System supplies approximately 110,000 ac-ft. per year of treated water and raw water to the region. 1

System receives water from three separate river basins, increasing diversity of supply and utilizing the ability to maximize located rainfalls. 1

Water from Colorado River Basin and Lavaca-Navidad Basin transported via Mary Rhodes pipeline.

- Mary Rhodes Phase 1 pipeline is approximately 101 miles long and has a 60” diameter.
- Mary Rhodes Phase 2 pipeline approximately 42 miles long and has 54” diameter.
- Designed maximum capacity is between 72-79 MGD or 80-88 acre-feet per year.
- Currently operated between 34 and 46 MGD.

The City of Corpus Christi provides water, both raw and treated, to seven regional wholesale users.

- San Patricio MWD
- City of Alice
- City of Beeville
- City of Mathis
- City of Port Aransas
- South Texas Water Authority 1
- Violet Water Supply
The City of Corpus Christi uses approximately 80,500 ac-ft. per year.  

Drought Contingency measures occur when the combined lake levels fall below the 40%, 30%, and 20% thresholds.

O.N. Stevens Water Treatment Facility treats all surface water supplied.

- Comprised of 1 pre-sedimentation basin

- (120MG), 4 treatment trains, 22 filters, 2 clear wells (4 MG and 10 MG).

- Rated Capacity of 161.5 MGD.

- Ongoing improvements should increase maximum capacity of 200 MGD.

- Treats approximately 75,000ac-ft. (24,400,000,000 gallons) per year from the combined systems.

1. NRA Database 2001-2018 avg
NUECES RIVER BASIN

- 16,700 Sq. Miles
- Average Rainfall ranges from 21 in/year in the western most portion and 32in/yr in the eastern most.  
- Average stream flows-539,700ac-ft. (205 billion gallons) per year.  
- Median stream flows-421,000ac-ft. (137 billion gallons) per year.  
- Encompasses both Choke Canyon and Lake Corpus Christi.  
- Industrial and municipal diversion rights of the City of Corpus Christi comprise approximately 84% of the total basin diversion rights.  
- The streams in the basin cross no less than five major groundwater recharge zones meaning only a small percentage of surface water from the upper reaches of the basin will ever reach the reservoir system.  

WWW.CORPUSCHRISTIWATER.COM
NUECES RIVER BASIN

CHOKE CANYON RESERVOIR

- Impound: 1982
- Water Right: 3214
  Maximum Depth: 95.5 ft.
- Surface Area: 25,438 acres.
- 662,821 ac-ft. (215 billion gallons) of storage.
- Max. Permitted Diversions: 139,000 ac-ft.
- (45 billion gallons) per year
- The average evaporation is approximately 7,951 ac-ft. (2.58 billion gallons) per month.
- Since 1987, the average lake level has been 61%.
- Release a required and constant 29 cubic feet per second (CFS)

LAKE CORPUS CHRISTI

- Impound: 1958
- Water Right: 2464
- Maximum Depth: 60 ft.
- Surface Area: 19,748 acres.
- 256,339 ac-ft. (83.5 billion gallons) of storage.
- Max. Permitted Diversions: 304,898 ac-ft. (99 billion gallons) per year
- The average evaporation is approximately 6,399 ac-ft. (2.1 billion gallons) per month.
- Beginning in 1958, the average lake level has been 72%.


4. 2012 TWDB Volumetric Survey

5. Dec 1999-Dec 2018 NRA’s Database

6. 2016 TWDB Volumetric

7. NRA Data base
LAVALCA-WAVIDAD WATERSHED

- Average annual rainfall varies from 34 in. per year along the western boundary to approximately 41 in. per year along the eastern boundary.
- Encompasses approximately 2,309 sq. mi.
- The Lavaca River is one of the last unrestricted waterways in the State of Texas.
- The waters of the Navidad River, Sandy Creek and East and West Mustang Creek are impounded in the Lake Texana Reservoir.

LAKE TEXANA

- Max. Depth: 58 ft. (Authority, 2012)
- Surface Area: 9,727 acres.
- 161,085 ac-ft. (52.5 billion gallons) of storage
- Water rights leased from the Lavaca-Navidad River Authority on a 42-year contract terminating in 2035.
- Supplies 36,440 acre-feet of raw water, plus 12,000 acre-feet of interruptible raw water.
- Water from Lake Texana delivered via the Mary Rhodes Phase I pipeline which was completed in October of 1998.
Length of River: 865 miles.
Average Annual Flow: 1,904,000 ac-ft (620 billion gallons).
Average discharge of 2,690 cu-ft/s at Bay City.
Water Rights #5434, Priority Data: 11/2/1900
The City of Corpus Christi finalized the purchase of 35,000 ac-ft. from the Garwood Irrigation Company in 1999.
The water right is the second oldest major water right on the lower Colorado River.
The right has a maximum diversion rate of 298 ac-ft. per day.
The water will be supplied by the Mary Rhodes Phase 2 pipeline having a diameter of 54” and being approximately 41 miles long.