

# **Agua Special Utility District (Agua SUD)**

## **Water Conservation Plan**

**Prepared by**

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## **1. Introduction**

The two main divisions of the program are a water conservation plan and a drought contingency plan. The purpose of the water conservation plan is to develop strategies to reduce withdrawal from a supply source, reduce loss or waste of water, improve the efficiency of use of water, increase recycle and reuse and prevent pollution. The drought contingency plan's objective is to identify strategies for temporary supply and demand management in response to water supply shortages and emergencies. This document is to provide the Agua Special Utility District (Agua SUD) with a water conservation plan and a drought contingency plan.

### **Brief Description of the Project and Planning Area**

In 2007, the Texas Legislature created converted La Joya WSC into Agua SUD; Agua SUD is a special utility district and political subdivision of the State of Texas and it is organized and existing pursuant to the Chapter 7201 of the Texas Special District Local Laws Code and Texas Water Code Chapters 49 and 65. As such, it is authorized to provide potable water service to its members. Agua SUD service area is officially outlined in the Certificate of Convenience and Necessity (CCN) number 10559 issued by the Texas Commission on Environmental Quality (TCEQ). The District services an area encompassing in excess of 120 square miles and to more than 14,800 connections in Hidalgo and Starr counties. Agua SUD office is located at U.S Highway 83 and 3201 N. Abram Rd. Palmview, Texas and the current service area includes all or a portion of the following cities, communities and areas surrounding these cities/communities:

Sullivan City	Abram-Perezville	Los Ebanos	Doffing
Penitas	La Homa	Havana	Chihuahua
Palmview	Cuevitas	Citrus City	Tierra Blanca

Agua SUD system currently consists of two raw water access points, three water treatment plants, eight ground storage/booster pump stations, five elevated storage tanks, and over 110 miles of main distribution water lines. The District owns 2,665.947 acre-feet of municipal water rights. The District purchases raw water from the Hidalgo County Irrigation Districts #6 and #16 with water from the Rio Grande River.

Demands have been increasing due to 2.6% to 3% population growth rate in the Rio Grande Valley. The projected population of 64,532 growth by the year 2020 call for a plan to improve its current water system.

#### **Current Existing Water System:**

- One (1) – 3.5 MGD Water Treatment Plant at Havana
- One (1) – 4.0 MGD Water Treatment Plant at FM 492
- One (1) – 6.0 MGD Water Treatment Plant at Abram Road
- Three (3) – ground water wells for emergency use only .8 MGD

Sixteen (16) – Ground storage/booster tanks ranging from 70,000-2,000,000 gallons  
Six (6) – Elevated storage tanks ranging from 150,000-500,000 gallons

**The District Total Storage Capacity includes:**

Total Ground Storage/Booster Tanks	4,357,000 Gallons
Elevated Storage	2,550,000 Gallons

**Current Sewer System**

1.4 MGD Wastewater Plant I Sullivan City (**constructed 2010-2012**)

**Proposed Sewer System**

One (1) – 2.5 MGD Wastewater Plant in City of Palmview (**construction June-August 2014**)

**2. Water Conservation Plan**

**A: Utility Evaluation (WRD-264)**

The evaluation of the success of a water conservation plan requires comparison of data between time periods. The data used for comparison must be consistent in derivation. A Utility Profile is required to be submitted as a part of the water conservation plan and provides a basis for the collection of data. See attached copy of Agua SUD Profile (WRD-264).

**B: Goals of the Program (5 year and 10 year target and goals)**

The guidelines for a Water Conservation Plan require an entity to set 5 and 10 year goals for water conservation. The goals, which are non-enforceable, must be in a measurable form such as gpcd (gallons per capita per day) usage. Setting of the goals should be based on identifying water conservation strategies that Agua SUD can successfully implement and assigning an anticipated water savings value to the strategy.

Agua SUD goals in addition to the water conservation and drought contingency plan is to achieve a municipal use of 145 gallons per capita per day or less for the first 5 years beginning in their fiscal year 2015 from January to December and also achieve a municipal use of 130 gallons per capita per day or less for the next 10 years beginning in the their fiscal year 2030 from January to December.

**C: Schedule for implementing the plan**

Agua SUD will adhere to the following schedule, to achieve the targets and goals for water conservation:

- 1) Calibrations of meters for all treated water deliveries are to be conducted annually.
- 2) Agua SUD replacement for meters will continue to be monitored for accuracy and tested annually.
- 3) Agua SUD water audits are to be conducted annually. Real water losses are to be identified and corrected.

4) Educational and information programs for all types of water customers, including indoor and outdoor uses by residential customers and all types of water use by commercial, institutional customers will be distributed annually.

**D: Method of tracking and implementing the plan to achieve target and goals**

Agua SUD staff shall track targets and goals by annually maintaining logs/records for meter calibration, meter testing and meter replacement programs, annually water audits shall be documented and kept in the files, keep record of the number of mail-outs distributed for education / information materials to customers annually and maintained records for leak detection by annual visual inspections of all water main fittings and connections.

**E. Master meter to measure and account for the amount of water**

Agua SUD will continue to monitor, measure and test the master meter on an annually basis on the amount of water diverted from the source of supply. Together with logs and records will be kept on an annually basis and filed for record keeping.

**F: Universal metering and meter repair and replacement programs**

Agua SUD maintains a program of universal metering of both retail customers and public users of water that includes testing, repair, and periodic meter replacement. All water sold by the Agua SUD is metered. Meters are calibrated to an accuracy of plus or minus five percent (5 %). Agua SUD maintains a program annually to pull, test, and replace any meters determined to be functioning outside these parameters.

**G: Measures to determine and control unaccounted for uses of water**

Agua SUD will conduct measures to determine and control unaccounted for uses of water by visually inspecting water lines on a regular basis and annually audit of the water system to determine illegal connections and abandoned services.

**H: Leak detection and repair programs**

Some system water losses are authorized. Authorized losses, which are identified as “lost” water, flushing the hydrants and overspill of water towers. Unauthorized usage and leaks, which are identified as unaccounted for water or UAW, also add to the water loss of the system. A leak detection and repair program is in place to reduce UAW. Agua SUD areas of the water distribution system in which leaks and line breaks occur are thoroughly examined, prioritized and scheduled for repair on a regular basis.

**I: Program of continuing education and information regarding water conservation**

The water conservation education program serves as the first step in the efforts to increase the awareness of direct involvement in water conservation. It not only addresses specific measures, but also cultural and social aspects of establishing or enhancing the water conservation ethic among the public. Most importantly, it conveys to the public an understanding of why water conservation is important. Agua SUD will obtain and disseminate such information through a variety of avenues including but not limited to:

- Providing water conservation literature to new utility customers at the time they apply for new service, and to utility customers reporting high water use on continuing basis.
- Provide consumer tips on water conservation printed educational material such as monthly water bill inserts, brochures and activity books.
- Provide literature on landscaping and the use of native plants and grasses to reduce lawn water demands.
- Agua SUD will also obtain video and radio public announcements on water conservation and materials from the Texas Water Development Board (TWDB) and the Texas Commission on Environment Quality (TCEQ) and make these available to the their customers and local media.
- Public education continues to be used to raise awareness of other conservation measures available to Agua SUD customers.

**J: Existing Agua SUD Water rate structure**

The following below are the monthly base rates and usage rates for all residential and commercial customers:

**Minimum Monthly Charge**

Type of Service	Meter Size	Minimum / Base Charge
Lifeline Program Residential	3/4" or 5/8"	\$13.75
Residential	3/4" or 5/8"	\$ 16.53
3/4" Meter (Commercial)	3/4" or 5/8"	\$ 32.56
1" Meter – Residential / Commercial	1"	\$ 47.84
2" Meter – Residential / Commercial	2"	\$ 63.12
4" Meter – Residential / Commercial	4"	\$ 78.40
6" Meter – Residential / Commercial	6"	\$ 93.68
8" Meter-Residential/Commercial	8"	124.24

**Usage Rate**

Residential Rates for Water Usage		Rate
Tier 1	1 – 3,000 gals	\$ 2.15 / 1000 gallons
Tier 2	3,001 – 10,000 gals	\$ 2.36 / 1000 gallons
Tier 3	10,001 – 20,000 gals	\$ 2.89 / 1000 gallons
Tier 4	20,001 – 50,000 gals	\$ 3.41 / 1000 gallons
Tier 5	50,001 – and over	\$ 4.55 / 1000 gallons

Commercial Rates for Water Usage		Rate
Tier 1	1 – 8,000 gals	\$ 3.11 / 1000 gallons
Tier 2	8,001 – 12,000 gals	\$ 4.00 / 1000 gallons
Tier 3	12,001 – 20,000 gals	\$ 4.75 / 1000 gallons

Tier 4	20,001 – and over	\$ 5.50 / 1000 gallons
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**SEWER RATES (SERVICE IN SULLIVAN CITY ONLY)**

Type of Service	Meter Size	Minimum Base Charge	Rates per M Gallon Residential / Commercial
Lifeline Program Residential	3/4" or 5/8"	\$ 8.19	\$ 2.531
Residential	3/4" or 5/8"	\$ 10.92 / \$ 8.19	\$ 2.531
Commercial	3/4" or 5/8"	\$ 16.38 / \$ 13.65	\$ 2.731
Residential / Commercial	1"	\$ 13.65 / \$19.11	\$ 2.531 / \$ 2.731
Residential / Commercial	2"	\$ 25.57	\$ 2.731
Residential / Commercial	4"	\$ 30.04	\$ 2.731
Residential / Commercial	6"	\$ 35.50	\$ 2.731
Residential / Commercial	8"	\$ 40.96	\$ 2.731

**K: Means of implementation and enforcement**

The District Manager or his/her designee will be responsible for implementation and enforcement of the water conservation plan.

**L: Contractual Agreements**

Agua SUD does NOT foresee utilizing the project financed by the Texas Water Development Board to furnish water service to another supplying entity that in turn will furnish water service to the ultimate consumer.

**M: Regional Water Planning Group M**

The Service area of Agua SUD is located within the Rio Grande Regional Water Planning Group M and Agua SUD has provided a copy of this water conservation plan to Mr. Kenneth Jones of the Rio Grande Regional Water Planning Group M.

**3. Drought Contingency Plan**

**N: Drought Contingency Plan**

See attached Drought Contingency Plan for Agua SUD. Agua SUD Drought Contingency along with the resolution has been submitted and approved by Texas Commission on Environmental Quality (TCEQ).

**4. Agua SUD Treatment and Storage Map** – See attached Map

**5. Agua SUD Water Service Area CCN Map** – See attached Map

**6. Agua SUD Utility Profile (WRD-264)** – See attached