

WATER CONSERVATION PLAN



CITY OF DORCHESTER, TEXAS

November 2021

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WATER CONSERVATION PLAN

1. INTRODUCTION AND OBJECTIVES

Water supply has always been a key issue in the development of Texas. In recent years, the growing population and economic development of North Central Texas has led to increasing demands for water supplies. At the same time, local and less expensive sources of water supply are largely developed. Additional supplies to meet higher demands will be expensive and difficult to develop. It is therefore important that the City of Dorchester (“City”) and its customers make the most efficient use of existing supplies. This will delay the need for new supplies, minimize the environmental impacts associated with developing new supplies, and delay the high cost of additional water supply development.

Recognizing the need for efficient use of existing water supplies, the Texas Commission on Environmental Quality (“TCEQ”) has developed guidelines and requirements governing the development of water conservation plans for public water suppliers¹. TCEQ guidelines and requirements are included in Appendix B. The City has developed this water conservation plan following TCEQ guidelines and requirements.

The water conservation plan includes measures that are intended to result in ongoing, long-term water savings.

The objectives of this water conservation plan are as follows:

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

This plan includes all the elements required by TCEQ. This plan also is intended to include requirements of the Texas Water Development Board (“TWDB”) for financial assistance programs of greater than \$500,000 offered by the TWDB.

2. TEXAS COMMISSION ON ENVIRONMENTAL QUALITY RULES

2.1 Conservation Plans

The TCEQ rules governing development of water conservation plans for public water suppliers are contained in Title 30, Part 1, Chapter 288, Subchapter A, Rule 288.2 of the Texas Administrative Code, which is included in Appendix B. For the purpose of these rules, a water conservation plan is defined as: “A strategy or combination of strategies for reducing the volume of water withdrawn

from a water supply source, for reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, for increasing the recycling and reuse of water, and for preventing the pollution of water.”¹ The elements in the TCEQ water conservation rules covered in this conservation plan are listed below.

Minimum Conservation Plan Requirements

The minimum requirements in the Texas Administrative Code for water conservation plans for public water suppliers are covered in this report as follows:

- §288.2(a)(1)(A) – Utility Profile – Section 3 and Appendix C
- §288.2(a)(1)(B) – Record Management System – Section 5.3
- §288.2(a)(1)(C) – Specific, Quantified Goals and Goals for Water Savings – Section 4
- §288.2(a)(1)(D) – Accurate Metering – Sections 5.1 and 5.2
- §288.2(a)(1)(E) – Universal Metering – Section 5.2
- §288.2(a)(1)(F) – Determination and Control of Water Loss – Section 5.4
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- §288.2(c) – Review and Update of the Plan- Section 10

Conservation Additional Requirements

- §288.2(a)(2)(A) – Leak Detection, Repair, and Water Loss Accounting – Sections 5.4, 5.5 and 5.6
- §288.2(a)(2)(B) – Requirement for Water Conservation Plans by Wholesale Customers – Section 8.5

Additional Conservation Strategies

The TWDB requires a water conservation program annual report. This report is included in Appendix D. The TCEQ requires that a water conservation implementation report be completed and submitted on an annual basis. This report is included in Appendix E.

TCEQ rules also include optional, but not required, conservation strategies, which may be adopted by suppliers. The City has adopted the following optional strategies:

- §288.2(a)(3)(A) – Conservation Oriented Water Rates – Section 7
- §288.2(a)(3)(B) – Ordinances, Plumbing Codes or Rules on Water-Conserving Fixtures – Section 8.3
- §288.2(a)(3)(G) – Monitoring Method – Section 5.6

3. WATER UTILITY PROFILE

Appendix C to this Water Conservation and Water Resource and Emergency Management Plan is a water utility profile based on the format recommended by the TCEQ.

4. SPECIFICATION OF WATER CONSERVATION GOALS

TCEQ rules require the adoption of specific water conservation goals for a water conservation plan. The goals for this water conservation plan include the following:

Table 4
WATER CONSERVATION PLAN
5- AND 10-YR GOALS FOR WATER SAVINGS

Facility Name: City of Dorchester

Water Conservation Plan Year: 2021

	Historic 5yr Average	Baseline	5-yr Goal for year <u>2026</u>	10-yr Goal for year <u>2031</u>
Total GPCD ¹	111	111	105	100
Residential GPCD ²	62	62	60	55
Water Loss (GPCD) ³	45	45	43	40
Water Loss (Percentage) ⁴	41 %	41 %	41 %	40 %

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

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

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

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

Operations procedures for water loss currently include replacing outdated/broken meters, daily monitoring of service area for leaks, inspections of the system for efficiency, and keeping current with training and state reporting requirements.

City of Dorchester will continue to provide the Water Loss Audit every five years to the TWDB.

During the next five to ten years, the City's water loss control plan shall include:

Five-Year Strategy:

- Continue to implement utility software that correctly accounts for water use and loss, corresponding with operational data
- Continue to implement operational activities correctly accounting for water and sewer loss, reporting data to City staff
- Continue to implement visual inspection of water lines for leak detection and breaks
 - Areas with history of excessive leaks and breaks will be noted and leaks and breaks repaired as the City's annual budget allows

- Leak repair report forms shall be prepared and kept for reference
- Hydrants and valves in the distribution system will be inspected on a yearly basis
- Operations staff will inspect pipes, cleaning as necessary, and will adhere to other maintenance efforts to improve the distribution system and prevent leaks and ruptures from occurring
- City will conduct meter testing and repair/replacement as necessary

Ten-Year Strategy:

- Meters will be inspected monthly for leak detection. Meters are replaced as the City's Annual Budget will allow. Funds will be set aside annually to replace old and debilitated meters.
- Implement a meter replacement program, as discussed in Section 5.2.

These goals will be reviewed and updated as necessary when the plan is reviewed every five (5) years.

5. METERING, WATER USE RECORDS, CONTROL OF WATER LOSS, AND LEAK DETECTION AND REPAIR

One of the key elements of water conservation is tracking water use and controlling losses through illegal diversions and leaks. The City of Dorchester carefully meters water use, to detect and repair leaks in the distribution system and provide regular monitoring of unaccounted water.

5.1 Accurate Metering

The City of Dorchester meters all treated water deliveries within the distribution system. Each meter has an accuracy of plus or minus ten percent.

5.2 Metering of Customer and Public Uses and Meter Testing, Repair and Replacement

Water usage for all customers of the City, including public and government users, is metered. As part of this water conservation plan, the City maintains a meter replacement program that will replace every meter on a 15-year cycle. The City will continue to monitor meters to ensure that the level of accuracy remains high. In addition, meters registering any unusual or questionable readings will be tested and repaired to restore to full functionality.

5.3 Record Management System

As required by TAC, Title 30, Part 1, Chapter 288, Subchapter A, Rule 288.2(a)(2)(B), the record management system for the City records water pumped, water delivered, and water sold; estimates for water losses; and allows for the separation of water sales and uses into residential and commercial categories. This information will be included in an annual report, as described in Section 5.6.

5.4 Determination and Control of Water Loss

Total water loss is the difference between water delivered to customers from the City and metered water sales to customers plus metered water sales to customers plus water authorized for use but not sold. (Authorized but unmetered uses include use for fire fighting, releases for flushing of lines, uses associated with new construction, etc.) Total water loss can include several categories:

- Inaccuracies in customer meters (customer meters tend to run more slowly as they age and under-report actual use)
- Accounts that are being used but have not yet been added to the billing system
- Losses due to illegal connections and theft (Included in Appendix E)
- Other

Measures to control unaccounted water are part of the routine operations of the City and its customers. Maintenance crews and personnel look for and report evidence of leaks in the water distribution system with periodic visual inspections along distribution lines. A leak detection and repair program is described in Section 5.5 below. Meter readers watch for and report signs of illegal connections, so they can be quickly addressed.

Utilizing the measures described in this plan, the City's target and goal is to maintain apparent water loss at or below 41 percent (43 gpcpd) in 2026 and below 40 percent (40 gpcpd) in 2031. Lack of data in City records has skewed the numbers for goals regarding water loss. Data regarding apparent water loss will be more accurate in future reports and plans with recent operational procedures put into place by the City regarding water loss documentation. The annual conservation report described below is the primary tool that shall be used to monitor apparent water loss.

Water loss for this system appears to be high, however, the City of Dorchester consistently drives out the system looking for leaks and repairs all leaks found within a reasonable time frame. The 2021 Development Fund Bond Issue includes funds for distribution system improvements. Over the past couple of years, the City has taken the following steps to reduce the system water loss:

- 1) Hired outside specialists & contractors to assist with locating all distribution system leaks.
- 2) Sought ideas and/or recommendations from the Texas Rural Water Association as to finding potential water loss areas.
- 3) Hired additional help with driving out the system to assist with locating and repairing system leaks.
- 4) Limited system flushing to the absolute minimum required to maintain system integrity.
- 5) Calibrated source water supply meters.
- 6) Repairing any leaks the same day that they are discovered.
- 7) Continue to research and investigate enhanced means and methods to assist the city in finding water losses throughout the system.

5.5 Leak Detection and Repair

As described above, city/utility crews and personnel look for and report evidence of leaks in the water distribution system. Areas of the water distribution system in which numerous leaks and line breaks occur are targeted for replacement as funds are available.

City of Dorchester utility staff adheres to the following steps for leak detection in the City's distribution system:

- City Staff is cognizant of the need for visual inspections of water lines and detecting leaks in the City's distribution system on an on-going basis
 - Areas with a history of excessive leak and break rates are noted and leaks and breaks repaired as the City's Annual Budget will allow
 - Leak repair report forms are prepared and kept for reference
- Hydrants and valves in the distribution system are inspected on a yearly basis
- Operations/field staff inspects pipes, cleaning when necessary, and adheres to other maintenance efforts to improve the distribution system and prevent leaks and ruptures from occurring
- City conducts meter testing and repair/replacement as necessary
- Meters are inspected monthly for leak detection. Meters are replaced as the City's Annual Budget will allow.

5.6 Monitoring of Effectiveness and Efficiency – Annual Water Conservation Report

Appendix D includes the TWDB-required Water Conservation Program Annual Report. The Texas Water code requires that each entity that is required to submit a water conservation plan to the TWDB or the TCEQ shall file an annual report to the TWDB on the entity's progress in implementing each of the minimum requirements in their water conservation plan. This requirement applies to those entities receiving financial assistance of \$500,000 or more from the TWDB; entities with 3,300 connections or more; and those entities that have a water right through TCEQ. Entities receiving financial assistance from the TWDB are to maintain an approved water conservation plan in effect until all financial obligations to the state have been discharged and file a report with the TWDB on the progress in implementing each of the minimum requirements in its water conservation plan and the status of any of its customers' water conservation plans required by contract, within one year after closing on the financial assistance and annually thereafter until all financial obligations to the state have been discharged.

6. CONTINUING PUBLIC EDUCATION AND INFORMATION CAMPAIGN

The continuing public education and information campaign on water conservation includes the following elements:

- Include inserts on water conservation with water bills or mail outs at least twice per year.

Inserts will include material developed by City staff and material obtained from the Texas Water Development Board (“TWDB”), the TCEQ, and other sources.

- Encourage local media coverage of water conservation issues and the importance of water conservation
- Notify local organizations, schools, and civic groups that City staff is available to make presentations on the importance of water conservation and ways to save water
- Promote the *Texas Smartscape* website (www.txsmartscape.com) and provide water conservation brochures and other water conservation materials available to the public at city hall and other public places
- Make information on water conservation available online on the City website, www.cityofdorchester.org including links to the *Texas Smartscape* website and to information on water conservation on the TWDB and TCEQ websites and other resources

7. WATER RATE STRUCTURE

With the intent of encouraging water conservation and discouraging waste and excessive use of water, the City of Dorchester has adopted a non-promotional water rate structure designed so the price of water increases with increasing water use.

Table 2
Volume Unit Charges (In City Limits)

Water User	Type/Volume (gallons)	Volume Unit Charge (1,000 gallons)
Residential-Base Rate	0-1000	\$15.00
Residential-Volume Rate	1001-5,000	\$3.75
Residential-Volume Rate	5,001-10,000	\$4.50
Residential-Volume Rate	10,001-20,000	\$5.50
Residential-Volume Rate	20,001-30,000	\$6.50

Volume Unit Charges (Outside City Limits)

Water User	Type/Volume (gallons)	Volume Unit Charge (1,000 gallons)
Residential-Base Rate	0-1000	\$25.00
Residential-Volume Rate	1001-5,000	\$4.75
Residential-Volume Rate	5,001-10,000	\$5.50
Residential-Volume Rate	10,001-20,000	\$6.50
Residential-Volume Rate	20,001-30,000	\$7.50

8. OTHER WATER CONSERVATION MEASURES

8.1 Ordinances, Plumbing Codes, or Rules on Water-Conserving Fixtures

The state has required water-conserving fixtures in new construction and renovations since 1992.

The state standards call for flows of no more than 2.5 gallons per minute (gpm) for faucets, 2.5 gpm for showerheads, and 1.6 gallons per flush for toilets. Similar standards are now required nationally under federal law. These state and federal standards assure that all new construction and renovations in the City will use water-conserving fixtures.

8.2 Additional Water Conservation Measures

The following water conservation measure is also included in the Plan:

- Water audits
 - The City of Dorchester currently conducts water audits as required by the TWDB.

8.3 Requirement for Water Conservation Plans by Wholesale Customers

The City of Dorchester does not currently have wholesale water customers. However, every contract for the wholesale of water by customers that is entered into, renewed, or extended after the adoption of this water conservation plan will include a requirement that the wholesale customer and any wholesale customers of that wholesale customer develop and implement a water conservation plan meeting the requirements of Title 30, Part 1, Chapter 288, Subchapter A, Rule 288.2 of the Texas Administrative Code.¹ The requirement will also extend to each successive wholesale customer in the resale of water.

8.4 Coordination with Regional Water Planning Group

Appendix G includes a letter to the Chair of the Region C Water Planning Group transmitting this water conservation plan. The adopted ordinance and the adopted water utility profile will be sent to the Chair of the Region C Water Planning Group, with a copy of the water conservation plan and water resource and emergency management plan.

9. IMPLEMENTATION AND ENFORCEMENT OF THE WATER CONSERVATION PLAN

Appendix F contains a copy of the ordinance adopted by the City Council regarding the water conservation plan and water resource and emergency management plan. Appendix E includes a copy of an ordinance adopted related to illegal connections and water theft.

9.1 Schedule for Implementing the Plan to Achieve Targets and Goals

Following is a schedule, to achieve the targets and goals for water conservation:

- Calibrations of meters for all treated water deliveries are conducted semi-annually
 - Meter replacement program:
 - Meters will continue to be monitored for accuracy annually and replaced on a fifteen-year cycle, or when accuracy cannot be maintained within $\pm 5\%$

- Water audits
 - The City of Dorchester currently conducts water audits as required by the TWDB
 - Water losses are identified and corrected
 - Water losses are minimized by replacement of deteriorating water mains and appurtenances, conducted on an on-going basis
- Materials developed to encourage water conservation measures, materials obtained from the Texas Water Development Board, Texas Commission on Environmental Quality or other sources will be available semi-annually (once in the spring and once in the summer) to all customers
- Water conserving pricing
 - Rates shall continue to be reviewed annually to insure water revenues exceed expenses and replacement costs and to discourage excessive and wasteful use
- The leak detection program to reduce real water losses
 - Inspections of all water main fittings and connections to be conducted semi-annually
 - Pressure controlled to just above the standard-of-service level by use of pressure zones
 - Pressure zones operated based on the topography
 - Surges in pressure limited by coordination with Fire Department
 - Nighttime pressure reduced by pressure regulation when feasible

9.2 Tracking of Targets and Goals

City staff shall track targets and goals by utilizing the following procedures:

- Records shall be maintained for meter calibration, meter testing, and meter replacement programs
- Water audits shall be documented and kept in the files
- City staff shall keep a record of all available distributed material
- Records shall be maintained for the Leak Detection Program, including but not limited to the following:
 - Annual inspections of all water main fittings and connections

10. REVIEW AND UPDATE OF WATER CONSERVATION PLAN

The plan will be reviewed and restructured as required and as appropriate based on new or updated information.

Appendix B

Texas Administrative Code

<u>TITLE 30</u>	ENVIRONMENTAL QUALITY
<u>PART 1</u>	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
<u>CHAPTER 288</u>	WATER CONSERVATION PLANS, DROUGHT CONTINGENCY PLANS, GUIDELINES AND REQUIREMENTS
<u>SUBCHAPTER A</u>	WATER CONSERVATION PLANS
RULE §288.1	Definitions

The following words and terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise.

- (1) Agricultural or Agriculture--Any of the following activities:
 - (A) cultivating the soil to produce crops for human food, animal feed, or planting seed or for the production of fibers;
 - (B) the practice of floriculture, viticulture, silviculture, and horticulture, including the cultivation of plants in containers or non-soil media by a nursery grower;
 - (C) raising, feeding, or keeping animals for breeding purposes or for the production of food or fiber, leather, pelts, or other tangible products having a commercial value;
 - (D) raising or keeping equine animals;
 - (E) wildlife management; and
 - (F) planting cover crops, including cover crops cultivated for transplantation, or leaving land idle for the purpose of participating in any governmental program or normal crop or livestock rotation procedure.
- (2) Agricultural use--Any use or activity involving agriculture, including irrigation.
- (3) Best management practices--Voluntary efficiency measures that save a quantifiable amount of water, either directly or indirectly, and that can be implemented within a specific time frame.
- (4) Conservation--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 water supply is made available for future or alternative uses.
- (5) Commercial use--The use of water by a place of business, such as a hotel, restaurant, or office building. This does not include multi-family residences or agricultural, industrial, or institutional users.
- (6) 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. A drought contingency plan may be a separate document identified as such or may be contained within another water management document(s).
- (7) Industrial use--The use of water in processes designed to convert materials of a lower order of value into forms having greater usability and commercial value, and the development of power by means other than hydroelectric, but does not include agricultural use.

(8) Institutional use--The use of water by an establishment dedicated to public service, such as a school, university, church, hospital, nursing home, prison, or government facility. All facilities dedicated to public service are considered institutional regardless of ownership.

(9) Irrigation--The agricultural use of water for the irrigation of crops, trees, and pastureland, including, but not limited to, golf courses and parks which do not receive water from a public water supplier.

(10) Irrigation water use efficiency--The percentage of that amount of irrigation water which is beneficially used by agriculture crops or other vegetation relative to the amount of water diverted from the source(s) of supply. Beneficial uses of water for irrigation purposes include, but are not limited to, evapotranspiration needs for vegetative maintenance and growth, salinity management, and leaching requirements associated with irrigation.

(11) Mining use--The use of water for mining processes including hydraulic use, drilling, washing sand and gravel, and oil field re-pressuring.

(12) Municipal use--The use of potable water provided by a public water supplier as well as the use of sewage effluent for residential, commercial, industrial, agricultural, institutional, and wholesale uses.

(13) Nursery grower--A person engaged in the practice of floriculture, viticulture, silviculture, and horticulture, including the cultivation of plants in containers or nonsoil media, who grows more than 50% of the products that the person either sells or leases, regardless of the variety sold, leased, or grown. For the purpose of this definition, grow means the actual cultivation or propagation of the product beyond the mere holding or maintaining of the item prior to sale or lease, and typically includes activities associated with the production or multiplying of stock such as the development of new plants from cuttings, grafts, plugs, or seedlings.

(14) Pollution--The alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any water in the state that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property, or to the public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.

(15) Public water supplier--An individual or entity that supplies water to the public for human consumption.

(16) Regional water planning group--A group established by the Texas Water Development Board to prepare a regional water plan under Texas Water Code, §16.053.

(17) Residential gallons per capita per day--The total gallons sold for residential use by a public water supplier divided by the residential population served and then divided by the number of days in the year.

(18) Residential use--The use of water that is billed to single and multi-family residences, which applies to indoor and outdoor uses.

(19) Retail public water supplier--An individual or entity that for compensation supplies water to the public for human consumption. The term does not include an individual or entity that supplies water to itself or its employees or tenants when that water is not resold to or used by others.

(20) Reuse--The authorized use for one or more beneficial purposes of use of water that remains unconsumed after the water is used for the original purpose of use and before that water is either disposed of or discharged or otherwise allowed to flow into a watercourse, lake, or other body of state-owned water.

(21) Total use--The volume of raw or potable water provided by a public water supplier to billed customer sectors or nonrevenue uses and the volume lost during conveyance, treatment, or

transmission of that water.

(22) Total gallons per capita per day (GPCD)--The total amount of water diverted and/or pumped for potable use divided by the total permanent population divided by the days of the year. Diversion volumes of reuse as defined in this chapter shall be credited against total diversion volumes for the purposes of calculating GPCD for targets and goals.

(23) Water conservation coordinator--The person designated by a retail public water supplier that is responsible for implementing a water conservation plan.

(24) Water conservation plan--A strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, for increasing the recycling and reuse of water, and for preventing the pollution of water. A water conservation plan may be a separate document identified as such or may be contained within another water management document(s).

(25) Wholesale public water supplier--An individual or entity that for compensation supplies water to another for resale to the public for human consumption. The term does not include an individual or entity that supplies water to itself or its employees or tenants as an incident of that employee service or tenancy when that water is not resold to or used by others, or an individual or entity that conveys water to another individual or entity, but does not own the right to the water which is conveyed, whether or not for a delivery fee.

(26) Wholesale use--Water sold from one entity or public water supplier to other retail water purveyors for resale to individual customers.

Source Note: The provisions of this §288.1 adopted to be effective May 3, 1993, 18 TexReg 2558; amended to be effective February 21, 1999, 24 TexReg 949; amended to be effective April 27, 2000, 25 TexReg 3544; amended to be effective August 15, 2002, 27 TexReg 7146; amended to be effective October 7, 2004, 29 TexReg 9384; amended to be effective January 10, 2008, 33 TexReg 193; amended to be effective December 6, 2012, 37 TexReg 9515; amended to be effective August 16, 2018, 43 TexReg 5218

Texas Administrative Code

TITLE 30

ENVIRONMENTAL QUALITY

PART 1

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CHAPTER 288

WATER CONSERVATION PLANS, DROUGHT CONTINGENCY PLANS, GUIDELINES AND REQUIREMENTS

SUBCHAPTER A

WATER CONSERVATION PLANS

RULE §288.2

Water Conservation Plans for Municipal Uses by Public Water Suppliers

(a) A water conservation plan for municipal water use by public water suppliers must provide information in response to the following. If the plan does not provide information for each requirement, the public water supplier shall include in the plan an explanation of why the requirement is not applicable.

(1) Minimum requirements. All water conservation plans for municipal uses by public water suppliers must include the following elements:

(A) a utility profile in accordance with the Texas Water Use Methodology, including, but not limited to, information regarding population and customer data, water use data (including total gallons per capita per day (GPCD) and residential GPCD), water supply system data, and wastewater system data;

(B) a record management system which allows for the classification of water sales and uses into the most detailed level of water use data currently available to it, including, if possible, the sectors listed in clauses (i) - (vi) of this subparagraph. Any new billing system purchased by a public water supplier must be capable of reporting detailed water use data as described in clauses (i) - (vi) of this subparagraph:

(i) residential;

(I) single family;

(II) multi-family;

(ii) commercial;

(iii) institutional;

(iv) industrial;

(v) agricultural; and,

(vi) wholesale.

(C) specific, quantified five-year and ten-year targets for water savings to include goals for water loss programs and goals for municipal use in total GPCD and residential GPCD. The goals established by a public water supplier under this subparagraph are not enforceable;

(D) metering device(s), within an accuracy of plus or minus 5.0% in order to measure and account for the amount of water diverted from the source of supply;

(E) a program for universal metering of both customer and public uses of water, for meter testing and repair, and for periodic meter replacement;

(F) measures to determine and control water loss (for example, periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections; abandoned services; etc.);

(G) a program of continuing public education and information regarding water conservation;

(H) a water rate structure which is not "promotional," i.e., a rate structure which is cost-based and which does not encourage the excessive use of water;

(I) 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 in order to optimize available water supplies; and

(J) a means of implementation and enforcement which shall be evidenced by:

(i) a copy of the ordinance, resolution, or tariff indicating official adoption of the water conservation plan by the water supplier; and

(ii) a description of the authority by which the water supplier will implement and enforce the conservation plan; and

(K) documentation of coordination with the regional water planning groups for the service area of the public water supplier in order to ensure consistency with the appropriate approved regional water plans.

(2) Additional content requirements. Water conservation plans for municipal uses by public drinking water suppliers serving a current population of 5,000 or more and/or a projected population of 5,000 or more within the next ten years subsequent to the effective date of the plan must include the following elements:

(A) a program of leak detection, repair, and water loss accounting for the water transmission, delivery, and distribution system;

(B) a requirement in every wholesale water supply contract entered into or renewed after official adoption of the plan (by either ordinance, resolution, or tariff), 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 in this chapter. If the customer intends to resell the water, the contract between the initial supplier and customer must provide that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with the provisions of this chapter.

(3) Additional conservation strategies. Any combination of the following strategies shall be selected by the water supplier, in addition to the minimum requirements in paragraphs (1) and (2) of this subsection, if they are necessary to achieve the stated water conservation goals of the plan. The commission may require that any of the following strategies be implemented by the water supplier if the commission determines that the strategy is necessary to achieve the goals of the water conservation plan:

(A) 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;

(B) adoption of ordinances, plumbing codes, and/or rules requiring water-conserving plumbing fixtures to be installed in new structures and existing structures undergoing substantial modification or addition;

(C) a program for the replacement or retrofit of water-conserving plumbing fixtures in existing structures;

(D) reuse and/or recycling of wastewater and/or graywater;

(E) a program for pressure control and/or reduction in the distribution system and/or for customer connections;

(F) a program and/or ordinance(s) for landscape water management;

(G) a method for monitoring the effectiveness and efficiency of the water conservation plan; and

(H) any other water conservation practice, method, or technique which the water supplier shows to be appropriate for achieving the stated goal or goals of the water conservation plan.

(b) A water conservation plan prepared in accordance with 31 TAC §363.15 (relating to Required Water Conservation Plan) of the Texas Water Development Board and substantially meeting the requirements of this section and other applicable commission rules may be submitted to meet application requirements in accordance with a memorandum of understanding between the commission and the Texas Water Development Board.

(c) A public water supplier for municipal use shall review and update its water conservation plan, as appropriate, based on an assessment of previous five-year and ten-year targets and any other new or updated information. The public water supplier for municipal use shall review and update the next revision of its water conservation plan every five years to coincide with the regional water planning group.

Source Note: The provisions of this §288.2 adopted to be effective May 3, 1993, 18 TexReg 2558; amended to be effective February 21, 1999, 24 TexReg 949; amended to be effective April 27, 2000, 25 TexReg 3544; amended to be effective October 7, 2004, 29 TexReg 9384; amended to be effective December 6, 2012, 37 TexReg 9515

[HOME](#) | [TEXAS REGISTER](#) | [TEXAS ADMINISTRATIVE CODE](#) | [OPEN MEETINGS](#)

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: City of Dorchester

Public Water Supply Identification Number (PWS ID): 0910028

Certificate of Convenience and Necessity (CCN) Number: 12013

Surface Water Right ID Number: N/A

Wastewater ID Number: N/A

Completed By: Gary Bennett Title: Water Operator

Address: 373 Main St. City: Dorchester Zip Code: 75459

Email: cityofdorchester@yahoo.com Telephone Number: 903-476-5862

Date: 8/26/21

Regional Water Planning Group: C [Map](#)

Groundwater Conservation District: 74 [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

Section I: Utility Data

A. Population and Service Area Data

1. Current service area size in square miles: 56
 (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
2020	1,622	0	0
2019	1,614	0	0
2018	1,610	0	0
2017	1,605	0	0
2016	1,600	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	1,622	0	0
2030	1,762	0	0
2040	1,907	0	0
2050	2,000	0	0
2060	2,183	0	0

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

TEXAS WATER DEVELOPMENT BOARD REGION C REGIONAL WATER PLAN...

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
2020	40,166,000	25,522,000		65,688,000	111
2019	42,021,000	30,213,000		72,234,000	123
2018	43,863,000	28,393,000		72,256,000	123
2017	38,068,000	24,677,000		62,745,000	107
2016	37,048,000	24,488,000		61,536,000	105
Historic 5-year Average	40,233,200	26,658,600	0	66,891,800	114

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

1. Designed daily capacity of system _____ 588,800 gallons per day.
2. Storage Capacity:
 Elevated _____ 200,000 gallons
 Ground _____ 142,000 gallons
3. List all current water supply sources in gallons.

Water Supply Source	Source Type*	Total Gallons
City of Dorchester	Ground	388,800
City of Sherman	Ground	180,000
	Choose One	
	Choose One	
	Choose One	
	Choose One	

*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

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)
2021	1,625	66,000,000
2022	1,638	66,667,000
2023	1,651	67,330,000
2024	1,665	68,000,000
2025	1,679	68,668,000
2026	1,693	69,335,000
2027	1,706	70,020,000
2028	1,719	70,669,000
2029	1,740	71,334,000
2030	1,762	72,000,000

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

Based on projected population from TWDB Region C Plan & historical use range of 110 to 115 gpcd.

E. High Volume Customers

- 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
#422 Wildman	Residential	437,770	Treated
#339 Riddles	Residential	407,730	Treated
#107 Griffin	Residential	282,630	Treated
#814 Tobar	Residential	270,890	Treated
#115 Norman	Residential	242,480	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](#).

- 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
	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.

No Additional Comments

Section II: System Data

A. Retail Connections

1. 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	610		610	100%
Residential – Multi-family (units)	1		1	%
Industrial			0	%
Commercial			0	%
Institutional			0	%
Agricultural			0	%
TOTAL	611	0	611	

*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. 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				
	2020	2019	2018	2017	2016
Residential – Single Family	4	4	4	3	3
Residential – Multi-family (units)					
Industrial					
Commercial					
Institutional					
Agricultural					
TOTAL	4	4	4	3	3

*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](#).

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				
	2020	2019	2018	2017	2016
Residential - Single Family	38,900,890	36,659,730	37,393,610	33,652,670	34,952,690
Residential – Multi-family					
Industrial					
Commercial					
Institutional					
Agricultural					
TOTAL	38,900,890	36,659,730	37,393,610	33,652,670	34,952,690

*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				
	2020	2019	2018	2017	2016
Residential - Single Family	111	123	123	107	105
Residential – Multi-family					

D. Annual and Seasonal Water Use

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

Month	Total Gallons of Treated Retail Water				
	2020	2019	2018	2017	2016
January	2,615,220	2,572,910	3,005,320	2,793,200	2,487,900
February	2,405,580	2,393,770	2,641,700	2,435,720	2,437,140
March	2,840,500	2,292,280	2,141,840	2,179,600	2,381,020
April	2,371,990	2,797,180	2,557,050	2,535,850	2,395,910
May	3,281,950	2,101,080	2,866,670	2,583,090	2,386,000
June	4,184,530	3,282,760	3,780,660	3,497,550	3,074,530
July	4,090,970	3,898,180	4,849,210	3,165,760	4,259,100
August	4,175,860	4,680,770	4,310,980	3,432,770	4,345,400
September	3,561,790	4,271,050	3,286,130	3,066,710	3,156,440
October	2,987,150	3,121,400	2,927,040	2,835,950	2,903,480
November	4,075,240	2,573,330	2,553,870	2,596,370	2,647,200
December	2,310,110	2,675,020	2,473,140	2,530,100	2,478,570
TOTAL	38,900,890	36,659,730	37,393,610	33,652,670	34,952,690

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

Month	Total Gallons of Raw Retail Water				
	2020	2019	2018	2017	2016
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
TOTAL	0	0	0	0	0

3. Summary of seasonal and annual water use.

Water Use	Seasonal and Annual Water Use					Average in Gallons
	2020	2019	2018	2017	2016	
Summer Retail (Treated + Raw)	12,451,360	11,861,710	12,940,850	10,096,080	11,679,030	11,805,806 5yr Average
TOTAL Retail (Treated + Raw)	38,900,890	36,659,730	37,393,610	33,652,670	34,952,690	36,311,918 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
2020	26,787,110	45	41%
2019	35,574,270	60	49%
2018	34,087,390	58	47%
2017	29,292,330	50	47%
2016	26,583,310	46	43%
5-year average	30,464,882	52	45%

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)
2020	179,967	343,000	1.91
2019	197,901	310,000	1.57
2018	197,961	404,000	2.04
2017	171,904	320,000	1.86
2016	168,592	367,000	2.18

G. Summary of Historic Water Use

Water Use Category	Historic 5-year Average	Percent of Connections	Percent of Water Use
Residential SF	36,311,918	100%	0%
Residential MF	0	%	0%
Industrial	0	%	0%
Commercial	0	%	0%
Institutional	0	%	0%
Agricultural	0	%	0%

H. System Data Comment Section

Provide additional comments about system data below.

Water loss for this system appears to be high, however, the City of Dorchester consistently drives out the system looking for leaks and repairs all leaks found within a reasonable time frame.

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): _____ 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				
	2020	2019	2018	2017	2016
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
TOTAL	0	0	0	0	0

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.

Appendix D

Water Conservation Plan Annual Report ~ Retail Water Supplier
TWDB Form No. 1966
Revised 1/11/2016 11:58 AM

**Water Conservation Plan Annual Report
Retail Water Supplier**

CONTACT INFORMATION

Name of Entity: _____

Public Water Supply Identification Number (PWS ID): _____

Certificate of Convenience and Necessity (CCN) Number: _____

Surface Water Rights ID Number: _____

Wastewater ID Number: _____

Check all that apply:

- Retail Water Supplier
- Wholesale Water Supplier
- Wastewater Treatment Utility

Address: _____ City: _____ Zip Code: _____

Email: _____ Telephone Number: _____

Regional Water Planning Group: _____ [Map](#)

Groundwater Conservation District: _____ [Map](#)

Form Completed By: _____ Title: _____

Date: _____

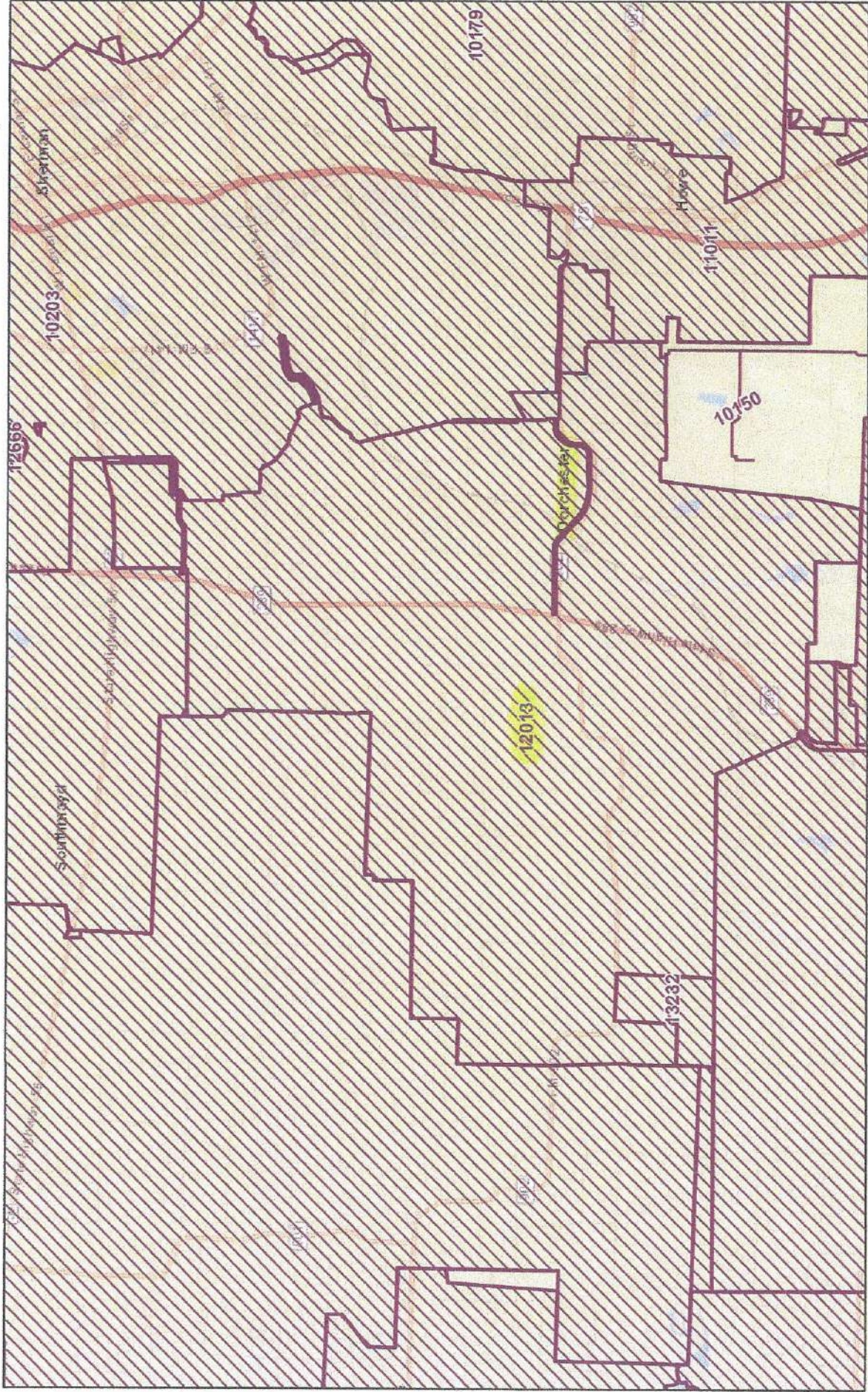
Reporting Period (calendar year):

Period Begin (mm/yyyy) _____ Period End (mm/yyyy) _____

Check all of the following that apply to your entity:

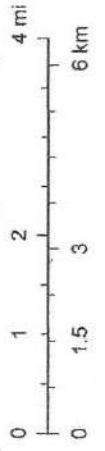
- Receive financial assistance of \$500,000 or more from TWDB
- Have 3,300 or more retail connections
- Have a water right with TCEQ

Public Utility Commission



August 26, 2021

1:144,448



Esri, HERE, Garmin, NGA, USGS, NPS

GENERAL DESCRIPTION OF SYSTEM

EXISTING FACILITIES

Currently the City of Dorchester provides water service to approximately 610 connections with purchased groundwater from the City of Sherman, one (1) City owned groundwater well, one (1) pump station, and one (1) elevated storage tank.

Water Sources: (Maximum Capacity – 658 Connections)

Groundwater Purchased from City of Sherman – 125 GPM – Max. Cap. 208 Conn.

City Owned Groundwater Well – 270 GPM – Max. Cap. 450 Conn.

Pressure Maintenance Facilities: (Maximum Capacity – 1,710 Connections)

Pump Station Site – High Service Pump Capacity – 800 GPM – Max. Cap. 1,333 Conn.

Pressure Tanks – One (1) 10,000 Gal. & One (1) 7,000 Gal. – Max. Cap. 850 Conn.

Storage Tanks – One (1) 110,000 Gal. & One (1) 32,000 Gal. – Max. Cap. 1,710 Conn.

Elevated Storage Tank – One (1) 200,000 Gal. – Max. Cap. 2,000 Conn.

Based on the above existing infrastructure, the existing water system is limited to a capacity of 658 connections based on water supply and limited to 1,710 connections based on pressure maintenance. Therefore, the City of Dorchester is currently operating at approximately 93% of its maximum water supply capacity.

SYSTEM DATA

Retail Customer Categories*

- Residential Single Family
- Residential Multi-family
- Industrial
- Commercial
- Institutional
- Agricultural

**Recommended Customer Categories for classifying your customer water use. For definitions, refer to [Guidance and Methodology on Water Conservation and Water Use](#).*

1. For this reporting period, select the category(s) used to classify customer water use:

- | | |
|--|--|
| <input type="checkbox"/> Residential Single Family | <input type="checkbox"/> Commercial |
| <input type="checkbox"/> Residential Multi-family | <input type="checkbox"/> Institutional |
| <input type="checkbox"/> Industrial | <input type="checkbox"/> Agricultural |

2. For this reporting period, enter the number of connections for and the gallons of **metered retail water** used by each category. If the Customer Category does not apply, enter zero or leave blank. These numbers should be the same as those reported on the Water Use Survey.

Retail Customer Category	Number of Connections	Gallons Metered
Residential Single Family		
Residential Multi-family		
Institutional		
Commercial		
Industrial		
Agricultural		
Total Retail Water Metered¹	0	0

1. Residential + Industrial + Commercial + Institutional + Agricultural = Total Retail Water Metered

Water Use Accounting

	Total Gallons During the Reporting Period
Corrected Input Volume: The volume of treated water input to the distribution system from own production facilities. <i>Same as Line 13b of the Water Loss Audit.</i>	
Corrected Treated Purchased Water Volume: The amount of treated purchased wholesale water transferred into the utility's distribution system from other water suppliers system. <i>Same as Line 14b of the Water Loss Audit.</i>	
Corrected Treated Wholesale Water Sales Volume: The amount of treated wholesale water transferred out of the utility's distribution system, although it may be in the system for a brief time for conveyance reasons. <i>Same as Line 15b of the Water Loss Audit.</i>	
Total System Input Volume: This is the sum of the corrected input volume plus corrected treated purchased water volume minus corrected treated wholesale water sales volume. <i>Same as Line 16 of the Water Loss Audit.</i>	0 <small>Produced + Imported - Exported = System Input</small>
Billed Metered: All retail water sold and metered. <i>Same as Line 17 of the Water Loss Audit (Calculated from values entered on Page 2).</i>	0
Other Authorized Consumption: Water that is authorized for other uses such as back flushing, line flushing, storage tank cleaning, fire department use, municipal government offices or municipal golf courses/parks. This water may be metered or unmetered. <i>Same as the total of Lines 18, 19, and 20 of the water loss audit.</i>	
Total Authorized Consumption: All water that has been authorized for use. <i>Same as Line 21 of Water Loss Audit</i>	0 <small>Total Billed and Metered Retail Water + Other Authorized Consumption = Total Authorized Use</small>
Total Apparent Losses: Water that has been consumed but not properly measured or billed (losses due to customer meter inaccuracy, systematic data handling discrepancy and/or unauthorized consumption such as theft). <i>Same as Line 27 of the Water Loss Audit.</i>	
Total Real Losses: Physical losses from the distribution system prior to reaching the customer destination (losses due to reported breaks and leaks, physical losses from system or mains and/or storage overflow). <i>Same as line 30 of the water loss audit.</i>	
Total Water Loss	0 <small>Apparent + Real = Total Water Loss</small>

Targets and Goals

Provide the **specific and quantified five and ten-year targets** as listed in your current Water Conservation Plan. Target dates and numbers should match your current Water Conservation Plan.

Achieve Date	Target for Total GPCD	Target for Residential GPCD	Target for Water Loss (expressed in GPCD)	Target for Water Loss Percentage (expressed in percentage)
Five-year target date: _____				
Ten-year target date: _____				

Gallons per Capita per Day (GPCD) and Water Loss

Provide current GPCD and water loss totals. To see if you are making progress towards your stated goals, compare these totals to the above targets and goals. Provide the population and residential water use of your service area.

Total System Input in Gallons	Permanent Population ¹	Total GPCD
0 Water Produced + Wholesale Imported - Wholesale Exported		(System Input ÷ Permanent Population) ÷ 365

1. Permanent Population is the total permanent population of the service area, including single family, multi-family, and group quarter populations.

Residential Use in Gallons (Single Family + Multi-family)	Residential Population ²	Residential GPCD
0		(Residential Use ÷ Residential Population) ÷ 365

2. Residential Population is the total residential population of the service area, including only single family and multi-family populations.

Total Water Loss in Gallons	Permanent Population	Water Loss	
		GPCD ³	Percent ⁴
0 Apparent + Real = Total Water Loss			

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

4. (Total Water Loss ÷ Total System Input) × 100 = Water Loss Percentage

Water Conservation Programs and Activities

As you complete this section, review your utility's water conservation plan to see if you are making progress towards meeting your stated goals.

1. What year did your entity adopt or revise the most recent Water Conservation Plan? _____
2. Does the Plan incorporate Best Management Practices? Yes No
3. Using the table below, select the types of Best Management Practices or water conservation and reuse strategies actively administered during this reporting period and estimate the savings incurred in implementing water conservation and reuse activities and programs. Leave fields blank if unknown. **Please separate reuse volumes from gallons saved.**

Methods and techniques for determining gallons saved are unique to each utility as they conduct internal effective cost analyses and long-term financial planning. Texas Best Management Practices can be found at TWDB's [Water Conservation Best Management Practices webpage](#). The [Alliance for Water Efficiency Water Conservation Tracking Tool](#) may offer guidance on determining and calculating savings for individual BMPs.

Best Management Practice	Check if Implemented	Estimated Gallons Saved	Estimated Gallons Reused
Conservation Analysis and Planning			
Conservation Coordinator	<input type="checkbox"/>		
Cost Effective Analysis	<input type="checkbox"/>		
Water Survey for Single Family and Multi-family Customers	<input type="checkbox"/>		
Financial			
Wholesale Agency Assistance Programs	<input type="checkbox"/>		
Water Conservation Pricing	<input type="checkbox"/>		
System Operations			
Metering New Connections and Retrofitting Existing Connections	<input type="checkbox"/>		
System Water Audit and Loss Control	<input type="checkbox"/>		
Landscaping			
Landscape Irrigation Conservation and Incentives	<input type="checkbox"/>		
Athletic Fields Conservation	<input type="checkbox"/>		
Golf Course Conservation	<input type="checkbox"/>		
Park Conservation	<input type="checkbox"/>		
Residential Landscape Irrigation Evaluation	<input type="checkbox"/>		
Education and Public Awareness			
School Education	<input type="checkbox"/>		
Public Information	<input type="checkbox"/>		
Small Utility Outreach and Education	<input type="checkbox"/>		
Partnerships with Nonprofit Organizations	<input type="checkbox"/>		
Rebate, Retrofit, and Incentive Programs			
Conservation Programs for ICI Accounts	<input type="checkbox"/>		

Residential Clothes Washer Incentive Program	<input type="checkbox"/>		
Water Wise Landscape Design and Conversion Programs	<input type="checkbox"/>		
Showerhead, Aerator, and Toilet Flapper Retrofit	<input type="checkbox"/>		
Residential Toilet Replacement Programs	<input type="checkbox"/>		
ICI Incentive Programs	<input type="checkbox"/>		
Conservation Technology & Reuse			
New Construction Graywater	<input type="checkbox"/>		
Rainwater Harvesting and Condensate Reuse	<input type="checkbox"/>		
Reuse for On-site Irrigation	<input type="checkbox"/>		
Reuse for Plant Washdown	<input type="checkbox"/>		
Reuse for Chlorination/Dechlorination	<input type="checkbox"/>		
Reuse for Industry	<input type="checkbox"/>		
Reuse for Agriculture	<input type="checkbox"/>		
Regulatory and Enforcement			
Prohibition on Wasting Water	<input type="checkbox"/>		
Other, please describe:			
Total Volumes		0	0

4. For this reporting period, estimate the savings from water conservation activities and programs.

Gallons Saved/Conserved	Gallons Recycled/Reused	Total Volume of Water Saved ⁵	Dollar Value of Water Saved ⁶
0	0	0	

5. Estimated Gallons Saved/Conserved + Estimated Gallons Recycled/Reused = Total Volume Saved
 6. Estimate this value by taking into account water savings, the cost of treatment or purchase of water, and deferred capital costs due to conservation.

Comments or Explanations Regarding Data Entered in Sections Above

6. During this reporting period, did your rates or rate structure change? Yes No

Select the type of rate pricing structures used. Check all that apply.

<input type="checkbox"/>	Uniform Rates	<input type="checkbox"/>	Water Budget Based Rates	<input type="checkbox"/>	Surcharge - seasonal
<input type="checkbox"/>	Flat Rates	<input type="checkbox"/>	Excess Use Rates	<input type="checkbox"/>	Surcharge - drought
<input type="checkbox"/>	Inclining/Inverted Block Rates	<input type="checkbox"/>	Drought Demand Rates	<input type="checkbox"/>	Other, please describe:
<input type="checkbox"/>	Declining Block Rates	<input type="checkbox"/>	Tailored Rates		
<input type="checkbox"/>	Seasonal Rates	<input type="checkbox"/>	Surcharge - usage demand		

7. For this reporting period, select the public awareness or educational activities used.

	Implemented	Number/Unit
<i>Example: Brochures Distributed</i>	√	<i>10,000/year</i>
<i>Example: Educational School Programs</i>	√	<i>50 students/month</i>
Brochures Distributed	<input type="checkbox"/>	_____
Messages Provided on Utility Bills	<input type="checkbox"/>	_____
Press Releases	<input type="checkbox"/>	_____
TV Public Service Announcements	<input type="checkbox"/>	_____
Radio Public Service Announcements	<input type="checkbox"/>	_____
Educational School Programs	<input type="checkbox"/>	_____
Displays, Exhibits, and Presentations	<input type="checkbox"/>	_____
Community Events	<input type="checkbox"/>	_____
Social Media campaigns	<input type="checkbox"/>	_____
Facility Tours	<input type="checkbox"/>	_____
Other :	<input type="checkbox"/>	_____

Leak Detection and Water Loss

1. During this reporting period, how many leaks were repaired in the system or at service connections? _____

Select the main cause(s) of water loss in your system.

- Leaks and breaks
- Un-metered utility or city uses
- Master meter problems
- Customer meter problems
- Record and data problems
- Other: _____
- Other: _____

2. For this reporting period, provide the following information regarding meter repair:

Type of Meter	Total Number	Total Tested	Total Repaired	Total Replaced
Production Meters				
Meters larger than 1 1/2"				
Meters 1 1/2" or smaller				

3. Does your system have automated meter reading? Yes No

Program Effectiveness and Drought

1. In your opinion, how would you rank the effectiveness of your conservation activities?

Customer Classification	Less Than Effective	Somewhat Effective	Highly Effective	Does Not Apply
Residential Customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Industrial Customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Institutional Customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Commercial Customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Agricultural Customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

2. During the reporting period, did you implement your Drought Contingency Plan?

Yes No

If yes, how many days were water use restrictions in effect? _____

If yes, check the reason(s) for implementing your Drought Contingency Plan.

- | | |
|---|---|
| <input type="checkbox"/> Water Supply Shortage
<input type="checkbox"/> High Seasonal Demand
<input type="checkbox"/> Capacity Issues | <input type="checkbox"/> Equipment Failure
<input type="checkbox"/> Impaired Infrastructure
<input type="checkbox"/> Other: |
|---|---|

3. Select the areas for which you would like to receive more technical assistance:

- | | |
|---|---|
| <input type="checkbox"/> Best Management Practices
<input type="checkbox"/> Drought Contingency Plans
<input type="checkbox"/> Landscape Irrigation
<input type="checkbox"/> Leak Detection and Equipment
<input type="checkbox"/> Rainwater Harvesting
<input type="checkbox"/> Rate Structures | <input type="checkbox"/> Educational Resources
<input type="checkbox"/> Water Conservation Annual Reports
<input type="checkbox"/> Water Conservation Plans
<input type="checkbox"/> Water IQ: Know Your Water
<input type="checkbox"/> Water Loss Audits
<input type="checkbox"/> Recycling and Reuse |
|---|---|

SUBMIT

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Ordinance No. 2201

**AN ORDINANCE ADOPTING A WATER CONSERVATION PLAN FOR THE CITY OF
DORCHESTER, TEXAS TO PROMOTE THE RESPONSIBLE USE OF WATER**

WHEREAS, the City of Dorchester, Texas ("City") recognizes that the amount of water available to its water customers is limited; and

WHEREAS, the City recognizes that due to natural limitations, drought conditions, system failures, and other acts of God that may occur, the City cannot guarantee an uninterrupted water supply for all purposes at all times; and

WHEREAS, the City has applied for funding through the Texas Water Development Board; and

WHEREAS, the Texas Water Development Board requires entities obtaining funding in the amount of Five Hundred Thousand Dollars (\$500,000) and greater adopt a Water Conservation Plan; and

WHEREAS, the City has determined it is in the best interest of the public to adopt a Water Conservation Plan; and

WHEREAS, pursuant to Chapter 54 of the Local Government Code, the City is authorized to adopt such policies necessary to preserve and conserve its water resources; and

WHEREAS, the City Council of the City of Dorchester, Texas desires to adopt the attached Water Conservation Plan as official City policy for the conservation of water.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF DORCHESTER, TEXAS THAT:

SECTION 1: The City Council hereby approves and adopts the Water Conservation Plan (the "Plan"), attached hereto as Appendix A, as if recited verbatim herein. The City commits to implement the requirements and procedures set forth in the adopted Plan.

SECTION 2: The City Council does hereby find and declare that sufficient written notice of the date, hour, place and subject of the meeting adopting this Ordinance was posted at a designated place convenient to the public for the time required by law preceding the meeting, that such place of posting was readily accessible at all times to the general public, and that all of the foregoing was done as required by law at all times during which this Ordinance and the subject matter thereof has been discussed, considered and formally acted upon. The City Council further ratifies, approves and confirms such written notice and the posting thereof.

SECTION 3: Should any paragraph, sentence, clause, phrase or word of this Ordinance be declared unconstitutional or invalid for any reason, the remainder of this Ordinance shall not be affected.

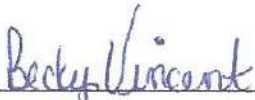
SECTION 4: The City Secretary is hereby authorized and directed to cause publication of the descriptive caption of this Ordinance as an alternative method of publication provided by law.

PASSED AND APPROVED by the City Council on this the 10th day of January, ~~2017~~ ²⁰¹⁸.



Mayor
City of Dorchester, Texas

ATTEST:



City Secretary
City of Dorchester, Texas

Ordinance No. 1202

AN ORDINANCE PERTAINING TO ILLEGAL WATER CONNECTIONS AND/OR THE THEFT OF WATER RELATED TO THE WATER SUPPLY FOR THE CITY OF DORCHESTER, TEXAS.

WHEREAS, the City of Dorchester, Texas (the "City") recognizes that the amount of water available to its water customers is limited; and

WHEREAS, pursuant to Chapter 54 of the Local Government Code, the City is authorized to adopt such policies necessary to preserve and conserve available water supplies; and

WHEREAS, the City seeks to adopt an ordinance pertaining to illegal water connections and theft of water.

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF DORCHESTER THAT:

Section 1. The City Council hereby approves and adopts this Ordinance as described herein.

Section 2. A person commits an offense of theft of water by any of the following actions:

(a) A person may not knowingly tamper, connect to, or alter any component of the City's water system including valves, meters, meter boxes, lids, hydrants, lines, pump stations, ground storage tanks, and elevated storage tanks. This shall include direct or indirect efforts to initiate or restore water service without the approval of the City.

(b) If, without the written consent of the City Manager or the City Manager's designee, the person knowingly causes, suffers or allows the initiation or restoration of water service to the property after termination of service(s). For purposes of this section, it shall be assumed that the owner, occupant, or person in control of the property caused, suffered, or allowed the unlawful initiation or restoration of service(s).

(c) A person may not knowingly make or cause a false report to be made to the City of a reading of a water meter installed for metered billing.

(d) A person commits a separate offense each day that the person performs an act prohibited by this section or fails to perform an act required by this section.

Section 3. An offense under this Ordinance is a Class C misdemeanor punishable by a fine of up to Five hundred dollars (\$ 500.00) and/or discontinuance of water service by the City.

Section 4. The City Council does hereby find and declare that sufficient written notice of the date, hour, place and subject of the meeting considering this Ordinance was posted at a designated place convenient to the public for the time required by law preceding the meeting, that such place of posting was readily accessible at all times to the general public, and that all of the foregoing was done as required by law at all times during which this Ordinance, and the subject matter thereof, has been discussed, considered and formally acted upon. The City Council further ratifies, approves and confirms such written notice and the posting thereof.

Section 5. Should any paragraph, sentence, clause, phrase or word of this Ordinance be declared

unconstitutional or invalid for any reason, the remainder of this Ordinance shall not be affected.

Section 6. The City Secretary is hereby authorized and directed to cause publication of the descriptive caption of this ordinance as an alternative method of publication provided by law.

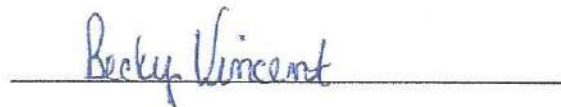
Section 7. {If Applicable} Ordinance No. _____, adopted on _____, is hereby repealed.

Passed by the City Council on this 10th day of Jan, 2022.



Mayor

Attest:



City Secretary