



Water Conservation & Drought Contingency Plan

Crystal Clear SUD Crystal Clear WSC

Committed to Providing Clean, Safe Water for All Our Residents

2014

ADDRESS

PHONE

WEB

2370 FM 1979, San Marcos, TX 78666

(830) 372-1031

www.CrystalClearSUD.org

CRYSTAL CLEAR

Table of Contents

Table of Contents	1
Introduction.....	3
WATER CONSERVATION PLAN	5
Utility Profile	7
Water Conservation Goals.....	11
Public Education (Conservation).....	13
Metering Devices.....	14
Water Loss	15
Water Rates	16
Cross Connection Control.....	17
Plumbing Fixtures.....	18
Discretionary Uses	19
Water Waste.....	20
DROUGHT CONTINGENCY PLAN	21
Declaration of Policy, Purpose, and Intent	22
Authorization	22
Application.....	23
Public Involvement	23
Public Education (Drought).....	24
Supply Based Triggers	25
Demand Based Trigger.....	26
Contamination Trigger	26

CRYSTAL CLEAR

System Outage Trigger.....	26
Response Stages	27
Variances	28
Enforcement	29
Coordination with Region L Planning Group	30
Resolution	31
Appendix A – TWDB Utility Profile	33

CRYSTAL CLEAR

Introduction

Crystal Clear Water Supply Corporation/Special Utility District “Crystal Clear” is a Public Water System (PWS) in South Central Texas that provides water service to approximately 15,000 residents and 4,500 retail connections over 165 square miles in portions of Comal, Guadalupe, and Hays Counties. The service area extends across Interstate Highway 35 to the northwest and is bordered by Interstate Highway 10 to the south, State Highway 46 to the southwest, and the San Marcos River to the northeast. Crystal Clear is currently undergoing a transition from a Water Supply Corporation to a Special Utility District.

Crystal Clear primarily serves single-family residential units including the communities of Hunter, Kingsbury, Redwood, and Zorn as well as portions of the extra territorial jurisdictions and within the city limits of the Cities of New Braunfels, San Marcos, Seguin, and Staples. Currently, 82.5% of the service area is located in Guadalupe County, 9.0% is in Hays County, and 8.5% is in Comal County. Crystal Clear has territory within the boundaries of the Edwards Aquifer Authority and the Guadalupe County Groundwater Conservation District. The entire service area is located in the Region L South Central Texas Regional Water Planning Group (SCTRWP), which is administered by the Texas Water Development Board (TWDB).

Currently, Crystal Clear can use 4,073 acre-feet per year (AF/yr) of water supply from wells in the Edwards, Edwards/Uvalde and Carrizo aquifers as well as water supply contracts with the Guadalupe-Blanco River Authority (GBRA), Canyon Regional Water Authority (CRWA), and Springs Hill WSC. Additional water supply strategies include the development of groundwater in the Trinity and Wilcox aquifers.

Crystal Clear is also a member of the Hays Caldwell Public Utility Agency (PUA) owning a 10.3% share of the production dedicated and owned by CRWA in the Hays Caldwell PUA Phase 1 and 2 projects scheduled for the years 2022-2025 and 2030-2035 respectively. The Hays Caldwell PUA projects are located within the Gonzalez County Underground Water Conservation

CRYSTAL CLEAR

District (UWCD) boundaries and are specifically recommended for the District by the SCTRWP's approved 2011 Regional Water Plan.

The SCTRWP 2011 Regional Water Plan projects the population of the Crystal Clear's service area to increase to 32,804 by 2030 and to 55,673 by the year 2060. The corresponding projected total water demands are 3,344 AF/yr and 5,551 AF/yr respectively. The Regional Water Plan also recommends additional water supply from the Wilcox aquifer and CRWA as well as other sources including municipal water conservation.



CRYSTAL CLEAR

WATER CONSERVATION PLAN

A Water Conservation Plan is a combination of strategies for:

- 
- Reducing the volume of water withdrawn from a water supply source
 - Reducing the loss or waste of water
 - Maintaining or improving the efficiency in the use of water
 - Increasing the recycling and reuse of water
 - Preventing the pollution of water

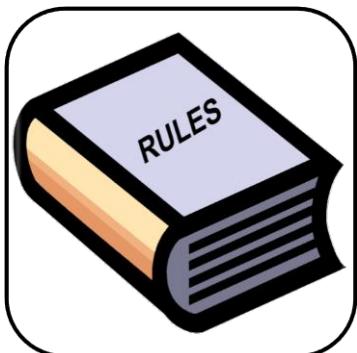
Crystal Clear recognizes that the amount of water available to supply its water utility customers may be limited and subject to depletion during periods of extended drought. Representing the best interests of its customers, Crystal Clear deems it expedient and necessary to establish certain rules and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

Statutory & Rule Requirements



Texas Water Code §13.146.

WATER CONSERVATION PLAN. The commission (TCEQ) shall require a retail public utility that provides potable water service to 3,300 or more connections to submit to the executive administrator of the board (TWDB) a water conservation plan based on specific targets and goals developed by the retail public utility and using appropriate best management practices, as defined by Section 11.002, or other water conservation strategies.



Title 30 Texas Administrative Code § 288.30(5)(A)

For retail public water suppliers providing water service to 3,300 or more connections, the drought contingency plan must be submitted to the executive director (TCEQ) not later than May 1, 2005. Thereafter, the retail public water suppliers providing water service to 3,300 or more connections shall submit the next revision of the plan not later than May 1, 2009, and every five years after that date to coincide with the regional water planning group.

CRYSTAL CLEAR

Utility Profile

A completed “TWDB Utility Profile for Retail Water Supplier” for Crystal Clear is attached in Appendix A.

Certificate of Convenience and Neccesity No.	10297
Public Water Supply Nos.	0940015, 0940017
Groundwater Conservation Districts	Edward Aquifer Authority, Guadalupe Co. GCD, Gonzales Co. UWCD
Regional Water Planning Group	South Central Texas (Region L)
Counties	Comal, Guadalupe, Hays
Service Area	165 Square Miles
Water Sources	Edwards Aquifer, Trinity Aquifer, Carrizo Aquifer, Wilcox Aquifer, Guadalupe River
System Capacity	2.5 Million Gallons per Day (MGD)
Storage Capacity	4.118 Million Gallons (MG) Ground, 1.15 MG Elevated

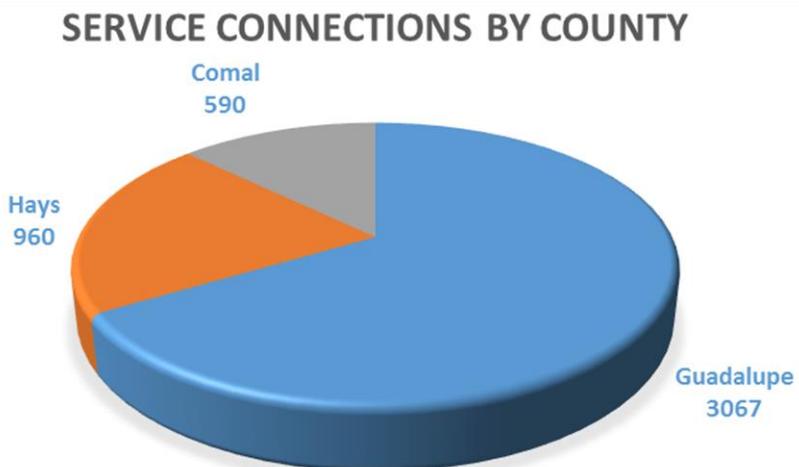


CRYSTAL CLEAR

Population & Customer Use Data

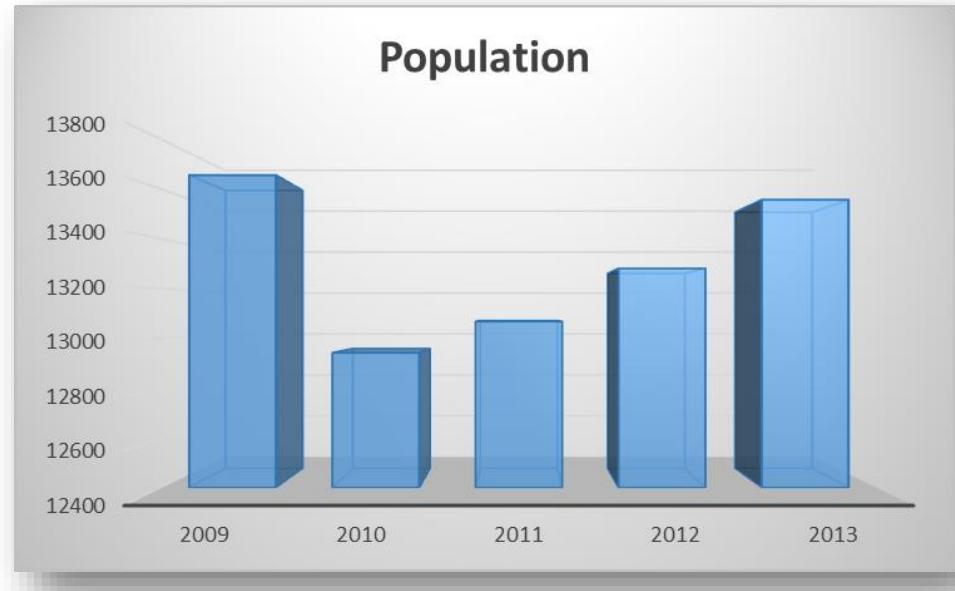
Crystal Clear serves retail customers in portions of Comal, Guadalupe, and Hays counties. The area is located on the northern edge of the south Texas plains and is characterized by an average of 32 inches of rain annually. Land use, historically predominated by agriculture is increasingly developing into rural and urbanized residential uses.

Based upon the TWDB 2012 Water Use Survey, Crystal Clear has 4,617 retail service connections. The majority (approximately 2/3) of the connections (3,067) are in Guadalupe County. There are 960 connections in Hays County and 590 in Comal County. The distribution of service connections by county is shown below.

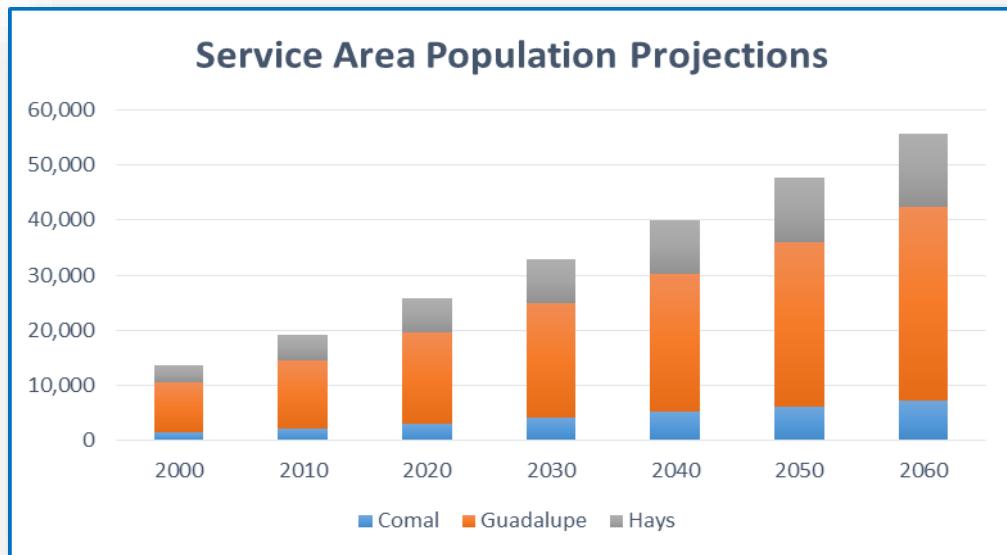


Due to the nature of the service area, identification of the actual population served can be challenging. With a service area located in portions of three counties, additional efforts are required to interpret United States Census data and county appraisal records. An independent population study was performed by the District in 2011 and concluded that the population for the entire service area was 14,932. Population projections in this Plan are calculated by estimating 3.0 people per residential connection.

CRYSTAL CLEAR



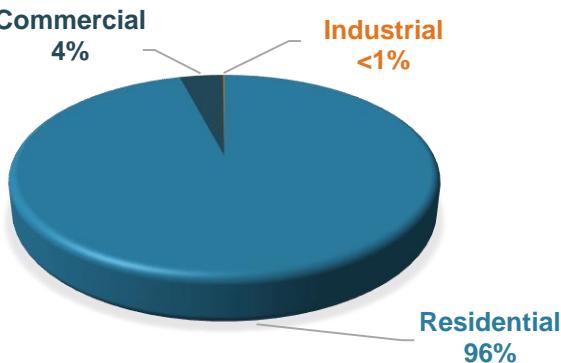
The population of Crystal Clear has fluctuated in recent years. The TWDB and Region L Water Planning Group population projections over the next 50 years, however, estimate that the Crystal Clear's population will nearly triple. TWDB and Region L Water Planning Group population projections are shown below.



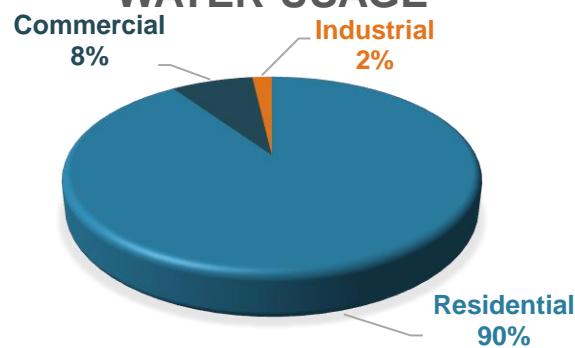
CRYSTAL CLEAR

The charts below show that the largest customer sector is residential and that most of the water is used by residential customers. Service is also provided to commercial and industrial users. The distribution of water-use sectors within Crystal Clear's service area and the distribution of water usage between the sectors is shown below. While commercial use represents 4% of connections, it represents 8% of water use; and while industrial use represents less than 1% of connections, it represents 2% of water use. Commercial and industrial connections have a higher per connection usage than residential connections.

SERVICE CONNECTIONS



WATER USAGE

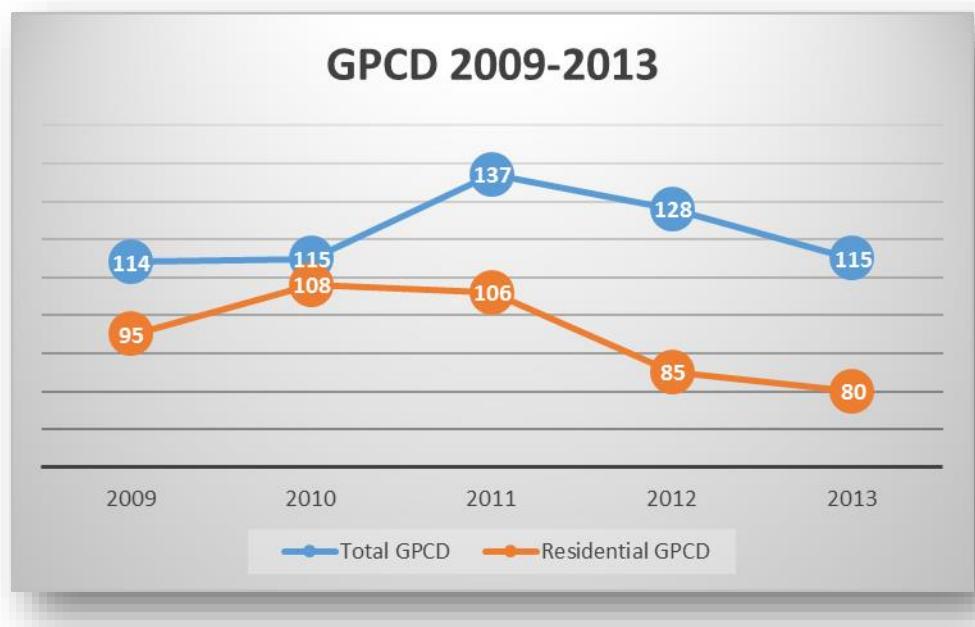


CRYSTAL CLEAR

Water Conservation Goals

Per capita water use is generally expressed in gallons per customer per day (GPCD) and is the average amount of water used by each person in the population served by a water utility. Variable factors that can influence GPCD include the amount of non-residential water uses, the rate and type of customer growth, economics, climatic conditions, and demographics. For Crystal Clear residential GPCD is a more appropriate metric for understanding how much water each customer is actually using because it comprises 98% of customer use not including commercial, industrial, and institutional uses.

For the previous five years, the average total GPCD for the Crystal Clear was 122. Single-Family Residential use for the District was 95 GPCD. The previous five years of per capita water use are shown below.



CRYSTAL CLEAR

Crystal Clear's five and ten year water conservation goals are based upon the Texas Water Conservation Implementation Task Force's recommendation of a reduction in per capita water use of 1% per year. Per capita usage and water loss goals are shown below.



The General Manager will assess the effectiveness of water conservation activities and the District's progress in achieving the stated goals on an annual basis.

CRYSTAL CLEAR

Public Education (Conservation)

Crystal Clear conducts a program of ongoing public water conservation education that includes:

Periodic distribution of water conservation brochures and information

Provision of water conservation brochures and materials at the main office and other public places

Informational presentations offered by Utility staff to local organizations, schools, and civic groups

Information available to local newspaper, television, and radio outlets

Water Conservation information posted on website

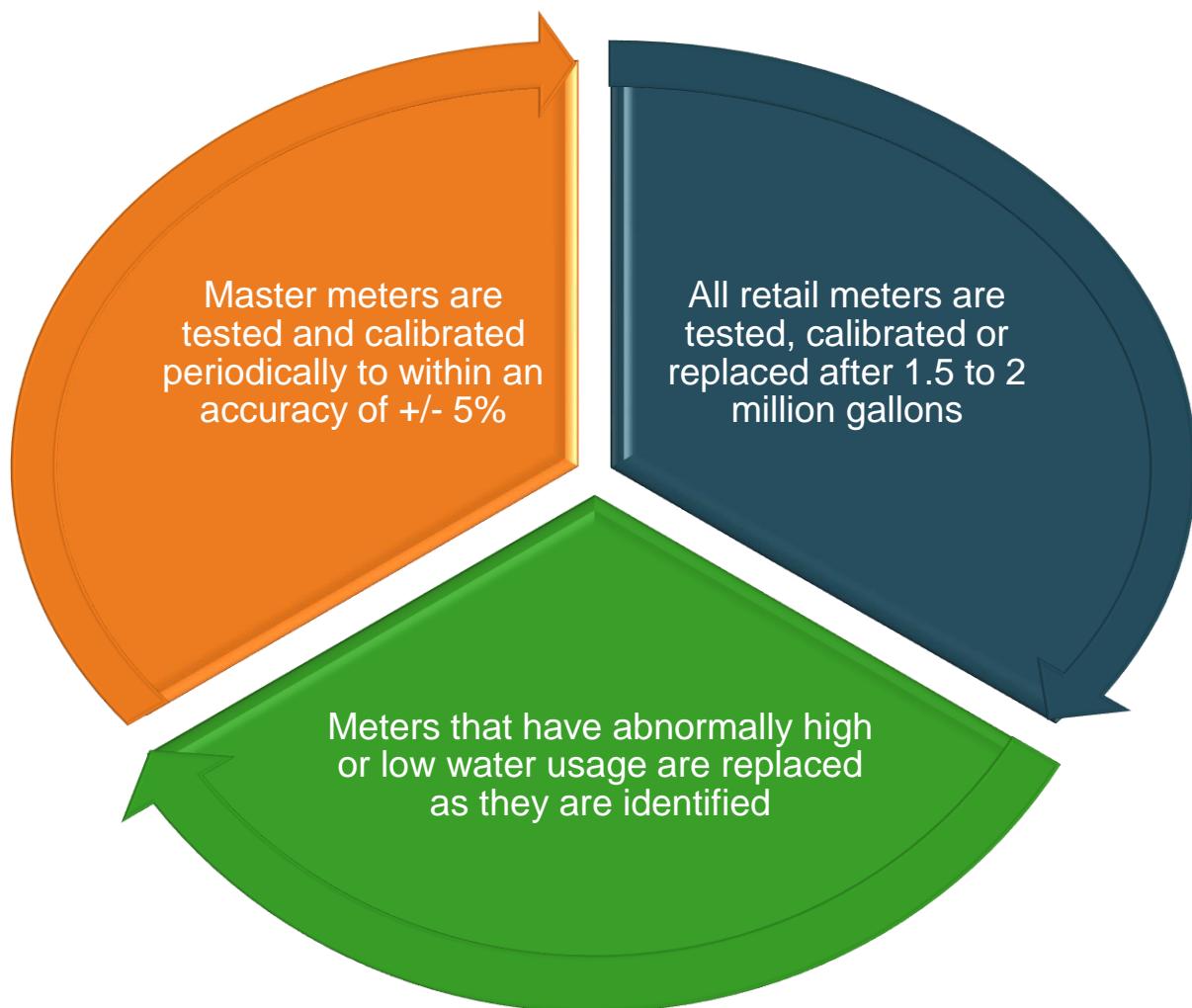
Water conservation information provided to applicants for new service



CRYSTAL CLEAR

Metering Devices

Crystal Clear meters 100% of the water used by residential, industrial, and commercial accounts. In 2013, the Crystal Clear completed a full meter replacement program exchanging old meters for smart meters. Meters are tested upon customer request. The diagram below describes the Crystal Clear's meter testing, repair, and replacement program.



CRYSTAL CLEAR

Water Loss

Crystal Clear maintains an ongoing program of leak detection and repair. In 2013, water loss for the District was calculated to be 25%. The long term goal is to maintain less than 15% water loss. The leak detection program for the District is shown below.

- 
- Annual internal water audit measures water loss by comparing billed versus pumped water volumes.
 - Abnormalities in water use are investigated by the District staff using leak detection equipment.
 - Water lines found to have leaks are replaced as quickly as practical.
 - Visual inspections are performed routinely by meter readers and District staff.
 - Storage tanks are monitored and pressure is controlled by a SCADA system

The District currently has seven field technicians training to identify water leaks with the use of sonic leak detection equipment. The system is divided into 11 zones that, within a five year planning window, will be equipped with pressure meters. Cloud-based software will instantly detect pressure losses within a zone and alert utility staff to the presence of a leak. Using asset management software, Crystal Clear will be able to identify the location of problem areas to make repairs. Crystal Clear continues to explore new practices and technologies to minimize the loss of water.

CRYSTAL CLEAR

Water Rates

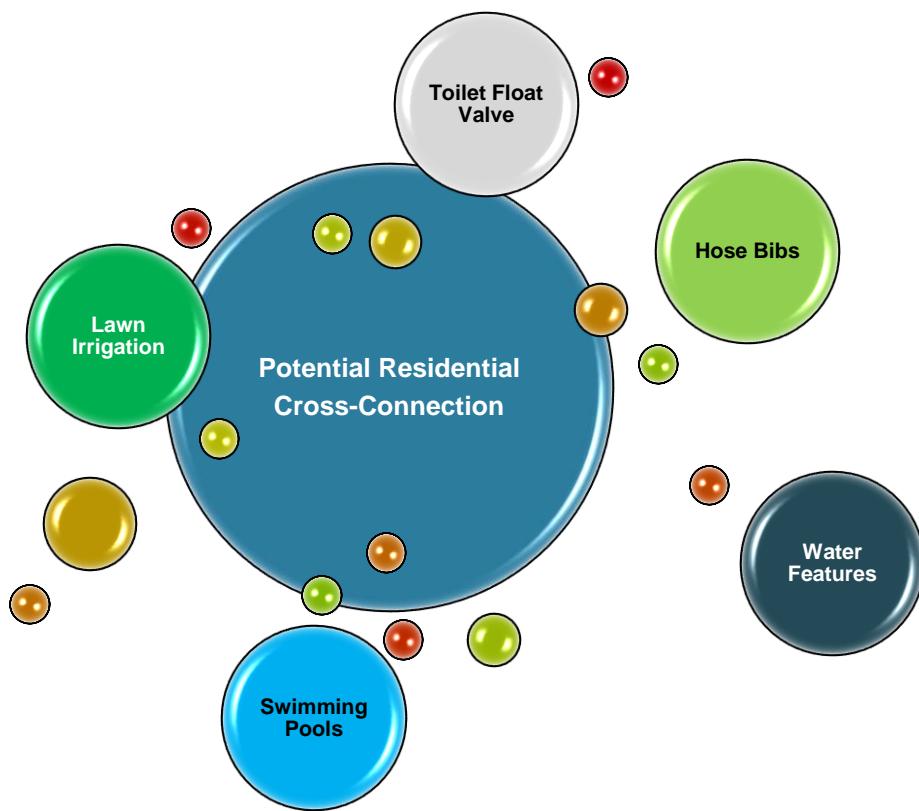
Crystal Clear uses a cost based inclining block rate that discourages the excessive use of water. The residential base rate is \$34.00. Six inclining usage blocks (tiers) are set up in increments of ten thousand gallons. The rates for each successive inclining block are designed to encourage the conservation of water by sending a strong price signal that charges incrementally higher rates per each increasing thousand gallons of water use.



CRYSTAL CLEAR

Cross Connection Control

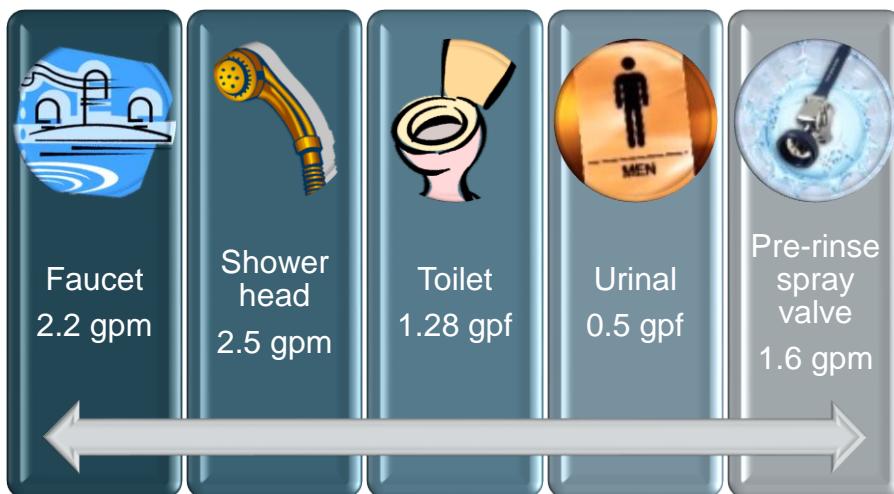
Crystal Clear maintains required cross connection control. Risk of backflow is generally reduced by taking steps to ensure that system pressures do not fall during periods of emergency repairs and by performing periodic customer inspections for cross connections. Facilities and structures determined to have a high public health hazard are required to install devices that prevent back-siphonage of nonpotable water from a loss of pressure in water lines.



CRYSTAL CLEAR

Plumbing Fixtures

The State of Texas has recently adopted more stringent water saving performance measures for plumbing fixtures, found in the Texas Health and Safety Code Chapter 372. The following maximum flow standards are subsequently listed in the Texas Administrative Code Title 30 Chapter 290 Subchapter G:



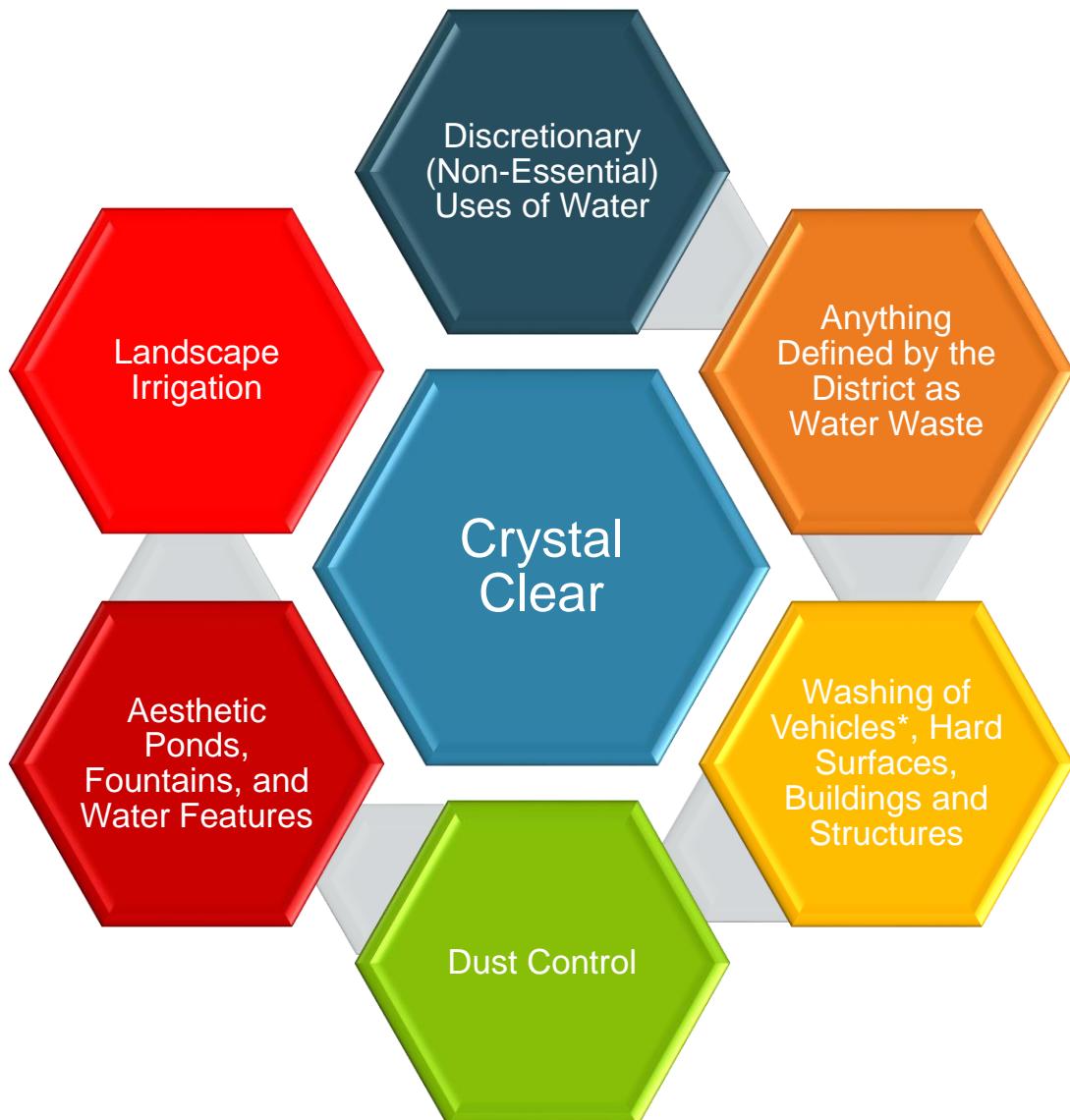
Customers in existing buildings that do not have water saving plumbing fixtures are encouraged through educational materials to retrofit their old plumbing fixtures with lower gallons per minute (gpm) or gallons per flush (gpf) standards. Recently, the District has participated in a showerhead exchange program in conjunction with a local plumbing supplier.

An increasing number of water efficient clothes and dish washing machines are now available that provide the same performance, but use less water. A water efficient home can save more than 20% of annual indoor water use. Crystal Clear currently administers a program to provide free showerheads and faucet aerators for its customers.

CRYSTAL CLEAR

Discretionary Uses

The following uses of water are considered to be discretionary or non-essential:

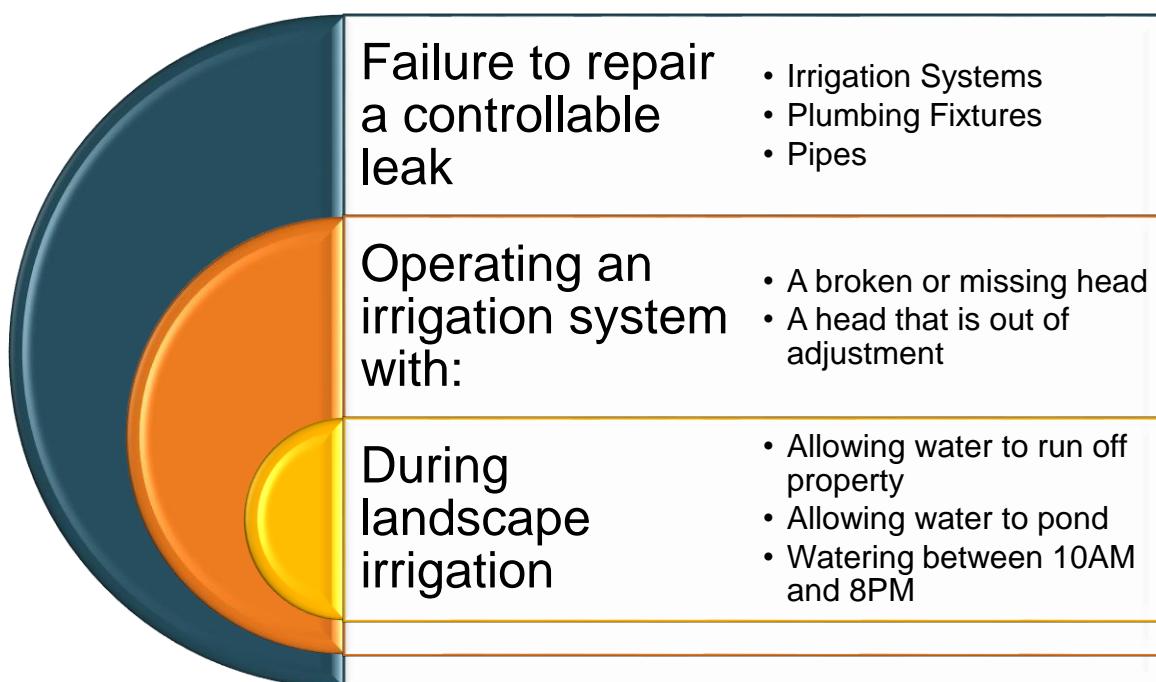


* Commercial car washes using Best Management Practices that include recycling of water are exempt.

CRYSTAL CLEAR

Water Waste

Water waste is prohibited at all times. Water waste is defined as:



Each instance of a violation is a separate offense and may be punishable as described in the Enforcement section of this plan.

CRYSTAL CLEAR

DROUGHT CONTINGENCY PLAN

A strategy or combination of strategies for temporary supply and demand management responses to temporary and potentially recurring water supply shortages and other water supply emergencies.



Statutory & Rule Requirements



Texas Water Code, Sec. 11.1272. ADDITIONAL REQUIREMENT: DROUGHT CONTINGENCY PLANS FOR CERTAIN APPLICANTS AND WATER RIGHT HOLDERS.

The commission (TCEQ) shall by rule require wholesale and retail public water suppliers and irrigation districts to develop drought contingency plans consistent with the appropriate approved regional water plan to be implemented during periods of water shortages and drought.



Title 30 Texas Administrative Code, §288.30. REQUIRED SUBMITTALS.

For retail public water suppliers providing water service to 3,300 or more connections, the drought contingency plan must be submitted to the executive director (TCEQ) not later than May 1, 2005. Thereafter, the retail public water suppliers providing water service to 3,300 or more connections shall submit the next revision of the plan not later than May 1, 2009, and every five years after that date to coincide with the regional water planning group.

CRYSTAL CLEAR

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, Crystal Clear hereby adopts the following regulations and restrictions on the delivery and consumption of water by Resolution.

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

Authorization

The Board of Directors and 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 General Manager shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in this Plan.

CRYSTAL CLEAR

Application

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

Public Involvement

Opportunity for the public to provide input into the preparation and maintenance of this Drought Contingency Plan continues to be provided by the following:

Mailing

2370 FM 1979, San Marcos, TX 78666

Telephone

(830) 372-1031

Website

CrystalClearSUD.org

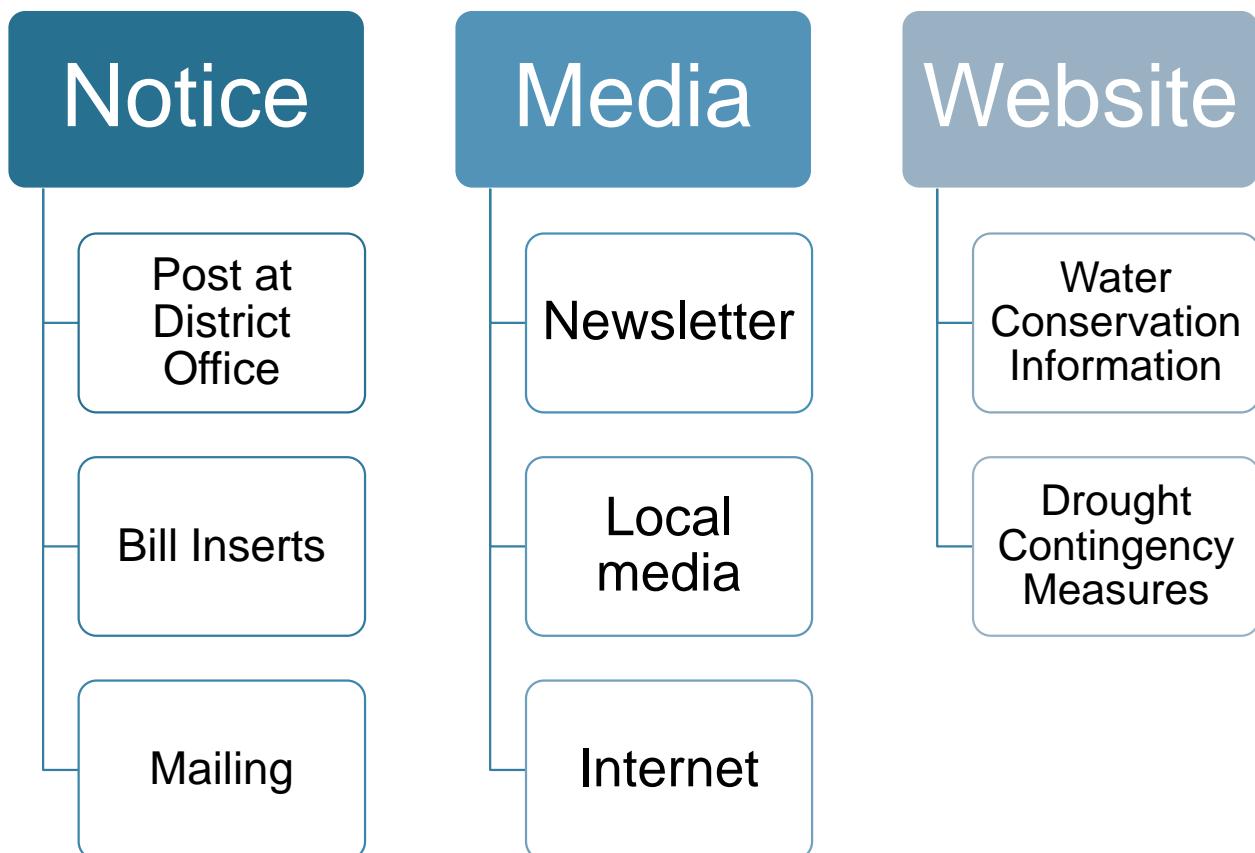
Events

Periodic water related activities

CRYSTAL CLEAR

Public Education (Drought)

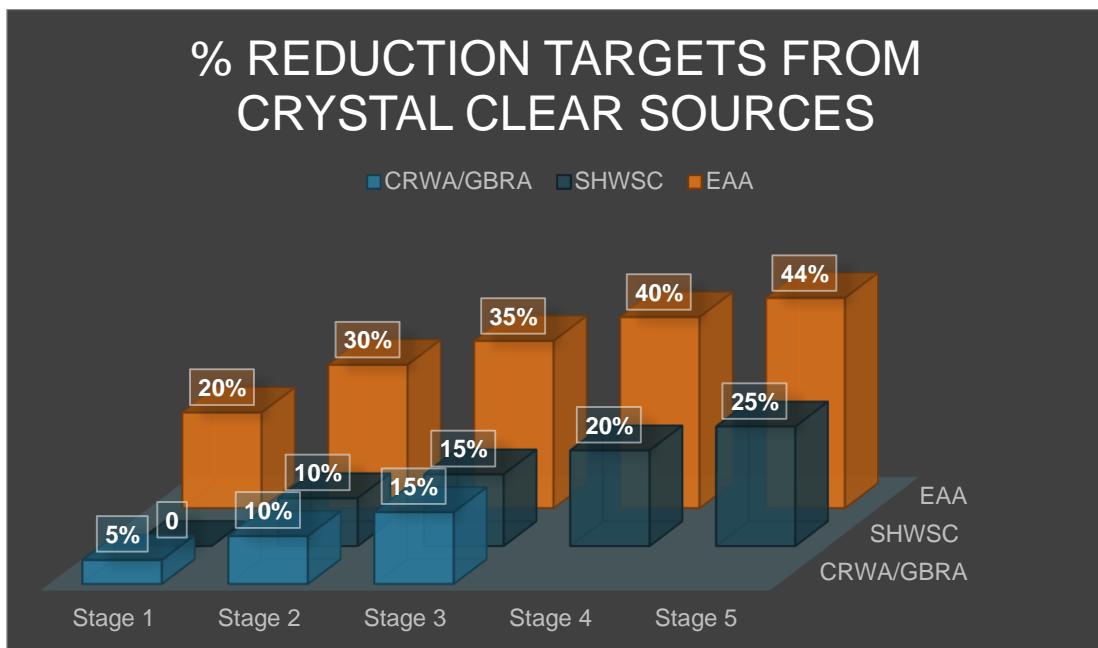
Crystal Clear will periodically provide the public with information about this Drought Contingency Plan, including information and/or notification about the conditions under which each stage of the Plan is to be initiated or terminated and the drought response measures to be implemented in each stage. Water conservation tips and information will also be provided. This information will be provided by means of:



CRYSTAL CLEAR

Supply Based Triggers

Crystal Clear obtains water from multiple sources. Each source has specific triggers and targets for water use reductions that apply. The figure below shows the targets for water use reductions for each water source. Stage 4 and Stage 5 reductions from CRWA and GBRA are variable, based upon a pro rata allocation of water between all CRWA and GBRA wholesale customers.



The triggering criteria for Crystal Clear are based upon the most restrictive targets from its multiple water sources.

CRYSTAL CLEAR

Demand Based Trigger

When tank levels reach 60% of capacity, the supervisory control and data acquisition (SCADA) system sends an alert to the District and triggers an email/phone notification program to ask customers to reduce water usage.

Contamination Trigger

In the event of a contamination event, appropriate emergency procedures will be implemented and appropriate emergency response officials will be notified immediately. In the event of a backflow incident, loss of pressure, or an acute maximum contaminant level coliform violation, a “Boiled Water Notice” will be implemented as prescribed in Title 30 TAC Chapter 290.

System Outage Trigger

In the event of a catastrophic failure due to natural or man-made events, appropriate emergency procedures will be implemented and appropriate emergency response officials will be notified.

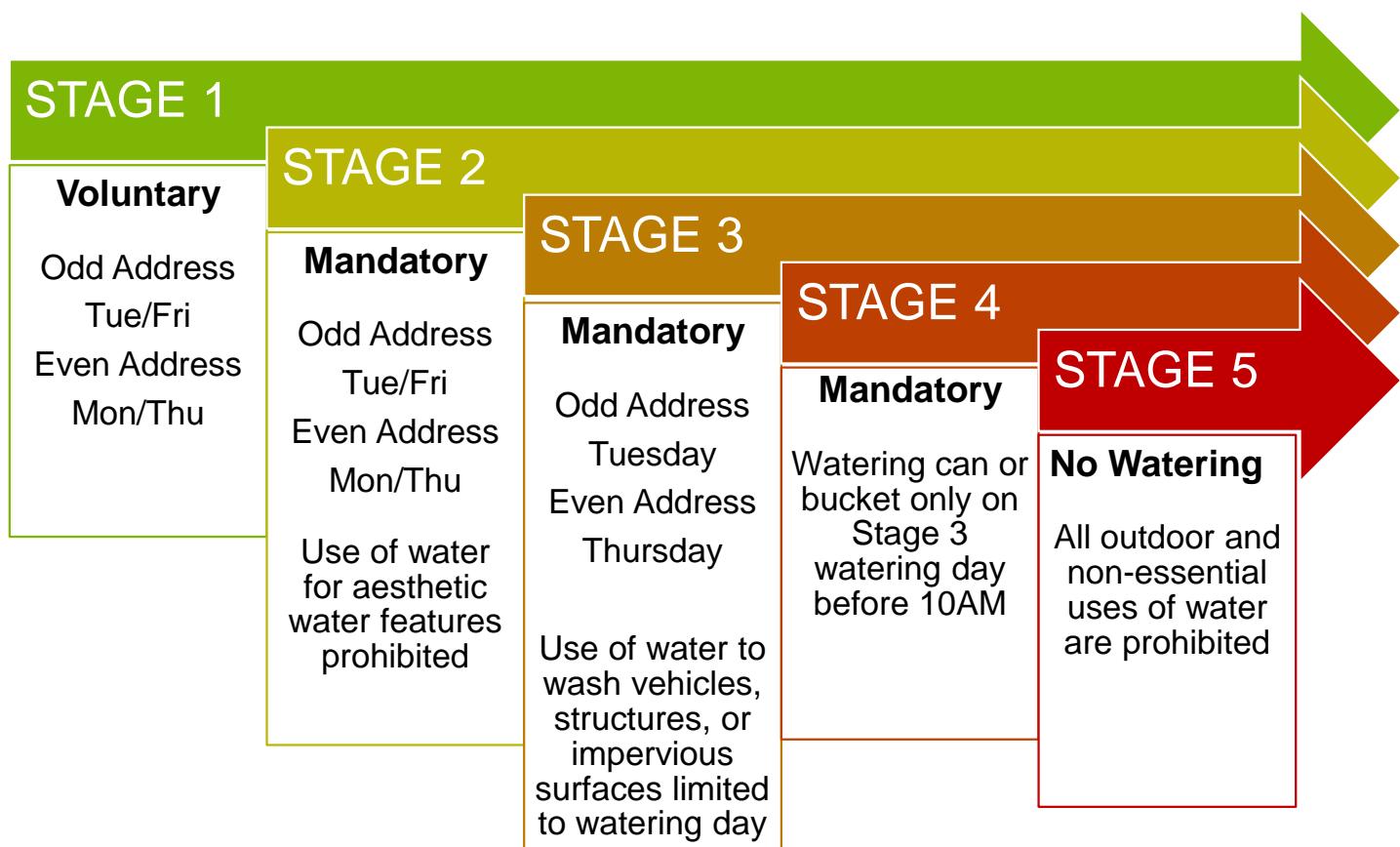
Alternative Sources

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 residents.

CRYSTAL CLEAR

Response Stages

Crystal Clear will notify TCEQ when implementing or rescinding any stage of this plan. Use of water for landscape irrigation shall be only performed between midnight and 10AM and from 8PM to midnight. 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 10AM and 8PM is considered water waste and is enforceable as a violation at all times. The Crystal Clear outdoor water-use schedule is as follows:



CRYSTAL CLEAR

Variances

The General Manager or designee may, in writing, grant a 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:

1. 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.
2. 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 Resolution shall file a petition for variance with Crystal Clear within five days after the Plan or a particular drought response stage has been invoked. All petitions for variances shall be reviewed by General Manager or designee, and shall include the following:

1. Name and address of the petitioner(s);
2. Purpose of water use;
3. Specific provision(s) of the Plan from which the petitioner is requesting relief;
4. 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 Resolution;
5. Description of the relief requested;
6. Period of time for which the variance is sought;
7. 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; and
8. Other pertinent information.

CRYSTAL CLEAR

Enforcement

First Violation

- The customer will be notified by written notice of their specific violation.
- Crystal Clear may assess a penalty.

Second Violation

- The customer may be assessed a penalty.
- Crystal Clear may install a flow restricting device for seven (7) days.
- Crystal Clear may charge the customer for the cost of installing and removing the flow restricting device.

Third Violation

- Crystal Clear may discontinue service at the meter for a period of seven (7) days.
- The normal reconnect fee of Crystal Clear will apply for restoration of service.

CRYSTAL CLEAR

Coordination with Region L Planning Group

The service area of the Crystal Clear is located within the South Central Texas (Region L) Regional Water Planning Group and the District will provide a copy of this Plan to the Region L Planning Group at:

San Antonio River Authority
P.O. Box 839980
San Antonio, TX 78238-9980



CRYSTAL CLEAR

Resolution

RESOLUTION FOR ADOPTION OF A WATER CONSERVATION & DROUGHT CONTINGENCY PLAN

RESOLUTION NO. _____

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 1. 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 shall take effect immediately upon its passage.

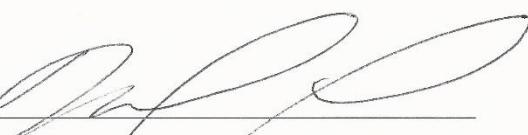
DULY PASSED BY THE BOARD OF DIRECTORS OF THE CCSUD, ON THIS 17 day of April,

2014.
President, Board of Directors



ATTESTED TO:

Secretary, Board of Directors



CRYSTAL CLEAR

RESOLUTION FOR ADOPTION OF A WATER CONSERVATION & DROUGHT CONTINGENCY PLAN

RESOLUTION NO. _____

A RESOLUTION OF THE BOARD OF DIRECTORS OF CRYSTAL CLEAR WATER SUPPLY CORPORATION ADOPTING A WATER CONSERVATION & DROUGHT CONTINGENCY PLAN.

WHEREAS, the Board recognizes that the amount of water available to the Crystal Clear Water Supply Corporation 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 Water Supply Corporation, 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 WATER SUPPLY CORPORATION:

SECTION 1. 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 Water Supply Corporation.

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 shall take effect immediately upon its passage.

DULY PASSED BY THE BOARD OF DIRECTORS OF THE CCWSC, ON THIS 17 day of April,
20 14.

President, Board of Directors Dennis Krachay

ATTESTED TO:

Secretary, Board of Directors J. P. J.

CRYSTAL CLEAR

Appendix A – TWDB Utility Profile

Utility Profile
TWDB Form No. 1965 - R
Revised on: 9/1/13



UTILITY PROFILE FOR RETAIL WATER SUPPLIER

Fill out this form as completely as possible.
If a field does not apply to your entity, leave it blank.

CONTACT INFORMATION

Name of Utility: Crystal Clear SUD

Public Water Supply Identification Number (PWS ID): 0940015, 1940017

Certificate of Convenience and Necessity (CCN) Number: 10297

Surface Water Right ID Number: N/A

Wastewater ID Number: N/A

Completed By: Mike Fournier Title: Administrator

Address: 2370 FM 1979 City: San Marcos Zip Code: 78666

Email: mike@crystalclearsud.org Telephone Number: _____

Date: _____

Regional Water Planning Group: L Map

Groundwater Conservation District: 23, 32 Map

Check all that apply:

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

CRYSTAL CLEAR

Utility Profile
TWDB Form No. 1965 - R
Revised on: 9/1/13



Section I: Utility Data

A. Population and Service Area Data

1. Current service area size in square miles: 165
(Attach or email a copy of the service area map.)
2. Provide 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 Service
2009	12,740	0	0
2010	13,506	0	0
2011	12,551	0	0
2012	11,543	0	0
2013	13,557	0	0

3. Provide the 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 Service
2020	25,737	0	0
2030	32,804	0	0
2040	39,853	0	0
2050	47,759	0	0
2060	55,673	0	0

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

Projected population estimates were obtained from the approved 2011 Region L Water Plan.

CRYSTAL CLEAR

Utility Profile
TWDB Form No. 1965 - R
Revised on: 9/1/13



B. System Input

Provide system input data for the previous five years.

Total System Input = Self-supplied + Imported – Exported

Year	Self-supplied Water in Gallons	Purchased/Imported Water in Gallons	Exported Water in Gallons	Total System Input	Total GPCD
2009	309,743,800	256,270,500	0	566,014,300	122
2010	277,755,400	264,888,400	0	542,643,800	110
2011	349,223,700	303,898,400	0	653,122,100	143
2012	366,777,400	254,025,700	0	620,803,100	147
2013	326,568,400	244,527,200	0	571,095,600	115
Historic 5-year Average	326,013,740	264,722,040	0	590,735,780	127

C. Water Supply System (Attach description of water system)

1. Designed daily capacity of system 2,454,749 gallons per day.

2. Storage Capacity:

Elevated 900,000 gallons

Ground 3,895,530 gallons

3. List all current water supply sources in gallons.

Water Supply Source	Source Type*	Total Gallons
Edwards Aquifer	Ground	566,980,740
CRWA	Ground	241,455,591
CRWA	Contract	162,925,500
GBRA	Contract	250,680,800
SHWSC	Contract	7,925,900
Staples Well	Ground	70,057,750

*Select one of the following source types: Surface water, Groundwater, or Contract

4. If surface water is a source type, do you recycle backwash to the head of the plant?

- Yes _____ estimated gallons per day
 No

CRYSTAL CLEAR

Utility Profile
TWDB Form No. 1965 - R
Revised on: 9/1/13



D. Projected Demands

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

Year	Population	Water Demands (gallons)
2014	15,347	5,041,488,950
2015	15,762	517,781,700
2016	16,188	531,783,095
2017	16,626	546,163,103
2018	17,076	560,931,962
2019	17,537	576,100,188
2020	18,012	591,678,580
2021	18,499	607,678,229
2022	18,999	624,110,526
2023	19,513	640,987,171

2. Describe sources of data and how projected water demands were determined.
Attach additional sheets if necessary.

Using internal population projections by H2O Analytics, which project nearly linear through the planning horizon, annual population for the next ten years was projected using the formula of $x = y^*(y + K)$ with y being the current year and the constant K being the growth factor of 2.074% annual historical growth, and using the Region L methodology water demands were calculated by projecting 90 gcpd..

CRYSTAL CLEAR

Utility Profile
TWDB Form No. 1965 - R
Revised on: 9/1/13



E. High Volume Customers

1. List the annual water use, in gallons, for the five highest volume **RETAIL customers**. Select one of the following water use categories to describe the customer; choose Residential, Industrial, Commercial, Institutional, or Agricultural.

Retail Customer	Water Use Category*	Annual Water Use	Treated or Raw
RGM Constructors	Industrial	4,951,900	Treated
Hays Energy	Industrial	3,512,100	Treated
Ameritex Pipe	Industrial	3,297,400	Treated
McIntyre Properties	Commercial	1,647,000	Treated
Havenwood POA	Commercial	1,527,800	Treated

*For definitions on recommended customer categories for classifying customer water use, refer to the online [Guidance and Methodology for Reporting on Water Conservation and Water Use](#).

2. If applicable, list the annual water use for the five highest volume **WHOLESALE customers**. Select one of the following water use categories to describe the customer; choose Municipal, Industrial, Commercial, Institutional, or Agricultural.

Wholesale Customer	Water Use Category*	Annual Water Use	Treated or Raw
none	Choose One		Choose One
	Choose One		Choose One
	Choose One		Choose One
	Choose One		Choose One
	Choose One		Choose One

*For definitions on recommended customer categories for classifying customer water use, refer to the online [Guidance and Methodology for Reporting on Water Conservation and Water Use](#).

F. Utility Data Comment Section

Provide additional comments about utility data below.

CRYSTAL CLEAR

Utility Profile
TWDB Form No. 1965 - R
Revised on: 9/1/13



Section II: System Data

A. Retail Connections

- List the active retail connections by major water use category.

Water Use Category*	Active Retail Connections			
	Metered	Unmetered	Total Connections	Percent of Total Connections
Residential – Single Family	4,738	1	4,739	96%
Residential – Multi-family (units)	1	0	1	0%
Industrial	16	0	16	0%
Commercial	184	0	184	4%
Institutional	0		0	0%
Agricultural	0		0	0%
TOTAL	4,939	1	4,940	

*For definitions on recommended customer categories for classifying customer water use, refer to the online [Guidance and Methodology for Reporting on Water Conservation and Water Use](#).

- List the net number of new retail connections by water use category for the previous five years.

Water Use Category*	Net Number of New Retail Connections				
	2009	2010	2011	2012	2013
Residential – Single Family	-162	-62	62	282	93
Residential – Multi-family (units)	0	0	0	0	0
Industrial	0	0	0	0	0
Commercial	0	0	0	0	0
Institutional	0	0	0	0	0
Agricultural	0	0	0	0	0
TOTAL	-162	-62	62	282	93

*For definitions on recommended customer categories for classifying customer water use, refer to the online [Guidance and Methodology for Reporting on Water Conservation and Water Use](#).

CRYSTAL CLEAR

Utility Profile
 TWDB Form No. 1965 - R
 Revised on: 9/1/13



B. Accounting Data

For the previous five years, enter the number of gallons of RETAIL water provided in each major water use category.

Water Use Category*	Total Gallons of Retail Water				
	2009	2010	2011	2012	2013
Residential - Single Family	476,275,760	512,648,600	506,715,900	410,034,600	398,743,151
Residential – Multi-family					
Industrial				8,283,900	7,954,948
Commercial	19,252,060	29,995,200	63,538,800	34,931,000	33,965,179
Institutional					
Agricultural					
TOTAL	495,527,820	542,643,800	570,254,700	453,249,500	440,663,278

*For definitions on recommended customer categories for classifying customer water use, refer to the online [Guidance and Methodology for Reporting on Water Conservation and Water Use](#).

C. Residential Water Use

For the previous five years, enter the residential GPCD for single family and multi-family units.

Water Use Category*	Residential GPCD				
	2009	2010	2011	2012	2013
Residential - Single Family	122	110	143	114	102
Residential – Multi-family					
TOTAL	122	110	143	114	102

D. Annual and Seasonal Water Use

- For the previous five years, enter the gallons of treated water provided to RETAIL customers.

Month	Total Gallons of Treated Retail Water				
	2009	2010	2011	2012	2013
January	37,615,900	42,928,800	37,908,880	38,148,900	40,012,400
February	37,629,300	33,874,700	42,457,870	37,432,500	40,900,200
March	43,558,800	34,851,500	49,434,130	50,294,200	48,882,300
April	41,127,300	36,695,700	60,145,900	51,266,200	47,118,800
May	48,979,300	46,529,000	57,816,400	53,487,700	49,380,400
June	67,721,700	45,991,800	70,544,400	63,038,000	60,528,300
July	67,344,100	47,634,300	71,247,600	62,412,100	65,825,000
August	68,147,600	63,228,100	77,299,000	60,947,200	58,999,900
September	43,976,000	53,986,800	66,674,800	59,416,700	51,230,700
October	32,668,600	49,450,700	50,639,000	51,710,300	44,374,000
November	38,292,900	42,254,600	40,374,400	53,178,900	44,648,800
December	37,201,900	45,316,800	42,295,600	46,121,500	40,152,800
TOTAL	564,263,400	542,742,800	666,837,980	627,454,200	592,053,600

CRYSTAL CLEAR

Utility Profile
TWDB Form No. 1965 - R
Revised on: 9/1/13



2. For the previous five years, enter the gallons of raw water provided to RETAIL customers.

Month	Total Gallons of Raw Retail Water				
	2009	2010	2011	2012	2013
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.

Water Use	Seasonal and Annual Water Use					Average in Gallons
	2009	2010	2011	2012	2013	
Summer Retail (Treated + Raw)	203,213,400	156,854,200	219,091,000	186,397,300	185,353,200	190,181,820 5yr Average
TOTAL Retail (Treated + Raw)	564,263,400	542,742,800	666,837,980	627,454,200	592,053,600	598,670,396 5yr Average

E. Water Loss

Provide Water Loss data for the previous five years.

Water Loss GPCD = [Total Water Loss in Gallons ÷ Permanent Population Served] ÷ 365

Water Loss Percentage = [Total Water Loss ÷ Total System Input] x 100

Year	Total Water Loss in Gallons	Water Loss in GPCD	Water Loss as a Percentage
2009	92,939,500	20	16%
2010	86,283,400	18	16%
2011	88,654,500	19	14%
2012	90,861,400	22	15%
2013	139,964,300	28	25%
5-year average	99,740,620	21	17%

CRYSTAL CLEAR

Utility Profile
TWDB Form No. 1965 - R
Revised on: 9/1/13



F. Peak Water Use

Provide the 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)
2009	332	484	1.46
2010	330	387	1.17
2011	392	533	1.36
2012	350	427	1.22
2013	317	417	1.32

G. Summary of Historic Water Use

Water Use Category	Historic 5-year Average	Percent of Connections	Percent of Water Use
Residential SF	460,883,602	96%	77%
Residential MF	0	0%	0%
Industrial	3,247,770	0%	1%
Commercial	36,336,448	4%	6%
Institutional	0	0%	0%
Agricultural	0	0%	0%

H. System Data Comment Section

Provide additional comments about system data below.

CRYSTAL CLEAR

Utility Profile
TWDB Form No. 1965 - R
Revised on: 9/1/13



Section III: Wastewater System Data

If you do not provide wastewater system services then you have completed the Utility Profile. Save and Print this form to submit with your Plan. Continue with the Water Conservation Plan Checklist to complete your Water Conservation Plan.

A. Wastewater System Data (Attach a description of your wastewater system.)

1. Design capacity of wastewater treatment plant(s): _____
N/A
gallons per day.
2. List the active wastewater connections by major water use category.

Water Use Category*	Active Wastewater Connections			
	Metered	Unmetered	Total Connections	Percent of Total Connections
Municipal			0	0%
Industrial			0	0%
Commercial			0	0%
Institutional			0	0%
Agricultural			0	0%
TOTAL	0	0	0	

2. What percent of water is serviced by the wastewater system? ____%
3. For the previous five years, enter the number of gallons of wastewater that was treated by the utility.

Month	Total Gallons of Treated Wastewater				
	2009	2010	2011	2012	2013
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
TOTAL	0	0	0	0	0

CRYSTAL CLEAR

Utility Profile
TWDB Form No. 1965 - R
Revised on: 9/1/13



4. Can treated wastewater be substituted for potable water?

Yes No

B. Reuse Data

1. Provide data on the types 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 (parks, golf courses)	
Agricultural	
Discharge to surface water	
Evaporation pond	
Other	
TOTAL	0

C. Wastewater System Data Comment

Provide additional comments about wastewater system data below.

You have completed the Utility Profile. Save and Print this form to submit with your Plan. Continue with the [Water Conservation Plan Checklist](#) to complete your Water Conservation Plan.