



**CORIX UTILITIES (TEXAS)
WATER CONSERVATION PLAN**

May 1, 2019

Corix Utilities (Texas) Water Conservation Plan

➤ **SECTION 1: OVERVIEW OF SERVICE AREA**

Corix Utilities (Texas), Inc. (“Corix”) owns water systems in the Hill Country Region, Southeast Region, and West Region in Texas. The Hill Country Region is comprised of ten (10) water systems located in the Spicewood area and the Lake Buchanan area, the Southeast Region is comprised of three (3) water systems, Northeast Washington County is located north of Brenham, the community of Alleyton, near Columbus, and Matagorda Dunes Subdivision located on the coast near Matagorda. The West Region is made up of two (2) water systems, one in the Lometa area and one in the Lake Colorado City/Westbrook areas. All of these systems utilize either surface water or groundwater as a supply source.

The Hill Country Region includes the following ten public water systems: Bonanza Beach (PWS 0270018), Lake Buchanan (PWS 1500037), Paradise Point (PWS 1500008), Quail Creek (PWS 0270078), Ridge Harbor (PWS 0270081), Sandy Harbor (PWS 1500009), Smithwick Mills (PWS 0270045), Spicewood Beach (0270011), Summit Springs (PWS 0270148), and Tow Village (PWS 1500011). Many of the water systems within the Hill Country Region serve rural communities consisting of weekend homes and single family homes.

The Southeast Region includes three individual water systems, Alleyton (PWS 0450087), located near the town of Columbus, Matagorda Dunes Subdivision (PWS 1610052), located on the coast southeast of Bay City, and Northeast Washington County (PWS 2390043) located north of Brenham. These three systems are primarily residential, weekend/summer, and residential/agricultural respectively. Matagorda also serves the LCRA Matagorda Bay Nature Park and Preserve.

The West Region consists of two systems, Lometa (PWS 1410002) and Mitchell County (1680004). Lometa serves the city of Lometa and the surrounding rural community and Mitchell County serves the Westbrook ISD and the rural Lake Colorado City area. These two systems serve residential and agricultural customers.

➤ **SECTION 2: GOALS OF WATER CONSERVATION PLAN**

All of these areas have a low gallons per person daily water use and a relatively high water loss. Due to this situation, a large portion of water conservation focuses on reducing or minimizing the unbilled water for these individual systems. As a result, the water systems have been divided into into the following three water conservation categories:

- 1) **Residential systems with irrigation** – Lake Buchanan Water System, Ridge Harbor Water system, Spicewood Beach Water System, and Summit Springs Water System
- 2) **Residential systems without irrigation** – Alleyton Water System, Bonanza Beach, Matagorda Dunes Subdivision Water System, Paradise Point Water System, Quail Creek Water System, Sandy Harbor Water System, Smithwick Mills Water System, and Tow Village Water System

3) Residential systems with agriculture and irrigation – Lometa Water System, Mitchell County Water System and Northeast Washington County

The last Water Management Plan submitted had Corix’s five-year GPCD (Gallons Per Capita per Day) goal for the residential water systems without irrigation demands to maintain the GPCD at, or below, 100 GPCD. At this point in time all of these systems are meeting this goal.

For residential water systems that have irrigation demands, Corix’s GPCD goal will be a water consumption goal of 140 GPCD. The system that exceeds this is the Ridge Harbor Water System which has a consumption of 141 GPCD. This system has shown improvement and has almost reached its goal.

For the third water conservation category of residential and agricultural areas there is a goal of 140 GPCD. Lometa still exceeds this goal.

In 2016, Corix began installing area-wide Automated Meter Reading (AMR) systems to replace existing meters and will also be replacing distribution lines as needed at water systems demonstrating water loss greater than 15%. Currently, Alleyton Water System, Matagorda Dunes Subdivision Water System, Mitchell County Water System, Quail Creek Water System, Sandy Harbor Water System, and Summit Springs Water System, have water loss percentages that currently meet Corix’s water conservation goal.

The water conservation plan sets forth uniform requirements, guidelines, and recommendations for Water Conservation Emergency Water Demand Management (Drought Contingency) for Corix Utilities (Texas), Inc. It is the intent of this plan to meet all requirements of the following agencies in the State of Texas:

- Texas Water Development Board (TWDB) – Texas Administrative Code (TAC) 31, Chapters 363, 371, 375, and 384;
- Texas Commission on Environmental Quality (TCEQ) - 30 TAC Chapter 288.20; and
- Lower Colorado River Authority (LCRA) – Requirements associated with submittal of Water Supply Contracts.

➤ ***SECTION 3: DEFINITIONS***

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

1. Aesthetic water use: Water use for ornamental or decorative features such as fountains, reflecting pools, and water gardens.
2. 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.

3. Customer: Any person, company, or organization using water supplied by a Corix utility system.
4. Domestic water use: Use of water by an individual or a household to support its domestic activity. Such use may include consumption, washing, or cooking, irrigation of lawns, family garden or orchard, consumption by animals, and recreation including fishing, swimming, and boating. If the water is diverted, it must be diverted solely through the efforts of the user. Domestic use does not include water used to support activities for which consideration is given or received or for which the product of the activity is sold.
5. Drought Contingency Plan: A strategy or combination of strategies for temporary water supply management and demand management responses to temporary and potentially recurring water supply shortages and /or emergencies.
6. Industrial use: The use of water in processes designed to convert materials of a lower order into materials of greater value or greater usability.
7. Irrigation use: The use of water for the irrigation of crops, trees, lawns, landscapes, and other similar uses.
8. Irrigation water use efficiency: The percentage of that amount of irrigation water which is beneficially utilized by the substance under irrigation.
9. Landscape irrigation use: Water used for the irrigation and maintenance of landscaped areas, whether publicly or privately owned, including residential and commercial lawns, gardens, golf courses, parks, rights-of-way and medians.
10. Livestock water use: Water used for the open-range watering of livestock, exotic livestock, game animals, or fur-bearing animals. For purposes of this definition, the terms “livestock” and “exotic livestock” are to be used as defined in §142.001 of the Agriculture Code, and the terms “game animals” and “fur-bearing animals” are to be used as defined in §63.001 and §71.001, respectively, of the Parks and Wildlife Code.
11. New landscape:
 - a. Installed during construction of a new house, multi-family building, or commercial building;
 - b. Installed as part of a governmental entity’s capital improvement project; or
 - c. Alters more than one-half of the area of an existing landscape.
12. Non-essential water use: Water uses that are not essential or are not required for the protection of public health, safety, and welfare, such as:
 - a. Irrigating landscape areas, including parks, athletic fields, and golf courses, except for as otherwise provided under this plan;
 - b. Washing any motor vehicle, motorbike, boat trailer, airplane, or other vehicle;
 - c. Washing any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;

- d. Washing buildings or structures for purposes other than immediate fire protection;
 - e. Flushing gutters or permitting water to run or accumulate in any gutter or street;
 - f. Filling, refilling, or adding to any indoor or outdoor swimming pools or Jacuzzi-type pools;
 - g. Filling a fountain or pond for aesthetic or scenic purposes except when necessary to support aquatic life;
 - h. Failure to repair a controllable leak within a reasonable period after having been directed to do so by formal notice; and
 - i. Drawing from hydrants for construction purposes or any other purposes other than fire fighting or protecting public drinking water supplies.
13. Per capita water use: The sum total of water diverted into a water supply system for residential, commercial, public and institutional used divided by the population served by the water supply system.
14. Pollution: The alteration of the physical, thermal, chemical, or biological quality of water, or the contamination of any water in the State of Texas that renders the water harmful to humans or the environment, or that impairs the usefulness of the water.
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 pursuant to Texas Water Code §16.053 (TWDB Region K covers the majority of the systems with the exception of Lometa and Northeast Washington County located in Region G, and Mitchell County is in Region F).
17. Retail water customer: An individual or entity that purchases water from Corix for consumption.
18. 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 the ultimate disposal of the used water occurs.
19. Texas Commission on Environmental Quality: The state agency dealing with environment issues for the State of Texas, including the regulation of Public Water Suppliers.
20. Water Conservation Plan: A strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, by reducing the loss or waste of water, for maintaining or improving the efficiency of the use of water, for increasing the recycling and reuse of water, and for preventing the pollution of water.
21. Wholesale Treated Water Customer: An individual or entity that purchases water from Corix to sell to the public for consumption. This term does not include any individual or entity that supplies water to its employees or tenants incidental to that employee service or tenancy where the water is not resold or used by others.

➤ **SECTION 4: SUMMARY OF UTILITY PROFILE**

Utility profiles of each of the Corix Utilities (Texas) Water Systems are included in Appendix A for reference.

➤ **SECTION 5: WATER CONSERVATION STRATEGIES**

A. Water Loss

Most of the water conserved in the Corix Utilities (Texas) Water Systems will be realized through programs aimed at reducing water loss. Strategies used to reduce water loss will vary according to the individual configurations of the systems. An example of a system with high water loss is the Lometa Water System. We have installed AMR meters in the system and have purchased leak detection equipment. The new meters have not significantly reduced the water loss in the system and we are now focusing on detecting line leaks. In Northeast Washington County we are budgeting for line replacement and adding pressure reducing valves to reduce line breaks. Each year, Corix will evaluate the water losses for each of the water utility systems and develop a strategy to decrease water loss.

B. Reduction in Indoor Water Use due to Water-Conserving Plumbing Fixtures

1. Water Conserving Plumbing Fixtures: Corix shall promote EPA WaterSense fixtures, including high efficiency toilets and low-flow faucets, to be installed in all new construction.
2. Reduction in Indoor Water Use: In addition to the water conserving plumbing fixtures, Corix shall promote the reduction in indoor water use via its public education program on its website: **myutility.us/corixtexas**.

C. Reduction in Seasonal Water Use

Seasonal water use to be reduced during higher water demand periods, including emphasis on outdoor water conservation, and implementation, if necessary, of conservation measures from Corix's Drought Contingency Plan.

D. Reduction in Water Use Due to Public Education Program

Corix is committed to maintaining education information to inform their customers about water conservation on their website: **myutility.us/corixtexas**. Staff is always willing to answer any questions that will help customers in conserving water.

E. Promotion of Water Conservation Through Rate Structure

All water systems have increasing block rates that reflect the cost drivers for the water systems and send a conservation price signal to customers. Copies of the complete rate schedules for these systems are available by Corix on request and are located on our website:

myutility.us/corixtexas.

➤ **SECTION 6: ADDITIONAL WATER CONSERVATION STRATEGIES**

1. Leak Detection and Leak Repair Program: Corix encourages customers to immediately report all suspected water leaks and will investigate a leak, whether it is on the entity's side of the water meter or the resident's side of the meter.
2. Leak Repairs: Corix shall continue to monitor for leaks on water distribution lines, transmission lines, service lines, and meters. Leak repairs shall be scheduled and completed in a timely manner.
3. Water Meters: All customer service lines are metered. Water is also metered in and out of all water treatment plants, as well as bulk water taken from fire hydrants. Corix requires all water meters to be accurate within 5 percent of the indicated flow over the possible flow range. The customer meters are read on a monthly basis. Zero consumption accounts are investigated to see if water is actually being used or not recorded. All meters not metering correctly are replaced.
4. Customer Meter Testing and Meter Change-Out Program: Customer water meters (5/8" x 3/4" and 1" size) are tested as necessary with larger meters being tested on a regular basis to determine accuracy. Meters are being changed to AMR meters or as needed when the meter is not registering correctly.
5. Production Meters: The production meters are tested on an annual basis and are within 5 percent accuracy.
6. Water Loss Accounting: Corix maintains records of water distribution and sales through a common billing system in order to compile, present, and view water use information. This type of billing system provides enhanced customer water use data.
7. Records Management System: Corix employees will ensure that the current record keeping system for water pumped, water deliveries, water sales, and water losses is maintained in an orderly and accurate manner. Additional record keeping measures shall be implemented as necessary to upgrade and improve this records management system.

➤ **SECTION 7: APPLICABILITY TO WHOLESALE CUSTOMERS**

Wholesale treated water customers must comply with Corix Utilities (Texas)' Drought Contingency Plan and Water Conservation Plan. Corix's two wholesale customers are small subdivisions and are not required to have plans.

➤ **SECTION 8: COORDINATION WITH REGIONAL WATER PLANNING GROUPS**

The majority of Corix's water systems are located with the TWDB Region K. However, Lometa Water System and Northeast Washington County Water System are located in Region G, and the Mitchell County Water System is located in Region F. Copies of this water conservation plan will be furnished to any Water Planning Group who requests it.

➤ ***SECTION 9: PLAN REVIEW AND UPDATE***

Corix will update this water conservation plan as necessary, based on developments in Corix's water service area, in accordance with State of Texas Statutes, Regulations of State Agencies, and the requirements of the Lower Colorado River Authority.

APPENDIX A
CORIX UTILITIES (TEXAS) WATER UTILITY SYSTEMS SUMMARY

HILL COUNTRY REGION	Facilities	Area Served	Estimated Population
Bonanza Beach	Groundwater System and Distribution System	Bonanza Beach Subdivision	165
Lake Buchanan	Surface Water Plant and Distribution System	Buchanan Dam area	1683
Paradise Point	Surface Water Plant and Distribution System	Paradise Point Subdivision	405
Quail Creek	Groundwater System and Distribution System	Quail Creek Subdivison	114
Ridge Harbor	Surface Water Plant and Distribution System	Ridge Harbor Subdivison	513
Sandy Harbor	Purchased Water System from Horseshoe Bay Water System and Distribution System	Sandy Harbor Subdivison	324
Smithwick Mills	Surface Water Plant and Distribution System	Smithwick Mills Subdivision	216
Spicewood Beach	Surface Water Plant and Distribution System	Spicewood Beach community with Lake Oaks and Eagle Bluff Subdivisions	1338
Summit Springs	Groundwater System and Distribution System	Summit Springs Subdivision	141
Tow Village	Groundwater System and Distribution System	Tow Village Subdivision	93

SOUTHEAST REGION	Facilities	Area Served	Estimated Population
Alleyton	Groundwater System and Distribution System	Community of Alleyton	144
Matagorda Dunes Subdivision	Groundwater System and Distribution System	Matagorda Subdivision on the island of Matagorda	417
Northeast Washington County	Groundwater System and Distribution System	Rural area north of Brenham	3138

WEST REGION	Facilities	Area Served	Estimated Population
Lometa	Surface Water Plant and Distribution System	City of Lometa and surrounding rural area	2979
Mitchell County	Groundwater System and Distribution System	Westbrook and Lake Colorado City area	2445