

Houston County Water Control  
& Improvement District No. 1  
P.O. Box 1246 Crockett, TX 75835  
(936)544-3985

Directors:  
Sonny Rollo, President  
Mike Maiden, Vice Pres.  
Floyd Patton, Secretary  
Dr. Joe Holcomb, Member  
Dr. Don Knight, Member

## **The Water Conservation Plan**

**&**

## **The Supplement to the Water Conservation Plan**

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## **WATER CONSERVATION PLAN FOR THE HOUSTON COUNTY WCID # 1**

### Introduction

The Houston County Water Control and Improvement District # 1 is a water treatment plant located in Houston County, Texas. It provides wholesale water to three cities (Crockett, Grapeland, and Lovelady), and one water supply corporation (Consolidated Water Supply Corporation). It also furnishes retail water to one private industry (Alloy Polymers). The water rights permit held by the District on the Houston County Lake, allows an annual diversion of 3500 acre-feet (3.11 MGD). The raw water obtained from the Lake is pumped via a 5 mile transmission line to the treatment facility. The raw water supplied to the Plant is treated through sedimentation and filtration (firm capacity 6.2 MGD). The treated water is held on site in three ground storage tanks (1.05MG), and delivered to the system from the clearwell on site (0.36MG) through high service pumps (firm capacity 5.8 MGD).

The Houston County WCID # 1 indirectly provides quality water to an approximate population of 9,500 by way of the District's wholesale customers. The major customer currently is the City of Crockett, which receives 100% of its needs from the District. In 2018 the District supplied 653,982,455 gallons of water to the customers.

Wastewater from the treatment plant is currently being released in accordance with our wastewater permit from EPA/TCEQ. Plans are being considered at this time to recycle this water.

The existing water treatment plant is located north of the City of Crockett, and is in the central portion of East Texas. Major Highways through the City include State Highways 7, 19, and 21. The major transmission lines of the District are located along State Highway 19, and extend from Grapeland, which is twelve miles north of Crockett, to Lovelady, which is fourteen miles south of Crockett.



# Texas Commission on Environmental Quality

Water Availability Division

MC-160, P.O. Box 13087 Austin, Texas 78711-3087

Telephone (512) 239-4691, FAX (512) 239-2214

## Utility Profile and Water Conservation Plan Requirements for Wholesale Public Water Suppliers

This form is provided to assist wholesale public water suppliers in water conservation plan development. If you need assistance in completing this form or in developing your plan, please contact the Conservation staff of the Resource Protection Team in the Water Availability Division at (512) 239-4691.

*Water users can find best management practices (BMPs) at the Texas Water Development Board's website <http://www.twdb.texas.gov/conservation/BMPs/index.asp>. The practices are broken out into sectors such as Agriculture, Commercial and Institutional, Industrial, Municipal and Wholesale. BMPs are voluntary measures that water users use to develop the required components of Title 30, Texas Administrative Code, Chapter 288. BMPs can also be implemented in addition to the rule requirements to achieve water conservation goals.*

### Contact Information

Name: Houston County WCID # 1

Address: P.O. Box 1246

Telephone Number: (936)544-3985 Fax: (936) 545-2415

Water Right No.(s): 08-5097

Regional Water Planning Group: 1

Person responsible for implementing conservation program: Russell Bond Phone: (936) 544-3985

Form Completed By: Russell Bond

Title: General Manager

Signature: *Russell Bond* Date: 4 11 19

**A water conservation plan for wholesale public water suppliers must include the following requirements (as detailed in 30 TAC Section 288.5). If the plan does not provide information for each requirement, you must include in the plan an explanation of why the requirement is not applicable.**

# Utility Profile

## I. WHOLESALE SERVICE AREA POPULATION AND CUSTOMER DATA

### A. Population and Service Area Data:

1. Service area size (in square miles):

(Please attach a copy of service-area map)

1,230.91

2. Current population of service area:

9,274

3. Current population served for:

- a. Water X
- b. Wastewater

4. Population served for previous five years:

<i>Year</i>	<i>Population</i>
2018	9,274
2017	9,208
2016	9,129
2015	9,094
2014	9,118

5. Projected population for service area in the following decades:

<i>Year</i>	<i>Population</i>
2020	9,660
2030	9,704
2040	9,694
2050	9,689
2060	9,700

6. List source or method for the calculation of current and projected population size.

The Water District serves approximately 40% of the population of Houston County. The population of Houston County was obtained from the Texas Water Development Board, the World population Review, Houston County Profile, and the U.S. Census Quick Facts.

### B. Customer Data

List (or attach) the names of all wholesale customers, amount of annual contract, and amount of annual use for each customer for the previous year:

<i>Wholesale Customer</i>	<i>Contracted Amount (Acre-feet)</i>	<i>Previous Year Amount of Water Delivered (acre-feet)</i>
City of Crockett	2,148.22	1,090.37
City of Grapeland	122.76	4.92

City of Lovelady	36.83	29.27
Consolidated Water Supply Corporation	1,043.42	615.76
Alloy Polymers	168.79	166.68

## II. WATER USE DATA FOR SERVICE AREA

### A. Water Delivery

Indicate if the water provided under wholesale contracts is treated or raw water and the annual amounts for the previous five years (in acre feet):

<i>Year</i>	<i>Treated Water</i>	<i>Raw Water</i>
2018	2,006.10	
2017	1,748.97	
2016	1,881.20	
2015	1,935.45	
2014	1,824.82	
<b>Totals</b>	<b>9,396.54</b>	

### B. Water Accounting Data

- Total amount of water diverted at the point of diversion(s) for the previous five years (in acre-feet) for all water uses:

<i>Year</i>	<i>2018</i>	<i>2017</i>	<i>2016</i>	<i>2015</i>	<i>2014</i>
<i>Month</i>					
January	217.73	168.49	170.41	174.44	169.46
February	173.13	130.08	153.17	144.82	176.36
March	191.99	150.19	164.80	160.46	160.63
April	180.18	140.33	156.26	160.80	158.48
May	199.39	147.08	178.94	174.47	176.86
June	208.24	150.41	176.64	181.27	145.50
July	195.80	173.07	189.31	205.58	169.53
August	199.26	177.08	201.95	223.82	160.84
September	176.68	187.42	173.45	210.23	171.95
October	169.98	185.63	185.09	200.62	183.36
November	174.21	170.05	166.40	184.40	182.78

3. Please attach a description of the water system. Include the number of treatment plants, wells, and storage tanks

**IV. WASTEWATER SYSTEM DATA NA**

*A. Wastewater System Data (if applicable)*

1. Design capacity of wastewater treatment plant(s) (MGD):
  
2. Briefly describe the wastewater system(s) of the area serviced by the wholesale public water supplier. Describe how treated wastewater is disposed. Where applicable, identify treatment plant(s) with the TCEQ name and number, the operator, owner, and the receiving stream if wastewater is discharged.

*B. Wastewater Data for Service Area (if applicable)*

1. Percent of water service area served by wastewater system:           %
  
2. Monthly volume treated for previous five years (in 1,000 gallons):

<i>Year</i>					
<i>Month</i>					
January	_____	_____	_____	_____	_____
February	_____	_____	_____	_____	_____
March	_____	_____	_____	_____	_____
April	_____	_____	_____	_____	_____
May	_____	_____	_____	_____	_____
June	_____	_____	_____	_____	_____
July	_____	_____	_____	_____	_____
August	_____	_____	_____	_____	_____
September	_____	_____	_____	_____	_____
October	_____	_____	_____	_____	_____
November	_____	_____	_____	_____	_____
December	_____	_____	_____	_____	_____
<b>Totals</b>	_____	_____	_____	_____	_____

# Water Conservation Plan

In addition to the description of the wholesaler's service area (profile from above), a water conservation plan for a wholesale public water supplier must include, at a minimum, additional information as required by Title 30, Texas Administrative Code, Chapter 288.5. Note: If the water conservation plan does not provide information for each requirement an explanation must be included as to why the requirement is not applicable.

*A. Specific, Quantified 5 & 10-Year Targets*

The water conservation plan must include specific, quantified 5-year and 10-year targets for water savings including, where appropriate, target goals for municipal use in gallons per capita per day for the wholesaler's service area, maximum acceptable water loss, and the basis for the development of these goals. Note that the goals established by a wholesale water supplier under this subparagraph are not enforceable. These goals must be updated during the 5-year review and submittal.

*B. Measuring and Accounting for Diversions*

The water conservation plan must include a description as to which practice(s) and/or device(s) will be utilized to measure and account for the amount of water diverted from the source(s) of supply.

*C. Record Management Program*

The water conservation plan must include a monitoring and record management program for determining water deliveries, sales, and losses.

*D. Metering/Leak-Detection and Repair Program*

The water conservation plan must include a program of metering and leak detection and repair for the wholesaler's water storage, delivery, and distribution system.

*E. Contract Requirements for Successive Customer Conservation*

The water conservation plan must include a requirement in every water supply contract entered into or renewed after official adoption of the water conservation plan, and including any contract extension, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using the applicable elements of Title 30 TAC Chapter 288. If the customer intends to resell the water, then the contract between the initial supplier and customer must provide that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with the provisions of this chapter.

*F. Reservoir Systems Operations Plan*

The water conservation plan must include a reservoir systems operations plan, if applicable, providing for the coordinated operation of reservoirs owned by the applicant within a common watershed or river basin. The reservoir systems operations plan shall include optimization of water supplies as one of the significant goals of the plan.

*G. Enforcement Procedure and Official Adoption*

The water conservation plan must include a means for implementation and enforcement, which shall be evidenced by a copy of the ordinance, rule, resolution, or tariff, indicating official adoption of the water conservation plan by the water supplier; and a description of the authority by which the water supplier will implement and enforce the conservation plan.

*H. Coordination with the Regional Water Planning Group(s)*

The water conservation plan must include documentation of coordination with the regional water planning groups for the service area of the wholesale water supplier in order to ensure consistency with the appropriate approved regional water plans.

Example statement to be included within the water conservation plan:

*The service area of the \_\_\_\_\_ (name of water supplier) is located within the \_\_\_\_\_ (name of regional water planning area or areas) and \_\_\_\_\_ (name of water supplier) has provided a copy of this water conservation plan to the \_\_\_\_\_ (name of regional water planning group or groups).*

*I. Plan Review and Update*

A wholesale water supplier shall review and update its water conservation plan, as appropriate based on an assessment of previous 5-year and 10-year targets and any other new or updated information. A wholesale water supplier shall review and update the next revision of its water conservation plan no later than May 1, 2009, and every five years after that date to coincide with the regional water planning group. The revised plan must also include an implementation report.

**V. ADDITIONAL CONSERVATION STRATEGIES**

Any combination of the following strategies shall be selected by the water wholesaler, in addition to the minimum requirements of 30 TAC §288.5(1), if they are necessary in order to achieve the stated water conservation goals of the plan. The commission may require by commission order that any of the following strategies be implemented by the water supplier if the commission determines that the strategies are necessary in order for the conservation plan to be achieved:

1. Conservation-oriented water rates and water rate structures such as uniform or increasing block rate schedules, and/or seasonal rates, but not flat rate or decreasing block rates;
2. A program to assist agricultural customers in the development of conservation, pollution prevention and abatement plans;
3. A program for reuse and/or recycling of wastewater and/or graywater;
4. Any other water conservation practice, method, or technique which the wholesaler shows to be appropriate for achieving the stated goal or goals of the water conservation plan.

**VI. WATER CONSERVATION PLANS SUBMITTED WITH A WATER RIGHT APPLICATION FOR NEW OR ADDITIONAL STATE WATER**

Water Conservation Plans submitted with a water right application for New or Additional State Water must include data and information which:

1. support the applicant's proposed use of water with consideration of the water conservation goals of the water conservation plan;
2. evaluates conservation as an alternative to the proposed appropriation; and
3. evaluates any other feasible alternative to new water development including, but not limited to, waste prevention, recycling and reuse, water transfer and marketing, regionalization, and optimum water management practices and procedures.



Additionally, it shall be the burden of proof of the applicant to demonstrate that no feasible alternative to the proposed appropriation exists and that the requested amount of appropriation is necessary and reasonable for the proposed use.

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**SUPPLEMENT**  
**To The**  
**Water Conservation Plan**

Original Plan Adopted October 2005

Revised and Adopted March 18, 2009

Revised and Adopted May 18, 2011

Revised and Approved April 16, 2014

Revised and Adopted April 17, 2019

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## Supplement to The Water Conservation Plan

The Houston County WCID # 1 has, as it's one and only goal, to treat and sell potable water at the lowest possible cost to the citizens of Houston County through our five customers. To accomplish this goal we must utilize all available methods and technology. We strive not to waste any more water than possible in the treatment and transmission of water from the Houston County Lake through our treatment plant and in delivery to our wholesale customers.

### Our Specific, Quantified

Five year goal:	sold	600M	.063MG/capita	63000Gal.
	Population	9500	173Gal/da/capita	
Ten year goal:	sold	590M	.062MG/capita	62000Gal.
	Population	9480	170Gal/da/capita	

Once the water is delivered to our customers by us, the Houston County WCID # 1, it will be the customers' responsibility to encourage and educate the persons who purchase the water, in conservation practices.

The maximum acceptable unaccounted-for water: five year goal: 5%, 5.9MG/year, or a total of 29.5MG. Ten year goal: 4%, 4.7MG/year, or a total of 47.0 MG.

We presently have a loss of 3.75% 25MG. Approximately 5 to 7 MGY out of 686 MGY.

We have completed a study for our entire water system. KSA Engineers have completed this study, and we hope to be able to implement these goals, as well other regulatory goals now required by TCEQ.

Metering Devices: Our Engineering Study has recommended scheduling calibrations, and replacing meters as needed.

Record Management Program: Meter readings for water deliveries are recorded monthly for all five of our customers. Sales are recorded in the computer and also a copy for a paper file. Losses are estimated from calculations of pumps running, when a leak occurs. Once water is past the master meter, it becomes the customers' loss.

Metering/Leak-Detection and Repair Program: Metering: see above. Leak detection is accomplished by plant personnel, visually checking transmission line routes daily and biweekly. Operators also check pumps and pressure readings constantly for a drop in pressure or pump operation. Repairs are done immediately upon leak detection by our maintenance crew.

Reservoir Systems Operations Plan: Houston County WCID # 1 is the sole owner and operator of the Houston County Lake. Our TCEQ Water Rights Permit entitles Permit holders down-stream of the Houston County Lake to some of the water released, otherwise the Houston County WCID # 1 uses our permitted water to treat and wholesale water to one industry, three municipal, and one rural water supplier.

Contract Requirements for Successive Customer Conservation: Any new or renewed contracts will contain a provision requiring the customer who purchases water from the Houston County WCID # 1 to implement water conservation measures in accordance with the provisions of Title 30, TAC Chapter 288.

Enforcement Procedure and Official Adoption: This is in our Officially Adopted Plan.

Coordination with the Regional Water Planning Group: The service area of the Houston County WCID # 1 is located within the East Texas Region, and we have provided them with a copy of our Plan which has their approval.

Plan review and update: The Houston County WCID # 1 will review and revise the Water Conservation Plan no later than May 1, 2024, and every five years after that date to coincide with the East Texas Regional Water Planning Group.

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## RESOLUTION

### **A RESOLUTION OF THE BOARD OF DIRECTORS OF THE HOUSTON COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 1 ADOPTING THE WATER CONSERVATION PLAN AND THE SUPPLEMENT TO THE WATER CONSERVATION PLAN**

BE IT RESOLVED BY THE BOARD OF DIRECTORS:

THAT, on this the 17<sup>th</sup> day of April, 2019, we do hereby adopt the attached updated Water Conservation Plan and the Supplement to the Water Conservation Plan. We hereby also establish a Water Conservation Committee, comprised of two Board Members and the Water System Manager, and authorize the Chairperson of said Committee to be the Board's authorized representative in matters of water conservation, planning procedures, policies, and actions.

**Adopted this the 17<sup>th</sup> day of April, 2019,** at a regular meeting of the Board of Directors at which a quorum was present.

  
\_\_\_\_\_  
Sonny Rollo, President

  
\_\_\_\_\_  
Floyd Patton, Secretary