

2024 Water Conservation & Drought Contingency Plan

Prepared By:



Texas Registered Engineering Firm F-1394

Home Office:

P.O. Box 970 6477 FM 311 (Physical) Spring Branch, Texas 78070 830.228.5446 Fax 830.885.2170 Web: www.msengr.com Branch Office:

376 Landa Street (Mailing) New Braunfels, Texas 78130 830.629.2988

TABLE OF CONTENTS

1. INTRO	DDUCTION	1
2. TEXAS	S COMMISSION ON ENVIRONMENTAL QUALITY RULES	1
3. WATE	ER CONSERVATION PLAN	1
3.1 Wa	eter Utility Profile	2
3.2 Mii	nimum Conservation Plan Requirements	2
A.	Record Management System	2
В.	Specific, Quantified 5 and 10-Year Targets	2
C.	Measuring and Accounting for Diversions	3
D.	Universal Metering	3
E.	Measures to Determine and Control Water Loss	3
F.	Public Education and Information	3
G.	Non-Promotional Water Rate Structure	4
Н.	Reservoir Systems Operation Plan	4
3.3 Ad	ditional Requirements for Large Suppliers	5
A.	Leak Detection and Repair	5
В.	Contract Requirements	5
3.4 Ad	ditional Conservation Strategies	5
A.	Irrigation/Sprinkler System Meters and/or External Water Fixtures	5
В.	Landscape Water Management Regulations	6
C.	Pressure Control Program	6
D.	Water Conservation Monitoring	6
E.	Leak Detection Surveys	6
3.5 Pla	n Adoption	6
A.	Plan Adoption	6
В.	Coordination with the Regional Water Planning Group(s)	6
C.	Plan Review and Update	6
3.6 lm	plementation of the Plan	7
A.	Achieving Targets	7
В.	Tracking Targets and Goals	7
4. DROL	JGHT CONTINGENCY PLAN	7

4.1 Declaration of Policy, Purpose, and Intent7
4.2 Public Involvement7
4.3 Public Education8
4.4 Authorization8
4.5 Application9
4.6 Definitions9
4.7 Criteria for Initiation and Termination of Drought Response Stages10
A. Stage 1 Triggers – MILD Water Shortage Conditions
B. Stage 2 Triggers – MODERATE Water Shortage Conditions
C. Stage 3 Triggers – SEVERE Water Shortage Conditions
D. Stage 4 Triggers – CRITICAL Water Shortage Conditions
E. Stage 5 Triggers – EMERGENCY Water Shortage Conditions
F. Stage 6 Triggers – WATER ALLOCATION
4.8 Notifications
4.9 Drought Stage Responses
A. Stage 1 Response – MILD Water Shortage Conditions
B. Stage 2 Response – MODERATE Water Shortage Conditions
C. Stage 3 Response – SEVERE Water Shortage Conditions
D. Stage 4 Response – CRITICAL Water Shortage Conditions
E. Stage 5 Response – EMERGENCY Water Shortage Conditions
F. Stage 6 Response – WATER ALLOCATION
4.10 Enforcement
4.11 Variances

1. INTRODUCTION

Crystal Clear Special Utility District, "Crystal Clear" or "the District" provides water service to approximately 18,000 residents. The water service area stretches over 204.58 square miles in portions of Guadalupe, Hays, and Comal counties. The District's service area is located within the South Central Texas Regional Water Planning Group (SCTRWPG) as designated by the Texas Water Development Board (TWDB).

The District currently utilizes 3,844.05 AF/year of water supply from the following groundwater and surface water sources. All water is purchased except the groundwater from the Edwards Aguifer.

- Edwards Aquifer
- Carrizo Aquifer
- Guadalupe River/Lake Dunlap
- San Marcos River

Future water supply strategies include the development of groundwater in the Trinity and Wilcox aquifers. Crystal Clear is also a member of the Alliance Regional Water Authority (ARWA) owning a 10.3% share of the production dedicated and owned by Canyon Regional Water Authority (CRWA). The Alliance Regional Water Authority projects are located within the Gonzalez County Underground Water Conservation District (UWCD) and Plum Creek Conservation District boundaries and are specifically recommended for the District by the SCTRWPG Regional Water Plan.

The District also owns and operates a small wastewater treatment plant that serves 540 residents. The wastewater CCN is 88 acres in size and is located in Comal County along FM 1102 (Hunter Road).

2. TEXAS COMMISSION ON ENVIRONMENTAL QUALITY RULES

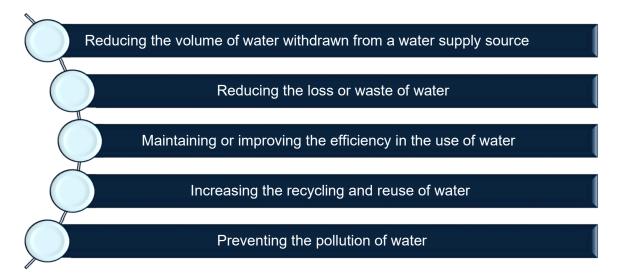
The Texas Commission on Environmental Quality (TCEQ) rules governing the development of a water conservation plan for public water suppliers are included in Title 31, Part 10, Chapter 363, Subchapter A, Rule 363.15 of the Texas Administrative Code (TAC). The minimum requirements of the elements in the TCEQ water conservation rules are included in this plan.

The District's requirement for the implementation of a water conservation plan is based on TCEQ rule under Title 31 TAC §363.15 (c), where the District is requesting for financial assistance to be provided is more than \$500,000.

3. WATER CONSERVATION PLAN

Crystal Clear recognizes that the amount of water available to supply its water utility customers may be limited and subject to depletion during periods of extended drought. Representing the best interests of its customers, Crystal Clear deems it expedient and necessary to establish certain rules and policies for the ongoing conservation of water and the orderly and efficient management of limited water supplies during drought and other water supply emergencies.

A Water Conservation Plan is a combination of strategies for:



3.1 Water Utility Profile

The completed water utility profile is included in Appendix A.

3.2 Minimum Conservation Plan Requirements

A. Record Management System

The District currently uses Edmunds GovTech, a utility billing software that allows the District to manage water sales data by account number and classify water sales by the type of user, including the following sectors: residential (single family), commercial, industrial, institutional and agricultural.

The District also uses the billing software to identify high residual water users and notify the customer if a leak is suspected.

B. Specific, Quantified 5 and 10-Year Targets

The District's five and ten-year water conservation target goals are based upon the Texas Water Conservation Implementation Task Force's recommendation of a reduction in per capita water use of 0.5% per year. The 5 and 10-year water savings goals are summarized below:

	Historic 5-yr	Baseline	5-yr Goal for	10-yr Goal for
	Average	baseille	Year 2029	Year 2034
Total GPCD	112	112	102	97
Residential GPCD	77	77	63	60
Water Loss (GPCD)	29	29	16	15
Water Loss (%)	25%	25%	15.69%	15.49%

C. Measuring and Accounting for Diversions

The District's current water sources are from water wells and purchased water each of which are metered to capture the source volume at each entry point into the system. Meters are recalibrated annually to maintain accuracy. The following meter calibration accuracies from the source meters are listed below for year 2023:

- Nelson Well #1 100.8%
- Nelson Well #2 101.9%
- CRWA Lake Dunlap 99.6%
- CRWA Hays Caldwell at El Camino Booster Station 100.6%

D. Universal Metering

The District has a current system of universal metering where all users of water in the system are metered. The District has established Automatic Meter Reading (AMR) technology to automatically collect consumption data for every meter. From 2017 to 2018, the District replaced existing manual read meters to automatic meter reading (AMR) meters system wide.

Crystal Clear has established the following practices regarding meter testing, repair, and replacement:

- 1. All meters are replaced at 10 years or 1 million gallons of use.
- 2. Meters are tested at the customer's request.

E. Measures to Determine and Control Water Loss

Water loss is determined by calculating the difference between the amount of water produced minus the consumption billed. The District's water loss has averaged 25% over the past 5 years. The District's water loss for the past 5 years is reported in the Utility Profile in Appendix A.

The ultimate goal is to maintain water loss at or less than 15% across the District water system. The District is taking the following actions in order to reduce water loss:

- Regulate and measure the amount of water used in system flushing and firefighting.
- Install construction meters on hydrants for all construction water
- Monthly inspection of the system to determine illegal connections
- Cut and plug abandoned water main and service lines
- Well-trained leak crews capable of quick assessment and repair
- Manage pressure across the system by use of control valves and pressure reducing valves
- Inform customers of known leaks on the customer's side of the meter

F. Public Education and Information

Crystal Clear continues to educate and inform customers about water conservation. The District publishes conservation tips on the District website, mails out brochures annually,

and provides literature to new customers. The water conservation brochures are ordered directly from the Texas Water Development Board's website and shared with customers.

In the upcoming years, the District plans to team up with various home builders that are constructing subdivisions within the District's service boundary to educate new homeowners on the importance of water conservation.

G. Non-Promotional Water Rate Structure

Crystal Clear has a rate plan that established monthly service charges based on the cost of service to its customers. The District also has a rate structure that discourages the excessive use of water. No rates that promote unreasonable or excessive use or waste are offered. A copy of Crystal Clear's Rate Plan for Fiscal Years 2021-2025 is provided on the next page.

Rate Plan for Fiscal Years 2021-2025

Below are the results of the recent rate study performed for Crystal Clear Special Utility District (CCSUD). In an effort to continue to deliver quality water to CCSUD customers, the Board of Directors authorized CCSUD Staff to pursue a five-year rate plan to help fund the costs of capital improvement projects for Fiscal Years 2021–2025.

As CCSUD's service area continues to experience unprecedented growth, these rates may be subject to change.

WATER CONSUMPTION RATE

Rate per 1,000	2020	2021	2022	2023	2024	2025
Gallons						
0 to 5,000	\$ 5.09	\$ 5.50	\$ 5.94	\$ 6.41	\$ 6.67	\$ 6.67
5,000.1 to 10,000	\$ 5.60	\$ 6.05	\$ 6.53	\$ 7.05	\$ 7.34	\$ 7.34
10,000.1 to 20,000	\$ 6.66	\$ 7.19	\$ 7.77	\$ 8.39	\$ 8.73	\$ 8.73
20,000.1 to 50,000	\$ 9.00	\$ 9.72	\$ 10.50	\$ 11.34	\$ 11.79	\$ 11.79
50,000.1 to 70,000	\$ 11.50	\$ 12.42	\$ 13.41	\$ 14.49	\$ 15.07	\$ 15.07
OVER 70,000	\$ 12.00	\$ 12.96	\$ 14.00	\$ 15.12	\$ 15.72	\$ 15.72

WATER BASE RATE

Meter Size	2020	2021	2022	2023	2024	2025
5/8" x ³ / ₄ "	\$ 41.21	\$ 44.51	\$ 48.07	\$ 51.91	\$ 53.99	\$ 53.99
3/4" x 3/4"	\$ 61.31	\$ 66.77	\$ 72.11	\$ 77.87	\$ 80.99	\$ 80.99
1"	\$ 101.52	\$ 111.28	\$ 120.18	\$ 129.78	\$ 134.98	\$ 134.98
1 1/2"	\$ 202.04	\$ 222.55	\$ 240.35	\$ 259.55	\$ 269.95	\$ 269.94
2"	\$ 322.67	\$ 356.08	\$ 384.56	\$ 415.28	\$ 431.92	\$ 431.92
3"	\$ 644.33	\$1,557.85	\$1,682.45	\$1,816.85	\$1,889.65	\$1,889.65
4"	\$1,006.21	\$2,893.15	\$3,124.55	\$3,374.15	\$3,509.35	\$3,509.35
6"	\$2,011.42	\$6,231.41	\$6,729.80	\$7,267.40	\$7,558.60	\$7,558.60

H. Reservoir Systems Operation Plan

The District does not own or operate any reservoirs. This section does not apply.

3.3 Additional Requirements for Large Suppliers

A. Leak Detection and Repair

The District has established a leak detection and repair program that includes the following:

- 1) Annual leak detection surveys
- 2) Visual inspections of distribution mains for potential leaks
- 3) Improved methods used during leak repair to cause less damage on adjacent infrastructure
- 4) Repairs are completed by replacing the entire 20-foot piece of pipe instead of replacing or patching just the leaking section
- 5) Response times within 2 hours for emergency leak repairs and 48 hours for non-emergency leak repairs

B. Contract Requirements

This is not applicable. Crystal Clear does not wholesale water.

3.4 Additional Conservation Strategies

Any combination of the following strategies shall be selected by the water supplier, in addition to the minimum requirements of 30 TAC §288.2(1) if they are necessary in order to achieve the stated water conservation goals of the plan.

- Require a separate irrigation meter in addition to the standard domestic meters;
- 2. Establish a program and/or ordinance(s) for landscape water management;
- 3. Establish a program for pressure control and/or reduction in the distribution system and/or for customer connections;
- 4. Establish a method for monitoring the effectiveness and efficiency of the water conservation plan.
- 5. Hire leak detection services to complete a comprehensive leak survey of the water system.

A. Irrigation/Sprinkler System Meters and/or External Water Fixtures

All new irrigation/sprinkler systems on existing structures/homes will require a separate meter. A separate meter (second meter) will be required on all new developments/new builds for all external water fixtures regardless of whether an irrigation/sprinkler system is installed. If the customer is not adhering to the drought stage restrictions, secondary meters will be turned off if necessary to meet conservation goals. The District may consider higher consumption rates for non-essential use water.

B. Landscape Water Management Regulations

The District recommends xeriscaping and low water use plants be used for landscaping to minimize waste on landscape irrigation. Crystal Clear will coordinate with the counties and cities overlying the District's service boundary to establish rules requiring xeriscaping.

C. Pressure Control Program

Pressure management allows water utilities to increase their efficiency in water distribution by improving network performance. It allows pipeline distribution systems to operate at optimal levels ensuring a reliable and constant water supply and reducing water loss. The District plans to establish a pressure management program to improve the reliability of the system and reduce water main breaks and leaks.

D. Water Conservation Monitoring

The District plans to start using the Municipal Water Conservation Planning Tool for tracking the effectiveness of each strategy in the water conservation plan. The purpose is to aid the District in measuring the success of the current plan, developing long-term plans, estimating water savings and annual report to the TWDB.

E. Leak Detection Surveys

The District plans to employ a leak detection company to conduct thorough water audits of the system. The goal is to minimize water loss and increase water savings throughout the system.

3.5 Plan Adoption

A. Plan Adoption

Crystal Clear has adopted this Water Conservation and Drought Contingency Plan. A resolution for adoption allows the Board of Directors of the District to implement and enforce the Water Conservation and Drought Contingency Plan. The executed copy of the resolution for adoption is attached in Appendix B.

B. Coordination with the Regional Water Planning Group(s)

The SCTRWPG (Region L) has been provided with a finalized copy of this Water Conservation and Drought Contingency Plan. Documentation of the coordination with and approval by the Region L Water Planning Group is provided in Appendix C.

C. Plan Review and Update

The District will continue to review and develop Best Management Practices (BMPs) that are suitable for its customer's water use profile over the duration of this plan. The District will review and update the water conservation plan no later than May 1, 2029, and every five years thereafter to coincide with the regional water planning group. Subsequent updates to the water conservation plan will be based on an assessment of previous five-

year and ten-year targets and any other new or updated information. The revised plan must also include an implementation report.

3.6 Implementation of the Plan

A. Achieving Targets

Although the overall conservation planning will require ongoing efforts, the implementation date set by the District is October 1, 2024.

B. Tracking Targets and Goals

Crystal Clear plans to utilize the TWDB's Municipal Water Conservation Planning Tool to assist with their planning, reporting and strategy development. The tool will also assist the District with estimating the cost savings of each implemented conservation measure. Additionally, each year, Crystal Clear will submit the annual water use survey and water audit report to monitor the District's water use and water losses.

4. DROUGHT CONTINGENCY PLAN

4.1 Declaration of Policy, Purpose, and Intent

In order to conserve the available water supply and protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, and fire protection, and to protect and preserve public health, welfare, and safety and minimize the adverse impacts of water supply shortage or other water supply emergency conditions, the District hereby adopts the following regulations and restrictions on the delivery and consumption of water.

Water uses regulated or prohibited under this Drought Contingency Plan (the Plan) are considered to be non-essential and continuation of such uses during times of water shortage or other emergency water supply condition are deemed to constitute a waste of water which subjects the offender(s) to penalties as defined in Section 4.10 of this Plan.

4.2 Public Involvement

Opportunity for the public to provide input into the preparation of the Plan was provided by the District by means of an online survey. In July 2023, the District issued an online survey to all customers. The survey received a total of 235 responses and included questions regarding efforts made to conserve water and types of drought enforcement. A copy of the survey is provided in Appendix D.

The survey results indicated that anywhere from 44% to 67% of the responding customers had already made the following efforts to conserve water:

- Changed yard landscaping
- Lessened the frequency of yard watering

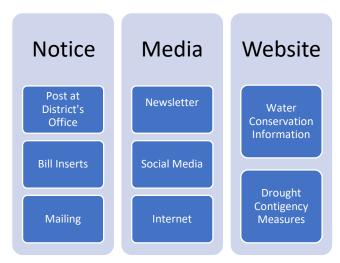
- Changed the method of yard watering
- Adopted new technologies (ex; low flow showerheads, high efficiency washing machines and dishwashers, etc.)

The survey results also showed what types of drought enforcement methods were more accepted by the responding customers. The table below summarizes what percentage of the 235 respondents thought the listed drought enforcement choices were suitable for the area:

Answer Choice	Percentage
Answer Choice	Responding Yes
Additional surcharge for excess water use tiers	55.98%
Increase rates during restriction for excess water use tiers	34.62%
Separate meter for irrigation at customer's expense	32.48%
Hire police to enforce drought restrictions/issue citations with fines	17.95%

4.3 Public Education

The District will periodically provide the public with information about the Plan, including information about the conditions under which each stage of the Plan is to be initiated or terminated and the drought response measures to be implemented in each stage. Water conservation tips and information will also be provided. This information will be provided by the following means:



4.4 Authorization

The Board of Directors and/or General Manager are hereby authorized and directed to implement the applicable provisions of this Plan upon determination that such implementation is necessary to protect public health, safety, and welfare. The Board of Directors and/or General Manager shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in this Plan.

4.5 Application

The provisions of this Plan shall apply to all persons, customers, and property utilizing water provided by the District. The terms "person" and "customer" as used in the Plan include individuals, corporations, partnerships, associations, and all other legal entities.

4.6 Definitions

For the purposes of this Plan, the following definitions shall apply:

<u>Aesthetic water use</u>: water use for ornamental or decorative purposes such as fountains, reflecting pools, and water gardens.

<u>Commercial and institutional water use</u>: water use which is integral to the operations of commercial and non-profit establishments and governmental entities such as retail establishments, hotels and motels, restaurants, and office buildings.

<u>Conservation</u>: those practices, techniques, and technologies that reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water or increase the recycling and reuse of water so that a supply is conserved and made available for future or alternative uses.

Customer: any person, company, or organization using water supplied by District.

<u>Domestic water use</u>: water use for personal needs or for household or sanitary purposes such as drinking, bathing, heating, cooking, sanitation, or for cleaning a residence, business, industry, or institution.

<u>Even number address</u>: street addresses, box numbers, or rural postal route numbers ending in 0, 2, 4, 6, or 8 and locations without addresses.

<u>Foundation watering</u>: an application of water to the soils directly abutting (within 2 feet) the foundation of a building, structure.

<u>Industrial water use</u>: the use of water in processes designed to convert materials of lower value into forms having greater usability and value.

<u>Landscape irrigation use</u>: water used for the irrigation and maintenance of landscaped areas, whether publicly or privately owned, including residential and commercial lawns, gardens, golf courses, parks, and rights-of-way and medians.

<u>Non-essential water use</u>: water uses that are not essential nor required for the protection of public, health, safety, and welfare, including:

- (a) irrigation of landscape areas, including parks, athletic fields, and golf courses, except otherwise provided under this Plan;
- (b) use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle;
- (c) use of water to wash down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;

- (d) use of water to wash down buildings or structures for purposes other than immediate fire protection;
- (e) flushing gutters or permitting water to run or accumulate in any gutter or street;
- (f) use of water to fill, refill, or add to any indoor or outdoor swimming pools or Jacuzzi-type pools;
- (g) use of water in a fountain or pond for aesthetic or scenic purposes except where necessary to support aquatic life;
- (h) failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s); and
- (i) use of water from hydrants for construction purposes or any other purposes other than firefighting.

Odd numbered address: street addresses, box numbers, or rural postal route numbers ending in 1, 3, 5, 7, or 9.

4.7 Criteria for Initiation and Termination of Drought Response Stages

The <u>General Manager</u> or his/her designee shall monitor water supply and/or demand conditions on a weekly basis and shall determine when conditions warrant initiation or termination of each stage of the Plan, that is, when the specified "triggers" are reached.

The triggering criteria described below are based on the Edwards Aquifer Authority's (EAA) Critical Period Management Plan (CPM) for the San Antonio Pool.

The triggering criteria listed in the CPM is divided into five stages of reduced pumping requirements, each triggered by declining aquifer levels or spring flow discharge rates as calculated in 10-day averages. In other words, required reductions increase as aquifer levels or spring flows decrease. As a result, permit holders must reduce groundwater withdrawals by a certain percentage of their authorized annual withdrawal amounts based on the critical period stage that is in effect. The table below summarizes the percentage of water reduction for each stage. Crystal Clear's water shortage conditions and triggers have been developed to correspond with the CPM stage set by the EAA.

Critical Period Stage	J-17 Index Well Level above mean sea level (amsi)	San Marcos Springs Flow cubic feet per second (cfs)	Comal Springs Flow cubic feet per second (cfs)	% of Water Reduction
No Stage indicates stable levels	660 feet or above	96 or above	225 or above	0%
Stage 1	less than 660 feet	less than 96	less than 225	20%
Stage 3	Less than 640 feet	Not Applicable	Less than 150	35%
Stage 4	Less than 630 feet	Not Applicable	Less than 100	40%
Stage 5	Less than 625 feet	Not Applicable	Less than 45/40*	44%

Utilization of alternative water sources and/or alternative delivery mechanisms:

The District has one alternative water source. It is an interconnection with Springs Hill Water Supply Corporation. This source will be used as necessary during drought restrictions.

In the event of an emergency loss of water supply, the District will consider purchases of water by the truckload or in bottles for the health and public safety of the District's customers.

A. Stage 1 Triggers – MILD Water Shortage Conditions

Requirements for Initiation

Customers shall be requested to voluntarily conserve water and adhere to the prescribed restrictions on certain water uses defined in Section 4.6 of this Plan when:

- 1) The static water level in the <u>Edwards Aquifer J-17 Index Well</u> is equal to or <u>less than</u> 660 feet below mean sea level.
- 2) Flows in the <u>San Marcos Springs</u> are equal to or <u>less than 96</u> cubic feet per second.
- 3) Flows in the <u>Comal Springs</u> are equal to or <u>less than 225</u> cubic feet per second.

Requirements for Termination

Stage 1 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a ten-day rolling average.

B. Stage 2 Triggers – MODERATE Water Shortage Conditions

Requirements for Initiation

Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses provided in Section 4.6 of the Plan when:

- 1) The static water level in the <u>Edwards Aquifer J-17 Index Well</u> is equal to or <u>less than</u> 650 feet below mean sea level.
- 2) Flows in the <u>San Marcos Springs</u> are equal to or <u>less than 80</u> cubic feet per second.
- 3) Flows in the <u>Comal Springs</u> are equal to or <u>less than 200</u> cubic feet per second.

Requirements for Termination

Stage 1 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a ten-day rolling average. Upon termination of Stage 2, Stage 1, or the applicable drought response stage based on the triggering criteria, becomes operative.

C. Stage 3 Triggers – SEVERE Water Shortage Conditions

Requirements for Initiation

Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses provided in Section 4.6 of this Plan when:

- 1) The static water level in the <u>Edwards Aquifer J-17 Index Well</u> is equal to or <u>less than</u> 640 feet below mean sea level.
- 2) Flows in the <u>Comal Springs</u> are equal to or <u>less than 150</u> cubic feet per second.

Requirements for Termination

Stage 3 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a ten-day rolling average. Upon termination of Stage 3, Stage 2, or the applicable drought response stage based on the triggering criteria, becomes operative.

D. Stage 4 Triggers – CRITICAL Water Shortage Conditions

Requirements for Initiation

Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses provided in Section 4.6 of this Plan when:

- 1) The static water level in the <u>Edwards Aquifer J-17 Index Well</u> is equal to or <u>less than</u> 630 feet below mean sea level.
- 2) Flows in the Comal Springs are equal to or less than 100 cubic feet per second.

Requirements for Termination

Stage 4 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a ten-day rolling average. Upon termination of Stage 4, Stage 3, or the applicable drought response stage based on the triggering criteria, becomes operative.

E. Stage 5 Triggers – EMERGENCY Water Shortage Conditions

Requirements for Initiation

Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses provided in Section 4.6 of this Plan when:

- 1) The static water level in the <u>Edwards Aquifer J-17 Index Well</u> is equal to or <u>less than</u> <u>625</u> feet below mean sea level.
- 2) Flows in the <u>Comal Springs</u> are equal to or <u>less than 45</u> cubic feet per second.

Requirements for Termination

Stage 5 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a ten-day rolling average. Upon termination of Stage 5, Stage 4, or the applicable drought response stage based on the triggering criteria, becomes operative.

F. Stage 6 Triggers – WATER ALLOCATION

Requirements for Initiation

Customers shall be required to comply with the water allocation plan prescribed in Section 4.9(F) of this Plan and comply with the requirements and restrictions for Stage 5 of this Plan when:

- 1) Major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to provide water service; or
- 2) Natural or man-made contamination of the water supply source occurs; or
- 3) Water system failures have created a condition that is an imminent threat to the health, safety and welfare of the public.

Requirements for Termination

Water allocation may be rescinded when all the conditions listed as triggering events have ceased to exist for a period of two consecutive days.

In addition to the stage triggers described above, water supplies provided by Canyon Regional Water Authority (CRWA), Alliance Regional Water Authority (ARWA), Guadalupe Blanco River Authority (GBRA) and Edwards Aquifer Authority (EAA) may be monitored and reduced in order to manage limited water supplies. These entities may monitor the District's monthly water loss and reduce daily allowances (peaking factor reduction). Reduction by each supplier can be up to 40% depending on the drought stages, thus reducing the water CCSUD receives by 40%. The District would be forced to use an alternate water supply which is charged at full retail price to the District. In part, that source is also managed by CRWA.

4.8 Notifications

The General Manager or his/her designee shall monitor water supply and/or demand conditions on a daily basis and, in accordance with the triggering criteria set forth in Section 4.7 of this Plan, shall determine that a mild, moderate, severe, critical, emergency or water shortage condition exists. In addition to the General Manger, the Board of Directors has the authority to make determinations regarding the triggering and rescinding of Stage 6. Upon the determination,

termination or change of drought stage, the General Manager or his/her designee shall implement the following notification procedures:

Notification of the Public:

The General Manager or his/ her designee shall notify the public by means of:

- Notation on customer mailed billing,
- Social media,
- CCSUD webpage,
- CCSUD blast message,
- Signs posted at CCSUD office,
- CCSUD Quarterly newsletters

Additional Notification:

The General Manager or his/ her designee shall notify directly, or cause to be notified directly, the following individuals and entities:

- City/County officials and Emergency Management Coordinator(s)
- Fire Marshal(s)/Fire Chief(s)
- TCEQ (required when mandatory restrictions are imposed)

4.9 Drought Stage Responses

The District will notify TCEQ when implementing or terminating any stage of this Plan. Use of water for landscape irrigation shall be only performed from 8:00 PM to midnight and between midnight and 10:00 AM. Water-use restrictions applicable to aesthetic water features and the washing of vehicles, structures, or impervious surfaces are applicable to each successively higher stage. Irrigation between 10:00 AM and 8:00 PM is considered water waste and is enforceable as a violation at all times. The District's outdoor water-use schedule is described in the following sections.

A. Stage 1 Response – MILD Water Shortage Conditions

Target: Achieve a voluntary 20 percent (20%) reduction in daily water demand.

Voluntary Water Use Restrictions for Reducing Demand:

- (a) Water customers are requested to voluntarily limit the irrigation of landscaped areas to Mondays and Thursdays for customers with a street address ending in an even number (0, 2, 4, 6 or 8), and Tuesdays and Fridays for water customers with a street address ending in an odd number (1, 3, 5, 7 or 9).
- (b) All operations of the District shall adhere to water use restrictions prescribed for Stage 1 of the Plan.
- (c) Water customers are requested to practice water conservation and to minimize or discontinue water use for non-essential purposes.

(d) Water customers are encouraged to cover all indoor and/or outdoor (above ground and/or in ground) swimming pools, wading pools, or Jacuzzi-type pools when not in use to assist with water loss due to evaporation.

B. Stage 2 Response – MODERATE Water Shortage Conditions

<u>Target</u>: Achieve a 30 percent (30%) reduction in daily water demand.

Water Use Restrictions for Demand Reduction:

Under threat of penalty for violation, the following water use restrictions shall apply to all persons:

- (a) Irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems shall be limited to Sundays and Thursdays for customers with a street address ending in an even number (0, 2, 4, 6 or 8), and Saturdays and Wednesdays for water customers with a street address ending in an odd number (1, 3, 5, 7 or 9). Irrigation of landscaped areas is further limited to the hours between 8:00 p.m. and 10:00 a.m. on designated watering days. However, irrigation of landscaped areas is permitted at any time if it is by means of a hand-held hose, a faucet filled bucket or watering can of five (5) gallons or less, or drip irrigation system.
- (b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane, recreational vehicle or other vehicle is prohibited except on designated watering days between the hours of 8:00 p.m. and 10:00 a.m. Such washing, when allowed, shall be done with a hand-held bucket or a hand-held hose equipped with a positive shutoff nozzle for quick rises. Vehicle washing may be done at any time on the immediate premises of a commercial car wash or commercial service station. Further, such washing may be exempted from these regulations if the health, safety, and welfare of the public is contingent upon frequent vehicle cleansing, such as garbage trucks and vehicles used to transport food and perishables.
- (c) Use of water to fill, refill, or add to all indoor and/or outdoor (above ground and/or in ground) swimming pools, wading pools, or Jacuzzi-type pools is prohibited except on designated watering days between the hours of 8 p.m. and 10:00 a.m.
- (d) Use of water from hydrants shall be limited to firefighting, related activities, or other activities necessary to maintain public health, safety, and welfare, except that use of water from designated fire hydrants for construction purposes may be allowed under special permit from the District.
- (e) All restaurants are prohibited from serving water to patrons except upon request of the patron.
- (f) The following uses of water are defined as non-essential and are prohibited:
 - 1. Wash down of any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;

- 2. Use of water to wash down buildings or structures for purposes other than immediate fire protection;
- 3. Use of water for dust control;
- 4. Flushing gutters or permitting water to run or accumulate in any gutter or street; and
- 5. Failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s).

C. Stage 3 Response – SEVERE Water Shortage Conditions

<u>Target</u>: Achieve a thirty-five percent (35%) reduction in daily water demand.

Water Use Restrictions for Demand Reduction:

All requirements of Stage 2 shall remain in effect during Stage 3 except:

- (a) Irrigation of landscaped areas shall be limited to designated watering days between the hours of 8:00 p.m. and 10:00 a.m. and shall be by means of handheld hoses, hand-held buckets, drip irrigation, or permanently installed automatic sprinkler system only. The use of hose-end sprinklers is prohibited at all times.
- (c) The use of water for construction purposes from designated fire hydrants under special permit is to be discontinued.
- (d) Foundation Watering (within 2 feet) and watering of trees may occur for two hours one day per week with a hand-held hose or with a dedicated zone using a Drip Irrigation system and/or Soaker Hose, provided no runoff occurs.

D. Stage 4 Response – CRITICAL Water Shortage Conditions

Target: Achieve a forty percent (40%) reduction in daily water demand.

Water Use Restrictions for Reducing Demand:

All requirements of Stage 2 and 3 shall remain in effect during Stage 4 except:

- (a) Irrigation of landscaped areas shall be limited to designated watering days between the hours of 8:00 p.m. and 10:00 a.m. and shall be by means of handheld hoses, hand-held buckets, or drip irrigation only. The use of hose-end sprinklers or permanently installed automatic sprinkler systems are prohibited at all times.
- (b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane, or other vehicle not occurring on the premises of a commercial car wash and commercial service stations and not in the immediate interest of public health, safety, and welfare is prohibited. Further, such vehicle washing at commercial car washes and commercial service stations shall occur only between the hours of 6:00 a.m. and 10:00 a.m. and between 6:00 p.m. and 10 p.m.

- (c) The filling, refilling, or adding of water to swimming pools, wading pools, and Jacuzzi-type pools is prohibited.
- (d) Operation of any ornamental fountain or pond for aesthetic or scenic purposes is prohibited except where necessary to support aquatic life or where such fountains or ponds are equipped with a recirculation system.
- (e) No application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved, and time limits for approval of such applications are hereby suspended for such time as this drought response stage or a higher-numbered stage shall be in effect.

E. Stage 5 Response – EMERGENCY Water Shortage Conditions

<u>Target</u>: Achieve a forty-four percent (44%) reduction in daily water demand.

Water Use Restrictions for Reducing Demand:

All requirements of Stage 2, 3, and 4 shall remain in effect during Stage 5 except:

- (a) Irrigation of landscaped areas is absolutely prohibited, except soaker hoses, handheld hoses or a dedicated zone using a drip irrigation system may be used to water trees up to two hours per week or foundations as necessary, provided no runoff occurs.
- (b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane, or other vehicle is absolutely prohibited.

F. Stage 6 Response – WATER ALLOCATION

In the event that water shortage conditions threaten public health, safety, and welfare, the General Manager and/or Board of Directors is hereby authorized to allocate water according to the following water allocation plan:

Single-Family Residential Customers

The allocation to residential water customers residing in a single-family dwelling shall be as follows:

Persons per Household	Gallons per Month
1 or 2	3,000
3 or 4	3,500
5 or 6	4,000
7 or 8	4,500
9 or 10	5,000
11 or more	6,000

"Household" means the residential premises served by the customer's meter. "Persons per household" include only those persons currently physically residing at the premises and expected to reside there for the entire billing period. It shall be assumed that a particular customer's household is comprised of two (2) persons unless the customer notifies the District of a greater number of persons per household on a form prescribed by the General Manager. The General Manager shall give his/her best effort to see that such forms are mailed, otherwise provided, or made available to every residential customer. If, however, a customer does not receive such a form, it shall be the customer's responsibility to go to the District office to complete and sign the form claiming more than two (2) persons per household. New customers may claim more persons per household at the time of applying for water service on the form prescribed by the General Manager. When the number of persons per household increases so as to place the customer in a different allocation category, the customer may notify the District on such form and the change will be implemented in the next practicable billing period. If the number of persons in a household is reduced, the customer shall notify the District in writing within two (2) days. In prescribing the method for claiming more than two (2) persons per household, the General Manager shall adopt methods to ensure the accuracy of the claim. Any person who knowingly, recklessly, or with criminal negligence falsely reports the number of persons in a household or fails to timely notify the District of a reduction in the number of persons in a household shall be fined. Any household that consumes over the monthly allocated amount shall pay a surcharge. Fines and surcharge amounts are defined in the District's Rules and Regulations. Surcharges shall be cumulative.

Commercial Customers

A monthly water allocation shall be established by the General Manager, or his/her designee, for each nonresidential commercial customer other than an industrial customer who uses water for processing purposes. The non-residential customer's allocation shall be approximately 75 percent (75%) of the customer's usage for corresponding month's billing period for the previous 12 months. If the customer's billing history is shorter than 12 months, the monthly average for the period for which there is a record shall be used for any monthly period for which no history exists. The General Manager shall give his/her best effort to see that notice of each non-residential customer's allocation is mailed to such customer. If, however, a customer does not receive such notice, it shall be the customer's responsibility to contact the District to determine the allocation. Upon request of the customer or at the initiative of the General Manager, the allocation may be reduced or increased if, (1) the designated period does not accurately reflect the customer's normal water usage, or (2) other objective evidence demonstrates that the designated allocation is inaccurate under present conditions. A customer may appeal an allocation established hereunder to the General Manager. Nonresidential commercial customers that consume over the monthly allocated amount shall pay a surcharge. Surcharges will be assessed per each 1,000 gallons over allocation and shall be cumulative. Surcharge amounts are defined in the District's Rules and Regulations.

Industrial Customers

A monthly water allocation shall be established by the General Manager or his/her designee, for each industrial customer which uses water for processing purposes. The industrial customer's allocation shall be approximately 90 percent (90%) of the customer's water usage baseline. Ninety (90) days after the initial imposition of the allocation for industrial customers, the industrial customer's allocation shall be further reduced to eighty-five percent (85%) of the customer's water usage baseline. The industrial customer's water use baseline will be computed on the average water use for the 12 month period ending prior to the date of implementation of Stage 2 of the Plan. If the industrial water customer's billing history is shorter than 12 months, the monthly average for the period for which there is a record shall be used for any monthly period for which no billing history exists. The General Manager shall give his/her best effort to see that notice of each industrial customer's allocation is mailed to such customer. If, however, a customer does not receive such notice, it shall be the customer's responsibility to contact the District to determine the allocation, and the allocation shall be fully effective notwithstanding the lack of receipt of written notice. Upon request of the customer or at the initiative of the General Manager, the allocation may be reduced or increased, (1) if the designated period does not accurately reflect the customer's normal water use because the customer had shutdown a major processing unit for repair or overhaul during the period, (2) the customer has added or is in the process of adding significant additional processing capacity, (3) the customer has shutdown or significantly reduced the production of a major processing unit, (4) the customer has previously implemented significant permanent water conservation measures such that the ability to further reduce water use is limited or (5) if other objective evidence demonstrates that the designated allocation is inaccurate under present conditions. A customer may appeal an allocation established hereunder to the General Manager. Industrial customers that consume over the monthly allocated amount shall pay a surcharge. Surcharges will be assessed per each 1,000 gallons over allocation and shall be cumulative. Surcharge amounts are defined in the District's Rules and Regulations.

4.10 Enforcement

- (a) No person shall knowingly or intentionally allow the use of water from the District for residential, commercial, industrial, agricultural, governmental, or any other purpose in a manner contrary to any provision of this Plan, or in an amount in excess of that permitted by the drought response stage in effect at the time pursuant to action taken by the General Manager, or his/her designee, in accordance with provisions of this Plan.
- (b) Any person who has been found by the District to have violated a requirement of this Plan shall be provided written notice of the violation and may be subject to a penalty. At any time after the first written notice, Crystal Clear Special Utility

- District may install a flow restriction device on the customer's primary meter for up to seven (7) days. The District may charge the customer for the cost of installing and removing the flow restricting device.
- (c) Each day that one or more of the provisions in this Plan is violated shall constitute a separate offense. If a person incurs three or more distinct violations of this Plan, the General Manager shall, upon due notice to the customer, be authorized to discontinue water service to the premises where such violations occur. Services may be discontinued at the primary meter, secondary meter or both depending on where the violation occurred. Services discontinued under such circumstances shall be restored only upon payment of a re-connection charge and any other costs incurred by the Crystal Clear Special Utility District in discontinuing service. In addition, suitable assurance must be given to the General Manager that the same action shall not be repeated while the Plan is in effect.
- (d) Any person, including a person classified as a water customer of the Crystal Clear Special Utility District, in apparent control of the property where a violation occurs or originates shall be presumed to be the violator, and proof that the violation occurred on the person's property shall constitute a rebuttable presumption that the person in apparent control of the property committed the violation, but any such person shall have the right to show that he/she did not commit the violation. Parents shall be presumed to be responsible for violations of their minor children and proof that a violation, committed by a child, occurred on property within the parents' control shall constitute a rebuttable presumption that the parent committed the violation, but any such parent may be excused if he/she proves that he/she had previously directed the child not to use the water as it was used in violation of this Plan and that the parent could not have reasonably known of the violation.

4.11 Variances

The General Manager or his/her designee, may, in writing, grant temporary variance for existing water uses otherwise prohibited under this Plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the health, sanitation, or fire protection for the public or the person requesting such variance and if one or more of the following conditions are met:

- (a) Compliance with this Plan cannot be technically accomplished during the duration of the water supply shortage or other condition for which the Plan is in effect.
- (b) Alternative methods can be implemented which will achieve the same level of reduction in water use.

Persons requesting an exemption from the provisions of this Plan shall file for a variance with the District within 5 days after the Plan or a particular drought response stage has been invoked. All

petitions for variances shall be reviewed by the General Manager or his/her designee, and shall include the following:

- (a) Name and address of the petitioner(s).
- (b) Purpose of water use.
- (c) Specific provision(s) of the Plan from which the petitioner is requesting relief.
- (d) Detailed statement as to how the specific provision of the Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this Ordinance.
- (e) Description of the relief requested.
- (f) Period of time for which the variance is sought.
- (g) Alternative water use restrictions or other measures the petitioner is taking or proposes to take to meet the intent of this Plan and the compliance date.
- (h) Other pertinent information.

Appendix A: Water Utility Profile



CONTACT INFORMATION

Name	Name of Utility: CRYSTAL CLEAR SUD											
Public	: Wate	r Supp	ly Identi	fication Nu	mber (PWS	ID):	TX0	940015				
Certifi	icate o	f Conv	enience	and Neces	sity (CCN)	Num	ber:	10297				
Surface Water Right ID Number: NULL												
Waste	Wastewater ID Number:											
Conta	ict:	First N	Name:	Regina			Las	t Name:	Franke			
		Title:		General M	anager							
Addr	ess:	2370	FM 1979	9		С	ity:	San Ma	rcos	State:	TX	
Zip C	ode:	78666		Zip+4:		E	mail:	regina@	crystalclear	sud.org		
Telep	hone l	Numbe	er: 83	303721031		Date	e:	4/17/20	24			
Is this	s perso dinato	on the r?	designa	ted Conser	vation		•	Yes	O No			
Regio	onal W	ater Pl	anning (Group:	L							
Grou	ndwate	er Cons	servatior	n District:								
Our r	ecords	indica	ite that y	ou:								
√	Recei	ved fina	ancial as	ssistance o	f \$500,000	or mo	ore fron	n TWDB				
√	Have	3,300	or more	retail conn	ections							
	Have a surface water right with TCEQ											
A. Population and Service Area Data												
1	1. Current service area size in square miles: 204											
<u> </u>	Attach	ed file	e(s):									
F	File Na	ame			File Des	cript	ion					
C	CCN M	lap.pdf	f		CCSUD	CCN	Мар					



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
2023	17,988	0	540
2022	17,388	0	492
2021	17,016	0	378
2020	18,111	0	273
2019	18,531	0	180

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	59,532	0	5,268
2040	100,043	0	10,591
2050	118,686	0	15,915
2060	146,075	0	21,238
2070	161,252	0	26,562

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

The population projections were developed using actual population growth numbers over the last five years, known developments and their phasing for new houses over the next five to ten years, and the District's land use map. This information was analyzed to create a trend line for population growth and then projected out to 2070. The areas in Comal and Hays County are expected to reach full buildout prior to 2070. That was taken into consideration as well. These are the same numbers that were submitted for the upcoming Region L Water Plan.



B. System Input

System input data for the $\underline{\text{previous five years}}.$

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
2023	239,506,985	480,345,327	0	719,852,312	110
2022	239,221,920	479,908,719	0	719,130,639	113
2021	245,305,502	417,700,496	0	663,005,998	107
2020	379,379,953	393,463,189	0	772,843,142	117
2019	446,745,155	309,074,747	0	755,819,902	112
Historic Average	310,031,903	416,098,496	0	726,130,399	112

C. Water Supply System

Attached file(s):

File Name	File Description
Description of Facilities.docx	

1. Designed daily capacity of system in gallons 7,776,000

2. Storage Capacity

2a. Elevated storage in gallons: 1,750,000

2b. Ground storage in gallons: 2,387,600



D. Projected Demands

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

Year	Population	Water Demand (gallons)	
2025	35,885	1,309,802,500	
2026	41,792	1,525,408,000	
2027	47,137	47,137 1,720,500,500	
2028	51,375	51,375 1,875,187,500	
2029	55,521	2,026,516,500	
2030	59,532	2,172,918,000	
2031	62,973	2,298,514,500	
2032	66,473	2,426,264,500	
2033	70,366	2,568,349,145	
2034	75,713	2,763,522,117	

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

Projected water demands are based on the population multiplied by 100 gallons per capita per day (GPCD). Then multiplied by 365 for a total volume of gallons needed per year.

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
D&R Ranch RV Park	Commercial	5,492,909	Treated
Ameritex Pipe & Products	Commercial	4,848,500	Treated
Ameritex Pipe	Industrial	4,294,271	Treated
Capital Precast Inc.	Commercial	2,789,935	Treated
Treeside RV LLC	Commercial	2,722,791	Treated

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

Customer	Water Use Category	Annual Water Use	Treated or Raw
----------	--------------------	------------------	----------------



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	5,996	97.21 %
Residential - Multi-Family	0	0.00 %
Industrial	6	0.10 %
Commercial	149	2.42 %
Institutional	16	0.26 %
Agricultural	1	0.02 %
Total	6,168	100.00 %

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

	Net Number of New Retail Connections						
Year	Residential - Single Family	Residential - Multi-Family	Industrial	Commercial	Institutional	Agricultural	Total
2023	200	0	0	2	0	0	202
2022	304	0	0	0	0	0	304
2021	0	0	0	0	8	0	8
2020	177	0	20	0	15	2	214
2019	365	0	0	5	0	0	370



B. Accounting Data

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

Year	Residential - Single Family	Residential - Multi-Family	Industrial	Commercial	Institutional	Agricultural	Total
2023	503,273,774	0	6,410,798	45,980,505	3,379,497	53,372	559,097,946
2022	471,530,419	0	8,702,647	44,181,729	5,131,437	236,192	529,782,424
2021	415,261,221	0	2,978,268	36,915,708	3,444,257	164,794	458,764,248
2020	514,335,989	0	5,006,585	36,725,192	6,199,121	258,254	562,525,141
2019	560,797,916	0	11,800,640	39,883,000	0	0	612,481,556

C. Residential Water Use

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

Year	Total Residential GPCD
2023	77
2022	74
2021	69
2020	80
2019	83
Historic Average	77



D. Annual and Seasonal Water Use

1. The <u>previous five years'</u> gallons of treated water provided to RETAIL customers.

	Total Gallons of Treated Water				
Month	2023	2022	2021	2020	2019
January	34,901,466	34,764,100	35,371,000	19,262,210	31,863,100
February	31,763,434	33,264,600	21,288,100	14,652,400	19,460,800
March	37,260,100	33,703,300	25,289,000	14,039,000	23,325,800
April	35,751,500	35,435,600	36,311,100	18,853,600	23,516,700
May	33,279,000	37,542,700	36,721,600	32,160,200	24,093,400
June	38,804,666	46,685,500	42,432,600	38,482,100	23,626,600
July	48,224,834	49,857,700	41,571,533	45,456,333	29,286,000
August	55,073,700	46,011,100	37,538,067	50,468,867	31,473,600
September	48,245,400	41,128,800	40,515,900	38,894,200	28,746,400
October	40,769,000	44,957,100	37,026,100	41,874,566	25,951,700
November	37,567,600	37,322,600	34,133,700	40,036,234	24,353,400
December	38,944,800	40,915,300	33,261,100	36,922,700	20,286,500
Total	480,585,500	481,588,400	421,459,800	391,102,410	305,984,000



2. The <u>previous five years'</u> gallons of raw water provided to RETAIL customers.

	Total Gallons of Raw Water				
Month	2023	2022	2021	2020	2019
January	15,066,600	13,460,800	19,415,525	29,999,453	19,245,420
February	12,586,318	12,983,733	35,874,891	30,222,857	28,513,196
March	16,021,143	15,560,833	29,460,267	34,607,855	36,380,616
April	16,105,170	20,251,317	15,465,969	38,001,582	33,529,792
May	17,128,321	25,230,329	12,647,794	28,897,816	33,791,695
June	21,565,211	28,775,813	19,276,678	31,121,005	35,495,709
July	29,245,090	26,657,619	18,434,491	39,517,423	45,962,292
August	29,844,599	22,381,896	23,350,272	39,196,260	52,401,928
September	26,101,358	20,732,568	23,391,144	22,917,632	51,309,940
October	21,372,061	21,218,265	16,978,560	28,593,771	43,076,864
November	18,172,355	16,429,871	14,913,790	28,086,743	31,263,164
December	17,496,294	16,017,320	13,397,760	24,423,756	31,307,087
Total	240,704,520	239,700,364	242,607,141	375,586,153	442,277,703

3. Summary of seasonal and annual water use.

	Summer RETAIL (Treated + Raw)	Total RETAIL (Treated + Raw)
2023	222,758,100	721,290,020
2022	220,369,628	721,288,764
2021	182,603,641	664,066,941
2020	244,241,988	766,688,563
2019	218,246,129	748,261,703
Average in Gallons	217,643,897.20	724,319,198.20



E. Water Loss

Water Loss data for the <u>previous five years</u>.

Year	Total Water Loss in Gallons	Water Loss in GPCD	Water Loss as a Percentage
2023	158,068,896	24	21.96 %
2022	186,375,762	29	25.92 %
2021	203,094,839	33	30.63 %
2020	247,078,097	37	30.62 %
2019	133,890,597	20	17.71 %
Average	185,701,638	29	25.37 %

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)
2023	1,976,137	2421283	1.2253
2022	1,976,133	2395322	1.2121
2021	1,819,361	1984822	1.0909
2020	2,100,516	2654804	1.2639
2019	2,050,032	2372240	1.1572

G. Summary of Historic Water Use

Water Use Category	Historic Average	Percent of Connections	Percent of Water Use
Residential - Single Family	493,039,863	97.21 %	90.54 %
Residential - Multi-Family	0	0.00 %	0.00 %
Industrial	6,979,787	0.10 %	1.28 %
Commercial	40,737,226	2.42 %	7.48 %
Institutional	3,630,862	0.26 %	0.67 %
Agricultural	142,522	0.02 %	0.03 %



H. System Data Comment Section

Section III: Wastewater System Data

A. Wastewater System Data

Attached file(s):

File Name	File Description
The Crossings at Havenwood WWTF.pdf	TPDES Permit

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

37,300

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

Water Use Category	Metered	Unmetered	Total Connections	Percent of Total Connections
Municipal	180		180	100.00 %
Industrial			0	0.00 %
Commercial			0	0.00 %
Institutional			0	0.00 %
Agricultural			0	0.00 %
Total	180		180	100.00 %

3. Percentage of water serviced by the wastewater system: 3.00 %



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

	Total Gallons of Treated Water					
Month	2023	2022	2021	2020	2019	
January	919,959	905,513	376,817	155,117	209,147	
February	1,021,010	769,236	350,000	151,092	193,523	
March	790,224	858,080	345,968	165,452	219,602	
April	803,496	857,729	341,268	160,426	223,077	
May	903,725	884,281	363,632	170,653	237,103	
June	896,215	763,055	351,277	270,549	238,637	
July	836,710	850,993	348,530	321,579	241,814	
August	734,410	850,053	356,253	375,310	254,189	
September	795,426	843,447	392,285	388,550	251,208	
October	849,402	1,015,428	402,144	307,231	242,268	
November	797,627	1,051,178	613,502	297,998	268,918	
December	814,494	1,014,094	799,610	308,029	260,000	
Total	10,162,698	10,663,087	5,041,286	3,071,986	2,839,486	

5. C	could	treated	wastewater	be	substituted	for	potable	water?
------	-------	---------	------------	----	-------------	-----	---------	--------

	Yes	•	No
\cup	Yes	\odot	

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	
Evaporation Pond	
Other	
Total	0



UTILITY PROFILE FOR RETAIL WATER SUPPLIER

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

Appendix B: Resolution and Ordinance



RESOLUTION FOR ADOPTION OF A WATER CONSERVATION & DROUGHT CONTINGENCY PLAN RESOLUTION NO. 042524

A RESOLUTION OF THE BOARD OF DIRECTORS OF CRYSTAL CLEAR SPECIAL UTILITY DISTRICT ADOPTING A WATER CONSERVATION & DROUGHT CONTINGENCY PLAN.

WHEREAS, the Board recognizes that the amount of water available to the Crystal Clear Special Utility District and its water utility customers is limited and subject to depletion during periods of extended drought;

WHEREAS, the Board recognizes that natural limitations due to drought conditions and other acts of God cannot guarantee an uninterrupted water supply for all purposes;

WHEREAS, the Water Code and the regulations of the Texas Commission on Environmental Quality (the "Commission") and the Texas Water Development Board (the "Board") require that the District adopt a water conservation and drought contingency plan;

WHEREAS, as authorized under law, and in the best interests of the customers of the Crystal Clear Special Utility District, the Board deems it expedient and necessary to establish certain rules and policies for the orderly and efficient management of limited water supplies during drought and other water supply emergencies;

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE CRYSTAL CLEAR SPECIAL UTILITY DISTRICT:

SECTION I. That the Water Conservation and Drought Contingency Plan attached hereto as Exhibit "A" and made part hereof for all purposes be, and the same is hereby, adopted as the official policy of the Crystal Clear Special Utility District.

SECTION 2. That the General Manager is hereby directed to implement, administer, and enforce the Water Conservation & Drought Contingency Plan.

SECTION 3. That this resolution for adoption of a Water Conservation & Drought Contingency Plan shall take effect immediately upon its passage.

DULY PASSED BY THE BOARD OF DIRECTORS OF THE CRYSTAL CLEAR SPECIAL UTILITY DISTRICT, ON THIS 25th DAY OF April 2024.

President, Board of Directors _	my	
ATTESTED TO:	aul	affer /
Secretary, Board of Directors _	Illen	prodes

Appendix C:	: Coordination with Region L Water Planning Group Documentation		

Carissa Parker

From: noreply@TWDB.texas.gov

Sent: Wednesday, May 1, 2024 9:54 AM

To: Carissa Parker

Subject: TWDB status updated for Water Conservation

PLEASE DO NOT REPLY TO THIS EMAIL

The Conservation Plan for Utility CRYSTAL CLEAR SUD has been submitted.

Please click on the following link to log into the Water Conservation application. If the link isn't clickable, please copy and paste the entire URL into your browser's address bar and press Enter.

https://www3.twdb.texas.gov/apps/wc

Appendix D:	: Drought Contingency and Water Conservation Survey Results		



Drought Contingency & Water Conservation

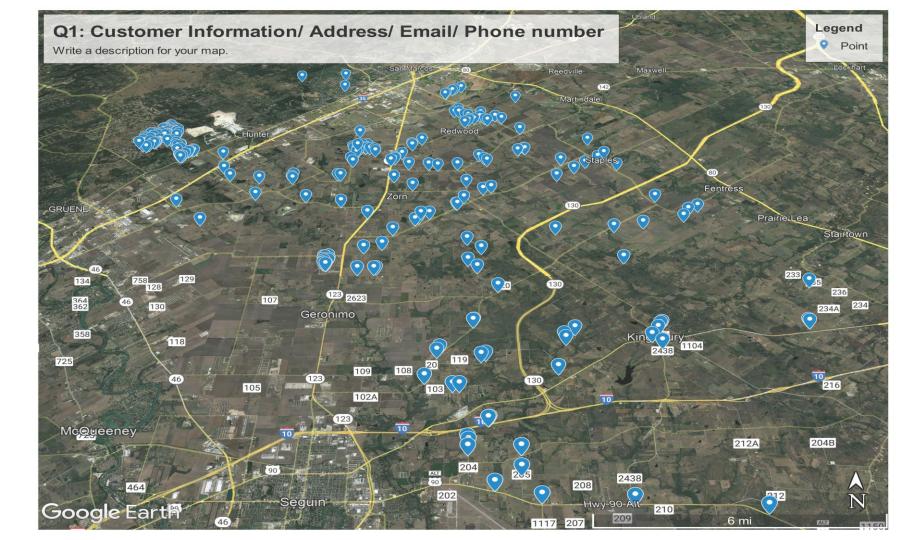
Survey Results Thursday, July 27, 2023



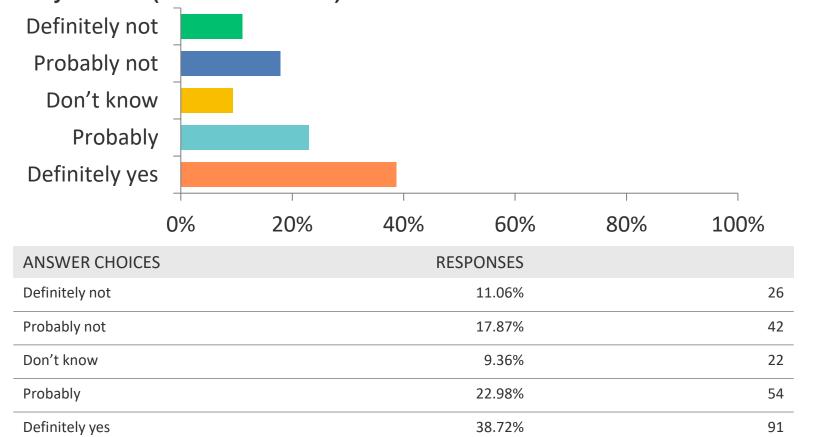
235 Total Responses

Dates: June 23, 2023 - July 14, 2023

One per household



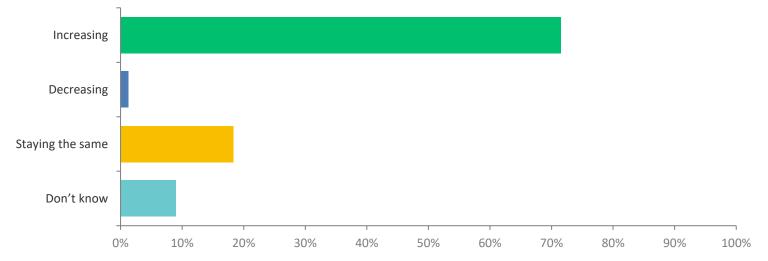
Q2: Do you regard water quantity (having enough water) as a problem in the area where you live? (Mark one Answer)



235

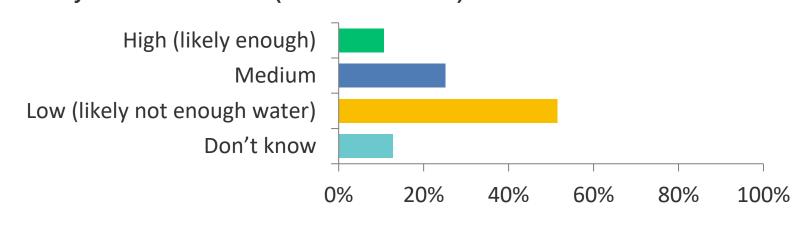
TOTAL

Q3: The likelihood of your area suffering from a prolonged drought is? (Mark one Answer)



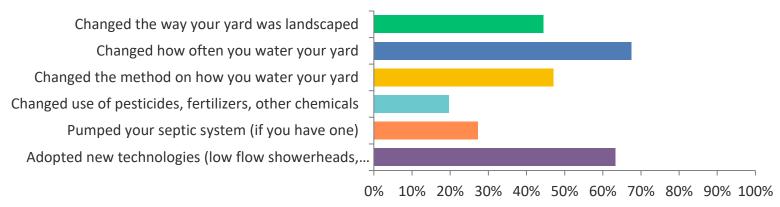
ANSWER CHOICES	RESPONSES	
Increasing	71.49%	168
Decreasing	1.28%	3
Staying the same	18.30%	43
Don't know	8.94%	21
TOTAL		235

Q4: The likelihood of your area having enough water resources to meet all of its needs 10 years from now is? (Mark one Answer)



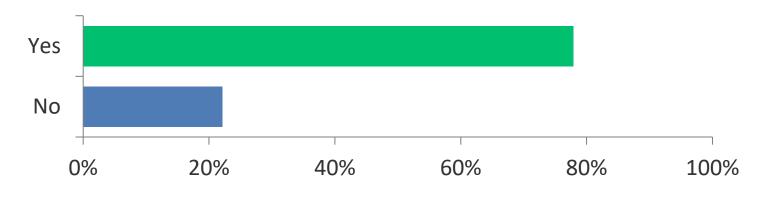
ANSWER CHOICES	RESPONSES	
High (likely enough)	10.64%	25
Medium	25.11%	59
Low (likely not enough water)	51.49%	121
Don't know	12.77%	30
TOTAL		235

Q5: Have you or someone in your household done any of the following as part of an individual or community effort to conserve water or preserve water quality? (Mark all that apply)



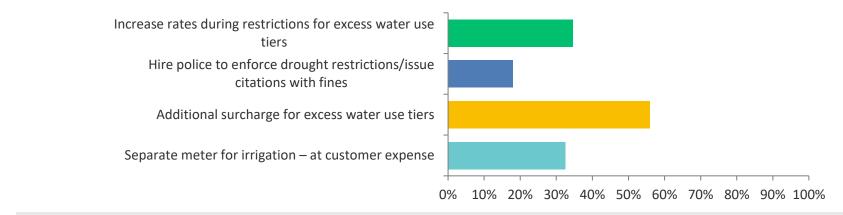
ANSWER CHOICES	RESPONSES	
Changed the way your yard was landscaped	44.44%	104
Changed how often you water your yard	67.52%	158
Changed the method on how you water your yard	47.01%	110
Changed use of pesticides, fertilizers, other chemicals	19.66%	46
Pumped your septic system (if you have one)	27.35%	64
Adopted new technologies (low flow showerheads, high efficiency washing machines and dishwashers, etc.)	63.25%	148
TOTAL		630

Q6: Did you know that depending on the extent of the leak, a warped or poorly fitting toilet flapper can waste up to 200 gallons of water a day? (Mark one Answer)



ANSWER CHOICES	RESPONSES	
Yes	77.87%	183
No	22.13%	52
TOTAL		235

Q7: What do you think appropriate drought enforcement would be for your area? (Mark all that apply)

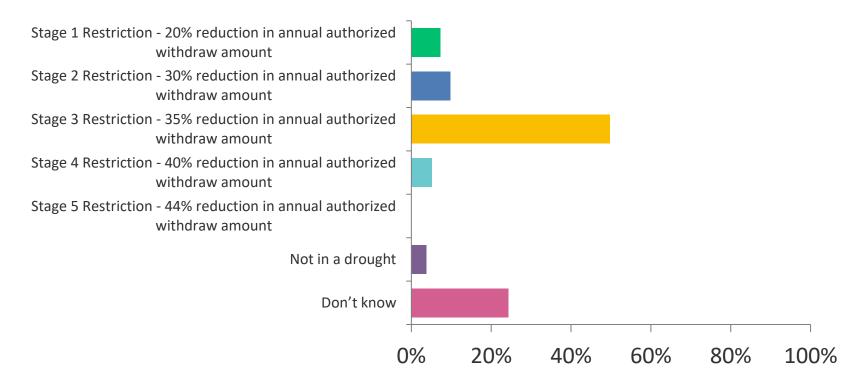


ANSWER CHOICES	RESPONSES	
Increase rates during restrictions for excess water use tiers	34.62%	81
Hire police to enforce drought restrictions/issue citations with fines	17.95%	42
Additional surcharge for excess water use tiers	55.98%	131
Separate meter for irrigation – at customer expense	32.48%	76

330

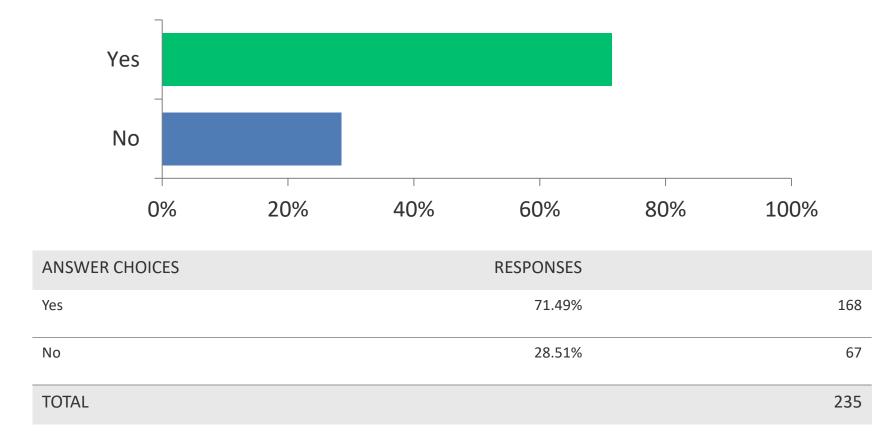
TOTAL

Q8: CCSUD is currently in what stage of drought? (Mark one Answer)

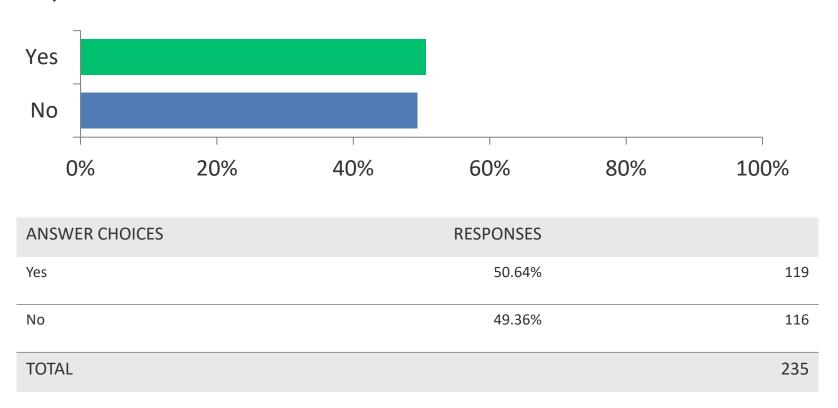


ANSWER CHOICES	RESPONSES	
Stage 1 Restriction - 20% reduction in annual authorized withdraw amount	7.23%	17
Stage 2 Restriction - 30% reduction in annual authorized withdraw amount	9.79%	23
Stage 3 Restriction - 35% reduction in annual authorized withdraw amount	49.79%	117
Stage 4 Restriction - 40% reduction in annual authorized withdraw amount	5.11%	12
Stage 5 Restriction - 44% reduction in annual authorized withdraw amount	0%	0
Not in a drought	3.83%	9
Don't know	24.26%	57
TOTAL		235

Q9: Are you aware that drought restrictions on water capacity have a financial impact on CCSUD? (Mark one Answer)



Q10: Are you aware that the area you live in for water planning in Texas, Region L, is forecasted from 2020 to 2070 to have an annual water demand percent growth of 26% and the projected population growth in the same timeframe is 73%? (Mark one Answer)



Q11: Additional comments specific to drought contingency, enforcement and water conservation

96 customers left comments

- 23 Suggested finding another water source/fixing current infrastructure
- 22 Stated CCSUD needs to limit growth
- 14 stated they are conserving/taking actions
- 10 Stated not to raise rates/rates are already high
- 5 Recommended a surcharge