

City of Eagle Pass Water Works System

Water Conservation Plan

February 22, 2022

Section I: Introduction and Objectives

In recent years, the increasing population and economic development have led to growing demands for water supplies. At the same time, local and less expensive sources of water supply are already largely developed. Additional supplies to meet future demands will be expensive and difficult to secure. It is therefore important to make efficient use of our existing supplies and make them last as long as possible. This will delay the need for new supplies, minimize the environmental impacts associated with developing new supplies, and delay the high cost of additional water supply development.

Recognizing the need for efficient use of existing water supplies, the Texas Commission on Environmental Quality (TCEQ) and Texas Water Development Board (TWDB) have developed guidelines and requirements governing the development of water conservation and drought contingency plans for public water suppliers. The City of Eagle Pass Water Works System (EPWWS) has developed this Water Conservation Plan (Plan), pursuant to TCEQ guidelines and requirements. Therefore, EPWWS hereby adopts the Plan by City of Eagle Pass – Code of Ordinance.

This Plan, intended as a year-round water efficiency plan, includes measures that are designed to result in ongoing, long-term water savings. The overall objectives of this Water Conservation Plan are as follows:

- To reduce water consumption from the levels that would prevail without conservation efforts.
- To reduce the loss and waste of water.
- To improve the efficiency in the use of water.
- To extend the life of current water supplies by reducing the rate of growth in demand.

The EPWWS serves the City of Eagle Pass, TX and surrounding areas using its only source, the Rio Grande River. It services approximately 67,211 people through 18,216 connections, with 16,272 residential, 1,243 commercial, 204 government and 497 sprinkler connections, using a total of 2,653MG of water (2021 figures). The EPWWS Water Treatment Plant, also known as the Roberto Gonzales Regional Water Treatment Plant (RGRWTP) with capacity of 19MGD, currently utilizes clarifiers (for coagulation and sedimentation) and ultrafiltration (UF) membranes to provide water treatment meeting TCEQ requirements for Cryptosporidium removal.

Section II: Purpose and State Requirements

The purpose of a water conservation plan is to identify water conservation opportunities and set goals to be accomplished by water conservation measures. The main objective of this Plan is for a strategy or combination of strategies for reducing the consumption of water, reducing the loss or waste of water, and improving the efficiency in the use of water. This Plan meets the requirements set forth by the Texas Water Development Board (TWDB) and the Texas Commission on Environmental Quality (TCEQ) rules governing development of water conservation plans for public water suppliers contained in TAC Title 30, Part 1, Chapter 288, Subchapter A, and Rule 288. The Water Conservation Plan (Plan) must be updated every 5 years and must include a Utility Profile (Appendix A).

Section III: Wholesale and Contract

Due to the current drought conditions across the globe, EPWWS anticipates wholesale clients in the near future who under the TCEQ guidelines will have to prepare and implement a water conservation plan. Every wholesale contract entered into after the adoption of the Plan, will include the provision listed down below.

Contract Provisions:

The EPWWS will include a provision in every wholesale water contract entered into or renewed after adoption of the plan, including contract extensions, that each successive wholesale customer develops and implement a water conservation plan or water conservation measures using the applicable elements in this chapter. If the customer intends to resell the water, the contract between the initial supplier and customer must provide that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with the provisions of this chapter.

Section IV: Specification of Water Conservation Goals

TWDB and TCEQ rules require the adoption of specific water conservation goals for water conservation plans. As part of Plan adoption, EPWWS has developed 5-year and 10-year goals for per capita municipal use outlined in Table 1. The overall goals for this Plan are as follows:

- Maintain the per capita municipal water use below the specified amount in gallons per capita per day (GPCD) in a normal climate year, as shown in the completed Table 1.
- Maintain the level of non-revenue water in the system below annual target in 2022 and subsequent years.
- Increase efficient water usage through water conservation measures.
- Raise public awareness of water conservation and encourage responsible public behavior through a public education and information program.
- Develop a system specific strategy to conserve water during peak demands, thereby reducing the peak use.

Table 1 Five-Year and Ten-Year Municipal Per Capita Water Use Goals (GPCD)

Water Conservation Plan Goals Table
TWDB Form No. 1164

Title 31 TAC Chapter 563, Rule §363.12 (b)



WATER CONSERVATION PLAN 5- AND 10-YR GOALS FOR WATER SAVINGS

Name: _____

Water Conservation Plan Year: _____

	Historic 5-yr Average	Baseline*	5-yr Goal for year _____	10-yr Goal for year _____
Total (GPCD) ¹	108	108	108	108
Residential (GPCD) ²	87	70	87	65
Water Loss (GPCD) ³	14	14	13	13
Water Loss (Percentage) ⁴	13%	13%	12%	12%

1. Total GPCD = (Total Gallons in System + Permanent Population) ÷ 365

2. Residential GPCD = (Gallons Used for Residential Use + Residential Population) ÷ 365

3. Water Loss GPCD = (Total Water Loss + Permanent Population) ÷ 365

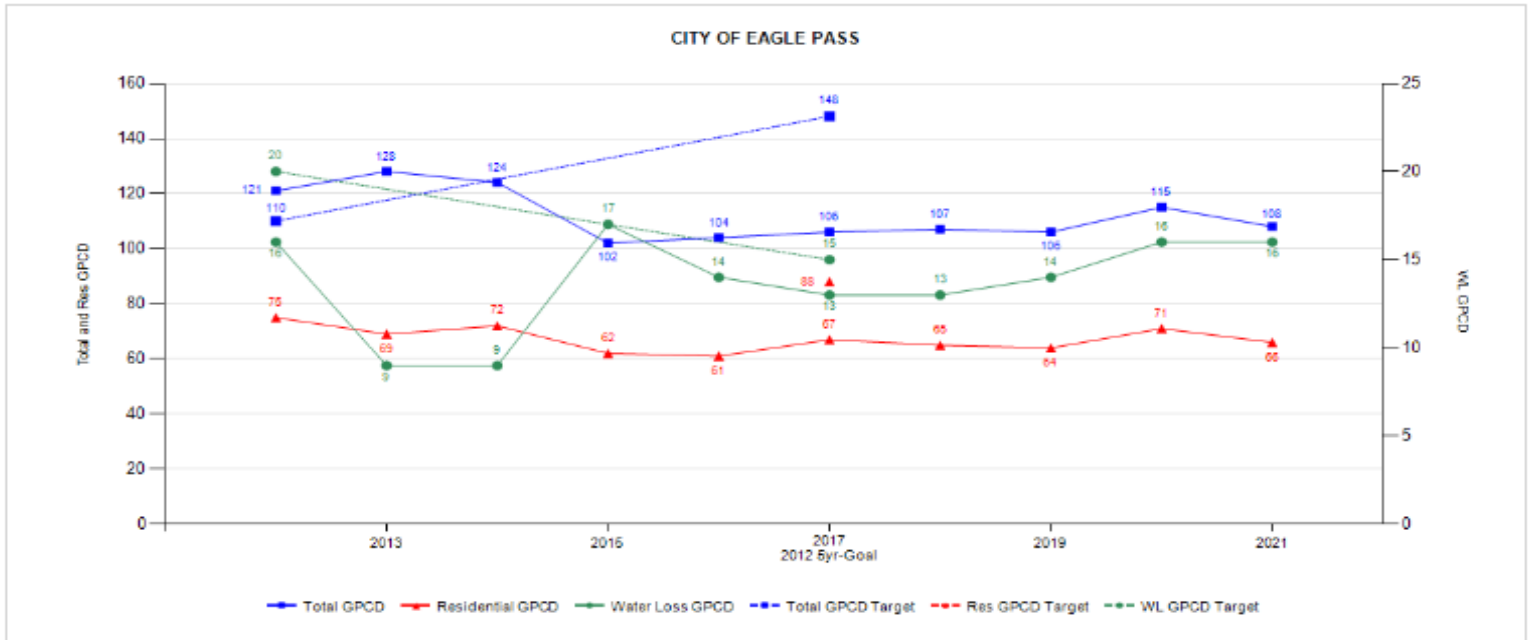
4. Water Loss Percentage = (Total Water Loss ÷ Total Gallons in System) x 100; or (Water Loss GPCD ÷ Total GPCD) x 100

GPCD - Gallons Per Capita Per Day

*A base use figure, or *baseline*, should be included to calculate your estimated savings. Consider state and regional targets and goals, local climate, and demographics (i.e. wet year versus dry year, high usage versus low usage)

Table 2: Water Conservation GPCD 5-Year and 10-Year Targets and Goals

Water Conservation GPCD 5-Year and 10-Year Targets and Goals



Note. From The Texas Water Development Board website. Water conservation reports. (n.d.). Retrieved August 19, 2022, from <https://www3.twdb.texas.gov/apps/wcreps/wcreports.aspx>

EPWWS water conservation initiatives have been effective based on historical data as shown on Table 2, which has allowed the system to maintain an average total (GPCD) below 107 for the past 7 years. EPWWS current goal is to continue reducing the water consumption to a 5-year target of 106 GCPD and to maintain this target for the next 10 years. Our 10-year goal will be further evaluated at the 5-year mark for a possible decrease in our established 2032 goal.

Section V: Metering, Control of Non-Revenue Water, Leak Detection and Repair

One of the key elements of water conservation is tracking water use and controlling losses through illegal diversions and leaks. It is important to carefully meter water use, detect and repair leaks in the distribution system and provide regular monitoring of non-revenue water. All water users, including all facilities pertaining to EPWWS, are presently metered by EPWWS. If water consumption increases or decreases significantly, the meter becomes suspect and is tested or a data log is performed and it’s repaired or replaced as necessary. A master meter is located at the point of diversion from the source to measure and account for the amount of water diverted from the source of supply. All meters belonging to EPWWS have an accuracy of plus or minus 5%.

Section VI: Determination and Control of Non-Revenue Water

Non-revenue water is the difference between treated water pumped and metered water sales

to customers plus authorized but unmetered uses. Authorized, but unmetered, uses would include use for firefighting, releases for flushing of lines, uses associated with new construction, etc. Non-revenue water can include several categories:

- Losses due to water main breaks and leaks in the water distribution system.
- Losses due to illegal connections and theft.
- System Water Audit and Water Loss.
- Identifying areas of water loss to target remediation efforts.
- Other

Measures to control non-revenue water will be part of the routine operations of EPWWS. Maintenance crews and personnel will test for, observe for, and report evidence of leaks in the water distribution system.

Section VII: Record Management System

EPWWS utilizes Incode Utility Software System by Tyler Technologies to maintain an overall record management of the System. Incode allows the classification of water sales and uses the most detailed level of water use data. EPWWS uses Incode's capability to produce water use data reports and categorize results into the following:

- Residential
- Commercial
- Institutional
- Sprinkler

Section VIII: Annual Water Conservation Report

EPWWS will continue to complete an annual water conservation report by May 1st of each year. This report is utilized to monitor the effectiveness and efficiency of the water conservation program and to plan conservation-related activities for the next year. The report records the water use by category, per capita municipal use and non-revenue water for the previous year and compares them to historical values. A copy of the annual report is provided to the TWDB, responsible for monitoring regional water conservation trends.

Section IX: Public Information and Education Campaign

EPWWS will continue to promote water conservation awareness by informing residential, institutional, and commercial customers of methods to conserve water in their homes, building, and in recreation uses. Information will be distributed to water users as follows:

- Distribution of educational material to EPWWS customers, semi-annually to correspond with peak summer demand periods, encouraging reduced water use.
- Regular articles will be distributed and published through various social media platforms, local newspaper and the city's website www.epwaterworks.org
- New customers will be provided with general conservation literature when applying for services.
- Rate structure is cost based and does not encourage excessive use of water. This is accomplished by a tiered rate structure with higher rates in dollars per gallon for higher uses of water for all users.

EPWWS will also work along its top institutional and commercial customers to identify the best opportunities of water conservations among their facilities. The following measures will be prioritized to insure the efficient use of water:

- Distribution of educational material, quarterly to meet the water use demands of these facilities.
- Meter testing, repair, and replacement of existing units.
- Encourage investment in water conservation equipment.

Section X: Plumbing Codes, or Rules on Water-Conserving Fixtures

The state has required water-conserving fixtures in new construction and renovations since 1992. The state standards call for flows of no more than 2.20 gallons per minute (gpm) for faucets and 2.50 (gpm) for showerheads and 1.28 gallons per flush for toilets and 0.50 gallons per flush for urinals. Similar standards are now required nationally under federal law. These state and federal standards assure that all new construction and renovations will use water-conserving fixtures.

Section XI: Enforcement

This Water Conservation Plan is enforced through authority of City of Eagle Pass – Code of Ordinances.

Section XI: Coordination with Regional Water Planning Groups

This Water Conservation Plan was developed based on coordination with the Regional Planning Group; Region M. EPWWS will provide a copy of this Plan to the Chairs of Region M Water Planning Group and will continue to work with the regional planning group to improve efficient utilization of existing water resources and water conservation practice.

APPENDIX A

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

CONTACT INFORMATION

Name of Utility: CITY OF EAGLE PASS WATER WORKS SYSTEM

Public Water Supply Identification Number (PWS ID): TX1620001

Certificate of Convenience and Necessity (CCN) Number: 10215

Surface Water Right ID Number: 124-B, 3998-H, 952-D

Wastewater ID Number: 20079

Contact: First Name: Raul Last Name: Gomez
 Title: Plant Superintendent

Address: P.O. BOX 808 City: _____
 Zip Code: _____ Email: EAGLE PASS State: TX
rgomez@epwaterworks.org
78853 Zip+4: _____
4/29/2022

Telephone Number: 8307733813 Date: _____

Is this person the designated Conservation Coordinator? Yes No

Coordinator: First Name: Jorge Last Name: Flores
 Title: Assistant General Manager

Address: PO Box 808 City: Eagle Pass Zip Code: 78853
jflores@epwaterworks.org
 Email: _____ Telephone Number: 830-773-2351

Regional Water Planning Group: M
 Groundwater Conservation District: _____

Our records indicate that you:

- Received financial assistance of \$500,000 or more from TWDB
- Have 3,300 or more retail connections
- Have a surface water right with TCEQ

A. Population and Service Area Data

1. Current service area size in square miles: 25

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

Attached file(s):

File Name	File Description
EPWWS Service Area-Pressure Planes.pdf	EPWW Service Area

2. Historical service area population for the previous five years, starting with the most current year.

Year	Historical Population Served By Retail Water Service	Historical Population Served By Wholesale Water Service	Historical Population Served By Wastewater Water Service
2021	67,211	0	60,489
2020	66,546	0	59,891
2019	65,888	0	59,299
2018	65,158	0	58,642
2017	65,051	0	58,545

3. Projected service area population for the following decades.

Year	Projected Population Served By Retail Water Service	Projected Population Served By Wholesale Water Service	Projected Population Served By Wastewater Water Service
2030	79,152	0	79,152
2040	94,146	0	94,146
2050	111,981	0	111,981
2060	133,195	0	133,195
2070	158,428	0	158,428

4. Described source(s)/method(s) for estimating current and projected populations.

We used an average growth of 1.75% that has been observed over the past five years to forecast potential growth in our community.

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

B. System Input

System input data for the previous five years.

Total System Input = Self-supplied + Imported– Exported

Year	Water Produced in Gallons	Purchased/Imported Water in Gallons	Exported Water in Gallons	Total System Input	Total GPCD
2021	2,653,620,000	0	0	2,653,620,000	108
2020	2,784,071,000	0	0	2,784,071,000	115
2019	2,560,969,000	0	0	2,560,969,000	106
2018	2,548,970,000	0	0	2,548,970,000	107
2017	2,515,272,727	0	0	2,515,272,727	106
Historic Average	2,612,580,545	0	0	2,612,580,545	108

C. Water Supply System

1. Designed daily capacity of system in gallons 19,000,000
2. Storage Capacity
 - 2a. Elevated storage in gallons: 4,900,000
 - 2b. Ground storage in gallons: 5,500,000

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

D. Projected Demands

1. The estimated water supply requirements for the next ten years using population trends, historical water use, economic growth, etc.

Year	Population	Water Demand (gallons)
2023	67,211	2,850,693,000
2024	68,387	2,936,213,790
2025	69,583	3,024,300,204
2026	70,801	3,115,029,210
2027	72,040	3,208,480,086
2028	73,301	3,304,734,489
2029	74,584	3,403,876,523
2030	75,889	3,505,992,819
2031	77,217	3,611,172,604
2032	78,568	3,719,507,782

2. Description of source data and how projected water demands were determined.

We used projected population growth of 1.75% based on historical data. Water demand calculations utilized a 3% growth YoY based on production/demand forecast along with historical data.

E. High Volume Customers

1. The annual water use for the five highest volume **RETAIL** customers.

Customer	Water Use Category	Annual Water Use	Treated or Raw
Kickapoo Tribe of Texas	Commercial	94,160,000	Treated
Eagle Pass Housing Authority	Institutional	44,730,000	Treated
Eagle Pass ISD	Institutional	24,577,000	Treated
City of Eagle Pass	Institutional	15,833,000	Treated
Maverick County WCID	Institutional	13,743,000	Treated

2. The annual water use for the five highest volume **WHOLESALE** customers.

Customer	Water Use Category	Annual Water Use	Treated or Raw
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UTILITY PROFILE FOR RETAIL WATER SUPPLIER

F. Utility Data Comment Section

Additional comments about utility data.

Section II: System Data

A. Retail Water Supplier Connections

1. List of active retail connections by major water use category.

Water Use Category Type	Total Retail Connections (Active + Inactive)	Percent of Total Connections
Residential - Single Family	16,272	89.33 %
Residential - Multi-Family	0	0.00 %
Industrial	0	0.00 %
Commercial	1,740	9.55 %
Institutional	204	1.12 %
Agricultural	0	0.00 %
Total	18,216	100.00 %

2. Net number of new retail connections by water use category for the previous five years.

	Net Number of New Retail Connections						
Year	Residential - Single Family	Residential - Multi-Family	Industrial	Commercial	Institutional	Agricultural	Total
2021	16,272			1,243	204	497	18,216
2020	15,953			1,176	201	495	17,825
2019	15,589			1,194	201	494	17,478
2018	15,402			1,170	200	494	17,266
2017	15,260			1,148	208	500	17,116

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

B. Accounting Data

The previous five years' gallons of RETAIL water provided in each major water use category.

Year	Residential - Single Family	Residential -Multi-Family	Industrial	Commercial	Institutional	Agricultural	Total
2021	1,626,799,000	0	0	416,172,000	220,867,000	0	2,263,838,000
2020	1,731,886,000	0	0	389,283,000	245,254,000	0	2,366,423,000
2019	1,539,635,000	0	0	405,698,000	253,426,000	0	2,198,759,000
2018	1,537,561,000	0	0	406,789,000	252,511,000	0	2,196,861,000
2017	1,585,529,000	0	0	377,081,000	240,120,000	0	2,202,730,000

C. Residential Water Use

The previous five years residential GPCD for single family and multi-family units.

Year	Total Residential GPCD
2021	66
2020	71
2019	64
2018	65
2017	67
Historic Average	67

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

D. Annual and Seasonal Water Use

1. The previous five years' gallons of treated water provided to RETAIL customers.

Month	Total Gallons of Treated Water				
	2021	2020	2019	2018	2017
January	172,070,000	182,530,000	156,200,000	160,760,000	158,330,000
February	172,540,000	172,200,000	148,980,000	146,500,000	149,880,000
March	206,090,000	198,000,000	180,020,000	208,800,000	171,600,000
April	217,910,000	217,900,000	194,150,000	218,230,000	196,440,000
May	217,160,000	246,000,000	197,870,000	253,170,000	232,430,000
June	246,140,000	262,200,000	215,810,000	303,680,000	241,170,000
July	236,540,000	326,800,000	278,350,000	284,930,000	278,420,000
August	262,980,000	313,910,000	320,000,000	301,240,000	276,510,000
September	275,390,000	217,351,000	270,490,000	176,990,000	255,990,000
October	247,490,000	245,260,000	231,690,000	178,200,000	190,860,000
November	204,350,000	213,410,000	180,510,000	157,850,000	162,690,000
December	194,960,000	188,510,000	186,899,000	158,620,000	175,930,000
Total	2,653,620,000	2,784,071,000	2,560,969,000	2,548,970,000	2,490,250,000

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

2. The previous five years' gallons of raw water provided to RETAIL customers.

Month	Total Gallons of Raw Water				
	2021	2020	2019	2018	2017
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	0	0	0	0	0
June	0	0	0	0	0
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Total	0	0	0	0	0

3. Summary of seasonal and annual water use.

	Summer RETAIL (Treated + Raw)	Total RETAIL (Treated + Raw)
2021	745,660,000	2,653,620,000
2020	902,910,000	2,784,071,000
2019	814,160,000	2,560,969,000
2018	889,850,000	2,548,970,000
2017	796,100,000	2,490,250,000
Average in Gallons	829,736,000.00	2,607,576,000.00

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

E. Water Loss

Water Loss data for the previous five years.

Year	Total Water Loss in Gallons	Water Loss in GPCD	Water Loss as a Percentage
2021	382,444,828	16	14.41 %
2020	381,250,112	16	13.69 %
2019	328,675,887	14	12.83 %
2018	318,796,875	13	12.51 %
2017	298,511,336	13	11.87 %
Average	341,935,808	14	13.06 %

F. Peak Day Use

Average Daily Water Use and Peak Day Water Use for the previous five years.

Year	Average Daily Use (gal)	Peak Day Use (gal)	Ratio (peak/avg)
2021	7,270,191	8105000	1.1148
2020	7,627,591	9814239	1.2867
2019	7,016,353	8849565	1.2613
2018	6,983,479	9672282	1.3850
2017	6,822,602	8653260	1.2683

G. Summary of Historic Water Use

Water Use Category	Historic Average	Percent of Connections	Percent of Water Use
Residential - Single Family	1,604,282,000	89.33 %	71.44 %
Residential - Multi-Family	0	0.00 %	0.00 %
Industrial	0	0.00 %	0.00 %
Commercial	399,004,600	9.55 %	17.77 %
Institutional	242,435,600	1.12 %	10.80 %
Agricultural	0	0.00 %	0.00 %

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

H. System Data Comment Section

Section III: Wastewater System Data

A. Wastewater System Data

1. Design capacity of wastewater treatment plant(s) in gallons per day: 6,000,000

2. List of active wastewater connections by major water use category.

Water Use Category	Metered	Unmetered	Total Connections	Percent of Total Connections
Municipal	15,270	0	15,270	89.57 %
Industrial	0	0	0	0.00 %
Commercial	1,612	0	1,612	9.46 %
Institutional	167	0	167	0.98 %
Agricultural	0	0	0	0.00 %
Total	17,049	0	17,049	100.00 %

3. Percentage of water serviced by the wastewater system: 90.00 %

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

4. Number of gallons of wastewater that was treated by the utility for the previous five years.

Month	Total Gallons of Treated Water				
	2021	2020	2019	2018	2017
January	105,400,000	106,390,000	103,190,000	110,500,000	107,800,000
February	89,706,000	111,830,000	90,703,000	100,700,000	100,700,000
March	101,300,000	115,690,000	106,670,000	106,800,000	113,400,000
April	102,500,000	117,290,000	100,230,000	102,800,000	102,800,000
May	112,000,000	133,900,000	112,580,000	99,461,000	109,300,000
June	112,200,000	134,190,000	99,723,000	93,282,000	102,200,000
July	123,900,000	104,990,000	109,900,000	108,330,000	110,500,000
August	107,800,000	107,530,000	111,100,000	110,270,000	108,000,000
September	111,800,000	110,240,000	93,179,000	116,230,000	131,000,000
October	111,200,000	108,110,000	105,490,000	105,400,000	122,000,000
November	103,700,000	97,590,000	106,840,000	103,960,000	113,700,000
December	114,800,000	101,800,000	116,700,000	110,690,000	118,500,000
Total	1,296,306,000	1,349,550,000	1,256,305,000	1,268,423,000	1,339,900,000

5. Could treated wastewater be substituted

for potable water? Yes No

B. Reuse Data

1. Data by type of recycling and reuse activities implemented during the current reporting period.

Type of Reuse	Total Annual Volume (in gallons)
On-site Irrigation	
Plant wash down	
Chlorination/de-chlorination	
Industrial	
Landscape irrigation (park,golf courses)	0
Agricultural	
Discharge to surface water	1,139,295,000
Evaporation Pond	0
Other	
Total	1,139,295,000

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

C. Wastewater System Data Comment

Additional comments and files to support or explain wastewater system data listed below.

Thence northeast approximately 1.16 miles to a point, same point being approximately 857 feet northwest of the Hwy 277 centerline;

Thence southeast 857 feet to a point, same point being the centerline of Hwy 277;

Thence southeast approximately 8590 feet to a point, same point being approximately 834 north of Hwy 277 centerline;

Thence south approximately 834 feet to a point, same point being on the Hwy 277 centerline;

Thence south approximately 1310 feet to a point;

Thence southwest approximately 2300 feet to a point, same point being just south of Windcrest Subdivision and C. C. Winn High School;

Thence northwest approximately 4287 feet to a point, same point being on the eastern boundary line of Westlakes Subdivision;

Thence south approximately 3713 feet along the eastern boundary line of Westlakes Subdivision to a point, same point being just north of the Main Irrigation Canal (M.C.W.C. & I.D.);

Thence southwest and south approximately 5700 feet along the eastern edge of Las Quintas Subdivision to the FM 1021 centerline, same point being approximately 3500 feet from the intersection of Loop 3443 and FM 1021;

Thence southwest approximately 8944 feet along the southeaster boundary line of Las Brisas Subdivisions to a point;

Thence west approximately 5425 feet to a point on the western boundary line of the Rio Grande River;

Thence approximately 9.03 miles meandering along the western boundary line of the Rio Grande River to a point;

Thence west approximately 7485 feet to a point;

Thence northwest approximately 6011 feet to a point, same point being 819 feet from the centerline of Hwy 277;

Thence northeast approximately 819 feet to the point of beginning, thus containing area one serviced by Eagle Pass Water Works System.

Thence northwest approximately 5979 feet along the western boundary line of Riverside Acres and paralleling Rosita Valley Rd. to a point, same point being on the southern right-of-way line FM 1021;

Thence northwest approximately 3.45 miles along the southern right-of-way line of FM 1021 to a point;

Thence north approximately 75 feet to the point of beginning, same point being on the centerline of FM 1021 and thus containing area two serviced by Eagle Pass Water Works System.

Beginning at a point in the centerline of FM 1021 approximately 2955 feet northwest from the intersection of FM 2030 and FM 1021;

Thence southeast approximately 5.11 miles along and within the 150' right-of-way of FM 1021 to a point, same point being the intersection of FM 1021 and FM 2366, including approximately 7.55 miles to the west, southwest, and east along and within the FM 2366 right-of-way;

Thence south and southeast approximately 5.47 miles along and within the 150' right-of-way of FM 1021 to a point, same point being approximately 2875 feet south of the most southern intersection of FM 1021 and FM 2366;

Thence south approximately 0.57 miles along and within the 150' right-of-way of FM 1021 and expanding 1932 feet to the west towards the city limits of El Indio, TX & within the right-of-way of FM 1021 to the east, to a point and same point being the intersection of FM 1021 and Canal St in El Indio, TX;

Thence south approximately 0.47 miles along and within the 150' right-of-way of FM 1021 and expanding approximately 500 feet to the west and expanding approximately 2600 feet to the east towards the city limits of El Indio, TX to a point, same point being the intersection of FM 1021 and FM 2644, including along and within the right-of-way of FM 2644 for approximately 2800 feet east from the intersection of FM 1021 and FM 2644;

Thence south approximately 0.88 miles along and within the 150' right-of-way of FM 1021 to a point, same point being the intersection of FM 1021 and FM 261, including approximately 2644 feet to the west along and within the FM 261 right-of-way;

Thence south approximately 1.93 miles along and within the 150' right-of-way of FM 1021 to a point, same point being the intersection of FM 1021 and FM 263, including approximately 5016 feet to the west along and within the FM 263 right-of-way;

Thence south approximately 0.77 miles along and within the 150' right-of-way of FM 1021 to a point, same point being the intersection of FM 1021 and FM 264, including approximately 5300 feet to the west and southwest along and within the FM 264 right-of-way;

Thence south approximately 1.50 miles along and within the 150' right-of-way of FM 1021 to a point, same point being the intersection of FM 1021 and FM 265, including approximately 5880 feet to the west along and within the FM 265 right-of-way;

Thence south approximately 0.79 miles along and within the 150' right-of-way of FM 1021 to a point, same point being the intersection of FM 1021 and At Gill Rd., including approximately 2.63 miles to the west, south, and southwest along and within the At Gill Rd. right-of-way;

Thence south approximately 1.09 miles along and within the 150' right-of-way of FM 1021 to a point, same point being the intersection of FM 1021 and FM 267, including approximately 4735 feet to the southwest along and within the FM 267 right-of-way;

Thence south approximately 1.50 miles along and within the 150' right-of-way of FM 1021 to a point, thus containing area three serviced by Eagle Pass Water Works System.

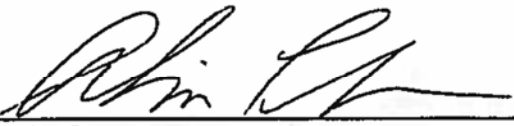
All three areas described above pertain to a total area serviced by Eagle Pass Water Works System.

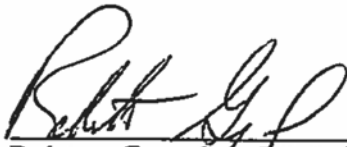
**STATE OF TEXAS
COUNTY OF MAVERICK**

March 23, 2007

I, Alvin L. Groves, Registered Professional Land Surveyor, hereby certify that the above description for the water service area was done according to the Texas State Plane Coordinate System and was obtained from a certified copy map from TCEQ under my supervision.



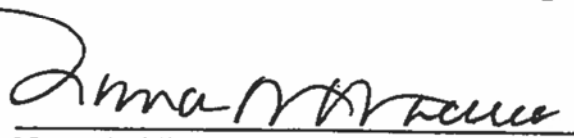

Alvin L. Groves
Registered Professional Land Surveyor
Texas No. 1524


Roberto Gonzalez, General Manager
Eagle Pass Water Works System

STATE OF TEXAS
COUNTY OF MAVERICK

This instrument was acknowledged before me on April 4, 2007 by Roberto Gonzalez, General Manager of the Eagle Pass Water Works System on behalf of the Eagle Pass Water Works System.




Notary Public, State of Texas

STATE OF TEXAS
COUNTY OF MAVERICK
I hereby certify that this instrument was filed
on the date and time stamped thereon
by me and was duly recorded in the
OFFICIAL PUBLIC RECORDS of
Maverick County, Texas.

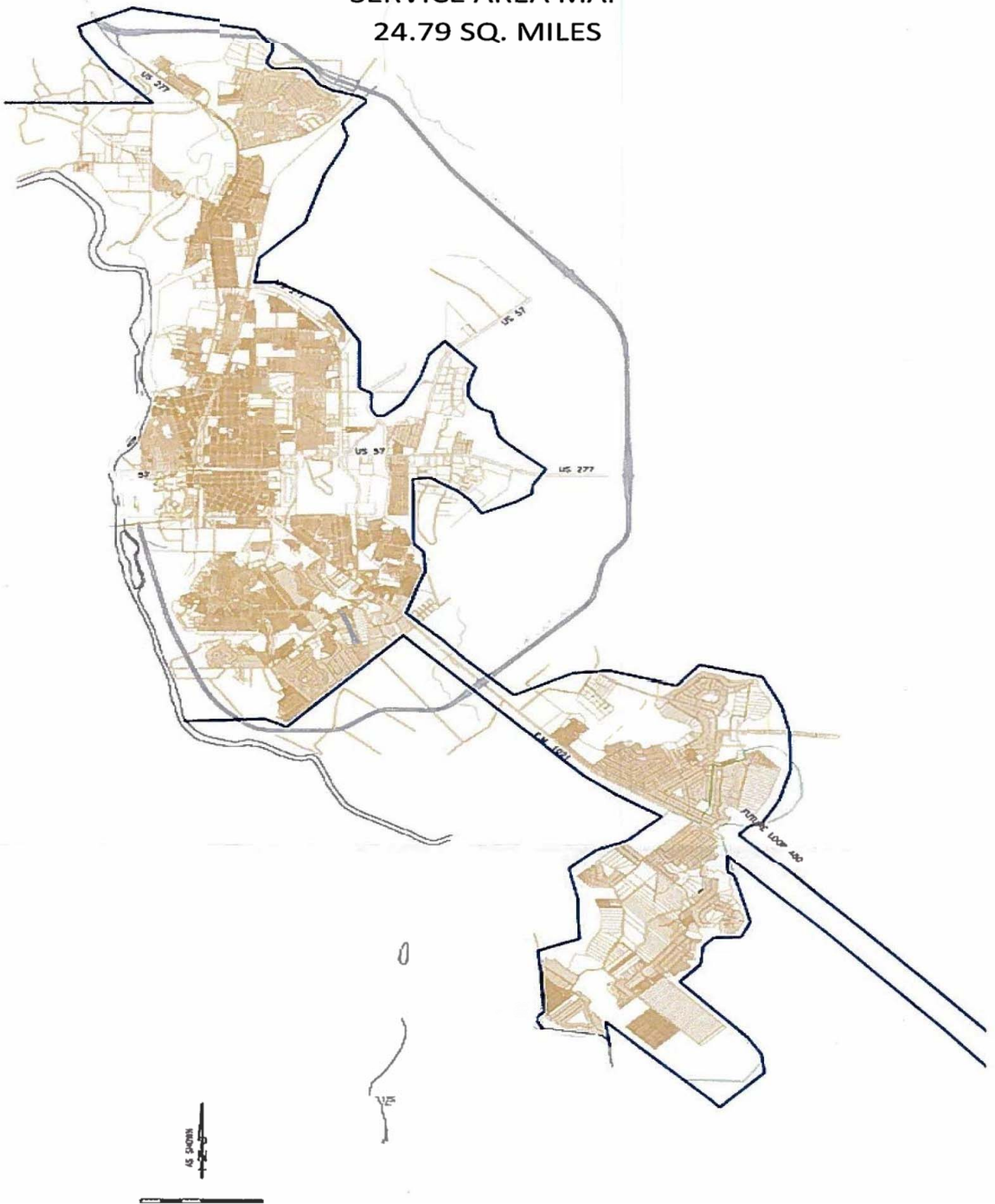
 

COUNTY CLERK MAVERICK COUNTY

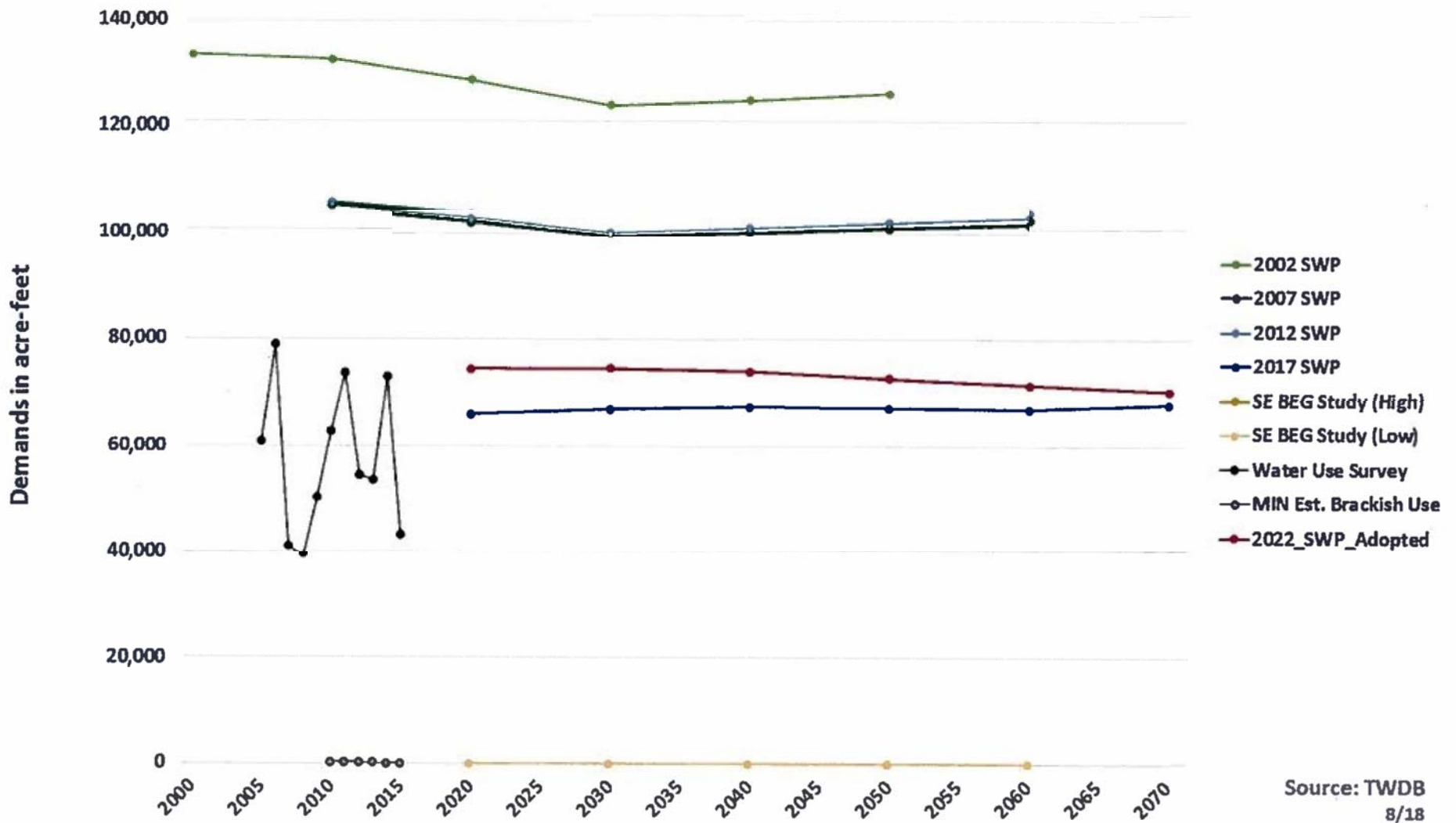
Any provisions herein which restricts
the sale, rental or use of the described real
property because of color or race
is invalid and unenforceable under
federal law.

1017 1017
Book 1017
Pages: 1017 - 1020
Filed & Recorded
04/04/2007 2:47PM
SARA MONTEMAYOR
COUNTY CLERK
MAVERICK
RECORDING FEE \$ 29.00
RECORDS PRESERVATION \$ 5.00
COURTHOUSE SECURITY \$ 3.00
10370 - REC MGT \$ 5.00

**EAGLE PASS WATER WORKS SYSTEM
SERVICE AREA MAP
24.79 SQ. MILES**



All water demand projections for Maverick County in applicable regions.



Source: TWDB
8/18