

STATE OF TEXAS X

COUNTY OF BEXAR X

ORDINANCE # 702

CITY OF CONVERSE X

AN ORDINANCE ADOPTING A WATER CONSERVATION PLAN; IMPLEMENTING BEST MANAGEMENT PRACTICES FOR WATER CONSERVATION; INCREASING WATER RATES FOR EXCESSIVE WATER USAGE; IMPLEMENTING THE CITY DROUGHT CONTINGENCY PLAN REQUIRED BY TITLE 30 OF THE TEXAS ADMINISTRATIVE CODE, PROVIDING FOR PENALTIES FOR VIOLATING THIS ORDINANCE; AND SUPERSEDING CITY OF CONVERSE ORDINANCE #702 DATED FEBRUARY 15, 2005.

WHEREAS, THE City Council of the City of Converse wishes to ensure that an adequate water supply exists to meet the subsistence, health and hygiene requirements of the City; and,

WHEREAS, prevention of waste and restrictions on certain water uses are, from time to time, necessary to ensure an adequate water supply; and,

WHEREAS, the City Council desires to apply water use restrictions and conservation requirements in a fair and equitable manner; and

WHEREAS, the City Council wishes to ensure a Drought Contingency Plan is in place to respond to normal drought conditions as well as catastrophic loss of the public water supply through source contamination or inability to deliver potable water in adequate amounts.

NOW THEREFORE BE IT ORDAINED by the City Council of the City of Converse, Texas:

SECTION I: As required by the Edwards Aquifer Authority Ground Water Conservation Plan, the following Best Management Practices (BMP's) are implemented for the City of Converse.

A. System Water Audits, Leak Detection And Repair: System Water Audits, Leak Detection, and Repair programs are effective methods of accounting for all water usage and are essential to a sound water management program.

1. System Water Audits: The Water Department Superintendent shall conduct an annual pre-screening system audits to determine if full-scale system audits are necessary. The pre-screening system audit shall be calculated as follows:

- a. Determine metered sales and other system verifiable uses;
- b. Determine total supply into the system; and,

- c. If metered sales plus other verifiable uses represent less than 85 percent of total supply into the system, a full-scale system audit is necessary.
- d. If the pre-screening audit fails to account for at least 85 percent of the water pumped from the Edwards Aquifer, a full distribution system audit will be conducted using methodology consistent with that described in AWWA's Water Audit and Leak Detection Guidebook and leak detection must be implemented and repairs made as needed.

2. Leak Detection and Repair Program: In order to reduce water losses due to leakage, the Water Department Superintendent must maintain a Leak Detection and Repair Program, and must repair leaks when detected. Unaccounted water losses must be no more than 15% of total water pumped into the system. All Water Department technicians must make every effort to inform customers when leaks exist on the customer's side of the meter.

3. REPORTS AND DOCUMENTATION: The Water Superintendent shall provide to the City Manager and the Edwards aquifer Authority:

- a. A report of the Pre-screening audit results along with supporting documentation within 10 days of completion.
- b. Records of audit results or the completed AWWA Audit Worksheets for each completed audit period.
- c. Description of the Leak Detection and Repair Program.
- d. Estimated water savings achieved through leak detection and repair.

B. METERING OF ALL NEW CONNECTIONS AND RETROFIT OF EXISTING CONNECTIONS: Metering of all connections within a service area is an effective method of accounting for all water usage, and is essential to a sound water management program. All connections within the City of Converse service area must be metered. The Water Department Superintendent shall develop and implement a program to install a meter for all existing accounts within the service area. Many industrial, commercial, and institutional (ICI) accounts use significant amounts of water for landscape irrigation. Unless these accounts have dedicated landscape meters, it is difficult to track and control landscape water usage. For this reason, the mixed-use ICI meters shall be retrofitted with dedicated landscape meters. Meters provide inaccurate readings of water usage with age and use. To ensure meters are reading accurately, the Water Superintendent shall develop and implement a program to timely replace water meters within the service area. Pressure regulators should be installed on replaced meters when needed. Many multi-family and ICI accounts have large meters that cannot measure water usage during low-flow periods. In order to account for all water usage for large users, multi-family and ICI accounts shall be retrofitted with compound meters or similar technology.

1. **METER REQUIREMENTS:** The Water Department must accomplish the following:
 - a. Insure meters are installed on all new connections.
 - b. Install meters on all unmetered connections by December 31, 2005.
 - c. Determine the feasibility of retrofitting mixed-use ICI meters with dedicated irrigation meters by December 31, 2005.
 - d. Establishes a schedule for replacement of 10 percent of the meters within the service area each year for the next ten years. Publish the schedule not later than July 1, 2005.

2. **REPORTS AND DOCUMENTATION:** The Water Superintendent shall provide to the City Manager and the Edwards aquifer Authority:
 - a. Number of new connections metered during the reporting period.
 - b. Number of un-metered accounts in the service area.
 - c. Number of unmetered connections retrofitted during the reporting period.
 - d. Number of ICI accounts with mixed-use meters.
 - e. Number of ICI accounts with mixed-use meters retrofitted with dedicated irrigation meters during the reporting period.
 - f. Results of the study assessing the feasibility of retrofitting mixed-use ICI meters with dedicated irrigation meters.
 - g. Descriptions of meter retrofit and meter replacement programs.
 - h. Number of meters replaced during the reporting period.

3. **WATER SAVINGS ASSUMPTIONS:** Assume meter retrofits will result in a 20% reduction in demand by retrofitted accounts.

C. WATER WASTE PROHIBITION: Water Waste Prohibition measures are enforceable actions intended to prohibit specific wasteful activities. Under this Ordinance, the following wasteful activities are prohibited and violations will be considered a Class C Misdemeanor subject to the penalties authorized by the Municipal Court.

1. **PROHIBITED ACTIVITIES:**

- a. Gutter flooding.
- b. Landscape watering between the hours of 10:00 a.m. and 8:00 p.m.
- c. Single-pass cooling systems in new connections.
- d. Non-recirculating systems in new conveyer car washes.
- e. Non-recirculating systems in new commercial laundry systems.
- f. Non-recycling decorative water fountains, and other wasteful activities.
- g. Watering a landscape zone more than one day a week except by means of a hand-held bucket, hand-held hose, or properly installed drip irrigation system.

2. **REPORTS AND DOCUMENTATION:** The City Manager shall provide a copy of this Ordinance to the Edwards Aquifer Authority.

D. CONSERVATION PRICING: Conservation Pricing is a method of encouraging efficient water use through quantity-based pricing structures. In order to provide economic incentives for efficient water use, and a means of satisfying high demand with a limited supply, an Increasing Block Rate pricing structure has been established. The Increasing Block Rate Structure provides for an increase in the unit price of water as the volume of water used increases.

1. **PRICING REQUIREMENTS:** Water Rates structured to support water conservation are prescribed by City of Converse Ordinance #339.

2. **REPORTS AND DOCUMENTATION:** The City Manager shall provide a copy of this Ordinance to the Edwards Aquifer Authority.

E. PUBLIC INFORMATION PROGRAMS: Public Information Programs are effective methods of promoting water conservation and informing the public of the necessity to use water efficiently. The Conservation Coordinator shall establish and maintain an active public information program to educate and inform the public about water conservation. The public information program should include, but is not limited to: providing speakers to employees, community groups, and the media; using paid and public service advertising; using bill inserts; providing trend and comparison information on bills; and providing informational pamphlets, flyers, and manuals. In order to maximize available resources, the Conservation Coordinator should coordinate with other government agencies, industry groups, public interest groups, the media, and the Edwards Aquifer Authority.

1. **PUBLIC INFORMATION REQUIREMENTS:** The Conservation Coordinator will establish and maintain an active public information program to promote and educate customers about water conservation to include public speaking events, news letters and media articles, bill inserts, flyers, pamphlets, and briefings to City Council.
2. **REPORTS AND DOCUMENTATION;** The Conservation coordinator shall provide to the City Manager and the Edwards aquifer Authority:
 - a. Number and type of public speaking events related to conservation during the reporting period, and approximate attendance for each.
 - b. Number and type of media events relating to conservation during reporting period.
 - c. Number and type of paid or public service announcements relating to conservation produced or sponsored during reporting period.
 - d. Types of written information (bill inserts, flyers, pamphlets, etc.) relating to conservation provided to customers during the reporting period.

F. LARGE LANDSCAPE CONSERVATION PROGRAMS AND INCENTIVES:

Large landscape conservation programs are an effective method of accounting for and reducing outdoor water usage. The Conservation Coordinator will provide non-residential and residential customers owning tracts of land greater than half an acre with customer support, education, incentives, and assistance in improving their landscape water-use efficiency. The Conservation Coordinator will identify accounts with dedicated irrigation meters and assign reference evaporation (ET_o) based water-use budgets equal to no more than 80% of reference evapotranspiration per square foot of landscape area. For accounts with water-use budgets, the Conservation coordinator will provide notices each billing cycle showing the relationship between budgeted water usage and actual consumption.

1. **LARGE LANDSCAPE CONSERVATION REQUIREMENTS:** The Conservation Coordinator will develop and implement a plan to market large landscape water-use surveys to ICI and residential accounts with mixed-use meters. The water-use surveys must, at a minimum, include: measurement of the landscape area; measurement of the total irrigational area; irrigation system checks and distribution uniformity analysis; review of irrigation schedules or development of schedules as appropriate; provision of a customer survey report and information packet.
 - a. When cost-effective, the Conservation Coordinator will offer the following: landscape water-use analyses and surveys; voluntary water-use

budgets; installation of dedicated landscape meters; acceptance of site conservation plans; and follow-up to water-use analyses and surveys.

- b. For new customers and change-of-service customer accounts, the Conservation Coordinator will provide information on climate-appropriate landscape design, and efficient irrigation equipment and management.
- c. Landscaping at City of Converse facilities shall be climate-appropriate water-efficient, and have separate landscape meters.
- d. All new apartment complexes and commercial buildings must install a water conserving landscape.
- e. The Conservation Coordinator will offer the following services:
 - (1). training in landscape maintenance and irrigation system design;
 - (2). notices at the start and end of the irrigation season alerting customers to check irrigation systems and to make repairs and adjustments as necessary.
 - (3). Develop and implement a plan to market water-use surveys to ICI accounts with mixed-use meters not later than December 31,2005.
 - (4). Develop and implement a customer incentive program by December 31, 2005
 - (5). Develop ETo-based water-use budgets for 90 percent of ICI accounts with dedicated irrigation meters by December 31,2006.
 - (6). By March 31, 2010, contact and offer landscape water-use surveys to 100% of ICI accounts with mixed-use meters; and,
 - (7). By March 31, 2010, complete landscape water-use surveys for at least 15% of ICI accounts with mixed-use meters.

2. REPORTS AND DOCUMENTATION: The Conservation coordinator shall provide to the City Manager and the Edwards aquifer Authority:

- a. Number of dedicated irrigation meter accounts.
- b. Number of dedicated irrigation meter accounts for which water budgets have been developed.
- c. Aggregate water use for dedicated landscape accounts with budgets.

- d. Aggregate budgeted water use for dedicated landscape accounts with budgets.
- e. Number of mixed-use accounts.
- f. Number of surveys offered and number of surveys accepted.
- g. Number, type, and dollar value of incentives, rebates, and loans offered to and accepted by customers; and,
- h. Estimated water savings achieved through customer surveys.

3. WATER SAVINGS ASSUMPTIONS: Assume landscape surveys will result in a 15% reduction in demand for landscape uses by surveyed accounts.

G. CONSERVATION COORDINATOR: The Conservation Coordinator is an individual designated to oversee and coordinate conservation efforts within the City of Converse service area. The Conservation Coordinator shall be responsible for preparation and implementation of the City of Converse Groundwater Conservation Plan, preparation and submittal of annual conservation status reports, and implementation of BMPs. Other duties should include: preparation of the annual conservation budget, participation in Authority conservation and critical period meetings, promotion of water conservation programs, and management of conservation staff.

1. COORDINATION REQUIREMENTS: The City Manager shall:

- a. Designate a Conservation Coordinator to oversee conservation activities;
- b. Provide the Conservation Coordinator with the necessary resources to prepare and implement the Groundwater Conservation Plan; and
- c. Provide support staff if necessary.

2. REPORTS AND DOCUMENTATION: The City Manager shall report to the Edwards Aquifer Authority:

- a. Conservation Coordinator name, staff position, address, and phone number;
- b. Date the Conservation Coordinator position was created.
- c. Duties of the Conservation Coordinator; and
- d. Number of Conservation Coordinator staff (if applicable).

H. CONSERVATION PROGRAMS FOR INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL ACCOUNTS: Conservation programs for industrial, commercial, and institutional (ICI) accounts are essential for reducing water usage in the ICI sector. The Conservation Coordinator will identify industrial, commercial, and institutional customers, and rank them according to water usage. To accurately track water usage by ICI accounts, the Conservation Coordinator will develop and market an ICI water-use survey and customer incentives program. Water use surveys must include: a site visit; an evaluation of all water-using equipment and processes; a report identifying recommended conservation measures and their expected payback; and available incentives. The Conservation Coordinator will conduct annual follow-up visits to evaluate the status of recommended water-saving improvements.

1. INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL CONSERVATION REQUIREMENTS: In lieu of the water-use survey and customer incentives program, the Conservation Coordinator may choose to implement other programs to reduce water usage in the ICI sector. The goal is to reduce ICI water usage by an amount equal to 10% of baseline ICI usage. Baseline usage is defined as the total use by commercial, industrial, and institutional accounts in 1993. The Conservation Coordinator may justify to the Edwards Aquifer Authority the use of an alternative baseline year. The Conservation Coordinator shall accomplish the following specific tasks:

- a. Identify industrial, commercial, and institutional accounts and rank them by water use.
- b. By March 31, 2010, contact and offer water-use surveys and Customer incentives to 100 percent of ICI accounts.
- c. By March 31, 2010, complete water-use surveys for 10 percent of ICI accounts.
- d. If utilizing other programs in lieu of the water-use survey and customer incentives program: by March 31, 2007, reduce ICI water usage by 10% of baseline ICI usage.

2. REPORTS AND DOCUMENTATION: The Conservation coordinator shall provide to the City Manager and the Edwards aquifer Authority:

- a. The number of customers and amount of water use within the commercial, industrial, and institutional customer classes.
- b. A description of the plan to market water-use surveys to ICI accounts.
- c. The number of ICI customers offered water-use surveys during the reporting period and the number of water-use surveys completed during the reporting period
- d. The number of follow-ups completed during the reporting period.

- e. The type and number of water saving recommendations implemented.
 - f. If utilizing other programs in lieu of the water-use survey and customer incentives program: a description of the programs and estimated water use reductions achieved through these programs. The Conservation Coordinator must document how savings were realized and the method and calculations for estimating savings.
- 3. WATER SAVINGS ASSUMPTIONS:** Calculate water savings as follows:
 Water Savings = Number of Surveys * Estimated Savings * Water Used
 Where: Estimated Savings == 20% or percentage determined through survey results.
 Water Used = Average (5 year) annual water use by ICI customers receiving the survey.
 Source: A&N Technical Services, Inc. (1999)

I. HIGH-EFFICIENCY WASHING MACHINE REBATE PROGRAMS:

High-efficiency washing machines are an effective method of achieving conservation in the residential sector. To encourage the purchase and use of high-efficiency washing machines a water credit in the amount of \$50.00 for replacing a standard washing machine with a high efficiency washing machine.

- 1. INCENTIVE REQUIREMENTS:** A credit in the amount of fifty (50) dollars is offered and shall be applied to the water bill of any resident replacing a standard washing machine with a high efficiency washing machine with the following stipulations:
 - a. The home owner or designated representative/contractor shall the City of the purchase of the new high efficiency washing machine.
 - b. The City Conservation Coordinator will inspect the new machine and verify that it is high efficiency and that the standard washing machine is no longer in service.
 - c. A copy of the inspection report shall be provided to the utility billing clerk, who will then post the credit to the water bill.
- 2. REQUIREMENTS FOR DOCUMENTATION:** The Conservation coordinator shall provide to the City Manager and the Edwards aquifer Authority:
 - a. Description of customer incentives to purchase high-efficiency washing machines being offered by City Public service.

- b. Description of customer incentives to purchase high-efficiency washing machines being offered by the City of Converse.
- c. The number of rebates given each reporting period.

3. WATER SAVINGS ASSUMPTIONS: Calculate water savings as follows:

For single-family machines:

Water Savings = Savings per Load * Water use per Load * Loads per Person * Persons per Household * 365 * Number of Machines.

For multi-family machines:

Water Savings = Savings per Load * Water use per Load * Loads per Person * Persons per Household * Units per Machine * 365 * Number of Machines

Where: Water Savings = Gallons

per Year Savings per Load = 37.8%

Water Use per Load = 48.5 Gallons

Loads per Person = 0.45

Source: A&N Technical Services, Inc. (1999)

J. RESIDENTIAL ULFT REPLACEMENT PROGRAMS: Ultra-low-flush toilet (ULFT) replacement programs are an effective method of achieving conservation in the residential sector. ULFTs are toilets that use 1.6 gallons per flush or less. To encourage replacing large capacity 5 gallon and 3.6 gallon toilets with water saver .ULFTs in single-family and multi-family residences, the permit fee shall be waived and a credit in the amount of fifty (50) dollars is offered and shall be applied to the water bill.

1. INCENTIVE REQUIREMENTS: A credit in the amount of fifty (50) dollars is offered and shall be applied to the water bill of any resident replacing a five gallon or a 3.5 or 3.6 gallon toilet with a water saving ULFT toilet with the following stipulations:

- a. The home owner or designated representative/contractor shall obtain a building permit authorizing the replacement. All permit fees for the replacement are waived.
- b. Upon completion of the replacement, the City Building Inspector will inspect the work and take possession of the previously installed toilet.
- c. A copy of the inspection report shall be provided to the utility billing clerk, who will then post the credit to the water bill.
- d. City personnel will take action to make the replaced toilets unusable and make appropriate disposition. Priority shall be given to recycling into other products.

e. Credit shall not be authorized for replacement of 1.6 gallon toilets.

2. REPORTS AND DOCUMENTATION: The Conservation coordinator shall provide to the City Manager and the Edwards aquifer Authority:

- a. The number of pre-1992 single-family and multi-family accounts in the Converse service area.
- b. The average number of toilets per single-family and multi-family unit within the Converse service area.
- c. The average number of persons per single-family and multi-family unit within the Converse service area.
- d. The housing resale rate for single-family and multi-family units within the service area.
- e. The number of ULFT installations achieved through the applicant's program each year.
- f. Description of the ULFT replacement program.

4. WATER SAVINGS ASSUMPTIONS:

Calculate water savings as follows:

For single-family dwellings:

Water Savings = $[6.693 * \text{Persons per Dwelling} - 0.529 * (\text{Persons per Dwelling})^2 + 7.826] * 365 * \text{Number of Toilets}$

OR

Water Savings = $[29.9 * \text{Number of First Toilets Replaced} + 20.6 * \text{Number of Second Toilets Replaced} + 19.1 * \text{Number of third (or higher) Toilets Replaced}] * 365$

For multi-family dwellings:

Water Savings = $[19.138 * \text{Persons per Unit} - 0.942 * (\text{Persons per Unit})^2 + 2.181] * 365 * \text{Number of Toilets}$ **OR** Water Savings = $[44 * \text{Number of First Toilets Replaced} + 34 * \text{Number of Second Toilets Replaced}] * 365$

Where: Water Savings = Gallons per Year

Source: A&N Technical Services, Inc. (1999)

K. REUSE OF TREATED EFFLUENT: The use of treated effluent is an effective method of reducing groundwater usage. Use of treated municipal effluent is regulated by, the TCEQ under Chapter 210 of the TAC. Use of treated effluent is considered an alternative source of water, and is therefore free from restriction during the Authority's

critical periods. For Groundwater Conservation Plan purposes, the reuse water should be clearly related to a decrease in reliance on the aquifer.

1. **REUSE REQUIREMENTS:** The Conservation Coordinator shall identify and rank ICI customers according to use, and must investigate the feasibility of replacing their Edwards Aquifer groundwater use with treated effluent. To the extent that treated effluent/surface water is available for use, replace the use of Edwards Aquifer groundwater on golf courses, in large cooling plants, and in other industrial or landscape processes identified by the Conservation Coordinator.

2. **REPORTS AND DOCUMENTATION:** The Conservation coordinator shall provide to the City Manager and the Edwards aquifer Authority:
 - a. Description of surface water pumping facilities and distribution systems.
 - b. Number of gallons or acre-feet of previous groundwater use for last ten years of all customers served by reuse water.
 - c. Number of gallons or acre-feet of current groundwater use.
 - d. Number of gallons or acre-feet of current treated effluent use.

3. **WATER SAVINGS ASSUMPTIONS:** Water savings are estimated at 100% of total amount that would have been used with Edward's water. " "

SECTION II. CRITICAL PERIOD GROOUND WATER CONSERVATION.

Declaration of Drought Stages for Water Emergencies.

The City Council endorses any and all declarations of water emergency for reason of drought or reduced levels of natural water supply made by the Edwards Aquifer Authority (EAA). Accordingly, activation of the EEA Drought Contingency Plan and imposition of aquifer pumping limits shall serve as a trigger for the activation of the City's Drought Contingency Plan. Water Emergency stages shall coincide with those established by the Edwards Aquifer Authority in response to lowering of the source aquifer due to drought conditions. The Authority imposes drought stages and pumping reduction based on Edwards Aquifer levels at selected regional well sites. Formal notification by the Edwards Aquifer Authority of the activation of the Authority's drought plan shall be cause for the City Manager to activate the appropriate emergency declarations established within this ordinance.

The City Council, by majority vote, shall be empowered to declare a Water Emergency for reasons of source contamination or shortfall, failure of major mechanical equipment, rupture of the water distribution system, major fire control demand, or for any other reasonable and necessary cause. In declaring such water emergency, it shall not be necessary to designate in writing the reason for the declaration of any such water emergency.

SECTION 2: Drought Considerations.

In declaring a Water Emergency, the City Council shall consider the level of the Edwards Aquifer, public water supply production and distribution shortfalls, spring flow discharge, rainfall, and other such information to be deemed appropriate.

SECTION 3: Protection of Health and Welfare and Granting of Variances to the Ordinance.

This Ordinance is not intended to subject anyone to severe hardship or to require compromise of recognized standards of subsistence, health and hygiene. The City Manager is authorized to consider exceptional cases and to approve adjustments for large families, water line breaks and plumbing problems, or other variances considered legitimate. Water restrictions to industry, health care facilities, non-profit organizations and governmental agencies may seek variances through the City Manager. Denials of residential or commercial variances may be appealed to the City Council for final consideration and resolution.

SECTION 4: Stages of Water Drought/Emergency Declarations.

STAGE 1: Aquifer Awareness:

1. Trigger level: As determined by the City Council, or declared by the Edwards Aquifer Authority in consideration of the level of the Edwards Underground Aquifer, spring flow discharge, rainfall, and other such information as deemed appropriate. . **During drought conditions, Stage I will be triggered when the Edward’s Aquifer Authority determines that the 10-day average for water level at the J-17 well site, Ft. Sam Houston Texas, falls below 660 Feet MSL, or the 10- day average flow for the San Marcos Springs falls below 96 CFS, or the 10- day average flow for the Comal Springs falls below 225 CFS.**
2. Reduction goal: 20%.
3. Continue on-going education program, coordination activities, special use provision, reuse and recycling program, fire hydrant and line monitoring, and programs with water surveyors and companies.
4. Wasting of water is prohibited.
5. Water Rates are increased as indicated at ANNEX A.
6. Mandatory Reduction Measures:
 - a. Landscape irrigation:
 - (1) Landscape watering between 10:00 a.m. and 8:00 p.m. is prohibited.
 - (2) Existing or new landscapes:
 - (a) Watering with sprinklers is recommended from 8:00 p.m. to 10:00 a.m., once every seven days.

- (b) Watering with hand-held hoses, buckets or drip irrigation systems is permitted at any time.
 - (c) No person may allow irrigation tail water to escape from that person's land.
 - (d) Non-potable water, gray water, and treated effluent are exempt from reduction measures.
- b. Vegetable gardens:
- (1) Watering between 10:00 a.m. and 8:00 p.m. is prohibited.
 - (2) Watering with sprinkler is recommended from 8:00 p.m. to 10:00 a.m., once every seven days.
 - (3) Watering with hand-held hoses, buckets or drip irrigation systems is permitted at any time.
- c. Swimming pools/hot tubs and similar facilities:
- (1) Every person who owns or has possession of a swimming pool must cover the pool with an effective evaporation cover or screen when the pool is not in active use between the hours of 10:00 a.m. and 7:00 p.m. "Active use" includes necessary maintenance that requires removal of the cover or screen.
 - (2) Filling and makeup of new and existing facilities is permitted.
 - (3) Draining is prohibited except onto pervious surfaces only.
- d. Aesthetic uses: Reduction is recommended for inside and outside use. It is recommended that non-recirculating fountains be shut off and that recirculating fountains be operated only during low evaporation periods.
- e. Other outdoor use;
- (1) Waste is prohibited.
 - (2) No person may use underground water to wash an impervious outdoor ground covering such as a parking lot, driveway, street, or sidewalk.
 - (3) No person may wash an automobile, truck, trailer, boat, or other mobile equipment at a residence except on a watering day designated by these rules, and in no event may a person allow underground water from automobile washing at residence escape into the street or otherwise off the person's property. Washing shall be done with a hand-held hose or bucket. Hand-held hoses shall be equipped with a positive shutoff nozzle.

- (4) Charity car washes are prohibited except at a commercial car wash that recycles at least 75% of the underground water it uses or that is certified as a recycling car wash by a municipality or other political subdivision.
- f. Commercial and industrial uses:
- (1) Washing of automobile, trucks, trailers, boats, airplanes, and other mobile equipment is permitted on the immediate premises of a commercial washing facility.
 - (2) Commercial nurseries, commercial sod farms and other similar establishments are requested to curtail all non-essential water use.
 - (3) Restaurants and other eating establishments are prohibited from serving underground water to customers except upon request of the customer.
 - (4) Voluntary reduction of water use in commercial and industrial processes is recommended.
 - (5) Demand use reduction measures for all outdoor water uses apply to commercial and industrial users.
- g. Domestic use: Voluntary reduction for indoor domestic use is recommended by any means available.
- h. Essential and utility use:
- (1) Water utility use:
 - (a) Reduction of average system pressure to 60 PSI is recommended.
 - (b) Leak detection and system repairs is recommended.
 - (c) Stabilizing and equalizing system pressure is recommended.

STAGE II: Aquifer Watch:

Trigger level: As determined by the City Council, or declared by the Edwards Aquifer Authority in consideration of the level of the Edwards Underground Aquifer, spring flow discharge, rainfall, and other such information as deemed appropriate. **During drought conditions, Stage II will be triggered when the Edward's Aquifer Authority determines that the 10-day average for water level at the J-17 well site, Ft. Sam Houston Texas, falls below 650 Feet MSL, or the 10- day average flow for the San Marcos Springs falls below 80 CFS, or the 10- day average flow for the Comal Springs falls below 200 CFS.**

2. Reduction Goal: 30%.
3. Wasting of water is prohibited.
4. All of the prohibitions applicable in Stage I apply in Stage II
5. Water rates are increased at Stage II as indicated at ANNEX A
6. Mandatory Reduction Measures:
 - a. Landscape Irrigation:
 - (1) Existing landscapes:
 - (a) No person may use underground water for landscape watering on more than two watering days in any calendar week, except that landscape watering is permitted on any day before 10:00 a.m. and after 7:00 p.m. by means of a bucket (not to exceed 5 gallons in capacity), hand-held hose, or properly-installed drip irrigation system. This subsection does not apply to non-potable water, gray water, or treated effluent.
 - (b) The designated watering days on which people within the City of Converse are allowed to use underground water for landscape watering, in accordance with this section are the same as announced by the City of San Antonio. Watering by any means, between the hours of 10:00 a.m. and 8:00 p.m., is prohibited on any day.
 - (c) Irrigation with reused water is exempt from reduction measures.
 - (2) New landscapes: Planting of new landscapes is prohibited without prior approval of the City Manager or his designated representative.
 - b. Vegetable gardens:
 - (1) Watering with sprinklers is permitted on designated days only from 8:00 p.m. to 10:00 a.m., once every seven days. The designated day shall be the same as announced by the City of San Antonio
 - (2) Watering with hand-held hoses, buckets or drip irrigation systems is permitted at any time.
 - c. Swimming pools/hot tubs and similar facilities:
 - (1) Filling and makeup of existing facilities are permitted.

- (2) Filling and makeup for new facilities are prohibited without prior approval of the City Manager or his designated representative.
 - (3) Draining is prohibited except onto pervious surfaces only.
- d. Aesthetic uses: Non-recirculating fountains will be shut off.
- e. Other outdoor uses:
- (1) Waste is prohibited.
 - (2) The washing of any impervious surface is prohibited, except for immediate human health, safety and welfare.
 - (3) Non-commercial washing of automobiles, trucks, trailers, boat, airplanes, and other mobile equipment is permitted on designated days once every seven days only between the hours of 8:00 p.m. and 10:00 a.m. Washing shall be done with a hand-held hose or bucket. Hand-held hoses shall be equipped with a positive shutoff nozzle.
- f. Commercial and Industrial Uses:
- (1) Washing of automobiles, trucks, trailers, boats airplanes, and other mobile equipment is permitted on the immediate premises of a commercial washing facility.
 - (2) Commercial nurseries, commercial sod farms and other similar establishments shall restrict watering hours to 6:00 a.m. to 10:00 a.m.
 - (3) Restaurants are prohibited from serving water to customers unless specifically requested by the customer.
 - (4) Voluntary reduction of water use in commercial and industrial processes is recommended.
 - (5) Demand use reduction measures for all outdoor water uses apply to commercial and industrial users.
- g. Domestic use: Voluntary reduction for outdoor domestic use is recommended by any means available.
- h. Essential and utility use:
- (1) Water utility use:
 - (a) Reduction of average system pressure to 60 PSI is recommended.

- (b) Leak detection and system repairs are recommended.
- (c) Stabilizing and equalizing system pressure are recommended.

STAGE III: Aquifer Alert:

1. Trigger level: As determined by the City Council, or declared by the Edwards Aquifer Authority in consideration of the level of the Edwards Underground Aquifer, spring flow discharge, rainfall, and other such information as deemed appropriate. **During drought conditions, Stage III will be triggered when the Edward's Aquifer Authority determines that the 10-day average for water level at the J-17 well site, Ft. Sam Houston Texas, falls below 640 Feet MSL, or the 10- day average flow for the Comal Springs falls below 150 CFS.**
2. Reduction Goal: 35%.
3. Wasting of water is prohibited.
4. Water rates at Stage III are increased as indicated at ANNEX A.
5. Mandatory Reduction Measures:
 - a. Landscape Irrigation:
 - (1) Existing landscapes:
 - (a) Watering with sprinklers is permitted on designated days from 8:00 p.m. to 10:00 a.m., not to exceed one hour per location. The designated days are the same as announced by the City of San Antonio.
 - (b) Watering with hand-held hoses, buckets or drip irrigation systems is permitted between 8:00 p.m. and 10:00 a.m. any day.
 - (c) Irrigation with reused water is exempt from reduction measures.
 - (2) New landscapes: Planting of new landscapes is prohibited without prior approval of the City Manager or his designated representative.
 - b. Vegetable gardens:
 - (1) Watering with sprinklers is prohibited.

- (2) Watering with hand-held hoses, buckets or drip irrigation systems is permitted between 8:00 p.m. and 10:00 a.m. any day.
- c. Swimming pools/hot tubs and similar facilities:
 - (1) Filling of existing facilities is prohibited.
 - (2) Filling and makeup for new facilities are prohibited.
 - (3) Makeup for existing facilities is permitted.
 - (4) Draining is prohibited except onto pervious surfaces only.
- d. Aesthetic uses: Inside or outside use is prohibited except with reused water.
- e. Other outdoor uses:
 - (1) Waste is prohibited.
 - (2) The washing of any impervious surface is prohibited, except for immediate human health, safety and welfare.
- f. Commercial and industrial uses:
 - (1) Commercial washing of automobiles, trucks, trailers, boats, airplanes and other mobile equipment is permitted on the immediate premises of a commercial washing facility.
 - (2) Commercial nurseries, commercial sod farms and other similar establishments shall restrict watering hours to 6:00 a.m. to 10:00 a.m. once a week on designated days.
 - (3) Restaurants are prohibited from serving water to customers unless specifically requested by the customer.
 - (4) Voluntary reduction of water use in commercial and industrial processes is recommended.
 - (5) Demand use reduction measures for all outdoor water uses apply to commercial and industrial users.
- g. Domestic use: Voluntary reduction for indoor domestic use is recommended by any means available.
- h. Essential and utility use:

- (1) Water utility use:
 - (a) Reduction of average system pressure to 60 PSI is recommended.
 - (b) Leak detection and system repairs are recommended.
 - (c) Stabilizing and equalizing system pressure are recommended.
 - (d) Hand watering or use of soaker hoses to water house foundations are permitted any day within one foot of the foundation.

STAGE IV: Aquifer Risk:

1. Trigger level: As determined by the City Council, or declared by the Edwards Aquifer Authority in consideration of the level of the Edwards Underground Aquifer, spring flow discharge, rainfall, and other such information as deemed appropriate. **Stage IV will be triggered when the Edward's Aquifer Authority determines that the 10-day average for water level at the J-17 well site, Ft. Sam Houston Texas, falls below 630 Feet MSL, or the 10- day average flow for the Comal Springs falls below 100 CFS.**
2. Reduction Goal: 40%.
3. Waste is prohibited. Water use restricted to those uses essential for human health, safety and welfare.
4. Water rates are increased for Stage IV as indicated at ANNEX A.
5. Mandatory demand reduction measures:
 - a. Landscape Irrigation:
 - (1) Existing landscapes:
 - (a) Watering with sprinklers is permitted on designated days from 8:00 p.m. to 10:00 a.m., not to exceed one hour per location. The designated days are the same as announced by the City of San Antonio.
 - (b) Watering with hand-held hoses, buckets or drip irrigation systems is permitted between 8:00 p.m. and 10:00 a.m. any day.
 - (c) Irrigation with reused water is exempt from reduction measures.
 - (2) New landscapes: Planting of new landscapes is prohibited without prior approval of the City Manager or his designated representative.

- b. Vegetable gardens:
 - (1) Watering with sprinklers is prohibited.
 - (2) Watering with hand-held hoses, buckets or drip irrigation systems is permitted between 8:00 p.m. and 10:00 a.m. any day.
- c. Swimming pools/hot tubs and similar facilities:
 - (1) Filling of existing facilities is prohibited.
 - (2) Filling and makeup for new facilities are prohibited.
 - (3) Makeup for existing facilities is permitted.
 - (4) Draining is prohibited except onto pervious surfaces only.
- d. Aesthetic uses: Inside or outside use is prohibited except with reused water.
- e. Other outdoor uses:
 - (1) Waste is prohibited.
 - (2) The washing of any impervious surface is prohibited, except for immediate human health, safety and welfare.
 - (3) Non-commercial washing of automobiles, trucks, trailers, boats, airplanes and other mobile equipment is prohibited.
- f. Commercial and industrial uses:
 - (1) Commercial washing of automobiles, trucks, trailers, boats, airplanes and other mobile equipment is permitted.
 - (2) Commercial nurseries, commercial sod farms and other similar establishments shall restrict watering hours to 6:00 a.m. to 10:00 a.m. once a week on designated days.
 - (3) Restaurants are prohibited from serving water to customers unless specifically requested by the customer.
 - (4) Voluntary reduction of water use in commercial and industrial processes is recommended.

- (5) Demand use reduction measures for all outdoor water uses apply to commercial and industrial users.
- g. Domestic use: Voluntary reduction for indoor water uses is recommended by any means available.
- h. Essential and utility use:
 - (1) Water utility use:
 - (a) Reduction of average system pressure to 60 PSI is recommended.
 - (b) Leak detection and system repairs are recommended.
 - (c) Stabilizing and equalizing system pressure are recommended.
 - (d) Hand watering or use of soaker hoses to water house foundations is permitted any day of the week within one foot of the foundation.

STAGE V: Aquifer Emergency:

1. Trigger level: As determined by the City Council, or declared by the Edwards Aquifer Authority in consideration of the level of the Edwards Underground Aquifer, spring flow discharge, rainfall, and other such information as deemed appropriate.
2. Reduction goal to be determined by City Council to protect human health, safety and livestock watering.

OTHER: Catastrophic System Failure Due to Production or Transmission Capability Shortfall:

- 1. Trigger Level: As determined by the City Manager and approved by the City Council when the production capability cannot be maintained or transport of product to the user is so adversely affected that residual system pressure falls below minimum safe operating levels.**
- 2. Reduction goal to be limited to the maximum amount of product that can meet health an safety guidelines, and can be safely delivered to the customers at minimal safe operating pressures and quality.**

SECTION 5: TERMINATION OF DROUGHT STAGES

During normal drought periods, the reduction or cancellation of drought stages shall be in consonance with those announced by the Edwards Aquifer Authority. Public notification shall include public service announcements by the Greater San Antonio Metropolitan

media, posting on the City Web Site and public signage, and annotating the utility bills **Termination of drought imposed stages will be accomplished by declaration of a less restrictive Drought Stage. The declaration of a less restrictive stage requires the 10-day average of all three trigger levels—J17 well level, San Marcos Spring Flows, and Comal Spring Flows—to be above the activation thresholds of the particular stage in effect at the time.**

SECTION 6: CONTINGENCY MEASURES FOR SYSTEM OUTAGE DUE TO SUPPLY SOURCE CONTAMINATION, FAILURE OF EQUIPMENT, OR DAMAGE TO TRANSMISSION INFRASTRUCTURE, AND TERMINATION OF EMERGENCY DECLARATIONS.

The City Manager shall institute the necessary plans and protocols to address supply source contamination, or the failure of the water system to meet minimal demands due to catastrophic failure of the water production/transmission infrastructure. As a minimum, these steps shall include:

1. Supply source contamination:
 - a. The City Manager shall maintain current agreements with outside water supply agencies for emergency system interconnection and, as required, establish additional agreements with other water systems to provide for Texas Natural Resource Conservation Commission (TNRCC) approved interconnection of water systems to supply water to the City system in the event of catastrophic loss of production capability
 - b. Shutting down effected well sites upon detection of source contamination.
 - c. If contamination has entered the supply system, ensure each customer receives a mailed or hand delivered notice within 24 hours of detection to boil their water in accordance with Chapter 30 of the with Texas Administrative Code.
 - d. Implementing standing agreements with outside water supply agencies to initiate service line interconnections to supply potable water.
 - e. Ensure appropriate state agencies are promptly notified of actions to initiate/terminate boiled water notifications and intent to initiate water supply interconnection agreements.
 - f. Recommending the implementation of appropriate drought stages as established in Section 4 for approval by the City Council.
 - g. Monitoring of effected well sites, validation of restoration of service and water quality at the effected well sites, and recommending reduction or termination of drought stage enforcement to the City Council.
2. System Outage Contingency Planning measures.
 - a. Maintain the current standby generating capacity to ensure primary production wells can maintain adequate water supply in the event of a sustained power outage.
 - b. Ensure current and future water transmission lines are adequately planned and executed to provide bypass options in the event of point interruption of major

water lines. Such measures must ensure redundancy in transmission of water throughout the system.

- c. Implement emergency drought measures if the system is incapable of sustaining a minimum of 35 pounds per square inch.

3. Termination of Emergency System Outages.

- a. **The City Manager will recommend to Council to lift the emergency conditions based on the following criteria:**
 - (1) **Water distribution system can maintain a minimum of 35 pounds per square inch pressure.**
 - (2) **A minimum of 0.2 mg/l free chorine residual or 0.5 chloramine is present in the system.**
 - (3) **Special samples have been collected and found free of coliform organisms.**
 - (4) **All situations which might compromise the potability of the water system have been resolved.**
- b. **Upon approval by the City Council to lift the emergency, notices will be hand delivered to all residential and business customers within 24 hours. Local media will be used to the maximum extent possible to assist in disseminating the information.**

SECTION 7 PENALTY FOR VIOLATIONS:

- a. Any person, individual, corporation or partnership who shall violate any provision of this Ordinance shall be deemed upon conviction to be guilty of a misdemeanor and shall be punished by a fine not exceeding two thousand dollars (\$2,000).
- b. If, for any reason, any one or more sections, sentences, clauses or parts of this Ordinance are held legally invalid, such judgment shall not prejudice, affect, impair or invalidate the remaining sections of this Ordinance, but shall be confined to the specific sections, sentences, clauses, or part of this Ordinance held legally invalid.

SECTION 8: SUPERCESSION:

This Ordinance supersedes City of Converse Ordinance #702 dated February 15, 2005.

PASSED AND APPROVED by the City Council of the City of Converse on this 16th day of December 2008.

Al Suarez, Mayor

ATTEST:

Adriana I. Hieronymus
City Secretary