicular guardrailling along both sides of the canal
- Replogle flume for water measurements
- New bridge to aid in water measurements
- Remediation of over 17,000 cy of ASARCO contaminated soil
- A trash rack, which also doubles as a safety rack

### Middle Reach

The Middle Reach has not yet been reconstructed. Once USIBWC has funds available, this project will be solicited.

- Narrow ROW with limited access
- BNSF railroad tracks along landside ROW
- Paisano Drive (US85) along riverside ROW
- Final canal will be completely within culverts and hidden from view



Looking downstream in Middle Reach noting BNSF RR on left and Paisano Drive on right.



Looking downstream in Lower Reach from levee noting DHS fence close to landside of canal.

### Lower Reach

USIBWC issued a contract in 2014 which was terminated for convenience when contractor failed to perform. College Arroyo Overchute constructed in 2014. Contract for remaining canal construction issued in August 2023.

- All work on Mexican side of DHS fence
- 2,518 feet of canal will be placed in a 24 foot wide precast arch culvert
- Remaining canal will be placed in 24 foot wide U-channel
- Two ramps will be constructed, one on either side of the College Arroyo Overchute
- EP Water's Upper Valley Outfall is being partially relocated to accommodate the arch culverts