Lindale Rural WSC

WATER CONSERVATION and DROUGHT CONTINGENCY PLAN
January 2019

1. INTRODUCTION AND OBJECTIVES

Lindale Rural WSC is located in Smith County and services an area surrounding the the City of Lindale, Texas. A CCN map is included in Appendix A. Lindale Rural WSC produces water from eleven water wells. The water wells range in production from 110 gpm to 1,080 gpm. The water wells utilize the Carrizo-Wilcox formation. In recent years increasing population and development have led to growing demands for water. Additional supplies to meet higher demands will be expensive. Therefore it is important that we make efficient use of existing supplies and make them last as long as possible. 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 and drought contingency plans for public water suppliers. The Lindale Rural WSC has adopted this water conservation and drought contingency plan pursuant to TCEQ guidelines and requirements. The resolution adopting the plan is included in Appendix B.

The objectives of the water conservation plan are:

- To reduce water consumption
- To reduce the loss and waste of water
- To identify the level of water reuse
- To improve efficiency in the use of water
- To extend the life of current water supplies by reducing the rate of growth and demand

The objectives of the drought contingency plan are:

- To conserve the available water supply in times of drought and emergency
- To maintain supplies for domestic water use, sanitation, and fire protection
- To protect and preserve public health, welfare and safety
- To minimize the adverse impacts of water supply shortages
- To minimize the adverse impacts of emergency water supply conditions

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"A strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, for increasing the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

According to TCEQ rules, water conservation plans for public water suppliers must have a certain minimum content (Section 3), and must have additional content for public water suppliers that are projected to supply 5,000 or more people in the next ten years (Section 4), and may have additional optional content (Section 5).

2.2 Drought Contingency Plans

The TCEQ rules governing development of drought contingency plans for public water suppliers are contained in Title 30, Part 1, Chapter 288, Subchapter B, Rule 288.20 of the Texas Administrative Code. For the purpose of these rules, a drought contingency plan is defined as:

"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)."[2]

The drought contingency plan for the Lindale Rural WSC is contained in Section 6 of this water conservation and drought contingency plan.

3. MINIMUM REQUIRED WATER CONSERVATION PLAN CONTENT

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

- §228.2(a)(1)(A) - Utility Profile - Section 3.1
- §228.2(a)(1)(B) - Specification of Goals After 2010 - Section 3.2
- §228.2(a)(1)(C) - Accurate Metering - Sections 3.3 and 3.4
- §228.2(a)(1)(D) - Universal Metering - Section 3.4
- §228.2(a)(1)(E) - Determination and Control of Unaccounted Water - Section 3.5
- §228.2(a)(1)(F) - Public Education and Information Program - Section 3.6
- §228.2(a)(1)(G) - Non-Promotional Water Rate Structure - Section 3.7
- §228.2(a)(1)(H) - Reservoir System Operation Plan - Section 3.8
- §228.2(a)(1)(I) - Means of Implementing and Enforcement - Section 3.9
- §228.2(a)(1)(J) - Coordination with Regional Water Planning Group - Section 3.10

3.1 Utility Profile

Appendix C to this water conservation plan is a water utility profile for the Lindale Rural WSC based on the format recommended by the TCEQ, supplemented with information required by the Texas Water Development Board.

3.2 Specification of Water Conservation Goals

Municipal water use is calculated as total use less wholesale sales to other municipal suppliers less sales to industrial users. Per capita municipal water use is municipal water use divided by population. The per capita municipal water use does not include industrial use. The Lindale Rural WSC's water conservation goals include the following:

- Maintain 2018 per capita municipal water use of 220 gpcd or less (5-year target)
- Maintain 2028 per capita municipal water use of 222 gpcd or less (10-year target)
- Keep the level of water loss in the system less than 10 percent in 2015 and subsequent years (Section 3.5).
- Keep the level of water loss in the system less than 9 percent in 2020 and subsequent years.
- Raise public awareness of water conservation and encourage responsible public behavior though a public education and information program as discussed in Section 3.6.

3.3 Accurate Metering of Treated Water Supplies

The Lindale Rural WSC meters all treated water deliveries to the distribution system.

Each meter has an accuracy of plus or minus three percent. The supply meters are calibrated on an annual basis by the Lindale Rural WSC to maintain the required accuracy and are repaired and/or replaced as needed.

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

Water usage for all customers of the Lindale Rural WSC, including public and governmental users, is metered. As part of this water conservation plan the Lindale Rural WSC maintains a meter replacement program for any meters with questionable accuracy. The Lindale Rural WSC 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 full functionality.

3.5 Determination and Control of Water Loss

Water loss is the difference between water produced and metered deliveries to customers. (This includes authorized but un-metered uses such as fire fighting and releases for flushing of lines.) Water loss can include several categories:

- Losses due to water main breaks and leaks in the water distribution system.
- Losses due to illegal connections.
- Inaccuracies in customer meters.

The Lindale Rural WSC will conduct an annual water audit, dividing water losses into apparent losses and real losses. Apparent water losses include water that was actually used but not accounted for, such as customer meter errors or theft. Accounting for apparent losses increases the utility revenue but does not reduce water usage. Real losses include leakage and thefts. Identifying and preventing real losses decreases a utility's costs and decreases water usage. The WSC will target real losses under this conservation strategy.

With the measures described in this plan, the Lindale Rural WSC intends to maintain the unaccounted water below 10 percent. If unaccounted water exceeds this goal, the Lindale Rural WSC will implement a more intensive audit to determine the source(s) of water loss and reduce the unaccounted water.

3.6 Continuing Public Education and Information Campaign

The continuing public education and information campaign on water conservation for the Lindale Rural WSC includes the following elements: Promote the water conservation measures (presented in Sections 3, 4 and 5).

- Include inserts on water conservation with water bills or mail outs at least annually. Inserts and mail outs will include material developed by the Lindale Rural WSC staff and material obtained from the Texas Water Development

Board (TWDB), the TCEQ, and other sources. An example mail out entitled Water Saving Methods is included as Appendix D.

- Encourage local media coverage of water conservation issues and the importance of water conservation.
- Make the *Texas Smartscape* CD links, water conservation brochures, and other water conservation materials available to the public.

3.7 Non-Promotional Water Rate Structure

With the intent of encouraging water conservation and discouraging waste and excessive use of water the Lindale Rural WSC will review its current by laws and resolutions and will adopt, if necessary, an increasing block rate water structure where the unit price of water increases with increasing water use.

3.8 Reservoir System Operation Plan

The Lindale Rural WSC does not own or operate a reservoir.

3.9 Implementation and Enforcement of the Water Conservation Plan

The Water Conservation and Drought Contingency Plan resolution provides for the implementation and enforcement of the adopted plan.

3.10 Coordination with Regional Water Planning Group

The Lindale Rural WSC service area is located within Regions D and I. Region D is the North East Texas region. Region I is the East Texas region. Coordination with the Regional Water Planning Groups will occur by formal submittal of the adopted plan. A letter submitting the plan to the Regional Water Planning Group shall be included in the final Water Conservation and Drought Contingency Plan and is included in Appendix E.

4. ADDITIONAL REQUIRED WATER CONSERVATION PLAN CONTENT

4.1 Leak Detection and Repair

Measures to control water loss are part of the routine operations of the Lindale Rural WSC. Meter readers watch for and report signs of illegal connections so they can be addressed quickly. Crews and personnel look for and report evidence of leaks in the water distribution system. Maintenance crews respond quickly to repair leaks reported by the public and personnel. Areas of the water distribution system in which numerous leaks and line breaks occur are targeted for replacement as funds are available.

To reduce real water losses the Lindale Rural WSC will maintain a proactive water loss program. As part of this program, the WSC will utilize, to the best of its ability, the following actions:

- Conduct regular inspections of all water main fittings and connections.
- Randomly monitor night-flows at the storage and pump station.
- Limit surges in pressure.

4.2 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 Lindale Rural WSC records water pumped, water delivered, and water sold; estimates for water losses and allows for the separation of water sales and uses into residential, commercial, public/institutional and industrial categories. This information will be included in an annual conservation report as described in Section 5.3 below.

4.3 Requirement for Water Conservation Plans by Wholesale Customers

Currently the Lindale Rural WSC does not have any wholesale water customers. Future wholesale water customers of the Lindale Rural WSC will be required to 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. This requirement will also be extended to each successive wholesale customer in the resale of water.

5.0 OPTIONAL WATER CONSERVATION PLAN CONTENT

TCEQ rules also list optional (not required) conservation strategies, which may be adopted by suppliers to achieve the stated goals of the plan. The following optional strategies are listed in the rules and included in this plan:

- §288.2(a)(3)(B) – Ordinances, Plumbing Codes or Rules on Water-Conserving Fixtures – Section 5.1
- §288.2(a)(3)(D) – Reuse and Recycling of Wastewater – Section 5.2
- §288.2(a)(3)(G) – Monitoring Method – Section 5.3

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

The City of Lindale adopted the 2006 International Plumbing Code. Lindale Rural WSC will adopt the same standards. Similar standards are also required under federal law. These state and federal standards assure that all new construction and renovations in the Lindale Rural WSC area will use water-conserving fixtures.

5.2 Reuse and Recycling of Wastewater

The Lindale Rural WSC serves a rural area where residences use individual on-site treatment units. At this time it is not economically feasible to justify a wastewater collection and treatment system followed by a separate recycled water treatment and distribution system.

5.3 Monitoring of Effectiveness and Efficiency – Annual Conservation Report

An annual conservation report for the Lindale Rural WSC will be developed for the preceding calendar year and will be used by the Lindale Rural WSC to monitor the effectiveness and efficiency of the water conservation program and to plan conservation-related activities for the next year. The form records the water use by category, per capita municipal use, and water loss for the current year and compares them to historical values.

5.4 Schedule for Implementing the Plan to Achieve Targets and Goals

The Lindale Rural WSC staff shall strive to adhere to the following schedule:

- The Lindale Rural WSC meter replacement program is as follows:
  - Meters will continue to be monitored for accuracy and replaced on an as needed basis.
- Water audits are conducted annually.
  - Real water losses are identified and corrected.
  - Real water losses are minimized by replacement of deteriorating water mains and appurtenances.

- The Lindale Rural WSC will mail out material developed by the Lindale Rural WSC, materials obtained from the TWDB, TCEQ, or other sources semi-annually to all customers.
- Water conserving pricing:
    - The Lindale Rural WSC will review rates in 2018 and determine any changes necessary to the rate structure.
    - The Lindale Rural WSC will continue to review rates annually to insure water revenues exceed expenses and replacement costs and to discourage excessive and wasteful use.
- The leak detection program described in Paragraph 4.1 is currently in use by the Lindale Rural WSC, which reduces real water losses.
    - Inspections of all water main fittings and connections are conducted semi-annually.
    - Intermittent night-flow measurements will be conducted annually.
- The Lindale Rural WSC will adopt the 2006 International Plumbing Code, and all new construction or renovations in the service area use water conserving fixtures.

5.5 Tracking Targets and Goals

The Lindale Rural WSC staff shall track targets and goals as follows:

- Logs shall be maintained for meter calibration, meter testing, and meter replacement programs.
- Annual water audits shall be documented and kept in the Lindale Rural WSC files.
- Staff shall keep a record of the number of mail-outs distributed semi-annually.
- Logs shall be maintained for the WSC's Leak Detection Program, including but not limited to the following:
    - Semi-annual inspections of primary water main fittings and connections.
    - Annual intermittent night-flow measurements.

6. DROUGHT CONTINGENCY PLAN

6.1 Introduction

The purpose of this drought contingency plan is as follows:

- To conserve the available water supply in times of drought and emergency.
- To maintain supplies for domestic water use, sanitation, and fire protection.
- To protect and preserve public health, welfare, and safety.
- To minimize the adverse impacts of water supply shortages.
- To minimize the adverse impacts of emergency water supply conditions.

6.2 State Requirements for Drought Contingency Plans

This drought contingency plan is consistent with the Texas Commission on Environmental Quality (TCEQ) guidelines and requirements for development of drought contingency plans by public drinking water suppliers, contained in Title 30, Part 1, Chapter 288, Subchapter B, Rule 288.20 of the Texas Administrative Code.

TCEQ's minimum requirements for drought contingency plans are addressed in the following subsections of this report:

- 288.20(a)(1)(A) - Provisions to Inform the Public and Provide Opportunity for Public Input - Section 6.3
- 288.20(a)(1)(B) - Provisions for Continuing Public Education and Information - Section 6.4
- 288.20(a)(1)(C) - Coordination with Regional Water Planning Group - Section 6.9
- 288.20(a)(l)(D) - Criteria for Initiation and Termination of Drought Stages - Section 6.5
- 288.20(0(1)(E) - Drought and Emergency Response Stages - Section 6.6
- 288.20(a)(1)(F) - Specific, Quantified Targets for Water Use Reductions - Section 6.6
- 288.20(a)(1)(G) - Water Supply and Demand Management Measures for Each Stage - Section 6.6
- 288.20(a)(1)(H) - Procedures for Initiation and Termination of Drought Stages - Section 6.6
- 288.20(a)(1)(I) - Procedures for Granting Variances - Section 6,7
- 288.20(a)(l)(J) - Procedures for Enforcement of Mandatory Restrictions -- Section 6.8
- 288.20(a)(3) - Consultation with Wholesale Supplier - Not applicable.
- 288.20(b) - Notification of Implementation of Mandatory Measures - Section 6.6
- 288.20(c) - Review and Update of Plan - Section 6.1

6.3 Provisions to Inform the Public and Opportunity for Public Input

The Lindale Rural WSC shall provide opportunity for public input in the development of the final version of this drought contingency plan by the following means:

- Providing written notice of the proposed plan and the opportunity to comment on the plan by posted notice.
- Providing the draft plan to anyone requesting a copy.
- Holding a public meeting at a public place.

6.4 Provisions for Continuing Public Education and Information

The Lindale Rural WSC will inform and educate the public about its drought contingency plan by the following means:

- Preparing a bulletin describing the plan and making it available at the court house or other appropriate locations.
- Notifying local organizations, schools, and civic groups that Lindale Rural WSC staff members are available to make presentations on the drought contingency plan.

At any time that the drought contingency plan is activated or the drought stage changes, the Lindale Rural WSC will notify local media of the issues, the drought response stage, and the specific actions required of the public. Billing inserts and mail outs will also be used as appropriate.

6.5 Initiation and Termination of Drought Response Stages

6.5.1 Initiation of Drought Response Stages

The board president or his/her official designee may order the implementation of a drought response stage or water emergency when one or more of the trigger conditions for that stage is met. The following actions will be taken when a drought stage is initiated:

- The public will be notified though local media.
- Wholesale customers will be notified by telephone with a follow-up letter or fax.
- If any mandatory provisions of the drought contingency plan are activated, the Lindale Rural WSC will notify the Executive Director of the TCEQ within five business days.

For other trigger conditions, the president or his/her designee may decide not to order the implementation of a drought response stage or water emergency even though one or more of the trigger criteria for the stage are met. Factors that could influence such a

decision include, but are not limited to, the time of the year, weather conditions, the anticipation of replenished water supplies, or the anticipation that additional facilities will become available to meet needs.

6.5.2 Termination of Drought Response Stages

The president or official designee may order the termination of a drought response stage or water emergency when the conditions for termination are met or at his/her discretion. The following actions will be taken when a drought stage is terminated:

- The public will be notified through local media.
- Wholesale customers will be notified by telephone with a follow-up letter or fax.
- When any mandatory provisions of the drought contingency plan that have been activated are terminated, the Lindale Rural WSC will notify the Executive Director of the TCEQ within five business days.

The president or his/her designee may decide not to order the termination of a drought response stage or water emergency even though the conditions for termination of the stage are met. Factors that could influence such a decision include, but are not limited to, the time of the year, weather conditions, or the anticipation of potential changed conditions that warrant the continuation of the drought stage.

6.6 Drought and Emergency Response Stages

6.6.1 Stage 1, Mild

6.6.1.1 Triggering and Termination Conditions for Stage 1, Mild

- Demand exceeds 90% of the amount that can be delivered to customers for seven consecutive days.
- Water demand for all or part of the delivery system approaches delivery capacity because delivery capacity is inadequate.
- Supply source becomes contaminated.
- Water supply system is unable to deliver water due to the failure or damage of major water system components.
- Water demand is approaching the limit of the water well capacity.

Stage 1 is terminated when the circumstances that caused initiation no longer prevail.

6.6.1.2 Goal for Use Reductions and Actions Available Under Stage 1, Mild

The goal for water use reduction under Stage 1, Mild is a 10 percent reduction of the average use for the preceding seven days. The purpose of actions under Stage

1, Mild is to raise public awareness of potential drought problems. The president or his/her designee can order the implementation of any of the actions listed below, as deemed necessary:

- Request voluntary reductions in water use by the public. The public will be notified by publication in the local newspaper and/or radio and TV broadcast.
- Increase public education efforts on ways to reduce water use.
- Review the problems that caused the initiation of Stage 1.
- Notify major water users and work with them to achieve voluntary water use reductions.
- Intensify efforts on leak detection and repair.
- Reduce non-essential water use including vehicle washing.
- Request water customers to voluntarily abide by a watering schedule to limit the irrigation of landscaped areas to between the hours of 4:00 a.m. and 6:00 a.m. and 10:00 p.m. and 12:00 midnight. The following schedule is recommended for implementation; however, an alternate schedule may be used if it is found to be more effective:
  - Customers with street addresses ending in an even number (0, 2, 4, 6, or 8): Sundays and Thursdays.
  - Customers with street addresses ending in an odd number (1, 3, 5, 7, or 9): Saturdays and Tuesdays.

6.6.2 Stage 2, Moderate

6.6.2.1 Triggering and Termination Conditions for Stage 2 - Moderate

- Demand exceeds 95% of the amount that can be delivered to customers for three consecutive days.
- Water demand for all or part of the delivery system equals delivery capacity because delivery capacity is inadequate.
- Supply source becomes contaminated.
- Water supply system is unable to deliver water due to the failure or damage of major water system components.
- Water demand is approaching the limit of the water well capacity.

Stage 2 can terminate when the circumstances that caused the initiation of Stage 2 no longer prevail. Stage 1 becomes operative on termination of Stage 2.

6.6.2.2 Goal for Use Reduction and Actions Available Under Stage 2, Moderate

The goal for water use reduction under Stage 2, Moderate is a 15 percent reduction of the average use for the preceding seven days. The president or his/her designee can order the implementation of any of the actions listed below,

as deemed necessary:

- All restrictions of Stage 1 shall remain in effect during Stage 2.
- The WSC will implement the policy of no swimming pool refilling or car washing.
- Initiate engineering studies to evaluate alternatives should conditions worsen.
- Further accelerate public education efforts on ways to reduce water use.
- **Requires Notification to TCEQ** - Limit landscape watering at each service address to once every five days based on the last digit of the address. (Exceptions: foundations, new plantings (first year) of trees and shrubs may be watered for up to two hours on any day by a hand-held hose or a soaker hose. Restrictions do not apply to locations using treated wastewater effluent for irrigation). A mandatory lawn-watering schedule shall be imposed. The following schedule is recommended for implementation; however, an alternate schedule may be used if it is found to be more effective:
  - Customers with street addresses ending in an even number (0, 2, 4, 6, or 8): Sundays and Thursdays.
  - Customers with street addresses ending in an odd number (1, 3, 5, 7, or 9): Saturdays and Tuesdays.

  Irrigation of landscaped areas is limited to the hours of 4:00 a.m. until 6:00 a.m. and between 10:00 p.m. and 12:00 midnight on designated watering days.
- **Requires Notification to TCEQ** - Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is prohibited except on designated watering days between the hours of 4:00 a.m. and 6:00 a.m. and between 10:00 p.m. and 12:00 midnight. Such washing, when allowed, shall be done with a hand-held bucket or a hand-held hose equipped with a positive shutoff nozzle for quick rinses. Vehicle washing may be done at anytime on the immediate premises of a commercial car wash or commercial service station. Further, such washing may be exempted from these regulations if the health, safety, and welfare of the public are contingent upon frequent vehicle cleansing, such as garbage trucks and vehicles used to transport food and perishables.
- **Requires Notification to TCEQ** - Use of water to fill, refill, or add to any indoor or outdoor swimming pools, wading pools, or jacuzzi-type pools is prohibited except on designated watering days between the hours of 4:00 a.m. and 6:00 a.m. and between 10:00 p.m. and 12:00 midnight.
- **Requires Notification to TCEQ** - Use of water from hydrants shall be limited to fire fighting, related activities, or other activities necessary to maintain public health, safety, and welfare, except that use of water from designated fire hydrants for construction purposes may be allowed under special permit from the Lindale Rural WSC.
- **Requires Notification to TCEQ** – Use of water for irrigation of golf courses, tees, and fairways is prohibited except on designated watering

days between the hours of 12:00 midnight and 10:00 a.m. and between 8:00 p.m. and 12:00 midnight. However, if the golf course utilizes a water resource other than provided by the Lindale Rural WSC, the facility shall not be subject to these regulations.

- Notify wholesale customers of actions being taken by the Lindale Rural WSC and request implementation of similar procedures.

6.6.3 Stage 3, Severe

6.6.3.1 Triggering and Termination Conditions for Stage 3, Severe

- Demand exceeds 100% of the amount that can be delivered to customers for three consecutive days.
- Water demand for all or part of the delivery system exceeds delivery capacity because delivery capacity is inadequate.
- Supply source becomes contaminated.
- Water supply system is unable to deliver water due to the failure or damage of major water system components.
- Water demand is approaching the limit of the water well capacity.

Stage 3 can terminate when the circumstances that caused the initiation of Stage 3 no longer prevail. Stage 2 becomes operative on termination of Stage 3.

6.6.3.2 Goal for Use Reduction and Actions Available Under Stage 3, Severe

The goal for water use reduction under Stage 3, Severe, is a reduction of 20 percent of the average use for the preceding seven days. If the circumstances warrant, the president or his/her designee can set a goal for greater water use reduction.

The president or his/her designee can order the implementation of any of the actions listed below, as deemed necessary. Measures described as "requires notification to TCEQ" impose mandatory requirements on retail and wholesale customers. The Lindale Rural WSC staff must notify TCEQ within five business days if these measures are implemented.

- All requirements of Stages 1 and 2 shall remain in effect during Stage 3.
- Implement viable alternative water supply strategies.
- **Requires Notification to TCEQ** - Initiate mandatory water use restrictions as follows:
  - Prohibit hosing of paved areas, buildings, or windows.
  - Prohibit operation of ornamental fountains.
  - Prohibit washing or rinsing of vehicles by hose.
  - Prohibit using water in such a manner as to allow runoff or other waste.

Requires Notification to TCEQ - Limit landscape watering at each service address to once every five days based on the last digit of the address. (Exceptions: Foundations, new plantings (first year) of trees and shrubs may be watered for up to two hours on any day by a hand-held hose or a soaker hose. Restrictions do not apply to locations using treated wastewater effluent for irrigation.) A mandatory lawn-watering schedule shall be imposed. The following schedule is recommended for implementation; however, an alternate schedule may be used if it is found to be more effective:

- Customers with street addresses ending in an even number (0, 2, 4, 6, or 8): Sundays and Thursdays
- Customers with street addresses ending in an odd number (1, 3, 5, 7, or 9): Saturdays and Tuesdays

Irrigation shall be limited to the designated watering days between the hours of 4:00 a.m. and 6:00 a.m. and between the hours of 10:00 p.m. and 12:00 midnight and shall be by means of hand-held hoses, hand-held buckets, drip irrigation or permanently installed automatic sprinkler systems only. The use of hose-end sprinklers is prohibited at all times.

- **Requires Notification to TCEQ** - Watering of golf courses is prohibited unless the golf course utilizes a water source other than the Lindale Rural WSC.
- Use of water for construction purposes from designated flush hydrants under special permit *is* to be discontinued.
- **Requires Notification to TCEQ** - Prohibit draining and filling of existing pools and filling of new pools. (Pools may add water to replace losses during normal use).
- **Requires Notification to TCEQ** - Prohibit establishment of new landscaping.
- Halt non-essential water use, including street cleaning, vehicle washing, and operations of ornamental fountains.
- **Requires Notification to TCEQ** - Operation of any ornamental fountain or pond for aesthetic or scenic purposes is prohibited except where necessary to support aquatic life or where such fountain or ponds are equipped with a re-circulating system.

6.6.4 Stage 4 - Emergency

6.6.4.1 Triggering and Termination Conditions for Stage 4 - Emergency

- Water demand for all or part of the delivery system seriously exceeds delivery capacity because the delivery capacity is inadequate.
- Supply source becomes contaminated.
- Water supply system unable to deliver water due to the failure or damage of major water system components.

- Water demand is approaching the limit of the water well capacity.

Stage 4 can terminate when the circumstances that caused the initiation of Stage 4 no longer prevail. Stage 3 becomes operative on termination of Stage 4.

6.6.4.2 Goal for Use Reduction and Actions Available Under Stage 4, Emergency

The goal for water use reduction under Stage 4, Emergency, is a reduction of 25 percent of the use that would have occurred in the absence of drought contingency measures. If circumstances warrant, the president or his/her designee can set a goal for greater water use reduction.

The president or his/her designee can order the implementation of any of the actions listed below, as deemed necessary. Measures described as "requires notification to TCEQ" impose mandatory requirements on retail and wholesale customers. The Lindale Rural WSC staff must notify TCEQ within five business days if the measures are implemented.

All requirements of Stages 1, 2 and 3 shall remain in effect during Stage 4

- Implement viable alternative water supply strategies.
- **Requires notification to TCEQ** - Prohibit washing of vehicles except as necessary for, health, sanitation or safety reasons, including car washes.
- **Requires notification to TCEQ** - Prohibit commercial and residential landscape watering, except that foundations may be watered for 2 hours each day with a hand-held hose or soaker hose.
- **Requires notification of TCEQ** - Prohibit any filling of pools.
- **Requires notification of TCEQ** - Require all commercial water users to reduce water use by a percentage established by the president and his/her designee.
- **Initiate** a 25 percent rate surcharge over normal rates for all water use over 6,000 gallons per month.
- Notify wholesale customers of actions being taken by the Lindale Rural WSC and request them to implement similar procedures.

6.7 Procedure for Granting Variances to the Plan

The board president and his/her designee may grant temporary variances for existing water uses otherwise prohibited under this drought contingency plan if one or more of the following conditions is met:

- Failure to grant such a variance would cause an emergency condition adversely affecting health, sanitation, or fire safety for the public or the person requesting the variance.

- Compliance with this plan cannot be accomplished due to technical or other limitations. Alternative methods that achieve the same level of reduction in water use can be implemented.

Variances shall be granted or denied at the discretion of the Lindale Rural WSC board president or his/her designee. All petitions for variances should be in writing and should include the following information:

- Name and address of the petitioner(s).
- Purpose of water use.
- Specific provisions from which relief is requested.
- Detailed statement of the adverse effect of the provision from which relief is requested.
- Description of relief requested.
- Period of time for which the variance is sought.
- Alternative measures that will be taken to reduce water use.
- Other pertinent information.

6.8 Procedure for Enforcement of Mandatory Restrictions

Mandatory water use restrictions may be imposed in Stage 3 and Stage 4 drought stages. These mandatory water use restrictions will be enforced by warnings and penalties as follows:

- On the first violation, customers will be given a written warning that they have violated the mandatory water use restriction.
- On the second and subsequent violations, citations may be issued to customers, with fines not less than **$25.00** and not to exceed **$200.00** per incident.
- After two violations have occurred, the Lindale Rural WSC may install a flow restrictor in the line to limit the amount of water that may pass through the meter in a 24-hour period. After three violations have occurred, the Lindale Rural WSC may cut off water service to the customer.

6.9 Coordination with the Regional Water Planning Group

The Lindale Rural WSC is located within the Regions D and I water planning areas. Upon approval of the draft plan by the board of directors, an unexecuted copy of the plan shall be sent to Region D and I water planning groups.

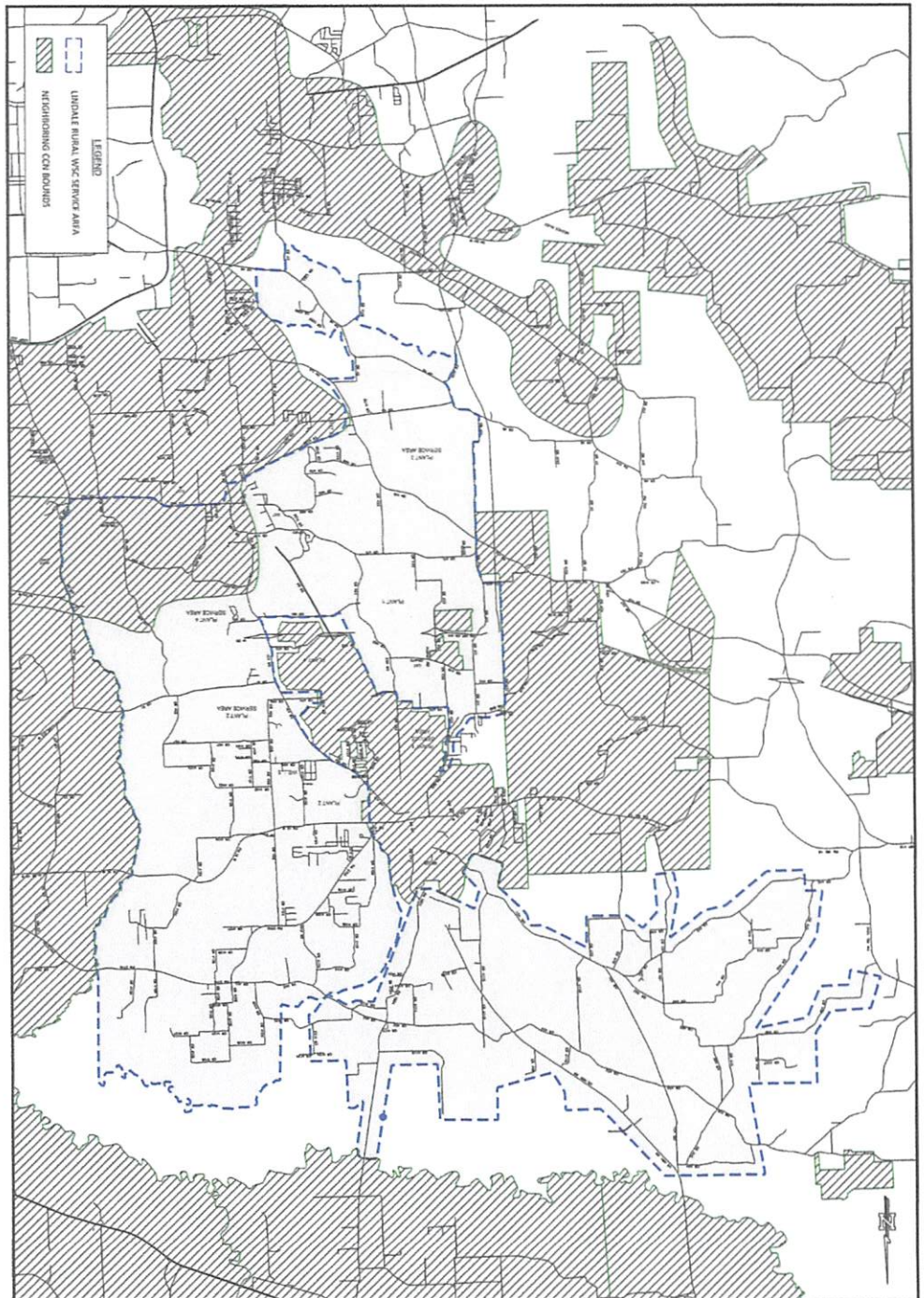
6.10 Review and Update of Drought Contingency Plan

The Lindale Rural WSC will review this drought contingency plan in 2020 and every five years after that date to coincide with RWPG. The plan will be updated as

appropriate based on new or updated information. As the plan is reviewed and subsequently updated, a copy of the revised drought contingency plan will be submitted to the TCEQ and the RWPG for their records.

Appendix A

Lindale Rural WSC CCN Map



HAYES ENGINEERING, INC.
Texas Registered Engineering Firm F-1466
2125 Alpine St., Longview, TX 75601-3401
Tel.: (903) 758-2013 • Fax: (903) 758-2089

LINDALE RURAL W.S.C.
SERVICE AREA MAP
SMITH COUNTY TEXAS

LINDALE RURAL W.S.C.
SERVICE AREA MAP

Appendix B

TCEQ Guidelines and Requirements

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 §288.1	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

Appendix C

TCEQ Water Utility Profile

Texas Water Development Board

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: Lindale Rural WSC

Public Water Supply Identification Number (PWS ID): TX2120017

Certificate of Convenience and Necessity (CCN) Number: 10758

Surface Water Right ID Number: _____

Wastewater ID Number: _____

Completed By: Jamie Davlin Title: Assistant General Manger

Address: P.O. Box 756 City: Lindale Zip Code: 75771

Email: Jamie@lindaleruralwater.com Telephone Number: 9038823335

Date: _____

Regional Water Planning Group: D Map

Groundwater Conservation District: _____ 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

Texas Water Development Board

Section I: Utility Data

A. Population and Service Area Data

1. Current service area size in square miles: 75
(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
2017	10,305	0	0
2016	9,638	0	0
2015	9,303	0	0
2014	8,969	0	0
2013	8,635	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	10,828	0	
2030	13,861	0	
2040	17,744	0	
2050	22,714	0	
2060	29,076	0	

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

Lindale Rural WSC has historical connection counts from 1985. Lindale Rural WSC has grown at a rate of approximately 4.00% over the last two decades. During the Master Planning process, LRWSC's growth rate was compared to the Region D and Region I project growth rates of 1.32% and .83% respectively. After comparison, it was decided to project LRWSC's connection and population by approximately 2.5%.

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
2017	341,417,890			341,417,890	91
2016	357,494,390			357,494,390	102
2015	331,817,410			331,817,410	98
2014	260,448,120			260,448,120	80
2013	271,467,690			271,467,690	86
Historic 5-year Average	312,529,100	0	0	312,529,100	91

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

1. Designed daily capacity of system 4,096,800 **gallons** per day.
2. Storage Capacity:
   Elevated 700,000 **gallons**
   Ground 1,050,000 **gallons**
3. List all current water supply sources in gallons.

Water Supply Source	Source Type*	Total Gallons
	Choose One	
	Choose One	
	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)
2019	10,477	368,219,222
2020	10,828	379,265,798
2021	11,008	390,643,772
2022	11,377	402,363,085
2023	11,565	414,433,978
2024	11,953	426,866,997
2025	12,150	439,673,007
2026	12,558	452,863,198
2027	12,765	466,449,093
2028	13,194	480,442,566

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

Lindale Rural WSC has historical connection counts from 1985. Lindale Rural WSC has grown at a rate of approximately 4.00% over the last two decades. During the Master Planning process, LRWSC's growth rate was compared to the Region D and Region I project growth rates of 1.32% and .83% respectively. After comparison, it was decided to project LRWSC's connection and population by approximately 2.5%.

Water demand was calculated using the average gallon usage per capita from 2013 thru 2017.

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
Calvery Commission	Institutional	2,254,200	Treated
City of Tyler	Industrial	2,144,401	Treated
County Rehab	Institutional	1,745,109	Treated
Timberline Baptist Camp	Institutional	1,526,700	Treated
Scott and Krista Lay	Residential	763,290	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
	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.

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	3,416		3,416	99%
Residential – Multi-family (units)	20		20	1%
Industrial			0	0%
Commercial	28		28	1%
Institutional			0	0%
Agricultural			0	0%
TOTAL	3,464	0	3,464	

*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				
	2017	2016	2015	2014	2013
Residential – Single Family	72	194	12	28	26
Residential – Multi-family (units)	2	1	3	8	1
Industrial					
Commercial	0	4	0	7	3
Institutional					
Agricultural					
TOTAL	74	199	15	43	30

*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				
	2017	2016	2015	2014	2013
Residential - Single Family	270,454,428	260,828,588	238,299,740	217,736,154	245,780,470
Residential – Multi-family	2,044,601	2,055,000	8,090,590	2,293,400	3,752,750
Industrial					
Commercial	3,306,860	3,305,966	1,130,650	3,435,150	5,564,870
Institutional					
Agricultural					
TOTAL	275,805,889	266,189,554	247,520,980	223,464,704	255,098,090

*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				
	2017	2016	2015	2014	2013
Residential - Single Family	217	214	207	190	217
Residential – Multi-family	280	313	1,304	449	1,714

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				
	2017	2016	2015	2014	2013
January	22,042,770	26,574,740	18,915,080	19,510,290	18,553,510
February	19,216,250	24,372,600	20,870,620	18,576,430	15,625,940
March	24,219,470	23,436,750	21,366,060	18,809,250	18,515,450
April	36,284,140	24,536,490	19,915,250	19,752,360	18,698,580
May	38,500,340	27,919,460	21,364,340	24,463,210	23,196,470
June	29,723,280	34,590,880	28,556,430	23,103,820	26,960,960
July	34,395,980	49,018,330	42,227,360	27,531,170	28,921,230
August	28,034,710	37,588,490	42,314,880	28,531,430	33,891,650
September	30,681,250	33,238,770	33,282,530	23,617,870	31,213,630
October	29,248,740	29,081,540	32,487,110	20,468,570	19,012,610
November	23,697,930	24,095,630	25,231,720	17,619,880	17,075,510
December	25,373,030	23,040,710	25,286,030	18,463,840	19,802,150
TOTAL	341,417,890	357,494,390	331,817,410	260,448,120	271,467,690

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

Month	Total Gallons of Raw Retail Water				
	2017	2016	2015	2014	2013
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
	2017	2016	2015	2014	2013	
Summer Retail (Treated + Raw)	92,153,970	121,197,700	113,098,670	79,166,420	89,773,840	99,078,120 / 5yr Average
TOTAL Retail (Treated + Raw)	341,417,890	357,494,390	331,817,410	260,448,120	271,467,690	312,529,100 / 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
2017	4,647,245	1	1%
2016	3,985,855	1	1%
2015	3,780,592	1	1%
2014	3,164,026	1	1%
2013	2,807,611	1	1%
5-year average	3,677,066	1	1%

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)
2017	935,391	1,241,946	1.33
2016	979,437	1,581,236	1.61
2015	909,089	1,364,996	1.50
2014	713,556	920,368	1.29
2013	743,747	1,093,279	1.47

G. Summary of Historic Water Use

Water Use Category	Historic 5-year Average	Percent of Connections	Percent of Water Use
Residential SF	246,619,876	99%	0%
Residential MF	3,647,268	1%	0%
Industrial	0	0%	0%
Commercial	3,348,699	1%	0%
Institutional	0	0%	0%
Agricultural	0	0%	0%

H. System Data Comment Section

Provide additional comments about system data below.

Appendix D

Water Saving Methods

OUTDOOR TIPS

Plant water-efficient, well-adapted, and/or native shrubs, trees, and grasses. Choose plants that are drought and heat tolerant and can survive the minimum winter temperatures in your area. In odd-shaped areas, use drought-tolerant groundcover instead of grass. Many cities provide lists of water-efficient plants.

Don't abuse the benefits of an automatic sprinkler system by over-watering. Set it to provide thorough but infrequent watering. Check sprinkler heads regularly to make sure they are working properly. Install rain shut-off devices and adjust sprinklers to eliminate coverage on pavement. For plants that need more water, use a hose or watering can to give them additional water.

Prevent evaporation of water. Water lawns early in the morning. Never water on windy days. Use drip irrigation systems for bedded plants, trees, or shrubs and use low-angle sprinklers for lawns. Cover pools and spas. This can save the equivalent of your pool volume each year!

Harvest the rain. Buy a rain barrel or a cistern and collect the water from your gutters to water your plants.

Use your water efficiently. Don't waste water by cleaning patios or sidewalks with it; use a broom.

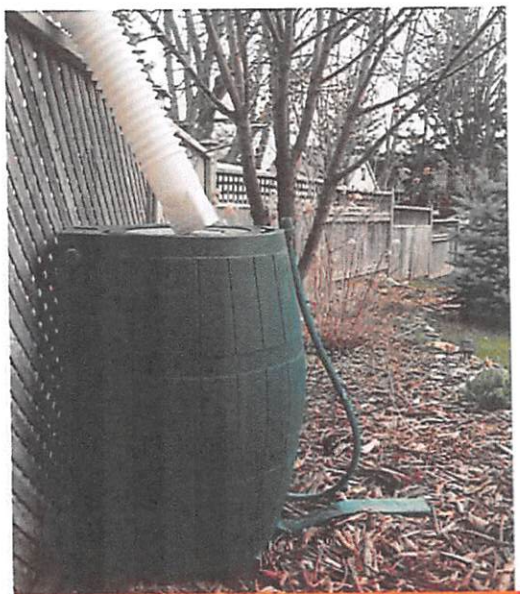
Taller grass holds moisture better. Don't cut more than one-third of its length at one time. Don't scalp lawns when mowing during hot weather. Leave lawn clippings on the lawn instead of bagging.

Use lots of mulch around your shrubs and trees. It will retain moisture, reduce run-off, moderate soil temperatures, and help with weed control.

Don't over-fertilize! Get a soil kit to determine what nutrients your soil needs. If you apply fertilizer only in the spring and fall, your grass will be healthy, use less water, and require less mowing.

Use a car wash that recycles water. If you are washing your car at home, use a bucket of soapy water and a hose nozzle that shuts off the water while you scrub.

Did you know that as of September 1, 2013, all Texas homeowners can save water with drought-resistant landscaping? Some homeowner associations may require preliminary approval of any major changes to the landscape, but Senate Bill 198 (83rd Texas Legislature) prohibits an association from restricting a property owner's decision to make water-wise landscape choices.



Texas Water Development Board
www.twdb.texas.gov

P.O. Box 13231
Austin, Texas 78711-3231

WATER IQ
Know your water.
www.wateriq.org

Visit the following website for additional information.
www.epa.gov/watersense

rev. 05/14

WATER CONSERVING TIPS

USING WATER MORE EFFICIENTLY will not only save money but, more importantly, will protect the quality of life of current and future Texans.

With the vastness of Texas, it's easy to forget two important facts about our state: we are subject to frequent droughts and our population is projected to nearly double in the next 50 years.

To ensure that we have enough water for current and future Texans, we need to reduce the amount of water we waste. A few small changes in your water use habits can make a huge difference in water savings.

POSSIBLE WATER SAVINGS

- High-efficiency toilets, water-efficient washing machines, rainwater harvesting systems, and water-efficient landscaping can all help reduce household water demands.
- Water-efficient showerheads and aerators for faucets can significantly reduce the amount of water you use. In fact, installing a water-efficient showerhead is one of the most effective water-saving steps you can take inside your house.
- Leaky faucets and toilets can waste thousands of gallons of water monthly, and they are inexpensive to fix.
- Outdoor water use can account for more than 30 percent of total home water use. With proper management, you can have a beautiful, healthy landscape and reduce your water use significantly. This can amount to hundreds of dollars in savings a year in water and wastewater costs.

INDOOR TIPS

Bathroom

- Replace your showerhead with a water-efficient model.
- Get in the shower as soon as the water becomes warm enough.
- Take short showers.
- Reduce the level of water used in a bathtub by half, or better yet, take a short shower.
- Turn off the water while you are shaving. Fill the sink with an inch of hot water instead of letting the water run continuously.
- Replace your old toilet with a high-efficiency toilet that uses 1.3 gallons per flush.
- Check toilets for leaks. Simply take the top off of your toilet tank and add a few drops of food coloring or a dye tablet to the water in the tank. Do not flush the toilet. If the coloring appears in the bowl within a few minutes, the toilet has a leak that most likely can be fixed by replacing the flapper or rubber washer. Cheap fix, huge savings!
- Never use the toilet to dispose of trash.
- Don't waste water when brushing your teeth or washing your hands. Shut off the water until it's time to rinse.
- Look for the WaterSense label when installing or replacing plumbing fixtures. They are tested and certified to perform as well or better than their less efficient counterparts and on average are 20 percent more water efficient.
- The next time you use one of these water-saving tips when you take a shower, wash your hands, brush your teeth, or flush the toilet, congratulate yourself for doing your part to help protect our precious water resources!

Kitchen

- Run the dishwasher only when full. This practice will save water, energy, detergent, and money. If your machine has a quick wash or light duty setting, use it!
- Install faucet aerators. You'll never notice the difference, and you'll cut your sink water consumption in half!
- Dry scrape dishes instead of rinsing. Your dishwasher will take care of the rest.
- Use garbage disposals sparingly. They can waste water unnecessarily.
- Soak pans rather than scrubbing them with the water running.
- Rinse your vegetables in a pan of cold water; it doesn't take gallons of water to get the dirt off.

Laundry room

- Wash only full loads.
- Use the lowest water level setting on the washing machine for light or partial loads whenever possible.
- Use cold water as often as possible to save energy and conserve hot water for uses that cold water cannot serve.
- Conventional washing machines can use up to twice as many gallons of water per load compared to high efficiency machines.

Additional tips

- Don't ignore leaky faucets; they are often easy and inexpensive to repair. Turn off the valve under the sink until you get around to repairing the leak. A slow drip can waste as much as 170 gallons of water each day and will add to your water bill.
- Know where your master water shut-off valve is in case a pipe bursts. Insulate hot water pipes. You won't waste water waiting for it to get hot, and you will save energy.
- Install water-softening systems only when necessary and, if you have one, save water and salt by running the minimum amount of regenerations necessary to maintain water softness.
- Replace water-to-air heat pumps and air conditioners with air-to-air if you are purchasing new units. They are just as efficient and do not waste water.
- Find other uses for water rather than letting it go down the drain. Use a bucket to capture water in the shower or sink while waiting for it to get hot, then use that water on your landscape.